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BIRDS OF BURMA

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BIRDS OF BURMA

By

B. E. SMYTHIES, B.A., BURMA FOREST SERVICE

Edited by H. C. Smith, B.Sc., M.B.O.U., F.Z.S., I.F.S.
and P. F. Garthwaite, B.A., B.F.S.

Containing 31 coloured plates from paintings

by

LIEUT. COMMANDER A. M. HUGHES, R.N.

RANGOON:
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ACKNOWLEDGEMENTS

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Like the melancholy of Jacques this book is "compounded of many simples, extracted from many objects". For anyone to attempt a work on the birds of Burma after but six years acquaintance with them would be unjustifiable presumption, had he not more powerful resources to draw upon.

Firstly it is necessary to explain that the author had no part in the original conception and planning of this book, for which Mr. H. C. Smith and Mr. J. K. Stanford, O.B.E., M.C., M.B.O.U., I.C.S. (retired), were jointly responsible. The former made all the arrangements for the illustrations, which are entirely original, every plate having been especially painted for the book by Lieut. Commander A. M. Hughes, R. N. We were very fortunate in having this artist in Rangoon, and in the fact that he was just able to complete his task before his departure for England. Mr. Stanford was to have written the book, and had in fact completed part of it when the outbreak of war made it impossible for him to continue. This was unfortunate. No one in recent years has done more in the way of field-work and collecting to advance the study of birds in Burma, and unlike some naturalists in the past Mr. Stanford has not kept his knowledge to himself but has published full and informative papers that have been of the greatest help to other workers. In addition to this first-hand knowledge of the birds he is a gifted writer, and it was therefore with much diffidence that the present author agreed to take over the work in December 1939.

Although the names of Mr. H. C. Smith and Mr. P. F. Garthwaite only appear as editors, they have done far more than edit the book in the narrow sense of the term; not only did they place their field notes, compiled in different parts of Burma over a period of many years, at the author's disposal, but they helped with advice and criticism at all stages of progress and read through the manuscript before it was sent to the press. The printing of their names as joint authors, a proposal they rejected, would have accorded better with the weight of their contribution. In fact it was only through Mr. Smith's generosity, energy and enthusiasm that the many difficulties were surmounted and the book was produced at all.

The help given by Dr. C. B. Ticehurst, M.A., B.Ch., M.R.C.S., L.R.C.P., M.B.O.U., C.F.A.O.U., is gratefully acknowledged. Editor of the Ibis and one of the world's leading ornithologists, he has for a number of years specialised in the birds of Burma, on which he is the recognized authority. All specimens collected in recent years, other than those obtained by foreign expeditions, have been sent to him, for systematic work. He kindly agreed to read the text of this book to ensure its accuracy, and that this proved impracticable owing to the war and the need for early publication will always be a cause for regret. Dr. Ticehurst has however spent many hours verifying the names and the distributions in the Systematic Hand List, thereby greatly increasing its accuracy and its value.

To Mr. H. O. Reynolds, C.M.G., I.C.S., the author is indebted for adding a number of Burmese names and revising all those in the book. To Mr. K. J. H. Lindop, M.C., I.C.S., and Major W. L. Roseveare, M.C., R.E., I.S.E. (retired) the author is also indebted for field notes on a number of birds.

If it be true that

" Men may rise on stepping stones
Of their dead selves to higher things ",

it is certainly true that a writer of a scientific handbook must use as stepping stones the work of his predecessors. The author's task was made very much easier by the generosity of Mr. H. Whistler, F.L.S., F.Z.S., who gave permission for full use to be made of the material in his " Popular Handbook of Indian Birds," a pioneer work of its kind that attained a very high standard.

The six volumes of the " Fauna of British India — Birds," second edition, by Mr. E. C. Stuart Baker, C.I.E., O.B.E., F.L.S., F.Z.S., M.B.O.U., H.F.A.O.U., constitute the standard work on the ornithology of India, Burma and Ceylon and the author has quarried freely in this mine of information; he only regrets that he had no opportunity to refer to some of Mr. Stuart Baker's other works, a list of which is given in the Bibliography.

" The Handbook of British Birds ", in 5 volumes, by Witherby, Jourdain, Ticehurst (N. F.), and Tucker, is the standard manual on the birds of the British Isles, and a revelation of what such a handbook can be. Not only have the excellent paragraphs on the field characters of species occurring in Burma, with special reference to the Ducks and Geese, been of great assistance, but the book has also served as a useful touchstone to decide minor points of format and typography.

The author is also indebted to Messrs. Salim Ali and Humayun Abdulali for their excellent paper on the " The Birds of Bombay and Salsette ", published serially in the Journal of the Bombay Natural History Society, and containing many useful notes on field identification; to Mr. W. B. Alexander for information on some of the sea

birds in his book "Birds of the Oceans"; and to Dr. H. L. Chibber for his book on "The Physiography of Burma", which has been used in part of the Introduction.

To the information culled from these various sources the author has added his own observations: to compound his simples into a palatable mixture has been his endeavour.

B. E. SMYTHIES.

Toungoo:
7th October 1940.

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INTRODUCTION

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Broadly speaking there are two categories of bird books:

1. Manuals that collect and bring up to date what is known about every sort of bird in the country, *e.g.* the "Fauna of British India — Birds". They are for reference and are not intended to be read through continuously from cover to cover; they gradually fall out of date as fresh information is accumulated, and their useful life is necessarily short.

2. Books that are the outcome of personal observations by the writer of particular species or individual birds, *e.g.* Peter Scott's books on Wildfowl. These depend for their success partly on the author's skill as a writer and partly on the first-hand information he has to convey; the best examples eventually become classics and take a permanent place in literature.

This book is an elementary example of the first category, and aims at providing a concise and accurate account of the birds of Burma, written in non-technical language in response to the universal demand for "something not too scientific". To make it easier to name the birds that obtrude themselves on everyone's notice is its first concern; coloured pictures are what the beginner needs, and the plates, which illustrate 290 of the commoner birds of the plains, the teak forests, and the hill stations, are at once the excuse for the book and its justification. It may be asked, what's in a name? The name of any bird, animal or plant is at the same time the open sesame to the stored-up knowledge of the past and the peg on which to hang fresh observations; it enables the reader to find out all that is known about a bird and he can then fill in the gaps that remain.

At the same time, the book aims at laying a firm foundation on which the future study of the birds of Burma can be built. All available information about each species and race that has been recorded as occurring in Burma is here summarised, and the lines on which further research is required have been indicated. Constructive criticism and information refuting or amplifying any statements made in this book will always be welcomed and will be included in a second

edition, should it ever be possible to produce one. Lack of space has prevented the inclusion of much in lighter vein, in the way of amusing anecdotes and descriptive writing; for this the reader is referred to the works of Eha, Whistler, Fletcher and Inglis, and others.

For convenience of reference the information about each bird is given under the following heads: Scientific and English name, Allied Forms, Local Names, Identification, Voice, Habits and Food, Nest and Eggs, Status and Distribution; for birds printed in small type the three heads Identification, Voice, Habits and Food, have been telescoped under the one head Identification. The number given in brackets after a bird's name refers to the bird's number in the "Fauna of British India — Birds" second edition.

Name and Allied Forms. People often ask what is meant by "a race". To answer this question it is necessary to explain the recognised system of scientific nomenclature.

About 200 years ago the Swedish naturalist Linnaeus invented the Binomial System; in this each living creature has two names, the first representing the genus and the second the species. Now a species has been defined as a group of individuals that resemble each other consistently and more closely than they resemble the individuals of any other group. Individuals of a species normally breed together and produce fertile offspring. A genus is a wider term and embraces one or more species that from the possession of certain characteristics are clearly worth separating from other groups of species. A genus may be regarded as a box containing a number of pigeon-holes, one for each species allotted to that genus.

Increased study has shown that this system of pigeon-holing is not quite adequate for present day requirements. Many abundant and widespread species vary more or less consistently in different parts of their range, chiefly in response to climatic and geographical conditions; thus humid areas produce dark birds and desert areas light birds; north and west enlarge, south and east dwarf their birds. These geographical variations, or races as they are called, require to be recognised, and this is now done by adding a third scientific name. When a species is divided into races, the race in the area whence the species was first described is known as the typical race and its third name is kept the same as its second name, *e.g.* the Indian House Crow, *Corvus splendens splendens*, whereas all other races are given a different third name, *e.g.* the Burmese House Crow, *Corvus splendens insolens*. The word typical has no other significance; it does not necessarily imply that the other races differ in habits, etc., from the typical race. A species that has not been divided into races still has only two names, *e.g.* the Masked Finfoot, *Heliopais personata*.

If we return to our simile of the box with the pigeon-holes, it would not be quite correct to say that the Trinomial System is equivalent to subdividing the pigeon-holes by fresh partitions. The House Crow at Delhi is the race *splendens*, and the House Crow at Rangoon

is the race *insolens*, but in Assam the birds are intermediate and might equally well be called by either name; thus all one can say is that the birds on the left of the pigeon-hole are *splendens* and those on the right are *insolens* but there is no partition between them, there being a gradual change from one to the other as one moves from left to right. Generally speaking there is only a sharp dividing line between two races when the distribution of the species is interrupted by natural barriers such as the sea or a mountain range. Islands like Ceylon and the Andamans often have races that are not connected by intermediate forms with the nearest race of the same species on the mainland, and as evolution progresses these island forms may become so distinct that they have to be given the status of species.

Races usually differ either in depth of colour or in measurements or both; very few races can be identified with certainty in the field, and many can only be named after comparison with other specimens in a museum. With resident birds this does not greatly matter, because it is one of the rules that if the breeding areas of two forms overlap to any extent they cannot be races of one species but must be two different species. With winter visitors however several races may be seen together, and in the case of the White Wagtail no less than five have been recorded from one district.

Enough has been said to show that races are mainly the concern of the specialist and the student and are of little interest to the general reader, and for this reason the birds in this book are dealt with species by species. In an area the size of Burma the differences between races, whether in plumage or in habits, are so small that they can be ignored for field purposes. It was originally intended to put the name of the species at the head of each bird, thus: THE HOUSE CROW — *Corvus splendens.*

Races.— THE BURMESE HOUSE CROW — *C. s. insolens.*
THE INDIAN HOUSE CROW — *C. s. splendens.*

but unfortunately the English names have not been bestowed systematically like the scientific names; for example the species *Suthora poliotis* has 3 races in Burma: Blyth's, Salvadori's and Rippon's Suthoras: but the species itself has no English name, and to invent one would be out of place in a work of this nature. The name at the head of each species is therefore either that of the race illustrated, or where there is no illustration that of the race most widely distributed in Burma, and the names of the other races occurring in Burma are listed under the heading Allied Forms.

The nomenclature has been brought up to date as far as possible. Where the scientific names differ from those given in the F.B.I. the change has been made on the authority either of Dr. C. B. Ticehurst or of the Handbook of British Birds. The reader may wonder why such changes are necessary. The selection of the name is fixed by the law of Priority: that the first name published for a species must be used for that species irrespective of any names that may have been given later. Recent research work has ferreted out a number

of names ante-dating those used in the F.B.I., and these have now to be used. There are also other reasons for changes in names. Specialists are continually working on this or that genus or species and altering the pigeon-holes by inserting new partitions or removing old ones, and every altered pigeon-hole means an altered name.

In the matter of hyphens in the English names we have declined to welter in the prevailing chaos (consider the following: Stonechat and Rock-Thrush, Greenfinch and Rose-Finch and Green Thrush) and we have ventured to revise according to the following principles:

(i) where the two parts of the hyphened name both consist of a bird's name (e.g. Shrike-Babbler) the hyphen is retained;

(ii) where the second part is a bird's name but not the first (*e.g.* Rose Finch) the hyphen is omitted. Exceptions: — The long established names of Stonechat, Bullfinch and Skylark have been printed as one word; Hedgesparrow has no connection with Sparrows and is therefore also printed as one word; and the hyphen is retained in Laughing-Thrush for clarity; (the Green Finch in Burma has nothing to do with the Greenfinch of the British Isles, and does not even belong to the same genus, and to emphasise this we print it as two words);

(iii) where the second part is not a bird's name (*e.g.* Parrot-Bill) the hyphen is omitted and the name printed as one word — Parrotbill.

Under these rules we have abolished most of the hyphens and thus made the index of English names much easier to compile and to use.

Local Names. — Generally speaking hill tribes have a more detailed knowledge of birds and their habits, and names for a greater number, than dwellers in the plains; thus the Kachins, Nagas, and similar tribes have a good general knowledge of the birds in their areas, largely no doubt because they hunt and trap them intensively for food, whereas the Burman has names for only the most obtrusive species. For the 1235 birds in this book with scientific and English names, Burmese names for only 162 have been recorded, most of them by Oates more than half a century ago. It is hoped that a realisation of this gap will stimulate interest in the subject; for educational purposes the coining of suitable names for birds at present without them would be a very useful piece of work.

Identification. — This section is intended as a field guide. First comes the number of the plate, if there is one, and the number of the page facing the plate. Facing each plate is a list giving for each bird illustrated the following information:—

(i) the English and scientific names,

(ii) whether adult or juvenile,

(iii) if the sexes differ noticeably, whether male or female.

(iv) if the plumage varies noticeably with the seasons, whether summer or winter plumage.

Then comes the overall length in inches. The variation in the total lengths of skins of the same species is often considerable, owing to the different methods used by skinners in "making up" museum specimens; the measurements therefore are only approximate, and are given merely as a rough guide to relative size; where necessary, allowance must naturally be made for unusual lengths of bill, neck or tail (in most cases the length of the tail is given if abnormally long or short). The remainder of the section deals as concisely as possible with the bird's appearance in the field. If the bird is illustrated only important features of the plumage not shown by the plate are mentioned; the description of birds not illustrated aims at giving only as much detail as can be made out with field glasses. The difficulty has been that many of the birds have not been seen by the writer, nor by anyone from whom he could obtain a field description, and in such cases he has had to pick out what seemed to be the important points from the description given in the F.B.I. It must be borne in mind that the male, female, and young of a species are often very unlike one another; where possible the main differences have been stated, and also distinguishing features from different but similar species with which the bird might be confused.

For the beginner the first step is to learn to recognize the various families. Some are easy to spot: most people can recognise a Woodpecker or an Owl when they see one: but the various families of the Passeriformes or perching birds (all the birds in this book from the Jungle Crow to the Green Broadbill) are not so easy. Unfortunately it is not possible to give anything in the way of a key, because the distinctions between the families are based on anatomical features such as the arrangement of the muscles of the syrinx, but it is hoped that the brief description of each family together with the plates will enable the reader to recognize most of them with a little practice. It is as well to realize that the observer with field glasses cannot hope to identify every bird he sees; even were every bird in the book illustrated and a perfect field description written this would not be possible. All that one sees of some of the Babblers and Warblers is a small brown bird skulking in dense undergrowth, and to take another example, the females of some species of Flycatchers resemble each other so closely that even in a museum their identification is by no means easy. Such birds are however chiefly the concern of the student, for whose benefit a number of museum keys have been inserted where field identification was thought to be too uncertain, and the general reader, if he noticed them at all, would probably class them as dull and uninteresting.

It may be asked why the rare birds have been included. There are two reasons for including every bird on the Burma List; one is that a few copies of the book may find their way to some of the outposts of the Frontier Service or the Military Police where these birds are to be found, and it is on such birds that we want more information; and the other is that with an incomplete book it is too easy to say of some bird "Oh, it can't be in the book!' The chances of meeting with a bird not described in this book are remote, except

possibly in the extreme east of the Shan States or the extreme south of Tenasserim.

Voice. — The call-notes and songs of birds are an important aid to identification; the difficulty here is that no easy method of representing bird sounds on paper has yet been evolved; elaborate systems of syllabification have been tried but none is very satisfactory. All that is attempted here is to indicate changes in pitch and tempo and to put into ordinary everyday words some of the more obvious calls.

Habits and Food. — This section gives the bird's habitat, *i.e.* the kind of country it inhabits, and its habits, *i.e.* the way in which it behaves. No detailed information on food is available for Burmese birds, but the main items in a bird's diet are generally given.

Nest and Eggs. — The breeding season and a brief description of the nest and eggs are given under this section, unless the bird is a winter visitor not breeding in Burma, in which case the section is omitted. It contains practically no original work, the information having been derived almost entirely from the F.B.I. and Whistler's Handbook. "The Nidification of the Birds of the Indian Empire" by E. C. Stuart Baker is now the standard work on the subject, but the writer has not been able to consult it.

Status and Distribution. — (i) *Distribution outside Burma.* Zoologists divide the world into six regions, of which we are concerned with two; the Holarctic (with its Palaearctic and Nearctic sub-divisions) and the Oriental. The Holarctic Region extends round the whole Northern Hemisphere and includes Europe, a small portion of Africa, Northern and Central Asia down to the Himalayas and North America; the Palaearctic Region is merely the Holarctic Region with the omission of North America. The Oriental Region comprises that part of Asia not included in the Palaearctic Region *i.e* India south of the high Himalayas, Burma, Ceylon, Southern China, the Indo-Chinese countries and the Malay States and islands, such as Sumatra, Java, Borneo and the Philippines. The reader is asked to remember Holarctic, Palaearctic, and Oriental, which are used frequently in the text.

Thailand has been referred to as Siam throughout the book. This has been done for consistency since the retention of the word "Siamese" in the long-established names of many birds occurring in that country seems to be unavoidable.

(ii) *Distribution in Burma.* Before considering this question it is necessary to outline the topography of Burma. Burma consists of a central belt of plains, river valleys, and foothills, bounded on the south by the sea and on the other three sides by mountain ranges, which fall into three groups. In the extreme north from the Hukawng Gap (through which, the geologists tell us, the Brahmaputra once flowed down the Chindwin valley to the sea) northwards and eastwards along the Assam-Tibet-Yunnan frontier to the Shweli river there are superb chains and knots of mountains, which attain a maximum height of over 19,000 feet. The western hills belong to what is known geologically as the Burma-Java Arc, which runs from the Hukawng

Gap through the Patkoi, Naga, Manipur, and Chin Hills, and the Arakan Yomas to Cape Negrais and then continues, under the sea in parts, through the Andamans and Nicobars to Sumatra and Java. The highest point is believed to be Saramati, (12,557 feet)* on the Assam border, but better known on account of its accessibility is Mt. Victoria (10,085 feet).

The eastern hills belong to the Indo-Malaya mountain system, which comprises the Shan Plateau and its southern continuation through the Karen Hills and the Dawna range to the Tenasserim Yomas and thence down the Malay Peninsula; these hills are separated from the central belt by an almost unbroken scarp, which drops abruptly for 2,000 feet or more to the alluvial plains of the Irrawaddy and Sittang; it is up this scarp that one ascends when going to Maymyo, Kalaw, and Thandaung. The main peaks of interest in this range are Taungme (7,544 feet) near Bernardmyo, Loi Ling (8,771 feet) in the Northern Shan States, "One Tree Hill" (4,289 feet) at Maymyo, Mt. Byingye (6,254 feet) on the boundary between the Yamethin district and the Southern Shan States, Nattaung (8,607 feet) in Karenni, and Mt. Mulayit (6,821 feet) in Northern Tenasserim. The general level of the Shan Plateau is 3,000 — 4,000 feet.

The central belt comprises most of the country between the Irrawaddy and Chindwin rivers and all the country between the Irrawaddy and Sittang rivers. Along the river valleys there are fertile paddy plains, which cover enormous areas in the southern part of Southern Burma, *i.e.* the Irrawaddy-Sittang plain, and elsewhere there are densely forested foothills, such as the Pegu Yomas in the south and the forests of Upper Burma and the Hukawng valley in the north.

There is no doubt that elevation above sea level is the most important single factor controlling the distribution of birds, and this explains why the ornithologist searches the map for high peaks with the eagerness of a mountaineer. A writer on the ecology of birds in Tanganyika Territory states "I was astonished to find that altitude above sea level had the appearance of ruling the distribution of many species. It was as if every bird carried a pocket aneroid." Owing to seasonal movement up and down the mountains in Burma the boundaries to vertical range are less clear-cut, but still very noticeable. An illustration may make the point clear. Nattaung is clearly visible from Thandaung (4,300 feet) and only 40 miles distant in an air line; yet many species that are common on Nattaung are absent from Thandaung. Then again from Thandaung on a clear day a vast stretch of the Pegu Yomas is visible (the highest point being below 3,000 feet) yet many species that are very common in Thandaung are definitely absent from the Pegu Yomas; what is even more striking is that the Red-vented Bulbul is represented by one race in Toungoo and by a markedly different race in Thandaung, although the two places are the bird's equivalent of a stone's throw apart. To say that elevation is the cause is merely to beg the question, because a difference in elevation covers a multitude of factors such as a difference in mean temperature, pressure, humidity, rainfall, vegetation, etc. Though we may not understand how it works, there is no doubt of its importance.

* 12,553 feet on the most recent maps.

Rainfall is probably the factor that comes next. Generally speaking Burma is a country of heavy rainfall; the Arakan coast and the Tenasserim coast receive over 200 inches. In the centre of Burma however there is a Dry Zone; if we define this as the area receiving less than 50 inches a year it comprises most of Central Burma and the Irrawaddy drainage in Southern Burma as far south as Prome, excluding the higher Arakan Yomas; in the driest part of the Dry Zone, round Pakokku, the rainfall is about 20 inches a year. Thus it happens that a number of birds partial to dry conditions are either confined to the Dry Zone or much commoner there than elsewhere in Burma. The rainfall largely governs the vegetation, and quite possibly the latter, rather than the number of inches of rain, is the limiting factor. Unless man has interfered, evergreen forests are generally found where the rainfall exceeds 80 inches, mixed deciduous forests where the rainfall is between 40 and 80 inches, and dry thorn scrub where the rainfall drops below 40 inches, *i.e.* in the Dry Zone. By the term "teak forests" in this book is meant the mixed deciduous and the evergreen forests below 3,000 feet. The chief difference between the mixed deciduous and the evergreen types is that the former contains vast quantities of bamboo and burns through every year, whereas the evergreen type contains little bamboo and is too wet to burn.

This book aims at placing on record a complete list of the birds recorded from Burma and their distribution. To this end the map of Burma has been divided into 10 distribution areas as follows :-

DISTRIBUTION AREA	TOPOGRAPHICAL FEATURES
1. Arakan (the Arakan district).	Mountains, higher hills, and foothills on the western drainage of the Chin Hills and Arakan Yomas. A narrow flat belt along the coast.
2. Chin Hills (the Chin Hills and Kanpetlet districts).	Mountains, higher hills and foothills.
3. Upper Chindwin (the Upper Chindwin district).	Mountains, higher hills, and foothills west of the Chindwin river; foothills and a few higher hills east of the Chindwin river.
4. North-East Burma (the Myitkyina and Bhamo districts).	Mountains and higher hills along the Tibet-Yunnan frontier and in the Triangle. Elsewhere chiefly foothills.
5. Central Burma.	Dry Zone cultivation and uplands. Mt. Popa, Mogok hills, Maymyo hills and some peaks in the Katha and Shwebo districts are the only higher hills.
6. Southern Burma.	
(a) Arakan Yomas.	Higher hills and foothills west of the Irrawaddy river.
(b) Pegu Yomas.	Foothills between the Irrawaddy and Sittang rivers.

	(c) Plains.	Paddy plains, tidal creeks, sea coast.
	(d) Karen Hills.	Higher hills and foothills east of the Sittang river.
7.	Northern Shan States.	Mountains, higher hills, and foothills.
8.	Southern Shan States.	Mountains, higher hills, and foothills.
9.	Karenni.	Mountains, higher hills, and foothills.
10.	Tenasserim.	2 mountains, higher hills, foothills, sea coast, and numerous islands of the Mergui Archipelago.

Throughout the book "plains and foothills" means land below 3,000 feet, higher hills 3,000—6,000 feet, and mountains above 6,000 feet. The distribution areas have well-defined district boundaries, as shown on the map at the end of the book, except for the sub-divisions of Southern Burma; as no civil boundaries here are convenient the division is based on natural features; owing to the number of species that are represented by one race in the Arakan Yomas and another race in the Karen Hills, some east-west sub-division was considered essential.

At the end of the book will be found a Hand List giving against each form the distribution areas in which it is known to occur; thus an observer in any part of Burma can pick out at once the birds he is likely to meet with. This list is based on specimens in the British Museum and reliable published records, and its compilation has been made possible thanks to the research work undertaken by Dr. C. B. Ticehurst, whose help is acknowledged elsewhere. It is naturally far from complete, our knowledge of the birds in some areas, *e.g.* Arakan and the Upper Chindwin, being still very sketchy, but it does aim at providing a secure foundation on which others can build. The elevation range of each form is given in a separate column, but it must be borne in mind that many mountain birds move to lower elevations in winter, and also that many birds have a lower elevation range in Northern Burma than they do in Southern Burma, owing to the colder winter in the former; the figures given can therefore only be taken as a rough guide.

To prevent confusion, in the text the Chin Hills and Karen Hills, being distribution areas, are spelt with a capital 'H', whereas the Kachin hills, Mogok hills, etc., not being distribution areas, are spelt with a small 'h.' Similarly North-East Burma has a capital 'E' whereas North-east Africa, North-east India, etc., have a small 'e'.

Status. — Whistler gives an excellent account of migration, which is here summarised. The avifauna of Burma or of any square mile of it is never stationary, but changes season by season in response to the great tide of bird life that sweeps across it with the regularity of the tides of the sea. The fundamental principle of migration is easy to understand. With the changing of the seasons a bird that summers in northern latitudes is unable to find food in those latitudes in winter; it therefore moves southwards to an area that time and circumstances have fixed as its winter quarters. In the north the

bird is a "summer resident", in the south a "winter visitor", and in the intervening countries through which it travels a "passage migrant"; the southerly route followed in the "autumn passage" is not necessarily the same as the route by which it returns northwards in the "spring passage".

Burma lies south of the great mass of Northern and Central Asia, where winter conditions are severe after a short but luxuriant summer; it is therefore not strange that a huge wave of bird-life pours down to winter in Burma, where insect and vegetable food is so abundant. The movement starts as early as July and reaches its greatest height in September; in the spring the wave recedes again, starting at the end of February, and all our winter visitors have gone by the end of May. This type of movement comes under the heading of true migration and a good example is afforded by Eversmann's Willow Warbler, which performs a journey of about 4,000 miles twice a year from its breeding quarters in Siberia to its winter quarters in the Indo-Chinese countries and back again, an astonishing distance for so minute a bird.

Smaller and more irregular movements also take place and come under the heading of local migration. The cause of some of these movements is obvious, as when birds of the mountains and higher hills move down to lower elevations in winter, and the cause of others is obscure; the Black Drongo arrives in the Sittang plain in large numbers every October and leaves again in the hot weather, apparently to spend the rains in Northern Burma, but why it should do so is not clear. Most of these local movements are dictated by the available food supply. It must be remembered that examples can be quoted of all degrees of migration, and there is no clear-cut distinction between local and true migration; thus some species entirely desert their breeding areas during part of the year; others split up, some individuals staying in the breeding area and the rest migrating to a greater or less distance; others again move about wholly within their breeding range. At present little is known about migration in Burma, and all records and observations would be of value.

In the Hand List three symbols are used to express the bird's status:

"R" denoting that the bird is a resident, *i.e.* breeds in the area.

"M" denoting that the bird is a migrant, *i.e.* a winter visitor.

"U" denoting uncertainty as to whether the bird is a resident or migrant.

This is necessarily a rough classification and ignores local migration. For "U" birds we want proof or evidence of breeding, and failing that notes on the bird's occurrence in the "off" season, say between mid-May and the end of August for most species. For "M" birds it is always worth noting the date on which their arrival is first observed each year, and also the last date on which they are seen before departing.

Photography. — The photography of birds at their nests is perhaps the most fascinating of all branches of bird study, and one that has so far scarcely been attempted in this country. It is hoped that the following brief notes will encourage a few people to try it.

The best instrument is undoubtedly a reflex camera of ¼ plate or $3\frac{1}{2} \times 2\frac{1}{2}$ size, but good results can also be obtained with any of the modern miniature cameras; the owner of a cheap folding camera need not however despair; though he cannot expect to achieve first class results, he can obtain good pictures of some of the easier birds.

Contrary to general belief a telephoto lens is not essential, except for tree-nesting species; for all birds that can be photographed on or from the ground the ordinary lens is preferable, because it gives a greater depth of focus and thus produces a picture of the nest with its surroundings, whereas a telephoto lens used at short range gives a blurred foreground and background with only the nest in focus. A lens of good quality giving accurate definition is however desirable, because most bird photographs have to be enlarged considerably.

Also contrary to general belief, fast shutter speeds are seldom necessary. The best results are obtained by using small stops and slow shutter speeds, *e.g.* F. 16 and 1/25″. As a small stop gives greater depth of focus, a stop larger than F. 12 should never be used if the light is adequate. Using slow speeds a few negatives are bound to be blurred by movement, but this does not matter provided that enough exposures are made.

In addition to a camera and tripod the would-be photographer must have a "hide". This he can construct to suit his fancy, but nothing elaborate is necessary; the writer has always used an affair of old sacks stitched together in the form of a cube with the bottom open, about 2 feet square by 4 feet high; in this country a hide can often be made on the spot out of bamboo matting and thatching grass. The one essential is that the bird must not be able to see any movement inside the hide. For most species little or no camouflage is necessary, but whenever possible the hide should be erected the evening before, so that the birds can become accustomed to it during the night. For small birds a distance of 5 feet from the nest is suitable, and for larger birds 6-8 feet. With some of the shyer species it is necessary to put the hide up some distance away at first, and then move it closer each day till the desired distance has been reached. On no account should the photographer cause the bird to desert its nest; if he finds that the bird has not returned during the night, he should remove the hide at once.

There is one other essential. The photographer must always have a companion with him when he enters the hide. Birds are apparently unable to count; if they see two men go up to a hide and later one man go away, they deduce that the coast is clear and will return to the nest; but it is a waste of time to go up to, and enter, a hide by oneself. Even if the observer lacks the apparatus to take photographs, he will find it most interesting to erect a hide near a

nest and watch the birds at close quarters, especially when they are feeding their young. Scarcely anything has been recorded, other than descriptions of nests and eggs, on the nesting habits of even the common birds of Burma.

Collecting. – To make any progress with that branch of the science known as systematic ornithology it is necessary to collect specimens. There are many who, quite illogical in their philosophy, look upon the shooting of birds for scientific purposes as a crime and yet see nothing wrong in shooting for sport or food. Such persons would do well to ponder the words of that great naturalist Eha: "Without a collection a man's knowledge of natural history becomes nebulous and his pursuit of it dilettante. I am sorry it is so, for I am a Buddhist. But, alas! every Buddhist is not a Buddha:

> 'The squirrel leaped
> Upon his knee, the timid quail led forth
> Her brood between his feet, and blue doves pecked
> The rice grains from the bowl beside his hand.'

They will not treat you and me so, not though we sit as motionless as the horned owl, and repeat the mystic syllable *om* after the most saintly fashion, in low eruptive snorts; it conciliates nothing but the jungle mosquito and the red ant. For the rest, if you want to know them, you must resort to harsh measures. But do not let yourself get hardened. Cherish the tender place in your nature which feels a pang when you pick up the little corpse, so happy two minutes ago. And when you have killed enough, stop." Enough general collecting has been done in Burma; concentration on filling in the gaps is now needed. With some species the distribution of the different races still needs to be worked out and this involves careful collecting in certain areas. Of other species we still need to know the plumage changes or moults, and this involves collecting specimens at certain times of the year. To avoid unnecessary shooting of birds, those who wish to help with this work are advised first to find out what has been accomplished and what remains to be done; the author or the editors will always gladly endeavour to supply information on these points.

Protection. – The Burma Wild Life Protection Act, 1936, affords complete protection to the Argus Pheasant and the Masked Finfoot; under the same act a limited amount of protection is afforded to certain other birds. Section 8 prescribes a close season, from the 15th March to the 30th September, for Peafowl, Junglefowl and all species of Pheasant (other than the Argus Pheasant), Partridge, Quail, Duck and Teal. Section 9 makes it illegal, throughout the year, for any person to capture, possess, sell or buy live Snipe, Partridges, Pond Herons, Egrets, Moorhens, Grackles (Hill Mynas), Pigeons, Doves, Geese, Duck or Teal. The Government of Burma is to be congratulated upon this piece of up-to-date legislation, which aims at preventing the commercialisation of the country's wild bird life to the inevitable accompaniment of wastage and cruelty.

34,799 square miles, representing approximately 13 per cent of the total area of Burma, are covered by Reserved Forests within which no bird may be captured or killed save under and in accordance with the conditions of a license issued upon payment of a fee and drafted with a view to preventing any particular species being unduly reduced in numbers. Reserved Forests afford, therefore, a reasonable amount of protection to birds that favour a forest habitat.

Burma, including the Federated Shan States, now possesses eight Wild Life Sanctuaries covering a total area of 597 square miles. Many of these sanctuaries, although constituted primarily for the protection of the larger fauna, afford excellent opportunities for the study of bird life and in this connection the Pidaung Wild Life Sanctuary, situated on the main line of the Burma Railways twelve miles from Myitkyina, is frequently mentioned in this book. The constitution, in 1939, of the Wetthigan Lake Wild Life Sanctuary in the Minbu District marked an important step in the development of wild life protection in Burma. Constituted primarily for the protection of water-birds, the sanctuary owes its origin to the foresight and initiative exhibited by the head of the monastery situated on the shores of the lake, and certain leading inhabitants of the nearby town of Salin. The praiseworthy example set by Salin might, with great advantage, be followed in many other parts of Burma where bird life near centres of population is being threatened with extermination. Under Section 10 (g) of the Wild Life Protection Act it is illegal to kill or capture any bird within two hundred yards of the compound of an inhabited Buddhist monastery or of a religious edifice for which trustees have been appointed. This measure, strictly enforced, should offer an appreciable amount of protection from the air-gun and catapult to those birds whose presence in a park or garden does much to alleviate the lot of the town-dweller.

What is the fascination of bird watching, or for that matter of any nature study? What is the use of the information contained in this book? The beautiful forms and colours of many of our Burmese birds are there for all to appreciate, and for those who can devote the necessary time there is the absorbing interest of finding out new facts about them, and of describing their attributes and their habits with ever increasing precision. Perhaps the best answer to the questions is contained in Professor Sir Albert Seward's presidential address to the British Association in 1939. " My reply is that knowledge gained from a first-hand study of nature, both animate and inanimate, has a value beyond price. Enjoyment of the romance of creation as recorded in the life of the past and of the present is within the reach of all who have the desire to read the open pages of Nature's book.... The whole world throbs with life, and the joy of it all is ours to share:

'I said it in the meadow path
I said it on the mountain stairs
The best things any mortal hath
Are those that every mortal shares'. "

BIBLIOGRAPHY

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The complete bibliography of the birds of Burma is too voluminous for inclusion in this book. The brief list of books and papers given below includes all publications referred to by the author and a few other works likely to be of particular interest to ornithologists in Burma.

BOOKS

AITKEN, E. H. (EHA)

"A Naturalist on the Prowl" 4th edn.
"The Tribes on my Frontier" 8th edn. (1914).

Both published by Thacker, Spink, Calcutta.

Well-written and amusing sketches on natural history subjects, including birds; the books deserve immortality, and look like achieving it.

ALEXANDER, W. B.

"Birds of the Ocean". Putnam, London. (1929).

BATES, CAPT. R. S. P.

"Bird-life in India". Bombay Natural History Society. (1930).

BOLSTER, R. C.

"Driven Duck". (1923).

A most useful aid to the identification of Ducks.

CHANCE, E.

"The Cuckoo's Secret". Sidgwick & Jackson, London. (1922).

A good book for anyone who wishes to specialize in the study of Cuckoos.

FINN, F.

"Waterfowl of India & Asia" 3rd edn. (1921).
"Game birds of India & Asia" (1911).
"How to know the Indian Waders" 2nd edn. (1920).

All published by Thacker, Spink, Calcutta.

FLETCHER, T. B. & INGLIS, C. M. "Birds of an Indian Garden". 2nd edn. (1936). Thacker, Spink, Calcutta.

An excellent book on some of the commoner birds, nearly all of which occur in Burma; includes coloured illustrations, and interesting details of the food taken by various species, not easily obtainable elsewhere.

HARINGTON, H. H. "Birds of Burma". (1909). Out of print.

HUME, A. O. "Stray Feathers". A Journal of Ornithology for India and its Dependencies. In 10 vols. (1873-82). Out of print.

Contains accounts of the early work done in Southern Burma and Tenasserim by Hume, Davison, Oates, Bingham, Blanford, Fielden, and Armstrong. Much information contained in these journals was summarised by Oates and included in his "Birds of British Burmah".

OATES, E. W. "Birds of British Burmah". 2 vols. (1883). Out of print.

Deals only with what was then British Burma (Arakan, Lower Burma, and Tenasserim) and Karenni. Though written over half a century ago, it contains much that is of interest today.

RIDGWAY, R. "Color standards and nomenclature". Washington, D. C. (1912).

Contains plates illustrating over 1100 named colours, and is the work to which leading ornithologists refer.

STUART BAKER, E. C. "Indian Pigeons and Doves". Bombay Natural History Society. (1913).

"The Game Birds of India, Burma, and Ceylon".

Vol. 1 (Indian Ducks and their Allies). (1921).

Vol. II (Woodcock, Snipe, Bustards, and Sandgrouse). (1921).

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All three volumes published by the Bombay Natural History Society.

"The Fauna of British India — Birds". 2nd edn. 6 vols. of text and 2 vols. of synonomy and corrigenda; Taylor and Francis, London. (1922-30).

The standard work on the birds of India, Burma, and Ceylon, and indispensable to anyone who wants to make a serious study of them.

"The Nidification of Birds of the Indian Empire". 4 vols. Taylor and Francis, London. (1930-36).

TICEHURST, DR. C. B. "A Systematic Review of the genus *Phylloscopus*". Published by the British Museum. (1938).

Deals with all the *Phylloscopi* in the world; of the 30 species, 17 are on the Burma List. A standard work.

WHISTLER, H. "Popular Handbook of Indian Birds". 2nd. edn. (1935). Gurney and Jackson, London.

Describes at length 275 species and mentions over 250 others in short paragraphs. Well illustrated. An excellent work.

WITHERBY, H. F.
JOURDAIN, REV. F. C. R.
TICEHURST, N. F.
TUCKER, B. W. "The Handbook of British Birds". 5 vols. (of which 4 have been published from 1937 to date). Witherby, London.

A standard work, giving an illustration (where necessary several, showing adult and juvenile, male and female) and a concise summary of all that is known about every bird on the British List. As about 137 species are common to Burma and the British Isles it is a useful book even if the reader is not interested in British birds.

PAPERS.

Some papers and notes of general interest.

Note. JBNHS denotes the Journal of the Bombay Natural History Society; this is the foremost scientific journal in India, and the recognized medium for the exchange of scientific information. It pub-

lishes articles and notes on all branches of natural history, and also on fishing and shikar. The following is a short selection of papers and notes of interest to ornithologists in Burma that have appeared in recent issues:

BATES, MAJOR R. S. P. — "Bird photography in India". JBNHS Vol. XL, p. 666. (1939).

BURTON, LT.-COL. R. W. — "Cuckoo-lore". JBNHS Vol. XXXVIII, p. 266. (1936).

A very useful paper, giving a resumé of all that had been recorded about Cuckoos in previous numbers of the Journal.

LIVESEY, CAPT. T. R. — "Cuckoo problems". JBNHS Vol. XXXVIII, p. 734. (1936).

"Habits of the Burmese Stone-Chat". JBNHS Vol. XXXVIII p. 398. (1936).

LOWTHER, E. H. N. — "Notes on some Indian Birds". JBNHS Vol. XXXIX, pp. 116, 543; Vol. XL p. 409. (1936-38).

Interesting articles on the Indian Crested Swift, Nightjars, and some common garden-nesting species, illustrated by a number of first-rate photographs of birds at the nest.

STANFORD, J. K. — "On the breeding of the Pied Harrier *Circus melanoleucus* (Pennant) in Northern Burma". JBNHS Vol. XXXIX, p. 179. (1936).

Distribution Lists

BINGHAM.—A contribution to our knowledge of the birds occurring in the Southern Shan States. Ibis, 1903, p. 584.

COOKE, J. C.—Notes on the birds of Kalaw. JBNHS Vol. XXII, p. 260.

GARTHWAITE, P. F., & TICEHURST, DR. C. B.—Notes on some birds recorded from Burma. JBNHS Vol. XXXIX, p. 552.

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HIGGINS, J. C.—Game birds and animals of Manipur. JBNHS Vol. XXVI.

HOPWOOD, J. C. & MACKENZIE, J. M. D.— A list of birds from the North Chin Hills. JBNHS Vol. XXV, p. 72.

HOPWOOD, J. C.—A further list of birds from the Chindwin, Upper Burma. JBNHS Vol. XVIII, p. 432.

KINNEAR, N. B.— On the birds of the Adung Valley, N. E. Burma. JBNHS Vol. XXXVII, p. 247.

LA TOUCHE, J. D.— Handbook of the birds of Eastern China.

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MACDONALD, K. C.— A list of birds found in the Myingyan district. JBNHS Vol. XVII, pp. 184, 492.

MEARS, A., & OATES, E. W.— On the birds of the Chindwin, Upper Burma. JBNHS Vol. XVIII, p. 78.

RIPPON.—On the birds of the Southern Shan States, Burma. Ibis, 1901, p. 52.

ROTHSCHILD, LORD—On the Avifauna of Yunnan, with critical notes. Nov. Zool. Vol. XXXIII, pp. 189-343, 1926.

SMITH, H. C., GARTHWAITE, P. F., SMYTHIES, B. E., & TICEHURST, DR. C. B.— Notes on the birds of Nattaung, Karenni. JBNHS Vol. XLI, p. 577.

STANFORD, J. K. & TICEHURST, DR. C. B.—On the birds of Prome district, Lower Burma. JBNHS Vol. XXXIV, pp. 666, 901; Vol. XXXV, p. 32.

STANFORD, J. K., & TICEHURST, DR. C. B.— Notes on some new or rarely recorded Burmese birds. Ibis, 1935, pp. 38, 249.

STANFORD, J. K., & TICEHURST, DR. C. B.— Notes on the birds of the Sittang-Irrawaddy plain, Lower Burma. JBNHS Vol. XXXVII, p. 859.

STANFORD J. K. & TICEHURST, DR. C. B.—On the birds of Northern Burma. Ibis, 1938, pp. 65, 197, 391, 599; Ibis, 1939, pp. 1, 211.

TICEHURST, DR. C. B.—Notes on some birds from Southern Arakan. JBNHS Vol. XXXVI, p. 920.

WICKHAM, P. F.— Notes on the birds of the Upper Burma Hills. JBNHS Vol. XXXIII, p. 800; Vol. XXXIV, pp. 34, 337.

Three important expeditions have recently taken place in Burma:

(i) The Hopwood-Vernay Upper Chindwin expedition of 1935. The paper on the birds collected has just been published in America, and it is unfortunate that the author has not been able to see a copy before sending this book to the press. However, Mr. Stanford's

paper on the birds of Northern Burma contains numerous references to all, or most of, the important birds collected.

(ii) The Vernay-Cutting expedition of 1938-39 to the mountains of the Yunnan frontier in North-East Burma. Mr. Stanford was the ornithologist on this expedition, and the author was able to obtain a list of all the birds obtained that had not previously been recorded from Burma. The full results will probably not be published for some years.

(iii) An expedition undertaken by Dr. Gerd Heinrich of the Berlin Museum in 1936-37; most of his collecting was done in the Dry Zone and on Mt. Victoria. The author obtained a complete list of the birds collected, but has not seen the paper on them, which has just been published.

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GLOSSARY

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Axillaries .. Feathers on the under surface of the wing where it leaves the body.

Bedabin .. The Water Hyacinth *(Elodea canadensis)*, an introduced weed that grows very freely on tanks, canals, and waterways.

Bizat .. *Eupatorium odoratum*, another introduced weed that colonises open spaces and has spread through Burma with astonishing rapidity in recent years.

Dhoob .. Short grass of a creeping variety.

Hpongyi kyaung .. A Buddhist monastery.

Htee .. The ornamental top of a pagoda.

Indaing .. Dry dipterocarp forest without bamboos.

Kaing .. Tall thick grass. "Elephant grass." Mainly species of *Saccharum*.

Kalauks .. Wooden bells tied round the necks of cattle.

Kokko .. *Albizzia lebbek*, a common roadside tree in Burma.

Lantana .. *Lantana camara*, another introduced plant, an impenetrable thorny weed, that has spread in certain areas, *e.g.* round Maymyo.

Letpan .. *Bombax malabaricum*, or the Silk-cotton Tree; it produces large trumpet-shaped scarlet or orange flowers, which are much visited by birds, at the end of the cold weather.

Lwin .. An open grassy plain, usually undulating and often quite a small area surrounded by forest.

Mayin .. Rice harvested in the hot weather.

Ponzo .. Dense regrowth on abandoned cultivation.

Primaries	..	The outermost 9 or 10 quills of the wing, forming the wing-tip.
q. v.	..	Please refer to the bird named.
Secondaries	..	The feathers forming the hinder part of the wing near the body.
Tamarind	..	*Tamarindus indica,* or *Magyi-bin,* a common village tree in Burma.
Taungya	..	Shifting cultivation in the forest. A block of forest is clear-felled and burnt and crops grown for one or sometimes two years; after that the dense growth of vegetation necessitates a move to another area. Most of the hill tribes in Burma practise this type of cultivation.
Terai	..	A belt of marshy and malarious jungle between the Himalayan foothills and the plains.
Thetke	..	Thick grass of medium height. "Thatching grass." Mainly *Imperata arundinacea.*
Zayat	..	A wayside shelter for travellers.

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ERRATA

Bedabin .. For *(Elodea canadensis)*
read *(Eichhornia crassipes)*

Kokko .. The common roadside tree in Burma is not the true *kokko (Albizzia lebbek)* but the *thinbaw-kokko (Enterolobium saman)*, also known as the Rain Tree.

CORRIGENDA

P. xii, line 33. For 1235 substitute 1105, which is the number of birds accepted for the Burma List and is a better figure to take for comparison.

The following corrections to the Burmese names were received from Mr. H. O. Reynolds just after printing had been completed.

Pp. 145, 146. For the Burmese names of the Chinese Black Drongo and the Pale Ashy Drongo substitute "*Lin-mi-zwe* (လင်းမီးဆွဲ)".

P. 149. For the Burmese name of the Large Racket-tailed Drongo substitute "*Hnget-taw* (ငှက်တော်)".

P. 222. For the Burmese names of the Sunbirds substitute the following:—

"Burmese: *Nan-pyi-sok* (နှံပြည့်စုတ်), *Pan-yi-sok* (ပန်းရည်စုတ်). These names allude to the birds' methods of feeding and mean 'nectar-sucker'."

P. 271. Add as an alternative Burmese name for the Pied Crested Cuckoo "*Mo-hsaung-hnget* (မိုးဆောင်ငှက်), the bird that brings the rain."

P. 273. For "*Wapale*" read "*Wa-pălè*".

P. 296. Add as an alternative Burmese name for the Hoopoe "*Bi-daung-bo* (သိမ်းတောင်ဗို)".

Pp. 324, 325. In the Burmese names of the Vultures for "ငှင်း" read "လင်း".

P. 392. For "*Menyo*" read "*Mè-nyo*".

P. 393. For "*Ye-balon*" read "*Ye-bălon*".

P. 403. For "*The-hpa*" read "*Thi-hpa*".

P. 419. For "brick-head" read "brick-body" or "brick-animal".

P. 420. For "*Talaing-gaung*" read "*Tălaing-gaung*".

P. 421. For "*Sit-Talaing*" read "*Sit-tălaing*".

P. 424. For "*Hkayu-sok*" read "*Hkăyu-sok*".

Pp. 436, 437, 438. For "*Sanaik*" read "*Sănaik*".

P. 440. For "*Sekkawet*" read "*Sekkăwet*".

P. 448. For "*Hka-yu-sok-ahpyu*" read "*Hkă-yu-sok-ăhpyu*".

P. 449. For "*Hka-yu-sok-anet*" read "*Hkă-yu-sok-ănet*".

P. 452. For "*Hnget-kala*" read "*Hnget-kăla*".

P. 454. For "*Hkayu-sok*" read *Hkăyu-sok*".

Pp. 455, 456. For "*Nga-hit*" read "*Ngă-hit*".

P. 460. For "*Kywe-gyaung Byaing*" read "*Kywè-gyaung byaing*".

P. 468. For "*Taw-be*" read "*Taw-bè*".

P. 469. For "*Kalagat*" read "*Kălăgat*".

Pp. 474, 475. For "*Sit-sali*" read "*Sit-săli*".

Pp. 477, 478, 482, 492. For "*be*" read "*bè*".

Exception having been taken to the listing of both Kachin and Chinghpaw local names, these being two words for the same language, it is necessary to explain that the names given as Kachin are old ones, taken from the F. B. I. or Harington's "Birds of Burma", which we have been unable to have verified, whereas the names given as Chinghpaw are those collected by Mr. J. K. Stanford in recent years, and it was considered advisable to distinguish between them.

ONE FOOT

0 3 6 9 12 INCHES

0 100 200 300

300 mm.

PLATE I

		See Page No.
1.	**JUNGLE CROW** (adult) *Corvus macrorhynchus macrorhynchus*	1
2.	**BURMESE HOUSE CROW** (adult) *Corvus splendens insolens*	2
3.	**CHINESE MAGPIE** (adult) *Pica pica sericea*	3
4.	**BURMESE RED-BILLED BLUE MAGPIE** (adult) *Urocissa erythrorhyncha magnirostris* ..	4
5.	**HIMALAYAN TREEPIE** (adult) *Dendrocitta formosæ himalayensis*	6
6.	**BURMESE TREEPIE** (adult) *Dendrocitta vagabunda kinneari* ..	5
7.	**GREEN MAGPIE** (adult) *Cissa chinensis chinensis*	5
8.	**BLACK RACKET-TAILED MAGPIE** (adult) *Crypsirhina temia* subsp.	7
9.	**HOODED RACKET-TAILED MAGPIE** (adult) *Crypsirhina cucullata*	7
10.	**BURMESE JAY** (adult) *Garrulus leucotis leucotis*	8

BIRDS OF BURMA

Order I PASSERIFORMES.

Family CORVIDÆ

CROWS, MAGPIES, TREEPIES, JAYS, & NUTCRACKERS

The Corvidæ are the thieves and robbers of the bird world; almost without exception they take a special delight in eating the eggs and young of other birds during the breeding season; at all times they are more or less omnivorous. As a family they have few other characters in common and yet there is no group of birds more easily recognised; they are found in all parts of the world and include some of our most familiar birds.

THE JUNGLE CROW

Corvus macrorhynchus macrorhynchus (8).

Local Names. — Burmese: *Taw Kyi-gan* (တောကြီးကန်း)

Identification. — PLATE I, Fig. 1, Page 1. Length 20-22 inches. The flight is straight, rather slow, with regular wing-beats, and the flight-feathers at the wing-tips are noticeably larger and more separated than in the House Crow; for other distinctions see under House Crow.

Voice. — The ordinary call is a variable caw, sometimes harsh, sometimes almost melodious in tone, and very often distinctly like the quack of a domestic duck; a full-throated *gow-wah, gow-wah,* is also uttered, and in addition as it meditates on a shady bough during the heat of the day it indulges in a succession of amusing gurgles and croaks.

Habits and Food. — Wherever the wanderer in the jungle may pitch his tent he is sure to find before long that a pair of these birds have appeared on the scene to pick up the camp scraps and garbage. The Jungle Crow is by no means confined to the jungle and may be found abundantly in most large towns and villages, but in the plains it is usually outnumbered by the House Crow. Where it occurs in numbers it is very gregarious and may be seen flighting out in small parties at dusk to a communal roosting place and returning again soon after dawn.

Like others of the genus it feeds mainly on the ground in the open, and is omnivorous in its diet; scraps of human food, refuse,

flying ants, berries, small mammals and carrion are all welcome and it is particularly destructive to the eggs and young of all birds. It can lay good claim to the title of Public Enemy No. 1 among birds, and not least among its iniquities is its habit of adding to the sufferings of a dying animal, which it is often the first to find, by pecking out its eyes.

Nest and Eggs. — The breeding season is from March to May, but in the plains a few nests may be found as early as February. The nest is built in a tree, and though sometimes conspicuous is usually well concealed. Normally a tree in the forest not far from a village is chosen, but sometimes one in the midst of a bazaar or garden. The nest is usually a massive and moderately deep cup of twigs and small sticks lined with hair, fibres, roots, dry grass or wool. The eggs, 4 or 5 (occasionally 6) in number, are moderately broad ovals, firm in texture with little gloss; they are variable in colour and pattern, though the eggs of a clutch resemble each other closely. They may be pale greenish-blue, pale blue or dingy olive, marked with brown or inky-purple blotches and streaks, and they average 1·70 by 1·24 inches.

Status and Distribution. — This race of the Jungle Crow is a common resident throughout Burma in the plains, foothills and higher hills, and it also occurs in Assam; other races are found throughout the Oriental Region, including India and Ceylon.

THE BURMESE HOUSE CROW

Corvus splendens insolens (13).

Local Names. — Burmese: *Kyi-gan* (ကြီးကန်း)

Identification. — PLATE I, Fig. 2, Page 1. Length 17 inches. Distinguished from the Jungle Crow by its smaller size, less massive bill, and a suspicion of greyness about the nape and breast. Albinistic varieties are frequently reported.

Voice. — *Caw* or *Kraah*, softer and less harsh than the call of the Jungle Crow.

Habits and Food. — The House Crow is a bird of towns and villages, and probably the best known bird of Burma. In flight and general habits it resembles the Jungle Crow, but familiarity with man has made it bold and wary to a degree; it sidles into rooms to gobble up the remains of the dog's meal or even to snatch food from the table. It has been well described by a number of authors and it is unnecessary to write much about it here; for an amusing character sketch the reader is referred to "The Tribes on my Frontier" by Eha, who described this Crow as "a fungus of city life, a corollary to man and sin. It flourishes in the atmosphere of great municipalities..... It affects to be respectable and entirely ignores public opinion, dresses like a gentleman, carries itself jauntily, and examines everything with one eye in a way which will certainly bring on an eye-glass in time, if there is a scrap of truth in the development theory."

This Crow has much in common with the pariah dog and lives a similar life of "aimless vagabondage", but the latter lives close

to starvation and is seldom anything but a miserable bag of skin and bones, whereas the House Crow, however numerous it may be in a particular town, always contrives to look sleek and well-fed; moreover it seems to have plenty of leisure, unlike many of the smaller birds, which spend their waking life in a ceaseless and frantic search for food. It is endowed with great curiosity and the appearance of an unfamiliar bird such as a Treepie or Owl in a city garden speedily attracts a crowd of Crows; curiosity soon gives place to animosity on the principle of "here's a stranger; let's heave half a brick at him", and the unfortunate bird is usually lucky to escape alive. The House Crow is highly gregarious, particularly at the roost, and the evening congregation in Dalhousie Park, where thousands of these birds sleep together in company, is one of the sights of Rangoon.

Nest and Eggs. — The breeding season is from February to June. The nest is like that of the Jungle Crow, only smaller, and is nearly always built in a town or village. The eggs, usually 4 or 5 (occasionally 6 or 7) in number, are broad ovals, hard and fine in texture with a fair gloss; in colour they are blue-green, blotched, speckled and streaked with dull reddish and brown, and with secondary markings of grey and neutral tint scattered profusely all over the surface. They average 1·38 by 1·03 inches.

Status and Distribution. — The House Crow is found almost throughout the Oriental Region. The Burmese race is ubiquitous throughout the cultivated parts of Burma, ascending to 5,000 feet, but it is not found in the forests. It extends to Siam, Yunnan, Cochin China and the north of the Malay Peninsula. Birds in Arakan are intermediate between this race and the typical or Indian race.

THE CHINESE MAGPIE

Pica pica sericea (17).

Local Names. — Burmese: *Hnget-kya* (ငှက်ကြာ)

Identification. — PLATE I, Fig. 3, Page 1. Length 18 inches, including a tail of 8–10 inches. There is a broad white band across the rump. The flight is direct, rather slow, with fairly rapid wing-beats.

Voice. — The usual note is a harsh and typically corvine chatter of 4 or 5 notes, *chatchatchatchatchack*, uttered both on the wing and from a perch at the top of a tall tree.

Habits and Food. — This Magpie is a bird of open park-like forest and cultivation in the hills, and may be seen on the outskirts of villages and occasionally in the compounds of houses; it goes about in pairs or small parties and perches on the tops of the tallest trees, chattering incessantly for half an hour at a stretch, and then flying off to another vantage point. It feeds largely on the ground, the usual gait being a walk with the tail somewhat elevated, though long sidling hops are taken when excited. Its diet is as varied as that of other members of the family.

Nest and Eggs. — The breeding season is from February to May. A domed nest of twigs, lined with rootlets or wool, is built either high up in a tall tree or low down in a thorny bush. The eggs, 4 to 7 in number, are a pale blue-green in colour with blotches and spots of dull reddish-brown scattered profusely all over the surface, but chiefly at the larger end. They average 1·40 by 0·96 inches.

Status and Distribution. — In this country the Chinese Magpie is confined to the Shan States, the Mogok hills and North-East Burma; thence it extends across China to the south of Japan and Formosa. It occurs very locally in the Southern Shan States, but becomes common further north, and is apparently resident at all elevations.

Other races extend westwards across Asia and Europe to the British Isles, where the typical race is a familiar bird.

[Note: — THE BLACK-RUMPED MAGPIE, *Pica pica bottanensis (18)*, is another race that may be found some day in the extreme North of Burma. It breeds in Southern and Eastern Tibet. Absence of white on the rump distinguishes it.]

THE BURMESE RED-BILLED BLUE MAGPIE

Urocissa erythrorhyncha magnirostris (21).

Allied Form—

THE CHINESE RED-BILLED BLUE MAGPIE, *U. e. erythrorhyncha (19).*

Local Names. — Burmese: *Hnget-taw-pya* (ငှက်တော်ပြာ), *Hnget-aung-ma* (ငှက်အောင်မ) or *Hnget-sat* (ငှက်စဉ်း); Lashi: *Langchang.*

Identification. — PLATE I, Fig. 4, Page 1. Length 26 inches, including a tail of 18 inches. There is a large pure white patch on the nape, continued down the back. The flight is rather slow, laboured and undulating, and the white tips to the tail-feathers are usually conspicuous.

Voice. — The usual call is a series of harsh, rather staccato notes.

Habits and Food. — The Blue Magpie is arboreal in habits, frequenting the undergrowth and the lower canopy, and is a typical bird of the teak forests. It also ventures into scrub and trees amongst cultivation, and at high elevations may be seen on open bare hillsides. It goes about in active parties, flying incessantly from bough to bough and not hesitating to launch high into the air when flying from one ridge to another. It frequently feeds on the ground and has a curious hopping gait with the tail held high to prevent it touching the soil. The diet is varied and includes the eggs and young of other birds, small mammals, insects, and wild fruits and berries of various kinds.

Nest and Eggs. — The breeding season is from March to May. The nest is a cup of twigs and coarse roots, lined with finer roots, built in a small tree and well hidden by foliage. The eggs, 3 to 6 in number, are pale pinkish with light red blotches and freckles over the whole surface and numerous underlying marks of neutral tint. They average 1·26 by 0·94 inches.

Status and Distribution. — The Chinese race is found in China and Yunnan extending to the higher hills of North-East Burma and the extreme east of the Shan States. Elsewhere the Burmese race is a

common resident throughout the forests of the plains and foothills, not ascending the higher hills to any great extent. Outside Burma it extends to Assam and Siam. Other races are found in India and Tibet.

THE YELLOW-BILLED BLUE MAGPIE

Urocissa flavirostris subsp. *(22).*

Identification. — In size, appearance and habits this is similar to the preceding species, but can be distinguished at once by the yellow bill and the much smaller white patch on the nape.

Nest and Eggs. — Similar to those of the Red-billed Blue Magpie.

Status and Distribution. — This species is found throughout the Himalayas and has been recorded from the mountains of the Chin Hills and North-East Burma; it probably occurs also in the Upper Chindwin. The race has not been identified.

THE GREEN MAGPIE

Cissa chinensis chinensis (24).

Local Names. — Hunting Magpie; Chinghpaw: *Wa-yen.*

Identification. — PLATE I, Fig. 7, Page 1. Length 15 inches, including a tail of 8 inches. It cannot be confused with any other bird.

Voice. — The ordinary call is a harsh and very raucous chattering note, usually ending with a higher note.

Habits and Food. — The Green Magpie is a bird of the undergrowth and bamboos in evergreen and moist forests; it may be found singly or in small parties hunting the cover systematically and feeding both high up in trees and on the ground, its diet being similar to that of other Magpies. It is a shy bird and not easy to observe.

Nest and Eggs. — The breeding season is from April to June. The nest is built in a bush, small tree or bamboo clump and is made of twigs, grass and leaves, lined with roots. The eggs, 3 to 6 in number, are Magpie-like in general appearance, but grey rather than green in general tone; they average 1·19 by 0·90 inches.

Status and Distribution. — This race ranges along the Himalayas and thence through Burma to Northern Siam. It is locally distributed all over Burma in suitable localities, ascending to 6,000 feet, and is strictly resident.

THE BURMESE TREEPIE

Dendrocitta vagabunda kinneari (29).

Allied Forms.—

THE CHIN HILLS TREEPIE, *D. v. sclateri (28).*
THE TENASSERIM TREEPIE, *D. v. saturatior (30).*

Local Names. — Burmese: *Nă-hpa-gyi* (နားဖြူး); Chinghpaw: *Shingtălà.*

Identification. — PLATE I, Fig. 6, Page 1. Length 18 inches, including a tail of 9 inches. A conspicuous white wing-patch shows in flight, which is dipping with about six rapid and very noisy wing-beats alternating with glides.

Voice. — In addition to a number of raucous calls and harsh swearing notes a loud melodious *bob-a-link* is sometimes heard.

Habits and Food. — As its name indicates, the Treepie is essentially arboreal, frequenting both the tops of tall trees and the undergrowth and rarely visiting the ground. It is a typical bird of the teak forests, but seems equally at home in open scrub country, and even in gardens. It is generally found in pairs or small family parties, but during the rains 80 or more birds may collect into a flock and follow one another from tree to tree. Its food is similar to that of the Magpies and it has the reputation of being one of the most destructive enemies of the eggs and young of other species.

Nest and Eggs. — The breeding season is during March and April, tending to be earlier in the south and later in the north and in the hills. The nest is usually built in a fork near the top of a small tree or large bush, generally well screened by foliage. It is a shallow open cup of twigs and roots with a foundation of large and often thorny twigs, and a lining of grass roots and occasionally a little wool or straw. The eggs, 2 to 5 in number, are of two distinct types: one is pale greenish in colour with blotches and spots of light and dark grey-brown, and the other is pale reddish-white with dark brown and reddish blotches and underlying markings of lilac and neutral tint. The eggs average 1·17 by 0·87 inches.

Status and Distribution. — This species extends over a very wide area, and is a common resident throughout the foothills and higher hills of Burma, ascending to 7,000 feet in suitable localities. Three races are at present recognised, and the distribution of each is given on page 496.

THE HIMALAYAN TREEPIE

Dendrocitta formosæ himalayensis (32).

Allied Form.—

THE BURMESE HILL TREEPIE, *D. f. assimilis (33).*

Local Names. — Chinghpaw: *U-kălà;* Maru: *Lăng-jaw.*

Identification. — PLATE I, Fig. 5, Page 1. Length 16 inches, including a tail of 8 inches. This species differs from the preceding in having no rufous in the plumage, except on the under tail-coverts, and in its smaller size.

Voice. — The usual notes are harsh and raucous, and difficult to distinguish from those of the preceding species.

Habits and Food. — Similar to those of the preceding species, except that it keeps more to the higher hills.

Nest and Eggs. — The breeding season is from April to June. The nest is like that of the preceding species, but often much smaller and more fragile. The eggs, 3 or 4 (very rarely 5) in number, vary from pale cream to pale reddish with markings of various shades of brown, often confined to the larger end in a ring or cap and typically richer and bolder than on the eggs of the preceding species. The eggs average 1·13 by 0·79 inches.

Status and Distribution. — This species is found throughout the Himalayas and thence through Burma to Formosa. In most parts of

Burma it is common in the higher hills but is not found at low elevations; in North-East Burma however it is found throughout the lower Kachin hills. It is a common bird of hill stations such as Mogok, Maymyo, and Thandaung, and is strictly resident. The distribution of the two races is given on page 497.

THE BLACK-BROWED TREEPIE

Dendrocitta frontalis (34).

Local Names. — Chinghpaw: *U-kălà.*

Identification. — Length 15 inches, including a tail of 8-9 inches. It resembles the Himalayan Treepie but has a grey crown and nape, which appear almost white in the field; the long tail and chestnut back and abdomen are also noticeable. It has one very musical note and a great variety of others, and its habits are similar to those of the Himalayan Treepie.

Nest and Eggs. — The breeding season is from April to July. The nest and eggs resemble those of the Himalayan Treepie but the former is much more compact and well made and the latter are more handsome and nearly always more profusely marked; they average 1·06 by 0·78 inches.

Status and Distribution. — This species is confined to the Himalayas from Nepal eastwards to North-East Burma. It is a common resident throughout the lower Kachin hills, from 750 to 3,500 feet, but has not been recorded elsewhere in Burma.

THE BLACK RACKET-TAILED MAGPIE

Crypsirhina temia subsp. *(36).*

Local Names. — Burmese: *Ami-waing* (အမြီးရှိုင်း)

Identification. — PLATE I, Fig. 8, Page 1. Length 13 inches, including a tail of 7–8 inches. Less obtrusive habits and the tail prevent confusion with the Black Drongo. The plumage has a metallic green gloss, not usually visible in the field.

Voice. — Its usual note is said to be a not unpleasant metallic call; a harsh swearing note of three syllables is frequently uttered.

Habits and Food. — This bird is strictly arboreal in habits and never visits the ground. It frequents bamboo scrub and open forest and hunts systematically for fruit and insects through the foliage. It is usually solitary and prefers to keep out of sight, so that it would seldom be noticed but for its rather loud and arresting call.

Nest and Eggs. — The breeding season is from April to July. The nest is generally built in a thorny bush or small tree, and is a shallow cup of fine twigs, roots and tendrils. The eggs, 2 to 4 in number, are typically corvine in appearance and average 0·98 by 0·72 inches.

Status and Distribution. — This species extends from Java and Borneo northwards through Malaya and Tenasserim to Karenni and Southern Burma, where it extends as far north as Thayetmyo and Yamethin. It is resident and locally common.

THE HOODED RACKET-TAILED MAGPIE

Crypsirhina cucullata (37).

Local Names. — Burmese: *Ami-waing* (အမြီးရှိုင်း) or *Nă-hpa-kyu* (နှာဖျားကြူး)

Identification. — PLATE I, Fig. 9, Page 1. Length 12 inches, including a tail of 7–8 inches. The throat is black and the under-parts

are more rufous than the upper-parts. In flight a distinct whirring noise is made by the wings.

Voice. — Not recorded.

Habits and Food. — Except that it prefers drier forests and is partial to dense regrowth on the edge of cultivation its habits do not differ from those of the Black Racket-tailed Magpie.

Nest and Eggs. — The breeding season is probably in April and May. The nest is like that of the preceding species, perhaps smaller and neater, and the eggs average 0·91 by 0·71 inches.

Status and Distribution. — This species is typically a bird of the Dry Zone, though it extends as far north as Monywa and Myitkyina and straggles south to Rangoon; there are no breeding records outside the Dry Zone, but it has been seen in the Myitkyina district as late as the 17th May and possibly breeds there. Outside Burma it occurs in Siam and Northern Malaya.

THE WHITE-WINGED JAY

Glenargus leucopterus (38).

Identification. — Length 16 inches, including a tail of 8-9 inches. The whole plumage is black except for a large white wing-patch. A deep rolling metallic note is constantly uttered. The White-winged Jay is an arboreal bird of evergreen forest, and is usually seen in small parties, which are excessively restless and always on the move; it flies from tree to tree, generally at a considerable height, and calls continually.

Nest and Eggs. — The breeding season is from March to April. The nest is built in a bush, small tree or palm some 6 to 8 feet from the ground, and is a rough heavy cup-shaped affair of twigs and roots. The eggs, 2 or 3 in number, resemble large eggs of the Green Magpie and average 1·32 by 0·91 inches.

Status and Distribution. — This species extends from Sumatra northwards through Malaya to Tenasserim as far north as Tavoy, where it is common and resident.

THE BURMESE JAY

Garrulus leucotis leucotis (40).

Allied Form.—

SHARPE'S JAY, *G. l. oatesi (41).*

Local Names. — None recorded.

Identification. — PLATE I, Fig. 10, Page 1. Length 12 inches. This bird is usually first seen flying away, when the pure white rump contrasting with the black tail and the large amount of white on the head and throat identify it. At a close range the black crown, erectile crest and moustachial streak, the reddish-brown back, and the blue and black barring on the wings are distinctive features. The flight appears weak and laboured with a rather quick jerky action of the rounded wings. It is liable to be confused with the next species (*q.v.*).

Voice. — The usual call is a loud and very harsh *skaaak-skaaak*, uttered by several members of a party; a prolonged high-pitched mewing note, *wheee-chu, wheee-chu,* seems to be uttered by one bird only out of the party whilst the rest continue their harsh cries.

Habits and Food. — This Jay is a forest bird and seems to favour the drier types; it is partial to oak and pine forests in the hills and to *indaing* forest in the plains. It is usually seen in pairs or small noisy parties, and is wary, restless and easily alarmed. It moves by rather long heavy hops both on branches and on the ground, frequently jerking the tail up and down or from side to side. It feeds on fruit and insects, and the eggs and young of other birds.

Nest and Eggs. — The breeding season is from March to May. The nest is a wide untidy cup of twigs, grass and roots built at varying heights in a tree. The eggs, 3 to 6 (generally 4 or 5) in number, are pale yellowish to pale greenish in colour, finely stippled all over with olive-brown. They average 1·29 by 0·90 inches. The hen is said to be a very close sitter.

Status and Distribution. — This species is confined to Burma. It has been recorded from all the eastern hills except in the Myitkyina district, and also from the Chin Hills, Upper Chindwin, Central Burma, and the fringe of the Pegu Yomas in the Toungoo district. It is local and capricious in its distribution, but is common in the North Chin Hills, the high *indaing* forests of the Katha and Shwebo districts, and the oak forests of Maymyo, and is not uncommon in Karenni. It is found from the plains up to 6,000 feet, and is a resident species.

RIPPON'S JAY

Garrulus bispecularis haringtoni (45).

Allied Form.—

THE CHINESE JAY, *G. b. sinensis (45a).*

Identification. — In size and appearance this closely resembles the preceding species, but it has the forehead and crown the same colour as the back and not white.

Nest and Eggs. — Unknown for these two races, but probably similar to those of the Burmese Jay.

Status and Distribution. — This species is found along the Himalayas, extending eastwards to Yunnan. Rippon's Jay is resident in the Chin Hills, and the Chinese Jay in the Adung valley. Except that it is apparently confined to the higher hills it does not seem to differ in habits from the Burmese Jay.

THE YUNNAN NUTCRACKER

Nucifraga caryocatactes yunnanensis (46a).

Identification. — Length 15 inches. A dark chocolate-brown bird spotted with white; the white edges to the tail-feathers are conspicuous in flight. It has a loud harsh call and feeds chiefly on pine seeds.

Nest and Eggs. — The nest of the Himalayan race resembles a neat Crow's nest, but lined with pine needles and grass. The eggs are pale sea-green with large blotches of brown and neutral tint.

Status and Distribution. — This race has been recorded from the Adung valley, where it is presumed to be resident. Other races extend across Asia and Europe, and the typical race is a rare vagrant to the British Isles.

Family PARIDÆ

TITS

Members of this family are found in Europe, Asia and parts of Africa, and the various species are much alike in their actions and

behaviour. They are small, plump, thick-necked, stumpy-billed birds, active and sprightly in all their movements. They feed mainly on trees, clinging to twigs in a variety of acrobatic postures and gently flicking the wings and tail as they move about; they also frequently forage amongst dead leaves and debris on the ground. The flight is usually more or less direct from tree to tree and though fairly swift appears weak and laboured. When on the ground they hop.

THE BURMESE GREAT TIT

Parus major commixtus (57).

Allied Form.—

THE INDIAN GREAT TIT, *P. m. nipalensis (51).*

Local Names. — None recorded.

Identification. — PLATE II, Fig. 1, Page 10. Length 5 inches. The upper-parts are grey in the Indian race and greenish-grey in the Burmese race. The flight is feeble and dipping.

Voice. — Very diverse. A loud cheery whistle *tsee-tsee-tsee* is a common call and a scolding *churr* is often heard; in the breeding season a number of louder and clearer calls are uttered, of which the most familiar is a ringing *tink-tink-tink;* the chief form of song is the so-called "saw-sharpening," a strongly metallic *teechu-teechu-teechu.*

Habits and Food. — Those of the family. Like the Burmese Jay it seems partial to oak and pine forests in the hills and *indaing* forest in the plains. It feeds on insects, seeds and fruits and in times of stress on almost anything it can find; a meaty bone or a split coconut hung up in a tree is much appreciated.

Nest and Eggs. — The breeding season is from March to July and two broods are probably reared. The nest is built in a hole, which may be in a wall, bank, tree or rock, and the old nesting hole of a Woodpecker or Barbet is sometimes used. The eggs, 4 to 6 in number, are broad ovals with a faint gloss. They are white in colour, speckled and spotted with reddish-brown and pale purplish, the markings tending to form a zone round the larger end. They average 0·70 by 0·54 inches.

Status and Distribution. — The Great Tit is an interesting species of wide range. It is a familiar bird in the British Isles and extends thence throughout Europe, North-west Africa, and the greater part of Asia to Japan and Southern China. It has been divided into a great number of races, which fall into two groups: the European group with green backs and yellow under-parts, and the Asiatic group with grey backs and whitish or buff under-parts (often known as Grey Tits).

It is found throughout the higher hills of Burma, and also in the plains and lower hills of North-East and Central Burma; it appears to be absent from the Pegu Yomas, but is common in tidal jungle at the mouth of the Rangoon river; it is a common bird of Maymyo gardens.

[Note: — THE TIBETAN GREAT TIT, *Parus major tibetanus (56),* is said to occur in the Bhamo hills (F. B. I., Vol. 1, Page 78). In the absence of satisfactory proof it cannot be admitted to the Burma List.]

PLATE II

		See Page No.
1.	**BURMESE GREAT TIT** (adult) *Parus major commixtus*	10
2.	**VELVET-FRONTED NUTHATCH** (adult female) *Sitta frontalis corallina*	20
3.	**BURMESE NUTHATCH** (adult male) *Sitta castanea neglecta*	19
4.	**INDIAN SULTAN TIT** (adult male) *Melanochlora sultanea sultanea*	13
5.	**BLACK-THROATED LAUGHING-THRUSH** (adult) *Dryonastes chinensis propinquus*	22
6.	**WHITE-BROWED LAUGHING-THRUSH** (adult) *Dryonastes sannio*	23
7.	**BURMESE WHITE-CRESTED LAUGHING-THRUSH** (adult) *Garrulax leucolophus belangeri*	23
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9.	**STRIATED BABBLER** (adult) *Argya earlii*	30
10.	**WHITE-THROATED BABBLER** (adult) *Argya gularis*	31

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THE YUNNAN GREEN-BACKED TIT

Parus monticolus yunnanensis (59a).

Identification. — Length 5 inches. It differs from the Great Tit in having the under-parts bright yellow. Its usual note is a very loud whistle of four syllables, *ti-ti-tee-it*, the third syllable being much prolonged. A bird of the mountains and higher hills, sometimes found at low elevations in winter (there is one record at 1,000 feet in the Myitkyina district).
Nest and Eggs. — The breeding season is chiefly in the end of March and in April, but eggs may be found as late as June. The eggs, 6 to 8 (occasionally 4 or 5 only) in number, are like those of the Great Tit and average 0·72 by 0·52 inches.
Status and Distribution. — This species is found throughout the Himalayas, extending eastwards to Yunnan and Formosa, and in Burma has been recorded from the Chin Hills (where it is common) and North-East Burma.

THE CHIN HILLS MARSH TIT

Parus palustris hypermelas (62a).

Identification. — Length 4 inches. It is the same size as the Coal Tit, from which it is distinguished by the absence of a white patch on the nape, the brown (not olive-grey) upper-parts, and the absence of wing-bars.
Nest and Eggs. — Unknown.
Status and Distribution. — The species is widely distributed in Europe and Asia, and is a familiar bird in the British Isles. The Chin Hills race has been recorded from Mt. Victoria.

[Note: —THE YUNNAN MARSH TIT, *Parus palustris poecilopsis (62), is* resident in Yunnan and is likely to occur on the mountains of North-East Burma. The record given in the F. B. I., Vol. 1, Page 82, cannot however be accepted.]

THE HIMALAYAN COAL TIT

Parus ater æmodius (64).

Identification. — Length 4 inches. Except for a large white spot on the nape the head pattern is like that of the Great Tit, but this bird is much smaller and duller and is at once distinguished by an erect pointed crest.
Nest and Eggs. — Like other Tits it lays white eggs with red spots in a hole in a tree. The eggs average 0·71 by 0·51 inches.
Status and Distribution. — The Coal Tit is a common bird in the British Isles, whence it extends to Northern Africa and throughout most of Europe and Asia. The Himalayan race is a bird of high elevations, and in Burma has only been recorded from the Adung valley, where it is probably resident.

THE SIKKIM BLACK TIT

Parus rufonuchalis beavani (67).

Identification. — Length 5 inches. A larger and darker bird than the Coal Tit with a similar crest but no white spots on the wing-coverts.
Nest and Eggs. — More or less unknown for this race. The typical race usually nests on the ground, either under stones or in holes.
Status and Distribution. — This species ranges all along the Himalayas from Turkestan to Western China; it is seldom seen below 8,000 feet and in Burma has only been recorded from the Adung valley.

[Note: — THE YUNNAN BROWN CRESTED TIT, *Parus dichrous wellsi (69).* is resident in Yunnan and is said to have occurred in the Northern Shan States (F. B. I., Vol. 1, Page 87). In the absence of satisfactory proof it cannot be admitted. It is easily recognized from other Crested Tits by the grey chin and throat.]

THE CHINESE YELLOW-BROWED TIT

Sylviparus modestus saturatior (72).

Identification. — Length 4 inches. The general colour is olive-green above and greyish-yellow below; there is a short yellow eyebrow and a yellow ring round the eye.

Nest and Eggs. — Unknown.

Status and Distribution. — This species is found along the Himalayas and extends eastwards to China. The Chinese race has been recorded from Mt. Victoria and the mountains of North-East Burma, at elevations over 6,000 feet. Very little is known of its habits.

THE BURMESE BLACK-SPOTTED YELLOW TIT

Machlolophus spilonotus subviridis (74).

Allied Form.—

THE NORTHERN BLACK-SPOTTED YELLOW TIT, *M. s. spilonotus (73).*

Local Names. — None recorded.

Identification. — Length 5½ inches. A large Tit with a loose pointed black crest tipped with yellow and striking plumage: spotted yellow and black with hints of green and grey. It cannot be confused with any other bird.

Voice. — It is said to utter a loud *Did-he-do-it, Did-he-do-it, No he didn't* soon after dawn breaks, generally from the top of some tree. It also has other notes resembling those of the Great Tit.

Habits and Food. — This bird is usually seen in pairs, which often attach themselves to the mixed hunting parties so characteristic of the higher hills. It frequents oak and pine forests in the hills, working through the undergrowth and lower canopy and often entering compounds and gardens. It is a bold familiar bird and does not mind being watched. Its habits are similar to those of the Great Tit.

Nest and Eggs. — The breeding season is from April to June. The nest and eggs are typical of the family, and the eggs average 0·73 by 0·53 inches.

Status and Distribution. — This species is found along the Himalayas from Nepal eastwards to Yunnan, and also through Burma to Tenasserim; it is resident almost throughout the higher hills of Burma, and though not as yet recorded from the Arakan Yomas and the Upper Chindwin it probably occurs there also. It is fairly common in parts, notably in the hills of North-East Burma and in the Karen Hills and Karenni, but it has not been recorded from Maymyo.

THE SHAN RED-HEADED TIT

Ægithaliscus concinnus pulchellus (79).

Allied Forms.—

HUME'S RED-HEADED TIT, *A. c. manipurensis (78).*
THE CHINESE RED-HEADED TIT, *A. c. concinnus (80).*

Local Names. — None recorded.

Identification. — Length 4 inches. A diminutive bird of the higher hills, which is always seen in parties in trees and bushes. The longish tail, conspicuous black eye-patch, and buff crown are distinctive features. The flight is weak and not sustained.

Voice. — The members of a party constantly utter a very high-pitched call-note, almost like the squeak of a bat; a soft gentle *tcheck* alternating with a harsh *tree,* and a low churring note have also been described.

Habits and Food. — This attractive little Tit is equally at home in the branches of high trees in thick forest and amongst the bushes of open grassy hillsides. Fussy sociability is its leading characteristic, and throughout the year it is found in parties of about a dozen birds. These often attach themselves to the mixed hunting parties of small birds that wander through the hill forests, suddenly filling with busy activity a ravine or clump of trees that a moment before was empty of bird life. It is one of the most active of all the Tits, and apparently so engrossed in its feeding that it will often give an entertaining display of acrobatics within a yard or two of a patient observer. The food consists almost entirely of insects in their various stages, but small seeds and fruits are probably eaten as well.

Nest and Eggs. — The breeding season is from March to May. The nest is built in a variety of situations ranging from a tangle of matted grass to a branch 40 feet from the ground, but is usually found in stunted hill oaks and bushes within easy reach. It is a beautiful nest, closely resembling the "bottle" nest of the Long-tailed Tit in the British Isles, being a large, upright, egg-shaped structure of moss and lichen bound together with cobwebs and with a small entrance hole high up on one side. The walls are thick and closely woven, and there is a dense lining of feathers sometimes mixed with seed down.

The tiny eggs, 3 to 8 (usually 5 or 6) in number, are broad ovals with little or no gloss; in colour they are creamy-white or pinkish with a conspicuous zone of minute reddish and purple specks at the larger end. They average 0·56 by 0·45 inches.

Status and Distribution. — This species extends from Chitral eastwards along the Himalayas to Assam and thence through Burma to China. In Burma it is resident in the Chin Hills, probably the Upper Chindwin (no record), North-East Burma, probably in the Northern Shan States (no record), Southern Shan States and Karenni. It is not found below 3,000 feet and is nowhere very common. It is represented by three races in Burma and the distribution of each is given on page 497.

THE CHINESE BLACK-HEADED TIT

Ægithaliscus bonvaloti bonvaloti (81).

Allied Form.—

THE MT. VICTORIA BLACK-HEADED TIT, *Æ. b. sharpei (82).*

Identification. — This differs from the preceding species in having a black head with a white coronal streak. Habits unknown.

Nest and Eggs. — Unknown.

Status and Distribution. — The Chinese race is resident in Western China and Yunnan and in Burma has only been recorded from the Adung valley; the Mt. Victoria race is only known from Mt. Victoria. It is a bird of high elevations.

THE INDIAN SULTAN TIT

Melanochlora sultanea sultanea (87).

Allied Form.—

THE MALAY SULTAN TIT, *M. s. flavocristata (88).*

Local Names. — Chinghpaw: *Bainam-chawkang.*

Identification. — PLATE II, Fig. 4, Page 10. Length 8 inches. The outer tail-feathers are tipped with white. In the female the black parts are replaced by greenish-brown.
Voice. — A variety of shrill calls. The commonest is *chip-tree-tree*, and a plaintive high-pitched *pway-pway-pway* is sometimes heard. It also has a chattering alarm-note like that of the Great Tit.
Habits and Food. — This bird keeps to the tree-tops in moist and evergreen forests, occasionally visiting more open country. It goes about in small parties of half a dozen birds, searching for insects, fruits and seeds in the foliage. Its actions are somewhat slower and more deliberate than those of the smaller Tits.
Nest and Eggs. — Very little is known about the breeding habits of this species. A nest found in Assam in May was built in a crevice in a big bough of an oak tree, and consisted of a pad of moss with a dense lining of seed down. The eggs, 7 in number, were like those of *Machlolophus* and averaged 0·76 by 0·60 inches. Fully fledged young have been seen in Central Burma at the end of July.
Status and Distribution. — This species extends from Nepal eastwards along the Himalayas to Assam and thence through Burma and Malaya to Sumatra. It is sparingly distributed almost throughout Burma, but is very local and seldom met with, though in one or two localities it is not uncommon. Unlike other Tits it is a bird of the plains and foothills, seldom if ever ascending over 3,000 feet. The Malay race is confined to Tenasserim and the Indian race is the form elsewhere.

Family PARADOXORNITHIDÆ
PARROTBILLS & SUTHORAS

In this family the bill is greater in depth than in length in all except *Conostoma*, and the margins of the mandibles in most species are curiously sinuate, having the appearance of a miniature Parrot's bill. The birds are gregarious in habits and build cup-shaped nests in reeds or bushes.

THE GREAT PARROTBILL

Conostoma æmodium (89).

Identification. — Length 12 inches. A brown bird, paler below, with a greyish-white forehead. It is found in small parties in the mountains, scrambling about bamboos, reeds and high grass and hunting for insects on which it chiefly feeds. Its flight is weak and fluttering and its call-note is a loud bleat.
Nest and Eggs. — The nest is a cup of grass built in the dwarf bamboo of mountain forests. The only two eggs known are dull white sparsely speckled and smudged with yellowish-brown and inky-purple. They average 1·10 by 0·84 inches.
Status and Distribution. — This species extends along the Himalayas from Nepal to Western China. In Burma it has only been recorded from the mountains of the Yunnan frontier in the Myitkyina district.

[Note: —GUOLD'S PARROTBILL, *Paradoxornis flavirostris (90)*, is said to occur in the Chin Hills (F. B. I., Vol. 1, Page 106) but in the absence of satisfactory proof it cannot be admitted. It is however likely to occur, both in the Chin Hills and the Upper Chindwin, and is distinguished from the next species by having the throat barred black and white and bordered below with a black band.]

AUSTEN'S PARROTBILL

Paradoxornis guttaticollis (91).

Identification. — Length 7 inches. The general colour is pale brown above and whitish below. The two black patches, one round the eye and the other on the ear-coverts, separated by a small white patch, and the straw-coloured crown are distinctive. A bird of grassy undergrowth in the higher hills. The call-note consists of a harsh peculiar series of 6-7 notes on a monotone, lasting about 2 seconds. The "song" is a musical ascending scale of notes.

Like other members of the family it goes about in small parties and skulks in grass and reeds; it climbs with considerable agility but is very loath to fly and usually flutters only a few yards into thicker cover when disturbed. It feeds on insects, seeds and berries.

Nest and Eggs. — The breeding season is from April to early June. A very compact and deep nest of soft grasses, well coated with cobwebs and lined with fine grass stems, is built in reeds, a bamboo clump or a bush. The eggs, 2 or 3 in number, are pure white in colour, very sparsely speckled with tiny pinkish-brown marks. They average 0·87 by 0·65 inches.

Status and Distribution. — This species extends from Assam through Burma to Western China; it has been recorded from Mt. Victoria, North-East Burma, the Shan States and Karenni and is confined to the higher hills and mountains. It appears to be rather scarce.

THE BROWN SUTHORA

Suthora unicolor canaster (92).

Identification. — Length 8 inches. A brown bird, paler below, with a white ring round the eye and a black eyebrow.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends along the Himalayas from Nepal eastwards to Yunnan and the Tibet-China border. It has only been recorded once from Burma, at 7,000 feet on the Yunnan frontier in the Myitkyina district, where it is probably resident.

BLYTH'S SUTHORA

Suthora poliotis poliotis (94).

Allied Forms.—

SALVADORI'S SUTHORA, *S. p. feae (96).*

RIPPON'S SUTHORA, *S. p. ripponi (97).*

Identification. — Length 4 inches. The small size, rufous crown, white cheek and white under the eye, black chin and throat, and Parrot-like bill set in an attractive little face distinguish this species. The upper-parts are bright orange-brown and the wings mostly black and chestnut. Usually found in parties in grassy undergrowth in the higher hills and mountains. The ordinary call-note is a very plaintive little bleat, constantly uttered by each member of the party; it also has a variety of low cheeps and churring notes.

This active and delightful little bird is found either singly or in small parties in any kind of heavy cover, such as *ponzo*, the denser undergrowth in evergreen forest, and the stunted cane jungle of high elevations. It is far from shy and a party will work past within a few feet of a man standing still. It feeds on insects and grass seeds, and in habits it much resembles the Red-headed Tit.

Nest and Eggs. — The breeding season is during May and June. A very neat little cup-shaped nest of fine grasses, well fastened with cobwebs and lined with the finest grass stems, is built low down in a thick bush or tangle of creepers. The eggs, usually 3 in number, are rather broad ovals in shape and a deep unspotted blue in colour; they average 0·62 by 0·47 inches.

Status and Distribution. — This species is confined to Yunnan, Burma, and the Himalayas as far west as Sikkim. It is widely but sparingly distributed in the higher hills of Burma from 4,000 feet upwards, and is represented by three races, the distribution of which is given on page 499.

BINGHAM'S SUTHORA

Suthora gularis craddocki (98).

Identification. — This resembles the preceding species in size and general appearance, but has brown and not grey ear-coverts, and more of an orange tinge on the breast.

Nest and Eggs. — Unknown.

Status and Distribution. — This race is only known from the Mekong watershed in Kengtung, Southern Shan States, and like others of the family is a bird of the higher hills.

ANDERSON'S SUTHORA

Suthora brunnea brunnea (99).

Identification. — Length 5 inches. A very beautiful little bird with the whole head chestnut and the breast pink; the rest of the plumage is olive-brown, paler below. Like other Suthoras it feeds in brambles, grass and bracken on open hillsides or under open forest, and is far from shy. It is said to keep up a continuous twitter when feeding.

Nest and Eggs. — The breeding season is from April to early June. The nest is carefully concealed in a clump of reeds or grass, or in a thick bush or tangle of creepers; it is a rather deep cup of bamboo leaves and grass blades, lined with finer grass. The eggs, 3 or 4 in number, are broad ovals in shape and a fairly deep unspotted blue in colour; they average 0·64 by 0·50 inches.

Status and Distribution. — Anderson's Suthora is resident in the higher hills of North-East Burma and also in the Mogok hills, and is common at Sinlumkaba. Outside Burma it is found in Yunnan.

THE FULVOUS-FRONTED SUTHORA

Suthora fulvifrons fulvifrons (100).

Identification. — Length 6 inches. The general colour is bright tawny; the back, rump, and a broad band through the eye are olive-yellow; the tail is blackish with bright chestnut on the outer webs; the abdomen is grey.

Nest and Eggs. — Unknown.

Status and Distribution. — This race has been recorded in Burma only from the mountains of the Yunnan frontier in the Myitkyina district. It extends westwards along the Himalayas to Nepal.

THE BLACK-BROWED SUTHORA

Suthora ruficeps atrosuperciliaris (102).

Local Names. — Chinghpaw: *Ganting-gup.*

Identification. — Length 6 inches. This is another brown bird, paler below, but the chestnut on the forehead, crown and hind-neck is a distinctive feature; there is a short black eyebrow. In addition to the characteristic bleat of the family it has a distinctive wheezy call-note, like the twang of a guitar.

This handsome Suthora is a great skulker in dense bamboo thickets, long grass and similar heavy cover, and usually goes about in large parties, often associated with *Gampsorhynchus rufulus;* every now and then an individual emerges for a short spell, chirps loudly once or twice, and then drops back into cover. It often feeds upside down like a Tit.

Nest and Eggs. — Little is known about the nesting habits of this bird. The eggs are pale blue and average 0·75 by 0·55 inches.

Status and Distribution. — The Black-browed Suthora has only been recorded in Burma from North-East Burma, where it is considered to be common in the foothills, and from Thandaung in the Karen Hills; it seems likely to occur in the Shan States. Outside Burma it is found in Yunnan and Assam, and is replaced by another race in Sikkim.

THOMPSON'S SUTHORA

Neosuthora davidiana thompsoni (103).

Identification. — Length 4 inches. This differs from the true Suthoras in having a much shorter and less graduated tail. Top and sides of head bright rufous; upper-parts slate-grey; wings and tail grey-brown; chin and throat black; breast grey tinged with buff; rest of under-parts buff.

Nest and Eggs. — Unknown.

Status and Distribution. — Thompson's Suthora has only been recorded in Burma from the Southern Shan States; nothing is known of its habits.

BAKER'S RED-HEADED PARROTBILL

Psittiparus ruficeps bakeri (105).

Identification. — Length 7 inches. Head, nape, upper back, cheeks and ear-coverts chestnut; upper-parts, wings and tail olive-brown; under-parts buff. When feeding it utters a constant *chee-chirrup*, but when the members of a party are separated from one another the call is the usual bleat of the family, like the plaintive bleat of a kid in distress. Habits similar to those of Austen's Parrotbill (page 15).

Nest and Eggs. — Said to be indistinguishable from those of the next species.

Status and Distribution. — Baker's Parrotbill has been recorded from the Upper Chindwin, North-East Burma, Karenni and Tenasserim, but seems to be nowhere common. It is likely to occur in the Shan States, judging by its distribution. Outside Burma it occurs in Assam and is replaced by another race westwards to Nepal.

THE GREY-HEADED PARROTBILL

Psittiparus gularis gularis (106).

Local Names. — None recorded.

Identification. — Length 6 inches. The grey head with two black stripes, one on each side of the crown, and the yellow bill are distinctive. The upper-parts are brown, forehead and chin black, and under-parts whitish.

Voice. — In addition to the notes of the preceding species this bird has a harsh chattering note of alarm, and when one bird of a pair is calling to the other a loud call of 4 notes on a monotone is used.

Habits and Food. — This is much less of a skulker than other Parrotbills. It is found in parties working through the undergrowth in all types of forest and also in regrowth on abandoned cultivation; it is not afraid of showing itself, and an intruder is greeted with a scolding chatter; in the north it inhabits bamboo jungle of a type found all over the lower Kachin hills, but in the south it seems to prefer higher elevations.

Nest and Eggs. — The breeding season is from April to July. The nest is the usual deep well-made grassy cup of the family and is built in reeds or high grass, a bamboo clump or a bush. The eggs, 2 or 3 (rarely 4) in number, are white tinged with green, grey, yellowish, or reddish and the markings consist of spots and cloudings of brown or neutral tint, either scattered over the larger half of the egg, or confined to the larger end. The eggs average 0·82 by 0·64 inches.

Status and Distribution. — The Grey-headed Parrotbill has been recorded from the Chin Hills, North-East Burma, the Southern Shan

States and Karenni; it is a common bird in Karenni and perhaps elsewhere, and is strictly resident. Outside Burma it extends westwards along the Himalayas to Sikkim.

[Note:— Hartert's race, *P. g. transfluvialis (107)*, is now considered to be the same as the typical race.]

Family SITTIDÆ

NUTHATCHES

Nuthatches are non-migratory birds found in Europe, Asia and Australia. They share with Woodpeckers and Treecreepers the ability to climb about the trunks and branches of trees and search the crevices of the bark for insects and their larvae, which live there secure from the attentions of most insect-feeding birds, but unlike them they do not need the support of their tails against the bark; in consequence they are more agile and lively and by far the most skilful climbers of them all. They move with short jerky leaps and climb upwards, downwards or sideways with equal facility. They are also able to perch on twigs in the normal passerine manner.

Nuthatches usually nest in hollow trees, and are probably best known for their remarkable habit of reducing the size of the entrance hole with mud plaster-work, often of considerable extent, to suit their needs. In a tree the nest consists of a mere lining of bark flakes, but when built in a wall it is more substantial, with a moss foundation and perhaps a lining of fur. The nest site is often close to the ground, and even when robbed is frequently repaired and used again immediately.

THE WHITE-TAILED NUTHATCH

Sitta himalayensis (108).

Identification. — Length 5 inches. It resembles the Chestnut-bellied Nuthatch but is much paler, more tawny, below and has a white patch on the central tail-feathers. The female is rather duller and paler than the male.

Nest and Eggs. — The breeding season is in April. The eggs, 4 to 6 in number, are white with numerous reddish specks and spots, and average 0·72 by 0·55 inches.

Status and Distribution. — This species extends along the Himalayas from Kangra eastwards to Northern Burma; it has been recorded once from the Yinkwetaung (5,500 feet) in the Chin Hills, once from Loi-hsam-hsum (7,500 feet) on the Salween-Mekong watershed, and several times from the mountains east of Myitkyina.

THE CHIN HILLS NUTHATCH

Sitta victoriæ (109).

Identification. — Differs from the preceding species in having the chin, throat, upper breast, and centre of the abdomen white and not chestnut.

Nest and Eggs. — Unknown.

Status and Distribution. — This species is only known from Mt. Victoria.

THE BURMESE NUTHATCH

Sitta castanea neglecta (112).

Allied Form.—

THE CINNAMON-BELLIED NUTHATCH, *S. c. cinnamoventris (111).*

Local Names. — Burmese: *Hnget-pya-chauk* (ငှက်ပြာခေါက်) Chinghpaw: *Hkindi-shi-lip;* Kachin: *Pan-che-lip.*

Identification. — PLATE II, Fig. 3, Page 10. Length 5-6 inches. The female is paler and duller below. In the Cinnamon-bellied race the throat, breast and abdomen are uniform in colour.

Voice. — The usual call-note is a loud *chwit-chwit* or *chwit-it-it,* but it has a considerable variety of notes, among which a shrill repeated *tsit* is common.

Habits and Food. — The Burmese Nuthatch is not uncommon in the plains and foothills, and is very partial to tamarind and *kokko* trees. The Cinnamon-bellied Nuthatch is said to be more of a forest bird, avoiding the plains. It sometimes feeds on the ground on ants and termites, and seems to like hunting on walls, cliffs and banks. It is very sociable and may be seen hunting with *Sitta frontalis* in mixed parties.

Nest and Eggs. — The breeding season is from March to May. The eggs, 2 to 6 in number, resemble those of a Tit, being pure white with specks of brick-red and reddish-violet. They average 0·78 by 0·56 inches.

Status and Distribution. — The Cinnamon-bellied Nuthatch is resident in the Chin Hills, probably the Upper Chindwin (no record), and North-East Burma; outside Burma it extends westwards along the Himalayas to Murree. The Burmese Nuthatch is resident over the rest of Burma and extends into Siam. It is a common bird round Maymyo and in the Plains of Southern Burma. Another race occurs in the plains of Northern India.

AUSTEN'S NUTHATCH

Sitta europæa nagænsis (113).

Allied Forms.—

THE YUNNAN NUTHATCH, *S. e. nebulosa (113a).*

THE KENGTUNG NUTHATCH, *S. e. delacouri (113b).*

Local Names. — Chinghpaw: *Pŭn-cha-leik.*

Identification. — Length 5 inches. The very pale grey under-parts readily distinguish it from other Nuthatches of similar size. The upper-parts are slaty blue-grey; sides of the head and neck grey; a black line through the eye to the nape. It is a bird of the higher hills and appears to favour pine forest, often accompanying parties of Red-headed Tits and Black-spotted Yellow Tits.

Nest and Eggs. — The breeding season is from March to May. The eggs are like those of the Burmese Nuthatch and average 0·74 by 0·56 inches.

Status and Distribution. — Austen's race is found in the Chin Hills and extends to Assam; the Yunnan race is found in North-East Burma and the Southern Shan States, extending to Yunnan; and the Kengtung race has been described from Kengtung State. Outside Burma the species extends across Asia to North-west Africa and Europe, and one race is the common Nuthatch of the British Isles.

THE GIANT NUTHATCH

Sitta magna (115).

Local Names. — None recorded.

Identification. — Length 8 inches. In the field it appears dark grey above and paler below, with a broad black band through the eye; the female has more buff on the breast. The flight is bold and dipping like that of a Woodpecker.

Voice. — This bird has a variety of notes, including (1) a clear flute-like pipe, (2) a trisyllabic call, *get-it-up, get-it-up,* etc., harsh and corvine in character, (3) a curious cry like a mammal's, (4) a call not unlike that of the Pigmy Woodpecker. No. (2) is perhaps the usual call.

Habits and Food. — This fine Nuthatch is usually seen solitary or in pairs. It frequents open forest, especially pine, and is a conspicuous bird wherever it occurs on account of its loud call-notes and bold flight. It is not quite so restless as the smaller Nuthatches and is often seen in a characteristic attitude, head downwards with the head and neck sticking out almost at right angles to the tree, apparently considering where to go next.

Nest and Eggs. — The breeding season is in March and April. The only nest so far recorded had no mud plastering round the entrance, and as the nest contained young birds the eggs are still unknown.

Status and Distribution. — This species is confined to Burma and Yunnan. It is not uncommon in Karenni and parts of the Shan States and has also been recorded from the Mogok hills.

THE BEAUTIFUL NUTHATCH

Sitta formosa (118).

Identification. — Length 7 inches. The Beautiful Nuthatch deserves its name for its lovely colouring. The upper-parts are black streaked with blue, the wings are mostly bright blue, and the under-parts are dull chestnut. The voice is said to be rather low and sweet in tone. It is found in pairs or small parties in the evergreen forests of the higher hills, but is the most shy and elusive of all the Nuthatches. On trees its actions are rather slow and deliberate, but on the wing it is exceptionally swift.

Nest and Eggs. — The nest is usually at a considerable height and contains 4 to 6 eggs, which only differ from those of the Cinnamon-bellied Nuthatch in being larger and broader, averaging 0·81 by 0·60 inches.

Status and Distribution. — This species extends from Sikkim eastwards along the Himalayas to Assam and thence to parts of Burma. It appears to be a rare bird everywhere, and in Burma has been recorded once from the Kachin hills, once from the east of the Southern Shan States and was recently discovered in the Arakan Yomas in the Thayetmyo district. It is probably resident wherever found.

THE VELVET-FRONTED NUTHATCH

Sitta frontalis corallina (119).

Local Names. — Chinghpaw: *Hkindi-shi-lip.*

Identification. — PLATE II, Fig. 2, Page 10. Length 5 inches. The male differs in having a black line running back from the eye to the nape.

Voice. — A mouse-like cheep, *chwit-chwit*, is constantly uttered when feeding, and a trilling note when disturbed.

Habits and Food. — This is the quickest and most active of all the Nuthatches. It is found in all types of forest, in the foothills and higher hills alike, and often hunts in parties of half a dozen birds, searching both the undergrowth and the canopy of the taller trees. It has the usual habits of the family, as described on page 18.

Nest and Eggs. — The breeding season is from February to March in the south, and from March to April in the north. Though it seldom uses clay to reduce the size of the entrance, it often enlarges crevices sufficiently to obtain access to some desirable hollow. The nest is the usual pad of moss, on top of which there is often a plentiful layer of fur and feathers. The eggs, 3 to 6 in number, are rather long ovals in shape and are more heavily blotched than is usual for a Nuthatch. They average 0·68 by 0·52 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region, including Ceylon and nearly all India; it is a common resident throughout Burma at all elevations below 6,000 feet.

Family TIMALIIDÆ

This family contains a very large number of birds, nearly all tropical or sub-tropical in their distribution, and to make it less unwieldy it has been divided into three sub-families, the characters of which will be described as we come to them.

Sub-family TIMALIINÆ.

LAUGHING-THRUSHES, BABBLERS, & FULVETTAS

The members of this sub-family have powerful legs and feet and short rounded wings; as might be expected they are mainly terrestrial in their habits. The great majority are very gregarious, and except in the breeding season are always seen in parties. They feed principally on the ground and keep to the undergrowth, rarely ascending trees. Some of the hill forms move up and down to some extent with the seasons but otherwise these birds are strictly resident.

THE RUFOUS-NECKED LAUGHING-THRUSH

Dryonastes ruficollis (120).

Identification. — Length 10 inches. In the field it appears black with bright chestnut on the sides of the neck and under the tail. It is a noisy bird and keeps up a continual shrill whistling, bursting every now and then into a perfect babel of shrieks, laughs and expostulations. It is very gregarious, collecting in parties that may number anything from 6 to 20 or more birds, but it is a great skulker and difficult to observe. It frequents *kaing* grass and *bizat*, the outskirts of villages where there is suitable cover, and at higher elevations the grass and brambles that spring up where the top of a hill has been cleared of trees. It is not a forest bird.

Nest and Eggs. — The breeding season is from April to May. The nest and eggs resemble those of the Rufous-chinned Laughing-Thrush (see page 26), except that the nest is larger and more massive and the eggs are usually a darker blue and less glossy and average 1·12 by 0·82 inches.

Status and Distribution. — This species extends from Nepal through Assam to Northern Burma. It has only been recorded from the Upper Chindwin and North-East Burma west of the Irrawaddy, but is common round the Indawgyi lake and ascends the hills to 4,000 feet.

OGLE'S LAUGHING-THRUSH

Dryonastes nuchalis (121).

Identification. — Length 5½ inches. On the rare occasions when it affords a view of itself, the slate-grey crown, black chin and throat, and white cheeks and ear-coverts are distinctive. It has a fine song of four or five notes and an unmistakable *churr* when alarmed. Its favourite haunt is *ponzo*, in which its loud rich whistling call at once attracts attention.

Nest and Eggs. — The breeding season is from April to June. The nest and eggs resemble those of the preceding species, though the nest is larger and more massive and the eggs are darker blue and less glossy; the latter average 1·12 by 0·82 inches.

Status and Distribution. — This species is confined to Assam and Northern Burma; it appears to be common in the foothills of the Upper Chindwin and Myitkyina districts, but has not been recorded elsewhere.

THE BLACK-THROATED LAUGHING-THRUSH

Dryonastes chinensis propinquus (122).

Local Names. — None recorded.

Identification. — PLATE II, Fig. 5, Page 10. Length 11 inches. The black and white head pattern should prevent confusion with any other species.

Voice. — This is one of the few good songsters in Burma, and its repertoire of powerful clear musical notes is a pleasure to hear; it also has many of the harsher notes of the family.

Habits and Food. — This bird is a great skulker and favours dense cover such as thick *lantana* scrub, bamboo thickets and the undergrowth in evergreen forest. Small parties are sometimes seen, but unlike other members of the family it is usually solitary.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends into Burma from South-west China and Yunnan. It is resident in the Karen Hills, Shan States, Karenni, and Tenasserim, and has also been recorded from Mandalay and Pegu, but whether it is resident below 2000 feet is doubtful. It is common round Lashio, in the Karen Hills, and probably elsewhere in suitable localities.

THE KACHIN HILLS LAUGHING-THRUSH

Dryonastes cærulatus kaurensis (125).

Local Names. — Kachin: *Wo-krang-krang-frong.*

Identification — Length 11 inches. Forehead and round the eye black; upper-parts rufous-brown; under-parts white; sides of breast and abdomen ashy. A bird of the higher hills with a very fine, almost human, whistle.

Nest and Eggs. — The breeding season is from April to June. The nest is built in a bush or bamboo clump and is usually made of bamboo leaves lined with roots. The eggs, 2 or 3 in number, are pale blue-green in colour, like the eggs of *Garrulax moniliger* but smoother and closer in texture, and average 1·20 by 0·85 inches.

Status and Distribution. — This species extends from Nepal eastwards along the Himalayas to Yunnan. The Kachin hills race is resident in Yunnan and North-East Burma, and appears to be confined to the higher hills over 5,000 feet.

THE WHITE-BROWED LAUGHING-THRUSH

Dryonastes sannio (126).

Local Names. — Kachin: *Shong-shay, Wo-frow;* Chinghpaw: *U-mănu;* Lashi: *Pi-ao.*

Identification. — PLATE II, Fig. 6, Page 10. Length 10 inches. The yellowish-white cheeks and eyebrow contrasting with the chestnut head and throat distinguish this species. A bird of the higher hills.

Voice. — It is a noisy bird, especially in the mornings and evenings, when the whole party breaks into a cheerful tumult with a loud but not unmusical chatter.

Habits and Food. — This is one of the few Laughing-Thrushes that allows a satisfactory view at close range, being less of a skulker than most. It is usually seen in small parties, sometimes singly or in pairs, working through scrub jungle or the undergrowth inside forest; it turns over the leaves on the ground and occasionally hops out into the open to snap up a grasshopper or cricket. In the north it is a bird of the open hillsides where bracken and wild raspberry predominate.

Nest and Eggs. — The breeding season is from February to July. The nest is a cup of grass and rootlets built in a bush or small tree, usually close to the ground. The eggs, 2 to 4 in number, vary from pure white to pale blue, and are extremely hard and glossy in texture. They average 1·02 by 0·77 inches.

Status and Distribution. — This species extends from Assam through Burma to South-east China. It is resident in the higher hills of North-East Burma, the Shan States, and the Mogok hills, and is very common round Maymyo.

AUSTEN'S LAUGHING-THRUSH

Dryonastes galbanus (127).

Identification. — Length 10 inches. The yellow under-parts are distinctive. The crown and nape are ashy-brown with an ashy-white eyebrow; rest of head and chin black; upper-parts brown. Its habits are said to resemble those of the Rufous-chinned Laughing-Thrush.

Nest and Eggs. — Indistinguishable from those of the preceding species.

Status and Distribution. — This species is confined to Manipur and the Chin Hills, and little is known about it.

THE BURMESE WHITE-CRESTED LAUGHING-THRUSH

Garrulax leucolophus belangeri (129).

Allied Forms.—

THE HIMALAYAN WHITE-CRESTED LAUGHING-THRUSH, *G. l. hardwickii (128).*

THE SIAMESE WHITE-CRESTED LAUGHING-THRUSH, *G. l. diardi (130).*

Local Names. — Burmese: *Wă-yaung-hnget gaung-byu* (ဝါးယောင့်နှစ် ခေါင်းမြီး); Chinghpaw: *Wa-yen.*

Identification. — PLATE II, Fig. 7, Page 10. See also wrapper. Length 12 inches. Common in parties in the foothills.

Voice. — These are very noisy birds, constantly calling to one another in notes of varying degrees of harshness and every few minutes

indulging in an outburst of cackling and laughing calls in which each member of the party tries to out-shout the rest. Quite a pleasing song is sometimes heard.

Habits and Food. — This is perhaps the most characteristic bird of the teak forests, and is invariably seen in parties of a dozen or so birds, some of which work their way through the bamboos and undergrowth whilst others hunt along the ground and turn over leaves; they are the least shy and most inquisitive of the Laughing-Thrushes, investigating carefully everything they cannot understand. An intruder is invariably greeted with one of their outbursts of noise, which they often accompany with dancing and flapping of wings, and if he " freezes " they indulge in comic antics in their efforts to make him out.

Nest and Eggs. — The breeding season is from the end of March to May, with second broods to the beginning of August. The nest is usually built in a bush and is a broad shallow cup, generally made of grass and bamboo leaves rather loosely put together and bound with plant stems and tendrils. The eggs, 3 to 5 (rarely 2 or 6) in number, are hard and glossy in texture with numerous pits, a feature shown by no other member of the family; they are spherical in shape, pure china-white in colour, and average 1·11 by 0·90 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region, extending westwards along the Himalayas to Simla. It is a common resident throughout the forests of Burma, and though it has been seen at 7,000 feet in the north it does not normally occur over 4,000 feet. It is represented by three races, the distribution of each being given on page 498.

THE BURMESE BLACK-GORGETED LAUGHING-THRUSH

Garrulax pectoralis meridionalis (133).

Allied Forms.—

THE INDIAN BLACK-GORGETED LAUGHING-THRUSH, *G. p. pectoralis (132).*

THE INDIAN NECKLACED LAUGHING-THRUSH, *G. moniliger moniliger (134).*

THE BURMESE NECKLACED LAUGHING-THRUSH, *G. m. fuscata (135).*

Local Names. — Burmese: *Wă-yaung-hnget* (ဝေရှည်ငှက်)

Identification. — PLATE II, Fig. 8, Page 10. Length of *pectoralis* 13 inches, of *moniliger* 12 inches. The two species are indistinguishable in the field. The flight is planing and the white tips to the tail-feathers show up well.

Voice. — These birds are as noisy as the preceding species, but do not give such a shrill performance.

Habits and Food. — Their habits are similar to those of the White-crested Laughing-Thrush, and they are likewise typical birds of the teak forests. They progress with great hops, both on the ground and from branch to branch of a bush or tree. At a casual glance they appear rather plain-looking, but when viewed in the open in full

plumage they are seen to be beautiful birds with rich tones of olive and brown.

This is the only case in the book in which two species have been taken together, and it has been done in this instance because *pectoralis* and *moniliger* afford one of the most remarkable examples of parallelism to be found among birds. Not only are they so alike in appearance as to be indistinguishable in the field, but they are common in the same localities, and often form a mixed hunting party. Their habits, terrain, courtship, nests and eggs are almost identical, and where the race of one changes from the northern to the southern form, the race of the other changes also.

Nest and Eggs. — The breeding season is from March to June, with second broods into August. The nest is similar to that of the preceding species. The eggs, 3 or 4 (rarely 5) in number, are rather long in shape and smooth in texture with little gloss. They are blue-green in colour and average 1·24 by 0·89 inches *(pectoralis)* and 1·12 by 0·84 inches *(moniliger)*.

Status and Distribution. — These two species extend from Nepal eastwards along the Himalayas to Assam and thence through Burma to Yunnan and Indo-China; they are common residents throughout the forests of Burma up to 5,000 feet, though in some parts one species is much commoner than the other.

McCLELLAND'S LAUGHING-THRUSH

Garrulax gularis gularis (136).

Local Names. — Chinghpaw: *U-pwoi-u-la.*

Identification. — Length 10 inches. The chestnut-brown back and primrose-yellow under-parts are distinctive. Legs bright orange-yellow. It has a rather sweet whistle in addition to the usual cackling notes. It is a very shy bird, frequenting scrub near villages or undergrowth in evergreen forest.

Nest and Eggs. — The breeding season is from April to June. The nest is typical of the genus but is usually built in dense forest. The eggs are more glossy than most, pure white to pale blue in colour, and average 1·15 by 0·81 inches.

Status and Distribution. — This species is confined to Assam, Northern Burma and Laos (Siam). It has been recorded from the Chin Hills (?), Upper Chindwin, and the Myitkyina district at elevations up to 4,000 feet, but appears to be scarce everywhere. Judging by its distribution it is likely to occur in the Shan States.

TICKELL'S LAUGHING-THRUSH

Garrulax strepitans (139).

Identification. — Length 12 inches. A brown bird with a black face, a reddish tinge on the crown and nape, and the throat and breast chocolate-brown. Eyes red or crimson, bill black. A noisy but shy bird, found in large parties in forest, especially along ravines.

Nest and Eggs. — Unknown.

Status and Distribution. — This species is found only in Tenasserim and parts of Siam, and is said to be not uncommon in the former.

THE WHITE-SPOTTED LAUGHING-THRUSH

Garrulax ocellata ocellata (140).

Identification. — Length 12 inches. Forehead, crown and nape black; face and eyebrow tawny; upper-parts tawny to reddish-brown with white spots;

centre of throat black; sides of throat rufous barred with black; under-parts tawny, the breast barred with black; secondaries tipped with white.

Nest and Eggs. — The only nest on record was a large loose structure of grass, fern, moss and roots. Eggs unknown.

Status and Distribution. — This race extends from Nepal eastwards along the Himalayas to North-East Burma, where it has been recorded from the mountains of the Yunnan frontier.

THE ASHY LAUGHING-THRUSH

Garrulax cineracea cineracea (141).

Allied Form.—

STYAN'S LAUGHING-THRUSH, *G. c. styani (142).*

Identification. — Length 9 inches. A broad eyebrow dull white; forehead, crown and nape black; a broad moustachial streak black; upper-parts olive-ashy; under-parts tawny. No bars or spots on the upper-parts. A bird of the higher hills, found in small family parties or pairs, which constantly utter low conversational notes, some sweet and some harsh, but never break out into a paroxysm of sound.

Nest and Eggs. — The breeding season is in March and April. The nest and eggs are typical of the genus, and the latter are pure unspotted blue and average 1·00 by 0·73 inches.

Status and Distribution. — The typical race is resident in Assam and the Chin Hills, and Styan's race extends into the east of the Shan States from Yunnan. It appears to be common in the Chin Hills, but is seldom seen below 5,000 feet.

THE RUFOUS-CHINNED LAUGHING-THRUSH

Garrulax rufogularis subsp. *(143a).*

Identification. — Length 9 inches. General colour rich olive-brown and grey squamated with black; a large ring of grey round the eye; a broad olive-green eyebrow; chin and throat rufous; under tail-coverts deep chestnut. It is not a noisy bird but has a large variety of notes, some of which are harsh and loud and others soft and mellow.

Nest and Eggs. — The breeding season is from May to July, with second broods up to September. The nest is made of twigs and tendrils lined with rootlets and the eggs, 2 to 4 in number, are very smooth and fragile, pure white in colour, and average 1·04 by 0·74 inches.

Status and Distribution. — This species extends from Nepal eastwards along the Himalayas to Assam and has been recorded once from the Upper Chindwin and once from Sadon, Myitkyina district. These two specimens differ from others and probably belong to a new race. It seems to be a rare bird, but is resident where found.

THE CHIN HILLS LAUGHING-THRUSH

Garrulax austeni victoriæ (147).

Identification. — Length 9½ inches. The general colour is reddish-brown, with pale streaks on the crown, nape and neck; under-parts paler with white edges to the feathers. A bird of high elevations.

Nest and Eggs. — The nest and eggs of this race are unknown. The typical race breeds in April and May. The nest resembles that of the preceding species, and is usually built quite close to the ground. The eggs, 2 or 3 in number, are pure white, fragile in texture with a very slight gloss, and average 1·04 by 0·75 inches.

Status and Distribution. — The Chin Hills race is resident in the Chin Hills, but has not been recorded elsewhere, though it is likely to occur in the Upper Chindwin west of the Chindwin river. It is replaced by the typical race in Assam.

THE BLUE-WINGED LAUGHING-THRUSH

Garrulax squamatus (164).

Local Names. — Kachin: *Wo-krang-krang-mut.*

Identification. — Length 10 inches. A black eyebrow reaching to the nape. Some individuals have the upper-parts rufous olive-brown and the tail bronze with a chestnut tip; others have the crown grey and the tail deep black. Wings black with a bright blue patch; under-parts tawny. The variations in the colour of the crown and tail are purely individual, unconnected with sex or age. It is a conversational rather than a noisy bird and many of its notes are rich and full. It frequents evergreen forest, especially ravines covered with dense jungle and the banks of rivers and streams.

Nest and Eggs. — The nest is always built low down in a thick bush or tangle of creepers, and is a compact bulky cup of dead leaves, roots and tendrils, lined with rootlets. The eggs, 2 or 3 in number, are spotless blue-green, very smooth and fine in texture but soft and with little or no gloss. They average 1·16 by 0·82 inches.

Status and Distribution. — This species extends from Nepal eastwards along the Himalayas to Yunnan. It has been recorded from Mt. Victoria, North-East Burma, the Mogok hills, Northern Shan States and Kengtung, but appears to be scarce everywhere and confined to the higher hills. It is resident where found.

CRANBROOK'S STRIATED LAUGHING-THRUSH

Garrulax striata cranbrooki (178a).

Identification. — Length 12 inches. One of the largest of the family. Whole plumage brown, paler below, and streaked with white everywhere except on the crown. Two brown bands, one on each side of the crown, meet on the nape. It has an alarm-note like that of a Blackbird and feeds mainly on seeds.

Nest and Eggs. — The breeding season is probably from April to July. The nest is the usual deep cup, about 10 inches in diameter, and the eggs are pale blue and average 1·24 by 0·93 inches.

Status and Distribution. — Cranbrook's race has been recorded at elevations over 4,000 feet in North-East Burma, and is fairly common in bamboo forest. Other races extend westwards along the Himalayas to the Sutlej valley.

[Note: — AUSTEN'S STRIATED LAUGHING-THRUSH, *Garrulax striata austeni (178)*, has been recorded as breeding in the Chin Hills but in the absence of specimens it cannot be admitted. The species no doubt occurs there and also in the Upper Chindwin.]

THE SPOTTED-BREASTED LAUGHING-THRUSH

Garrulax merulinus merulinus (179).

Identification. — Length 10 inches. A brown bird with a spotted breast, very Thrush-like in appearance; the bill is long and slender. A noisy bird with a wide range of beautiful notes and many others less pleasing, including a deep churring note. It is a great skulker and usually found in parties of 10 to 20 birds in deep wet forest and bamboo jungle.

Nest and Eggs. — The breeding season is from April to July. The nest is typical of the genus and the eggs, 2 or 3 in number, are a pale unmarked blue with a soft satiny texture, almost without gloss but very smooth, and average 1·13 by 0·85 inches.

Status and Distribution. — This race is resident in the Chin Hills, Upper Chindwin, and North-East Burma (Fort Morton), but appears to be rather scarce. It extends westwards to Assam and is replaced by another race in Annam.

HUME'S RED-HEADED LAUGHING-THRUSH

Trochalopteron erythrocephalum erythrolæma (149).

Allied Forms.—

FORREST'S RED-HEADED LAUGHING-THRUSH, *T. e. forresti (152).*
BLYTH'S RED-HEADED LAUGHING-THRUSH, *T. e. melanostigma (154).*
KARENNI RED-HEADED LAUGHING-THRUSH, *T. e. ramsayi (155).*

Local Names. — None recorded.

Identification. — Length 11 inches. In general appearance a dull-looking bird with a very dark head and breast; the chestnut crown, spotted neck and gilded wings and tail are not conspicuous in the forest. A common bird of the higher hills, found in parties in the undergrowth.

Voice. — The ordinary call is a loud *yoŭ woŭld bĕlĭēve ĭt,* the accent and the highest note falling on the second syllable of believe; there are also variants of this call, and members of a party utter low conversational notes. Forrest's race is said to have a sort of hissing whistle on two notes.

Habits and Food. — This Laughing-Thrush is usually found in parties, occasionally in pairs; it frequents dense bamboo thickets and thick undergrowth in evergreen forest, feeding on or near the ground. It is very shy and secretive and on the rare occasions when it emerges into the open it flutters and hops back into cover at the slightest excuse. It feeds on insects and seeds.

Nest and Eggs. — The breeding season is from May to August. The nest is a large cup of dead leaves bound with grass, fine twigs and long strips of fibrous bark till a very solid wall has been made; moss and ferns are also used and there is a lining of fine grass and rootlets. The eggs, 3 in number, are very long ovals, fine and compact in texture with a slight gloss. The ground colour is a delicate pale greenish-blue with a few spots and streaks of brownish-red, mostly towards the larger end. They average 1·20 by 0·82 inches.

Status and Distribution. — This species is found all along the Himalayas, and throughout the hills of Burma to Tenasserim. It is confined to the higher hills and mountains, but seems to be very common wherever it occurs; this is certainly true in Karenni and North-East Burma. It is represented by four races in Burma, the distributions of which are given on page 501.

THE ASSAM CRIMSON-WINGED LAUGHING-THRUSH

Trochalopteron phœniceum bakeri (157).

Local Names. — Chinghpaw: *Marang-shagà-u;* Maru: *Hpyŏk.*

Identification. — Length 9 inches. Sides of the head, a patch on the neck, and part of the wing crimson; a short eyebrow black; tail black tipped with orange; rest of plumage olive-brown, paler below. It is said to have a great variety of calls both harsh and sweet.

Nest and Eggs. — Like those of the next species except that the eggs are rather paler.

Status and Distribution. — This race is resident in the Chin Hills, and extends into Assam; it is replaced by another race westwards along the Himalayas to Nepal.

THE BURMESE CRIMSON-WINGED LAUGHING-THRUSH

Trochalopteron ripponi (158).

Local Names. — Kachin: *Krang-shong-maling.*

Identification. — Length 9 inches. Similar to the preceding species but has the crimson of the head extending on to the sides of the neck, throat and eyebrow; the under-parts are greyish-yellow and the tail is narrowly tipped with ochre instead of broadly with orange. The ordinary call is a loud musical double note, *chi-chweew, chi-chweew,* and the members of a party utter low churring notes. Its habits do not differ from those of the Red-headed Laughing-Thrush.

Nest and Eggs. — The breeding season is from April to June. The nest is the usual well-made cup and the eggs, 2 or 3 (rarely 4) in number, are very beautiful; the colour is a deep blue marked with dark maroon lines, blotches and spots. The eggs average 1·03 by 0·73 inches.

Status and Distribution. — This species is only found in the eastern hills of Burma, from the Bhamo hills to Karenni, at elevations over 4,000 feet. It appears to be rather scarce everywhere.

THE BURMESE RED-TAILED LAUGHING-THRUSH

Trochalopteron milnei sharpei (159).

Local Names. — Kachin: *Krang-sheng-kabr.*

Identification. — Length 11 inches. In the undergrowth this bird appears blackish except for the grey ear-coverts; on the wing the bright red tail and wing-tips are conspicuous. A bird of the higher hills, which utters a low churring note when not alarmed. It skulks about in small parties or pairs in the densest undergrowth and cane-brakes, and is more often heard than seen. Like some others of the family it is very shy but also rather inquisitive, and if one remains still it soon shows itself in its attempts to make out the intruder.

Nest and Eggs. — The breeding season is from April to May. The nest is typical and is usually built in the dense undergrowth of a ravine. The eggs are unlike any others of this family and have a pure white ground sparingly spotted and blotched with reddish-brown or blackish, exactly like an Oriole's eggs. They average 1·13 by 0·82 inches.

Status and Distribution. — This species extends into Burma from Yunnan and is resident in the higher hills from North-East Burma southwards to Kengtung. It is said to be common round Sadon in the Myitkyina district.

THE PLAIN-COLOURED LAUGHING-THRUSH

Trochalopteron subunicolor griseata (160a).

Identification. — Length 9 inches. The general colour is olive-brown, darker on the head, and with black margins to the feathers below; there is some golden-yellow on the wing. It has a clear whistle of four notes, is not very shy, and feeds on berries.

Nest and Eggs. — The nesting habits of this race are unknown, but the typical race breeds from April to June and lays 3 or 4 spotless blue eggs, averaging 1·03 by 0·70 inches.

Status and Distribution. — This species extends from Nepal eastwards along the Himalayas to Yunnan and has been recorded from the Yunnan frontier in North-East Burma at elevations over 6,000 feet.

THE BLACK-FACED LAUGHING-THRUSH

Trochalopteron affine oustaleti (161a).

Identification. — Length 10 inches. Head and neck black except for the white cheeks and a large white patch behind the ear-coverts; upper-parts brown of various shades, wings with some golden-yellow; tail slaty-blue and bright golden-yellow; under-parts brown, paler on the breast. It has a mournful and monotonous song of 4 notes, constantly repeated, and feeds on berries.

Nest and Eggs. — The breeding season is from May to June. The nest is quite typical and the eggs, generally 2 in number, are blue in colour with a few spots and blotches of purplish-black at the larger end. They average 1·12 by 0·84 inches.

Status and Distribution. — This species has a similar distribution to the preceding one: from Nepal eastwards to Yunnan. In Burma it has only been recorded from the Adung valley and the Yunnan frontier in North-East Burma at high elevations.

THE MANIPUR STREAKED LAUGHING-THRUSH

Trochalopteron virgatum (170).

Identification. — Length 10 inches. A long white eyebrow; upper-parts brown of various shades, the wings ashy; chin and throat deep chestnut, shading off into yellowish-buff towards the tail. It is said to be less noisy than most of its relations, though it has some quite pleasant notes, and it is generally seen in pairs and not in parties.

Nest and Eggs. — The breeding season is from May to July. The nest is quite typical and the eggs, 2 or 3 in number, are a pale unspotted blue with a soft satiny texture and average 1·02 by 0·76 inches.

Status and Distribution. — This species is confined to the higher hills of Assam and the Chin Hills, but is likely to occur in the Upper Chindwin also. It is resident where found.

THE CHINESE BABAX

Babax lanceolatus lanceolatus (180).

Allied Form.—

MT. VICTORIA BABAX, *B. l. woodi (181).*

Identification. — Length 11 inches. A brown bird boldly striped above and below and with a broad blackish moustachial streak. The tail is long (5-6 inches) and graduated. A bird of the higher hills, which is said to keep up a continuous flow of soft and musical notes, varied occasionally by a harsher outburst; it also has a curious whistling note, very easily imitated, and at times makes a noise like a creaking gate hinge. It is a rather shy and typical Babbler, favouring thin scattered forest and the more open hillsides covered with reedy grass or bracken and brambles. In its actions and at a distance it resembles *Argya earlii.*

Nest and Eggs. — The breeding season is from April to June. The nest is a cup of dead leaves, grass, bits of bracken, etc., lined with roots and built in a low bush. The eggs, 2 to 4 in number, are rather long pointed ovals, fine and close in texture without gloss, and a dark spotless blue in colour; they average 1·08 by 0·80 inches.

Status and Distribution. — The Chinese Babax extends into Burma from Western China and Yunnan, and is resident in North-East Burma, the Mogok hills, and the Northern Shan States. The Mt. Victoria race is only known from the Chin Hills. It is not a common species and is not found below 4,000 feet.

[Note: — THE YUNNAN BABAX, *Babax koslowi (182a),* an all-rufous bird with obsolete streaks only, is found on the Mekong watershed and will probably be discovered some day on the Yunnan frontier in Northern Burma.]

THE STRIATED BABBLER

Argya earlii (191).

Local Names. — None recorded.

Identification. — PLATE II, Fig. 9, Page 10. Length 9 inches. The chin, throat and breast are rufous with dark stripes.

Voice. — It is said to be very noisy, but no details have been recorded.

Habits and Food. — The Striated Babbler is found only in extensive areas of *kaing* grass, wide grassy plains, and marshy tracts. It is gregarious and found in parties throughout the year, including the breeding season. The members of a party clamber through grass and bushes and flutter from one patch of cover to another in follow-my-leader style, seldom descending to the ground and feeding chiefly on insects.

Nest and Eggs. — The breeding season is principally during the rains. It prefers marshy land, where it makes a nest in the reeds like that of a large Reed Warbler; or else it makes a larger and more untidy nest of grass and reed blades in a low bush or thicket of grass. The eggs, 3 or 4 in number, are rather broad ovals in shape, fairly glossy, and a bright deep blue in colour. They average 0·90 by 0·69 inches.

Status and Distribution. — This species has been recorded from Arakan, round Bhamo, Central Burma, and the Plains of Southern Burma. It is common and resident in suitable localities. Outside Burma it extends westwards across India to Sind.

THE WHITE-THROATED BABBLER

Argya gularis (194).

Local Names. — The Seven Sisters; Burmese: *Zwe.* (ဇွဲ)

Identification. — PLATE II, Fig. 10, Page 10. Length 10 inches, including a tail of 5½ inches; an untidy brown bird with a long moth-eaten tail and a white throat and breast. The flight is said to be rocketing, with the small round wings extended and the tail spread fanwise.

Voice. — It is said to be for ever complaining in a harsh grating voice.

Habits and Food. — The White-throated Babbler is usually seen in small parties frequenting compounds and dry scrub jungle; it seems very busy as it hops about with the tail held at various angles, hunting for insects and turning over the fallen leaves.

Nest and Eggs. — The breeding season is from early April to late May. The nest is like that of the preceding species, and the eggs, usually 3 or 4 in number, are also a glossy deep blue and average 0·89 by 0·73 inches.

Status and Distribution. — This species is found only in Burma; it is one of the most familiar birds of Mandalay and the Dry Zone, whence it straggles down the Irrawaddy and Sittang valleys to Henzada and Rangoon. It is found only in the plains.

[Note:— THE SLENDER-BILLED BABBLER, *Argya longirostris (197),* has not been recorded from Burma but it is resident in Manipur and Chittagong and is likely to occur in the Upper Chindwin or the Chin Hills. It is nearly always found in long grass covering wide extents of hill and valley. The upper-parts are deep reddish-brown with no streaks or spots; the chin, throat and cheeks are white and the remaining under-parts are rusty; in size and general appearance it resembles the White-throated Babbler.]

TWEEDDALE'S SLATY-HEADED SCIMITAR BABBLER

Pomatorhinus schisticeps nuchalis (203).

Allied Form.—

GRANT'S SLATY-HEADED SCIMITAR BABBLER, *P. s. mearsi (201).*

Local Names. — None recorded.

Identification. — PLATE III, Fig. 1, Page 32. Length 9-11 inches. Liable to be confused with the next species *(q. v.)*.

Voice. — The ordinary call consists of 3 to 6 hoots uttered at varying speeds but generally lasting 1 second; another bird often answers this call with a slower *chu-chee*, the second note being much higher than the first. The alarm-note is much lower in pitch, a trilling *chyu-chir-ir-ir-ir-ir*. Members of a party utter low churring notes when feeding.

Habits and Food. — The various Scimitar Babblers are gregarious birds with similar habits; they are great skulkers, living on the ground or in thick cover close to the ground and only occasionally ascending trees; they are very shy and conceal themselves so well that they are seldom seen, but their loud characteristic call-notes betray their presence. They frequent the very thickest pieces of jungle, not merely where the bushes themselves are thick but where the low undergrowth is entangled and intricate. With two exceptions they are birds of the higher hills, not found below 3,000 feet.

This species is typical of the family, but is one of the two exceptions noted above; it is common at low elevations and is a characteristic bird of the teak forests.

Nest and Eggs. — The breeding season is from March to May. All Scimitar Babblers nest on the ground or on sloping banks, and most species make a domed nest though a few make the ordinary cup-shaped nest. It is usually composed of grass, leaves and fibres. The eggs are always white. This species is quite typical in its nesting habits and the eggs, usually 2 or 3 in number, average 0·98 by 0·72 inches.

Status and Distribution. — This species has not been recorded from Northern Burma (Upper Chindwin, North-East Burma, and the Northern Shan States), but elsewhere it is a common resident throughout the forests, ascending to about 5,000 feet. Westwards it extends all along the Himalayas. The distribution of the two races is given on page 501.

HARINGTON'S SHAN SCIMITAR BABBLER

Pomatorhinus olivaceus ripponi (205).

Allied Form.—

THE TENASSERIM SCIMITAR BABBLER, *P. o. olivaceus (204).*

Local Names. — None recorded.

Identification. — Length 8–9 inches. This differs from the preceding species in having no chestnut band down the breast and flanks, the chestnut being confined to the sides of the neck, but it is rarely possible to see this in the field.

Voice.
Habits and Food. } Much the same as the preceding species.

PLATE III

		See Page No.
1.	TWEEDDALE'S SLATY-HEADED SCIMITAR BABBLER (adult) *Pomatorhinus schisticeps nuchalis*	32
2.	BURMESE RED-CAPPED BABBLER (adult) *Timalia pileata intermedia*	35
3.	INDIAN YELLOW-EYED BABBLER (adult) *Chrysomma sinensis sinensis*	37
4.	GYLDENSTOLPE'S YELLOW-BREASTED BABBLER (adult) *Mixornis rubricapilla sulphurea*	45
5.	MALAY SPOTTED BABBLER (adult) *Pellorneum subochraceum*	38
6.	BURMESE QUAKER BABBLER (adult) *Alcippe poiocephala fusca*	46
7.	COMMON IORA (juvenile male) *Ægithina tiphia tiphia*	62
8.	FEA'S SIBIA (adult) *Leioptila melanoleuca castanoptera*	51
9.	GOLD-FRONTED CHLOROPSIS (adult male) *Chloropsis aurifrons aurifrons*	63
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PLATE III

Nest and Eggs. — The breeding season is from January to March in Tenasserim, March to April in the north. The nest and eggs are indistinguishable from those of the preceding species.

Status and Distribution. — The Shan States race has been recorded only from the Shan States and Mogok hills (and the Kachin hills?), but is very common round Maymyo. The Tenasserim race extends from Tenasserim southwards into the Malay Peninsula. Judging by its distribution the species should occur in the Karen Hills and Karenni, but so far no one has found it there.

WALDEN'S CORAL-BILLED SCIMITAR BABBLER

Pomatorhinus ferruginosus mariæ (213).

Allied Forms.—

PHAYRE'S CORAL-BILLED SCIMITAR BABBLER, *P. f. phayrei (211).*

BLYTH'S CORAL-BILLED SCIMITAR BABBLER, *P. f. albigularis (212).*

STANFORD'S CORAL-BILLED SCIMITAR BABBLER, *P. f. stanfordi (213a).*

Identification. — Length 9 inches. The coral-red bill distinguishes it from all except *ochraceiceps (q.v.)*. The head markings are very like those of *schisticeps* (Plate III, Fig. 1) but the upper-parts are browner. It is a quiet bird for a Scimitar Babbler, though a party will occasionally burst into a chorus of sweet full notes. The alarm-note is a low grating *churr*. It is often seen solitary.

Nest and Eggs. — The breeding season is from April to May, extending to August. The nest and eggs are typical of the genus (see under *schisticeps*, page 32) and the eggs average 1·07 by 0·75 inches.

Status and Distribution. — This species extends from Nepal eastwards along the Himalayas to Assam and thence to Tenasserim; it is found almost throughout the higher hills of Burma (not yet recorded from the Arakan Yomas and the Upper Chindwin but likely to occur in both areas); it seems to be rather scarce everywhere. The distribution of the four races is given on pages 501 and 503.

BAKER'S RUFOUS-NECKED SCIMITAR BABBLER

Pomatorhinus rufcollis bakeri (215).

Allied Form.—

THE YUNNAN RUFOUS-NECKED SCIMITAR BABBLER, *P. r. similis (215a).*

Identification. — Length 8 inches. The orange bill and small size are distinctive. The general appearance is similar to that of *schisticeps* (Plate III, Fig. 1). A bird of the higher hills, partial to bracken-covered hillsides.

Nest and Eggs. — The breeding season is from March to May. The nest and eggs are typical (see under *schisticeps*, page 32) and the eggs, 3 to 5 in number, average 0·92 by 0·69 inches.

Status and Distribution. — Baker's race is resident in Assam and the Chin Hills, and the Yunnan race in North-East Burma and Yunnan; one or the other probably occurs in the Upper Chindwin. The typical race extends westwards along the Himalayas to Nepal. This species is not normally seen below 4,000 feet.

LLOYD'S SCIMITAR BABBLER

Pomatorhinus ochraceiceps ochraceiceps (216).

Allied Forms.—

HUME'S SCIMITAR BABBLER, *P. o. austeni (217).*

AUSTEN'S SCIMITAR BABBLER, *P. o. stenorhynchus (218).*

Identification. — Length 9 inches. The red bill distinguishes it from all except *ferruginosus*, which it also resembles in having a long white eyebrow with a blackish band below it; in this species however the bill is half as long again as the head, slender, and greatly curved, whereas in *ferruginosus* it is

no longer than the head, stouter, and less curved. Moreover in *ferruginosus* the colour is a deep coral-red, whereas in this species it is a much paler red. Both are birds of the higher hills.

It has a single musical call-note, unlike that of any other Scimitar Babbler; other notes described are a soft full *hoot-hoot* and a pleasant whistling chuckle. It is a great skulker, generally found in pairs, and keeps to bamboo thickets and dense undergrowth in evergreen forest.

Nest and Eggs. — The breeding season is from April to June. The nest and eggs are typical of the genus (see under *schisticeps*, page 32); the eggs, 3 to 5 in number, average 0·99 by 0·72 inches.

Status and Distribution. — This species is found only in Assam and Burma. It is resident in the Upper Chindwin, the Myitkyina district, on Pino-taung in the Katha district, in the Karen Hills, Southern Shan States, Karenni, and Tenasserim. It seems to be scarce everywhere, and is represented by three races, the distribution of which is given on page 503. Hume's race and Austen's race may prove to be the same.

McCLELLAND'S SCIMITAR BABBLER

Pomatorhinus macclellandi macclellandi (221).

Allied Form.—

DAVID'S SCIMITAR BABBLER, *P. m. odicus (222).*

Local Names. — Chinghpaw: *Gumpang-graw* or *Jăbăt-u-gaw;* Kachin: *Chi-ba-wo-graw.*

Identification. — Length 11 inches. Resembles the next species but has the breast streaked with dark brown. It has a loud whistling note like that of a Laughing-Thrush and a fine song.

Nest and Eggs. — The breeding season is from March to June. The nest and eggs are typical of the genus (see under *schisticeps*, page 32). The eggs, 2 or 3 in number, average 1·08 by 0·83 inches.

Status and Distribution. — McClelland's race is resident in the Chin Hills and the Assam and David's race is the common Scimitar Babbler of the eastern hills in North-East Burma; it extends across Yunnan into Southern China.

SALVADORI'S SCIMITAR BABBLER

Pomatorhinus erythrogenys imberbis (223).

Local Names. — None recorded.

Identification. — Length 10 inches. An olive-brown bird with the chin, throat, centre of the breast and abdomen white; sides of the neck, thighs and under tail-coverts chestnut. Distinguished from all except the preceding and succeeding species by the absence of a white eye-brow. Bill yellowish-horny.

Voice. — The call-note is loud and distinctive, *callow-creeee, callow-creeee,* with variants. It also has a harsh swearing call.

Habits and Food.
Nest and Eggs. } These are typical of the genus, see under *schisticeps* page 32. It is usually seen in pairs or small parties; the eggs average 1·10 by 0·80 inches.

Status and Distribution. — This race is well distributed and common along the eastern hills from Mogok and the Northern Shan States to Tenasserim; it is resident at Kalaw and Thandaung, but has not been recorded from Maymyo. Other races extend westwards along the Himalayas.

THE ARAKAN SCIMITAR BABBLER

Pomatorhinus hypoleucus hypoleucus (224).

Allied Form.—

TICKELL'S SCIMITAR BABBLER, *P. h. tickelli (225).*

Identification. — Length 12 inches. Like the two preceding species this has no white eyebrow; it is distinguished from them by larger size, and by having the bill longer than the head; there is a rusty patch behind the ear-coverts and the sides of the breast are slaty streaked with white. The ordinary call is a triple hoot, distinguished by its deep mellowness; the male is said to have a deeper hoot than the female. This is the second of the two Scimitar Babblers normally found in the foothills. It is a bird of evergreen forest and is partial to cane-brakes; it is usually seen in pairs and feeds on small shells and snails in addition to insects.

Nest and Eggs. — The breeding season is from the end of March to early May. The nest is a huge oval measuring a foot in length by almost as much in breadth, and the eggs are quite typical and average 1·21 by 0·87 inches.

Status and Distribution. — The Arakan race extends from Assam through Burma west of the Irrawaddy to Southern Arakan, and is replaced by Tickell's race in Tenasserim. It is resident in the foothills, ascending to about 4,000 feet.

THE SLENDER-BILLED SCIMITAR BABBLER

Xiphiramphus superciliaris (226).

Identification. — Length 8½ inches. It has a much longer, more slender, and more curved bill than any other Scimitar Babbler; the head is slaty-grey with a white eyebrow; upper-parts bright rufous-brown; chin and throat white streaked with ashy; rest of under-parts rufous-brown. It is said to have a high-pitched triple hoot, quite sweet in tone but seldom uttered. A bird of high elevations.

Nest and Eggs. — The breeding season is from April to July. It makes a grass-ball nest and the eggs, 3 to 5 in number, average 0·94 by 0·71 inches.

Status and Distribution. — This species extends from Sikkim eastwards along the Himalayas to North-East Burma, where it has recently been recorded from the mountains of the Yunnan frontier.

THE BURMESE RED-CAPPED BABBLER

Timalia pileata intermedia (228).

Allied Form.—

THE BENGAL RED-CAPPED BABBLER, *T. p. bengalensis (227).*

Local Names. — None recorded.

Identification. — PLATE III, Fig. 2, Page 32. Length 7 inches. The flight from one bush to another is very near the ground, and when flying away it appears a uniform brown colour. When a good view is obtained it is unmistakable. The strong shiny black bill is a distinguishing feature.

Voice. — This is a noisy bird with two very distinctive call-notes; one is a harsh call of 5–6 notes rising in pitch and the other, heard chiefly in the breeding season, is a curious combination of a trill and a whistle descending in pitch and is unlike any other bird note. It also has a few sweet notes.

Habits and Food. — Small birds that live in parties in thick cover all have much the same habits. The individuals work from stem to stem unseen down in the thicket, picking insects and their eggs from the leaves and twigs. Then one bird works to the top and suns itself

for a few seconds and utters a snatch of song before plunging again into the cover below, whereupon another bird in turn emerges for his breath of air and sunlight.

The Red-capped Babbler is typically a bird of *kaing* grass but also occurs in *bizat* and similar heavy cover growing in damp localities, provided it is not under trees; it is occasionally seen in gardens. It is not confined to extensive areas of *kaing* grass, like some species, but is found in small patches of an acre or less in extent, often a considerable distance up some jungle stream. Owing to its skulking habits and shy nature it is more often heard than seen.

Nest and Eggs. — The breeding season is from April to July. A domed nest with an entrance near the top is built either on the ground or close to it; it is made of bamboo leaves or grass and lined with grass or a few fine rootlets. The eggs, 3 or 4 (rarely 5) in number, are a pure china-white (rarely pinkish) in colour, densely covered all over with spots and blotches of reddish-brown. They average 0·74 by 0·59 inches.

Status and Distribution. — The Bengal race extends from Nepal eastwards along the foot of the Himalayas to Assam and has been recorded from the Upper Chindwin. The Burmese race is a common resident throughout the rest of Burma in suitable localities; it extends through Siam to Southern China.

THE WHITE-HEADED SHRIKE-BABBLER

Gampsorhynchus rufulus rufulus (232).

Allied Form.—

THE RING-NECKED SHRIKE-BABBLER, *G. r. torquatus (233).*

Local Names. — Chinghpaw: *Kaw-ka-yawk;* Maru: *Maw-kyen-u.*

Identification. — Length 10 inches. The whole head, neck and breast are white; upper-parts golden-brown; under-parts pale tawny, eye yellow. Found in parties in dense thickets.

Voice. — This is a noisy bird and the Chinghpaw name is said to syllabify very aptly its weird grating call-note.

Habits and Food. — Gregarious and by no means shy, it frequents bamboo thickets and the undergrowth in evergreen forest, in the breeding season favouring the densest and dampest parts. It keeps entirely to trees and bamboos, never descending to the ground; being intensely curious it will allow a close approach without resentment. It flies fairly well, being much more active on the wing than most of the family.

Nest and Eggs. — The breeding season is probably from May to July. The nest is a shallow cup of dead leaves, a scrap or two of moss, and one or two tiny twigs, all carelessly and untidily bound together with cobwebs and lined with rootlets and tendrils. The eggs, usually 4 in number, are pale yellowish in colour, well covered with freckles and blotches of reddish-brown, especially at the larger end. They average 0·91 by 0·67 inches.

Status and Distribution. — This species extends from Sikkim eastwards along the Himalayas to Assam and thence through Burma to

the Malay peninsula. It is resident throughout the higher hills of Burma except in the Shan States (where however it is to be expected), and in North-East Burma is found all over the foothills as well. The distribution of the two races is given on page 503.

THE INDIAN YELLOW-EYED BABBLER

Chrysomma sinensis sinensis (234).

Allied Form.—

THE MT. VICTORIA YELLOW-EYED BABBLER, *C. s. minuta (234a).*

Local Names. — None recorded.

Identification. — PLATE III, Fig. 3, Page 32. Length 7 inches, including a tail of 4 inches. The orange eyelids are conspicuous, and the legs are orange-yellow. In open scrub country, usually in parties.

Voice. — Members of a party chatter softly to each other, a soft *chir-chir*. The song is a loud *cheep-cheep-cheep-cheep-cheep*, about two notes per second, followed by a low *kru-kru-kru*, then the loud *cheep* again. It also has a warbling song in which the commonest phrase is *chee-ta-chu-chee-chu*.

Habits and Food. — Though occasionally met with in pairs this pretty little bird is usually seen in parties hunting for caterpillars and other insects. It avoids forest and wanders about in open country, frequenting tall grass, low scrub and clumps of bushes; it is also a familiar garden bird. It has the usual habits of a bird living in parties in thick cover, as described on page 35. It appears to visit the ground very seldom.

Nest and Eggs. — The breeding season is from March to May, though eggs may be found as late as September. The nest is a very compact and beautiful structure, made of broad grass blades and long strips of fine fibrous bark, coated with cobwebs and lined with fine grass stems and roots. It is generally built in an upright fork of a tree or bush about 4 to 6 feet from the ground, or is suspended in thick grass stems like a Reed Warbler's nest. The eggs, normally 5 in number, are broad ovals with a fine smooth texture and a slight gloss; the colour is pinkish-white and the markings are of two types: in one the surface is so thickly and finely mottled and streaked all over with brickdust-red that the ground colour is almost concealed: in the other the surface is sparingly and boldly blotched and streaked with the same colour, besides exhibiting a number of pale inky-purple clouds; combinations of both types occur. The eggs average 0·73 by 0·59 inches.

Status and Distribution. — This species is found almost throughout India, Ceylon, and Burma, extending further east to Siam, Annam and China. It is resident throughout Burma, and though chiefly a bird of the plains it ascends up to 6,000 feet; it is locally common.

JERDON'S BABBLER

Pyctorhis altirostris altirostris (237).

Allied Form.—

HUME'S BABBLER, *P. a. griseigularis (238).*

Identification. — Length 6½ inches, including a tail of 3 inches. Differs from the preceding species in having a yellowish-brown bill, a grey forehead and

greenish-yellow eyelids. It is said to have a peculiar series of notes, which it utters frequently. A skulker in large expanses of *kaing* grass, and so shy that it is rarely seen unless its haunts are flooded.

Nest and Eggs. — Hume's race breeds from April to July. The nest is like that of the Yellow-eyed Babbler, and the eggs are very beautiful; the colour is pink with handsome blotches and smears of reddish-brown or light red and secondary markings of neutral tint. The eggs average 0·71 by 0·58 inches.

Status and Distribution. — Jerdon's race is only known from the Irrawaddy-Sittang plain, where it was abundant half-a-century ago in what were then vast grassy plains but are now paddy fields; whether it still occurs in the area is unknown. Hume's race has been described as common at Bhamo; it extends westwards along the foot of the Himalayas to Bhutan, and is replaced by another race in Sind.

THE MALAY SPOTTED BABBLER

Pellorneum subochraceum (241).

Local Names. — None recorded.

Identification. — PLATE III, Fig. 5, Page 32. Length 6 inches. The rufous cap, white eyebrow and whitish under-parts heavily streaked on the breast are distinctive features. A skulker in undergrowth with persistent call-notes.

Voice. — One of the most familiar sounds of the teak forest, heard chiefly in the mornings and evenings, is the clear *pretty-dear* call-note. Even more familiar is the erratic whistling taken up by bird after bird like a party of schoolboys tunelessly whistling in turn. When disturbed it utters a harsh churring alarm-note, *kraa.*

Habits and Food. — Being a great skulker and rather shy, the Spotted Babbler is far more often heard than seen; it goes about in small parties in bamboos and undergrowth, never ascending into the canopy, and spends much of its life on the ground searching for insects amongst fallen leaves and tangles of grass.

Nest and Eggs. — The breeding season is from March to May, with second broods into August. The nest is built on the ground under the shelter of a stone or bush, or else just off the ground in the base of a bamboo clump, generally amongst fallen leaves and similar rubbish. It is a large globular structure of leaves and grass, with a slight lining of moss roots. The eggs, 2 to 4 in number, are broad regular ovals, compact and fine in texture with a slight gloss; in colour they are very pale greenish- or yellowish-white, profusely speckled all over with reddish-brown and with secondary spots of pale grey and neutral tint. They average 0·85 by 0·65 inches.

Status and Distribution. — This species extends into Burma from Malaya; it is resident in the Pegu Yomas, Karen Hills, Southern Shan States, Karenni and Tenasserim, and is very common throughout the forests in this area, ascending to 5,000 feet.

MANDELLI'S SPOTTED BABBLER

Pellorneum ruficeps pectoralis (243).

Allied Form.—

SHARPE'S SPOTTED BABBLER, *P. r. minor (245).*

Identification. — Length 6 inches. Differs from the preceding species in having the mantle streaked with dark brown, giving a darker appearance. It is far from shy, but otherwise its habits are similar.

Nest and Eggs. — Do not differ from those of the preceding species.

Status and Distribution. — Mandelli's race is resident in the Northern Chin Hills, Upper Chindwin, North-East Burma, North Central Burma, and the Northern Shan States; outside Burma it extends westwards to Nepal. Sharpe's race is confined to a small area in Arakan, Mt. Victoria, and South Central Burma. Other races occur in different parts of India. It is a common species throughout its range in Burma.

[Note: — THE MARSH SPOTTED BABBLER, *Pellorneum palustre (246)*, has not been recorded from Burma but it is common in Assam and may be found some day in the Upper Chindwin. Length 6 inches. Upper-parts olive-brown with only the forehead rufous; wings and tail rufous; under-parts like the Malay Spotted Babbler.]

THE ASSAM BABBLER

Pellorneum albiventre albiventre (247).

Allied Form.—

RIPPON'S BABBLER, *P. a. cinnamomeum (248).*

Identification. — Length 6 inches. Pale brown above and dull white below, with no distinguishing features. A skulker in undergrowth, but not shy. It is said to have a low rippling whistle. Its habits do not differ from those of the Spotted Babbler,

Nest and Eggs. — The breeding season is from May to July. Unlike most other members of the genus it builds its nest well above the ground in bamboo clumps or bushes. The nest is smaller and more compact than that of other species and is a deep cup of grass and bamboo leaves, lined with the former. The eggs, 2 to 4 in number, are pale pink with freckles of rather dark brownish-red profusely scattered over the whole surface, and average 0·79 by 0·59 inches.

Status and Distribution. — The typical race is resident in the Chin Hills and also in Assam. Rippon's race is resident in North-East Burma, the Karen Hills, Shan States, and Karenni; outside Burma it extends to Annam. It is not a common species, and is confined to the higher hills.

THE BLACK-CAPPED BABBLER

Pellorneum nigricapitatum (251).

Identification. — Length 7 inches. A rusty-brown bird with a black cap, grey eyebrow, and white chin and throat. Its call-note is said to be a single loud note, and it is usually solitary or in pairs. It frequents dense cover, especially cane-brakes, and is seldom seen off the ground.

Nest and Eggs. — The only nest recorded was made of coarse fern roots on a foundation of twigs and leaves, and was built on the ground; it contained two creamy-white eggs, densely speckled all over with inky-purple and purplish-brown, which averaged 0·82 by 0·62 inches.

Status and Distribution. — This species extends from Sumatra northwards through Malaya to South-west Siam and the extreme south of Tenasserim.

TICKELL'S BABBLER

Drymocataphus tickelli tickelli (252).

Allied Forms.—

AUSTEN'S BABBLER, *D. t. assamensis (253).*

THE CHINESE BABBLER, *D. t. ochraceus (253a).*

THE ARAKAN BABBLER, *D. t. grisescens (253b).*

Identification. — Length 6 inches. Upper-parts olive-brown and under-parts tawny. The call-note is a loud *pit-you, pit-you,* etc., uttered fairly rapidly. It skulks in dense undergrowth and is partial to bamboo thickets near streams in evergreen and moist forests; it feeds mostly on the ground and flies with reluctance.

Nest and Eggs. — The breeding season is from April to May, with second broods into July. The nest is built in a low bush or bamboo clump, never

on the ground but often very near it; it is either globular or a deep cup and is made of fine grass and bamboo leaves, with a lining of fine grass. The eggs, 3 or 4 in number, are perfect miniatures of the dull-coloured eggs of the Magpie-Robin and average 0·80 by 0·62 inches.

Status and Distribution. — This species extends from Assam through Burma to Annam and Malaya. It is common locally in the moist parts of the Pegu Yomas and perhaps elsewhere in its range. It has been recorded as high as 7,000 feet. The distribution of the four races is given on page 503.

THE LIME-ROCK BABBLER

Gypsophila crispifrons (254).

Identification. — Length 7½ inches. Whole head, neck and under-parts pure white; upper-parts olive-brown. It keeps up a continuous twittering chattering note and occasionally perches on a point of rock and with lowered wings and erected tail pours out a fine and powerful song. It goes about in pairs or small parties and is a very lively and sprightly bird. It feeds on insects and seeds, and not being at all shy is easy to watch.

Nest and Eggs. — Unknown.

Status and Distribution. — This species is confined to the limestone ranges of Tenasserim, and is said never to wander away from the rocks even for a few yards.

THE SHORT-TAILED WREN-BABBLER

Gypsophila crispifrons (254).

Allied Forms.—

THE STREAKED WREN-BABBLER, *N. b. striata (256).*

VENNING'S WREN-BABBLER, *N. b. venningi (257).*

Identification. — Length 6 inches. A dark brown bird with black tips to the feathers of the upper-parts; chin and throat white; remaining under-parts rusty. The tail is much shorter than the wing, giving a Wren-like appearance. It has low churring notes, a mournful single note *piou*, and a chattering alarm-note. It favours evergreen forest, especially where the terrain is broken up by steep slopes and rocky ravines, and is often seen in the bed of a small pebbly stream during the heat of the day. It is a shy bird and a great skulker, slinking away at the slightest sound or movement.

Nest and Eggs. — The breeding season is from May to June. The nest is always built on the ground, generally in a damp situation at the foot of a tree or rock; it is a deep cup or semi-domed structure of dead leaves, grass and moss, bound together with roots and tendrils, and lined with dead leaves; although fairly well put together the materials are very rotten and the nest falls to pieces when handled; it so closely resembles a lump of decaying vegetation that it is hard to find. The eggs, 2 to 4 in number, are a glossy china-white with a few specks and small blotches of reddish and pale pinkish-purple; they average 0·84 by 0·63 inches.

Status and Distribution. — This species extends from Assam through Burma to Yunnan, Annam and Malaya. It is resident throughout the moist and evergreen forests of Burma, though not as yet recorded from Arakan, and is scarce everywhere. It is found at all elevations up to 7,000 feet.

GRANT'S WREN-BABBLER

Napothera roberti guttaticollis (259).

Identification. — Length 4 inches, tail under 1 inch. A dark brown bird with black specks on the white chin and throat. It has a pleasant but low set of whistling notes and a rather shrill *chir-r-r*. Its habits resemble those of the Wrens.

Nest and Eggs. — The breeding season is from March to April. The nest and eggs resemble those of the preceding species, but the eggs are more spotted and smaller in size, averaging 0·76 by 0·58 inches.

Status and Distribution. — This species is resident in Assam and the Upper Chindwin, and is found at all elevations up to 5,000 feet.

DAVISON'S WREN-BABBLER
Napothera epilepidota davisoni (260).

Allied Form.—
BAKER'S WREN-BABBLER, *N. e. bakeri (261).*

Identification. — Length 4 inches. Differs from the preceding species in having no black spots on the throat; the under-parts are olive-brown, and the flanks and sides of the breast more rufous. Its habits are similar.

Nest and Eggs. — Similar to those of the preceding species, so far as is known.

Status and Distribution. — Baker's race is confined to the Southern Shan States and Karenni, and Davison's race extends from Tenasserim to Northern Malaya. It appears to be a rare species.

[Note: — THE LONG-BILLED WREN-BABBLER, *Rimator malacoptilus (262)*, has not been recorded from Burma, but is common in Eastern Assam and will probably be found one day in the Upper Chindwin. Length 5 inches. It has a very short tail and mottled plumage like *Napothera*, but is distinguished by its long bill, which is as long as the head; it is more like a Scimitar Babbler in habits and has a sweet chirping whistle.]

THE RED-HEADED TREE BABBLER
Malacornis magna magna (263).

Identification. — Length 7 inches. Forehead and crown bright rusty; nape black; upper-parts tawny-brown; a broad grey eyebrow; chin, throat and upper breast white streaked with grey; rest of under-parts greyish-white; legs and feet pale blue. An arboreal forest bird, hunting about in trees and bushes, either in pairs or small parties, and feeding entirely on insects.

Nest and Eggs. — Unknown.

Status and Distribution. — This species is resident in Southern Tenasserim, whence it extends southwards through Malaya to Borneo.

THE BROWN-HEADED TREE BABBLER
Malacornis magnirostre (264).

Identification. — Length 7 inches. The olive-brown crown distinguishes it from the preceding species. Upper-parts olive-brown except for the upper tail-coverts and tail, which are bright chestnut-brown. Feathers round the eye white; under-parts dull white; legs and feet blue. So far as is known its habits do not differ from those of the preceding species.

Nest and Eggs. — More or less unknown.

Status and Distribution. — This species is resident in the extreme south of Tenasserim, whence it extends eastwards to Cochin China and southwards to Malacca.

THE FERRUGINOUS BABBLER
Erythrocichla bicolor (265).

Identification. — Length 7 inches. Upper-parts rusty; under-parts white, suffused with brownish on the breast. Legs and feet fleshy-white. Entirely a ground bird, flying up into trees or bushes when disturbed.

Nest and Eggs. — Unknown.

Status and Distribution. — This species is resident in the extreme south of Tenasserim, whence it extends through Malaya to Borneo and Sumatra.

BLYTH'S BABBLER
Æthostoma rostratum (266).

Identification. — Length 7 inches. The tail is very short (2 inches). It resembles Abbott's Babbler but the tail is olive-brown and the under tail-coverts are white. It is said to be arboreal in habits.

Nest and Eggs. — Unknown.

Status and Distribution. — This species is resident in the extreme south of Tenasserim, whence it extends through Malaya to Borneo and Sumatra.

ABBOTT'S BABBLER

Malacocincla abbotti abbotti (267).

Local Names. — None recorded.

Identification. — Length 7 inches. The very short deep rufous tail is conspicuous. The upper-parts are rich olive-brown and the under-parts paler with rusty under tail-coverts.

Voice. — It has a loud clear call of 3 or 4 notes, rather flat in timbre, which it utters incessantly for an hour after dawn, ¯ _ ¯ or _ ¯ ¯ ¯ .

Habits and Food. — Abbott's Babbler is a skulking bird of evergreen and moist forests, and though not gregarious a number of individuals are generally met with in the same patch of jungle. Where it is common the call is one of the characteristic sounds of the forest and is not easy to overlook. Its habits are similar to those of other Babblers living in undergrowth, and as a rule it keeps to the ground, occasionally ascending trees.

Nest and Eggs. — The breeding season is from February to May. The nest is built in a clump of weeds or a low bush close to the ground, and is a massive cup of dead leaves, weeds and grass compactly bound together and lined with rootlets. The eggs, 3 to 5 in number, are normal ovals in shape with a fine texture and a good gloss; the colour is very beautiful, varying from pale to rich pink with spots, blotches and lines of deep red-brown and paler spots of light red and neutral tint. The eggs average 0·87 by 0·65 inches.

Status and Distribution. — This race extends from Nepal eastwards to Assam and thence through Burma to Siam and Malaya. It is resident in Arakan, the east side of the Pegu Yomas from Pyinmana southwards, and Tenasserim; it seems to be common only in Tenasserim.

[Note: — AUSTEN'S SPOTTED BABBLER, *Thringorhina oglei (268)*, has not been recorded from Burma but is resident in Eastern Assam in evergreen forest from 6,000 feet upwards and will probably be found some day in the mountains of the Upper Chindwin. It differs from the next species in having the wings and tail barred with brown.]

TICKELL'S SPOTTED BABBLER

Tringorhina guttata guttata (269).

Allied Form.—

THE BHAMO SPOTTED BABBLER, *T. g. diluta (269a).*

Identification. — Length 7 inches. Round the eye black; a large patch of white below the eye bounded by a black moustachial streak; a white eyebrow to the nape; sides of neck black with long oval white spots; rest of upper-parts golden-brown; chin and throat white; rest of under-parts rusty; bill black; legs and feet pale dingy green. It is found in small parties in evergreen forest and bamboo jungle, keeping to the undergrowth but not descending to the ground.

Nest and Eggs. — Unknown.

Status and Distribution. — This species is confined to Burma and Siam; the Bhamo race is only known from Bhamo and Tickell's race is resident in Tenasserim. It seems to be a rare species everywhere.

THE ASSAM BLACK-THROATED BABBLER

Stachyris nigriceps coltarti (271).

Allied Forms.—

THE MALAY BLACK-THROATED BABBLER, *S. n. davisoni (272).*

THE ARAKAN BLACK-THROATED BABBLER, *S. n.* subsp. *(272a).*

Identification. — Length 6 inches. A rather dark brown bird with a black and white crown and nape and a blackish chin and throat. The call-note is *prrrreeee . . . prrrreeee*, but it is a quiet bird as a rule. It is a typical skulker in thick undergrowth and often accompanies travelling parties of *Alcippe*.

Nest and Eggs. — The breeding season is from May to June. The nest is built on the ground, generally on a bank in almost any kind of cover, and is made of bamboo leaves and grass, and may be either cup-shaped or domed. The eggs, 3 or 4 in number, are broad blunt ovals, stout in texture with a fair gloss, and pure white in colour; they average 0·76 by 0·58 inches.

Status and Distribution. — This species is well distributed in the evergreen and moist forests of the foothills in Burma, though it has not yet been recorded from the Chin Hills and Central Burma; it ascends to 5,000 feet. Outside Burma it extends to Assam and southwards to Malaya.

THE NEPAL GOLDEN-HEADED BABBLER

Stachyris chrysæa chrysæa (273).

Allied Forms.—

THE CHIN HILLS GOLDEN-HEADED BABBLER, *S. c. binghami (274).*

THE BURMESE GOLDEN-HEADED BABBLER, *S. c. assimilis (275).*

THE MALAY GOLDEN-HEADED BABBLER, *S. c. chrysops (276).*

Local Names. — None recorded.

Identification. — Length 4½ inches. A fleeting glimpse of the head and breast, which appear as a golden haze, is all that is usually seen of this tiny bird. The upper-parts vary from bright olive-yellow to olive-green according to the race; under-parts bright yellow. Usually seen in active parties in dense undergrowth in the higher hills.

Voice. — The members of a party keep up a constant soft low twittering, which rises to shriller and louder notes of expostulation when the birds are disturbed. Among its notes is a sibilant call of 3 notes *tzu-tzu-tzu* ascending in pitch, rather like the note of a *Franklinia* in timbre, and a call of several notes on a monotone, like the call-note of *Stachyridopsis* but louder and slower, *pee-pi-pi-pi-pi*, with a very slight pause after the first note.

Habits and Food. — Outside the breeding season it collects in quite large parties, numbering as many as 40 or 50 birds, and is very partial to dense bamboo thickets. It seldom if ever descends to the ground but is perpetually on the move, scrambling or flitting from one twig to another; like other small Babblers of the undergrowth it occasionally ascends trees when feeding. It is not shy and does not mind being watched.

Nest and Eggs. — The breeding season is from May to July. The nest is a small neat facsimile of that of the preceding species and is generally built in a bamboo clump or bush close to the ground. The eggs, normally 4 in number, are pure white in colour, rarely faintly spotted, with a fair gloss and a comparatively hard shell. They average 0·61 by 0·48 inches.

Status and Distribution. — This species extends from Nepal eastwards to Assam and thence through Burma to Malaya and Siam. It is resident probably throughout the higher hills of Burma (no record from the Arakan Yomas and Northern Shan States) and is extremely common in the Karen Hills (Thandaung) and Karenni, and probably elsewhere. The distribution of the four races is given on page 505.

THE RED-HEADED BABBLER

Stachyridopsis ruficeps ruficeps (277).

Allied Form.—

THE BHAMO RED-HEADED BABBLER, *S. r. bhamoensis (278).*

Identification. — Length 5 inches. Very like the next species *(q.v.)*. It has a soft low whistle, seldom used, and a little chattering twitter as it moves about. It is said to be very noisy in the breeding season. Its habits do not differ from those of the next species.

Nest and Eggs. — The breeding season is from April to June. The nest is built low down, either in a bamboo clump or thick bush or in a clump of long overhanging grass. It is a small rather neat egg-shaped structure with the entrance at the top and is made of bamboo leaves, roots and fibres and generally lined with rootlets. The eggs, 3 or 4 in number, are pearly-white with faint specks and small blotches, generally disposed as a ring round the larger end and sparse or absent elsewhere. Some eggs are pure white and others are boldly marked. They average 0·64 by 0·50 inches.

Status and Distribution. — This species extends from Sikkim eastwards to Yunnan and Annam, and has been recorded from Mt. Victoria, North-East Burma and the Southern Shan States; it is likely to occur in the Upper Chindwin and the Northern Shan States. It is common in the Bhamo hills, but apparently not elsewhere. It is found from 1,500 feet upwards, but may descend to the foothills only in winter.

HUME'S RED-FRONTED BABBLER

Stachyridopsis rufifrons rufifrons (279).

Allied Form—

THE ARAKAN RED-FRONTED BABBLER, *S. r. pallescens (279a).*

Local Names. — None recorded.

Identification. — Length 4½ inches. A small brown bird with the forehead rufous, not the whole crown and nape as in the Red-headed Babbler. It is easily confused with the Yellow-breasted Babbler, but has quite a different call-note.

Voice. — It has a persistent and distinctive call-note of about 6 soft notes on a monotone, lasting about 1 second.

Habits and Food. — This is a characteristic bird of the teak forests, and is a typical undergrowth-haunting Babbler, found in small parties feeding near the ground but not actually on it.

Nest and Eggs. — Unknown, but probably similar to those of the Red-headed Babbler.

Status and Distribution. — This species extends from Sikkim eastwards through Burma to Siam; it has not been recorded from the Chin Hills, Upper Chindwin, or North-East Burma, but elsewhere is resident in the forests at all elevations up to 5,000 feet and is common in the Pegu Yomas.

THE RED-WINGED BABBLER

Cyanoderma erythropterum erythropterum (282).

Identification. — Length 5½ inches. A brown bird with red wings and tail, slaty under-parts, and bare light blue skin round the eye. It utters a sharp metallic rolling sound. It is a bird of evergreen forest, frequenting the undergrowth, small trees and cane-brakes in parties and working through the foliage for insects like a Tit.

Nest and Eggs. — The breeding season is from March to April. The nest is built in a bush and is a ball of grass or reed leaves about 6 inches in diameter. The eggs, 2 or 3 in number, are either glossy china-white spotted with reddish all over but chiefly at the larger end, or unspotted and with a bluish tinge. They average 0·67 by 0·54 inches.

Status and Distribution. — This race extends from the extreme south of Tenasserim through the Malay States to Borneo and Sumatra.

GYLDENSTOLPE'S YELLOW-BREASTED BABBLER

Mixornis rubricapilla sulphurea (284).

Allied Forms.—

THE MT. VICTORIA YELLOW-BREASTED BABBLER, *M. r. ticehursti (283a).*
THE MALAY YELLOW-BREASTED BABBLER, *M. r. pileata (285).*

Local Names. — None recorded.

Identification. — PLATE III, Fig. 4, Page 32. Length 5 inches. The breast is a very pale yellow, hardly noticeable in the field; the fine black streaks distinguish it from *Stachyridopsis*. It is found in parties in the undergrowth and draws attention to itself by its loud call-note.

Voice. — The ordinary call-note is a loud *chuk-chuk-chuk-chuk,* 4 to 6 times, persistent and distinctive, uttered from the middle of a bush or bamboo thicket. When feeding undisturbed members of a party utter a low *chee-cha chee-cha.*

Habits and Food. — This is a typical undergrowth-haunting Babbler, and is one of the commonest and most characteristic birds of the teak forests; it is less Tit-like than *Stachyris* and *Stachyridopsis,* creeping and clambering about in a quiet unobtrusive manner instead of moving restlessly from one twig to another; it is not very shy and sometimes enters gardens.

Nest and Eggs. — The breeding season is from March to July. It builds a rough domed nest of grass and bamboo leaves, with a meagre lining of finer grass, either in a bamboo clump or a bush close to the ground. The eggs, 2 to 4 in number, are broad ovals in shape and stout and glossy in texture; the colour is china-white with numerous specks and blotches of red and reddish-brown all over the surface, but chiefly at the larger end. The eggs average 0·65 by 0·49 inches.

Status and Distribution. — This species is found from Sikkim eastwards to Assam and thence through Burma to Malaya and Siam. It is a common resident throughout the forests of Burma, but does not ascend much above 4,000 feet. The distribution of the three races is given on page 505.

THE NEPAL BABBLER

Alcippe nepalensis nepalensis (286).

Allied Form.—

STANFORD'S BABBLER, *A. n. stanfordi (286a).*

Identification. — Length 5 inches. Similar to the Quaker Babbler but has a conspicuous ring of white feathers round the eye, and a blackish stripe on each side of the crown extending to the back.

Nest and Eggs. — The breeding season is from April to July. The nest is like that of the Quaker Babbler only smaller, and the eggs, 2 to 4 in number, are white to pink in ground colour with very variable purple and red markings. They average 0·72 by 0·55 inches.

Status and Distribution. — This species has not been recorded from Central Burma, but otherwise is resident throughout the foothills and higher hills west of the Irrawaddy, and also in the hills east of Myitkyina. It is found from 1,500 feet up to 7,000 feet. Westwards it extends along the Himalayas to Nepal.

THE SHAN STATES BABBLER

Alcippe fratercula fratercula (287).

Local Names. — Kachin: *Chin-ting-wo-lee.*

Identification. — Length 5 inches. Differs from the preceding species in having the chin and throat yellowish like the abdomen and not white, and the white ring round the eye is less conspicuous.

Nest and Eggs. — Similar to those of the preceding species.

Status and Distribution. — This race is resident throughout the eastern hills of Burma from North-East Burma to Tenasserim, and though confined to the higher hills is locally very common. It is replaced by another race in Yunnan.

THE BURMESE QUAKER BABBLER

Alcippe poiocephala fusca (288a).

Allied Forms.—

THE ARAKAN QUAKER BABBLER, *A. p. phayrei (290).*

THE TENASSERIM QUAKER BABBLER, *A. p. davisoni (291).*

THE KARENNI QUAKER BABBLER, *A. p. karenni (293).*

Local Names. — None recorded.

Identification. — PLATE III, Fig. 6, Page 32. Length 6 inches. Some races have a pronounced black streak along each side of the crown and nape.

Voice. — It has a distinctive musical call-note consisting of an up and down whistle, sometimes starting with a lower note and ending with a higher one. This is one of the most characteristic sounds of the teak forests and may be heard at all times of the year, though it is perhaps most persistent in the cold and hot weathers.

Habits and Food. — These birds are always seen in active restless parties working their way rapidly through the bamboos and undergrowth. They are very Tit-like in their actions and spend all their time searching leaves and twigs for insects. The members of a party act independently of each other, but keep up a general communication amongst themselves by continually calling and answering as they move about. They are confiding enough when undisturbed but shy and wary once their suspicions have been aroused. They frequent all types of forest, and any scrub or regrowth there may be nearby.

Nest and Eggs. — The breeding season is from January to September, but most nests are found in May and June. The nest is usually built in a fork or suspended from two or three twigs, and is quite conspicuous as a rule, there being little attempt at concealment; it is a deep cup of moss and dead leaves, lined with rootlets. The eggs, 2 or 3 in number, are moderately broad ovals, fine and glossy in texture. The ground colour is pale pink, marked with blotches and smudges of purple-brown or purple-black, with secondary markings of various shades of grey; the markings are however very variable. The eggs average 0·77 by 0·59 inches.

Status and Distribution. — This species is widely distributed in India, Burma and Siam. In Burma it is resident throughout the forests of the foothills, occasionally ascending to 5,000 feet, and is very common. The distribution of the various races is given on page 504.

[Note: — THE UPPER BURMA QUAKER BABBLER, *Alcippe poiocephala haringtoniae (292)*, is now considered to be a variety of *fusca (288a)*.]

THE TENASSERIM TIT-BABBLER

Schœniparus dubius dubius (297).

Allied Forms.—

THE ASSAM TIT-BABBLER, *S. d. mandelii (298).*
RIPPON'S TIT-BABBLER, *S. d. intermedius (299).*

Local Names. — Kachin: *Prepdor.*

Identification. — Length 5½ inches. The reddish crown and olive-brown upper-parts give it a superficial resemblance to a *Pellorneum*, but the black line on each side of the crown over the prominent white eyebrow and the absence of streaks on the under-parts at once distinguish it. A small bird of the undergrowth in the higher hills.

Voice. — A chattering note *chit-chit-chit-chit-* is constantly uttered and it has a distinctive call-note *chee-chee-chee-chee-chee-hpwit.*

Habits and Food. — This bird is usually seen in pairs or small parties in the undergrowth, especially along the banks of shady streams in evergreen forest. It feeds partly on the ground, partly on low bushes, and sometimes ascends the lower part of a tree trunk like a Nuthatch. It is restless and energetic, and as its name indicates very Tit-like in its actions. It is not a shy bird except in the breeding season, when it becomes rather a skulker and favours grassy undergrowth.

Nest and Eggs. — The breeding season starts in February in Tenasserim, but elsewhere is from April to May. The nest is nearly always built on the ground, usually under the protection of a thick patch of cover or tuft of grass, and always on a more or less sloping bank. It is made of dead leaves mixed with bracken, grass, roots, etc., and is either a deep semi-domed cup or a completely domed egg-shaped affair. The eggs, 3 or 4 (rarely 2) in number, are white or creamy-white, smudged and blotched with yellowish-brown and with a few darker spots and lines. They average 0·82 by 0·61 inches.

Status and Distribution. — This species extends from Assam through Burma to Yunnan and South-west China. It has not been recorded from the Arakan Yomas, but probably occurs there. Elsewhere it is a common resident throughout the higher hills of Burma. The distribution of the three races is given on page 505.

THE RED-THROATED TIT-BABBLER

Schœniparus rufigularis (300).

Identification. — Length 5½ inches. Differs from the preceding species in having a broad chestnut band across the throat; the upper-parts are olive-green, not olive-brown. A bird of the foothills with a low churring note, which draws attention to the presence of a party. It is a great skulker, and moves about almost on the ground in dense cane-brakes and bamboo jungle.

Nest and Eggs. — The nest is like that of the preceding species, and is always built on the ground. The eggs are also similar but greyer and less bold in colour; they average 0·77 by 0·58 inches.

Status and Distribution. — This species has been recorded from the Myitkyina district at elevations between 1,000 and 3,000 feet. It extends westwards along the Himalayas to Bhutan.

THE DUSKY GREEN TIT-BABBLER

Pseudominla cinerea (301).

Identification. — Length 4½ inches. Upper-parts greyish-green; a broad black band on each side of the crown from the forehead to the nape, and below this a pale yellow eyebrow; under-parts yellow. A bird of the higher hills. Its habits do not differ from those of the Tenasserim Tit-Babbler, except that it is said to be even more cheerful and lively, resembling a Warbler in its actions.

Nest and Eggs. — The breeding season is from April to July. The nest is built low down in a bamboo clump or bush; it is a deep cup, semi-domed cup, or complete oval of bamboo leaves and grass blades, lined with rootlets or bamboo leaves, and bound together with tendrils and roots. The eggs, 2 to 4 in number, are pure white to pale brown with specks of dark brown scattered profusely all over the surface and often forming a ring or cap as well; they average 0·72 by 0·56 inches.

Status and Distribution. — In Burma this species has only been recorded from the higher hills east of Myitkyina; it extends westwards along the Himalayas to Nepal.

THE CHESTNUT-HEADED TIT-BABBLER

Pseudominla castaneiceps castaneiceps (302).

Local Names. — Yawyin: *Kyung-bala.*

Identification. — Length 4½ inches. Crown and nape chestnut-brown streaked with white; a broad black streak through the eye; sides of head white; upper-parts olive-green with some black on the wings; under-parts whitish. A bird of the higher hills.

Voice. — It has a harsh little call-note and a rattle of ascending notes.

Habits and Food. — This is a confiding little bird and chiefly arboreal in habits; it climbs about mossy trunks and lichen-covered branches in small parties and searches the crevices of the bark like a Nuthatch. It is often seen amongst rhododendrons.

Nest and Eggs. — The breeding season is from February to April. The nest is either cup-shaped or domed and is built in a thick bush or into the moss growing on a tree trunk; it is usually made of moss and lined with fibres and dry leaves. The eggs are similar to those of the preceding species and average 0·71 by 0·54 inches.

Status and Distribution. — This species has not been recorded from the Arakan Yomas, but elsewhere in Burma is resident from about 4,500 feet upwards on all the higher hills and mountains and is very common on Nattaung, Mulayit, and other high peaks; it extends eastwards to Yunnan and westwards to Sikkim.

THE CHIN HILLS FULVETTA

Fulvetta vinipectus ripponi (306).

Allied Form.—

OUSTALET'S FULVETTA, *F. v. bieti (306a).*

Identification. — Length 5 inches. Upper-parts shades of chestnut; a white eyebrow with a reddish-brown line above it; chin and throat white, the latter with reddish-brown spots; rest of under-parts tawny. It constantly utters a soft *chip-chip* note and its habits are similar to those of the preceding species. A bird of the mountains.

Nest and Eggs. — The nest is built in a low bush inside forest; it is a deep well-made cup of grass and leaves thickly bound together with green moss and lined with fine roots. The eggs, 2 or 3 in number, are grey or grey-blue with sparse bold markings of dark brown on the larger end and with a few underlying blotches of pale neutral tint; they average 0·64 by 0·51 inches.

Status and Distribution. — This species extends from Simla eastwards to Yunnan; it is resident at high elevations in the Chin Hills and North-East Burma, and probably in the Upper Chindwin also.

THE YUNNAN FULVETTA

Fulvetta manipurensis yunnanensis (307a).

Local Names. — Yawyin: *Shu-di.*

Identification. — Length 4½ inches. It differs from the preceding species in wanting the white eyebrow and in having the upper-parts dull orange towards the tail. It looks very like a Tit and closely resembles *Alcippe fratercula* but is smaller and has a more rufous back. It skulks in evergreen and high-level forests.

Nest and Eggs. — Unknown.

Status and Distribution. — This race is resident in Yunnan and the mountains of the Yunnan frontier in North-East Burma at elevations above 7,000 feet. Another race is found in Manipur.

[Note: — RIPPON'S FULVETTA, *Fulvetta ruficapilla sordidior (308),* has not been recorded from Burma, but is resident in Yunnan and may be found some day on the Yunnan frontier; eggs of a Fulvetta obtained in the east of the Shan States were doubtfully referred to this species. The absence of a white eyebrow, chestnut crown and white ring round the eye distinguish it from other Fulvettas.]

THE YUNNAN GOLDEN-BREASTED FULVETTA

Lioparus chrysotis forresti (309).

Identification. — Length 4½ inches. Crown, nape and back ashy; rump and upper tail-coverts olive-green; black, dark brown and orange-yellow on the wings; ear-coverts, cheeks and a ring round the eye silvery-white; chin and throat silvery ashy-brown; remaining under-parts bright orange-yellow. A bird of wet tree forest on the mountains.

Nest and Eggs. — The breeding season is in May and June. The nest is built in a bamboo clump as a rule and is either a very deep cup or domed. It is made of bamboo leaves and grass, lined with grass, rootlets or feathers. The eggs, usually 3 in number, are pinkish with blotches and spots of brown and pale neutral tint, chiefly in a ring round the larger end. They average 0·83 by 0·52 inches.

Status and Distribution. — This species extends from Nepal eastwards along the Himalayas to Yunnan and has been recorded at 7,800 feet in the mountains east of Myitkyina, where it is no doubt resident.

Sub-family SIBIINÆ.

SIBIAS, BARWINGS, STAPHIDIAS, SIVAS, YUHINAS, IXULUSES & HERPORNIS

The members of this sub-family differ from the *Timaliinæ* in having comparatively longer wings and shorter and weaker legs and feet; they also differ in habits, being strictly arboreal and seldom if ever feeding on the ground; neither do they scramble and climb about the undergrowth but hop from branch to branch in the canopy, take easily to flight, and are much less noisy in their ways. The sexes are alike in plumage and often brightly coloured. The White-bellied Herpornis is the only member of the sub-family commonly found at low elevations, all the others being birds of the higher hills and mountains.

THE LONG-TAILED SIBIA

Heterophasia picaoides cana (310).

Local Names. — None recorded.

Identification. — Length 13–14 inches, including a tail of 7–8 inches. A dark grey bird of graceful build with a white streak on the closed wing and white tips to the tail-feathers. An arboreal bird of the higher hills.

Voice. — The call-note is a distinctive high-pitched, though not loud, *tsip-tsip-tsip-tsip-tsip* uttered rapidly; it also has party call-notes.

Habits and Food. — Like all Sibias this bird keeps to the tree-tops and frequents chiefly the denser parts of the forest; it is usually found in small parties, the members of which play follow-my-leader from tree to tree, swinging their long tails or cocking them over their backs, and sometimes crouching on a branch with the tail outspread. They feed on fruit and insects, often searching for the latter in the flowers of certain trees; their throats are usually stained with pollen.

Nest and Eggs. — Very little is known about the nesting habits of this bird. A nest found in Sikkim was made entirely of moss, lined with moss roots, and was built on the end of a branch; the single egg it contained was exactly like an egg of the next species, and measured 0·97 by 0·72 inches.

Status and Distribution. — This species extends from Nepal eastwards along the Himalayas to Assam and thence through Burma to Indo-China. It is resident and not uncommon in the higher hills, though not as yet recorded from the Arakan Yomas; in North-East Burma it has been recorded from as low as 2,000 feet.

THE ASSAM GREY SIBIA

Leioptila gracilis gracilis (313).

Allied Form.—

THE MT. VICTORIA GREY SIBIA, *L. g. dorsalis (313a).*

Identification. — Length 9½ inches, including a tail of 4½ inches. Upper-parts grey with a black forehead and crown; wings and tail black and grey; chin and throat white, remaining under-parts tawny or buff. The comparatively shorter tail distinguishes it from the preceding species. It has a fine clear treble call-note and many other conversational notes, though it is not a noisy bird. Its habits do not differ from those of other Sibias, and it is said to favour pine forest.

Nest and Eggs. — The breeding season is from May to July. The nest is built in a thick tuft at the end of a pine branch and is a rather massive and well-built cup of green moss lined with roots. The eggs, 2 or 3 (rarely 4) in number, are a pale greyish or greenish-blue, lightly freckled and blotched all over with pale reddish. They average 0·94 by 0·70 inches.

Status and Distribution. — This species is found only in Assam and Northern Burma, with one record from Yunnan; it is resident in the Chin Hills and North-East Burma, and will probably be found in the Upper Chindwin. It appears to be rather scarce.

FEA'S SIBIA

Leioptila melanoleuca castanoptera (316).

Allied Form.—

TICKELL'S SIBIA, *L. m. melanoleuca (314).*

Local Names. — Toungyo: *Hnget-kya..*

Identification. — PLATE III, Fig. 8, Page 32. Length 9 inches. There is some dark brown on the back, of the same shade as the wing-patch. A white spot shows on the wing in flight, which is rather weak, direct, and not sustained. See under Blyth's Sibia for distinctions from that species.

Voice. — The ordinary call-note is a distinctive musical whistle of about 5 notes in a minor key; it starts with a very short trill, which runs into three quick notes on the same pitch and ends with two longer notes dropping in pitch, the last note prolonged and very mournful. It also has a chattering note when feeding and the alarm-note is a rather Shrike-like abuse.

Habits and Food. — The Sibias with their lovely clean-cut lines and their sweet and plaintive call-notes are among the most fascinating of the hill-birds. They are purely arboreal in habits, spending most of their time in the tree-tops and descending to the undergrowth on rare occasions in search of fruit. They flit rapidly up a tree from branch to branch, usually keeping close to the trunk and often clinging to the bark like a Nuthatch while picking out a grub or insect. They frequent both oak and pine forests and come freely into the open; their food consists chiefly of insects and berries. Fea's Sibia has an affectionate nature and is usually seen in pairs at all times of the year; it is not a shy bird, and does not resent being watched.

Nest and Eggs. — The breeding season is from March to early June. The nest is usually built on the small outer branches of a tree, often in pine forest; it is a mossy cup lined with a black hair-like substance, which is the stalk of a fungus that grows on decomposing leaves. The eggs, 1 to 3 in number, are either pale spotless blue or rather greener and well marked with red, usually in a cap at the larger end. They average 1·15 by 0·67 inches.

Status and Distribution. — This species is confined to Burma and Siam, and is a common resident throughout the eastern hills over 4,000 feet as far north as Mogok; it is very common at Bernardmyo near Mogok, and also near Taunggyi, and in Karenni, but is rare at Kalaw and absent from Thandaung.

[Note:— RADCLIFFE'S SIBIA, *Leioptila melanoleuca radcliffei (315)*, is a bad race and does not differ from Tickell's Sibia.]

BLYTH'S SIBIA

Leioptila annectans annectans (317).

Allied Forms.—

WALDEN'S SIBIA, *L. a. saturata (318).*

DAVISON'S SIBIA, *L. a. davisoni (319).*

Local Names. — None recorded.

Identification. — Length 7½ inches. Blyth's and Walden's races are easily distinguished from the preceding species by the much redder and more extensive brown patch on the back and rump; Davison's race has the back and wing-coverts black and the rump and upper tail-coverts mingled black and deep maroon; all three races have the flanks and under tail-coverts very pale chestnut and not pure white.

Voice. — The call-note is similar to that of Tickell's Sibia described above but is slightly shorter and drops in pitch only on the last note.

Habits and Food. — Do not differ from those of the preceding species.

Nest and Eggs. — The breeding season is in May and June. The nest is like that of Tickell's Sibia and the eggs, 2 or 3 in number, are pale blue with a few blotches and hairlines of pale reddish-brown. They average 0·87 by 0·61 inches.

Status and Distribution. — This species extends from Sikkim eastwards to Burma, where it is resident throughout the higher hills, but seems to be less common than the preceding species.

THE BEAUTIFUL SIBIA

Leioptila pulchella cæruleotincta (320a).

Local Names. — Lashi: *Chi-tau.*

Identification. — Length 9 inches. Distinguished from all other Sibias by having the crown neither black nor brown but bluish-grey like the back; in the field it appears a very dark grey or even black. It has a loud shrill whistle and as many calls as a Starling. It is usually seen in small parties hunting for insects in rhododendron flowers or on the lichened branches of trees, and is not shy.

Nest and Eggs. — Unknown.

Status and Distribution. — This species has only been recorded in Burma from the higher hills of the Myitkyina district, including the Adung valley; it extends eastwards into Yunnan and is replaced by another race in Assam.

RIPPON'S BARWING

Actinodura egertoni ripponi (323).

Local Names.—Lashi: *Pi-ao;* Atsi: *Nyà-pyi-pyi;* Kachin: *Pong-prap.*

Identification. — Length 9 inches. Upper-parts dark grey to olive-green, the wings black and brown; a brown crest; under-parts tawny except for the abdomen, which is conspicuously white; there is no white ring round the eye as in Ramsay's Barwing. A bird of the higher hills.

Voice. — A queer chattering note has been recorded.

Habits and Food. — The general habits of the Barwings are described under the next species; this bird is quite typical and feeds chiefly on insects and fruit, such as wild strawberries.

Nest and Eggs. — The breeding season is from May to June. The nest is built in a small tree, bamboo clump or bush 10 to 25 feet from the ground; it is a deep cup of moss, bamboo leaves and grass mixed with roots and lined with finer roots. The eggs, 2 or 3 (rarely 4) in number, are obtuse ovals, fine in texture but not very glossy; the colour is a pale blue-green marked with rather smeary lines, blotches and smudges of reddish-brown and with secondary markings of pale lilac-grey. They average 0·91 by 0·69 inches.

Status and Distribution. — This species extends from Nepal eastwards to Northern Burma, and is resident in Arakan, the Chin Hills, probably the Upper Chindwin (no record as yet), North-East Burma and the Mogok hills; it is found only on the higher hills, but seems to be common in its range.

RAMSAY'S BARWING

Actinodura ramsayi ramsafi (324).

Allied Form.—

THE RUBY MINES BARWING, *A. r. radcliffei (325).*

Local Names. — None recorded.

Identification. — Length 9½ inches. An olive-brown bird, paler below, with a conspicuous white ring round the eye; at a close range the fine black barring on the wings, from which the Barwings derive their name, can be seen; the tail-feathers are tipped with white. A bird of the higher hills, frequenting both the undergrowth and the canopy.

Voice. — The usual call-note is a mournful one of three syllables *wee-ou-wee,* ¯_¯ rather like the call of Abbott's Babbler; a fourth note is sometimes added by way of variation, and the last two notes are then drawn out and rather wailing; there are also other variants.

Habits and Food. — The Barwings come somewhere between the Sibias and the Scimitar Babblers in their habits and often accompany a party of the latter; they are usually seen in parties working through the top of the undergrowth, and are partial to bamboo thickets. They are less often seen in trees, but they are able to hop rapidly from branch to branch like the Sibias.

Nest and Eggs. — Unknown.

Status and Distribution. — This species is confined to the eastern hills of Burma, from the Mogok hills southwards to Karenni; it is resident above 4,000 feet and locally common.

THE YUNNAN HOARY BARWING

Actinodura nipalensis saturatior (326a).

Allied Forms.—

THE ADUNG VALLEY BARWING, *A. n. wardi (326b).*

THE CHIN HILLS BARWING, *A. n. poliotis (328).*

Identification. — Length 8 inches. Forehead and crest brown with white streaks; upper-parts brown; wings black and rufous, the primaries chestnut barred with black; tail black tipped with white, with some chestnut on the base; cheeks black; under-parts plain brown or rufous with streaks on the

throat and breast. An arboreal bird of the mountains with a very loud call. It feeds on seeds and insects, which it obtains from the tree-tops or from rhododendron flowers.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends from Nepal to Yunnan and is resident at high elevations in the Chin Hills, North-East Burma, and probably the Upper Chindwin (no record as yet).

THE CHESTNUT-HEADED STAPHIDIA

Staphidia castaneiceps castaneiceps (330).

Allied Forms.—

TICKELL'S STAPHIDIA, *S. c. striata (331).*

HUME'S STAPHIDIA, *S. c. rufigenis (332).*

Local Names. — None recorded.

Identification. — Length 5½ inches. A greyish-brown bird with a short erectile crest and white streaks on the back (in some races on the head also); the under-parts are whitish and the tail is tipped with white. An arboreal Tit-like bird of the higher hills.

Voice. — Parties utter a constant low *chir-chit, chir-chit.*

Habits and Food. — This is an arboreal bird of the lower canopy and the top of the undergrowth, and is very Tit-like in its actions; it is always seen in parties, which may number 30 birds, and the members of which keep very close to one another; it frequents the more open parts of the hill forests and feeds mainly on insects and seeds. It is not shy but if frightened it dives into the undergrowth and escapes by clambering and flitting from one perch to another till it is out of sight.

Nest and Eggs. — The breeding season is from April to July. The nest is nearly always built just inside a hole in a small perpendicular bank, such as that on the upper side of a hill path, and is often poorly concealed; it is made of soft fibrous material surrounded with grass, moss and leaves. The eggs, 3 or 4 in number, are broad obtuse ovals in shape and pure glossy white in colour, marked with fairly numerous specks and spots of brown, which on some eggs are scattered over the whole surface and on others are confined chiefly to the larger end where they form a ring or cap. The eggs average 0.65 by 0·53 inches.

Status and Distribution. — This species extends from Sikkim eastwards to Burma and as far south as Northern Tenasserim. It is a common resident throughout the higher hills (not recorded as yet from the Northern Shan States), and is locally common; it may be observed at Thandaung or Kalaw, but not Maymyo.

THE YUNNAN SIVA

Siva strigula yunnanensis (333a).

Allied Forms.—

HUME'S SIVA, *S. s. castaneicauda (334).*

THE MT. VICTORIA SIVA, *S. s. victoriae (334a).*

Local Names. — None recorded.

Identification. — Length 6½ inches. The black crescents on the feathers of the yellow throat, orange-brown crown and nape, yellow ring round eye and black moustachial stripes are distinctive features. The upper-parts are slaty-green; tail red and black with yellow tips, increasing outwardly; there is a yellow band along the closed wing, and the under-parts are chiefly bright yellow. An arboreal bird of the higher hills.

Voice. — The ordinary call-note is *too-sweet-sweet.*

Habits and Food. — This bird is found in small parties, often with other species such as Flowerpeckers and Willow Warblers, working like Tits through the canopy or the dwarf bamboo and dense undergrowth of high elevation forests.

Nest and Eggs. — The breeding season is from May to June. The nest is built in a bush or small tree and is a neat cup of moss, roots and bamboo leaves lined with rootlets. The eggs, 2 to 4 in number, are bright pale blue with a few specks or spots of black or brown. They average 0.77 by 0·59 inches.

Status and Distribution. — This species extends almost throughout the Himalayas to Yunnan and through Burma to Siam; it is resident on most of the higher hills of Burma, but has not yet been recorded from the Arakan Yomas and the Bhamo hills, and it seems to be local everywhere. It is common on the higher slopes of Nattaung, Karenni.

HODGSON'S BLUE-WINGED SIVA

Siva cyanouroptera cyanouroptera (335).

Allied Forms.—

THE YUNNAN BLUE-WINGED SIVA, *S. c. wingatei (336).*
THE DULL BLUE-WINGED SIVA, *S. c. sordida (337).*
OATES'S BLUE-WINGED SIVA, *S. c. oatesi (338).*

Local Names. — Kachin: *Bumjajo* or *Ching-tong-wu-lee.*

Identification. — Length 6 inches. In the field it appears greyish above and whitish below with a rather long blue tail tipped white and a blue band along the closed wing. An arboreal bird of the higher hills.

Voice. — It has a *cree-cree* party call-note, but seems to be a quiet bird.

Habits and Food. — It is found in parties in the more open parts of the hill forests and closely resembles the Staphidias in its habits.

Nest and Eggs. — The breeding season is in May and June. The nest is usually built low down in a bush, occasionally higher up in a tree, and is always well concealed; it is a small cup of leaves, grass, moss and roots, lined with rootlets and fine grass. The eggs, 2 to 4 in number, are like those of the preceding species and average 0·72 by 0·56 inches.

Status and Distribution. — This species extends from the Central Himalayas eastwards to Yunnan and southwards through Burma to Northern Tenasserim; it has not yet been recorded from the Arakan

Yomas, but elsewhere is resident throughout the higher hills and is locally common. In North-East Burma it is found as low as 2,000 feet but elsewhere keeps above 3,000 feet.

SHARPE'S YUHINA

Yuhina gularis yangpiensis (340).

Allied Form.—

THE ADUNG VALLEY YUHINA, *Y. g. griseotincta (340a).*

Local Names. — Kachin: *Chi-chaw-pum-frong* or *Pum-chi-chaw.*

Identification. — Length 6 inches. Upper-parts and crest brown; cheeks and ear-coverts grey; wings blackish; throat and breast rufous, with black streaks on the throat; remaining under-parts dull orange-brown; bill long, curved, sharply pointed and black in colour. An arboreal bird of the higher hills, found in parties and very like a Bulbul in general habits and appearance.

Nest and Eggs. — Unknown for the races found in Burma. The Indian race breeds in May and June, attaching a cradle of fern and moss roots, lined with rootlets, to pendant roots under an overhanging bank. The eggs are pale green, profusely but not boldly speckles all over with light red, and average 0·69 by 0·50 inches.

Status and Distribution. — This species extends from Nepal eastwards to Yunnan, and is resident throughout the western hills (Arakan Yomas doubtful) and the eastern hills as far south as the Northern Shan States; in North-East Burma it seems to be confined to high level oak forest above 7,000 feet, though elsewhere it is found from 4,000 feet upwards.

RIPPON'S YUHINA

Yuhina diademata (341).

Local Names. — Kachin: *Chi-chaw-pum-frong* or *Pum-chi-chaw.*

Identification. — Length 6½ inches. Differs from the preceding species in having no streaks on the throat and a yellow bill and feet; an earthy-brown bird with a conspicuous white line from each eye meeting above the nape; the crest is continually erected to reveal the conspicuous white patch on the nape. An arboreal bird with very Tit-like habits and notes.

Nest and Eggs. — The breeding season is in April and May. The nest is always built low down in brambles, bracken or coarse grass, and is a flimsy almost transparent cup of black roots well plastered with cobwebs and lined with rootlets. The eggs, 2 or rarely 3 in number, are long ovals of a dull greenish-blue colour profusely blotched and speckled with brown. They average 0·81 by 0·59 inches.

Status and Distribution. — This species is confined to Yunnan and North-East Burma, and is said to be common at Sinlum.

THE NEPAL BLACK-CHINNED YUHINA

Yuhina nigrimentum nigrimentum (343).

Allied Form.—

THE YUNNAN BLACK-CHINNED YUHINA, *Y. n. intermedia (343a).*

Identification. — Length 4½ inches. Distinguished from the other Yuhinas by the smaller size and the white throat with a black spot on the chin; upper-parts and tail olive-green; forehead and crest black and grey; nape and sides of head grey; wings chiefly brown; under-parts buff. It utters a *chip-chip* note continually, occasionally breaking into a louder and shriller call. It is a gregarious Tit-like little bird, keeping to the tree-tops in hill forests.

Nest and Eggs. — The breeding season is from May to July. Its beautiful cradle-shaped nest of moss roots, lined with the finest grass stems, is usually built either amongst the pendant roots of an overhanging bank, or amongst the lichen on the under side of a dead branch, and is nearly always well hidden. The eggs, 3 or 4 in number, are pale green in colour, lightly marked

all over with reddish freckles. They average 0·65 by 0·48 inches.

Status and Distribution. — This species extends from Garhwal eastwards along the Himalayas to Yunnan and China. It is said to be resident in Northern Arakan and the Chin Hills, probably occurs in the Upper Chindwin and is certainly found in North-East Burma, where it has been recorded from as low as 2,000 feet. It appears to be scarce everywhere.

[Note: — THE CHESTNUT-HEADED IXULUS, *Ixulus occipitalis (344)* has not been recorded from Burma but is found in Manipur and the Chittagong hill tracts and will probably be found some day in Northern Arakan or the Upper Chindwin. It is distinguished from all other species of *Ixulus* by having a white nape.]

THE CHESTNUT-NAPED IXULUS

Ixulus flavicollis rouxi (347).

Local Names. — Kachin: *Dap-u* or *Chee-chaw.*

Identification. — Length 5 inches. The dark brown crest is continually being elevated, thus exposing the chestnut nape; a white ring round the eye; upper-parts olive-brown; chin, cheeks and throat white with a black moustachial streak and a few streaks on the throat; remaining under-parts buff. An arboreal bird of the higher hills with Tit-like habits and heavy Sparrow-like flight. It is not shy and a pair will sit quite still very close to an intruder. It hunts bushes and fruiting trees methodically for berries and insects, and is easily trapped.

Nest and Eggs. — The breeding season is in May and June. The nest is generally built amongst the moss growing on branches and twigs, and is made chiefly of moss, mixed to some extent with bits of leaves and bracken, and lined with rootlets. The eggs, 3 or 4 in number, are like those of the Common Swallow, i. e. white with numerous pink spots. They average 0·76 by 0·56 inches.

Status and Distribution. — This species is found almost throughout the Himalayas extending eastwards to Yunnan. It is resident in the Chin Hills, probably the Upper Chindwin, North-East Burma and the Mogok hills, and is fairly common in these areas.

DAVISON'S IXULUS

Ixulus humilis humilis (348).

Allied Form.—

OATES'S IXULUS, *I. h. clarkii (349).*

Identification. — Length 5 inches. Upper-parts plain brown with a short crest that is frequently erected; under-parts white with dark moustachial streaks and very narrow brown streaks. An arboreal bird of the higher hills with the habits of a Staphidia. A low *chuck-chuck* is the call-note of a party, and now and then a *chir-chir-chir-chir* note rather hard to describe; another note is *chit-a-wit* repeated.

Nest and Eggs. — Unknown.

Status and Distribution. — This species is confined to the higher hills of South-east Burma and has a very small range from Mt. Byingye (not far from Yamethin) in the north to Mt. Mulayit in the south. It is resident over 4,000 feet, and not common.

THE WHITE-BELLIED HERPORNIS

Herpornis xantholeuca xantholeuca (350).

Local Names. — None recorded.

Identification. — Length 5 inches. Upper-parts and a short erectile crest greenish-yellow; under-parts white except for the under tail-coverts, which are bright yellow. An arboreal bird of the foothills and higher hills.

Voice. — A very silent bird; the only note recorded is a bleating call of 3 notes.

Habits and Food. — This bird is normally silent, solitary and rather mysterious. It is occasionally seen in small parties or hunting with Quaker Babblers, Minivets, or Flycatchers. It frequents both the undergrowth and the tree-tops, searching the branches and twigs for insects, and is partial to bamboo jungle.

Nest and Eggs. — The breeding season is from March to May. The nest is built in forest or scrub and is either pendant in a horizontal fork or hangs close to the ground from a few twigs of a bamboo or shrub. It is a cradle of fine roots, mixed with fibres and fine grass stems and lined with the latter. The eggs, 2 or 3 in number, are rather long ovals in shape, stout in texture and white or creamy-white in colour, marked with a few pale reddish blotches, generally confined to the larger end. They average 0·66 by 0·50 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region, and is resident throughout the forests of Burma at all elevations up to 6,000 feet, but is nowhere very common.

Sub-family LEIOTRICHINÆ

LEIOTHRIXES, CUTIA, SHRIKE-BABBLERS, IORAS, MYZORNIS, CHLOROPSISES, MESIA & MINLA

This sub-family differs from the two other sub-families of the *Timaliidæ* in having the sexes different in colour. The young are like the adults but are rather duller. The wing and tail are more or less equal in length. The members of the sub-family are arboreal in habits and do not differ much in this respect from the members of the preceding sub-family. With a few exceptions they are also birds of the higher hills.

THE INDIAN RED-BILLED LEIOTHRIX

Leiothrix lutea callipyga (351).

Allied Form.—

THE YUNNAN RED-BILLED LEIOTHRIX, *L. l. yunnanensis (352).*

Identification. — Length 6 inches. Sexes differ. The male is a dull olive bird with a conspicuous coral-red bill, a yellow ring round the eye, and a bright shining yellow patch on the throat and breast; the tail is black and the edges of the wing-feathers are brightly variegated with yellow, orange, crimson, and black. The female is duller and lacks the crimson on the wing. The ordinary call-note is *tee-tee-tee-tee-tee*. In the breeding season the male has a delightful song of some variety and compass, which he sings from the top of a bush to the accompaniment of quivering wings and fluffed out feathers.

This bird is found in all types of hill forest, but prefers pine forest with some undergrowth; it is very lively and cheerful and eminently gregarious outside the breeding season, going about in small parties and hunting the undergrowth for insects; it occasionally moves up into the tree-tops.

Nest and Eggs. — The breeding season is from April to June, with second broods into September. Well-watered and jungle-clad valleys and ravines are preferred. The site of the nest is somewhat variable, though all are built within 10 feet of the ground. Some are suspended in a horizontal fork like an Oriole's nest, others are fixed in an upright fork such as a Bulbul would choose, and others again are built between several upright shoots

like the nest of a Reed Warbler. The nest is a cup of varying depth and solidity, and is not well hidden as a rule; it is composed of dry leaves, moss and lichen, some nests being entirely of moss and others of bamboo leaves. The eggs, normally 3 in number, are rather broad and blunt, with a hard close texture and some gloss; the colour varies from white to very delicate pale green or greenish-blue, speckled and blotched with various shades of red-brown and purple and with streaks and clouds of neutral tint and pale lilac. The markings tend to form a zone round the larger end. The eggs average 0·85 by 0·62 inches.

Status and Distribution. — This species extends from Simla eastwards to China and southwards to Siam. It has been recorded from Northern Arakan and the Chin Hills, but no specimens are traceable; it is resident in the hills of North-East Burma above 5,000 feet.

THE NEPAL CUTIA

Cutia nipalensis nipalensis (353).

Local Names. — None recorded.

Identification. — Length 7 inches. Sexes differ. The male has a broad black band passing through the eyes and round the nape; crown slaty-grey; upper-parts rufous striped with black except for the upper tail-coverts, which are almost as long as the tail and a conspicuous light rufous; under-parts white with the flanks heavily barred with black. The female has the band through the eyes chocolate-brown and the back and shoulders reddish-brown with large oval black spots; otherwise as in the male. Both sexes are very beautiful birds. An arboreal bird of the higher hills.

Voice. — The call-note is a loud monotonous *piou-piou-piou-* repeated any number of times from 6 to 200, at the rate of 25 in 10 seconds.

Habits and Food. — The Nepal Cutia keeps almost entirely to the tree-tops in open oak and pine forest, and is usually seen in small parties. It feeds on insects, berries and seeds, and its habits are similar to those of the Shrike-Babblers.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends from Nepal eastwards to Yunnan and southwards to Karenni. It is resident in the Chin Hills, probably the Upper Chindwin (no record), North-East Burma and Karenni, and judging by its distribution it is likely to occur on the higher peaks of the Shan States. It is not uncommon in the pine forests of Karenni.

THE RED-WINGED SHRIKE-BABBLER

Pteruthius erythropterus erythropterus (354).

Allied Forms.—

TICKELL'S SHRIKE-BABBLER, *P. e. æralatus (355).*

THE BURMESE SHRIKE-BABBLER, *P. e. yunnanensis (355a).*

Local Names. — None recorded.

Identification. — Length 7½ inches. Sexes differ. The male is a grey bird, whitish below, with the top and sides of the head black and a broad white eyebrow; there is a chestnut or yellow patch on the wing, and the tail is black. The female has the head bluish-grey and the eyebrow is very indistinct; the tail is green and black tipped with

yellow. The flight is jerky, dipping and rather feeble. An arboreal bird of the higher hills.

Voice. — The call-note is a loud mellow *cha-chew, cha-chew,* possibly uttered only in the breeding season; it also has a trisyllabic call in an ascending scale, the first syllable longer than the others. The male sometimes utters a *pink* note, and when being watched both sexes keep up a continuous grating *churr.*

Habits and Food. — This Shrike-Babbler is usually seen singly or in pairs in the tree-tops in hill forests; it is sedate and rather slow in its movements and when feeding works its way slowly up a tree, searching chiefly the main branches for insects and berries and often hopping sideways along a branch; having arrived at the top it may spend half an hour or more calling steadily before resuming its feeding on another tree. It favours pine forest but is also found in high level oak forest and in hill evergreen. It is not a shy bird.

Nest and Eggs. — The breeding season is from May to June. The nest is always built near the top of a tall tree amongst the smaller twigs; it is a strong cradle of fine roots, pendant from a small fork like an Oriole's nest. The eggs, usually 3 in number, are broad ovals in shape, rather fragile in texture and without gloss; the colour is pale lilac-white with numerous fine specks and spots of deep purple, which form deep rings round the extreme larger end and are finely peppered over the rest of the surface. The eggs average 0·86 by 0·64 inches.

Status and Distribution. — This species is found almost throughout the Himalayas, extending eastwards to Yunnan and South-east China and southwards to Tenasserim. It is resident throughout the higher hills of Burma (not yet recorded from the Arakan Yomas) and is locally common. It may be observed at Mogok, Kalaw, and Thandaung, but not Maymyo.

THE CHESTNUT-THROATED SHRIKE-BABBLER

Pteruthius melanotis (356).

Identification. — Length 5 inches, unexpectedly small for a Shrike-Babbler. Sexes differ slightly. The male has a white ring round the eye, deep chestnut on the chin and throat contrasting with the bright yellow under-parts, and a double white wing-bar; the upper-parts are greenish-yellow and the tail is green and black with white tips, increasing outwardly. The female has pinkish instead of white wing-bars, and the chestnut of the throat does not reach the breast; otherwise as in the male. An arboreal bird of the higher hills. It has a pleasant double note, *too-weet, too-weet,* not often uttered unless the birds of a pair are separated. It is usually seen singly hunting actively through the foliage of the tree-tops like a Willow Warbler, or working through a bamboo thicket or the top of the undergrowth.

Nest and Eggs. — The breeding season is from April to June. The nest is built either in a horizontal fork or pendant between two or more small twigs in a bush or small tree; it is a beautiful little cradle of fine roots with a little moss and lichen and a scanty lining of rootlets. The eggs, 4 to 6 in number, are rather broad ovals in shape and soft and fine in texture; the colour is a delicate pinky-lilac with fine specks of dark purple, mostly confined to the larger end, or else a pale pink with similar marks of pale reddish-brown and underlying ones of pale lilac and neutral tint; the eggs average 0·71 by 0·53 inches.

Status and Distribution. — This species has been recorded from most of the higher hills north of Tenasserim, but not as yet from the Northern Shan States and the Arakan Yomas; westwards it extends along the Himalayas to Nepal. It seems to be rather scarce everywhere.

HUME'S SHRIKE-BABBLER

Pteruthius ænobarbus intermedius (357).

Identification. — Length 5 inches. Differs from the preceding species in having the forehead deep chestnut followed by a yellow band; the nape is greenish-yellow, not ashy, and the black neck-patches are absent. The female has the forehead rufous and the under-parts pale yellow.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends into Burma from Malaya, and is resident in the eastern hills from the Northern Shan States to Tenasserim, but appears to be scarce.

THE GREEN SHRIKE-BABBLER

Pteruthius xanthochloris hybrida (358).

Identification. — Length 5 inches. Differs from the preceding species in preceding species in having no white ring round the eye and in having the crown blackish instead of greenish-yellow. The male has the ear-coverts and upper-parts green; tail tipped white; chin, throat and breast pale ashy; rest of under-parts bright yellow. The female has no black on the face. An arboreal bird of the higher hills with pleasant call-notes, generally found in pairs. Though not shy it is quiet and retiring, and so slow and unobtrusive in its movements that it does not attract attention.

Nest and Eggs. — The breeding season is from April to July. The nest is attached to a small fork in the outer branches of a tree, and is a deep cradle of root fibres and lichen, bound together with cobwebs, and lined with root lets. The eggs, 2 to 4 in number, are miniatures of the eggs of the Red-winged Shrike-Babbler, and average 0.76 by 0.58 inches.

Status and Distribution. — This species is resident on Mt. Victoria and the mountains east of Myitkyina, and probably the mountains of the Upper Chindwin also. Westwards it extends almost throughout the Himalayas.

THE RUFOUS-BELLIED SHRIKE-BABBLER

Hilarocichla rufiventer (360).

Identification. — Length 8 inches. Sexes differ. The male has the top and sides of the head black; upper-parts chestnut; wings black; throat and upper breast ashy; a patch of golden-yellow on each side of the breast; remaining under-parts brown. The female has the top of the head black but the sides grey; upper-parts bright green barred with black; upper tail-coverts chestnut; wings black and green; under-parts similar to those of the male.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends from Nepal eastwards along the Himalayas to Assam and has recently been recorded from Mt. Victoria.

THE GREAT IORA

Æthorhynchus lafresnayi (361).

Identification. — Length 6½ inches. The non-breeding male and the female have the upper-parts dull green; wings brown and black; cheeks, under-parts and a ring round the eye bright yellow. The breeding male has the feathers of the upper-parts fringed with black, and the wings and tail black. An arboreal bird of evergreen forest with a fine whistling call. It keeps mainly to the tree-tops, occasionally enters gardens and orchards, and feeds entirely on insects.

Nest and Eggs. — There is little on record. Two nests from Perak were rather deep cups of soft grass bound with cobwebs and were built in bushes

in evergreen forest. The eggs were greyish-white, marked with longitudinal grey streaks and averaged 0·79 by 0·59 inches.

Status and Distribution. — This species is resident in Malaya, Siam, Tenasserim and Southern Arakan, but seems to be rare outside Southern Tenasserim.

THE COMMON IORA

Ægithina tiphia tiphia (362).

Local Names. — Burmese: *Shwe-pyi-so.* (ရွှေပြိုစို့)

Identification. — PLATE III, Fig. 7, Page 32. Length 5½ inches. Breeding males show varying amounts of glossy black on the upperparts; some have all except the rump this colour, but many have the black confined to the wings and tail and a few feathers on the crown, neck or back. An arboreal bird of gardens with a characteristic call-note.

Voice. — A wide variety of calls and notes. The most familiar and striking is a long drawn out *weeeeeee-tu* with a sudden drop in pitch on the last syllable. It also has a number of mellow whistles and chirrups *chi-chi-whit* or *chu-whee, chu-whee,* a monotonous *chit-chit-chit-chit-chit-chit,* and also a scolding note.

Habits and Food. — The Iora is a familiar garden bird, usually found singly or in pairs, hopping about the trees and tall shrubs and keeping mostly to the canopy; it also frequents the outskirts of villages and cultivation and the edges of forest and scrub jungle. It feeds chiefly on insects. Like the Coppersmith it is often heard but seldom seen.

In the breeding season it has a striking display in which it flies up into the air and then spirals down to its perch again with all its feathers spread out, especially the long loose rump-feathers, so that it looks almost like a ball of fluff; while descending it utters a strange protracted sibilant sound, recalling the note of a frog or cricket. Having reached its perch it spreads and flits the tail like a little Peacock, drooping its wings and still uttering the curious note.

Nest and Eggs. — The breeding season is from April to July. The nest is built in either a horizontal or a vertical fork of a bush or small tree; it is a very neat and delicate cup of fine soft grass, well plastered outside with cobwebs. The eggs, 2 to 4 in number, are moderately broad ovals, fine in texture with little or no gloss; the colour is either a beautiful pink with reddish markings, or a pale creamy- or greyish-white with a few irregular longitudinal marks of grey and underlying ones of neutral tint. The eggs average 0·69 by 0·55 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region. It is said to be absent from North-East Burma, but elsewhere is a common resident throughout the country up to 4,000 feet.

THE GREEN IORA

Ægithina viridissima (365).

Identification. — Length 5 inches. Sexes differ. The adult male has the whole plumage dark green, becoming yellow on the abdomen; tail black,

wings chiefly black with two white wing-bars; above and below the eye bright yellow. The female and young male are paler above and have the tail edged with yellow; the wings are browner and the wing-bars yellowish; under-parts pale greenish-yellow.

Nest and Eggs. — Similar to those of the Common Iora.

Status and Distribution. — This is a rare bird in Tenasserim as far north as Mergui; it extends southwards through Malaya to Borneo and Sumatra.

THE FIRE-TAILED MYZORNIS

Myzornis pyrrhoura (367).

Identification. — Length 5 inches. Sexes differ. The male is a brilliant green bird with a red tail and chestnut-red under tail-coverts; wings chiefly black with white-tipped primaries. The female differs in having the primary-coverts green tipped with white and the red parts of the plumage are duller. An arboreal bird of the mountains; it is found in parties, chattering and methodically searching bushes and low trees and sometimes making sallies into the air like a Flycatcher.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends from Nepal eastwards to Yunnan and in Burma has only been recorded from the mountains of the Yunnan frontier east of Myitkyina at elevations above 8,000 feet.

THE GOLD-FRONTED CHLOROPSIS

Chloropsis aurifrons aurifrons (368).

Allied Form.—

THE SIAMESE GOLD-FRONTED CHLOROPSIS, *C. a. inornata (370).*

Local Names. — Burmese: *Hnget-sein* (ငှက်စိန်း); Chinghpaw: *Shăkrai.*

Identification. — PLATE III, Fig. 9, Page 32. Length 7½ inches. The male has a broad golden-yellow band surrounding the black of the chin and throat, which is obsolete in the female. An active arboreal bird.

Voice. — This bird is a remarkable mimic, imitating the notes of many other birds. One hears a veritable bird concert coming from some leafy tree, including often the notes of birds that have departed on migration; then out flies a solitary Gold-fronted Chloropsis and the illusion is at an end. Its own song of several notes is sandwiched between the imitations. A feeding party has a low *cheep* like that of a young chick.

Habits and Food. — This is an active bird of the tree-tops, descending occasionally to the bushes. It frequents mainly open well wooded country but may be seen in gardens and deep forest also, and it is very partial to flowering *letpan* trees. It roosts for preference in dense secondary growth or even in *kaing* grass. When feeding it indulges in the quaintest of attitudes, now hovering like a Sunbird in front of a flower, now clambering along the lower surface of a thin branch, and occasionally swinging itself round and round in somersaults. It is not shy and is extremely quarrelsome, allowing no others to feed near it. Insects, seeds, fruit, and nectar from flowers are the chief items in its diet.

Nest and Eggs. — The breeding season is from May to July. The nest is generally built in a horizontal fork at the extremity of a small

outer branch in a tree-top; it is a rather shallow small cup of very fine twigs, moss and roots, bound together and interwoven with scraps of moss and grass; the lining, if any, is of the finest grass stems and rootlets. The eggs, 2 or rarely 3 in number, are long pointed ovals, fine in texture without gloss; the colour is cream or reddish-cream, profusely and evenly covered with faint pale reddish-brown markings. The eggs average 0·93 by 0·61 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region. The Siamese race is only found in Southern Tenasserim, but the typical race is a common resident throughout Burma, ascending to 4,000 feet.

THE ORANGE-BELLIED CHLOROPSIS

Chloropsis hardwickii malayana (371).

Local Names. — Chinghpaw: *Shăkrai.*

Identification. — Length 7½ inches. A bright green bird with the chin, throat and upper breast black, glossed with purplish-blue, a bright blue moustachial streak and the remaining under-parts deep orange; the female has the orange paler and young birds are wholly green and take over a year to acquire their adult plumage.

Voice. — Its powers of mimicry equal those of the Gold-fronted Chloropsis, and it has a beautiful liquid song of its own.

Habits and Food. — Except that this is more of a hill-bird than the other species of Chloropsis, its habits are typical of the genus.

Nest and Eggs. — The breeding season is during the rains. The nest and eggs do not differ from those of the Gold-fronted Chloropsis.

Status and Distribution. — This species is also widely distributed in the Oriental Region. It is a common resident throughout the hills of Burma from about 2,000 feet upwards, but is absent from the Pegu Yomas, which are presumably too low for it. In North-East Burma it is found as low as 1,500 feet.

THE BURMESE CHLOROPSIS

Chloropsis cochinchinensis cochinchinensis (372).

Local Names. — Burmese: *Hnget-sein* (ငှက်စိန်); Chinghpaw: *Shăkrai.*

Identification. — PLATE III, Fig. 10, Page 32. Length 7 inches. In the female the black of the chin and throat is replaced by bluish-green, and the yellow band from eye to eye encircling the throat is lacking.

Voice. — This bird has a very sweet song, though not as fine as that of the Orange-bellied Chloropsis.

Habits and Food. — Those of the genus. It is often seen in the depths of the teak forests, in both dry and moist types, and also in the oak forests of the hills.

Nest and Eggs. — The breeding season is from April to May, with second broods into August. Nest and eggs are similar to those of the Gold-fronted Chloropsis.

Status and Distribution. — This species is widely distributed in the Oriental Region. It is resident throughout Burma but seems to be confined to the forests and is local in its distribution.

THE MALACHITE-SHOULDERED CHLOROPSIS

Chloropsis sonnerati zosterops (373).

Identification. — Length 9 inches. The largest of the genus; similar to the Burmese Chloropsis with a bright patch of colour on the wing-coverts. The female and young have no black on the head, and the chin, throat and a ring round the eye are bright yellow.

Nest and Eggs. — Unknown.

Status and Distribution. — This race extends from Ye in Tenasserim southwards through Siam and Malaya to Borneo and Sumatra, and is replaced by the typical race in Java. It seems to be scarce in Tenasserim.

THE BLUE-WHISKERED CHLOROPSIS

Chloropsis cyanopogon (375).

Identification. — Length 7 inches. Very like the Burmese Chloropsis, but has a short blue moustachial streak and the outer webs of the primaries are green, not blue.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends from the extreme south of Tenasserim and South-west Siam through Malaya to Sumatra and Borneo.

THE SILVER-EARED MESIA

Mesia argentauris argentauris (376).

Local Names. — Chinghpaw: *U-chĕrīt;* Kachin: *Chĕroi-chĕrit.*

Identification. — Length 7 inches. A beautiful bird. The general impression is golden-yellow with some parts green; the black head with silvery-white ear-coverts, the red patch on the wing, and the red upper and under tail-coverts are distinctive. A common hill-bird of *ponzo*, bamboo scrub, and the undergrowth in open forest.

Voice. — It keeps up a continual chirrup with occasional loud clear whistling notes. Its "song" is aptly rendered by its Kachin name, or more accurately by the words *Wē are vĕrў wēll tŏ-dă-ăy,* ¯ ˙ ˙ ¯ ˙ ˙

Habits and Food. — The Silver-eared Mesia is found singly, in pairs, or in parties numbering as many as 30 birds, flitting about bushes and the lower trees and affording a wonderful spectacle of bright colour against the dull green background of the undergrowth. It is restless, active, and not at all shy.

Nest and Eggs. — Indistinguishable from those of the Red-billed Leiothrix (page 58) except that it prefers scrub or evergreen as opposed to pine forest and breeds at rather lower elevations.

Status and Distribution. — This race extends from Garhwal eastwards to Assam and thence through Burma to Siam. It has not been recorded from the Arakan Yomas and doubtfully from the Chin Hills, but elsewhere it is a common resident throughout the higher hills; it has been recorded at 1,500 feet in Karenni but is normally seen from 3,000 feet upwards. It occurs at Thandaung and Kalaw, but not Maymyo.

THE RED-TAILED MINLA

Minla ignotincta ignotincta (377).

Local Names. — None recorded.

Identification. — Length 5½ inches. The black head with a very long white stripe down each side of the crown, the crimson and black tail and beautifully variegated wings, and the yellow under-parts are distinctive. The female and young differ in having the upper tail-coverts brown, and the crimson on the wing is replaced by pinkish-white and on the tail by pale red. An arboreal bird of mountains.

Voice. — It has a loud ringing call-note of 4 syllables, and other notes like those of the Tits.

Habits and Food. — This beautiful bird is arboreal and Tit-like in its habits. It goes about in pairs or small parties, often with Nuthatches, Tits or Sivas. It frequents pine and high elevation oak forests and individuals often search the moss-clad branches and trunks of the trees like a Nuthatch.

Nest and Eggs. — The breeding season is from May to June. The nest is built in a small fork of a bush 4 to 10 feet from the ground, and is a lovely little pendant cup or deep purse of fine green moss, lined plentifully with wool, hair or vegetable down. The eggs, 2 or 3 (rarely 4) in number, are deep blue with a few spots and specks of black or reddish. They average 0·76 by 0·58 inches.

Status and Distribution. — This species extends from the Himalayas to Yunnan, and is resident on Mt. Victoria, the mountains of North-East Burma, and Nattaung in Karenni; it is locally common but seems to be confined to the higher peaks. Judging by its distribution it is likely to occur in the Shan States and Upper Chindwin.

Family PYCNONOTIDÆ

BULBULS

Members of this very numerous family are found throughout Southern Asia, almost the whole of Africa, and the extreme South-west of Europe. Some species are amongst the most abundant and familiar birds of towns and gardens, whereas others are only seen in the forest. In habits they are arboreal, keeping to the canopy and the top of the undergrowth, and as a rule they are bold and confiding. Young Bulbuls are very like the adults, sometimes paler and duller or darker and duller.

THE MALAY WHITE-THROATED BULBUL

Criniger gutturalis ochraceus (379).

Identification. — Length 9 inches. Crest and hairs as in the next species. A brown bird, paler below, with a white chin and throat.

Nest and Eggs. — Similar to those of the next species.

Status and Distribution. — This race extends from Ye in Tenasserim southwards through South-west Siam to Malaya and is replaced by the typical race in Borneo.

PLATE IV

		See Page No.
1.	**BURMESE WHITE-THROATED BULBUL** (adult) *Criniger flaveolus burmanicus*	67
2.	**BURMESE RED-VENTED BULBUL** (adult) *Molpastes cafer burmanicus*	72
3.	**BURMESE BLACK BULBUL** (adult) *Microscelis psaroides concolor*	68
4.	**BLACK-CRESTED YELLOW BULBUL** (adult) *Elathea flaviventris flaviventris*	74
5.	**BURMESE RED-WHISKERED BULBUL** (adult) *Elathea jocosa peguensis*	74
6.	**BLANFORD'S OLIVE BULBUL** (adult) *Pycnonotus blanfordi blanfordi*	79
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PLATE IV

THE BURMESE WHITE-THROATED BULBUL

Criniger flaveolus burmanicus (381).

Allied Form.—

THE INDIAN WHITE-THROATED BULBUL, *C. f. flaveolus (380).*

Local Names. — Chinghpaw: *Gong-gyeng.*

Identification. — PLATE IV, Fig. 1, Page 66. Length 8½ inches. All Crinigers have a long pointed crest and numerous very long hairs springing from the nape and hind-neck, though these hairs are not easy to see in the field.

Voice. — A noisy bird with a bleating frog-like call-note, a few sweet calls and many other discordant ones; also a feeble song *twee-twee-twee.*

Habits and Food. — The Crinigers are more like Laughing-Thrushes than true Bulbuls in habits; they creep and clamber about cane-brakes and the undergrowth in evergreen forest in small parties of half a dozen birds; they can fly well when forced to take wing and are often seen skimming one by one across a forest path. They feed on insects, seeds and fruit, including *zi-byu-thi* (the fruit of *Phyllanthus emblica*) which they swallow whole, although the berries are as large as marbles.

Nest and Eggs. — The breeding season is from March to June. The nest is usually built within 10 feet of the ground in a cane-brake or a thick tangle of bushes growing amongst palm ferns, often near running water; it is a heavily made cup of leaves, bamboo spathes, etc., bound with roots, grass and weed stems, with an inner lining of bamboo leaves and a true lining of roots. The eggs, 2 or 3 (rarely 4) in number, are long ovals in shape, hard and fine in texture and very glossy. The colour is a beautiful deep pink, rarely tinged with lilac, and marked with irregular lines, specks and blotches of various shades of blood-red and neutral tint. The eggs average 1·06 by 0·73 inches.

Status and Distribution. — This species extends from Garhwal eastwards to Assam and thence through Burma to Malaya; it a common resident throughout the higher hills of Burma (not yet recorded from the Northern Shan States) as far south as Tavoy; it is not found in the Pegu Yomas.

HUME'S WHITE-THROATED BULBUL

Criniger tephrogenys griseiceps (382).

Allied Forms.—

THE YUNNAN WHITE-THROATED BULBUL, *C. t. henrici (383).*

THE TENASSERIM WHITE-THROATED BULBUL, *C. t. robinsoni (383a).*

Identification. — Length 8½ inches. Similar to the preceding species but with the under-parts buff and not yellow. Its habits are similar.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends into Burma from Malaya, Indo-China and Yunnan. It is fairly common in evergreen forest on the east side of the Pegu Yomas, and is also resident in Kengtung and in Northern Tenasserim. The distribution of the three races is given on page 509, but the various species and races of the genus *Criniger* have not been fully worked out and more research is needed.

THE HAIRY-BACKED BULBUL

Tricholestes criniger criniger (384).

Identification. — Length 7 inches. A brown bird with whitish chin and throat and yellow under-parts, found in parties in evergreen undergrowth; it is distinguished from the Crinigers by the absence of a crest, and is remarkable for numerous long hairs springing from the back, but these are probably invisible in the field. The birds of a party utter a soft twittering note. It is a very tame bird with the habits of a Criniger, feeding chiefly on insects and a few odd berries.

Nest and Eggs. — More or less unknown.

Status and Distribution. — This race extends into the south of Tenasserim from Malaya and South-east Siam, and is replaced by another race in Sumatra and Borneo.

THE CRESTLESS WHITE-THROATED BULBUL

Alophoixus phæocephalus (385).

Identification. — Length 8 inches. There are long hairs springing from the nape but no crest; distinguished from the Hairy-backed Bulbul by the black and grey crown and nape. A bird of the undergrowth in both evergreen and open forest; it has a loud harsh call-note, uttered incessantly when the birds are disturbed, and the habits of a Criniger.

Nest and Eggs. — Unknown.

Status and Distribution. — This species is found in Java, Borneo and Sumatra, extending northwards through Malaya to the south of Tenasserim as far north as Mergui.

THE BURMESE BLACK BULBUL

Microscelis psaroides concolor (388).

Allied Forms.—

THE HIMALAYAN BLACK BULBUL, *M. p. psaroides (386).*

THE ASSAM BLACK BULBUL, *M. p. nigrescens (387).*

Local Names. — None recorded.

Identification. — PLATE IV, Fig. 3, Page 66. Length 10 inches. A bold noisy bird of the tree-tops in hill forests.

Voice. — The calls of this bird are one of the most familiar sounds of the higher hills. A common note is a long-drawn nasal *weenk* resembling a kitten in distress; there is also a loud strident whistle of 6 notes, *cheeki-cheeki-whee-whay* or just *whee-whay*, the first note louder and higher. Another less common note is *geagluck*.

Habits and Food. — This is a bird of tree-tops, seldom descending to the undergrowth and never to the ground. It is found either in small parties or in large flocks of 100 birds or more. It is very restless and seldom remains long in one place, the birds of a party flying from one tree to another in a loose irregular order. Owing to its weak feet it is unable to climb and hop about the branches, but to make up for this disability it is one of the strongest flyers in the family, being both swift and agile on the wing.

The food consists mostly of berries of various shrubs and trees, though insects are also eaten, and in the evening it may often be seen fly-catching from the tree-tops. It is said to sip nectar from flowers, and certainly visits the blossoms of rhododendrons and other flowering shrubs and trees, but it probably does so in search of insects. The *letpan* tree in flower attracts them, and many other birds as well.

Nest and Eggs. — The breeding season is from April to June. The nest is cradled in a horizontal fork of a tree, often at a considerable height from the ground; it is a rather shallow cup of twigs, lichen, moss, roots or leaves, well plastered with cobwebs where it is attached to the fork. The eggs, 2 to 4 in number, are rather long ovals, fine in texture with a little gloss; the colour is a delicate pinkish-white varying in depth of tint, profusely spotted, blotched or clouded with various shades of red, brownish-red and purple, with a tendency to form a marked zone or cap at the larger end. The eggs average 1·05 by 0·75 inches.

Status and Distribution. — This species is found throughout the Himalayas, extending eastwards to Yunnan and southwards to Tenasserim. It is a common resident throughout the higher hills of Burma, except in North-East Burma, where it is replaced by the two following species; some birds move to lower elevations in the winter.

THE YUNNAN BLACK BULBUL

Microscelis perniger (388a).

Identification. — Length 10 inches. Similar to the preceding species but jet black all over.

Nest and Eggs. — Probably similar to those of the preceding species.

Status and Distribution. — This species extends from Southern China and Yunnan to North-East Burma; it has only been recorded from the Myitkyina district, where its status is uncertain; it has been seen in very great numbers in February and March between 500 and 5,000 feet, and is possibly a hot weather and rains visitor to breed.

THE WHITE-HEADED BLACK BULBUL

Microscelis leucocephalus (389a).

Identification. — Length 10 inches. The white head and throat distinguish it from the other Black Bulbuls.

Nest and Eggs. — Probably similar to those of other species.

Status and Distribution. — This species extends from Southern China and Yunnan to North-East Burma; it has been seen several times in the Myitkyina district from 500 to 3,000 feet in February and March and is apparently a winter visitor.

BINGHAM'S WHITE-HEADED BULBUL

Cerasophila thompsoni (390).

Identification. — Length 8 inches. An ashy-grey bird with snow-white head and neck and bright chestnut under tail-coverts; bill and legs coral-red.

Voice. — Its call-note is harsh, but quite typical of the family.

Habits and Food. — Similar to those of the Black Bulbuls.

Nest and Eggs. — The breeding season is in April. The only nest recorded was built close to the ground and was a fairly neat cup of coarse grass lined with fine grass. The eggs, 3 in number, were typical Bulbul's eggs, with more grey markings than usual, and averaged 0·91 by 0·66 inches.

Status and Distribution. — This species has a very small range in Eastern Burma and North-west Siam; it extends from the Mogok hills southwards to Northern Tenasserim, and is resident in the higher

hills from 3,000 feet upwards. It is a typical bird of the Shwe-u-daung Wild Life Sanctuary and is said to be common round Taunggyi; it is also resident at Thandaung, but not common there. In the cold weather some birds move to lower elevations, and it has been recorded from as low as 400 feet.

THE HIMALAYAN BROWN-EARED BULBUL

Ixos flavala flavala (391).

Allied Forms.—

DAVISON'S BROWN-EARED BULBUL, *I. f. davisoni (392).*

HILDEBRAND'S BROWN-EARED BULBUL, *I. f. hildebrandi (393).*

Local Names. — None recorded.

Identification. — Length 8 inches. A dark ashy bird with brown and olive-yellow wings, a brown tail, and whitish under-parts; there is a slight crest. Davison's and Hildebrand's races have the head much darker than the back. Found in noisy parties in hill forests.

Voice. — This bird has a great variety of notes, mostly pleasant and musical. Common phrases are *keep, keep it going* and *kick me, when-do-we-go.*

Habits and Food. — The Brown-eared Bulbul has much the same habits as the Black Bulbul, except that it more often frequents bamboos and the top layer of the undergrowth. It is purely a forest bird, seldom if ever seen in open country.

Nest and Eggs. — The breeding season is from May to July. The nest is built in *ponzo,* scrub jungle, or undergrowth, often on the bank of a small stream and usually 2 to 5 feet from the ground; it is a rather deep cup of grass stems, well hidden in a thick bush or dense mass of brambles or creepers. The eggs, 2 or 3 (rarely 4) in number, are rather long often pointed ovals, pearly-white to pale pink in colour, profusely covered all over with specks and spots of pinkish-red or reddish-brown. They average 0·93 by 0·68 inches.

Status and Distribution. — This species extends from the Central Himalayas eastwards to Yunnan and through Burma to Tenasserim. It is resident throughout the higher hills of Burma from 2,000 feet upwards, and is locally common. In Northern Burma some birds descend to the plains in the cold weather.

THE RUFOUS-BELLIED BULBUL

Ixos macclellandi macclellandi (394).

Allied Forms.—

TICKELL'S BULBUL, *I. m. tickelli (395).*

HARTERT'S SHAN BULBUL, *I. m. binghami (396).*

THE YUNNAN BULBUL, *I. m. similis (396a).*

Local Names. — Lashi: *Lanyap.*

Identification. — Length 9½ inches. An olive-green bird with a brown erectile crest streaked with white and a white abdomen. Found in evergreen and oak forests in the higher hills.

Voice. — This bird has a variety of musical notes and loud mellow

calls, the most characteristic one being a sibilant or sucking *sip-sip-sip* on a monotone; another call is a whistle of three ascending notes and it also has a mewing call.

Habits and Food. — This Bulbul is found either in noisy parties or singly, in bamboo thickets or in the canopy of evergreen and wet oak forests in the hills. It is purely a forest bird and does not enter open country.

Nest and Eggs. — The breeding season is from May to August. The nest is usually suspended from a horizontal fork of a tree or bamboo clump, at any height from 10 to 40 feet above the ground. It is a neat cup of moss and dead bamboo leaves, lined with rootlets and suspended by cobwebs from the fork. The eggs, normally 2 in number, are like those of the Black Bulbul (page 69), but duller and less richly coloured on the whole; they average 1·03 by 0·72 inches.

Status and Distribution. — This species extends from the Central Himalayas eastwards to Yunnan and Southern China and southwards to Annam and Tenasserim. It is resident throughout the higher hills, but appears to be local in its distribution. It is common in Karenni, less so in the Karen Hills, and is described as rare and shy in North-East Burma.

THE STRIATED GREEN BULBUL

Alcurus striatus (397).

Local Names. — None recorded.

Identification. — Length 9 inches. A conspicuous olive-green bird with an ample crest and streaked plumage: white streaks on the upper-parts and yellow streaks on the under-parts; the abdomen and under tail-coverts are yellow and there is a yellow ring round the eye. An arboreal bird of the higher hills.

Voice. — This bird is a fine songster and also has a number of call-notes, amongst them a mellow whistle and a trisyllabic call *whee-too-wheet* with a drop in pitch on the middle note.

Habits and Food. — The Striated Green Bulbul is typically a bird of the tree-tops in evergreen forest, occasionally descending to smaller trees and scrub jungle or emerging into pine forest. It is found in pairs or small parties feeding on fruits, seeds and insects.

Nest and Eggs. — The breeding season is from May to July. The nest is built in a thick bush or bamboo clump, usually close to the ground, and is always carefully hidden; it is made of twigs and roots with a lining of fine grass stems. The eggs, of which few have been collected, are of two types: one is white in colour with numerous freckles and blotches of pinkish-red, more sparse towards the smaller end, and the other is much browner in colour. They average 0·88 by 0·64 inches.

Status and Distribution. — This species extends from Nepal eastwards to Yunnan and southwards through Burma to Tenasserim. It has not been recorded from the Arakan Yomas, though it probably occurs there, but elsewhere it is resident throughout the higher hills;

it seems to be confined to the higher peaks and is nowhere very common.

THE BURMESE RED-VENTED BULBUL

Molpastes cafer burmanicus (400).

Allied Form.—

THE TENASSERIM RED-VENTED BULBUL, *M. c. nigripileus (401).*

Local Names. — Burmese: *But-pin-ni* (ဗတ်ပင်နီ)

Identification. — PLATE IV, Fig. 2, Page 66. Length 8 inches. The white tips to the tail-feathers show up in flight, which is quick and strong but not sustained; the beat of the wings is distinctly audible. A common garden bird, cheerful and noisy in demeanour.

Voice. — There is something very attractive about the cheerful voice of this Bulbul, though it has only one or two call-notes and no song. It is no doubt often credited with the reputation of a famous songster owing to confusion with the Bulbul of Persian literature, which however is a race of the Nightingale. It is one of the first birds to give the alarm when a Hawk flies overhead, the notes on such occasions rising in pitch and clearly warning other birds of the danger.

Habits and Food. — Essentially a garden bird attached to the haunts of man, the Red-vented Bulbul frequents also scrub, *ponzo*, and quite small clearings in the forest. Though it sometimes descends to the ground to pick up an item of food its short weak legs are not adapted for walking or hopping and it is mainly arboreal in habits. It is usually seen in pairs and cannot be described as gregarious, though small parties are occasionally met with and numbers often collect together at a spot where some particular food is plentiful. It has a very evident affection for its mate and this combined with its sprightly and bold demeanour, handsome colouring, and lively call-notes make it a general favourite.

It has however two vices: it is very quarrelsome, and it is destructive in the garden, damaging fruit and flowers and spoiling many a promising row of peas. The unseen good that it does in keeping down insect pests probably outweighs this more obvious damage, for it feeds on insects as well as seeds and termites in particular it relishes, though like other birds it fails to connect the earthen runways of these insects with the store of food within. It readily takes the winged termites in the air when a " flight " occurs. At other times, generally in the evenings, it indulges in fly-catching, sitting on the top of a bush or small tree, launching out continually for short flights in the air, and returning again and again to the same perch.

Nest and Eggs. — The breeding season extends from February to August, but April and May are the principal months, and later nests are probably for second broods. The nest is usually built in a bush within easy reach, but is found in a variety of situations. It is a cup of dead leaves, grass or twigs with odd scraps of moss and lichen, fairly compact but rather untidy, with a lining of fine roots and horse hairs. The eggs, 2 to 4 in number, are rather long ovals, smooth and fragile in texture with very little gloss; they are pinkish-

white with numerous reddish and purplish markings of every conceivable form, which on most eggs almost conceal the ground colour but on some are collected into zones and caps about the larger end. The eggs average 0·90 by 0·65 inches.

Status and Distribution. — This species has a wide range throughout India, Burma and Ceylon, extending eastwards to China. It is a common resident throughout Burma up to 4,500 feet.

THE SIAMESE RED-VENTED BULBUL

Molpastes chrysorrhoides klossi (402a).

Identification. — Distinguished from the preceding species by the almost white ear-coverts and by having the point of the chin only black (some specimens of *nigripileus* approach this species and field identification cannot be relied upon).

Nest and Eggs. — Similar to those of the preceding species.

Status and Distribution. — This species is resident in the Shan States, Karenni and Northern Tenasserim, whence it extends to Siam, Yunnan and South-west China. The relationships of this race and the two races of the preceding species and their distributions east of the Sittang are an unsolved problem.

[Note: — THE WHITE-CHEEKED BULBUL, *Molpastes leucogenys leucogenys (405)*, has not been recorded from Burma, except for a possible sight record in the Myitkyina district, but it is found in the hill ranges of Assam and is not unlikely to occur in Northern Burma. A sprightly cheerful bird found in open country. Length 8 inches. It appears dull brown with a conspicuous crest curved forwards over the bill like Punch's cap; there are black markings about the head, a large white patch on the face, and a patch of yellow under the tail].

BLYTH'S BULBUL

Xanthixus flavescens flavescens (408).

Allied Form.—

THE MULAYIT BULBUL, *X. f. vividus (409).*

Local Names. — Kachin: *Cheng-ma-kator.*

Identification. — Length 8 inches. Upper-parts brown, under-parts grey with the under tail-coverts bright yellow; a whitish spot in front of the eye shows up well and distinguishes this species from the other brown Bulbuls. A gregarious hill-bird of regrowth.

Voice. — It has conversational notes like those of the Red-vented Bulbul, a short song of five notes, and a very harsh chatter.

Habits and Food. — This is typically a bird of *ponso*, but it also frequents the top of the undergrowth in open forest, occasionally ascending into the canopy. It is found in parties of half a dozen to 30 or more birds, which resent other birds feeding near them and often quarrel amongst themselves over food and other matters of interest. Its habits are much like those of the Red-vented Bulbul, and it also indulges in fly-catching of an evening.

Nest and Eggs. — The breeding season is from March to June. The nest is carefully concealed in a low bush and is hard to find; it is a shallow cup, very neatly made of grass, fine twigs and weed stems mixed with scraps of moss and lichen. The eggs, 2 or 3 in number, are rather long blunt ovals, fragile in texture without gloss and in

colour resemble the eggs of the Red-vented Bulbul, though often much paler and pinker, and the markings consist of very fine freckles rather than blotches. The eggs average 0·94 by 0·65 inches.

Status and Distribution. — This species extends from Assam through Burma to Annam and Malaya. It is resident throughout the higher hills of Burma and is very common in the Karen Hills (Thandaung) and Karenni, and probably elsewhere in its range; it does not occur round Maymyo.

THE BURMESE RED-WHISKERED BULBUL

Elathea jocosa peguensis (412).

Allied Form.—

THE BENGAL RED-WHISKERED BULBUL, *E. j. jocosa (410).*

Local Names. — Burmese: *But-kă-lon* (ဗုတ်ကလုံး)

Identification. — PLATE IV, Fig. 5, Page 66. Length 8 inches. The red " whisker " is conspicuous in the Burmese race but almost invisible in the field in the Bengal race. A sprightly and common garden bird. The flight is strong and well sustained, but slow and jerky in character.

Voice. — The call-notes are much the same as those of the Red-vented Bulbul, but louder and more musical in tone.

Habits and Food. — The Red-whiskered Bulbul is more gregarious than the Red-vented Bulbul, often collecting in large parties, but otherwise its habits are similar; thick forest it avoids, preferring the haunts of men, gardens, orchards, cultivation, low scrub jungle and the neighbourhood of villages. It is a lively cheerful bird and by no means shy. It feeds on insects and fruit, and is partial to *lantana* seed, thus assisting the rapid spread of this weed, and it can also do considerable damage in fruit gardens.

Nest and Eggs. — The breeding season is from February to May. The nest is usually built in a small bush within 6 feet of the ground, and is a loosely but strongly built cup of grass, roots, fibres, and thin stalks with a lining of finer grass stems and roots; some dry leaves and ferns are worked into the bottom and are characteristic of the nests of this species. The eggs, 2 to 4 in number, are broad somewhat lengthened ovals, fine in texture with a slight gloss; the colour is pinkish or reddish-white very thickly freckled, streaked and blotched with red of various shades and with a few secondary markings of pale inky-purple; there is a tendency for the markings to collect at the larger end. The eggs average 0·85 by 0·65 inches.

Status and Distribution. — This species has a wide range from India through Burma and Yunnan to China. It is a common resident throughout Burma outside the forests, ascending to 5,000 feet. It moves about a good deal locally.

THE BLACK-CRESTED YELLOW BULBUL

Elathea flaviventris flaviventris (413).

Allied Form.—

KLOSS'S BLACK-HEADED YELLOW BULBUL, *E. f. minor (414).*

Local Names. — Chinghpaw: *Tawthit.*

Identification. — PLATE IV, Fig. 4, Page 66. Length 7 inches.

Voice. — A rather quiet bird with a jerky little song, *wheet-tre-trippy-wit*, the last two syllables repeated two or more times.

Habits and Food. — This is a forest Bulbul and is a typical bird of the teak forests; it lives in bamboos and the undergrowth and is found chiefly in small clearings and along streams, though it also frequents *ponzo* and scrub on the outskirts of forest. It is usually seen in pairs and is easy to watch, being inquisitive and not at all shy. It has been seen on the ground eating wild strawberries, and it also feeds on termites during a "flight." In its actions and flight it is a typical Bulbul.

Nest and Eggs. — The breeding season is from May to June, with second broods into September. The nest is nearly always made of tan-coloured materials, chiefly dead leaves, with a lining of fine grass stems and moss roots. The eggs, 2 to 4 in number, differ from those of the preceding species in being more profusely stippled and speckled all over with pink, red and purple. They average 0·88 by 0·65 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is resident throughout the foothills of Burma, ascending to 4,000 feet. Kloss's race is only found in Tenasserim.

THE CRESTED BROWN BULBUL

Euptilosus eutilota (415).

Identification. — Length 9 inches. As its name indicates this is a brown bird with a crest; the under-parts are whitish. It is a bird of mixed scrub and cultivation and is usually seen singly or in pairs.

Nest and Eggs. — Unknown.

Status and Distribution. — This species is a scarce resident in the extreme south of Tenasserim, whence it extends through Malaya to Sumatra, Borneo and Java.

THE FINCH-BILLED BULBUL

Spizixus canifrons canifrons (416).

Local Names. — Kachin: *Kator-sit;* Chinghpaw: *Kător-u.*

Identification. — Length 8 inches. A green bird with a grey and black head and crest and the tail broadly tipped with dark brown; it differs from all other Bulbuls in its curious Finch-like bill, which is pale yellow but looks almost white in the field. A hill-bird of forest clearings round villages.

Voice. — A curious chattering is distinctive, and it also has other notes, which are full, soft and sweet.

Habits and Food. — The Finch-billed Bulbul favours especially the mass of brambles and "burr"-bearing plants that springs up on the fringes of village clearings in the northern hills. It also ascends trees, and is usually seen in parties of a dozen or more birds. It flies well but is neither active nor quick on its feet.

Nest and Eggs. — The breeding season is from April to July. The nest is usually built in a tall bush or small tree 5 to 10 feet from the ground in dense evergreen forest or thick scrub jungle; it is made almost entirely of tendrils. The eggs, 2 or 3 (rarely 4) in number,

are long blunt ovals in shape, fine and very fragile in texture, and almost without gloss; they are so covered with freckles and tiny blotches of various shades of red that little of the pink ground colour is visible; they average 1·01 by 0·69 inches.

Status and Distribution. — This race extends from Assam eastwards to Yunnan and is resident in the higher hills of Burma as far south as the Chin Hills on the west and the Southern Shan States on the east; its occurrence in the Arakan Yomas has not been proved. It has been recorded from as low as 1,000 feet, but probably descends to such low elevations only in winter. It is locally common.

THE YELLOW-CROWNED BULBUL

Hemitarsus zeylonicus (417).

Identification. — Length 11 inches, the largest of the Bulbuls. Crown yellow, cheeks black, chin and throat white; the rest of the plumage is brownish streaked with white; there is no crest. It is very garrulous and keeps up a continual chatter, and it also has a song that is particularly rich and powerful. It is a bird of the plains and frequents open country and gardens, avoiding the forests. It feeds on berries and insects and may often be seen hopping about on the ground in search of the latter.

Nest and Eggs. — The only nest so far recorded was built in a very exposed position in a bush 10 feet from the ground; it was of the ordinary Bulbul type, though much bigger than usual, and was made of fern, grass and moss roots. The eggs, 2 in number, were like those of the Black Bulbul and averaged 1·02 by 0·73 inches.

Status and Distribution. — This species is resident in Tenasserim, whence it extends to Siam, Malaya, Sumatra, Borneo and Java. In spite of its name it is not found in Ceylon.

THE STREAKED BULBUL

Iole malaccensis malaccensis (418).

Identification. — Length 9 inches. Upper-parts brownish-green; under-parts ashy-grey broadly streaked with white. Its habits are said to resemble those of Tickell's Bulbul (page 71).

Nest and Eggs. — The only nest recorded was a small cradle of twigs, leaves and grass bound by cobwebs to the small forked branch of a bush. The eggs, 2 in number, were white with innumerable freckles of light yellowish- and pinkish-red, and averaged 0·89 by 0·66 inches.

Status and Distribution. — This species is resident in Tenasserim, whence it extends to Siam, Malaya, Sumatra and Borneo.

THE OLIVE BULBUL

Iole virescens virescens (420).

Allied Forms.—

THE TENASSERIM OLIVE BULBUL, *I. v. cinnamomeoventris (421).*

THE SIAMESE OLIVE BULBUL, *I. v. propinqua (422).*

Local Names. — None recorded.

Identification. — Length 7½ inches. An olive-green bird, the wings and tail browner, the under-parts yellower, and the under tail-coverts yellow or cinnamon. A quiet secretive bird of forest and scrub.

Voice. — A very nasal call-note, *chwaa*, uttered either on the wing or whilst feeding attracts attention. It also has a pleasant soft whistling note like that of *Pycnonotus finlaysoni*.

Habits and Food. — This Bulbul is typically a bird of the canopy in evergreen forest, where trees festooned with leafy climbers are its favourite haunt; it may also be seen in the undergrowth, and in *ponzo* outside forest. Though sometimes found in small parties it is usually seen singly or in pairs and cannot be called gregarious. It feeds chiefly on berries.

Nest and Eggs. — The breeding season is in May and June. The nest is usually found in a horizontal fork, the branches of which are built into the nest. It is a compact well-made cup of dead leaves and twigs bound together with strips of bark or similar material and lined with rootlets or tendrils. The eggs are pale pink in colour, profusely speckled with reddish-brown and some resemble speckled eggs of the Red-vented Bulbul. They average 0·89 by 0·64 inches.

Status and Distribution. — This species is widely distributed through the Oriental Region as far west as Assam. It is resident throughout the forests of Burma, ascending to 5,000 feet, but seems to be very local; it occurs at Maymyo and Thandaung.

WEBBER'S BULBUL

Squamatornis webberi (424).

Identification. — Length 6 inches. Head and neck black; upper-parts golden; tail black tipped with white; throat, sides of neck and centre of abdomen white; breast and flanks mottled black and white; under tail-coverts yellow. A small handsome Bulbul.
Nest and Eggs. — Unknown.
Status and Distribution. — This species is resident in Tenasserim, whence it extends through Siam and Malaya to Sumatra.

THE YELLOW-VENTED BULBUL

Pycnonotus goiavier analis (425).

Identification. — Length 8 inches. Differs from the next species in having the forehead and crown dark brown and a broad white eyebrow. In voice and habits it closely resembles the Red-whiskered Bulbul, and favours open country with a few bushes scattered about.
Nest and Eggs. — Indistinguishable from those of the Red-whiskered Bulbul.
Status and Distribution. — This race is resident in Tenasserim, Siam, Cochin China, Malaya Sumatra, Borneo and Java; it is very common round Mergui.

ANDERSON'S YELLOW-VENTED BULBUL

Pycnonotus xanthorrhous (426).

Local Names. — Kachin: *Kator-tor-prong;* Lashi: *Jawngkwi.*
Identification. — Length 8 inches. A brown bird with a black forehead and crown, a black ring round the eye, a pronounced crest, and golden-yellow under tail-coverts; it has to be distinguished from Blyth's Bulbul and the Olive Bulbuls, which also have yellow under tail-coverts.

Voice. — Not recorded.

Habits and Food. — This is typically a bird of bramble- and bracken-covered hillsides and the open country round hill villages. Its habits are similar to those of the Red-whiskered Bulbul.
Nest and Eggs. — The breeding season is from April to August. The nest, which is of the usual Bulbul type, is built in a clump of brambles

amongst low grass and weeds within 2 or 3 feet of the ground. This bird seems to nest in colonies. The eggs, 3 or rarely 2 in number, are like those of the Red-vented Bulbul, but not so variable.

Status and Distribution. — This species extends into Burma from China and Yunnan, and is resident throughout the eastern hills from the extreme north to Karenni; it is a common and familiar bird in its range.

FINLAYSON'S STRIPE-THROATED BULBUL

Pycnonotus finlaysoni finlaysoni (427).

Allied Form.—

DAVISON'S STRIPE-THROATED BULBUL, *P. f. davisoni (428).*

Local Names. — None recorded.

Identification. — Length 7½ inches. Forehead bright yellow; crown and nape deep grey; upper-parts olive-green; chin, throat and upper breast grey with bright yellow streaks; rest of under-parts grey except for the bright yellow under tail-coverts; the pale yellow eye is conspicuous. A plains bird of scrub jungle.

Voice. — This bird has a most characteristic loud melodious call-note, *ding-da-ding-ding-da-ding-ding,* up in a crescendo to the fourth note and then dying away. A liquid bubbling alarm-note is often heard.

Habits and Food. — The Stripe-throated Bulbul frequents gardens, cleared land, scrub jungle and the outskirts of forest; though not gregarious, numbers are usually seen together, and it is a very lively bird, always on the move. It feeds on berries and insects, which are taken both from the ground and off trees and bushes.

Nest and Eggs. — The breeding season is from February to June. The nest is built in a bush or small tree 3 to 15 feet from the ground; it is a cup of leaves, grass, roots and fine twigs, lined with fine grass and rootlets. The eggs, 2 or 3 in number, resemble richly marked eggs of the Red-whiskered Bulbul, both in size and colour.

Status and Distribution. — This species is widely distributed in the Oriental Region, but does not extend west of Burma. It is the commonest Bulbul in Tenasserim and is also resident in Karenni, the Irrawaddy-Sittang plain and Arakan; the scrub-covered laterite ridge between Rangoon and Mingaladon is one of its favourite haunts.

THE BLUE-BELLIED BULBUL

Pycnonotus cyaniventris (432).

Identification. — Length 6½ inches. Whole head and under-parts deep slaty-blue, except for the bright yellow under tail-coverts; upper-parts bright greenish-yellow. Its note is a sharp lively chirrup and it is found singly or in pairs on the outskirts of forest or in deserted clearings. It is rather shy, retreating into dense cover if alarmed, and is said to feed entirely on berries.

Nest and Eggs. — The breeding season is from April to June. The nest is built in a low bush, and the eggs, 2 or 3 in number, are like small eggs of the Red-whiskered Bulbul and average 0·80 by 0·61 inches.

Status and Distribution. — This species is resident in the south of Tenasserim, whence it extends southwards through Malaya to Sumatra.

THE LARGE OLIVE BULBUL

Pycnonotus plumosus plumosus (434).

Allied Form.—

ROBINSON'S OLIVE BULBUL, *P. p. robinsoni (435).*

Identification. — Length 8 inches. Similar to the next species and probably indistinguishable in the field. The Large Olive Bulbul is an unobtrusive bird of evergreen forest, keeping to the undergrowth and lower canopy, and its note is described as a chirping chatter like that of a Criniger. Robinson's Olive Bulbul is said to be a more familiar bird, freely entering gardens, orchards and cultivated country; it is also more restless and energetic, constantly flying from tree to tree in its search for food.

Nest and Eggs. — The breeding season is from January to July. Nest and eggs are indistinguishable from those of the next species.

Status and Distribution. — The Large Olive Bulbul extends from Tenasserim town southwards along the west coast through Malaya to Sumatra and Borneo, whereas Robinson's race is found near Tavoy and extends thence down the east coast. This distribution seems peculiar and the races need revision.

BLANFORD'S OLIVE BULBUL

Pycnonotus blanfordi blanfordi (436).

Local Names. — Burmese: *But-sa-mwe* (ဗတ်စားမွှေး), *But-chwè* (ဗတ်ခွေး), *Byu* (ဖျု)

Identification. — PLATE IV, Fig. 6, Page 66. Length 8 inches. This is the plainest of the Bulbuls, an untidy ashy-grey bird without distinguishing features; the slight crest and the silvery-white ear-coverts do not show up well in the field. A plains bird of open scrub.

Voice. — The ordinary note is a very harsh grating call, which sounds like a saw passing slowly through soft wood; the crest is usually erected while calling.

Habits and Food. — This Bulbul likes best of all the open thorny scrub of the Dry Zone uplands, and elsewhere in its range it will be found in similar habitats. Though not obtrusive its raucous scoldings soon draw attention to its presence, and it is frequently seen in gardens; it is an uninteresting bird, pleasing neither to the eye nor to the ear.

Nest and Eggs. — The breeding season extends from March to August, but an odd nest may be found in almost any month, as with most of the common Bulbuls. The nest is of the ordinary Bulbul type and the eggs, 2 or rarely 3 in number, do not differ from those of other members of the genus.

Status and Distribution. — This is one of the commonest and most typical birds of Central Burma, whence it extends in decreasing numbers northwards to Katha and the lower part of the Upper Chindwin and southwards to Karenni and Rangoon. It is also found in Yunnan.

MOORE'S OLIVE BULBUL

Pycnonotus simplex simplex (437).

Identification. — Length 8 inches. Differs from the last two species in having the ear-coverts the same colour as the crown, with no trace of silvery-white, but it is probably indistinguishable in the field. It is a bird of open forest and does not frequent cultivated or inhabited areas.

Nest and Eggs. — Similar to those of the last two species, but the eggs are rather more richly coloured.
Status and Distribution. — This species extends from Mergui southwards through Malaya to Sumatra, Borneo and Java.

THE SMALL OLIVE BULBUL

Pycnonotus erythropthalmus erythropthalmus (438).

Identification. — Length 6½ inches. Similar to the preceding species but much smaller and easily recognised by the bright orange-red ring round the eye.
Nest and Eggs. — Said to be typical of the genus.
Status and Distribution. — This race is resident, but rare, in the south of Tenasserim, whence it extends to Malaya and is replaced by another race in Sumatra.

THE BLACK-HEADED BULBUL

Microtarsus atriceps (439).

Local Names. — None recorded.
Identification. — Length 7 inches. This bird is believed to have two phases: in one the plumage is olive-yellow with the head, throat and breast black and a broad black band across the tail, and in the other the under-parts are bluish-grey.
Voice. — Its ordinary call-note is a lively sharp musical chirp, and it also has a very mournful double whistle, something like that of the Common Iora but deeper and softer.
Habits and Food. — This Bulbul frequents both dense and open forests and scrub, and is equally at home in the tree-tops and the undergrowth. It is found in small or large parties and feeds on berries, fruit and small insects; of these last it finds a plentiful supply in flowering *letpan* trees.
Nest and Eggs. — The breeding season is from February to April. The nest is usually found in a low bush in evergreen forest or in scrub jungle, and is a very strongly made cup of the usual Bulbul type. The eggs, 2 or 3 in number, are easily distinguished from the eggs of all other Bulbuls; the colour is pale fleshy-pink to lilac with reddish spots and freckles, and underlying marks of pale grey and pale lilac, which generally give the dominant tint to the egg; the markings form a pronounced ring or cap at the larger end. The eggs average 0·81 by 0·61 inches.
Status and Distribution. — This species extends from Assam through Burma to Siam, Malaya, Sumatra, Borneo, Java and the Philippines. It seems to miss out Northern Burma, being resident from Tenasserim northwards to the west of the Southern Shan States, a little north of Toungoo in the Sittang Plain, and Southern Arakan; it is locally common and may be seen in the cane-brake and scrub jungle between Rangoon and Hlawga.

[Note: — THE GREY-BELLIED BULBUL, *Microtarsus cinereoventris (442)*, is the bluish-grey phase mentioned above, and is always seen in company with birds in the yellow phase and never by itself; every party of birds in the yellow phase does not however contain birds in the blue-grey phase. Whether these birds are in fact two different species or merely two phases of one species still remains to be decided; evidence that the two breed together is required.]

Family CERTHIIDÆ

TREECREEPERS

This family is found in most parts of the world. It is represented in Burma by one genus with a greatly graduated tail and a slender bill as long as the head and curved downwards. The young are coloured like the adults, but are somewhat paler and duller, and show signs of cross bars on the under-parts. The Burmese members of the genus are all birds of the higher hills and mountains, from 4,000 feet upwards.

A Treecreeper is a small streaky brown bird, easily recognised by its behaviour. It ascends the trunks or limbs of trees in a succession of little jerks, aided by the stiff pointed feathers of the tail, which it presses against the bark like a Woodpecker. From one tree it flies obliquely downwards to the trunk or to a branch of another tree and again ascends. It often climbs along the under side of boughs and occasionally feeds while clinging Tit-like to the small outer foliage. It invariably climbs upwards, neither jerking backwards and downwards as a Woodpecker may on occasion, nor running in all directions and positions like a Nuthatch. It feeds on insects and their larvae, which it picks out from the crevices of the bark with its long curved bill, and for which it hunts with tireless energy, pausing only to dislodge some tightly ensconced morsel. Although living solitary or in pairs as regards its own kind, it is sociable with other species and is often seen with a mixed hunting party of Tits and Warblers, working the trunks while the others hunt the leaves and twigs, so that tree after tree undergoes a thorough scrutiny.

The nest is built in a hole or crevice in a tree trunk, and frequently behind a loose bulging section of bark; it is a cup of fine grasses, dry leaves, moss and chips with a lining of feathers and fur. The eggs, 4 to 6 in number, are broad regular ovals, fine in texture without gloss; the colour is white profusely spotted with various shades of red and brown, the markings tending to collect in a zone about the larger end.

THE CHIN HILLS TREECREEPER

Certhia himalayana ripponi (447).

Identification. — Length 6 inches. Distinguished from the other species by its boldly barred tail.

Nest and Eggs. — Unknown for this race, but not likely to differ from those of the family as described above.

Status and Distribution. — This species extends throughout the Himalayas from Afghanistan to Yunnan, but in Burma has only been recorded from the Chin Hills.

[Note:— THE YUNNAN TREECREEPER, *Certhia himalayana yunnanensis (446)*, is said to occur in the Northern Shan States (F. B. I., Vol. 1, Page 432); no records or specimens are traceable, but it may be found some day on the higher peaks.]

THE TIBETAN TREECREEPER

Certhia familiaris khamensis (449).

Identification. — Length 6 inches. The chin, throat and breast are white in this species, earthy-brown in the next. The call-note is a shrill *tsüü*, often repeated rapidly.

Nest and Eggs. — Unknown for this race but not likely to differ from those of the family as described above.

Status and Distribution. — This species is a familiar bird in the British Isles, whence it extends across Europe and most of Asia. The Tibetan race was recorded from Gokteik (Northern Shan States) in 1902, and recently from the Adung valley at 13,000 feet; it is also found in South-east Tibet.

HUME'S TREECREEPER

Certhia discolor manipurensis (452).

Allied Form.—

THE KARENNI TREECREEPER, *C. d. shanensis (454).*

Identification. — Length 6 inches See under the preceding species. The call-note is a shrill *du-wee-teet, du-wee-teet.*

Nest and Eggs. — See the family description above. The nest and eggs of the Karenni race are unknown.

Status and Distribution. — This species extends from Nepal eastwards to Yunnan and southwards to Karenni; the Manipur race is resident in the Chin Hills, and almost certainly in the Upper Chindwin; Treecreepers seen in the Arakan Yomas probably also belong to this race. The Karenni race is resident in North-East Burma, the Shan States and Karenni. Like other Treecreepers it is a bird of the higher peaks and is probably not resident below 4,500 feet.

[Note: — The Chin Hills form, *Certhia discolor victoriæ (453)*, is a bad race and does not differ from *manipurensis*.]

[Note: — STOLICZKA'S TREECREEPER, *Certhia stoliczkæ (455)*, has not been recorded from Burma but is resident in the Assam hills and may be found some day in the mountains of the Upper Chindwin. It is distinguished by streaky black upper-parts, white chin and throat, and deep rusty under-parts.]

Family TROGLODYTIDÆ

WRENS

The Wrens have short rounded wings, very strong legs and feet, and (except in the genus *Sphenocichla*) very short tails composed of soft feathers. In some genera the sexes are alike whereas in others they differ greatly. In Burma the Wrens are typically birds of the densest undergrowth in the evergreen forests of the higher hills; they are confined to elevations above 3,000 feet, except for the Slaty-bellied Wren, which is sometimes found lower down. Their food consists entirely of insects, which they pursue with great activity and restless energy, scrambling over mossy boulders and fallen trees and working their way through the lower part of the undergrowth. Great skulkers and very shy, they are loath to take flight and prefer to creep away silently if disturbed.

THE YUNNAN WREN

Troglodytes troglodytes talifuensis (459).

Identification. — Length 4 inches. Plump, stumpy build with a short tail usually cocked up, russet-brown colour, paler and more buff below, and a

pale buffish eyebrow distinguish this species. The call-note is a hard clicking *tic-tic-tic*, often rapidly repeated.

Nest and Eggs. — Unknown for this race. Other races make large domed nests of moss, with a thick lining of feathers, usually on a bank between the roots of a tree but sometimes some height up a tree. The eggs are white with a few red specks.

Status and Distribution. — This species has a very wide range in Europe, North-west Africa and Asia, the common English Wren being the typical race. The Yunnan race is found in Yunnan and Northern Siam and has been recorded from the Adung valley at 6,000 feet. It is also said to occur in the Shan States (F. B. I., Vol. 1, Page 446,) but no records or specimens are traceable.

THE SPOTTED WREN

Elachura formosa (462).

Identification. — Length 4½ inches, including a tail of 1 inch. A brown bird paler below, with white spots all over.

Nest and Eggs. — The nest is built on the ground on a bank and is either half hidden in fallen litter or well concealed by the undergrowth; it is a deep semi-domed cup of dead leaves, grass and roots with a thick lining of feathers. The eggs, 3 or 4 in number, have a hard glossy texture and are pure white in colour with a few specks of reddish-brown; they average 0·65 by 0·49 inches.

Status and Distribution. — This species extends from Sikkim to Northern Burma; it has been recorded from Mt. Victoria and the mountains east of Myitkyina at high elevations.

[Note: — THE PLAIN BROWN WREN, *Elachura haplonota (463)*, has not been recorded from Burma, but the only specimen known was obtained in the Cachar hills in Assam, and it is worth looking for in the mountains of the Upper Chindwin. Length 4 inches, including a tail of 1½ inches. This comparatively long graduated tail distinguishes it from the Brown Wren, which it otherwise resembles in habits and appearance.]

HARINGTON'S LONG-TAILED WREN

Spelæornis longicaudatus kauriensis (467).

Allied Form.—

BINGHAM'S LONG-TAILED WREN, *S. l. reptatus (468).*

Identification. — Length 4½ inches, including a tail of nearly 2 inches. Upper-parts brown and under-parts chiefly grey.

Nest and Eggs. — The breeding season is in May and June. The nest is built on a bank under dense undergrowth; it is a domed oval-shaped structure of dead leaves with a waterproof lining resembling *papier-maché*, apparently made of skeleton leaves and some soft fibrous stuff worked into a pulp and then spread over the whole interior of the nest to form a very neat cup. The eggs are broad obtuse ovals in shape, fine and close in texture, and a pure dull white in colour, speckled with dark red; they average 0·75 by 0·57 inches.

Status and Distribution. — Harington's race is resident in North-East Burma and is common at Sinlum. Bingham's race is resident in Kengtung. Other races extend westwards to Assam and eastwards to Yunnan. It is confined to elevations above 5,000 feet.

[Note: — The Sinlum Wren, *Spelæornis longicaudatus sinlumensis (466)*, is a bad race and does not differ from Harington's race].

RIPPON'S LONG-TAILED WREN

Spelæornis chocolatinus oatesi (469).

Identification. — Length 4 inches, including a tail of 1½ inches. Differs from the preceding species in having the under-parts white with triangular blackish spots.

Nest and Eggs. — The breeding season is from March to May. Nest and eggs do not differ from those of the preceding species.

Status and Distribution. — This race is resident in the Chin Hills above 5,000 feet, and is replaced by the typical race in Manipur.

THE SCALY-BREASTED WREN

Pnoepyga albiventris albiventris (471).

Identification. — Length 4 inches. Similar to the next species but larger and with more, and more distinct, spots on the upper-parts; probably indistinguishable in the field.

Nest and Eggs. — Slightly larger than those of the next species, the eggs averaging 0·73 by 0·54 inches.

Status and Distribution. — This race has been recorded from Mt. Victoria, the mountains east of Myitkyina, and Karenni; it is resident from 3,000 feet upwards but appears to be rare, though judging by its distribution it probably occurs in the Shan States and Upper Chindwin. It extends westwards all along the Himalayas to the Sutlej valley.

THE BROWN WREN

Pnoepyga pusilla pusilla (472).

Local Names. — None recorded.

Identification. — Length 3½ inches; the tail, which is completely concealed from view, measures ½ inch. A dark brown bird that creeps about the undergrowth like a mouse; the under-parts, which one seldom sees, are white with blackish markings.

Voice. — Its ordinary note is a single *zip* uttered at long intervals; in the breeding season it attempts a little song. If forced to fly it rises with a sharp *chick, chick, chick.*

Habits and Food. — This quiet and attractive little bird is easily overlooked; it favours especially the dense fern growth and luxuriant moss edging mountain streams in evergreen forest; in this it runs about like a small brown mouse without shaking so much as a leaf, and is thus very difficult to watch. It feeds on spiders and insects, chiefly ants.

Nest and Eggs. — The breeding season is from April to June. Nests of two very distinct types are made, both of which are works of art. The commoner type is built in, and made of, long strands of the brilliant green moss that clothes the branches and trunks of many trees in evergreen forest. The inner strands are compactly and firmly woven together to form a tiny cup, which is well lined with black rootlets; over this the outer strands of moss fall in natural profusion, so that the tiny entrance, little more than an inch across, can only be found by a careful search. The second type of nest is a tiny ball of the same green moss, tightly wedged in among the masses of orchids, ferns and creepers growing over a tree or fallen log. The eggs, 3 to 5 in number, are regular ovals in shape, very fragile in texture without gloss, and pure white in colour; they average 0·67 by 0·52 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region, extending as far west as Nepal; it is resident throughout the higher hills (not yet recorded from the Arakan Yomas, though likely to occur there) and is probably not uncommon.

ROBERT'S WEDGE-BILLED WREN

Sphenocichla roberti (474).

Identification. — Length 5 inches. Upper-parts dark golden-brown, the wings and tail barred with blackish; under-parts golden-brown marked with blackish. It has a direct quick flight, and though normally skulking in the undergrowth like a typical Wren it sometimes behaves like a Treecreeper, climbing actively about the bark of the bigger trees. It feeds on insects, mainly wood-lice and small boring beetles.

Nest and Eggs. — The only nest on record was made of fine grasses, tendrils and bents without a lining and was built at the bottom of a long crevice 20 feet up an oak tree: a site that a Treecreeper would choose. The eggs were rather pointed ovals, very fragile and almost without gloss, and pure white in colour; they averaged 0·85 by 0·68 inches.

Status and Distribution. — This species is confined to Assam and Northern Burma; it has only been recorded once from Burma, at 4,300 feet near Laukkaung (Myitkyina district), but is likely to occur in the mountains of the Upper Chindwin.

THE SLATY-BELLIED WREN

Tesia cyaniventer cyaniventer (475).

Local Names. — None recorded.

Identification. — Length 4 inches. An olive-green bird, blackish below, with a golden-brown forehead and crown. A skulker in evergreen undergrowth, attracting attention with its loud call-notes.

Voice. — It has a distinctive song, which starts with 3 or 4 rather hesitant notes up and down and ends with what can only be described as an outburst of noise, surprisingly loud for so small a bird. Another distinctive call consists of three high-pitched descending notes ¯ - _ with a pause of 1 or 2 seconds between each note. An intruder is greeted with an incessant scolding note.

Habits and Food. — This is a typical little Wren in habits and a great skulker, but by no means shy; in fact it is a sporting little bird, endowed with plenty of character, whose acquaintance is well worth making. It is very partial to small ravines in evergreen forest and where it is common every little nullah seems to hold its pair. Like the next species it sometimes ascends 20 to 30 feet up a tree when feeding.

Nest and Eggs. — The breeding season is from April to July. The nest is built in a thick bush, a tangle of creepers, the moss growing on a tree, or very rarely on the ground; it is a beautiful ball of bright green moss, lined with moss roots. The eggs, 3 or 4 (rarely 5) in number, vary considerably; the ground colour is a very pale pink, and the markings consist of reddish-pink specks and spots, on some eggs so fine as to appear an almost uniform terra-cotta, on other eggs sparser and much bolder, showing up well against the ground colour and more numerous at the larger end. The eggs average 0·69 by 0·51 inches.

Status and Distribution. — This species extends from Garhwal to Yunnan and is resident throughout the higher hills of Burma, excluding Tenasserim. It is very common over most of its range, and in Northern Burma is found in the foothills; it is absent from the Pegu Yomas and seems to keep to the higher hills in Southern Burma.

THE CHESTNUT-HEADED WREN

Tesia castaneocoronata castaneocoronata (476)

Identification. — Length 4 inches. A beautiful little Wren with a bright chestnut crown and nape and bright yellow under-parts; the upper-parts, wings and tail are dark olive-green. It has a distinctive loud single call-note, *tweet*, and is said to have also a shrill call of 4 notes, resembling that of the Grey-headed Flycatcher. Except that it is not found at low elevations its habits do not differ from those of the Slaty-bellied Wren.

Nest and Eggs. — The nest and eggs resemble those of the Slaty-bellied Wren, except that the former is less well put together and is usually lined with feathers, and the latter are usually much darker and richer in colour.

Status and Distribution. — This species has much the same range as the preceding one, but in Burma it appears to be confined to elevations over 6,000 feet and has only been recorded from Mt. Victoria, North-East Burma, the Southern Shan States and Karenni. It seems to be scarce everywhere.

Family CINCLIDÆ

DIPPERS

This family comprises a small group of birds that are specially adapted for an aquatic life; they are short, rotund and stoutly built; the plumage is everywhere very dense and waterproof, even the eyelids being clothed with feathers. The wing is short and rounded and the tail is exceedingly short. The sexes are alike and the plumage of the young is barred.

THE WHITE-BELLIED DIPPER

Cinclus cinclus leucogaster (478).

Identification. — Length 8 inches. Forehead, crown and upper back chocolate-brown; rest of upper-parts slaty; under-parts white. The habits of this race are little known. The British race has two notes: a loud tuneless *zit, zit, zit,* and a sharp metallic *clink, clink,* uttered in flight.

Nest and Eggs. — Unknown for this race, but not likely to differ from those described under the next species.

Status and Distribution. — This race breeds in Western Siberia and Turkestan, and has been recorded from the mountains east of Myitkyina, where its status is uncertain. Other races extend westwards across Asia and Europe to the British Isles, where it is a familiar species.

THE FORMOSAN BROWN DIPPER

Cinclus pallasii dorjei (480).

Identification. — Length 9 inches. Differs from the preceding species in having the whole plumage brown. The ordinary note is a loud tuneless *dzchit dzchit,* shrill enough to be heard easily above the roar of the waters; it heralds the approach of the small plump brown bird, which flies swiftly with rapid wing-beats a foot or two above the surface of the water, swaying from side to side amongst the boulders and only making a detour over land to avoid some intruder at the water's edge. It delights to perch on a stone or rock protruding from the water, bobbing and curtseying in a characteristic fashion as if hinged on its legs.

It feeds mainly on aquatic insects and their larvae, which it captures by wading, swimming, and diving; it is able to walk about on the bed of the stream under water, and it swims freely on the broader pools, now and again diving and disappearing for a while.

Nest and Eggs. — The breeding season is from December to May. The nest is a large globular structure of moss and grass, strongly made with massive walls, and lined with moss, roots and leaves; it has a comparatively large entrance at the side. It is always built near water, and is usually wedged into a hollow or cleft in a rock that is overgrown with moss and ferns and damp with moisture. The eggs, 4 or 5 in number, are rather elongated ovals in shape, very soft and satiny in texture, almost without gloss, and pure white in colour. They average 1·00 by 0·72 inches.

Status and Distribution. — This race has been recorded from the Chin Hills, North-East Burma (where it is not uncommon), and the Shan States. It appears to be resident from 1,000 to 6,000 feet and to occur at lower elevations as a vertical migrant. It is also found in Formosa, and other races extend westwards throughout the greater part of Northern Asia, including the Himalayas.

Family TURDIDÆ

This is a large family, which has been subdivided into five sub-families, and includes the Shortwings, Chats, Forktails, Redstarts, Robins, and Thrushes; the only character that links them together is the mottled plumage of the young, but they are easily distinguishable from one another in the field by characteristics that will be described for each sub-family as we come to it.

Sub-family BRACHYPTERYGINÆ
BLUE CHATS & SHORTWINGS

This is a small sub-family, the members of which differ from the rest of the *Turdidæ* in having very short rounded wings and, except for Hodgson's Shortwing, very short tails. They are shy retiring birds, living on the ground or close to it and seeking their food almost entirely amongst the leaves and fallen litter. They are always seen singly or in pairs, never in parties, and they are confined to forests, hill evergreen being the type in which they are most commonly found.

THE SIBERIAN BLUE CHAT

Larvivora cyane (483).

Identification. — Length 6 inches. Sexes differ. The adult male has the upper-parts blue and the under-parts white. The adult female has the upper-parts olive-brown, the throat and breast tawny mottled with brown, and the remaining under-parts white. The young male is like the female, but acquires a certain amount of blue at the first autumn moult. It has a rather sweet but not very loud song, uttered either on the ground or from a bush or low tree. It has a habit of flirting its tail not unlike some of the true Chats.

Status and Distribution. — This species breeds in Siberia and Japan, and in winter migrates to most of the Oriental Region as far west as Assam. It is a winter visitor to Burma, and has been recorded from the Chin Hills, Pegu Yomas, Karen Hills, Southern Shan States, and Tenasserim, but it seems to be scarce outside Tenasserim.

THE INDIAN BLUE CHAT

Larvivora brunnea (484).

Identification. — Length 6 inches. Sexes differ. The adult male has a long broad white eyebrow, the upper-parts dark blue and the under-parts bright chestnut. The adult female is an inconspicuous olive-brown bird with whitish under-parts except for the tawny breast, which distinguishes it from the

female of the preceding species. The young male is like the female but has the back darker and much suffused with blue. Its habits do not differ from those of the preceding species.

Nest and Eggs. — The breeding season is from May to July. The nest is nearly always built on the ground, sometimes without any vegetation to screen it from view, sometimes under a bush or on a bank covered with weeds and moss; it is a large cup of dead leaves loosely put together and at a short distance looks like a little pile of rubbish drifted against the trunk of a tree or blown up on a bank; it is lined with hair or rootlets. The eggs, 3 or 4 in number, are pale unmarked blue and average 0·76 by 0·57 inches.

Status and Distribution. — This species breeds in the Himalayas and in winter migrates southwards to Ceylon and eastwards to Yunnan. In Burma it has only been recorded from the Chin Hills, where it is resident above 5,000 feet.

[Note: — THE CHIN HILLS BLUE CHAT, *Larvivora wickhami (485)*, is the same bird as the Indian Blue Chat.]

THE WHITE-BROWED SHORTWING

Brachypteryx cruralis (488).

Identification. — Length 5½ inches. Sexes differ. The male is indigo-blue with a white eyebrow. The female is brown and also has a white eyebrow. The tail is very short (under 2 inches) and the legs are long and slender. It has a pretty little song, characterised by its compass of high and low notes, with odd sucking and popping noises thrown in.

It is typically a bird of tiny streams in the evergreen forests of the higher hills, where it skulks in the thickest and thorniest cover it can find. That over-worked phrase "a dear little bird" best describes it, for besides being one of the most tame and confiding of all birds it invariably greets the human intruder crashing through its haunts with a welcoming paean of song.

Nest and Eggs. — The breeding season is from May to July. A large oval nest is built entirely of moss, lined with moss roots, amongst the strands of living moss on a rock face or on a tree. The eggs, 3 or 4 in number, are pure white, fairly glossy, and average 0·89 by 0·64 inches.

Status and Distribution. — This species extends from Simla eastwards to Assam, and thence to parts of Burma. It has not been recorded in the Arakan Yomas,the Northern Shan States, and Tenasserim, but elsewhere it is resident in the higher hills, though local in its distribution. In the Upper Chindwin it has been recorded as low as 1,000 feet and it extends up to 7,500 feet at least.

THE NEPAL SHORTWING

Brachypteryx leucophrys nipalensis (489).

Identification. — Length 5 inches, including a tail of little over 1 inch. The male differs from the preceding species in having the chin, throat and centre of abdomen white, and the female in having the chin and throat dull white. In voice and habits it is similar.

Nest and Eggs. — The breeding season is from April to June. A globular nest is made of moss, roots, leaves and bracken, bound together with grass and moss and lined with skeleton leaves; it is usually built against a tree or clump of bushes, rarely on the ground, and is well hidden. The eggs, 3 or 4 in number, appear olive-green or olive-brown but are actually olive-green with innumerable freckles of light reddish. They average 0·77 by 0·57 inches.

Status and Distribution. — This species extends from Garhwal eastwards to China and the Indo-Chinese countries. In Burma it has been recorded from Mt. Victoria, the Upper Chindwin, the Bhamo hills, Kalaw, Nattaung (Karenni) and Mt. Mulayit (Tenasserim) and appears to be decidedly local.

[Note:—THE CHINESE SHORTWING, *Brachypteryx sinensis (490)*, has not been recorded from Burma but is resident in Northern Assam and Western China and is to be expected in the extreme north of Burma. It is very like the White-browed Shortwing, but the male has no bars on the abdomen and the female has the chin and throat pale tawny instead of white; it is probably difficult to recognize in the field.]

HODGSON'S SHORTWING

Hodgsonius phœnicuroides phœnicuroides (491).

Allied Form.—

THE YUNNAN SHORTWING, *H. p. ichangensis (491a).*

Identification. — Length 7½ inches, including a greatly graduated tail of 3 inches, which distinguishes this genus from the other Shortwings. Sexes differ. The adult male is dark blue with some chestnut on the tail and white on the abdomen. The adult female has the upper-parts olive-brown with chestnut on the tail as in the male, and the under-parts yellowish, almost white on the chin, throat and abdomen. The young have mottled brown plumage. A bird of evergreen undergrowth in the higher hills. In habits it is more of a true Chat than the other Shortwings, keeping less to the ground and more to bushes. The male has the habits of a Robin, hopping about with its tail over its back and attacking other birds trespassing on its territory. Both sexes are very shy.

Nest and Eggs. — The breeding season is from June to early July. The nest is built on the ground or within a few inches of it in dense undergrowth; it is a massive cup of leaves and grass lined with rootlets and grass and often with a little hair, fur or feathers as well. The eggs, 2 to 4 in number, are rather broad ovals in shape, stout and smooth in texture, and dark blue in colour without gloss. They average 0·85 by 0·63 inches.

Status and Distribution. — This species extends from Kashmir eastwards to Yunnan and China. In Burma the typical race is resident on Mt. Victoria and the Yunnan race in the mountains east of Myitkyina and the hills east of Fort Stedman in the Southern Shan States.

Sub-family SAXICOLINÆ

STONECHATS & BUSH CHATS

The Chats are easily recognised in the field by their peculiar habit of flirting the tail and at the same time flicking it open fanwise for a moment. They also bob and flick their wings. They perch chiefly on the tops of bushes, on trees, telegraph wires, rocks, and similar conspicuous positions. They fly low with rapidly moving wings and jerky flight. On the ground they move with rapid hops, and at night they roost on the ground amongst grass or bushes.

THE BURMESE STONECHAT

Saxicola caprata caprata (492).

Local Names. — Burmese: *Hnget-kya* (ငှက်ကြာ)

Identification. — PLATE IV, Fig. 7, Page 66. Length 5½ inches. Sexes differ. In good plumage the male offers a fine contrast of deep jet black and dazzling white. In flight the pure white upper tail-coverts and lower abdomen give him a pied appearance. The female is dark brown with a rusty patch at the base of the tail. The young male is like the female but much darker, boldly streaked with very dark brown, and with the white wing-patch well developed. A conspicuous bird of open country, perching on tall grasses and the tops of bushes.

Voice. — The ordinary note is an insistent hard *tsak-tsak*, as if two pebbles were being struck together, from which the bird derives its name. It also utters a musical plaintive *hweet*, often combined with the last note, *hwee-tsak-tsak*. These notes are uttered at the least provocation, the birds being fussy and suspicious. It also has a short but very sweet and pleasing song.

Habits and Food. — This bird is found in open country and scrub jungle of all types, though unlike the Japanese Bush Chat it avoids the open paddy plains and it is never seen in forests. It takes most of its food from the ground, flying down from some favourite vantage point such as the top of a bush or a telegraph wire, and returning after the capture of each morsel with the self-satisfied spread and flick of the tail that is typical of the genus; now and then it captures flying insects on the wing. In his breeding display the male drops and quivers the wings, exposing the white patches, and also has a very pretty love flight in which he flies up singing from the top spray of a bush with the tail outspread and the wings beating slowly, descending again to settle on another bush; in this flight also the white wing-patches are prominently displayed.

Nest and Eggs. — The breeding season is from April to June. The nest is normally built on the ground, either on the level under a tuft of grass or in a hoof-mark, or in a hole in a bank or cutting; occasionally a hole in a rock or building is used. It is a small cup of grass roots, lined with hair, fur, wool and sometimes feathers, and is always well concealed. The eggs, 3 to 5 in number, are short broad ovals in shape, fine in texture with a faint gloss; the colour is bluish or pinkish-white with freckles, specks and small blotches of pale reddish-brown, which tend to collect towards the larger end. The eggs average 0·73 by 0·54 inches.

Status and Distribution. — This species extends from Transcaspia, Afghanistan and Persia through India and Burma to Yunnan, the Philippines and Java. It is resident throughout Burma up to 5,000 feet, and is common in suitable localities.

THE JAPANESE BUSH CHAT

Saxicola torquata stejnegeri (497).

Allied Forms.—

THE YUNNAN BUSH CHAT, *S. t. yunnanensis (496a).*
THE WHITE-TAILED BUSH CHAT, *S. t. leucura (498).*

Local Names. — None recorded.

Identification. — PLATE IV, Fig. 9, Page 66. Length 5 inches. Sexes differ. The male is unmistakable. The female is a small dull brown bird, similar to the female of the preceding species but rather paler in colour with the rusty rump-patch less marked, and with traces of a white shoulder-patch. The White-tailed race has a white triangular tip to the tail, whereas all other Stonechats and Bush Chats have the white, if any, confined to the extreme base, straight across. Found in open country perching on the tops of grasses and bushes and flicking the tail in the Chat manner.

Voice. — The ordinary notes are like those of the Burmese Stonechat. The song is a rapid musical repetition of double notes and though audible only for a short distance is quite pleasing.

Habits and Food. — The Japanese Bush Chat is catholic in its tastes, and is a common bird of the open paddy plains in the cold weather, extending right down to the sea. The White-tailed race frequents similar habitats to the Striated Marsh Warbler. It is typically a bird of island crops, such as maize, peas, tomatoes and tobacco, along the Irrawaddy and it is also found in large areas of *kaing* grass.

Nest and Eggs. — The White-tailed Bush Chat, which is the only resident race, breeds in April and May in swamps of *kaing* grass and *thetke* or thatching grass. The nest is very well concealed and is a cup of grass and leaves, usually lined with hair or fur. The eggs, 3 to 5 in number, are pale blue with freckles of light reddish-brown, on some eggs fairly numerous at the larger end, on others forming a well-defined ring or cap, and on others again almost absent. They average 0·71 by 0·55 inches.

Status and Distribution. — This species is very widely distributed in Europe, Africa and Asia, one race being the British Stonechat. Of the races that concern Burma, the Japanese Bush Chat is a common winter visitor to the plains and foothills (ascending to 4,000 feet at Maymyo) and may be seen from the 18th August to about mid-April. The Yunnan race has only been recorded from North-East Burma. The White-tailed race has been recorded from Bhamo, the Plains of Southern Burma, the Shan States and Karenni.

[Note:— THE INDIAN BUSH CHAT, *S. t. indica (495).*
THE TURKESTAN BUSH CHAT, *S. t. przewalskii (496).*

The Indian race is said to winter in North-west Burma and Yunnan, but no specimens are traceable from Burma. There is one specimen in the British Museum that might be the Turkestan race, though it might equally well be the Yunnan. Until more definite proof is forthcoming neither form can be admitted to the Burma List.]

JERDON'S BUSH CHAT

Rhodophila melanoleuca (501).

Local Names. — None recorded.

Identification. — PLATE IV, Fig. 8, Page 66. Length 6 inches. The female has the upper-parts brown, the chin and throat white, and the remaining under-parts tawny. The young male is like the female but darker and broadly marked above and on the breast with dark edges to the feathers. The flight is direct and strong but not sustained. A Chat of *kaing* grass.

Voice. — This is a very silent bird, but the male sometimes utters a low *chit-churr, chit-churr.*

Habits and Food. — This bird is confined to extensive areas of *kaing* or *thetke* grass and *yezi,* a form of wild briar growing on the sandy islands of the larger river valleys. At times it works the bottoms of the reeds and grass for insects like a Babbler, but otherwise it is a typical Chat in habits.

Nest and Eggs. — The breeding season is from April to May. The nest is built amongst the roots of the grass and is very hard to find; it is a compact stout little cup made of roots and fibres lined with fine grass. The eggs, 3 or 4 (rarely 2) in number, are close and fine in texture with a slight gloss, very stout for their size and bright blue in colour. They average 0·64 by 0·52 inches.

Status and Distribution. — This species extends from Eastern Behar and Bengal to Burma, and there is one record from Yunnan. It is resident in North-East Burma, Central Burma and the Plains of Southern Burma, but is nowhere common.

THE WESTERN DARK GREY BUSH CHAT

Rhodophila ferrea ferrea (502).

Local Names. — None recorded.

Identification. — PLATE IV, Fig. 10, Page 66. Length 6 inches. The female has a less conspicuous black eye-stripe and is rufous-brown in colour, paler below, with a chestnut tail. The young bird resembles the female. A Chat of scrub and open forest in the hills.

Voice. — The male has a rather pretty but unsatisfactory little song, *titheratu-chak-lew-titatit,* always just that length but with a few variants, and with a rising inflection that ends suddenly. If the nest is approached it makes a noise that has aptly been described as "geezing," recalling the winding of a watch.

Habits and Food. — This is a familiar bird of open country and open forest in the higher hills, and is fond of gardens and the immediate neighbourhood of man. It has the family habit of perching in conspicuous positions on the tops of bushes, and in contrast to other Chats it is also fond of perching in trees. It captures insects and caterpillars on the ground and also sallies into the air to take insects on the wing. Though bold and familiar in the ordinary way it develops a very anxious demeanour during the breeding season.

Nest and Eggs. — The breeding season is from March to June; two broods are hatched as a rule. The nest is built in any natural hollow, either on the ground or in a bank or wall, and is a fairly well made cup of grass, roots, a few leaves, and a little moss, lined with grass, fur or hair. The eggs, 4 or 5 in number, are broad ovals in shape, stout and fine in texture with little gloss, bluish-white to bluish-green in colour marked with faint reddish freckles, which on some eggs cover the whole surface and on others form a ring or cap at the larger end. The eggs average 0·71 by 0·56 inches. This bird is commonly victimised by the Cuckoo *(Cuculus canorus)* and a large number of its nests are destroyed by other enemies.

Status and Distribution. — This species extends from the borders of Afghanistan eastwards along the Himalayas to Assam and thence through Burma to Yunnan and China. It is resident throughout the higher hills of Burma and some birds descend to the foothills and plains in the cold weather.

Sub-family HENICURINÆ.

FORKTAILS

This sub-family comprises three genera of birds that might easily be mistaken for Wagtails; they are found only on small rocky streams with perennial running water, and they are black and white in colour with long tails, which they incessantly sway up and down. In structure however they are very different, and this accounts for the fact that they are not even in the same family.

All the Forktails have much the same habits. They walk sedately over the stones along the margin of the water, feeding with a quick pecking motion rather similar to that of a chicken, and sometimes submerging completely under water like a Dipper. They are extremely restless birds, frequently and unexpectedly turning at right angles or from side to side, and now and again advancing with little tripping runs, the white legs passing over the slippery stones with a sure-footed celerity. The flight is fairly fast but dipping and singularly graceful, and when disturbed they flit ahead for 100 yards or so before settling again by the water; this is repeated several times till one reaches the limit of their territory, when they leave the stream and by slipping through the forest at the side regain the water lower down, where they again start feeding. Occasionally they may perch on a bough of a tree for a few minutes. They feed on insects obtained from the water and the stream bed.

The site chosen for the nest is always very damp, usually on the bank of a stream but sometimes a short distance away; the nest is generally built on a ledge of rock, between boulders, amongst the roots of a tree, or even in a hollow under a bush. It is a very neat but massive cup of living green moss, mixed with roots and some mud, and is nearly always wet and heavy; it is lined with several layers of skeleton leaves, rarely with roots.

THE EASTERN SPOTTED FORKTAIL

Henicurus maculatus guttatus (518).

Local Names. — Lashi: *Ching-ngaw* (name for all Forktails).

Identification. — Length 11 inches, including a long deeply forked tail of 6 inches, which is tipped with white and is incessantly swayed up and down. The white spots on the back distinguish this species from the other Forktails. Young birds have the head, back and breast a dark rich brown.

Voice. — The call-note is a loud rather plaintive *cheer*, uttered both on the ground and in flight, and is usually the first intimation of the bird's presence as it flies up from the bed of a stream.

Habits and Food. — Those of the sub-family.

Nest and Eggs. — The breeding season is from April to July. The nest is typical of the sub-family. The eggs, 3 or 4 in number, are long often rather pointed ovals in shape, fine in texture with very little gloss, and pale greenish, dull pinkish or pale stone in colour, marked with numerous small freckles and spots of reddish-brown, sometimes

bold and sometimes indistinct, evenly distributed over the surface. A reddish type with brick-red spots is not uncommon. The eggs average 0·98 by 0·68 inches.

Status and Distribution. — This species extends from the North-west Frontier of India to China, Yunnan and Siam. In Burma it is resident in all the western hill areas, North-East Burma, and the Shan States. It is confined to perennial streams in the forest and appears to be nowhere common.

THE SLATY-BACKED FORKTAIL

Henicurus schistaceus (519).

Local Names. — None recorded.

Identification. — Length 8 inches, including a tail of 5 inches; distinguished from other Forktails by the slaty blue-grey colour of the back. Young birds have the upper-parts a rich brown.

Voice. — The ordinary call is a single high-pitched note.

Habits and Food. — Those of the sub-family, except that it is a hill bird.

Nest and Eggs. — The breeding season is in April and May. The nest is typical of the sub-family, and the eggs, 3 or 4 in number, are of two types: one resembles a small washed-out egg of the preceding species and the other is pure white with bold spots and speckles of reddish-brown and underlying ones of violet. The eggs average 0·84 by 0·64 inches.

Status and Distribution. — This species extends from Kumaon through Burma to Siam, Yunnan and the greater part of Southern China. In Burma it has been recorded from all the higher hills except the Arakan Yomas (?), and is the commonest Forktail in North-East Burma. It does not occur in the plains but is resident where found in the hills.

THE BLACK-BACKED FORKTAIL

Henicurus immaculatus (520).

Local Names. — None recorded.

Identification. — PLATE V, Fig. 1, Page 94. Length 10 inches. The common low elevation Forktail.

Voice. — The usual call is a two-note whistle, the second note much higher in pitch than the first and with a sharp quality as when a man whistles by inhaling. Sometimes the whistle is confined to the first note only. When not alarmed it may utter a short song from a rock.

Habits and Food. — Those of the sub-family. This is a typical bird of the streams in the teak forests.

Nest and Eggs. — The breeding season is in April and May. The nest and eggs are typical of the sub-family, but the eggs vary much and are usually pale and rather sparsely marked with bright pale reddish-brown. They average 0·82 by 0·62 inches.

Status and Distribution. — This species extends from Garhwal through Assam and Burma to the Malay States, and is resident throughout Burma in the forest streams of the foothills.

PLATE V

		See Page No
1.	**BLACK-BACKED FORKTAIL** (adult) *Henicurus immaculatus*	94
2.	**WHITE-CAPPED REDSTART** (adult) *Chaimarrhornis leucocephala*	98
3.	**CHINESE RED-SPOTTED BLUETHROAT** (adult male) *Luscinia svecica robusta*	100
4.	**COMMON RUBYTHROAT** (adult male) *Calliope calliope*	101
5.	**INDIAN SHAMA** (adult male) *Kittacincla malabarica indica*	104
6.	**INDIAN MAGPIE-ROBIN** (adult male) *Copsychus saularis saularis*	103
7.	**BURMESE BLUE ROCK THRUSH** (adult male) *Monticola solitaria affinis*	112
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PLATE V

1940.

LESCHENAULT'S INDIAN FORKTAIL

Henicurus leschenaulti indicus (521).

Local Names. — None recorded.

Identification. — Length 11 inches, including a tail of 6 inches. This is the largest and blackest of the genus, and the white fore-crown and black breast distinguish it from the two preceding species. A bird of the higher hills.

Voice. — In addition to the usual Forktail note this bird has a harsh screech of alarm, very like that of the Whistling Thrush, but not quite so loud.

Habits and Food. — This bird is frequently found on narrow forest paths some distance from the nearest stream, and it is shier than the other Forktails. It is often found along the same stream, though not the same stretch of stream, as the Slaty-backed Forktail, and like that bird it prefers small streams in dense hill evergreen.

Nest and Eggs. — The breeding season is from the end of April to the end of May. The nest is usually found on the tiniest of streams and is typical of the sub-family, but bulkier and heavier than those of other species, with more leaves and roots in its composition; it is lined with skeleton leaves or roots, sometimes both. The eggs, 3 or 4 in number, are more richly coloured than those of any other Forktail, and are usually a warm cream freely and boldly speckled all over with reddish-brown. They average 0·97 by 0·78 inches.

Status and Distribution. — This species is found throughout most of the Oriental Region as far west as Sikkim. In Burma it is resident from 1,000 feet upwards, but has so far only been recorded from the Chin Hills, North-East Burma, Karen Hills, west of the Shan States, Karenni and Tenasserim, and appears to be confined to evergreen forest. It is common on Nattaung (Karenni).

[Note: —LESCHENAULT'S CHINESE FORKTAIL, *H. l. sinensis (522)*, is a doubtful race, said to occur in the Shan States (F. B. I., Vol. II, Page 63), but no specimens are traceable.]

THE WHITE-CROWNED FORKTAIL

Hydrocichla frontalis (523).

Identification. — Length 9 inches, including a tail of 3 inches; this short tail distinguishes it at once from the birds of the preceding genus. It is a bird of the plains and foothills about which little has been recorded.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends from Borneo and Sumatra through the Malay States to Siam and the extreme south of Tenasserim.

THE CHESTNUT-BACKED FORKTAIL

Hydrocichla ruficapilla (524).

Identification. — Length 8 inches, including a tail of 3 inches. Sexes differ, but both have the crown and nape chestnut, which is a distinctive feature; in the female the chestnut extends over most of the back and on to the wing-coverts.

Nest and Eggs. — A nest found in Tenasserim was built beside a stream under a ledge of rock. It was very neatly and compactly made of green moss outside, then black rootlets, with an inner cup of skeletonized leaves.

The eggs, 2 in number, were pure white spotted and slightly blotched with reddish-brown and with underlying markings of purplish-red.

Status and Distribution. — This species extends from Borneo through the Malay States to South-west Siam and Tenasserim as far north as Mergui.

THE LITTLE FORKTAIL

Microcichla scouleri scouleri (525).

Identification. — Length 5 inches, including a tail of 2 inches; a black and white Forktail, readily distinguished by its small size and short tail. It is a typical Forktail in habits, and is said to spend more time actually under water than any other species.

Nest and Eggs. — The nest is usually built near a waterfall, and the eggs, 3 in number, are white in colour, either sparingly speckled and spotted at the larger end with pale reddish or brown, or occasionally unmarked. They average 0·80 by 0·58 inches.

Status and Distribution. — This race is resident all along the Himalayas from 3,500 feet upwards, and in Burma has been recorded from the Upper Chindwin and North-East Burma. No specimens are traceable from the Shan States.

Sub-family PHŒNICURINÆ.

REDSTARTS, BLUETHROATS, ROBINS, SHAMAS, NIGHTINGALES, GRANDALAS, & RUBYTHROATS

The members of this sub-family resemble the Forktails in having terrestrial habits and in seeking their insect food on the ground, but differ in having the tail square or rounded and in being essentially birds of the temperate regions, whereas the Forktails are essentially tropical or subtropical. The sub-family includes one or two of our commonest residents but in the main comprises birds that are winter visitors to Burma from higher latitudes.

The Redstarts and Bluethroats can be distinguished at once from all the other members of this sub-family by their chestnut tails, the only exception being the female of the Plumbeous Redstart. The Redstarts constantly move the tail with a quivering up and down motion, quite different from the flicks of the Chats.

THE BLUE-FRONTED REDSTART

Phœnicurus frontalis (526).

Identification. — Length 6½ inches. Distinguished from other true Redstarts by the broad black tips to the lateral tail-feathers. Sexes differ. The male has the forehead and a short eyebrow brilliant blue; rest of head, throat and upper-parts to the rump dull blue (edged with rufous in winter); rump, upper tail-coverts, most of the tail, and remaining under-parts chestnut; wings brown. The female has the rump and tail as in the male, otherwise a brown bird with orange under tail-coverts. Young birds have the rump, tail and wings as in the female; head, back and breast blackish-brown, mottled with pale tawny. This is the only resident member of the genus and a bird of the higher hills. It is said to be a lively bird found generally in pairs, frequenting the banks and beds of hill streams but not confined to them.

Nest and Eggs. — The breeding season is from the end of May to early July. The nest is built in a hole or crevice in a rock or bank, or else under a stone or low juniper scrub; it is a cup of moss and grass, lined with hair. The eggs, 3 or 4 in number, are pale greyish-pink profusely but very finely stippled with pale reddish, giving a dull pinkish-grey appearance. They average 0·78 by 0·58 inches.

Status and Distribution. — This species is resident at high elevations in the Himalayas and mountain ranges from Afghanistan to Western China, moving down to about 2,000 feet in winter. In Burma it has only been recorded from North-East Burma and the Northern Shan States. It is said to occur in the Chin Hills (F. B. I., Vol. II, Page 69) but no specimens or records thence are traceable.

[Note: — THE WHITE-THROATED REDSTART, *Phœnicurus schisticeps (527)*, is said to visit parts of Burma in winter (F. B. I., Vol. II, Page 70) but no records or specimens are traceable. It is resident over 10,000 feet in the Himalayas from Sikkim through Tibet to Kansu and in winter is found in the hill ranges of Assam; it is therefore likely to occur in Northern Burma as a winter visitor.

Length 6 inches. Sexes differ, but both have a large white patch on the throat, which distinguishes this species from other Redstarts. It is not one of the water-haunting Redstarts and though it may be seen on streams it is typically a bird of forest and scrub.]

THE DAURIAN REDSTART

Phœnicurus auroreus (528).

Identification. — Length 6 inches. It is doubtful whether this species and the next can be dintinguished in the field; both have a white wing-patch, but *auroreus* has much more white than *hodgsoni*. The black of the under-parts extends only to the upper breast, a distinction from the Black Redstart. There is little on record about the habits of this species, which is said to be a familiar bird frequenting gardens, compounds and cultivation rather than forest or jungle.

Status and Distribution. — This species extends from Lake Baikal through Eastern Siberia, Mongolia, Manchuria, and Korea to Japan; in winter it migrates south to the greater part of the Oriental Region as far west as Assam. In Burma it has been recorded from the Chin Hills, North-East Burma, Central Burma and the Shan States. It may be a regular visitor in small numbers or it may occur only as a straggler; at present the records are few.

HODGSON'S REDSTART

Phœnicurus hodgsoni (530).

Identification. — See under the preceding species. It is very tame and confiding, and frequents cultivation and the open land round towns and villages, scrub, grassland, and the stony beds of rivers.

Status and Distribution. — This species breeds in Southern and Eastern Tibet and Western China, and in winter migrates to the sub-Himalayas from Nepal to Yunnan. In Burma it has only been recorded from North-East Burma and appears to be a straggler.

THE EASTERN INDIAN BLACK REDSTART

Phœnicurus ochrurus rufiventris (532).

Identification. — Length 6 inches. Distinguished from the last two species by the absence of the white wing-patch and the black on the under-parts is more extensive, reaching to the abdomen. The call is *tsip*, frequently introducing the alarm or scold *tucc-tucc* or *tititicc*.

In winter the Black Redstart is essentially a bird of open smiling cultivation and pleasant fertile gardens; it avoids deep groves and jungles and frequents pools of shade amongst the sunshine; it favours exposed perches on rocks, bushes and the lower branches of trees, flying down ever and anon to pick up its insect food. On the ground it hops, sometimes running very rapidly with the speed of a Wagtail, and it is adept at hawking insects on the wing, often hovering while so engaged.

Status and Distribution. — This species has a very wide range and breeds at high elevations almost throughout Europe and Asia, and also in portions of

Africa. It migrates south and occurs as a winter visitor from the British Isles to South-west China; in Burma it has been recorded from the Chin Hills, North-East Burma and the Shan States. It is probably a regular winter visitor in small numbers to Northern Burma.

THE WHITE-CAPPED REDSTART

Chaimarrhornis leucocephala (534).

Local Names. — None recorded.

Identification. — PLATE V, Fig. 2, Page 94. Length 7½ inches. The shining white cap, black and chestnut plumage and chestnut tail ending in a black bar make this bird unmistakable. A bird of open mountain streams and rivers.

Voice. — The loud plaintive squeak *t-e-e-e-e* is clearly audible above the roar of the waters.

Habits and Food. — This lovely Redstart is essentially a bird of the boulders amongst rushing water, flying swiftly from bank to bank or fly-catching with little erratic flights from stone to stone. It is stronger in flight than the Plumbeous Redstart and profits by the fact to leave the stream beds and pay hasty visits to wet mossy cliffs, steep marshy hillsides and similar situations. As with most Redstarts the tail is an expressive organ. The bird beats it up and down continually from well above the line of the back down almost to the stone on which it is sitting, and the action is frequently accompanied by a low bow; this is done with the feathers closed or only partly spread, but as the bird launches into flight or settles the tail is spread into a fan, affording a glorious glimpse of chestnut and black.

Nest and Eggs. — The breeding season is from May to August; two broods are probably reared. The nest is built in a hole, either in a wall or bank or more rarely under a stone or amongst the roots of a tree. It is a rather deep and massive cup of moss, leaves, roots and grass, with a thick lining of wool and hair. The eggs, 3 to 5 in number, are broad ovals with a slight gloss; the ground colour is pale blue or blue-green sometimes tinged with pink, and the markings consist of specks and spots of reddish-brown, with underlying markings of grey and neutral tint. These markings vary in number and intensity, occasionally collecting into a cap at the larger end. The eggs average 0·96 by 0·65 inches.

Status and Distribution. — This species extends all along the Himalayas and also further east to Western China. Excluding Tenasserim and the Pegu Yomas it is common throughout the higher hills and foothills of Burma in winter, but its breeding range is little known; there appear to be no records outside North-East Burma, and it does not normally breed below 6,000 feet. In the Adung valley it has been recorded as high as 14,000 feet.

THE PLUMBEOUS REDSTART

Rhyacornis fuliginosa fuliginosa (535).

Local Names. — Chinghpaw: *Shun-mwe-to.*

Identification. — Length 5½ inches. Sexes differ. The male has the whole plumage blackish-slate except for the chestnut tail and tail-coverts. The female is the only Redstart without chestnut on the tail, which is white with a large triangle of brown at the end; the upper-parts are dull bluish-brown and the under-parts ashy-brown squamated with ashy-white. Young males resemble the female, and retain this plumage for at least a year, and even breed in female dress; birds in female plumage therefore predominate. Never seen away from running water.

Voice. — The short song is rather sweet and jingling and may be heard occasionally in winter as well as in the breeding season. It is uttered either from a rock in mid-stream or in the air as the little bird slowly flies with rapidly vibrating wings in a short parabola from rock to rock.

Habits and Food. — Unlike the White-capped Redstart this graceful little bird is fond of shady streams winding through dense jungle. It spends all its time on the boulders in the middle of the rushing water, with occasional excursions to the bank or to the bough of some adjacent tree. It flits from stone to stone and continually makes erratic fluttering darts into the air after a passing insect, or snatches a morsel from the water's brim; as it settles the conspicuously coloured tail is slightly fanned and wagged up and down, the two movements being simultaneous and repeated at intervals until the next excursion into the air; in the case of the female this movement of the white tail has been aptly compared to the scintillations of light on water slightly disturbed. It is a quarrelsome bird and appears to have a well-defined territory, for the male with a provoking little snatch of song is always launching attacks at an intruder from some other territory, dashing at it regardless of sex and chasing it back to its own borders.

Nest and Eggs. — The breeding season is from April to July; two broods are often raised. The nest is built in any sort of hole or hollow near running water, and is always well concealed; it is a neat cup of green moss, sometimes mixed with roots and a few leaves, and lined with rootlets, fibres, wool or hair. The eggs, 3 to 5 in number, are more or less broad ovals, pointed towards the smaller end, fine in texture with a slight gloss; the ground colour is a pale greenish-white or faint stone, almost entirely obscured by specks and freckles of pale dingy yellowish or reddish-brown; these markings tend to collect in a cap at the larger end. The eggs closely resemble miniatures of the eggs of the White-capped Redstart, and average 0·76 by 0·60 inches.

Status and Distribution. — This species extends all along the Himalayas, and further east to Central and Southern China, Formosa, Yunnan and Northern Siam. In Burma it is widely distributed on hill streams in winter, though not yet recorded from the Chin Hills; its breeding range is little known and there seem to be no records outside North-East Burma, where it breeds at Sinlum.

THE CHINESE RED-SPOTTED BLUETHROAT

Luscinia svecica robusta (538).

Local Names. — None recorded.

Identification. — PLATE V, Fig. 3, Page 94. Length 6 inches. Sexes differ. The rufous base to the dark brown tail, conspicuous in flight or when the tail is spread, is distinctive at all ages. The blue and chestnut of the throat and breast vary according to age, and some first winter males are more like the female. The latter differs in having the whole under-parts whitish with a gorget of brown spots across the breast. A solitary brownish bird, found on the ground in damp localities, which rises at one's feet with a flash of the bright chestnut patches in the tail and dives into cover again a few yards ahead; instead of diving vertically down like most small migrants it nearly always flattens out at the last moment.

Voice. — On its breeding grounds the Bluethroat is a fine songster and mimic, but in winter it confines itself to an occasional few bars of its beautiful song. The alarm-note and ordinary call is a Chat-like *tacc, tacc,* varied by a more plaintive *hweet.*

Habits and Food. — This is typically a bird of the margins of lakes and jheels, and is also common in the open stubble of the great Irrawaddy-Sittang paddy plain, but is there very shy and appears as a dark brown bird flitting away some distance off; it is easily overlooked in sedgy grass and heavy cover, in which it can creep with great facility like a mouse. When feeding on the ground it moves with long hops or runs rapidly over the ground in short bursts, elevating and slightly expanding the tail at each pause. At times it ascends to the top of a bush, where it flirts and expands its tail like a Redstart, or sings a few notes.

Status and Distribution. — A Palæarctic species, and a visitor to the British Isles. The Chinese race breeds in Central Siberia and winters in Southern China, Burma and the sub-Himalayas as far west as Nepal. It has been recorded from all parts of Burma except the Pegu Yomas, and is not uncommon in suitable localities. A paler form also occurs, but the race is uncertain.

THE KANSU NIGHTINGALE

Luscinia obscura (540a).

Identification. — Length ?. Sexes differ. The male has the upper-parts slate-blue, chin, throat and breast black (whether this is retained in winter is unknown); rest of under-parts whitish. The female has the upper-parts brown and the under-parts dull yellowish-white (?).

Status and Distribution. — Very little is known about this species, which breeds in South-west Kansu and the Tsin-ling range. In 1936 a bird was obtained in thick undergrowth beside a stream in the Bhamo district; this is the only record for Burma, so that the species is presumably a rare vagrant to this country.

THE CHINESE GRANDALA

Grandala cœlicolor florentes (541a).

Identification. — Length 9 inches. Sexes differ. The male is bright purple-blue, brighter still on the upper tail-coverts and blacker on the wings and

tail. The female has the whole plumage brown, darker above and paler below, with pale streaks on the head, upper back, breast and abdomen; there is a white patch on the wing. A bird of high elevations, rarely found below 10,000 feet even in winter; it goes about in large parties and feeds on insects, fruits and seeds.

Nest and Eggs. — Unknown for this race. The typical race breeds in June and July near the snow-line. The nest is built on the ground and is made of moss with a lining of feathers. The eggs are typical Thrushes' eggs, pale greenish-white in colour plentifully spotted and blotched all over with reddish-brown and with underlying marks of neutral tint and purplish-grey. They average 1.09 by 0.78 inches.

Status and Distribution. — This species extends along the Himalayas and mountain ranges from Garhwal to Western China and has been recorded at 6,000 feet in the Adung valley, though whether it is resident there is uncertain.

THE COMMON RUBYTHROAT

Calliope calliope (542).

Local Names. — None recorded.

Identification. — PLATE V, Fig. 4, Page 94. Length 6 inches. The female has no scarlet on the chin and throat, which are whitish, and the cheek-stripe is duller.

Voice. — The song is sweet but rather monotonous, and is usually uttered from the upper twigs of some low bush.

Habits and Food. — This is a Robin-like bird in its habits, hopping about in the undergrowth in light forest and turning over the leaves in search of food; it also frequents dense scrub and *kaing* grass. Though often overlooked on account of its quiet ways, it sometimes enters gardens on the outskirts of towns and is often found near villages and cultivators' huts in jungle clearings. When on the ground it has a habit of flicking its semi-expanded tail over its back. It feeds on insects, which it obtains either off the ground or from grass, reeds and low bushes.

Status and Distribution. — This species breeds in Northern and Central Asia and in winter is found throughout most of the Oriental Region. In Burma it is a winter visitor in small numbers, and may be seen in any part of the country (not yet recorded from the Pegu Yomas).

THE TIBETAN RUBYTHROAT

Calliope pectoralis tschebaiewi (545).

Identification. — Length 6 inches. Differs from the preceding species in having a white tip to the tail.

Nest and Eggs. — The breeding season is in June. The nest is built in a hollow on the ground, under a tuft of grass or a bush, and is a domed structure of grass. The eggs, 4 or 5 in number, are long ovals in shape, very close in texture with a slight gloss, and grey blue-green or pale blue in colour, either unmarked or with a faint ring of reddish specks round the larger end. They average 0·85 by 0·60 inches.

Status and Distribution. — This species extends throughout the Himalayas and is found in Tibet and Kansu. Though said to be common in Assam in winter, it has only been recorded in Burma from the Adung valley, where it breeds in rhododendron scrub above the tree-line at 12,000 to 14,500 feet. It does not occur throughout the Burmese hills in winter (F. B. I., Vol. II, Page 94).

THE GOLDEN BUSH ROBIN

Tarsiger chrysæus chrysæus (546).

Identification. — Length 6 inches. Sexes differ. The male is an orange bird with some black on the wings and tail; forehead to lower back olive-green; sides of head black. The female has the upper-parts olive-green, the tail golden-yellow with some brown; sides of head olive-brown; under-parts yellow. A quiet retiring little bird and easily overlooked in spite of its striking plumage. It keeps to thick scrub or evergreen forest, hopping about on the ground and occasionally uttering a soft *chic, chic;* it is said to have a sweet little song in the breeding season.

Nest and Eggs. — The breeding season is from May to July. The nest is built in any kind of hollow and is made chiefly of moss, with more or less grass and leaves mixed with it, and lined with fur, hair or wool. The eggs, 4 in number, are broad ovals in shape, fine in texture, and a beautiful blue in colour. They average 0·81 by 0·59 inches.

Status and Distribution. — This species ranges all along the Himalayas and extends eastwards to Yunnan and Western China. It is resident at high elevations in North-East Burma and has been recorded once from Taunggyi in the Southern Shan States, but its status there is unknown. It is also said to breed in the Chin Hills (F. B. I., Vol. II, Page 96) but no records or specimens thence are traceable.

THE RED-FLANKED BUSH ROBIN

Ianthia cyanura rufilata (549).

Identification. — Length 6 inches. Sexes differ. The male has the upper-parts a deep blue, except for the rump, upper tail-coverts, and a broad eye-brow, which are bright blue; round the eye black; under-parts white, except for the flanks, which are orange-chestnut. The female has the upper-parts reddish-brown, the rump dull blue, and a white ring round the eye; sides of head and breast olive-brown; under-parts white; centre of flanks orange-chestnut. The call note is *prot* and the answer *tee*, both notes being used by either sex. This is a forest bird, frequenting both pine and evergreen forests with plenty of undergrowth; it is partial to open spaces surrounded by cover and to scrub jungle along roads, where it behaves like a Flycatcher.

Nest and Eggs. — Unknown for this race, but not likely to differ from those of the Kashmir race. The breeding season is from May to June. The nest is built in a hole or hollow, and is a cup of grass and dead leaves, sometimes mixed with a few roots, usually very roughly and loosely put together; it is lined with fine soft grass or hair. The eggs, 3 or 4 in number, are soft and fragile in texture and pure white in colour, either unmarked or with a few specks of pale reddish-brown at the larger end. They average 0·71 by 0·54 inches.

Status and Distribution. — This species breeds in Central Asia from the Urals through Siberia to China and Japan, and through the Himalayas to Yunnan. It has been recorded from the Chin Hills, North-East Burma and the Shan States, but its status in Burma is uncertain. It is found at all elevations, but is not likely to breed below 6,000 feet.

[Note: —THE WHITE-BROWED BUSH ROBIN, *Ianthia indica indica (551).* is said to occur in the Shan States (F. B. I., Vol. II, Page 102) but no records or specimens are traceable. It extends from Garhwal to Yunnan and seems likely to occur in Northern Burma. Distinguished from the preceding species by absence of red on the flanks and by a white (not blue) eyebrow. The call-note is *tuit-tuit* answered by a sharper note, and the song is a rapid repetition of the call-note on an ascending and descending scale. It is said to be a bird of steep rocky ravines running through pine forest.]

THE WHITE-TAILED BLUE ROBIN

Myiomela leucura (554).

Local Names. — None recorded.

Identification. — Length 7 inches. Sexes differ. The male is bluish-black with a triangular white patch at the tip of the tail; the eyebrow and a patch on the wing bright blue. The female is reddish-brown, with a white tip to the tail as in the male, and there is a a rusty ring round the eye.

Voice. — It is said to have a very sweet and powerful song in the breeding season.

Habits and Food. — The White-tailed Blue Robin prefers shady streams in the evergreen forests of the higher hills, though it is also found in bamboo jungle. It is less of a skulker than the Bush Robins and feeds on the smaller trees as well as on the ground and in bushes. When disturbed it flies up to a branch instead of skulking away into the undergrowth. It is fond of perching in the open on a twig or post, where it sits flirting its tail and singing.

Nest and Eggs. — The breeding season is from May to September. The nest is either domed, when built in an exposed situation, or deeply cup-shaped, when built under a ledge of rock or a fallen tree as is more usual; it is made of leaves and roots, mixed with grass, moss, etc. The eggs, 3 or 4 (rarely 5) in number, vary from faint pinkish to pinkish-brown and are either unmarked or profusely covered with innumerable tiny freckles of a darker shade than the ground colour; the surface varies from very glossy to glossless. The eggs average 0·92 by 0·67 inches.

Status and Distribution. — This species extends from Simla to Yunnan, Northern Siam and the Malay States as far south as Perak; in Burma it is resident throughout the higher hills, and a few birds move down to the foothills in winter. It is not uncommon in North-East Burma, but seems to be local and rather scarce elsewhere.

THE INDIAN MAGPIE-ROBIN

Copsychus saularis saularis (558).

Allied Form. —

THE MALAY MAGPIE-ROBIN, *C. s. amœnus (559).*

Local Names. — Burmese: *Thăbeik-lwè* (သစ်တိုက်လွေး)

Identification. — PLATE V, Fig. 6, Page 94. Length 9 inches. The female is a duller version of the male. A common and familiar plains species, found in gardens.

Voice. — The male is one of the best songsters in a land where singing birds are somewhat scarce. The alarm-note is a long-drawn hissing *ch-e-e-e-e*, and it also utters a loud Chat-like note, which frequently betrays its presence in the undergrowth. Another note is *hweep-hweep*.

Habits and Food. — The Magpie-Robin is one of the most familiar birds all over Burma; almost every garden, cluster of village huts and patch of cultivation has its pair. It is not confined to human habitations and may be seen in the more open parts of the teak forests, especially where there are clearings or plantations, but it avoids both dense forest and the open bare paddy plains; on the other hand it

is found right down to the sea in the scrub jungle along tidal creeks. It is confiding and unobtrusive, and as the Lady of the House moves about the garden in the shade she will see the little pied bird watching her from wall or bush with friendly and attentive scrutiny, and by way of gratitude for shelter and protection (or so we like to think in spite of prosaic fact) the male early in the morning and again in the evening mounts to the topmost bough of one of the garden trees and pours out his delicious song.

The tail is frequently lowered and expanded into a fan, then closed and jerked up again over the back. The food is obtained for the most part from the ground and consists of insects, grasshoppers, crickets, ants, beetles and the like; a little vegetable matter and an occasional earthworm varies the diet.

Nest and Eggs. — The breeding season is from March to July. The nest is built in the roof of a house, in a hole in a tree, bank, or wall, or in a bamboo clump; it is made of roots, grasses, fibres and feathers, with very little definite lining, and may be bulky or little more than a pad; it is always very roughly and loosely put together. The eggs, 3 to 5 in number, are broad ovals in shape, hard and fine in texture with a fair amount of gloss; the ground colour is some shade of green and the markings consist of streaks and mottlings of brownish-red, usually dense and with a tendency to collect at the larger end. The eggs average 0·87 by 0·66 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region, and is a common resident throughout Burma, both in the plains and hills, though it does not ascend to high elevations. The Malay race is confined to the extreme south of Tenasserim.

THE INDIAN SHAMA

Kittacincla malabarica indica (563).

Allied Form.—

THE MALAY SHAMA, *K. m. malabarica (562).*

Local Names. — Burmese: *Tè-thă-leik-swè* (တေးသံဖျိုးဆွဲ)

Identification. — PLATE V, Fig. 5, Page 94. Length 11 inches, including a long graduated tail of 6 inches. The female is a duller version of the male. A forest bird.

Voice. — The Shama is well known by repute and in story as one of the famous singing birds of India; the song is loud and beautiful with a varied range of notes, and is chiefly uttered in the mornings and evenings, continuing late in the evening till darkness has almost fallen. It also has a loud Chat-like note very similar to that of the Magpie-Robin.

Habits and Food. — This is one of the typical birds of the teak forests, but owing to its shyness and its habit of keeping to the undergrowth it is not generally known, in spite of its handsome plumage and its beautiful song. It may be thought of as the jungle counterpart of the Magpie-Robin, though the habitats of these two birds overlap to a certain extent in the more open parts of the forest.

It feeds mostly on the ground, searching for insects, worms, and fallen fruits. It has a curious habit, chiefly in the breeding season, of striking the wings above the body as it flies across open ground.

Nest and Eggs. — The breeding season is from March to June. The nest is built in a hole in a tree or more usually at the base of a bamboo clump amidst the mass of litter that collects there and forms a shelter. It is a slight cup of dead leaves and moss lined with grass. The eggs, 4 or 5 in number, are like those of the Magpie-Robin, but are usually more densely spotted and therefore appear browner; also they are not quite such broad ovals, nor so highly glossed. They average 0·85 by 0·65 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is a common resident in Burma throughout the forests of the foothills, ascending the higher hills here and there (as at Maymyo).

Sub-family TURDINÆ.

BLACKBIRDS & THRUSHES

The *Turdinæ* comprise the true Thrushes; these differ from the preceding sub-families principally in their larger size, in often being gregarious in the winter, and in eating fruit as well as insects, berries forming a considerable portion of their diet. They feed a great deal on the ground and their long legs enable them to hop with speed and facility. Most of the Thrushes are migratory, and the few that are resident species move vertically with the seasons, and as a rule cover a wide extent of country. A Burmese name used for Thrushes generally is *Mye-lu-hnget* (မြေလူးငှက်)

THE WHITE-COLLARED BLACKBIRD

Turdus merula albocinctus (570).

Identification. — Length 10½ inches. Sexes differ. The male has the neck and upper back, centre of the chin and throat, white; rest of the plumage blackish; bill, legs and feet yellow. The female has a collar as in the male but ashy-white in colour and the rest of the plumage is reddish-brown, darker above and paler below. A bold fearless bird, feeding much on high trees.

Status and Distribution. — This race breeds at high elevations in the Himalayas and has been recorded once in the Upper Chindwin, in the evergreen forest along the Hukawng valley road; it is probably a winter visitor to Northern Burma in small numbers. Other races extend westwards over most of Asia and Europe, the typical race being the common Blackbird of the British Isles.

THE GREY-WINGED BLACKBIRD

Turdus boulboul (571).

Identification. — Length 11 inches. Sexes differ. The male has the whole plumage deep glossy black except for a bold patch of light grey on the wings. The female is ashy-brown, the wing-patch being rufous. Bill coral-red to deep orange. This is one of the best known songsters of the Himalayas. At any time of the day in the breeding season, but especially in the mornings and evenings, the males may be heard singing, usually from the top of a tall tree commanding a wide view. The song is very pleasant, recalling that of the English Blackbird, but individuals vary a good deal in the merits of their performances.

It is a bird of evergreen forest, feeding on the ground amongst the undergrowth, turning over the leaves and digging with its bill in places where the soil is soft; from the ground it obtains worms, grubs, insects, and fallen seeds and fruits, and it also eats large quantities of fruits and berries from the trees. It is a quiet and rather shy bird, especially near the nest where it will sit motionless on the bough of a tree and watch the intruder.

Nest and Eggs. — The breeding season is from March to July. The nest is built in a tree or on the ground; it is a massive cup of roots and grasses usually stiffened with mud and liberally coated with green moss, and lined with fine dry grass. The eggs, 2 to 4 in number, are a pale dingy green thickly streaked, mottled and clouded with dull brownish-red, sometimes so heavily as to obscure the ground colour. They average 1·20 by 0·85 inches.

Status and Distribution. — This species extends from Murree eastwards along the Himalayas to Assam and there are three records from Burma: one from the Hman stream, Arakan (Mindon) Yomas, one from Sadon, North-East Burma, and one from Yatsawk, Southern Shan States. It is said to be a resident species wherever found and to be very sedentary, moving little with the seasons, but its status in Burma must be regarded as uncertain until evidence of breeding is obtained.

THE GREY-HEADED THRUSH

Turdus rubrocanus rubrocanus (572).

Allied Form.—

GOULD'S GREY-HEADED THRUSH, *T. r. gouldii (573).*

Identification. — Length 11 inches. Sexes differ. The male is a chestnut bird: in the typical race the head and neck are grey paling to almost white on the chin and throat, whereas in Gould's race these parts are dark grey; wings and tail very dark brown. The female is much duller everywhere, the head and neck darker, and the rest of the plumage paler, than in the male.

Status and Distribution. — This species breeds in the Himalayas and Eastern Tibet. The typical race has been recorded from Mt. Victoria and Gould's race from the Hukawng valley and the Northern Shan States. It seems to be a rare straggler to Burma.

THE DUSKY THRUSH

Turdus eunomus (574).

Identification. — Length 9 inches. A broad whitish eyebrow; upper-parts blackish-brown, usually more or less mottled with chestnut; tail and most of the wing dark brown; throat whitish with spots at the sides; under-parts whitish spotted with black. Females and young are paler and duller. Its flight is swift and powerful and it is said to have a rough harsh note. It is an inhabitant of open semi-wooded country and even when in its winter quarters it prefers open fields and grasslands with thin forest. It is usually seen in flocks.

Status and Distribution. — This species breeds in Siberia and migrates southwards to Northern India, Burma, Northern Yunnan and China, extending as far west as the British Isles, where it is only a very rare vagrant. In Burma it has been recorded from Sumprabum in North-East Burma, and from the Sittang plain, but it seems to be a straggler.

[Note: — THE PALE THRUSH, *Turdus pallidus (576)*, was recorded by Oates from Karenni and Mt. Mulayit, but there seems to have been some mistake over these records, which are not admitted in the F. B. I. It breeds in Siberia and winters in Southern China, but has been recorded from Assam, so that it may occur in Burma. Length 11 inches. Upper-parts mostly rufous-brown, the crown and nape dark ashy-grey with darker streaks, and the two outermost pairs of tail-feathers broadly tipped with white; chin white; sides of neck and throat ashy-grey, changing to rufous on the upper breast and flanks: remaining under-parts mostly white. The female has the throat and fore-neck white streaked with brown and the ear-coverts streaked with white.]

THE RED-THROATED THRUSH

Turdus ruficollis ruficollis (577).

Allied Form.—

THE BLACK-THROATED THRUSH, *T. r. atrogularis (578).*

Local Names. — Kachin: *Maling-tayap.*

Identification. — Length 9 inches. Sexes differ. The adult male of the Red-throated Thrush has uniform grey-brown upper-parts; tail rufous with a triangular black tip; throat and breast chestnut; remaining under-parts white. The female has the breast much mottled with white and spotted with black, usually with a rufous tinge. Both sexes of the Black-throated Thrush differ in having no chestnut in the tail; in addition the male has the throat and breast black, the feathers fringed with whitish.

The ordinary note is an alarm chuckle, not unlike that of the English Blackbird but much softer, and it also has a *tac, tac* note. The song, which may be heard in March or early April, consists of a few whistling notes at a time, with variants but without repetition. In winter it associates in flocks and frequents open country or open park-like forest. On alighting it elevates its tail like a Blackbird, and it feeds chiefly on the ground, eating grain, berries and insects, or on flowering trees and wild figs; when disturbed from the ground it flies up to the nearest tall tree. At night the flocks roost in company in a thickly foliaged tree.

Status and Distribution. — This species breeds in Central Asia and Siberia, and migrates southwards to India, where it is very common in some parts, eastwards to China, and westwards to the British Isles. The Red-throated Thrush has been recorded from North-East Burma and the Shan States; the Black-throated Thrush has been recorded from North-East Burma, the Lower Chindwin, and from the Shan States (?). Both races are straggling winter visitors to Burma and they are often seen together in the same flock.

[Note: — TICKELL'S THRUSH, *Turdus unicolor (579),* has not been recorded from Burma but it is found in Eastern Assam and Manipur and will probably be found some day in the Upper Chindwin. Length 9 inches. The male has the upper-parts, wings and tail ashy-grey and the under-parts pale slate-grey, except for the abdomen and under tail-coverts, which are mostly white; bill and legs yellow. The female has the upper-parts olive-brown; chin and throat whitish streaked with dark brown; breast olive-grey spotted with dark brown; abdomen and under tail-coverts white. A quiet dull-coloured Thrush, which feeds on the ground and flies up into trees when disturbed.]

THE BLACK-BREASTED THRUSH

Turdus dissimilis (580).

Local Names. — None recorded.

Identification. — Length 9 inches. Sexes differ. On the wing this is a small dark Thrush but at close quarters the very dark upper-parts contrasting with the reddish-orange lower breast, flanks and under wing-coverts are distinctive; the adult male has the whole head, neck and breast black and the abdomen and under tail-coverts white; bill, legs and feet yellow. The female has the upper-parts dark olive-brown instead of slate-grey and the throat and upper breast whitish heavily streaked with brown or black. The young male is like the female but more spotted below.

Voice. — This Thrush has a short sharp rattle of alarm and a sweet but not very powerful song.

Habits and Food. — This is one of the most shy and elusive of all the Thrushes, shunning observation and keeping almost entirely to forests; it prefers the hill evergreen type, but also frequents pine

forest and rhododendron scrub. In addition to insects and berries it feeds on snails and slugs, which it finds in the mossy cracks between the boulders in the forests it frequents.

Nest and Eggs. — The breeding season is from April to July. The nest is usually built on a small tree or shrub in evergreen forest and is made chiefly of green moss. The eggs, 3 or 4 in number, are very variable; some are tawny-cream to greenish-blue, blotched and spotted with brown and lilac; others are like Blackbird's eggs, and others again are pale green or pale cream very richly marked with bold blotches of deep reddish-brown. They average 1·06 by 0·78 inches.

Status and Distribution. — This species has a restricted distribution from Assam through Burma to Yunnan. It has been recorded from the Chin Hills, Upper Chindwin (Hukawng valley), North-East Burma and the Shan States, and is locally common. It is believed to be resident in the higher hills throughout its range, and may be resident in the evergreen forests of the Hukawng valley at low elevations. It has been recorded from Kalaw.

THE DARK THRUSH

Turdus obscurus obscurus (581).

Local Names. — None recorded.

Identification. — Length 10 inches. Sexes differ. The male has a white eyebrow; upper-parts brown; sides of the head and neck and the throat ashy; upper breast and flanks pale chestnut; remaining under-parts white. The female differs in having the throat and fore-neck white streaked with dark brown. The young male is similar to the female.

Voice. — A rich short song is heard in the breeding season, but possibly not in Burma, and it utters a thin Pipit-like call of *zip-zip* when disturbed.

Habits and Food. — This is a bird of forest and scrub and seems to occur as a solitary bird at low elevations and in flocks in the hills. When disturbed it flies up into a tree and sits there motionless for a long time, and it does not object to a close scrutiny.

Status and Distribution. — This species breeds in Siberia and in winter migrates southwards to the greater part of the Oriental Region as far west as Nepal; in Europe it has been found as far west as Heligoland and the South of France but not the British Isles. In Burma it is a regular winter visitor in small numbers and has been recorded from all parts of the country except the Arakan Yomas (?), and the Plains of Southern Burma.

[Note:— SALVADORI'S THRUSH, *T. o. subobscurus (582)*, is a bad race and does not differ from the above.]

FEA'S THRUSH

Turdus feæ (583).

Identification. — Length 10 inches. Sexes differ. The male has the upper-parts brown; a narrow eyebrow and a patch under the eye white; under-parts

grey, becoming white towards the tail; bill dark brown, yellowish at the base; legs and feet pale yellow-brown. The female differs in having the chin and throat white speckled with brown and the remaining under-parts grey. It is said to have a short and jerky but rather sweet song. It is very shy and its flight is rapid but not sustained. It frequents small streams in hill evergreen, and in winter probably goes about in small flocks.

Status and Distribution. — This species breeds in the mountains north of Pekin and is an irregular winter visitor to Burma, where it has been recorded from Mt. Victoria, the Shan States, Karenni and Tenasserim.

THE SIBERIAN GROUND THRUSH

Geocichla sibirica sibirica (585).

Allied Form.—

DAVISON'S GROUND THRUSH, *G. s. davisoni (586).*

Identification. — Length 9 inches. Sexes differ. The adult male is deep blue-black with a white tip to the outer tail-feathers, a broad white eyebrow, and the axillaries and under tail-coverts mostly white. The female is brown instead of black, has a narrow buff eyebrow, and the under-parts mostly buff. The young male has the slaty-blue upper-parts of the adult male but otherwise resembles the female. It is a forest bird, seeking its food on the ground or on fig trees when in fruit, and it goes about in flocks which may number 3 or 4 to 60 or more birds. It is said to have a sweet full-toned song.

Status and Distribution. — This species breeds in Central Siberia and Japan, and in winter is found from Western Europe (not the British Isles) to the Indo-Chinese countries and Sumatra. Both races have been recorded from Karenni and Tenasserim, and the Siberian race has also been obtained at Maymyo. Both races appear to be winter visitors to Burma in small numbers, and they probably occur in the Shan States.

THE ORANGE-HEADED GROUND THRUSH

Geocichla citrina citrina (587).

Allied Form.—

THE MALAY ORANGE-HEADED GROUND THRUSH, *G. c. innotata (589).*

Local Names. — None recorded.

Identification. — Length 9 inches. Sexes differ. The male has the whole head and under-parts orange-chestnut except for the under tail-coverts, which are white; upper-parts dark bluish-grey with a conspicuous white wing-spot. The female is like the male but has the upper-parts olive-brown. A ground bird of the forest, usually found feeding in damp and shady places.

Voice. — In the breeding season the male has a pleasant and energetic though not very powerful song, which is uttered from a perch well up in a tree. This is only heard in the mornings and late evenings and the bird is something of a mimic, introducing the calls of other species into its song. It has also a peculiar note or loud whistle, something like the screeching of a slate pencil, which is used apparently as an alarm-note.

Habits and Food. — This Ground Thrush is essentially a bird of evergreen and moist forests, and it prefers those parts where the undergrowth is dense, as in plantations and bamboo thickets. It is usually solitary and feeds on the ground, rummaging amongst the leaves and fallen litter in a constant search for slugs, snails, insects and such-like, with the result that the bill is nearly always found to

be muddy. It is shy and quiet, and when disturbed it flies up to a branch and sits there silent and motionless, waiting to resume its quest for food.

Nest and Eggs. — The breeding season is from May to August. The nest is built in a bush or small tree at no great height from the ground; it is a rather shallow cup of fine twigs, grass, leaves and moss, lined with rootlets; some nests are neat and compact, whereas others are very loose and untidy. The eggs, 3 or 4 (rarely 5) in number, differ from all other Thrushes' eggs in their glossy surface and hard close texture. The colour varies from pale green-blue to cream and the markings from profuse freckles of reddish-brown all over the surface to bold blotches of reddish-purple. The eggs average 1·01 by 0·76 inches.

Status and Distribution. — This species is found over most of the Oriental Region. In Burma it is resident throughout the country but seems to be scarce everywhere. The Malay race is found in Tenasserim only, from Tavoy southwards.

THE SMALL-BILLED MOUNTAIN THRUSH

Oreocincla dauma dauma (595).

Allied Form.—

WHITE'S MOUNTAIN THRUSH, *O. d. aurea (598).*

Local Names. — None recorded.

Identification. — Length 10½ inches. A brown bird, paler below, with a bold pattern of crescentic black markings; a broad black band on the under side of the wing with a white band behind it is conspicuous in flight; there are white tips to the tail-feathers. A bird of evergreen forest with a strong swift undulating flight.

Voice. — It is said to have a fine song and to utter a melodious piping call-note and a melancholy whistle, but it is a silent bird as a rule.

Habits and Food. — This is a bird of evergreen forest, where it is most often seen along mule tracks and in glades; it feeds chiefly on the ground, but flies up into a bush or tree when disturbed and is usually solitary and very shy.

Nest and Eggs. — The breeding season is from May to June. The nest is usually built in a shrub or small tree in deep forest with heavy undergrowth; it is a wide shallow cup of green moss mixed with leaves, roots, and grass, and lined with rootlets. The eggs, 3 or 4 in number, are so closely freckled with pale reddish that they appear a uniform colour. They average 1·20 by 0·87 inches.

Status and Distribution. — The typical race breeds in the Himalayas and higher hills of Burma, some birds descending to the foothills in winter; it has been recorded from the Arakan Yomas, Chin Hills, Upper Chindwin, Southern Shan States and Karenni, and as a vertical migrant from Myitkyina, the Pegu Yomas and the Sittang plain. White's race breeds in Siberia, Japan and Northern China, and is an irregular winter visitor to Burma, having been recorded from

Myitkyina, the Shan States, and Karenni (?); westwards it extends to the British Isles.

THE LONG-TAILED MOUNTAIN THRUSH

Oreocincla dixoni (599a).

Identification. — Length 11 inches. Differs from the preceding species in having black crescentic bars on the under-parts only, the upper-parts being plain brown. It is typically a bird of small streams in hill evergreen, where it feeds in the shadiest spots and flies up to a branch when disturbed.

Nest and Eggs. — More or less unknown.

Status and Distribution. — The breeding range of this species is imperfectly known. It has been recorded in Burma on a few occasions: in the Hukawng valley, North-East Burma and the Shan States. In the Adung valley it has been found above the tree-line at 12,000 feet.

THE LARGE BROWN THRUSH

Zoothera monticola (603).

Identification. — Length 11½ inches. Bill very strong, powerful and curved near the tip; general colour dark slaty-brown, paler below. A silent bird as a rule, but it is said to have some sweet notes and a long-drawn wailing whistle. Its habits do not differ from those of the next species.

Nest and Eggs. — The breeding season is from May to early July. The nest is usually built in a small tree and is a deep well-made cup of green moss lined with fine roots. The eggs, 3 or 4 in number, are pale green profusely marked with numerous small blotches of reddish to deep brown. They average 1·18 by 0·84 inches.

Status and Distribution. — This is a Himalayan species, its range being from the Sutlej valley to the Chin Hills, where it is resident. It has also been recorded near Laukkaung at 3,000 feet in the Myitkyina district, and it probably occurs in the Upper Chindwin.

THE LESSER BROWN THRUSH

Zoothera marginata (604).

Identification. — Length 10 inches. Differs from the preceding species in being smaller and in having the upper-parts rufous olive-brown. It is a shy bird and like the Long-tailed Mountain Thrush it likes feeding in the head-waters of small shady streams in hill evergreen, flying up to a branch when disturbed.

Nest and Eggs. — The breeding season is from May to July. The nest and eggs are very like those of the preceding species but smaller, the eggs averaging 1·06 by 0·79 inches.

Status and Distribution. — This species extends from Sikkim eastwards through Burma to Yunnan, Siam and Annam; in Burma it is widely distributed in the higher hills, though scarce and local; it has not been recorded from the Northern Shan States and Southern Tenasserim. It is said to be a sedentary species, resident throughout its range, except that some birds move down to the foothills in winter.

THE CHESTNUT-BELLIED ROCK THRUSH

Monticola rufiventris (605).

Local Names. — None recorded.

Identification. — Length 9 inches. Sexes differ. The male is a beautiful bird with the upper-parts cobalt-blue, the sides of the head and neck, chin, and throat black, and the remaining under-parts chestnut. The female has the upper-parts olive-brown barred with

black; under-parts buff, barred with black except on the chin and throat.

Voice. — Not recorded.

Habits and Food. — This is a bird of open forest in the hills, and is rather shy; it is partial to pine forest, and is usually seen perched high up in a tree, where it often stays immobile for long periods except for its peculiar habit of constantly jerking its tail backwards and forwards over its back. It occasionally breaks the monotony by sallying forth to capture an insect or by flying to another tree. It is not particular and will eat anything from the smallest insects to the largest snails; also worms, small lizards, frogs, and even small fish and water insects.

Nest and Eggs. — The breeding season is from May to June. The nest is built in any convenient hole or hollow, and is made of moss, twigs, roots, and grass, lined with rootlets and grass. The eggs, 3 to 6 in number, are broad ovals in shape, fine and close in texture, with a high gloss; the colour varies from creamy-white to pale reddish, speckled all over with reddish, the markings being more numerous at the larger end. The eggs average 1·06 by 0·78 inches.

Status and Distribution. — This species ranges from Chamba to Western China, breeding throughout its range between 4,000 and 8,000 feet and moving to lower elevations in winter. In Burma it is widely distributed in the higher hills, though not yet recorded from the Arakan Yomas, Northern Shan States or Tenasserim; it seems to be local and rather scarce everywhere.

[Note: — THE BLUE-HEADED ROCK-THRUSH, *Monticola cinclorhyncha (606)*, is said to breed in the Chin and Kachin hills and to occur in West and Central Burma in winter (F. B. I., Vol. II, Page 172), but no specimens or reliable records are traceable other than a century-old one from Arakan, which needs confirmation. Length 7 inches. The male is easily distinguished from the male of the preceding species by the chestnut rump and white wing-patch. The female is brown with a scaled appearance and has a rather conspicuous dark eye. It frequents pine forests by preference and is secretive by nature, but its alarm-note *ce-tut tut*, a low pleasant sound, soon betrays its whereabouts.]

THE BURMESE BLUE ROCK THRUSH

Monticola solitaria affinis (609).

Allied Forms.—

THE INDIAN BLUE ROCK THRUSH, *M. s. pandoo (608).*
THE JAPANESE BLUE ROCK THRUSH, *M. s. philippensis (610).*

Local Names. — Burmese: *Hnget-thăko* (ငှက်သူဋ္ဌ), *Bo-dè-hnget* (ဘိုတဲငှက်) from its habit of perching on roofs.

Identification. — PLATE V, Fig. 7, Page 94. Length 9 inches. The female is a duller and browner bird. In both sexes the under tail-coverts vary from blue to chestnut according to the race, and in the Japanese race the under-parts from the breast to the under tail-coverts are bright chestnut. The flight is swift and direct but not sustained.

Voice. — It utters a quaint little croak at intervals, much like that of a frog but very low and soft, and it also has a pleasant whistle and a melodious though plaintive song during the breeding season.

Habits and Food. — The Blue Rock Thrush delights in perching on the roofs of buildings and often takes up its abode for the winter in the compound of a forest rest house tucked away in the jungle; it also frequents open country, especially where there are rocky hill-tops and streams littered with enormous granite boulders. It has the usual Rock Thrush habit of sitting very erect and every now and then jerking its tail up and down, and its varied diet includes berries, fruit, insects, snails and frogs.

Status and Distribution. — This species extends from the Caspian Sea through Tibet and the Himalayas to Yunnan, China and Japan. There is no proof that it breeds in Burma, and all three races are considered to be winter visitors. The Japanese race has been recorded once from Tenasserim, but the distribution of the other two has not been worked out, though one or other is not uncommon throughout Burma in the cold weather, and in some parts both occur together. It is found in the foothills and higher hills alike.

SWINHOE'S ROCK THRUSH

Monticola gularis gularis (611).

Identification. — Length 7 inches. Sexes differ. The adult male has the whole crown, nape and a patch on the wing brilliant cobalt-blue; a narrow black line round the eye; rump and upper tail-coverts chestnut; a circular white patch on the fore-neck, extending in a narrow line up the throat to the chin; in front of the eye and remaining under-parts chestnut. The female has the head, nape and hind-neck olive-brown barred with black and with pale edges to the feathers; tail reddish-brown with a pale tip; a ring of white feathers round the eye; throat-patch as in the male; remaining under-parts bright pale tawny with crescentic black bars except on the centre of the abdomen and under tail-coverts. The male in winter has the black feathers broadly edged with pale tawny and the chestnut feathers narrowly edged with the same. It is said to be mainly a forest bird with a sweet and powerful song.

Status and Distribution. — This species breeds in Eastern Siberia, Manchuria, and Northern China, and in winter wanders into Southern China and the Indo-Chinese countries; in Burma it has been recorded from Mt. Victoria, Central Burma, and the Northern Shan States, and is probably a straggler.

[Note: —THE ROCK THRUSH, *Monticola saxatilis (612)*, is said to occur in Burma (F. B. I., Vol. II, Page 177) but no specimens are traceable and the only record seems to be an erroneous one from Ava. It is said to winter in India, Yunnan and the Indo-Chinese countries and may therefore occur in Burma. Length 7½ inches. It is distinguished from all the other Rock Thrushes by having chestnut outer tail-feathers, and is found in open stony country, often near houses and gardens.]

THE BURMESE WHISTLING THRUSH

Myiophoneus cæruleus eugenei (615).

Allied Form.—

THE HIMALAYAN WHISTLING THRUSH, *M. c. temminckii (614).*

Local Names. — Lashi: *Tingchen.*

Identification. — PLATE V, Fig. 8, Page 94. Length 12 inches. In the field the entire plumage appears a deep blue-black, glistening in certain lights. A bold and conspicuous bird of forest streams.

Voice. — The alarm-note is harsh and screeching, like a pencil on a slate, and it also makes a loud churring noise. The call-note is a loud melodious whistle and the song is loud and well sustained; in both there is something of harshness and unpleasantness, a squeaky eerie timbre that cuts through the roar of rushing waters.

Habits and Food. — This large strong "Blackbird" is typically found on rocky streams in moist and evergreen forests, but it is not entirely aquatic in its habits and may be seen beside mule tracks and forest paths or sitting on a rock or the roof of a hut far from water; a little observation however will invariably show that its headquarters are in some nearby stream. There is something very tight-trussed and neat about the Whistling Thrush as it hops and flies from boulder to ledge and from wall to branch; its hard shiny feathers are pressed close to the body, and as the long tail sways upwards above the long legs the bird seems the living embodiment of all the qualities of vitality and fitness that one associates with nature and the hills. It feeds both on the streams and in the forest, turning over leaves and litter and listening with its head on one side for the movements of a hoped-for worm or other prey; land shells are a favourite item, and large heaps of fragments are often found where the shells have been broken to pieces against a rock.

Nest and Eggs. — The breeding season is from February to April in Tenasserim, April to August elsewhere; two broods are often reared. The nest is built near water and is usually well protected either by concealment or by difficulty of access, for the bird is very cunning in its arrangements. It is usually found in a mossy bank, rocky crevice, or on the face of a precipitous cliff, and is a massive and heavy cup of moss dragged up by the roots with mud still adhering to them; there is a thick lining of fine grass, roots and moss. The eggs, 3 to 5 in number, are very long and pointed in shape, fragile and rather rough in texture, with numerous pink or pinkish-brown freckles on a ground colour of grey to pale greenish; the markings are generally rather thin and there is a curious faded appearance about the eggs that is most unusual. They average 1·40 by 1·00 inches.

Status and Distribution. — This species extends throughout the Himalayas, and is found further east in Yunnan and Cochin China. It is common throughout the forests of Burma up to 10,000 feet and is resident in the higher hills; most of the birds seen at low elevations are probably vertical migrants, though it breeds at 2,000 feet in the Arakan Yomas. The two races occur together in at least five different localities in Burma and their relationship is uncertain.

THE PURPLE THRUSH

Cochoa purpurea (617).

Identification. — Length 12 inches. Sexes differ. The adult male has the sides of the head and an eyebrow black; crown pale blue; general colour bluish- or brownish-purple with some black on the wings and a black tip to the tail; bill black. The female has the purple parts replaced by reddish-brown. The young male is like the adult but with the crown white barred with black and the under-parts brown barred with black. It is said to be

a very shy and quiet bird whose only note is a low chuckle. It inhabits evergreen forest in the higher hills and is by no means conspicuous in spite of its brilliant colouring unless it strikes a patch of sunlight, when it is transformed into a most beautiful object. It is usually seen feeding on berries in the tree-tops.

Nest and Eggs.— The breeding season is from May to July. The nest is usually built in a small tree in evergreen or pine forest; it is a shallow cup of living green moss, outwardly very untidy with scraps of moss sticking out in every direction, but the inner cup of roots is more firm and compact. The eggs, 2 or 3 (rarely 4) in number, are fine and close in texture and are similar to the eggs of *Zoothera* (page 111); they average 1·23 by 0·85 inches.

Status and Distribution. — This species extends from Simla eastwards to Burma; it has been recorded from Kambaiti (Myitkyina district), Thandaung (Karen Hills), Shan States and Tenasserim. It is resident in the higher hills, but seems to be scarce everywhere.

THE GREEN THRUSH

Cochoa viridis (618).

Identification. — Length 12 inches. Sexes differ. The adult male has the crown, nape and hind-neck deep blue; wings blue, black and green; tail mostly blue, tipped with black; rest of plumage green. The female only differs in having some yellowish-brown on the wings. The young birds have the upper-parts and under-parts buff barred with black. It is usually seen in hill evergreen in small parties, feeding on berries in the tree-tops.

Nest and Eggs. — Similar to those of the Purple Thrush.

Status and Distribution. — This species extends from Garhwal eastwards to Assam and there is one record from Fokien. The only records for Burma are of a bird collected at Thandaung off a nest in 1905 and of two birds obtained on Nattaung (Karenni) in 1940. It appears to be very rare.

[Note: — THE WHITE-CHEEKED GREEN THRUSH, *Cochoa rothschildi (619)*, has not been recorded from Burma but of the only two specimens known one was obtained in Manipur, and it should therefore be looked for in the Upper Chindwin. It differs from the Green Thrush in having the whole of the under-parts from the breast to the under tail-coverts orange-brown, and the sides of the head, cheeks and ear-coverts white.]

Family PRUNELLIDÆ

HEDGESPARROWS

This is a group of small birds with a Palæarctic and sub-tropical distribution. All the Burmese records are from the mountains of North-East Burma, where they breed at high elevations and move down lower in winter. In habits they are quiet skulking little birds of the undergrowth, and in summer frequent alpine scrub and the open country above the tree-line.

RIPPON'S HEDGESPARROW

Prunella collaris ripponi (623).

Identification. — Length 6 inches. The spotted chin and throat and double row of white spots on the wing-coverts distinguish this species. Upper-parts dark grey, bright tips to the dark brown tail-feathers, and chestnut feathers with light borders on the flanks are other features. A mountain bird, quiet and unobtrusive in habits.

Nest and Eggs. — Unknown for this race. Other races build a mossy cup on the ground under the shelter of a stone.

Status and Distribution. — This species has a wide distribution in the mountain ranges of Europe, Asia and North-west Africa, one race (the Alpine Accentor) being a visitor to the British Isles. Rippon's race has been recorded from the Adung valley at 8,000 feet, where the birds were observed feeding on small seeds including grasses, and it is probably resident there. There are no records or specimens from the Shan States (F. B. I., Vol. II, Page 191).

THE MAROON-BACKED HEDGESPARROW

Prunella immaculata (625).

Identification. — Length 6 inches. Distinguished from the other members of the genus by the unstreaked upper-parts; the lower back is chestnut-maroon and the under tail-coverts dark chestnut. It is usually seen in parties in open country or along roads and mule tracks in hill evergreen.

Nest and Eggs. — The breeding season is from the end of May to the end of July. The nest is built either on the ground or close to it in a dense bush or mass of brambles. The eggs, 3 to 5 in number, are blue in colour and average 0·77 by 0·57 inches.

Status and Distribution. — This species extends from Nepal to Yunnan and Western China, and is also found in Tibet; it is not uncommon in North-East Burma at high elevations (Adung valley and the Hpimaw road).

[Note: — THE ROBIN HEDGESPARROW, *Prunella rubeculoides (626)*, has not been recorded from Burma but is found in Tibet and the Himalayas and eastwards to Szechwan and Kansu, and is likely to occur in Northern Burma. Length 6½ inches. Upper-parts streaked with black. No eyebrow.]

THE RUFOUS-BREASTED HEDGESPARROW

Prunella strophiata strophiata (628).

Identification. — Length 6 inches. A reddish-brown bird with a rufous eyebrow and the upper-parts streaked with brown. It has a chattering alarm-note and the habits of a Robin, hopping about amongst low bushes.

Nest and Eggs. — Similar to those of the Maroon-backed Hedgesparrow.

Status and Distribution. — This race extends from Garhwal eastwards to Yunnan and Western China. It is not uncommon in the Adung valley at 6,000 feet and has also been recorded near Kambaiti in the mountains east of Myitkyina.

Family MUSCICAPIDÆ

FLYCATCHERS

The Flycatchers are a very large family of birds found all over the world and well represented in India and Burma. Some species are sedentary but many are migratory to a greater or less degree. The plumage of the young is mottled or squamated.

Owing to their habit of catching insects by sallies from a perch they are an easy group to recognise in the field; some species have a fixed perch to which they always return after each sally whereas others return to a different perch each time. Their feeble legs and feet make it difficult for them to walk freely on the ground, and this character separates them from the Thrushes and Robins, with which some species might otherwise be confused.

THE NEPAL SOOTY FLYCATCHER

Hemichelidon sibirica fuliginosa (632).

Allied Forms.—

THE KASHMIR SOOTY FLYCATCHER, *H. s. gulmergi (633).*

THE YUNNAN SOOTY FLYCATCHER, *H. s. rothschildi (634).*

Local Names. — None recorded.

Identification. — Length 5½ inches. A white ring round the eye; whole plumage sooty-brown with some white spots on the underparts; abdomen white. A bird of open hill forests.

Voice. — A quiet bird with a weak but pleasant song.

Habits and Food. — This is a typical Flycatcher in habits, frequenting the outskirts of forest and clearings in forest; it nearly always chooses a dead tree, a dead branch of a tree, or a dead and isolated bamboo culm for a perch; no doubt the absence of leaves gives it a better view of passing insects

Nest and Eggs. — The breeding season is from May to July. The nest is usually built on a horizontal branch at some height from the ground, but is sometimes found quite low down or against the dead stump of a tree. It is a bulky though fairly compact and well-made cup of moss, lichen and roots, lined with moss or grass and sometimes a few feathers. The eggs, 3 or 4 (rarely 5) in number, are so profusely covered with minute specks of light red that they appear a uniform olive colour; they average 0·63 by 0·48 inches.

Status and Distribution. — This species breeds at high elevations, usually over 6,000 feet, in Tibet and throughout the Himalayas to Yunnan; it extends southwards through Burma and Siam to the Malay States, but whether it breeds in these areas is uncertain. Though not yet recorded from the Arakan Yomas and North-East Burma, the Nepal race is widely distributed in the higher hills in winter but that it breeds anywhere in Burma has yet to be proved. The Kashmir race has been recorded from the Arakan Yomas as a winter visitor. The Yunnan race is probably resident in North-East Burma, having been found as high as 12,000 feet in the Adung valley in July. It is one of the last winter visitors to leave, and has been seen in Thandaung as late as the 12th May.

THE FERRUGINOUS FLYCATCHER

Hemichelidon ferruginea (635).

Identification. — Length 6 inches. A reddish-brown bird with a buff ring round the eye and a white patch on the throat. It is typically a shy retiring bird of streams and glades in the densest hill evergreen, but it also frequents the more open parts of the forest.

Nest and Eggs. — The breeding season is in May and June. The nest is built in a tree, and is made of moss lined with lichen. The eggs are pale green with minute reddish freckles all over the surface, but denser and forming a cap or zone at the larger end. They average 0·72 by 0·56 inches.

Status and Distribution. — This species breeds at high elevations from the Central Himalayas eastwards to Western China. In Burma it has been recorded from North-East Burma, the Sittang valley, Karen Hills, Shan States, and Karenni, but so far there is no evidence that it breeds in Burma and it is regarded as a winter visitor, arriving in September and leaving at the

end of April or early May. It is common on Nattaung (Karenni) in April and probably elsewhere in winter in suitable localities.

THE ORANGE-GORGETED FLYCATCHER

Siphia strophiata strophiata (636).

Identification. — Length 6½ inches. Similar to the next species but distinguished by larger size and by the chin and throat, which are black in the male and ashy in the female. The white forehead to the eye is conspicuous if looked for, and the tail is not square at the tip, the tail-feathers being pointed. It has a sweet little song, seldom heard, and a very low rather croaky little *churr*. It is said to be very constant to its perch, often occupying the same one day after day for months on end, and returning to it again the following season. A bird of the higher hills.

Status and Distribution. — This species breeds throughout the Himalayas, extending eastwards to Yunnan, Western China and Annam It is a winter visitor to Burma and is well distributed in the higher hills, though not yet recorded from Karenni; in North-East Burma it is fairly common.

[Note: — THE ANNAM ORANGE-GORGETED FLYCATCHER, *Siphia strophiata fuscogularis (637)*, is said to occur in the Northern Shan States (F. B. I., Vol. II, page 209) but no records or specimens are traceable.]

THE EASTERN RED-BREASTED FLYCATCHER

Siphia parva albicilla (639).

Local Names. — Chinghpaw: *Hkindu-krek.*

Identification. — PLATE VI, Fig. 1, Page 118. Length 5 inches. Sexes differ. A small brown bird with whitish under-parts and in some individuals (adult males) with the throat and breast pale red. Easily distinguished from all except the preceding species by the white patches at the base of the blackish tail, conspicuous in flight and also at rest owing to its characteristic habit of jerking the tail upwards at intervals and at the same time quivering the pointed tips of the wings.

Voice. — A distinctive harsh jarring note, sounding like a small wooden rattle rotated at speed, is commonly uttered. A plaintive piping call, *phwee-phwee-phwee*, repeated at short intervals, is used to express anger or alarm. It is said to have a pleasant song in the breeding season.

Habits and Food. — The habitat of the Red-breasted Flycatcher is much the same as that of the Magpie-Robin; besides being familiar in the garden it is a typical bird of the teak forests, where it frequents the drier and more open parts including the type known as *indaing*. Although often descending to the ground to capture an insect it is an arboreal species and a true Flycatcher in its habits, and is one of those that changes its perch at frequent intervals. It is very pugnacious for its size and fights freely with others of its own species. Though a great number may be scattered through a particular stretch of jungle one rarely if ever sees two together.

Status and Distribution. — This species has a wide breeding range throughout Europe (including the British Isles), Siberia and Northern and Central Asia. The Eastern race, which breeds in North-east Asia, is found throughout Burma from September to mid-April and is the commonest of all the Flycatchers.

PLATE VI

See Page No.

1. EASTERN RED-BREASTED FLYCATCHER (juvenile male)
Siphia parva albicilla 118

2. BURMESE PARADISE FLYCATCHER (adult male)
Tchitrea paradisi saturatior 129

2a. Ditto. (juvenile male) „

3. BLUE-THROATED BLUE FLYCATCHER (adult male)
Muscicapula rubeculoides rubeculoides 123

3a. Ditto. (adult female) „

4. BURMESE GREY-HEADED FLYCATCHER (adult)
Culicicapa ceylonensis calochrysea 126

5. VERDITER FLYCATCHER (adult male)
Eumyias thalassina thalassina 124

6. NORTHERN INDIAN BLACK-NAPED FLYCATCHER (adult male)
Hypothymis azurea styani 130

6a. Ditto. (adult female) „

7. BURMESE WHITE-BROWED FANTAIL FLYCATCHER (adult male)
Rhipidura aureola burmanica 131

PLATE VI

SIX INCHES
0 3 6
0 50 100 150
150 mm

1934

THE BLUE FLYCATCHERS

The genus *Muscicapula* contains a large number of species in which the sexes are always different in colour, the males being blue or black on the upper-parts whereas the females are various shades of brown or rufous. The breeding ranges and status in Burma of many species are imperfectly known, and they are a very difficult group in consequence. They all build much the same type of nest: a cup of moss lined with rootlets and placed in a natural hole or hollow, usually in a tree. The males are difficult, and most of the females impossible, to identify without collecting specimens. The following key will enable a specimen to be run down and is of some assistance in the field.

KEY TO THE BLUE FLYCATCHERS

Males. — Upper-parts deep blue or black

A. Base of tail white.
- a. White on tail extending nearly to the tip of the third pair of feathers — *M. concreta*
- b. White on tail confined to the base.
  - a'. Upper-parts blue.
    - a''. Breast orange-chestnut.
      - a^3. No white eyebrow — *M. hodgsoni*
      - b^3. A white eyebrow — *M. hyperythra*
    - b''. Breast white to buff or tawny-grey.
      - c^3. Breast and abdomen greyish-white tinged with tawny — *M. tricolor*
      - d^3. Breast and abdomen pure white — *M. superciliaris*
  - b'. Upper-parts black — *M. melanoleuca*

B. No white on tail.
- c. Crown and rump different blue to back.
  - c'. Axillaries and under wing-coverts white — *M. sapphira*
  - d'. Axillaries and under wing-coverts chestnut — *M. vivida*
- d. Crown, rump and back same colour.
  - e'. Chin, throat and breast dark blue — *M. hainana*
  - f'. Chin and throat blue, breast rufous — *M. r. rubeculoides*
  - g'. Chin and throat not wholly blue.
    - c''. Abdomen and under tail-coverts whitish — *M. r. dialilæma*
    - d''. Abdomen and under tail-coverts rufous — *M. banyumas*
  - h'. Whole under-parts blue — *M. unicolor*

Females. — Upper-parts with little or no blue

A. Upper-parts brown or rufous.
- a. Base of tail white — *M. concreta*
- b. No white on tail.
  - a'. Breast chestnut or rufous.
    - a''. First primary not less than ½ second. No ring round eye — *M. hainana*
    - b''. First primary less than ½ second.
      - a^3. A ring of bright tawny round eye — *M. sapphira*
      - b^3. A ring of pale tawny round eye — *M. r. rubeculoides*, *M. r. dialilæma*, *M. banyumas*

b'. No chestnut on breast.
c". Whole under-parts earthy-brown — *M. unicolor*
d". Under-parts never brown.
c³. Wing always over 90 mm — *M. vivida*
d³. Wing always under 85 mm.
a⁴. 2nd primary = 9th; tail under 45 mm — *M. hyperythra*
b⁴. 2nd primary shorter than first secondary; tail over 45 mm — *M. tricolor*
c⁴. 2nd primary between 6th and 7th.
a⁵. Under-parts ashy-brown, white on abdomen — *M. hodgsoni*
b⁵. Chin, throat and breast buff — *M. melanoleuca*

B. Upper-parts brown except for blue on rump, upper tail-coverts and tail — *M. superciliaris*

THE WHITE-TAILED BLUE FLYCATCHER

Muscicapula concreta cyanea (641).

Identification. — Length 7 inches. Large size and white on tail, which is frequently expanded, are distinctive features. It appears to be a bird of evergreen forest, but little is known of its habits.

Nest and Eggs. — More or less unknown.

Status and Distribution. — This species occurs in the Naga hills (one record), Hukawng valley, and Tenasserim southwards to Perak in the Malay States. Judging by its distribution it is likely to occur in other parts of Burma.

THE RUSTY-BREASTED BLUE FLYCATCHER

Muscicapula hodgsoni (642).

Identification. — Length 5½ inches. See key. A quiet bird with a pleasant song in the breeding season. It frequents all types of hill forest from open pine to dense evergreen, but it prefers thick undergrowth and dense bamboo thickets, and is rather shy. It is usually seen singly but in the Arakan Yomas females and immature males have been seen in parties (in December) working through the lower canopy like Quaker Babblers.

Nest and Eggs. — The breeding season is from April to June. The nest is typical of the genus and the eggs vary in colour, but are usually very pale yellowish or greenish-stone, finely stippled with reddish. The markings are usually confined to the larger end, where they form a ring or cap. The eggs average 0·70 by 0·53 inches.

Status and Distribution. — This species extends from Sikkim eastwards to Yunnan and Western China and southwards to Tenasserim. In Burma it is distributed throughout the higher hills and is probably a breeding resident everywhere. It is locally common.

THE RUFOUS-BREASTED BLUE FLYCATCHER

Muscicapula hyperythra hyperythra (643).

Allied Form.—

THE MALAY RUFOUS-BREASTED BLUE FLYCATCHER, *M. h. malayana (644).*

Identification. — Length 4½ inches. See key, page 119. In the male the short broad white eyebrow is a distinctive feature. It has a characteristic little song, almost a wheeze, consisting of four notes; the first, second and fourth are on the same key, the third being much lower; there is then a slight pause followed by two notes resembling *see-saw*, the first note being much higher than the second. In its choice of habitat it resembles the Shortwings, preferring dense undergrowth along small streams in evergreen forest, and like them it is tame and confiding.

Nest and Eggs. — The breeding season is from April to June. The nest is typical of the genus, and the eggs, 4 or 5 in number, vary from pale yellowish-grey to deep pinkish-red, with innumerable freckles of reddish-brown scattered all over the surface or confined to a ring or cap at the larger end. The eggs average 0·69 by 0·54 inches.

Status and Distribution. — This species extends from Garhwal eastwards to Yunnan and southwards through the Malay States to Sumatra, Java and Borneo. It is resident throughout its range in the higher hills and is said to migrate vertically in winter. In Burma it appears to be a scarce bird confined to the higher peaks and has been recorded from Mt. Victoria, Upper Chindwin, North-East Burma, Shan States, Karenni and Tenasserim.

THE EASTERN SLATY-BLUE FLYCATCHER

Muscicapula tricolor cerviniventris (646).

Local Names. — Chinghpaw: *Siri-la.*

Identification. — Length 4½ inches. See key, page 119. A bird of the higher hills, usually found skulking along roadsides in reeds and *kaing* grass.

Nest and Eggs. — The nest is typical of the genus and the eggs, 3 or 4 in number, appear pale pink or yellowish-pink but are actually very pale pink finely freckled with pale reddish, either all over the surface or chiefly in a ring or cap at the larger end. They average 0·62 by 0·48 inches.

Status and Distribution. — This species extends along the Himalayas from Kashmir to Yunnan and southwards to Northern Siam. It has been recorded from the Chin Hills, North-East Burma, the Shan States and Karenni, and is probably resident above 4,000 feet, some birds moving down to 2,000 feet in winter. It is nowhere common.

THE LITTLE BLUE-AND-WHITE FLYCATCHER

Muscicapula superciliaris astigma (648).

Identification.—Length 4½ inches. See key, page 119. The pure white streak from the chin to the white of the lower breast is conspicuous. A bird of the higher hills.

Nest and Eggs. — The nest is typical of the genus and the eggs, 4 or 5 in number, are a very pale olive-yellow or olive-green dusted over with fine reddish freckles, either over the whole surface or as a ring or cap at the larger end. They average 0·63 by 0·48 inches.

Status and Distribution. — This species extends throughout the Himalayas to Yunnan. In Burma it has only been recorded from Central Burma, Yatsawk (Southern Shan States), and Karenni; it is said to occur in the Chin and Kachin hills (F. B. I., Vol. II, page 223) but no records or specimens are traceable. It breeds in Yunnan but its status in Burma is uncertain and it seems to be rare.

THE INDIAN LITTLE PIED FLYCATCHER

Muscicapula melanoleuca melanoleuca (649).

Local Names. — None recorded.

Identification. — Length 4½ inches. See key, page 119. Sexes differ. The adult male has a broad eyebrow, a patch on the wing, the basal half of the lateral tail-feathers, and the whole under-parts white; rest of plumage velvety black. The female is olive-brown above with a pale patch on the wing; upper tail-coverts rufous; under-parts smoky-white. A bird of hill forests.

Voice. — A thin high *Pi-pi-pi-pi* followed by a low rattle *churr-r-r-r*, or *Pi-churr-r-r-r-pi-pi-pi-pi* is a distinctive call-note that may be heard all day long where this bird is common.

Habits and Food. — This is a very cheerful lively little Flycatcher, ever on the move from one vantage point to another, catching most of its insect food on the wing, but also chasing it along the branches or snatching it from the bark of a tree. It is far from shy and is active on hot dry ridge-tops in the middle of the day when most other birds have retired to the shady valleys.

Nest and Eggs. — The breeding season is from March to June. The nest is typical of the genus and the eggs, 3 or 4 in number, are broad blunt ovals and appear uniform olive-brown, but are really pale yellowish or yellowish-green covered all over with tiny freckles of reddish-brown. They average 0·59 by 0·45 inches.

Status and Distribution. — This species ranges from Garhwal to Yunnan, Siam and the Malay States. It is common throughout the higher hills of Burma in winter, and has been recorded as low as 1,000 feet, but its status is uncertain.

[Note: — The Burmese race, *M. m. westermanni (650)*, is a bad race and does not differ from the Indian race.]

THE SAPPHIRE-HEADED FLYCATCHER

Muscicapula sapphira (651).

Identification. — Length 4½ inches. See key, page 119. The male has the forehead, crown and nape a brilliant light blue. A bird of the higher hills, frequenting tall undergrowth or small trees in the forests.

Nest and Eggs. — The breeding season is from May to June, the nest and eggs being like those of *M. superciliaris.*

Status and Distribution. — This species has a restricted range from Sikkim to Yunnan and south to Karenni. In Burma it has only been recorded from North-East Burma, the Southern Shan States and Karenni, and is a very local bird of the higher peaks and its status is uncertain. It is said to occur in the Chin Hills (F. B. I., Vol. II, page 226) but no records or specimens are traceable

THE RUFOUS-BELLIED BLUE FLYCATCHER

Muscicapula vivida oatesi (652).

Identification. — Length 7 inches. See key, page 119. The largest of the genus and easily confused with the Rufous-bellied Niltava; the male however has no blue neck-patch and the female no white throat-patch. A bird of hill evergreen with the habits of the Niltavas.

Nest and Eggs. — Unknown.

Status and Distribution. — This species ranges from Assam eastwards to Formosa and southwards to Siam and Tenasserim. It has been recorded from Mt. Victoria, Maymyo, Southern Shan States, Karenni, and Tenasserim. It is a rare bird of uncertain status.

GRANT'S BLUE FLYCATCHER

Muscicapula hainana (654).

Identification. — Length 7 inches. See key, page 119. The male has no chestnut on the under-parts. Habits unknown.

Nest and Eggs. — Unknown.

Status and Distribution. — This species occurs in Hainan, Annam, Southern China, Siam and South-east Burma, where it has been recorded from the Pegu Yomas (east side), Southern Shan States, and Tenasserim. It is a rare bird of uncertain status.

THE PALE BLUE FLYCATCHER

Muscicapula unicolor unicolor (655).

Allied Form.—

BLYTH'S PALE BLUE FLYCATCHER, *M. u. harterti (656).*

Identification. — Length 6½ inches. See key, page 119. This bird has a magnificent song, richer than that of any other Blue Flycatcher, which it sings early and late from March to June. It keeps to hill evergreen and high elevation oak forest and though not shy it has a wild rapid flight.

Nest and Eggs. — The breeding season is from April to June. The nest is typical of the genus and the eggs are pale yellow or reddish-stone marked with numerous small blotches of bright reddish. They average 0·89 by 0·67 inches.

Status and Distribution. — This species ranges from Sikkim to North-East Burma, Siam, Malay States, and Java. It has been recorded from Mt. Victoria, Upper Chindwin, North-East Burma, Shan States, Karenni and Tenasserim; its status is uncertain.

THE BLUE-THROATED BLUE FLYCATCHER

Muscicapula rubeculoides rubeculoides (657).

Allied Forms.—

SALVADORI'S BLUE FLYCATCHER, *M. r. dialilæma (659).*

THE YUNNAN BLUE FLYCATCHER, *M. r. glaucicomans (659a).*

Local Names. — Chinghpaw: *Shingbwishun.*

Identification. — PLATE VI, Figs. 3 & 3a, Page 118. Length 6 inches. See key, page 119. Salvadori's race differs in having a ∧ of red running up to the chin, and the upper-parts are a darker blue.

Voice. — The song is quite pleasant, characterised by thin high notes. The usual phrase is *tchik-tchik-. . . . . ,* the first two notes harsh and often omitted and the others whistled; there is also a musical warble by way of variation. A soft deep *chur-r-r* is frequently uttered.

Habits and Food. — This is a forest bird, frequenting the undergrowth and the lower trees in bamboo jungle or evergreen glades and valleys; it keeps to the thick foliage but in the mornings and evenings often comes out into the open beside paths and streams. It is a typical bird of the teak forests in the cold weather and is the only Blue Flycatcher commonly seen at low elevations.

Nest and Eggs. — The breeding season is from April to June. The nest is of the usual moss type, built in a hollow, and the eggs, 3 to 5 in number, are so covered with minute specks of reddish-brown that they appear uniform olive-brown in colour. They average 0·73 by 0·56 inches.

Status and Distribution. — The typical race breeds all along the Himalayas and is common throughout Burma in winter; there are no breeding records from Burma. Salvadori's race is known to breed in parts of Burma and is probably resident throughout its range. The Yunnan race has been recorded only from the Bhamo hills and Tenasserim, and is probably a winter visitor.

THE BHAMO BLUE FLYCATCHER

Muscicapula banyumas whitei (658a).

Allied Forms.—

THE SOUTHERN BLUE FLYCATCHER, *M. b. cærulifrons (658).*

THE LARGE-BILLED BLUE FLYCATCHER, *M. b. magnirostris (663).*

Identification. — Length 6 inches. See key, page 119.

Nest and Eggs. — Similar to those of the last species.

Status and Distribution. — Except that the Bhamo race is known to breed in the Bhamo hills the breeding ranges of these races have not been determined. The species extends from Burma and Yunnan to Siam and the Northern Malay States. It has been recorded from Mt. Popa, the Bhamo hills, Shan States and Tenasserim, and appears to be a scarce bird of the higher hills.

[Note: — TICKELL'S BLUE FLYCATCHER, *Muscicapula tickelliae tickelliae (660).*

SHARPE'S BLUE FLYCATCHER, *M. t. sumatrensis (661).* Both these races are said to occur in Burma (F. B. I., Vol. II, pages 235 and 236) but no specimens are traceable and owing to the difficulty of identifying these birds correctly records not based on specimens cannot be accepted.]

THE PIGMY BLUE FLYCATCHER

Muscicapella hodgsoni (664).

Identification. — Length 4 inches. Sexes differ. The male has the upper-parts dark blue and the under-parts pale orange-yellow. The female has the upper-parts olive-brown and the under-parts pale saffron-yellow. This is a silent bird except for a sharp sibilant *tsip;* it frequents deep forest in the higher hills and when catching insects on the wing is said to resemble a brilliant butterfly rather than a bird.

Nest and Eggs. — Unknown.

Status and Distribution. — This species ranges from Sikkim eastwards to Yunnan and southwards to Sumatra and Borneo. It has been recorded from Mt. Victoria, North-East Burma and the Southern Shan States (?). and is probably resident over 6,000 feet, moving to lower elevations in winter. It is a rare bird.

THE VERDITER FLYCATCHER

Eumyias thalassina thalassina (665).

Allied Form.—

THE MALAY VERDITER FLYCATCHER, *E. t. thalassoides (666).*

Local Names. — None recorded.

Identification. — PLATE VI, Fig. 5, Page 118. Length 6 inches. The female is like the male but much duller and greyer in tint, and young birds are grey-brown, more or less tinged with green, and spotted with tawny. It perches on exposed situations and hawks insects in the air with active flight. The ordinary flight is strong and swift.

Voice. — It is a quiet bird in the cold weather and no call-notes are recorded. The male has a loud and fairly good song in the breeding season.

Habits and Food. — This is a bold confiding bird, frequenting forest and garden alike. In the cold weather a few may be seen in the heart of the teak forests, where it favours the fringes of the larger streams and appears to be very constant to its perch, a bird having been noted in three successive cold weathers at a particular point opposite a rest house in the Pegu Yomas; there is no proof that it was the same bird each year, but the species is not common in that stretch of forest. When feeding it uses a number of perches, swooping into the air to capture an insect and continuing its flight to a different branch, but it always stays close to the one particular spot. The usual perch is a twig or branch of a tree, but it is also partial

to telegraph wires running through the forest; it does not as a rule perch on buildings, though it enters verandahs and porches in search of a nesting site.

Nest and Eggs. — The breeding season is from April to July. The nest is built in a natural hole or hollow or under the eaves of a building, and as the bird usually dashes out at the approach of a passer-by the nest is not difficult to find. It is made of green moss, lined with fine black moss roots. The eggs, 3 to 5 in number, are moderately broad ovals, very fragile in texture, with little gloss; the colour is pinky-white, either unmarked or with a more or less conspicuous reddish-pink zone or cap of mottled or clouded markings, not defined specks or spots. The eggs average 0·76 by 0·58 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region. It is known to breed in North-East Burma and the Shan States, but elsewhere in Burma its status is uncertain; in the cold weather it is widely distributed in the forests at all elevations, but is nowhere very common. The Malay race is found only in Tenasserim.

SHARPE'S WHITE-GORGETED FLYCATCHER

Anthipes moniliger leucops (671).

Allied Forms.—

HUME'S WHITE-GORGETED FLYCATCHER, *A. m. submoniliger (670).*

THE ARAKAN WHITE-GORGETED FLYCATCHER, ***A. m. gularis (671a).***

Identification. — Length 5 inches. A brown bird with white chin and throat bounded in some races by a black line; a short eyebrow white. It has a weak but pleasant song in the breeding season. It is a shy retiring bird for a Flycatcher, feeding close to the ground and keeping to dense bamboo thickets and the undergrowth in hill evergreen. It has a habit, like *Siphia*, of spreading and jerking its tail up and down when perched, and in the breeding season its display consists of flying into the air and then sailing down to its perch with feathers all fluffed out and the pure white throat with its black border visible from some distance.

Nest and Eggs. — The breeding season is from April to June. The nest is built either on the ground in grass or scrub or low down in a bush; it is a roughly made globular affair of grass and leaves thickly lined with the finest grass stems. The eggs, 3 or 4 (rarely 5) in number, are broad ovals in shape, fine and close in texture, with a little gloss; the colour is pure white to pale pink sparsely speckled with reddish. The eggs average 0·71 by 0·51 inches.

Status and Distribution. — This species extends from Sikkim through Burma and Siam to the Malay States. It is found in Arakan, the Chin Hills, Upper Chindwin, Karen Hills, Shan States, Karenni and Tenasserim and is probably resident in the higher hills; it appears to be scarce everywhere, but is easily overlooked.

HUME'S FLYCATCHER

Olcyornis olivaceus olivaceus (672).

Allied Form.—

BROOK'S FLYCATCHER, *O. o. poliogenys (673).*

Identification. — Length 5½ inches. Distinguished from the preceding species by the chin and throat being buff, not contrasting with the surrounding parts. The song is sweet, though rather short and broken. It frequents both forests and open country, and feeds both high up in trees and in the undergrowth.

Nest and Eggs. — The breeding season is from April to June. The nest is the usual mossy cup in a hollow and the eggs, 3 to 5 in number, are pale green, pale buff or stone colour, profusely freckled with reddish. They average 0·73 by 0·58 inches.

Status and Distribution. — This species has much the same range as the preceding one outside Burma; Hume's race occurs in Tenasserim and Brook's race in Arakan; there is one record from Myitkyina, but the race has not been determined. It appears to be a rare bird in Burma.

THE SUMATRAN BROWN FLYCATCHER

Alseonax latirostris latirostris (674).

Identification. — Length 6 inches. A brown bird, dull white below, with spots on the throat and breast and a pale ring round the eye. It has an insignificant little song and utters a soft vibrant *churr*. It is a quiet forest bird and is usually seen sitting in a rather upright attitude on a bare branch, whence it makes frequent sallies after insects and seizes them with an audible snap.

Nest and Eggs. — The breeding season is from May to June. The nest is usually built on a branch of a tree close to the ground and is a large compact cup of moss and lichen, lined with roots, fibres and feathers. The eggs are a pale stone colour, finely freckled with reddish; they average 0.67 by 0.52 inches.

Status and Distribution. — This species has an immense range from the British Isles across Europe and Asia to China, Japan and Borneo. It has been recorded from Arakan, Mt. Victoria, Central Burma, the Sittang valley (where it was very common and apparently resident 60 years ago). Thandaung and Tenasserim. It is a local bird and its status is uncertain.

THE RUDDY-BROWN FLYCATCHER

Alseonax muttui muttui (677).

Identification. — Length 6 inches. A reddish-brown bird with a white ring round the eye and a white chin and throat; white spot in front of eye and white chin distinguish it from the Ferruginous Flycatcher. In the breeding season it has a soft low note and a rather feeble song, which is seldom uttered. It is a bird of the higher hills and a typical Flycatcher in habits. It does not mind being watched.

Nest and Eggs. — The breeding season is from May to June. The nest is typical of the family and the eggs, 3 to 5 in number, are grey-green finely dusted with reddish. They average 0·67 by 0·52 inches.

Status and Distribution. — This species is confined to India, Ceylon, Burma and Yunnan. It has been recorded from North-East Burma, Central Burma and the Southern Shan States, where it is said to be common; elsewhere it seems to be scarce and its status is uncertain.

THE BURMESE GREY-HEADED FLYCATCHER

Culicicapa ceylonensis calochrysea (679).

Allied Form.—

THE MALAY GREY-HEADED FLYCATCHER, *C. c. meridionalis (681).*

Local Names. — None recorded.

Identification. — PLATE VI, Fig. 4, Page 118. Length 5 inches. A forest bird, very active and erratic in its movements and rather noisy.

Voice. — Its call-note is a long loud clear trill followed by a prolonged twittering note; it also has a persistent but pleasant *silly-billy* call and a *wut-wut* note.

Habits and Food. — This is a forest bird, preferring those ravines and hillsides where shady arcades are chequered with occasional

patches of sunlight; in such places it flits incessantly from bough to bough hawking insects from the air, now catching the gleams of sunlight and then hidden in the gloom. In the cold weather it is one of the most typical birds of the teak forests, where it is much in evidence on account of its friendly and noisy habits. Except when in family parties after the breeding season it is solitary in disposition, though one or two individuals often accompany the mixed hunting parties of small birds that are such a feature of the hill forests.

Nest and Eggs. — The breeding season is from April to June. The nest is a most charming structure of bright green moss, lichen and cobwebs, in shape half a cone or quarter of a sphere, and it is applied to the perpendicular side of a tree trunk or rock on which there is plenty of moss, with which it assimilates. It is usually unlined, though moss roots are sometimes used. The eggs, 3 or 4 in number, are moderately broad ovals, very blunt in shape, with little gloss; the ground colour is white or dingy yellowish-white, and the markings consist of spots and blotches of grey and yellowish-grey, the majority being collected in a zone round the larger end. The eggs average 0·60 by 0·48 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region. It is a common resident throughout Burma in the higher hills, attaining 10,000 feet or more, and in the cold weather is also common in the foothills as a vertical migrant.

[Note: — The Chinese race *C. c. orientalis (680)*, is said to occur in the Shan States (F. B. I., Vol. II, page 256) but no specimens or records are traceable.]

THE LARGE NILTAVA

Niltava grandis grandis (682).

Allied Form.—

THE MALAY LARGE NILTAVA, *N. g. decipiens (683).*

Local Names. — Lashi: *Bum-chang-kun.*

Identification. — Length 8½ inches. Sexes differ. The male has the crown, rump, upper tail-coverts, a patch on the wing, and a patch on each side of the neck (this being the "hall mark" of a Niltava) brilliant blue; rest of plumage deep blue. It has to be distinguished from the Fairy Bluebird (*q.v.*). The female is a brown bird, paler below, with a patch of bright blue on each side of the neck. A bird of hill evergreen.

Voice. — The call-note of 3 ascending notes in a minor key is unmistakable once learnt.

Habits and Food. — This beautiful Flycatcher is not shy but keeps to the undergrowth and lower trees in dense evergeen forest, especially near streams. It is a sluggish bird in habits and spends most of its time skulking in the bushes, where it often appears entirely black in colour.

Nest and Eggs. — The breeding season is from April to early July. The nest is built in a natural hollow, and is a cup of moss lined with rootlets. The eggs, usually 4 in number, are so densely freckled

with pinkish-brown that they appear uniform in colour. They average 0·96 by 0·68 inches.

Status and Distribution. — This species extends from Sikkim eastwards to Yunnan and southwards to Annam, Siam and the Malay States. It is resident throughout the higher hills of Burma, though not yet recorded from the Arakan Yomas and the Northern Shan States, and is locally common.

THE INDIAN RUFOUS-BELLIED NILTAVA

Niltava sundara sundara (684).

Identification. — Length 6½ inches. Sexes differ. The male is similar to the Large Niltava but has the under-parts from the breast bright chestnut. It has to be distinguished from the Rufous-bellied Blue Flycatcher. The female is like the female Large Niltava but easily recognized by a white patch below the throat. It is said to be a beautiful songster like all Niltavas. A bird of hill evergreen.

Nest and Eggs. — Similar to those of the preceding species but smaller, the eggs averaging 0·84 by 0·62 inches.

Status and Distribution. — This species extends from Simla eastwards to Yunnan and southwards to Siam and Tenasserim. It is resident throughout the higher hills of Burma, though not yet recorded from the Northern Shan States, and some birds move to lower elevations in winter but keep to evergreen forest. It is not uncommon in North-East Burma but seems to be scarce elsewhere.

THE SMALL NILTAVA

Niltava macgrigoriæ (685).

Local Names. — Chinghpaw: *Sumpweshun.*

Identification. — Length 5 inches. Sexes differ, but both are easily distinguished from the two preceding species by their much smaller size; the male has no chestnut on the under-parts. It is said to have a sweet jerky little song and is much more active and sprightly than the other Niltavas, and frequents more open parts of the forests, such as glades and streams.

Nest and Eggs. — The breeding season is from April to June. The nest is a small replica of those of the other Niltavas but the eggs are not so uniform in colour nor so pink or red in tone; in some the whole surface is blotched with dull reddish, in others the markings form a ring or cap at the larger end, and in others the pale ground colour shows up well. They average 0·71 by 0·54 inches.

Status and Distribution. — This species has a similar range to the preceding one; though not yet recorded from the Arakan Yomas and Mt. Victoria, and only doubtfully from the Chin Hills, it is resident elsewhere throughout the higher hills of Burma, some birds moving to lower elevations in winter. It is likewise common in North-East Burma and scarce elsewhere.

THE MAROON-BREASTED FLYCATCHER

Drymophila velata (686).

Identification. — Length 7 inches. Sexes differ. The male has the throat and breast deep maroon and the rest of the plumage indigo-blue or black. The female has the whole plumage indigo-blue. It is said to have a very harsh call-note and is a tame bird of evergreen forest.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends from Tenasserim and Siam southwards to Sumatra, Java, and Borneo.

THE CHESTNUT-WINGED FLYCATCHER

Drymophila pyrrhoptera (687).

Identification. — Length 7 inches. Sexes differ. The male has the wings and tail chestnut, the under-parts from the breast pale buff and the rest of the plumage indigo-blue. The female is earthy-brown above and rufous-buff below.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends from Southern Tenasserim, Cochin China and Siam through the Malay States to Sumatra and Borneo. It is resident in the plains and foothills.

THE BURMESE PARADISE FLYCATCHER

Tchitrea paradisi saturatior (688a).

Local Names. — Burmese: *Sa-byu* (သြးဗျူ)

Identification. — PLATE VI, Figs. 2 & 2a, Page 118. Length 9 inches, excluding the sharply graduated tail; in older males the central pair of feathers form ribbon-like streamers up to 10 inches in length, white or chestnut in colour, which droop gracefully at rest or stream out behind the bird in flight with curious effect; for the bird appears to float softly along without particular volition or ability to direct its course, moving in a series of dreamy impulses, though younger birds with short tails show themselves possessed of strong and direct flight. The female resembles the young male.

Voice. — The ordinary call is harsh and disappointing, a sharp grating note, but the song is a low pleasant warble of distinct merit, though it is not often heard. It continually utters twittering notes whilst feeding.

Habits and Food. — The Paradise Flycatcher has been aptly named, for the long waving tail-plumes recall the ornaments of the true Birds of Paradise and for sheer beauty of contrast, purity of colour and grace of form and movement the adult male must be without a rival in Burma. In nature its beauty is enhanced by its surroundings; for it is a bird of pleasant groves and well-watered shady ravines, where stray gleams of sunshine strike through the boughs, bringing into colour sprays of foliage and dappling the forest floor with light and shade. Its feet being too short and weak for progress on the ground it is purely arboreal in habits. It is lively and cheerful, always on the move, and males often flirt their tails, opening and closing the feathers and making play with the long streamers. When sitting on a twig the carriage is very upright. All food is taken on the wing, and that the bird is capable of speed and skill in the air is proved by the fact that dragon-flies are sometimes captured.

Nest and Eggs. — The breeding season is from March to May. The nest depends for protection on position rather than on concealment. It is built in a tree or bush at any height up to 40 feet from the ground. It is a very neat and compactly-built cup of soft grass, scraps of leaf and moss, firmly plastered together with cobwebs and studded with small cocoons and pieces of lichen; there is a neat lining of fine grass and hair, the whole forming a structure worthy

in its beauty of the architect. The eggs are rather long ovals in shape and usually dull and glossless; the ground colour varies from pale pinkish-white to a warm pink and is more or less thickly spotted with rather bright brownish-red spots, which tend to form an irregular cap or zone at the larger end, where also a few tiny pale inky-purple blotches are to be found. The eggs average 0·80 by 0·60 inches.

Status and Distribution. — The species is widely distributed in the Oriental Region. Very little definite is known about its status and movements in Burma; at present one race is accepted and two others have been recently described but not yet fully substantiated. It has been recorded from all parts of the country, but as a breeding bird only in North-East Burma and Central Burma; elsewhere it seems to occur as a local migrant. It is found from sea level up to 6,500 feet, and has been seen in a Rangoon garden. It is commoner in the Dry Zone than elsewhere.

THE NORTHERN INDIAN BLACK-NAPED FLYCATCHER

Hypothymis azurea styani (693).

Allied Form.—

THE MERGUI ISLANDS BLACK-NAPED FLYCATCHER, *H. a. forrestia (698).*

Local Names. — Burmese: *Sa-mè* (စာမဲ)

Identification. — PLATE VI, Figs. 6 & 6a, Page 118. Length 6½ inches.

Voice. — It is a quiet bird on the whole with a sharp little call-note.

Habits and Food. — This Flycatcher is common throughout the teak forests, keeping mainly to the bamboos and undergrowth. It is also found in scrub jungle and open country and has been seen living in a cultivator's hut far out on a paddy plain on the tide-line. It is usually solitary but individuals sometimes join mixed hunting parties of small birds and travel with them through the trees. It occasionally spreads its tail like a Fantail Flycatcher.

Nest and Eggs. — The breeding season is from April to June. The nest is usually built in a fork or on a branch of a tree, or in a bamboo clump. It is a tiny deep cup, beautifully made of fine grass stems and fibres and bound together with cobwebs, to which numerous small white cocoons and tiny pieces of dry leaves and lichen are attached. The eggs, 3 or 4 in number, resemble those of the Paradise Flycatcher and average 0·69 by 0·53 inches.

Status and Distribution. — This species ranges over most of the Oriental Region. It is a common resident throughout the forests of Burma except in the north, whence there are few records; it does not seem to ascend the higher hills. The Mergui Islands race is confined to the Mergui Archipelago.

THE YELLOW-BELLIED FLYCATCHER

Chelidorhynx hypoxanthum (699).

Local Names. — Chinghpaw: *Ding-shan-chyai.*

Identification. — Length 5 inches. Sexes differ slightly. The male has a black line through the eye; the forehead, a broad eyebrow, and the under-parts bright yellow; upper-parts dark olive-brown; all but the central pair of tail-feathers broadly tipped with white. The female only differs in having the part round the eye brownish instead of black. An extremely vivacious cheerful little bird of hill forest, frequently spreading its tail fanwise and quivering its wings.
Voice. — It has a very sweet but feeble little song. A single note, *tweet,* is frequently uttered.
Habits and Food. — This delightful little bird is a pleasure to watch; it is not shy and may be found in all types of hill forest and at all elevations from 1,000 to 12,000 feet; it prefers small streams in hill evergreen covered with dense undergrowth, a habitat it shares with Wrens and Shortwings.
Nest and Eggs. — The breeding season is from May to July. The nest is usually built on a low branch of a tree, and is a beautiful deep cup of fine moss, sometimes mixed with hair, lichen, and wool, and often decorated with lichen; the lining is of moss fruits with the stems attached, very fine rootlets, or hair, and the whole is very compact. The eggs are broad blunt ovals in shape, fine and soft in texture, and creamy in colour, with rings at the larger end of tiny indefinite freckles of darker reddish; they average 0·55 by 0·44 inches.
Status and Distribution. — This species extends from Simla eastwards to Yunnan and southwards nearly to Tenasserim. It has not yet been recorded from Arakan, the Northern Shan States or Tenasserim but probably occurs in the first two areas; elsewhere it is resident throughout the higher hills (over 5,000 feet) and some birds move down to 1,000 feet in winter. It is locally common.

THE BURMESE WHITE-BROWED FANTAIL FLYCATCHER

Rhipidura aureola burmanica (701).

Local Names. — Burmese: *Aung-sa* (ဧသာင်စာ။)
Identification. — PLATE VI, Fig. 7, Page 118. Length 7 inches. A small black and white bird with a charming bar of song, which pirouettes about shady branches incessantly fanning its tail; it has to be distinguished from the White-throated Fantail Flycatcher (*q.v.*).
Voice. — The call is unmistakable once learnt. It consists of 4 ascending notes and 2 or 3 descending ones, the intervals regular and the whole very melodious. It also has a sweet song.
Habits and Food. — The White-browed Fantail Flycatcher is typically a bird of dry open forest, groves of trees in cultivation, gardens, and roadside avenues. It is strictly arboreal in habits and only descends to the ground for occasional momentary visits. For liveliness and grace it is only surpassed by the Yellow-bellied Flycatcher; it is never still, and all day long it dances and pirouettes, filled with an inimitable *joie-de-vivre.* It turns from side to side with restless jerky movements, and like a ballet dancer before her mirror it tries new steps and attitudes: down drop the wings, up

jerks the head, and all the time the dainty round fan of the tail is opened and closed and flirted. Now and again it flits amongst the leafy branches or emerges from the shelter of the trees and launches into the air; it seems to tumble, bent on suicide; but a rapid snap at some tiny insect invisible to the naked eye, a swift recovery, and it has returned to the cool recesses of the foliage and is once more bowing and dancing. Amongst the other attractions of this dainty bird is its bold and confiding nature.

Nest and Eggs. — The breeding season is from February to August, two broods being reared as a rule. The nest is a beautiful structure and is attached to the upper surface of a twig or small branch, often at the junction of a fork; viewed from below it looks like a small hornets' nest. It is a tiny cup, small even for the size of the bird, made of fine fibres and grasses closely bound with cobwebs and sometimes studded with small cocoons; there is a neat lining of fine grass stems. The eggs, 2 to 4 in number, are moderately broad ovals and vary in colour from pure white to pale yellowish-brown or dingy cream; the markings are generally confined to a broad irregular zone of greyish-brown specks and spots near the larger end, with secondary markings of neutral tint and pale grey or faint inky-purple. They average 0·66 by 0·51 inches.

Even on the nest the bird is very restless, often turning about, spreading her tail, or flying off for a minute or two; the male remains faithfully in the vicinity and without hesitation launches out to attack passing Crows or other possible enemies.

Status and Distribution. — This species is found over most of India, Ceylon and Burma, extending to South-west Siam. In Burma it is a common resident in the Dry Zone and in the dry zone type of country elsewhere; it does not ascend the higher hills.

THE WHITE-THROATED FANTAIL FLYCATCHER

Rhipidura albicollis albicollis (703).

Local Names. — Chinghpaw: *Chyi-ban-hpye.*

Identification. — Length 7½ inches. Easily distinguished from the preceding species by the white throat, sooty-brown under-parts, and the much narrower white eyebrow.

Voice. — A low harsh note seems to be the usual call-note; its song is similar to that of the preceding species but much higher in pitch and thinner in tone.

Habits and Food. — The habits of the preceding species apply almost word for word to this bird, except that it frequents evergreen forest, moist types of hill forest, and wet thickets.

Nest and Eggs. — The breeding season is in March and April. The nest and eggs do not differ from those of the preceding species.

Status and Distribution. — This species is widely distributed in the Oriental Region as far west as Murree in the Himalayas. It is resident throughout the higher hills of Burma and has been recorded as high as 11,000 feet in Yunnan; in Northern Burma it is common

at low elevations, but whether it is resident in the foothills is uncertain and it has not yet been recorded from the Pegu Yomas.

THE JAVAN FANTAIL FLYCATCHER

Rhipidura javanica javanica (704).

Identification. — Length 7 inches. The eyebrow is indistinct and the under-parts are white to buff, which features suffice to distinguish it from the last two species. It seems partial to mangrove swamps on the coast.

Nest and Eggs. — Similar to those of the preceding species.

Status and Distribution. — This species extends from Tenasserim, Cochin-China and Siam through the Malay States to Java. It may also occur in the tidal creeks of Southern Burma, where it has been doubtfully seen.

Family LANIIDÆ

SHRIKES

Shrikes are found over the whole of Europe, Asia, Africa, and parts of North America. Generally speaking they are medium-sized, trimly-built birds of predatory habits and fierce aspect with a hooked and Hawk-like bill and a long graduated tail; most species have a broad black band through the eye and perch conspicuously in open country, slowly swaying their tails and descending at intervals to seize insect food from the ground. Some of them have an interesting habit of maintaining a larder, in which surplus food is stuck onto thorns, hence the popular name of "Butcher birds"; small birds and mammals, bees, grasshoppers, dragon-flies, beetles, butterflies and the like may be found firmly lodged in a favourite tree.

THE BURMESE SHRIKE

Lanius colluroides colluroides (711).

Local Names. — Butcher bird. Burmese: *Hnget-bilu* (ငှက်ဘီလူး)

Identification. — PLATE VII, Fig. 1, Page 134. Length 9 inches. The under-parts are sometimes tinged with reddish. In flight the short rounded wings with a prominent white patch and the rather long tail with a white tip are noticeable features.

Voice. — It has a harsh call-note *gerlek-gerlek* and a sweet though feeble warbling song; also a variety of other notes, both harsh and musical.

Habits and Food. — Those of the family; it frequents open country, scrub and light forest, especially along roads and round cultivation

Nest and Eggs. — The breeding season is from April to June. The nest is usually built in a small tree and is made of leaves, grass, lichen, feathers, etc., covered with cobwebs and lined with fine grass; some nests are much larger than others. The eggs, 3 to 6 in number, are of many types, the ground being white, cream, pinkish or greenish with blotches and specks of reddish-brown and secondary markings of neutral tint or pale blue. They average 0·83 by 0·65 inches.

Status and Distribution. — This species is found in Assam, Burma, Annam and Siam. It is found throughout Burma in the cold weather, but the only breeding records are from the Chin Hills, North-East Burma, Central Burma and the Southern Shan States. Elsewhere its status is uncertain; though a few birds breed in North-East Burma the majority appear to be winter visitors; it is common in the Prome district in the cold weather, disappearing about mid-March; and in general it seems to be another of those birds that concentrate in the Dry Zone during the breeding season and scatter over the country at other times. It is common round Maymyo and Kalaw, and is found up to 6,000 feet in Karenni.

THE BURMESE BLACK-HEADED SHRIKE

Lanius nasutus tricolor (712a).

Allied Form.—

THE SIAMESE BLACK-HEADED SHRIKE, *L. n. longicaudatus (713).*

Local Names. — None recorded.

Identification. — PLATE VII, Fig. 3, Page 134. Length 10 inches. Distinguished from the Burmese Shrike by having the whole upper part of the head, cheeks, and neck black, and the upper-parts a much lighter chestnut; the tail is longer and is tipped pale chestnut, not white; the wing-patch is not conspicuous.

Voice. — This bird has slightly harsher call-notes than the Burmese Shrike. In the breeding season it is perhaps the finest of all Burmese songsters; when the hen is sitting the cock bird will sing for a quarter of an hour at a stretch from an adjacent branch or post; the notes are very rich and full, wonderfully modulated, and the song itself varied and sustained.

Habits and Food. — Those of the family. They are not shy and in their breeding quarters are swearing and chattering at passers-by all day long. In Northern Burma in the cold weather they are conspicuous along telegraph wires.

Nest and Eggs. — The breeding season is from April to June. The nest is built in a bush or tree more or less in the open or on the outskirts of forest. It is a very large compact cup of grass, and the eggs, 4 to 6 in number, are even more variable than those of the Burmese Shrike. They average 0·93 by 0·71 inches.

Status and Distribution. — This species is distributed through most of the Oriental Region, extending as far west as Garhwal (Central Himalayas). It is probably resident throughout the higher hills of Burma, some birds moving down to lower elevations in winter, but its breeding and winter ranges require working out. It is a local bird, scarce in Southern Burma, but common in Northern Burma in the cold weather. The Siamese race is confined to Southern Tenasserim, and appears to be resident in the plains and foothills as well as the higher hills.

THE GREY-BACKED SHRIKE

Lanius nipalensis (716a).

Local Names. — Chinghpaw: *Lăkung-gaw.*

PLATE VII

		See Page No.
1.	**BURMESE SHRIKE** (adult) *Lanius colluroides colluroides*	133
2.	**BROWN SHRIKE** (juvenile) *Lanius cristatus cristatus*	135
3.	**BURMESE BLACK-HEADED SHRIKE** (adult) *Lanius nasutus tricolor*	134
4.	**GREY-BACKED SHRIKE** (adult) *Lanius nipalensis*	134
5.	**BLACK-BACKED PIED SHRIKE** (adult male) *Hemipus picatus picatus*	136
6.	**NEPAL WOOD SHRIKE** (adult male) *Tephrodornis gularis pelvica*	136
7.	**COMMON WOOD SHRIKE** (adult male) *Tephrodornis pondiceriana pondiceriana* ..	137
8.	**BURMESE SCARLET MINIVET** (adult male) *Pericrocotus speciosus elegans*	139
8a.	Ditto. (adult female)	"
9.	**JERDON'S MINIVET** (adult male) *Pericrocotus erythropygia albifrons*	142
10.	**BURMESE SMALL MINIVET** (adult male) *Pericrocotus cinnamomeus vividus*	141

1
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8a
9
10
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100
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150 mm.
1939.

Identification. — PLATE VII, Fig. 4, Page 134. Length 10 inches.

Voice. — Not recorded.

Habits and Food. — This Shrike is usually seen singly except when a few gather at dusk to roost. If disturbed it disappears from its vantage point on a telegraph wire or beside the road into the nearest jungle.

Status and Distribution. — This species breeds on the Tibetan plateau and the mountains of Western China and Yunnan and migrates south in winter. It has been recorded from Arakan, North-East Burma (where it is the common Shrike of the lower hills in the cold weather), the Mogok hills, Arakan Yomas, Shan States, and Karen Hills ("Kyouknyat").

THE BROWN SHRIKE

Lanius cristatus cristatus (719).

Allied Form.—

THE PHILIPPINE SHRIKE, *L. c. lucionensis (720).*

Local Names. — Burmese: *Hnget da-zat* (ငှက်တစ်ဇတ်), *Wăyon-kyet* (ဝါးရုံကြက်)

Identification. — PLATE VII, Fig. 2, Page 134. Length 7½ inches. Young birds have crescentic bars on the under-parts. Common in the plains in the cold and hot weathers.

Voice. — A low *tck-tck-tck-tck-tck* is often uttered from the midst of a bush, and it has the usual harsh swearing notes of the family.

Habits and Food. — Those of the family. This is a typical bird of the plains in the cold weather, frequenting gardens, open country and scrub, and perching on telegraph wires, railings and other conspicuous points of vantage. It is quicker on the wing than other Shrikes and all its movements are more jerky and restless.

Status and Distribution. — This species breeds in Eastern Siberia, Mongolia, Manchuria and China and migrates to the Oriental Region in winter. In North-East Burma it is a rare and shy passage migrant, but in Central and Southern Burma it is very common from September to April and its harsh swearing note can be heard all day long in and about Rangoon. It is one of the last winter visitors to leave and a few may still be seen after mid-May. In the higher hills it seems to occur only on passage.

THE THICK-BILLED SHRIKE

Lanius tigrinus (723).

Identification. — Length 7 inches. Distinguished from the Brown Shrike by having the crown, nape, upper back and neck dark grey and the remaining upper-parts chestnut barred with black. It is said to prefer well-wooded open country.

Status and Distribution. — This species breeds in Northern China and Japan and migrates south in winter to the eastern part of the Oriental Region. It is a straggler to Southern Tenasserim.

THE BLACK-BACKED PIED SHRIKE

Hemipus picatus picatus (724).

Allied Form.—

THE BROWN-BACKED PIED SHRIKE, *H. p. capitalis (725).*

Local Names. — None recorded.

Identification. — PLATE VII, Fig. 5, Page 134. Length 5½ inches. As its name indicates the male of the Brown-backed Pied Shrike has a brown back and rump. The females of both races have the upper-parts dark brown. The white wing-bar and white tips to the tail-feathers are conspicuous in flight. Easily distinguished from the Little Pied Flycatcher, which it resembles in size and colour, by having no white eyebrow and the under-parts not all white. A forest bird.

Voice. — The call-note is a high pitched *chir-rup, chir-rup.*

Habits and Food. — This little Shrike is like a Flycatcher in its ways, catching insects on the wing in little sallies from a perch, but occasionally seizing them from the ground in the normal Shrike manner. Except in the breeding season it is usually seen in parties working through the canopy.

Nest and Eggs. — The breeding season is from March to May. The nest is usually built on an outer branch of a tree and is a small shallow saucer of roots and fine twigs, neatly and strongly fastened together with cobwebs. The eggs, 2 or 3 in number, are of two types: one pale greenish-white thickly and boldly blotched with inky-black and with underlying marks of grey; the other pinkish-white marked in the same way but also having brick-red markings and pale blue blotches. The eggs average 0·64 by 0·51 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is found sparingly throughout the forests of Burma but seems to be commoner in the higher hills. It is resident wherever found, but the distribution of the two races has not been fully worked out.

THE MALAY PIED SHRIKE

Hemipus hirundinaceus (726).

Identification. — Length 6 inches. Distinguished from the preceding species by the absence of the white wing-bar and of the white tips to the tail-feathers. Its habits are similar.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends from Tenasserim through the Malay States to Java; at present it is only known from Mergui southwards, but a specimen is said to have been obtained in Assam, so that it may occur in other parts of Burma.

THE NEPAL WOOD SHRIKE

Tephrodornis gularis pelvica (727).

Local Names. — Chinghpaw: *Lăkung-gaw.*

Identification. — PLATE VII, Fig. 6, Page 134. Length 9 inches. The female only differs in having a brown streak through the eye

and the head the same colour as the back. Young birds are like the female but barred everywhere with blackish and with white spots on the head and neck. Usually seen in small parties in the tree-tops, moving from tree to tree with a slow dipping flight.

Voice. — The members of a party constantly call and chatter to one another with a harsh *chreek-chreek-chreek* and a softer *tit-tiu;* it also sits bolt upright and swears like other Shrikes. A very noisy bird.

Habits and Food. — The Wood Shrike feeds in trees and bushes but always hunts for insects in the foliage or on the branches and never pounces on them from a point of vantage like a true Shrike. It is fairly common in the teak forests in the cold weather.

Nest and Eggs. — The breeding season is from April to May. The nest is built on a horizontal fork or the upper surface of a branch and is usually near a small stream in evergreen or oak forest; it is a shallow cradle of roots, fine twigs and tendrils fastened together with cobwebs and lined with a few fine roots. The eggs, 2 or 3 in number, are white faintly tinged with green or buff, and the markings are of two types: one has numerous large spots and small blotches of brown and secondary spots of neutral tint; and the other has the markings more longitudinal and so numerous that they run into one another. The eggs average 0·87 by 0·70 inches.

Status and Distribution. — This species extends from Nepal to Yunnan and through Burma to the Malay States and Siam. It is resident throughout the foothills and higher hills of Burma and is locally common.

THE COMMON WOOD SHRIKE

Tephrodornis pondiceriana pondiceriana (729).

Local Names. — None recorded.

Identification. — PLATE VII, Fig. 7, Page 134. Length 6½ inches. Distinguished from the Dark Grey Bush Chat, which it resembles rather closely, by different habits, darker colour, white eyebrow and white in the tail. An arboreal bird, usually seen in parties.

Voice. — The call-note is very sweet and distinctive, and consists of several whistling notes *wheet-wheet* followed by an interrogative *whi-whi-whi-whi.* The male has a shrill warbling song in the breeding season.

Habits and Food. — This is a bird of open wooded country and scrub, and it prefers *indaing* to other types of forest. It hunts for insects amongst the foliage and branches of trees, occasionally descending to the undergrowth and even to the ground in search of food; it is very quiet and unobtrusive in its habits.

Nest and Eggs. — The breeding season is from February to June. The nest is built in a tree and is difficult to see unless the bird betrays it; it is a beautiful structure, rather small for the size of the bird, consisting of a broad shallow cup of grass and fragments of bark bound together with silky fibres and smeared on the outside with cobwebs; the lining is of wool and hair, and the whole is very

compact and neat. The eggs, 2 or 3 in number, resemble the eggs of true Shrikes and are broad regular ovals in shape, fine in texture, and with very little gloss. The ground colour is cream, stone or pale greenish-white, spotted and blotched with yellowish- and reddish-brown mainly in a conspicuous but ill-defined zone round the larger end, intermingled with clouds of pale and dingy purple. The eggs average 0·76 by 0·60 inches.

Status and Distribution. — This species is found in India, Burma, Siam and Annam; it is resident throughout the plains and foothills of Burma, ascending to about 5,000 feet, but is local in its distribution and its stronghold appears to be in Central Burma.

THE TENASSERIM JAY-SHRIKE

Platylophus galericulatus ardesiacus (732).

Identification. — Length 11 inches. A dark brown bird with a black head, white neck-patch, and a remarkable long crest of broad feathers, which is always kept fully erected. Its call-note is a sharp clicking metallic rattle; it frequents evergreen forest and is very restless, flying about from tree to tree and branch to branch incessantly, sometimes close to the ground, sometimes high up; even when seated it keeps bobbing and bowing.

Nest and Eggs. — Unknown.

Status and Distribution. — This race is found in Southern Tenasserim, South-east Siam and the Malay States.

Family PERICROCOTIDÆ

MINIVETS & CUCKOO-SHRIKES

The Minivets comprise a large number of species, extending over most of the Oriental Region, which are remarkable for their brilliant plumage, with red or yellow as the dominant colour in most cases. They are essentially birds of the tree-tops and are usually seen in parties, the members of which communicate with soft and mellifluous call-notes as they flit from tree to tree in follow-my-leader fashion and search the foliage for insects. The Cuckoo-Shrikes are grey birds with loud call-notes, some pleasant and others harsh; like the Minivets they are birds of the tree-tops.

The various Minivets are difficult to distinguish in the field; the following key may be of some assistance.

KEY TO THE MINIVETS

A. Tail black and red; upper tail-coverts red.
  a. Crown and back glossy black.
    a'. Innermost secondaries with oval red drops — *P. igneus* male.
    b'. Innermost secondaries without oval red drops.
      a''. Under wing-coverts and axillaries crimson — *P. brevirostris* male.
      b''. Under wing-coverts and axillaries yellow — *P. speciosus* male.

b. Crown and back ashy or grey, never black.
  c'. Wing over 3 inches.
    c". Under-parts bright scarlet — *P. solaris* male.
    d". Under-parts rosy-red — *P. r. roseus* male.
  d'. Wing under 3 inches.
    e". Throat grey to black; breast scarlet — *P. peregrinus* male.
    f". Under-parts all pale yellow — *P. peregrinus* female.
    g". Under-parts all bright yellow — *P. igneus* female.

B. Tail black and yellow; upper tail-coverts yellow.
  c. Innermost secondaries with oval yellow spots — *P. speciosus* female.
  d. Innermost secondaries without oval yellow spots.
    e'. Upper back and lower back not concolorous — *P. solaris* female.
    f'. Upper back and lower back concolorous.
      h". Rump and upper tail-coverts all deep yellow — *P. brevirostris* female.
      i". Rump and upper tail-coverts margined with deep yellow — *P. r. roseus* female.

C. Tail black and white; upper tail-coverts grey, brown or black.
  e. Rump red, or white marked with red.
    g'. Dark portions of upper-parts glossy black — *P. erythropygia* male.
    h'. Dark portions of upper-parts smoky-brown — *P. erythropygia* female.
  f. Rump with no trace of red.
    i'. Back and rump same colour — *P. r. cinereus.*
    j'. Rump much paler than back — *P. r. cantonensis.*

THE BURMESE SCARLET MINIVET

Pericrocotus speciosus elegans (734).

Allied Form.—

DAVISON'S SCARLET MINIVET, *P. s. flammifer (735).*

Local Names. — Burmese: *Hnget-mintha* (ငှက်မင်းသား) (the Prince bird); Chinghpaw: *Sin-dwai-wit.*

Identification. — PLATE VII, Figs. 8 & 8a, Page 134. Length 9 inches. The young male is like the female. Larger size and oval spots on the secondaries distinguish it from the Short-billed Minivet, but it is doubtful whether the two can be differentiated with certainty in the field.

Voice. — Parties have cheery mellifluous call-notes, which do not appear to differ from those of the Short-billed Minivet.

Habits and Food. — Those of the family. Bright tones harmonise well with the Burmese scene, and the splashes of colour afforded by a party of these birds are a perpetual source of delight in the forest, where it is one of the characteristic birds.

Nest and Eggs. — The breeding season is from June to July. The nest is built on a branch and looks like a mere excrescence of the wood; it is a shallow little cup of fine twigs, roots and grass stems, bound together on the outside with cobwebs and studded with lichens, moss and scraps of bark. The eggs, 2 or 3 in number, are moderately broad ovals in shape, fine in texture, and with hardly any gloss; the colour is pale green with spots and blotches of pale blue and dark brown. The eggs average 0·90 by 0·67 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region. It is a common bird throughout Burma up to 6,500 feet, and is believed to be resident everywhere, though it may move altitudinally to some extent with the seasons. Davison's race is confined to Southern Tenasserim.

THE ASSAM SHORT-BILLED MINIVET

Pericrocotus brevirostris affinis (739).

Allied Form.—

HUME'S SHORT-BILLED MINIVET, *P. b. neglectus (740).*

Local Names. — None recorded.

Identification. — Length 7 inches. See under preceding species. Chiefly a hill bird.

Voice. — The call-note is *swisweet-sweet-sweet* with variants.

Habits and Food. — Those of the family. To appreciate these lovely birds to the full it is necessary to see them working through a pine forest, where the bright sunlight and the delicate tracery of the pine needles afford the ideal setting.

Nest and Eggs. — The breeding season is from April to July. The nest is like that of the Scarlet Minivet and the eggs, 2 to 4 in number, are moderately broad ovals in shape and fine in texture; the colour is white tinged with cream or greenish and marked with blotches and spots of brownish-red and secondary markings of grey and neutral tint; the eggs average 0·75 by 0·60 inches.

Status and Distribution. — This species has a wide range from Northern India through Burma to China. In Burma it is common and resident in the forests of the higher hills, rarely straggling down to the foothills and plains.

THE FIERY MINIVET

Pericrocotus igneus (741).

Identification. — Length 6½ inches. See key, page 138.

Nest and Eggs. — The only nest recorded was a typical Minivet's nest and contained 2 eggs, yellowish in colour and profusely marked with brown and grey all over.

Status and Distribution. — This species extends from Southern Tenasserim through the Malay States to Sumatra and Borneo.

THE YELLOW-THROATED MINIVET

Pericrocotus solaris solaris (742).

Identification. — Length 7 inches. See key, page 138. A bird of the higher hills, occasionally straggling into the foothills and plains.

Nest and Eggs. — The nest is typical of the family, and the eggs are a very pale green thinly marked with pale rufous and average 0·76 by 0·56 inches.

Status and Distribution. — This species extends from Nepal eastwards to Burma; it has been recorded from the Chin Hills, Upper Chindwin, all the eastern hills, and the Sittang plain near Pegu. It is not common.

[Note: — The Shan race, *P. s. ripponi (743)*, is a bad one and does not differ from the typical race.]

THE ROSY MINIVET

Pericrocotus roseus roseus (744).

Allied Forms.—

THE ASHY MINIVET, *P. r. devaricatus (751).*

SWINHOE'S MINIVET, *P. r. cantonensis (752).*

Identification. — Length 7-8 inches. See key, page 138. The male of the Rosy Minivet is rose-pink and brown in colour and the other two races are the only Minivets with neither red nor yellow in their plumage.

Nest and Eggs. — The Rosy Minivet is said to breed on the outskirts of dense forest. The nest is typical of the family and the eggs, 2 to 4 in number, are white with a faint buff tinge and with small blotches of brown, fairly numerous at the larger end and sparse elsewhere; they average 0·77 by 0·58 inches.

Status and Distribution. — This species is very widely distributed. The Rosy Minivet has been recorded from all parts of the country but it is uncertain whether it is a resident or a winter visitor (it is known to breed in the Himalayas); the Ashy Minivet has been obtained once near Pegu, and is evidently a rare straggler to Burma (it breeds in Japan and migrates to the eastern part of the Oriental Region in winter); Swinhoe's race has been recorded from Southern Burma and Tenasserim (it breeds in Eastern China and winters in the eastern part of the Oriental Region).

THE BURMESE SMALL MINIVET

Pericrocotus cinnamomeus vividus (746).

Local Names. — None recorded.

Identification. — PLATE VII, Fig. 10, Page 134. Length 6 inches. See key, page 138. A small long-tailed Minivet, dull-coloured except for a conspicuous flame-coloured patch on the rump and wing, and in the male on the breast also. Usually seen in small parties actively hunting insects through the foliage and often making little sallies into the air.

Voice. — The call-note is low and pleasant, a musical *cheep*.

Habits and Food. — Those of the family. This is mainly a bird of the forests of the foothills, and it is partial to tidal creeks.

Nest and Eggs. — The breeding season is from March to September. The nest is typical of the family, a beautifully made little cup about 2 inches in diameter by 1 inch in depth. The eggs, usually 3 in number, are rather blunt ovals in shape, fine in texture, without gloss; the colour is a pale delicate greenish-white or creamy-buff marked with brownish-red specks and blotches, always more numerous towards the larger end and tending to form an irregular cap. The eggs average 0·67 by 0·53 inches.

Status and Distribution. — This species is found throughout India, Ceylon, Burma, Siam and Cochin China. It appears to be absent from Northern Burma but elsewhere is resident throughout the

country at elevations up to 5,000 feet, but rather local. It is one of the typical birds of Maymyo.

JERDON'S MINIVET

Pericrocotus erythropygia albifrons (750).

Local Names. — None recorded.

Identification. — PLATE VII, Fig. 9, Page 134. Length 6 inches. See key, page 138. The pure white forehead, eyebrow, chin and throat of the male and the white forehead and under-parts of the female distinguish this species. A typical bird of the dry scrub and thorn jungles of Central Burma.

Habits and Food. — Those of the family.

Nest and Eggs. — The nest is usually built in thorny scrub and is a little cup of grass stems ornamented outside with greyish-white fibres and not with lichen and bark as are the nests of most other Minivets. The eggs are greyish-white marked all over with longitudinal streaks of dark brown and with a few underlying streaks of pale blue-grey. They average 0·68 by 0·54 inches.

Status and Distribution. — This species is found in India and Burma. Jerdon's race is a common resident in the Dry Zone, but has not been recorded elsewhere.

THE PALE GREY CUCKOO-SHRIKE

Lalage melaschistos melanoptera (754).

Allied Form.—

THE DARK GREY CUCKOO-SHRIKE, *L. m. melaschistos (753).*

Local Names. — None recorded.

Identification. — PLATE VIII, Fig. 1, Page 142. Length 9 inches. Young birds are barred below with dark brown. Can only be confused with the Long-tailed Sibia, a more slender bird with a much longer tail. An arboreal bird usually solitary or in pairs with loud call-notes. The flight is planing with an occasional flap.

Voice. — There are two characteristic calls: one consists of 6 or 7 notes of which the second, third and fourth form a triad much shorter than the others _ ' ' _ _ , and the other consists of 4 notes, the last two prolonged and dropping in pitch, *Pee-pee-piou-piou,* - - _ _ . The former call is the one commonly heard at Maymyo and the latter in the Karen Hills.

Habits and Food. — This is an arboreal bird of well-wooded country, light forest, gardens, and hill forests. It feeds entirely on insects, for which it hunts amongst the branches, never descending to the ground.

Nest and Eggs. — The breeding season is from May to July. The nest is usually built high up in a tree; it is a shallow frail-looking saucer of fine twigs, roots, etc., very compactly interlaced and

PLATE VIII

		See Page No.
1.	**PALE GREY CUCKOO-SHRIKE** (adult male) *Lalage melaschistos melanoptera*	142
2.	**ASHY SWALLOW-SHRIKE** (adult) *Artamus fuscus*	144
3.	**SIAMESE LARGE CUCKOO-SHRIKE** (adult male) *Graucalus macei siamensis*	143
4.	**CHINESE BLACK DRONGO** (adult) *Dicrurus macrocercus cathœcus*	145
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PLATE VIII

strongly bound together with cobwebs, with a few decorative scraps of lichen, moss or bark on the outside; there is either no lining or only a slight one of grass stems. The eggs, 2 or 3 in number, are pale green profusely marked with longitudinal blotches of brown and a few underlying ones of neutral tint. They average 0·97 by 0·69.

Status and Distribution. — This species is found in India, Burma, Siam, Yunnan and Southern China. It is common and resident throughout the higher hills of Burma and some birds are found at low elevations in winter. The races and their distributions have not been fully worked out.

THE SMALL CUCKOO-SHRIKE

Lalage fimbriata neglecta (755).

Identification. — Length 8 inches. It resembles the preceding species but is smaller and has a shorter less graduated tail.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends from Mergui southwards through the Malay States to Java.

THE SIAMESE LARGE CUCKOO-SHRIKE

Graucalus macei siamensis (761).

Local Names. — None recorded.

Identification. — PLATE VIII, Fig. 3, Page 142. Length 11 inches. Usually seen in small noisy parties in the tree-tops.

Voice. — The members of a party constantly utter a harsh grating disyllabic call-note, which has a slight resemblance to the harsh call of the Black-naped Oriole.

Habits and Food. — The Large Cuckoo-Shrike is a typical bird of the teak forests, and also frequents the pine and oak forests of the hills. It is usually solitary or in pairs but sometimes collects into parties, which may number 10 or 20 birds, and though keeping mainly to the tree-tops it occasionally feeds on the ground. When perched in a tree it has a peculiar habit of lifting up each wing alternately and calling at the same time. It feeds principally on insects but also on fruits and berries and is partial to fig trees.

Nest and Eggs. — The breeding season is from March to May. The nest is usually built on an outer branch of a tall tree and is often conspicuous; it is very like the nest of *Lalage* but larger. The eggs, 2 or 3 in number, are green when fresh but quickly fade to buff if exposed to the light, and are marked with bold but rather scanty blotches of pale inky-purple. They average 1·26 by 0·89 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region; it is resident throughout Burma up to 6,000 feet and is locally common.

Family ARTAMIDÆ
SWALLOW-SHRIKES

The Swallow-Shrikes resemble the Shrikes in having the young barred both above and below and also in their strong bill, which is

gently curved though neither hooked nor notched. Only one member of the family is found in Burma.

THE ASHY SWALLOW-SHRIKE

Artamus fuscus (763).

Local Names. — None recorded.

Identification. — PLATE VIII, Fig. 2, Page 142. Length 7 inches. A dull grey bird with a white patch over the tail and broad triangular wings, which looks like a large heavy Swallow; it soars continually into the air from a perch and constantly utters a harsh cry, which distinguishes it from any of the Swallows or Martins.

Voice. — The usual note is a harsh nasal cry, *pench*.

Habits and Food. — This bird is social in its habits, breeding in colonies and found in large or small flocks at all times of the year; the birds settle in rows on a lofty bough, the top of a tall bamboo, or a telegraph wire, and thence sally into the air in pursuit of passing insects; they fly round in a wide circle, though seldom for more than a minute or two at a time, and then return to the perch where they huddle closely together. It is sometimes stated that they are crepuscular in habits and are only found near palm trees, but neither statement seems to be correct.

Nest and Eggs. — The breeding season is from April to June. The nest is on a branch or in a hole in a tree, 30 to 40 feet from the ground; a favourite site is in a palm tree at the base of a leaf. It is a shallow loose cup of fine grass, roots, fibres and feathers, usually with no lining. The eggs, 2 to 4 in number, are rather narrow ovals in shape, fine in texture, with a slight gloss; the colour is white to cream with spots and clouds of reddish-brown and deep purple-brown and secondary markings of lavender and purplish-grey; the markings tend to collect in a zone at the larger end. The eggs average 0·95 by 0·65 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is found throughout Burma except in Southern Tenasserim; it moves about locally and though resident in the higher hills it is thought to be only a summer visitor to the plains.

Family DICRURIDÆ

DRONGOS

The Drongos are easily recognised by their uniform black or ashy plumage, long forked tail of 10 feathers, and long pointed wings. They are not true migrants but most of them move locally with the seasons and although they are amongst the commonest birds of Burma we still know very little about these movements, their cause and extent.

THE CROW-BILLED DRONGO

Dicrurus annectens (765).

Identification. — Length 11 inches, including a tail of 5 inches. In the field indistinguishable from the next species.

Nest and Eggs. — Similar to those of the next species.

Status and Distribution. — This species extends from Nepal through Burma to the Malay States and Sumatra; in Burma it has only been recorded from Southern Burma, Karenni and Tenasserim and appears to be common only in Southern Tenasserim. Its status is uncertain and as there seem to be no breeding records it may be only a winter visitor. Sixty years ago it was described by Oates as sweeping through Pegu every year in October, and we have learnt no more about it since then.

THE CHINESE BLACK DRONGO or KING CROW

Dicrurus macrocercus cathœcus (769).

Local Names. — Burmese: *Hnget-taw* (ငှက်တော်)

Identification. — PLATE VIII, Fig. 4, Page 142. Length 12 inches, including a tail of 5½ inches. The outermost feathers of the tail exceed the central ones by about 1½ inches, whereas in the Crow-billed Drongo they exceed the central ones by less than 1 inch. One of the commonest birds in the plains at certain times of the year; perches on trees and telegraph wires and is noisy and pugnacious.

Voice. — It has a great variety of loud and cheerful though somewhat metallic call-notes, the most common being *al-cheet* and *al-ka-chi-ri*. The song is short and not unpleasant.

Habits and Food. — The name of King Crow is not due to any connection with the Crow family but partly to its colour and partly to its extreme pugnacity and fearlessness in defence of its nest. It is a common sight to see a pair of these birds chasing a Crow through the air, stooping at it and around it with a mastery of flight and power only excelled by the Falcons, accompanying the performance with a series of angry calls that attract attention. Harmless species it does not molest, and it has long been known that a tree containing a King Crow's nest usually contains the nest of an Oriole, Red Turtle Dove, or some other gentle bird, which no doubt realises that the presence of the King Crow's nest above it is a guarantee of protection from all ordinary marauders.

It is a bird of the plains and of open wooded country and scrub; telegraph wires, dead trees and other points of vantage are favourite perches, from which it watches ceaselessly for every insect that stirs in the air or on the ground, swaying and flicking its long tail meanwhile. It plays the pirate at times, waiting until an industrious Myna or Hoopoe has unearthed a tasty morsel and then swooping down to seize the prize. It also perches on the backs of grazing cattle and snaps up the insects disturbed by the animals' feet. The food consists entirely of insects, such as dragon-flies, crickets, grasshoppers, moths, bugs and their larvae and as nearly all the insects taken are injurious ones the Black Drongo must be regarded as a highly beneficial species.

Nest and Eggs. — The breeding season is from April to August. The nest is suspended from a horizontal fork usually at a considerable height from the ground; it is a broad shallow cup of tiny twigs and fine grass stems neatly and strongly woven together and bound with cobwebs on the outside. The side of the nest is thicker than the bottom, through which the eggs are often visible against the sky. The

eggs, 2 to 5 in number, are rather long ovals in shape, fragile in texture, and usually without gloss; the colour is very variable, some eggs being pure unmarked white, others white with fine black spots, and others pale pink spotted with rich brownish-red, blackish- and purplish-brown. The markings are neither large nor dense. The eggs average 1·00 by 0·73 inches.

Status and Distribution. — This species is found over most of the Oriental Region, and is spread over the whole of Burma in the plains and foothills. Its status however is uncertain; a few birds seem to be sedentary throughout its range and remain to breed but the majority appear to leave the southern parts of Burma (excluding Tenasserim) in the hot weather to breed in the plains of Northern Burma, and return again in October. The vast influx of these birds to the Sittang plain in October, after they have been absent all the rains, is very striking.

[Note: — Birds from North-west Burma are intermediate between this race and the Himalayan race, *D. m. albirictus (767)*.]

THE SOUTH BURMESE DARK ASHY DRONGO

Dicrurus longicaudatus intermedius (771).

Identification. — Length 10 inches. Probably indistinguishable in the field from the next species.

Nest and Eggs. — Similar to those of the next species.

Status and Distribution. — This species extends from Java northwards through the Malay States to Siam, Tenasserim, and the plains of Southern Burma.

THE BURMESE PALE ASHY DRONGO

Dicrurus leucophæus mohouti (772).

Allied Form—

THE ASSAM PALE ASHY DRONGO, *D. l. hopwoodi (773).*

Local Names. — Burmese: *Lon-mi-swe* (လုံးမီးဆွဲ)

Identification. — PLATE VIII, Fig. 5, Page 142. Length 10 inches. Very similar to the Black Drongo in general appearance but a pale grey all over, and the beady red eye is a noticeable feature. A forest bird, seldom seen in open cultivated country.

Voice. — It has a large range of call-notes, the commonest being *drangh-gip* or *gip-gip-drangh;* some notes are musical, others harsh and scolding. There is a short pleasant song and the bird is something of a mimic.

Habits and Food. — This is a forest bird of the foothills and higher hills, keeping mainly to the tree-tops, and is rather shy and difficult to approach; it is a typical bird of the teak forests in the cold weather. It has much the same habits, and the same powers of flight and pugnacity, as the Black Drongo; to see a party of these birds snapping up winged termites as they emerge from their nest is to witness a superb display of aerial acrobatics. It is usually seen singly or in pairs and seldom descends to the ground.

Nest and Eggs. — The breeding season is in May and June. The nest is similar to that of the Black Drongo and is often inaccessibly

placed on the very end of a slender bough. The eggs, 3 or 4 in number, are moderately broad ovals in shape, fine in texture, without gloss; the colouring is of two types: one pinkish, streaked, blotched and clouded with reddish-pink of a darker shade, and the other pale pinkish-white, boldly blotched and spotted, chiefly in a zone round the larger end, with brownish-red and faint inky-purple. The eggs average 0·95 by 0·74 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region. It appears to be resident in the higher hills, ascending to 8,000 feet or more, and some birds move to the foothills in winter; like the Black Drongo it is a local migrant about whose movements little is known. Whether the Pale Ashy and Dark Ashy Drongos belong to the same or different species, what races belong to each species and what their distribution is, are points on which authorities differ.

THE WHITE-CHEEKED DRONGO

Dicrurus leucogenys leucogenys (779).

Identification. — Length 10½ inches. Easily distinguished from other Drongos by having the sides of the head white.

Nest and Eggs. — The breeding season is in May and June. Nest and eggs are typical of the family.

Status and Distribution. — This species is widely distributed in the eastern part of the Oriental Region and is common in Tenasserim as far north as Mergui.

THE NORTHERN BRONZED DRONGO

Chaptia ænea ænea (780).

Allied Form—

THE SOUTHERN BRONZED DRONGO, *C. a. malayensis (781).*

Local Names. — None recorded.

Identification. — PLATE VIII, Fig. 6, Page 142. Length 8½ inches. Distinguished from the Black Drongo by smaller size; the bronze gloss from which it gets its name is often indistinct, even with the bird in the hand.

Voice. — The usual call-notes are a harsh *crer-reate* or *ger-ler-ger-leek* and a whistle *chir-teu-teu;* it also has a sweet song.

Habits and Food. — Similar to those of the Pale Ashy Drongo; it is a forest bird, frequenting the teak forests of the foothills and the pine and oak forests of the higher hills; it keeps mainly to the tree-tops, has a swift and graceful flight, and is partial to telegraph wires running through the forest.

Nest and Eggs. — The breeding season is from April to June. The nest is typical of the family but smaller than most. The eggs, 2 to 4 in number, are variable in colour, the commonest type being deep pink with a faint ring or cap of reddish-pink; a few eggs are blotched and spotted with reddish-brown. They average 0·83 by 0·63 inches.

Status and Distribution. — This species is found over most of the Oriental Region and is common and probably resident throughout the

forests of Burma at all elevations up to 6,000 feet or more. The Southern race is confined to Tenasserim.

THE HAIR-CRESTED DRONGO

Chibia hottentotta hottentotta (782).

Local Names. — None recorded.

Identification. — PLATE VIII, Fig. 9, Page 142. Length 12 inches. A fine large glossy Drongo with curled up ends to the tail; the ordinary flight is more powerful and dipping than that of most Drongos and the way in which it holds its tail gives it a remarkable resemblance to an aeroplane; it is a fine acrobat, including nose-dives and spins in its repertoire. The long hairs springing from the forehead, from which the bird gets its name, are not easy to see except with glasses in a good light.

Voice. — It has a variety of loud call-notes.

Habits and Food. — This is another typical bird of the teak forests and though not gregarious an unusually ample supply of food will attract many individuals and pairs, which feed amicably together; thus a flight of termites or a *letpan* tree in full bloom, with its great red flowers full of insects, will attract many of these birds. They feed largely by searching flowers, leaves and tree trunks for insects but also catch these on the wing when they have the opportunity. It is remarkably fearless and will dive repeatedly at the head of a man who ventures too near its nest.

Nest and Eggs. — The breeding season is from April to June; two broods are probably reared. The nest is a large edition of the Black Drongo's nest and the eggs, 3 or 4 (rarely 5 or 2) in number, are longer and more pointed than those of other Drongos, and vary from pure white to deep pink (pale cream being the commonest colour) profusely marked with pale reddish blotches. They average 1·15 by 0·82 inches.

Status and Distribution. — This species is found in India, Burma, Northern Siam, Yunnan and China. It is a common resident throughout the forests of Burma but does not ascend much above 4,000 feet.

THE INDIAN LESSER RACKET-TAILED DRONGO

Bhringa remifer tectirostris (786).

Local Names. — None recorded.

Identification. — PLATE VIII, Fig. 8, Page 142. Length 11 inches, the long outer tail-feathers 14-16 inches extra. The symmetrical rackets and absence of a crest distinguish it from the next species. Its normal flight is slow and dipping, the long tail-feathers undulating as it flies, but it is capable of great speed and activity, especially in pursuit of winged termites.

Habits and Food. — Those of the family. It is more or less confined to evergreen forest.

Nest and Eggs. — The breeding season is from April to June. The nest is typical of the family and the eggs, 3 or 4 in number, are very

broad in shape and in colour like richly tinted eggs of the Pale Ashy Drongo, but more blotched and spotted. They average 1·00 by 0·73 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region as far west as Nepal and is resident throughout Burma in suitable forest; in Southern Burma it is scarce in the foothills, though common in the higher hills, whereas in Northern Burma it is common in the foothills up to 4,000 feet.

THE BURMESE LARGE RACKET-TAILED DRONGO

Dissemurus paradiseus rangoonensis (788).

Allied Forms.—

THE SIAMESE LARGE RACKET-TAILED DRONGO, *D. p. paradiseus (787).*
THE ASSAM LARGE RACKET-TAILED DRONGO, *D. p. grandis (789).*

Local Names. — Burmese: *Lin-mi-zwè* (လင်းမီးဆွဲ)

Identification. — PLATE VIII, Fig. 7, Page 142. Length 14 inches, the long outer tail-feathers up to 13 inches extra. Can only be confused with the Lesser Racket-tailed Drongo (*q.v.*).

Voice. — This bird has a number of striking call-notes, one being a peculiar ringing cry *tse-rung, tse-rung* preceded by a harsh chuckle; where the bird is common this call can be heard all day long and is audible for a great distance. A common call in the rains is *A-hwe-hwe-hwe-hwe-hwe-you.* It is also a very fine mimic, imitating all the birds of the locality.

Habits and Food. — This is an arboreal forest bird, with a special partiality for bamboo jungle; it is more sociable than other Drongos, often going about in small parties of half a dozen birds; it either hunts for food from a fixed station, returning again and again to the same tree, or flies from tree to tree, swooping at insects on the wing and capturing them from the branches; it eats a variety of insects, wasps, beetles and butterflies, and can swallow great numbers of bees with impunity.

Nest and Eggs. — The breeding season is from March to May. The nest is of the usual type and the eggs, 3 or 4 in number, are rather long and pointed in shape, fine in texture, with little gloss; the colour varies from white to rich cream, with blotches and specks of reddish-brown or purple and secondary markings of pale blue and neutral tint. They average 1·15 by 0·82 inches.

Status and Distribution. — This species is found throughout the greater part of India, Ceylon, Burma, Siam and the Malay States. It is resident all through the forests of the foothills, but appears to be common where the Lesser Racket-tailed Drongo is scarce and vice versa; thus it is one of the typical birds of the teak forests of the Pegu Yomas, where the Lesser is scarce; in the Kachin and Naga hills the Lesser is much the more common, as also in the Karen Hills and Karenni. It does not ascend much above 3,000 feet anywhere.

Family SILVIIDÆ

WARBLERS

This family comprises a large number of birds of small size and, with a few exceptions, plain plumage; in fact most of them fall in the category of "small brown birds without distinguishing features." Many species are winter visitors to Burma, invading the country in considerable numbers in the cold weather, and others are resident and sedentary. It is impossible to identify many of these birds, even with a plate and a good field description, without shooting a specimen and running it down in the key; but if this is done once, the same bird can usually be recognised when it is met with again in the field. For this reason the following museum key to the genera is inserted.

KEY TO THE WARBLERS

A. Tail of 12 feathers.
- a. No hairs or bristles on the margin of the forehead, except the ordinary rictal ones near the gape.
  - a′. First primary less than a third of the length of the second.
    - a^2. Rictal bristles well developed; tail not greatly graduated, the outermost feathers more than ¾ length of tail — *Acrocephalus*
    - b^2. Rictal bristles very small; tail much graduated, the outermost feathers less than ¾ length of tail — *Locustella*
  - b′. First primary longer than a third of the second.
    - c^2. Rictal bristles extremely short — *Tribura*
    - d^2. Rictal bristles well developed.
      - a^3. Bill as long as, or longer than, the head — *Orthotomus*
      - b^3. Bill decidedly shorter than the head.
        - a^4. First primary shorter than ½ second — *Cisticola*
        - b^4. First primary longer than ½ second.
          - a^5. Third primary not longest, nor equal to longest.
            - a^6. Two rictal bristles — *Franklinia*
            - b^6. More than two rictal bristles.
              - a^7. Tail more than 1½ times length of wing — [*Laticilla*]
              - b^7. Tail less than 1½ times length of wing — *Graminicola*
          - b^5. Third primary reaching to tip of wing — *Megalurus*
- b. Supplementary bristles in front of rictal bristles.
  - c′. Tail greatly graduated and rounded — *Phragmaticola*
  - d′. Tail nearly even or slightly forked — *Phylloscopus*, *Seicercus*, *Muscitrea*

B. Tail of 10 feathers.
c. Tail graduated slightly or not at all, not cross-rayed.
e'. Wing and tail about equal in length.
e^2. Nostrils overhung by long hairs.
c^3. Tail very slightly rounded.
c^4. Bill short and pointed — *Abroscopus*
d^4. Bill long and blunt — *Tickellia*
d^3. Tail considerably rounded — *Neornis*
f^2. Nostrils not overhung by hairs.
e^3. Supplementary bristles in front of rictal bristles — *Homochlamys*
f^3. No supplementary bristles.
e^4. Bill broad, blunt and long — *Phyllergates*
f^4. Bill sharp and slender — *Horeites*
f'. Wing about twice as long as tail — *Urophlexis*
d. Tail greatly graduated, and cross-rayed.
g'. Tail twice as long as wing — *Suya*
h'. Tail 1½ times as long as wing — *Prinia*

THE EASTERN GREAT REED WARBLER

Acrocephalus arundinaceus orientalis (797).

Allied Forms.—

THE INDIAN GREAT REED WARBLER, *A. a. brunnescens (795).*

MRS. STEVENS'S REED WARBLER, *A. a. amyae (796).*

Identification. — Length 7½ inches. A large dull olive-brown bird, paler below, and likely to be confused with the Thick-billed Warbler, which however has no trace of any eyebrow. Chiefly remarkable in the hand for the rich salmon-red mouth. The call-note is a harsh *tack* or *chack*, and it has a deep churring croak and a harsh Shrike-like chatter of alarm. The song is very distinctive, never forgotten once heard; the essential burden of the refrain is a loud guttural frog-like *karra-karra-karreet-karreet-karreet* or *prit-prit-pritik*, which suddenly bursts out of a reed bed with astonishing vehemence; this is interspersed with shriller, more piping, creaky, and sometimes churring components.

It is typically a bird of dense reed beds and *kaing* grass, though it may also be found in any other thick cover over water, such as mangrove swamps along tidal creeks. Although a skulker it is not particularly shy and allows a close approach. At intervals it climbs to the tops of the reeds or even into neighbouring trees and sings a few bars of its song before returning to the shady depths of the reed bed. It feeds on aquatic insects, small snails, slugs, and aquatic seeds.

Status and Distribution. — This species is widely distributed in Europe and Asia, and is a rare vagrant to the British Isles, whence both the typical race and the Eastern race have been recorded. It has been recorded from Central Burma, where it is common on some Mandalay jheels, the plains of Southern Burma, the Shan States and Tenasserim. All three races are at present regarded as winter visitors, but Mrs. Stevens's race may be found one day breeding in Burma.

SCHRENCK'S REED WARBLER

Acrocephalus bistrigiceps (798).

Identification. — Length 5 inches. A brown bird prettily marked with a pale broad eyebrow above which is a short broad streak of black. It cocks the tail in flight and makes a chucking note. On first arrival it is found in the growing paddy in small parties, moving to grass jungle after the paddy has been reaped.

Status and Distribution. — Breeds in Japan and Eastern Siberia and migrates southwards in winter; in Burma it has only been recorded from the plains of Southern Burma, where it is not uncommon, and once from Tenasserim.

BLYTH'S REED WARBLER

Acrocephalus dumetorum (799).

Identification. — Length 5 inches. A miniature of the Great Reed Warbler but lacks the salmon-red mouth. This and the next species differ from Schrenck's Reed Warbler in having no black streak over the white eyebrow; in this species the upper-parts are olive-brown, in the next rufous. The note is a loud *tchik tchik*, but a number of Warblers have very similar notes. It frequents scrub and small trees some distance from water as well as paddy fields and swamps, and is often seen working the foliage in the tree-tops like a Willow Warbler.

Status and Distribution. — Breeds in Russia, Western Siberia, and the Western Himalayas, migrating to the plains of India, Ceylon and Burma in winter. It has been recorded from Arakan, the Sittang plain near Pegu, and Karenni; westwards it extends to the British Isles as a rare vagrant.

THE PLAINS PADDY FIELD WARBLER

Acrocephalus agricola stevensi (803).

Allied Form.—

THE PADDY FIELD WARBLER, *A. a. agricola (800).*

Identification. — Length 5 inches. For distinctions from the other two small Reed Warblers see under Blyth's Reed Warbler. It is a great skulker in paddy fields, dry grasslands, and *ponzo* up to 5,000 feet or more, and has a *tchik tchik* call-note like that of the Dusky Willow Warbler.

Nest and Eggs. — The nest is built two or three feet from the ground in grass-covered plains and sandbanks or on dry ridges in the higher hills, and is fastened to three or four stems of growing grass; it is a neat little cup of grass and reed leaves, lined with finer grasses. The eggs, 3 or 4 in number, are light brown boldly and heavily blotched with pale olive-brown. They average 0·63 by 0·47 inches.

Status and Distribution. — The typical race breeds in Central Asia and the Himalayas and has been recorded once from Bhamo. The Plains Paddy Field Warbler has been recorded from the Sittang plain, where it is common in the cold weather, Karen Hills, (March-April), Northern Shan States, Karenni (April) and Northern Tenasserim. It breeds in Assam but has never been proved to breed in Burma, though Oates suspected it of breeding near the Pegu Canal and it may also breed in Karenni on dry ridge tops; at present both races are regarded as winter visitors.

PALLAS'S GRASSHOPPER WARBLER

Locustella certhiola (805).

Identification. — Length 5 inches. The absence of streaks on the under-parts distinguishes this from the next species; it is common in paddy fields, wet thickets, reed beds and *kaing* grass but is a great skulker; when flushed it flies a short distance and then drops as if shot, after which it creeps away rapidly like a mouse and it is almost impossible to flush it a second time. Blackish tip to the tail contrasting with the reddish-brown upper tail-coverts is noticeable as the bird flies away. The call-note is *chir-chirr.*

Status and Distribution. — Breeds in Siberia and winters in the Oriental Region. In Burma it has been recorded from Central Burma, the plains of Southern Burma, and the Shan States and is common in suitable localities, but unlike the next species it seems to disappear after the paddy has been reaped. There is one record from Ireland.

THE LANCEOLATED WARBLER

Locustella lanceolata (806).

Identification. — Length 4½ inches. See under the preceding species. The call-note is apparently the same, but the song, which may be heard in October or April, is a rapid and uniform high-pitched trill, long sustained. On first

arrival it is found in the paddy, and when that has been reaped it remains in the stubble for some time and then moves into *kaing* grass.

Status and Distribution. — Breeds in North-east Russia and Siberia, and winters in the Oriental Region; it has been recorded from the plains of Southern Burma, Shan States and Tenasserim and is common in suitable localities. Either this or the preceding species, perhaps both, has been seen in North-East Burma. As a rare vagrant it extends westwards to the British Isles.

THE CHINESE BUSH WARBLER

Tribura taczanowskia (809).

Identification. — Length 6½ inches. A brown bird, paler below, with a short narrow white eyebrow; a great skulker in paddy fields, stubble and grass. It feeds a great deal on the ground and frequents the same habitats as the Lanceolated Warbler.

Status and Distribution. — Breeds in Central Asia and winters in Southern China, Burma and the intervening countries. It is not uncommon in the Sittang plain but has not been recorded elsewhere in Burma.

THE SPOTTED BUSH WARBLER

Tribura thoracica thoracica (810).

Identification. — Length 5½ inches. Upper-parts rufous-brown, throat ashy spotted with black; a whitish eyebrow; chin and upper throat whitish; lower throat and breast ashy spotted with blackish.

Nest and Eggs. — Similar to those of the next species.

Status and Distribution. — This species breeds in Central Asia and the Himalayas; in Burma it has been recorded from the Adung valley, where it is common and probably resident in low scrub jungle above the tree-line at 12,000 feet, and once in the Upper Chindwin at a low elevation.

THE BROWN BUSH WARBLER

Tribura luteoventris (811).

Identification. — Length 5½ inches. Unspotted white throat distinguishes it from the preceding species; rufous upper breast, flanks and under tail-coverts from the Chinese Bush Warbler. On the wing it has a noticeably wedge-shaped tail. The call-note is a soft single *chik*, and the alarm-note is a harsh grating *churr;* the song is thin and like the noise of a fishing reel. It feeds entirely on insects.

Nest and Eggs. — The breeding season is from April to July. The nest is usually built in a low bush or tangle of weeds close to the ground; it is a deep cup of grass with a thick lining of grass and grass stems. The eggs, 3 to 5 in number, are broad blunt ovals in shape and white to pale pink in colour, freely marked with freckles of various shades of reddish-brown. They average 0·72 by 0·56 inches.

Status and Distribution. — This species is resident in the Eastern Himalayas, Chin Hills, and North-East Burma at elevations over 5,000 feet, descending to the foothills in winter.

[Note: — Two other Bush Warblers, *Tribura* sp., have recently been discovered in Burma belonging to hitherto unknown species; one was obtained in Maymyo and the other in the Arakan Yomas. Before they can be described further specimens must be obtained.]

THE BURMESE TAILORBIRD

Orthotomus sutorius patia (814).

Allied Forms.—

THE CHINESE TAILORBIRD, *O. s. longicaudus (815).*

THE SIAMESE TAILORBIRD, *O. s. maculicollis (816).*

Local Names. — None recorded.

Identification. — PLATE IX, Fig. 1, Page 154. Length 5 inches. The tail is usually cocked sharply over the back. A bird of gardens and undergrowth, more often heard than seen.

Voice. — It has a loud call-note, *chw-ee chw-ee* etc., at the rate of 25 times in 10 seconds.

Habits and Food. — The Tailorbird is immortalised in Kipling's story "Rikki-tikki-tavi" in the Jungle Book. In Burma besides being a familiar garden bird it frequents the undergrowth in forests and scrub jungle, and its loud cheerful note helps to lighten the gloom of the teak forest during the rains. In flight the long tail is flicked energetically far over the back so that the bird appears about to overbalance. It is not shy and is very active, hopping about and investigating creepers and plants for insects, but is seldom seen by the unobservant.

Nest and Eggs. — The breeding season is from May to July. The nest is usually built within 6 feet of the ground in a low bush or the hanging branch of a tree; the only essential is a large tough leaf. The nest itself is a deep soft cup of cotton-wool and down, with a slight lining of a few horse hairs and perhaps a few fine grass stems. For it the bird prepares an aerial cradle by sewing two or more leaves together, the nest being built in the cavity so formed. The sewing is done with threads of cobweb, silk cocoons, wool or cotton: the bird pierces a hole in the leaf with its sharp bill and draws the thread through; the end frays easily and the part that is forced through the tiny aperture issues as a fluffy knob, which looks like a knot and is usually taken for such; as a matter of fact the bird makes no knots, relying on the friction between the strands of cotton and the leaf to keep the structure together; except that each stitch is made separately it would pass for the work of human hands.

The eggs, 3 or 4 (rarely 5 or 6) in number, are very long and pointed in shape, thin and delicate in texture, with little gloss; the colour varies greatly and may be white, cream, pale pink, pale blue or blue-green with blotches and freckles of reddish-brown, brown, black and purplish-black; on most eggs the markings are sparse and tend to be more numerous at the larger end. The eggs average 0·64 by 0·46 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is common and resident throughout Burma in the plains and foothills, here and there ascending the higher hills to about 4,000 feet. It is a common bird of Rangoon gardens.

THE BURMESE BLACK-NECKED TAILORBIRD

Orthotomus atrogularis nitidus (818).

Allied Form.—

THE BLACK-NECKED TAILORBIRD, *O. a. atrogularis (817).*

Identification. — Length 5 inches. Sexes differ, but both differ from the common Tailorbird in having the breast and flanks ashy and the under tail-coverts bright yellow (as opposed to yellowish-white); in addition the male has the throat and fore-neck black. The call-note is totally different, being a sweet-sounding *kri-ri-ri* with variants. It frequents dense undergrowth

PLATE IX

See Page No

1. BURMESE TAILORBIRD (adult)
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PLATE IX

and bamboo thickets, avoiding gardens and open country, and is far from shy.

Nest and Eggs. — Indistinguishable from those of the preceding species.

Status and Distribution. — This species has a wide distribution in the Oriental Region as far west as Sikkim. It has been recorded from Myitkyina, the Pegu Yomas, Sittang plain, Karen Hills, Shan States, Karenni and Tenasserim; it is a common bird in the Pegu Yomas and Karen Hills (Thandaung) and probably elsewhere in its range; until its note has been learnt it is easy to overlook.

THE RED-HEADED TAILORBIRD

Orthotomus ruficeps (819).

Identification. — Length 4 inches. This and the next species differ from the last two in having ashy-grey upper-parts; upper-part of the head and the tail chestnut; under-parts white tinged with buff. It is said to frequent the outskirts of forest and scrub.

Nest and Eggs. — Like those of the Tailorbird.

Status and Distribution. — This species extends from the extreme south of Tenasserim, where it is scarce, and Siam through the Malay States to Sumatra and Borneo.

THE ASHY TAILORBIRD

Orthotomus sepium cineraceus (820).

Identification. — Length 4 inches. An ashy-grey bird with the crown and sides of the head bright cinnamon-rufous and the tail brown tipped with whitish.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends from Southern Tenasserim and Siam through the Malay States to Sumatra and Java.

THE YELLOW-HEADED FANTAIL WARBLER

Cisticola exilis tytleri (823).

Allied Form.—

THE SIAMESE GOLDEN-HEADED FANTAIL WARBLER, *C. e. equicaudata (824).*

Identification. — Length 4 inches. The male in summer has a golden-yellow crown (pale yellowish-white in the Siamese race); upper-parts rufous streaked with black; tail black with a whitish tip; under-parts bright rusty. The male in winter and the female have the head rufous broadly streaked with black; under-parts less rufous. The very dark, almost black, winter male is very different to the yellow summer male. The call-note is *chir-r-r-r* followed after a distinct interval by a beautiful bell-like tinkle, which seems to come from quite a different direction.

This is a bird of grassy plains, paddy fields, and open grassy stretches in the hills. It seems to collect in colonies both in the breeding and non-breeding seasons, although it is never found in parties. It has the same distinctive flight as the next species. Its food consists entirely of ants and minute insects for which it hunts among the grass stems.

Nest and Eggs. — The breeding season is from April to August. Two types of nest are made: one is a small egg-shaped structure of fine grasses very lightly and casually interwoven; and the other is a flimsy little half-cup of fine grass and cotton down sewn against the face of a leaf of some weed or low plant standing in the grass. The nest is never sewn inside the leaf like the nest of the Tailorbird but threads are passed through the unfolded leaf and knotted at the back, retaining the nest in place against the leaf. The eggs, 4 or 5 (rarely 6) in number, are very beautiful: a bright pale blue with reddish-brown, black or purple blotches and spots and with a few secondary marks of grey. They average 0·58 by 0·45 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region, extending to Australia; the Yellow-headed race is resident in Arakan, Upper Chindwin, and North-East Burma (where it is probably common in the grassy plains of the Irrawaddy valley); and the Siamese race was common near Pegu 60 years ago but has not been recorded since then.

THE INDIAN STREAKED FANTAIL WARBLER

Cisticola juncidis cursitans (825).

Allied Form.—

THE MALAY STREAKED FANTAIL WARBLER, *C. j. malayana (825a).*

Local Names. — None recorded.

Identification. — PLATE IX, Fig. 2, Page 154. Length 4 inches. A minute streaked black and brown bird with pale under-parts. Found in paddy fields and damp localities in the hills; skulks until disturbed, then has a distinctive mounting flight.

Voice. — A characteristic creaking or clicking note is uttered on the wing.

Habits and Food. — This bird is found in low thick cover in wide open spaces, and is a typical bird of paddy fields and snipe grounds. In such cover it skulks and is very retiring, seldom climbing above the stems, and would not come to notice save for its curious habits of flight. When disturbed it jerks itself high into the air and after flying some distance falls headlong again into cover. During the breeding season the male soars in a most erratic fashion, rising and falling in jerks but keeping roughly above the nest, towards which he falls very quickly at intervals as if intending to settle; just as he nears the ground however he shoots up into the air again and resumes his soaring jerks. All the time he utters the creaking note, which rises to a climax as each aerial jerk reaches its highest point. When feeding the young the parent approaches the nest in somewhat similar fashion, uttering a note that is softer and more level in pitch than the display song.

Nest and Eggs. — The breeding season is during the rains. The nest is built in a tuft of green grass near the ground and is a very delicate and beautiful affair of white cobwebs lined with vegetable down, the green blades of growing grass being incorporated in the sides of the structure; in shape it may be oval with the entrance near the top, a long deep purse narrowing towards the top, or a cup with a canopy woven over it. The eggs, 3 to 7 (usually 5) in number, are short ovals in shape, fine and delicate in texture, with some gloss; the colour is pure white faintly tinged with blue, or else a definite pale blue, finely spotted and speckled with reddish-brown; the markings tend to collect in a cap or zone. The eggs average 0·59 by 0·46 inches.

Status and Distribution. — This species has an immense range in Southern Europe, Africa and Asia, and is a common resident throughout Burma.

FRANKLIN'S WREN-WARBLER

Franklinia gracilis (827).

Local Names. — None recorded.

Identification. — PLATE IX, Fig. 3, Page 154. Length 4-5 inches. The longish tail, tipped white, often looks as if it was loosely attached to the body. It is weak on the wing, proceeding by curious jerky little flights, the tail flicking over its head and looking as if it would upset the bird at any moment. A tiny grey bird, found in parties in grassy undergrowth.

Voice. — It has a distinctive call-note, *chew-chew-chew,* recalling the buzzing of a morse key, and also a rapidly trilling note *twirrrr twirrrrr.* In the breeding season the male climbs up the stems of a small bush uttering a low song, which gets louder as he climbs till he reaches the topmost twig and gives full vent to his rather tinkling but musical little song *chiwee-chiwee-chiwee, chip-chip-chip-chip,* the chips rising in pitch and ending abruptly.

Habits and Food. — This little Warbler is found in energetic parties, which are always on the move, creeping in and out of bushes and running like mice on the ground at their base. It is one of the most typical birds of the teak forests, where it prefers grassy undergrowth, and it is equally partial to open park-like forest in the hills. The constant re-iteration of its call-note makes it a noticeable bird wherever it occurs.

Nest and Eggs. — The breeding season is from April to June in the hills, June to August in the plains. The nest is like that of the Tailorbird, but is usually sewn into one leaf only and is rarely more than 3 feet from the ground. The eggs, 3 or 4 in number, are very variable; they may be pure white, pure bright blue, or almost any shade of pinky-white, pale grey-green, or greenish-blue; the markings consist of light reddish-brown spots, either all over the surface or in a ring or cap at the larger end. The eggs average 0·58 by 0·44 inches.

Status and Distribution. — This species is found almost throughout India, Ceylon, Burma, Siam, and Annam; it is a common resident throughout Burma at elevations up to 5,000 feet; in North-East Burma it appears to occur in the hills only.

BEAVAN'S WREN-WARBLER

Franklinia rufescens rufescens (828).

Local Names. — None recorded.

Identification. — Length 4-5 inches. In winter probably indistinguishable from Franklin's Wren-Warbler, but in summer the crown and nape are a different colour to the back, which is rufous and not ashy, and there is a narrow white eyebrow.

Voice. — A continuous monotonous *chip* and a double note *chi-wee chi-wee* etc., not unlike that of the Tailorbird, have been noted, but it is doubtful whether this bird's voice can be distinguished from that of Franklin's Wren-Warbler.

Habits and Food. — Except that it seems to be the commoner bird of the two in the foothills, its habits are the same as those of Franklin's Wren-Warbler.

Nest and Eggs. — Similar to those of Franklin's Wren-Warbler.

Status and Distribution. — This species has much the same distribution as Franklin's Wren-Warbler, and is a common resident throughout Burma up to 5,000 feet.

[Note: — DAY'S LONG-TAILED GRASS WARBLER, *Laticilla cinerascens (833)*, has not been recorded from Burma but is resident in Assam and is likely to occur in the immense tracts of grass in the Mogaung and Hukawng valleys of Northern Burma. Length about 5 inches, including a tail of about 3 inches. Upper-parts ashy strongly streaked with dark brown; under-parts and a narrow ring round the eye pale grey.]

THE SIAMESE LARGE GRASS WARBLER

Graminicola bengalensis striata (835).

Identification. — Length 6-7 inches. Upper-parts black with bright rufous edges to the feathers, giving a streaked appearance; under-parts whitish. Found in *kaing* grass, reeds and similar cover. It is said to be very noisy in the rains, soaring into the air and singing a very harsh loud little song from the top of the reeds, but it is a quiet bird at other times.

Nest and Eggs. — The breeding season is from July to August. The nest, which is built low down in grass, is a deep cup of coarse grass lined with finer grass. The eggs, 3 or 4 in number, are pale cream or almost white, speckled with reddish- and purplish-brown, and average 0·75 by 0·59 inches.

Status and Distribution. — This species extends from Nepal to Assam, Siam and Hainan and is resident in Tenasserim; judging by its distribution it is likely to occur in other parts of Burma, and if found in Northern Burma the race would probably be the typical race, *G. b. bengalensis (834)*, which is the form in Manipur.

THE STRIATED MARSH WARBLER

Megalurus palustris (836).

Local Names. — None recorded.

Identification. — PLATE IX, Fig. 5, Page 154. Length 10 inches. A conspicuous bird of *kaing* grass and the edges of jheels, with a Lark-like flight in the breeding season.

Voice. — In the breeding season it has a loud shrill song *wheet-wheet-tu-tu-wheet-wheet*, which it utters from a conspicuous perch or in the air, constantly soaring up for 20 to 40 feet and then gliding down again to a bush or other perch near where the hen is sitting.

Habits and Food. — This bird frequents *kaing* grass, the bushes surrounding jheels, and island cultivation, and is occasionally found in open country far from water; it is not shy and is often found near villages.

Nest and Eggs. — The breeding season is from April to May. The nest is built in a bush, or tangle of weeds or grass, and is a large globular affair of grass loosely put together. The eggs, 3 or 4 in number, are white or very pale cream or greyish, rather densely spotted and speckled all over with dark brown and with secondary marks of pale blue, which give a grey tinge. The eggs average 0·90 by 0·66 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region; it is resident throughout Burma in the plains and

foothills, here and there ascending to 4,000 feet (as at Maymyo) and is common in suitable localities.

THE THICK-BILLED WARBLER

Phragmaticola aëdon (839).

Local Names. — None recorded.

Identification. — Length 8 inches. An olive-brown bird, paler below, without distinguishing features, and very like the Great Reed Warbler.

Voice. — The ordinary call-note is a *tschak tschak,* like that of the Dusky Willow Warbler but distinguished by greater volume and depth of tone. A thin low-pitched song, lacking in power but not unmusical, may be heard when the birds are on passage in May.

Habits and Food. — It skulks in bushes and scrub and is very partial to *bizat* along streams or round forest rest house compounds; it swarms in wet thickets, scrub round paddy fields, grazing-grounds and similar localities.

Status and Distribution. — This species breeds in Southern Siberia and winters in Burma in vast numbers. On passage it ascends to 4,000 feet, as at Maymyo and Thandaung, but it does not seem to winter in the higher hills.

THE WILLOW WARBLERS

The genus *Phylloscopus* contains a group of small, plain-coloured, slim and graceful Warblers; besides white only yellow, green and brown enter into the colour-scheme; partly for this reason and partly because they are in constant movement the various species are very difficult to differentiate in the field. The most important and useful characters are the songs and notes, but any specimen in the hand, and some species in the field, can be identified by means of the key to the plumage given on page 160.

The Willow Warblers spend much of their time amongst the foliage, actively searching leaves and twigs for insects or flying out to take them on the wing; a few species live on or near the ground and are skulking in their habits. They are not gregarious but several birds may loosely associate in hunting parties with other species or with other birds such as Tits, Treecreepers and Flycatchers. The flight is flitting and not sustained. Many species have a characteristic habit of flicking their wings as they feed.

The nest is domed with a side entrance and the eggs are white or spotted with shades of brown. Some species are migratory and others are sedentary.

The British Museum publication entitled "A Systematic Review of the Genus *Phylloscopus*" by Dr. C. B. Ticehurst is an authoritative and recent monograph, essential for anyone to have who wishes to study this interesting group. The names and the order in which the

birds are here given follow the arrangement in that book, and the information is mostly derived from it.

KEY TO THE WILLOW WARBLERS

A. No trace of any wing-bar.
  a. Whole of under-parts clear pale yellow — *P. affinis*
  b. Whole of under-parts pale buffish-yellow — *P. subaffinis.*
  c. Under-parts neither of above.
    a'. Under-wing not white, yellowish, or yellow — *P. fuscatus.*
    b'. Under-wing white, yellowish, or yellow.
      a''. Under-parts streaked yellow — *P. armandii.*
      b''. Under-parts not streaked yellow — *P. schwarzi.*

B. With wing-bar or bars.
  d. Second primary with no trace of emargination on outer web — *P. borealis.*
  e. Second primary emarginated on outer web.
    c'. With a broad yellow rump-band.
      c''. No white in tail — *P. proregulus.*
      d''. Inner webs to three outer tail-feathers white.
        a^3. Grey throat contrasts with yellow breast — *P. maculipennis.*
        b^3. No such contrast — *P. pulcher.*
    d'. With no yellow rump-band.
      e''. Under tail-coverts bright yellow, remaining under-parts white — *P. coronatus.*
      f''. No such contrast.
        c^3. A well-marked mesial coronal streak.
          a^4. Yellow throat contrasts with white breast — *P. cantator.*
          b^4. No such contrast.
            a^5. Wing 56-67 mm. (male) — *P. reguloides.*
            b^5. Wing 51-57 mm. (male) — *P. davisoni.*
        d^3. Mesial coronal streak absent or slight.
          c^4. Under-parts silky-white, legs pale flesh — *P. tenellipes.*
          d^4. Under-parts not silky-white, legs darker.
            c^5. Tip of lower mandible not dark — *P. trochiloides.*
            d^5. Tip of lower mandible dark.
              a^6. Wing not under 68 mm. (male) — *P. magnirostris*
              b^6. Wing not over 61 mm. (male) — *P. inornatus.*

TICKELL'S WILLOW WARBLER

Phylloscopus affinis (852).

Identification. — A ground-feeding Willow Warbler, olive-green above, eye-brow and whole under-parts yellow. Alarm note *tick-tick* rapidly repeated. It inhabits *ponzo*, scrub, undergrowth and gardens.

Status and Distribution. — Breeds at high elevations in the Himalayas and migrates to foothills and plains in winter. It is a winter visitor to the hills and plains of Burma as far south as Pegu.

GRANT'S WILLOW WARBLER

Phylloscopus subaffinis (852a).

Identification. — Similar to the preceding species but buffish-yellow below.

It has a harsh loud call-note *tick-tack* and inhabits open bush-covered country, grass and scrub.

Status and Distribution. — Breeds at high elevations in Yunnan and Western China and moves to lower elevations (1,500 — 3,000 feet) in winter. It has been recorded from the hills of the Yunnan frontier in North-East Burma.

THE DUSKY WILLOW WARBLER

Phylloscopus fuscatus fuscatus (860).

Identification. — PLATE IX, Fig. 4, Page 154. The absence of yellow and green in the plumage, no wing-bar, and a ground rather than arboreal habitat should distinguish this from any other species. The usual note is a harsh *tschak-tschak* and a low soft *chi-chĭree* has been recorded. It inhabits bushes and scrub in damp situations, paddy fields and snipe grounds; though rather a skulker, feeding on or near the ground, it is more active than the small Reed Warblers, with which it might be confused.

Status and Distribution. — Breeds in Siberia and Central Asia, and swarms throughout Burma in winter as far south as Tavoy. There are two records from the British Isles.

YUNNAN WILLOW WARBLER

Phylloscopus armandii perplexus (862a).

Allied Form.—

MILNE-EDWARDS'S WILLOW WARBLER, *P. a. armandii (862).*

Identification. — The brown upper-parts, no wing-bar, and yellow in the under-parts should be sufficient guide. The warning note is a slight *click* and the call-note is a Bunting-like *zit*, in addition to which it has a *tchik-tchik* note like that of *fuscatus*. It inhabits dry scrub and dry forest.

Status and Distribution. — Breeds in the mountains of Western China, North-west Yunnan, North-west Siam, and the Bhamo hills; possibly elsewhere in the Burmese hills. In winter it is found in hills and plains alike and has been recorded from the Chin Hills, North-East Burma, Pegu Yomas, and Southern Shan States.

RADDE'S WILLOW WARBLER

Phylloscopus schwarzi (851).

Identification. — Has chiefly to be distinguished from *fuscatus*, which is more ground-loving and has a harsher alarm-note. It utters a nervous *twit-twit* and an alarm-note *tschak-tschak*. It inhabits bushes and tall grass and on passage the undergrowth in hill evergreen from low elevations up to 4,600 feet and being a skulker keeps well concealed.

Status and Distribution. — Breeds in Eastern and Central Asia and migrates to the eastern part of the Oriental Region. It has been recorded on passage on Mt. Victoria, once at Pegu, and in the Karen Hills. It winters in Tenasserim. There is one record from England.

THE NEPAL ORANGE-BARRED WILLOW WARBLER

Phylloscopus pulcher pulcher (864).

Identification. — A very distinctive bird and the only *Phylloscopus* that combines a yellow rump with double orange wing-bars and white in the three outer tail-feathers. The call-note is a Thrush-like *zip;* the song is elaborated from the quickly-repeated call-note preceded by or ending with a trill. It inhabits conifer-rhododendron forest at high elevations and is arboreal in habits.

Nest and Eggs. — The breeding season is in April. The nest is usually built in a tree and is a very untidy ragged ball of grass, strips of bark, etc., densely lined with feathers, many of which protrude from the large entrance at the side. The eggs, 3 or 4 in number, are white speckled with reddish and average 0·61 by 0·45 inches.

Status and Distribution. — Breeds at 7,000 to 14,000 in the Himalayas, Western China and the Adung valley and probably on other high mountains in Burma; in winter it is found in the same countries at low elevations, but has not been recorded below 3,500 feet. The Burma records are from Mt. Victoria, North-East Burma, Karen Hills, Shan States, Karenni and Northern Tenasserim. It does not seem to be common.

THE YELLOW-BROWED WILLOW WARBLER

Phylloscopus inornatus inornatus (871).

Allied Form.—

THE SZECHWAN YELLOW-BROWED WILLOW WARBLER, *P. i. mandellii (871a).*

Identification. — PLATE IX, Fig. 6, Page 154. Small size, absence of yellow on rump, conspicuous double wing-bars, and dark tip to lower mandible distinguish this species. The call-note of *inornatus* is *weest* and of *mandellii* is a chirp. It frequents all types of wooded and semi-wooded country and keeps well up in the canopy except in windy weather.

Status and Distribution. — Breeds in Siberia and Western China and migrates to the Oriental Region in winter, extending westwards to the British Isles. The Szechwan race has only been recorded from the Arakan Yomas, Mt. Victoria, and Mt. Mulayit but the typical race is very common throughout Burma from the plains to 8,000 feet from mid-October to mid-April.

PALLAS'S HIMALAYAN WILLOW WARBLER

Phylloscopus proregulus chloronotus (866).

Identification. — The small size and lemon-coloured rump suffice to distinguish this species from any except *maculipennis* and *pulcher*, but both these show white in the outer tail-feathers, which *proregulus* lacks. The lemon rump is conspicuous as the bird flutters to pick insects off the tip of a bough. The call-note is a shrill feeble tinkling of two notes: D to F sharp. It is partial to pine forests at high elevations but avoids dense forest and in winter frequents also lighter growth and scrub in river beds. It is usually seen in hunting parties with other Willow Warblers, Tits, etc.

Status and Distribution. — Breeds in Southern Siberia and Western China and migrates south in winter. It has been recorded from Arakan (?), Mt. Victoria, North-East Burma, Karen Hills, and Southern Shan States, and may breed in some of these localities, but so far there is no proof. There is one record of the typical race from England.

THE GREY-FACED WILLOW WARBLER

Phylloscopus maculipennis maculipennis (863).

Identification. — The diminutive size, yellow rump, grey head and throat, and white in the three outer tail-feathers at once distinguish this species. The call-note is *zip* constantly repeated. It is a forest bird of the higher hills, frequenting both the tree-tops and the undergrowth.

Nest and Eggs. — Unknown.

Status and Distribution. — Breeds in the Himalayas and the mountains of Yunnan and Western China; it has been recorded from Mt. Victoria, North-East Burma and Karenni and no doubt breeds at high elevations (7,000 — 10,000 feet) where found. In winter it moves altitudinally down the same hills and is usually found between 2,500 and 7,000 feet.

EVERSMANN'S WILLOW WARBLER

Phylloscopus borealis borealis (872).

Identification. — The large size and single wing-bar are useful guides; its call-note is a loud husky *tswee ep* or *dz-dzit* unlike that of any other species; it also utters a scolding chatter. It is arboreal in habits and favours insect-infested trees such as mango; also mangrove swamps.

Status and Distribution. — Breeds in arctic Norway, Northern Russia and Northern Siberia and performs a huge migration to the south-east corner of the Oriental Region; it is a winter visitor to the whole of Tenasserim but has not been recorded from elsewhere in Burma. There are a few records from the British Isles.

THE LARGE-BILLED WILLOW WARBLER

Phylloscopus magnirostris (878).

Identification. — This and *borealis* are the largest members of the genus. The best guide is the very distinct call-note *dir-tee*, the second syllable half an octave higher than the first. It is a solitary bird of evergreen forest and shady trees, keeping more to the boughs than to the foliage.

Status and Distribution. — Breeds in the Himalayas and mountains of Central Asia. It breeds in the Adung valley and has been recorded from Southern Burma on passage; there are also doubtful records from Arakan and Tenasserim.

THE DULL GREEN WILLOW WARBLER

Phylloscopus trochiloides trochiloides (880).

Allied Forms.—

THE KANSU WILLOW WARBLER, *P. t. obscuratus (880a).*

MIDDENDORFF'S WILLOW WARBLER, *P. t. plumbeitarsus (876).*

Identification. — Very like the preceding species but with quite different notes. The call-note is *dschiewsist* and the warning-note is *errk;* Middendorff's race has a sibiiant double note. An arboreal forest bird, found from low elevations up to 5,000 feet.

Status and Distribution. — Breeds throughout most of Central Europe and Asia. The typical race breeds in Siberia and winters throughout Burma as far south as Assoon in Tenasserim; the Kansu race breeds in Kansu and probably winters in Burma, some specimens being nearer this race than either of the other two; and Middendorff's race breeds in North-east Siberia and winters throughout Burma as far south as Mergui in Tenasserim, though not yet recorded from the Chin Hills and Upper Chindwin.

THE PALE-LEGGED WILLOW WARBLER

Phylloscopus tenellipes (879).

Identification. — The two indistinct creamy-white wing-bars, no green in the plumage, a golden-brown wash on the rump contrasting with the brown upper-parts, conspicuous white eyebrow and pure white under-parts make this an easy species to recognize. It has a very distinct metallic *tic-tic* call-note, and keeps to the undergrowth and lower branches of trees.

Status and Distribution. — Breeds in the countries round the Sea of Japan and migrates to the Indo-Chinese countries. It winters in Pegu (rare), the Karen Hills near Papun, and Tenasserim.

TEMMINCK'S CROWNED WILLOW WARBLER

Phylloscopus coronatus coronatus (882).

Identification. — A large Willow Warbler with a single narrow wing-bar and a pale coronal streak. It has a simple and very characteristic song which may be heard on passage, and it is found in bushes and tree-tops alike.

Status and Distribution. — Breeds in Manchuria, Japan, etc., and winters in the eastern part of the Oriental Region; it has been recorded once from Pegu on passage and winters in Southern Tenasserim.

BAKER'S WILLOW WARBLER

Phylloscopus reguloides assamensis (884).

Allied Forms.—

BLYTH'S WILLOW WARBLER, *P. r. reguloides (883).*

LA TOUCHE'S YUNNAN WILLOW WARBLER, *P. r. claudiæ (886).*

Identification. — A distinct yellowish coronal band and rather bright yellowish-green upper-parts are guides to this species. The note is difficult to

describe, *Pit-chew-a-pit-chew-a* . . . the three notes slurred into each other to produce a continuous undulating wave of sound; the alarm-note is *zip-aye, zip-aye,* or *cheep-it, cheep-it.* An arboreal bird, found in most types of forest.

Nest and Eggs. — The breeding season is in April and May. The nest is usually built in the ground in pine forest, and as the birds call repeatedly when the site is approached it is not difficult to find; it is a beautiful little ball of green moss, occasionally mixed with hair and grass, and lined with feathers or silk-cotton down. The eggs, 4 to 6 in number, are pure white, rarely with a few faint specks of red, and average 0·54 by 0·43 inches.

Status and Distribution. — The typical race breeds in the Eastern Himalayas and mountains of Western China, and has been recorded as a winter visitor once from Bhamo and once from Northern Tenasserim; Baker's race breeds at high elevations (over 7,000 feet) in North-East Burma and Karenni and probably on Mt. Victoria and in the Shan States, in which localities it is also known to occur. La Touche's Yunnan race is common in winter in the Pegu Yomas, Karen Hills, Southern Shan States, Karenni and Northern Tenasserim.

THE TENASSERIM WHITE-TAILED WILLOW WARBLER

Phylloscopus davisoni davisoni (885).

Identification. — Probably not distinguishable from the preceding species in the field. Neither the call-note nor the habits seem to differ.

Nest and Eggs. — Similar to those of Baker's Willow Warbler.

Status and Distribution. — Breeds in the higher hills of Burma east of the Irrawaddy and Sittang rivers, from North-East Burma down to Northern Tenasserim; also in Yunnan and North-west Siam. It is probably resident over the greater part of its breeding range. Other races are found in the Indo-Chinese countries and Western China.

THE BLACK-BROWED WILLOW WARBLER

Phylloscopus cantator (895).

Identification. — Has to be distinguished from *reguloides* and *davisoni;* the wing-bar is single and less conspicuous, and the abdomen white contrasting with the pure yellow throat. Call-note *poi-poi* loud and incessant. It frequents bamboo clumps, the lower branches of large trees, teak plantations and luxuriant vegetation near water.

Nest and Eggs. — The breeding season is from April to June. The nest is built on the ground and is a domed structure of moss with a very thick lining of vegetable cotton. The eggs, 4 in number, are white in colour, stout in texture, with a good gloss. They average 0·56 by 0·47 inches.

Status and Distribution. — It apparently breeds in the hills and descends in winter to the foothills. It is found in Eastern India and Burma (Bhamo, Maymyo, Pegu Yomas, Karen Hills and Northern Shan States).

THE GREY FLYCATCHER-WARBLER

Muscitrea grisola grisola (887).

Identification. — Length 6½ inches. Upper-parts olive-brown, more ashy on the crown and nape; under-parts white with some ashy on the throat and breast. Closely resembles the common Wood Shrike, from which it is distinguished by absence of white in the tail and no eyebrow. Its call is a fine loud whistle, which it repeats three or four times or prolongs into one long note, followed by another higher or lower in pitch. A quiet unobtrusive bird, frequenting open jungle and clearings in forest and mangrove swamps along tidal creeks; it sometimes catches insects on the wing and at other times searches for them on the branches and trunks of trees.

Nest and Eggs. — The breeding season is in May and June. The nest is usually built in a small tree and is a rather thin flimsy cup of roots attached by cobwebs to the twigs supporting it. The eggs, 2 in number, are slightly glossy and a dark cream or pale brown in colour, spotted with dark brown;

the spots are rather small and not numerous and tend to form a zone towards the larger end. The eggs average 0·85 by 0·62 inches.

Status and Distribution. — This species has been recorded from Ramree Island (Arakan), the Sittang plain near Pegu and further north, and Tenasserim, but appears to be a rare straggler outside Tenasserim. It extends southwards to Sumatra, Java and Borneo.

KEY TO THE GENUS *SEICERCUS*

A. Whole under-parts deep yellow.
  a. Lateral bands on crown blackish; median band well-defined.
    a'. White ring round eye; sides of head bluish-grey — *S. affinis.*
    b'. Yellow ring round eye; sides of head yellowish — *S. burkii.*
  b. Lateral bands on head ashy; median band ill-defined — *S. xanthoschistus.*

B. Under-parts not entirely yellow.
  c. Chin grey, crown blackish — *S. poliogenys.*
  d. Chin, throat and upper breast grey; crown chestnut — *S. castaneoceps.*

THE ALLIED FLYCATCHER-WARBLER
Seicercus affinis (888).

Identification. — Length 4½ inches. Very like the next species in plumage (for differences see key above) but not in habits. A bold and intensely active little forest bird with a sweet song.

Nest and Eggs. — The breeding season is from mid-April to mid-June. The nest and eggs are like those of the next species but the former usually has a dense lining of cotton-down or vegetable silk and the eggs average 0·61 by 0·49 inches.

Status and Distribution. — This species has a restricted range from Sikkim to the Upper Chindwin. In Burma it has only been recorded once, at 1,500 feet in the Uyu valley (a tributary of the Chindwin), and its status is uncertain. No specimens or records are traceable from the Chin and Kachin hills (F. B. I., Vol II, Page 486).

ANDERSON'S FLYCATCHER-WARBLER
Seicercus burkii tephrocephalus (890).

Allied Form—

CHIN HILLS FLYCATCHER-WARBLER, *S. b. pectoralis (890a).*

Local Names. — None recorded.

Identification. — Length 4½ inches. See key, page 165. The blackish lateral bands contrast with the grey centre of the crown and the grey sides of the head; upper-parts olive-green; a ring round the eye and the whole under-parts yellow. A small unobtrusive bird, found mainly in the undergrowth of hill forests.

Voice. — A *chip-chip* note is uttered when feeding.

Habits and Food. — This bird is usually seen singly or in pairs in dense bamboo thickets and the undergrowth in hill evergreen and oak forests. It often joins hunting parties of small Babblers, such as the Golden-headed Babbler and the Quaker Babbler. Though not exactly a skulker it seldom appears above the undergrowth and is therefore easily overlooked. It is a tame and confiding bird.

Nest and Eggs. — The breeding season is from April to June. The nest is usually built on the ground and is a domed structure of coarse grass, lined with moss and down well felted together. The eggs, 4 or 5 in number, are fairly glossy and rather fragile in texture and pure white in colour; they average 0·63 by 0·48 inches.

Status and Distribution. — This species extends throughout the Himalayas, and in Burma is found in all the higher hills. It is known to breed in the Chin Hills and North-East Burma, but elsewhere its status is uncertain, and in the Karen Hills and Sittang plain it seems to be a winter visitor only. It is very common round Thandaung from September to April.

THE GREY-HEADED FLYCATCHER-WARBLER

Seicercus xanthoschistus xanthoschistus (891).

Identification. — Length 4 inches. See key, page 165. Upper-parts grey and green, with pale stripes on the head; under-parts bright yellow; white outer tail-feathers conspicuous. Noisy and bold in trees and undergrowth. The call-note is a rather plaintive *pritt-pritt* or *tyee-tyee* and the song is a loud and monotonous, though not unpleasant, trill of several notes. This pretty little Warbler is found in all types of hill forest, coming freely also into cultivation and gardens. Except when nesting it is purely arboreal and hunts incessantly for insects through the leaves and twigs of trees and bushes, both singly and in mixed hunting parties.

Nest and Eggs. — The breeding season is from April to August. The nest is usually built on a grassy bank at the foot of a bush and is well concealed: it is a globular domed structure with a rather large entrance high on one side, and is made chiefly of moss, mixed with dry leaves and grass, and lined with vegetable down and rootlets. The eggs, 3 to 5 in number, are moderately broad ovals in shape, fine in texture, with a fair amount of gloss; the colour is pure white. They average 0·62 by 0·51 inches.

Status and Distribution. — This species extends throughout the Himalayas and the western hills of Burma. It is resident in the Arakan Yomas, Chin Hills, probably Upper Chindwin, and North-East Burma, and is said to move down to the plains and foothills in winter. It does not appear to be common.

THE GREY-CHEEKED FLYCATCHER-WARBLER

Seicercus poliogenys (893).

Identification. — Length 4½ inches. See key, page 165. In addition to the features there given this species has a white ring round the eye and a yellow wing-bar.

Nest and Eggs. — The breeding season is in May and June. The nest is typical of the genus (see under preceding species) and the eggs, 4 in number, are rather broad ovals in shape, more glossy than most, and white in colour; they average 0·62 by 0·49 inches.

Status and Distribution. — Extends along the Himalayas from Nepal eastwards to Yunnan and in Burma has only been recorded from the mountains of North-East Burma at 7,000 feet. It is said to be sedentary, moving little with the seasons.

THE CHESTNUT-HEADED FLYCATCHER-WARBLER

Seicercus castaneoceps castaneoceps (894).

Identification. — Length 4 inches. See key, page 165. Chestnut crown, double yellow wing-bar, grey throat and breast, white abdomen and yellow under tail-coverts are guides to this species.

Nest and Eggs. — The breeding season is from April to June. The nest is typical of the genus, and the eggs, 4 in number, are stout and glossy in texture, pure white in colour, and average 0·58 by 0·46 inches.

Status and Distribution. — This species extends from Nepal eastwards to Burma, and has been recorded from Mt. Victoria, North-East Burma and the Southern Shan States, but seems to be scarce everywhere.

THE YELLOW-BELLIED FLYCATCHER-WARBLER

Abroscopus superciliaris superciliaris (896).

Allied Form—

THE BORNEAN YELLOW-BELLIED FLYCATCHER-WARBLER,
A. s. schwaneri (898).

Local Names. — None recorded.

Identification. — PLATE IX, Fig. 7, Page 154. Length 4½ inches. A white eyebrow, yellowish-green upper-parts, grey chin and throat and remaining under-parts yellow distinguish this species. A common bird of bamboos and undergrowth, both in the foothills and higher hills.

Voice. — The call-note is a little tripping run down and up the scale.

Habits and Food. — This bird usually keeps to the undergrowth but when feeding may be seen quite high up the taller bamboos or in the lower branches of trees. It is a typical bird of the teak forests in the cold weather, and is partial to cover on the banks of streams: like some other birds it enjoys an evening bathe. It is lively and active in its movements and appears to catch most of its insect food on the wing.

Nest and Eggs. — The breeding season is from April to early June. The nest is nearly always built in a dead bamboo, rarely in a small branch of a tree; it is made of any dry material such as leaves and roots, over which is always placed a pad of felted green moss from one to six inches deep. The eggs, 3 to 5 in number, are of two types: either white, boldly spotted everywhere with reddish-brown, or so closely covered with minute freckles that they appear a uniform glossy pink. They average 0·52 by 0·45 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region as far west as Assam. It is found throughout Burma and appears to be another of those birds that breed in the hills and move to the plains and foothills in winter.

[Note: — The Burmese race, *A. s. salwinensis (897)*, is now considered to be the same as the typical race.]

SHARPE'S BLACK-FACED FLYCATCHER-WARBLER

Abroscopus schisticeps ripponi (900).

Allied Form.—

THE CHIN HILLS BLACK-FACED FLYCATCHER-WARBLER,
A. s. flavimentalis (901).

Identification. — Length 4 inches. Differs from the preceding species in having the chin and throat bright yellow and the remaining under-parts whitish; a line across the forehead and the part round and in front of the eye black.

Nest and Eggs. — The breeding season is in April and May. The nest is built in a hole in a tree or in a bamboo and consists of a pad of moss on a foundation of roots and fibres. The eggs, usually 5 in number, are dull pink-

ish-white profusely speckled with reddish. They average 0·60 by 0·44 inches.

Status and Distribution. — This species ranges from Nepal through Burma to Yunnan. It has been recorded from the Chin Hills, North-East Burma and the Shan States, and probably occurs in the Upper Chindwin. It seems to be a rare bird.

THE WHITE-THROATED FLYCATCHER-WARBLER

Abroscopus albogularis albogularis (902).

Identification. — Length 4 inches. The rufous-brown crown, chestnut eyebrow and cheeks and blackish throat distinguish this species; as the throat appears more black than white in the field, the English name is misleading. It moves about swiftly in small parties, hovering at the tip of a bough, darting after insects, and keeping up a shrill twitter. It occasionally spreads its tail fanwise.

Nest and Eggs. — The breeding season is from April to May. The nest and eggs do not differ from those of the Yellow-bellied Flycatcher-Warbler.

Status and Distribution. — This species ranges from Nepal to Yunnan. In Burma it has been recorded from the Chin Hills and North-East Burma west of the Irrawaddy; it is common along the Putao road and probably occurs in the Upper Chindwin.

[Note: — THE YELLOW-THROATED FLYCATCHER-WARBLER, *Abroscopus flavogularis (903)*, has not been recorded from Burma but is likely to occur in the Upper Chindwin, the only specimen known having been obtained at Sadiya in North-east Assam. Distinguished from other members of the genus by ashy-grey upper-parts. It has a white eyebrow, yellow chin and throat, and ashy-grey under-parts.]

THE BROAD-BILLED FLYCATCHER-WARBLER

Tickellia hodgsoni (904).

Identification. — Length 4 inches. Similar to the Yellow-bellied Flycatcher-Warbler but with the eyebrow indistinct and the forehead and crown chestnut. Its note is a single long-drawn very shrill whistle, followed after an interval by two notes, the second of which is the lower of the two in pitch.

Nest and Eggs. — The only nest known was built in a sapling in hill forest; it was roughly egg-shaped with a hole near the top and was made of dry leaves and lined with rootlets and soft bamboo leaves. The eggs, 3 in number, were pale reddish, spotted and streaked with darker markings, chiefly at the larger end; they averaged 0·63 by 0·47 inches.

Status and Distribution. — This species has only been recorded from Sikkim in India and Mt. Victoria in Burma; found over 6,000 feet.

THE SHAN ABERRANT WARBLER

Neornis flavolivaceus intricatus (907).

Allied Form.—

THE ABERRANT WARBLER, *N. f. flavolivaceus (906).*

Identification. — Length 4 inches. A dull olive-green bird, yellowish below with a narrow yellow eyebrow. It is said to have a loud shrill call and is found in the higher hills skulking in bushes.

Nest and Eggs. — The breeding season is in May and June. The nest is built in a tuft of grass on a hillside and is a domed structure of grass with a lining of dry leaves and an inner lining of feathers. The eggs are rather long ovals in shape and pale to deep reddish-brown in colour, and average 0·65 by 0·47 inches.

Status and Distribution. — This species extends all along the Himalayas from the Sutlej valley to Yunnan. It is resident in the Chin Hills, proba-

bly the Upper Chindwin, North-East Burma, and the Shan States. The two races may prove to be the same when further specimens are available.

[Note:— VERREAUX'S BUSH WARBLER, *Homochlamys acanthizoides acanthizoides (908)*, and HUME'S BUSH WARBLER, *H. a. brunnescens (909)*, have not been recorded from Burma, but Hume's race is found in the Manipur and Lushai hills, and probably extends to the mountains of the Upper Chindwin and Verreaux's race is said to occur in the Shan States (F. B. I., Vol. II, Page 505) but no records or specimens are traceable. Length 4 inches. Upper-parts rufous-brown; a broad buffy-yellow eyebrow; under-parts yellowish. Its note is a series of four long-drawn whistles, each higher than the last, followed by a quick series of up and down notes. A bird of high elevations.]

THE STRONG-FOOTED BUSH WARBLER

Homochlamys fortipes (910).

Identification. — Length 5 inches. A dark brown bird, paler below, with a narrow buff eyebrow. Very shy and skulking, with a loud shrill call of three notes on an ascending scale and a little grating call something like that of the Red-breasted Flycatcher, but shorter. Found only in the higher hills.

Nest and Eggs. — The breeding season is in May and June. The nest is usually built low down in a bush, and is a domed or semi-domed structure of grass very thickly lined with feathers. The eggs, 4 or 5 in number, are rather glossy, close and fine in texture, and a deep rich chocolate in colour. They average 0·68 by 0·53 inches.

Status and Distribution. — A Himalayan species, which has been recorded from North-East Burma and Karenni; status in Burma uncertain.

BLANFORD'S BUSH WARBLER

Homochlamys pallidipes pallidipes (913).

Identification. — Length 4½ inches. A dark brown bird, paler below, with a pale buff eyebrow. Distinguished from the preceding species by the absence of any rufous tinge in the upper-parts. Very shy and skulking, and found only in the higher hills.

Nest and Eggs. — The breeding season is in May and June. The nest is like that of the preceding species, and the eggs, 3 or 4 in number, vary from purplish-brick colour, with deeper markings in a cap or ring at the larger end, to a uniform deep purplish-chocolate. They average 0·67 by 0·52 inches.

Status and Distribution. — This species extends from Sikkim through Burma to the Andamans, and there is one record from China. It has been recorded from Maymyo (breeding), Shan States, Karenni and Tenasserim.

[Note:— THE CHINESE BUSH WARBLER, *Homochlamys cantans canturians (916)*, has not been recorded from Burma but is widely distributed in China and has twice been recorded from Assam; it will probably be found some day in Burma. Length 6 inches. Russet-brown above and whitish below. Distinguished from other members of the genus by having the crown a different shade to the back. It is a skulker in scrub jungle on the outskirts of forest.]

THE RUFOUS-CAPPED BUSH WARBLER

Horeites brunnifrons brunnifrons (917).

Allied Form.—

THE YUNNAN RUFOUS-CAPPED BUSH WARBLER, *H. b. umbraticus (919).*

Identification. — Length 4½ inches. Forehead, crown and nape chestnut-brown, shading into rufous olive-brown on the upper-parts; under-parts grey, whitish in the centre. A great skulker, but a busy noisy little bird with a strange unmistakable call that it constantly repeats, consisting of a few ordinary chirping notes followed by a curious grating mouse-like sound, twice repeated.

Nest and Eggs. — The breeding season is in May. The nest is like that of *Homochlamys* and the eggs, 3 to 5 in number, are bright reddish-brown, usually with darker markings forming a cap at the larger end. They average 0·70 by 0·51 inches.

Status and Distribution. — This species is found in the Himalayas and Yunnan. The typical race has been recorded from the Chin Hills and the Yunnan race from the mountains east of Myitkyina. One or other is sure to occur in the Upper Chindwin.

SWINHOE'S REED WARBLER

Urophlexis squameiceps (921).

Identification. — Length 3½ inches, the tail being only 1 inch. A black line through the eye and a broad buff eyebrow; upper-parts dark brown; under-parts buff. Frequents the edges of forest streams, especially where *kaing* grass is growing; it is a great skulker but betrays its presence by a soft *chip chip* note. It feeds mostly on the ground, creeping about among the leaves in the thickest of scrub, but occasionally coming out into the sandy creeks to hunt for insects among the drift-wood.

Status and Distribution. — Breeds in Eastern Siberia and Japan and winters in the Oriental Region. In Burma it has been recorded from Mt. Victoria, Central Burma, the Pegu Yomas (east side, where it is said to be common), Southern Shan States and Tenasserim.

THE GOLDEN-HEADED WARBLER

Phyllergates cucullatus coronatus (922).

Identification. — Length 4 inches. Resembles a Tailorbird, but has a yellow eyebrow and the under-parts from the breast bright pale yellow. The call is a distinctive 4 note whistle, unmistakable once learnt; the first two notes are on the same pitch, the third is a trill (3 or 4 notes uttered very quickly) and the fourth is either higher or lower in pitch than the first two: _ _ *trill* ¯ or ¯ ¯ *trill* _. This call is repeated in a remarkable number of different keys, high and low. It also has a low buzzing note of alarm. It is a great skulker in dense bamboo thickets in the higher hills, and it is possible to spend half an hour or more trying to catch a glimpse of a party busily calling close at hand. Like other small skulkers it occasionally mounts a tall bamboo when feeding.

Nest and Eggs. — Unknown.

Status and Distribution. — This species has a wide range in the Oriental Region. In Burma is has been recorded from the Chin Hills, North-East Burma, Pegu Yomas (1 record from Yetho, Tharrawaddy district), Karen Hills and Karenni (where it is very common), and Tenasserim. It is resident wherever found in the higher hills, but probably not in the foot-hills; it has been recorded at all elevations up to 9,000 feet.

HARINGTON'S BROWN HILL WARBLER

Suya crinigera cooki (927).

Allied Forms.—

THE YUNNAN BROWN HILL WARBLER, *S. c. yunnanensis (926).*

THE ASSAM BROWN HILL WARBLER, *S. c. assamica (925).*

Local Names. — None recorded.

Identification. — PLATE IX, Fig. 8, Page 154. Length 7 inches, including a tail of 4 inches. A small brown bird, streaked above and paler below, with a very long graduated tail; skulks in grass and bushes, but sits in elevated and exposed positions to sing. The flight is weak, jerky and not sustained.

Voice. — A loud reeling song, *chirr-chu-chu, chirr-chu-chu,* a wheezy scraping series of notes repeated to monotony like the sound of a saw.

Habits and Food. — This hill bird avoids forest and keeps either to grassland and the neighbourhood of cultivation, or else to scrub jungle on bare stony hillsides. It is rather a skulker and spends most of its time clambering about like a mouse in the interior of bushes and tangles of vegetation, threading its way deftly amongst the stems and often descending to the ground. The tail is an expressive feature, freely jerked in response to the bird's emotions.

Nest and Eggs. — The breeding season is from May to June. The nest is built close to the ground in a bush or in the grass; it is a flimsy, oval-domed structure with the entrance towards the top at one side; it is made of grass blades felted with grass down, the bottom of the interior being lined with fine grass stems. The eggs, 4 in number, are regular but somewhat elongated ovals with a fair amount of gloss; the colour varies from white to pale pink, marked with specks and blotches of reddish-brown, sometimes scattered over the whole surface but more usually collected in a marked zone or cap at the larger end. They average 0·70 by 0·50 inches.

Status and Distribution. — This species has a wide range along the Himalayas through Burma and Yunnan to China. The Assam race has been recorded from the Chin Hills and Mt. Popa; the Yunnan race in the east of the Shan States; and Harington's race from Central Burma and the Shan States; this last is a common bird of the Dry Zone uplands, ascending to 4,500 at Maymyo, whereas the other races do not seem to occur below 2,000 feet.

AUSTEN'S HILL WARBLER

Suya atrogularis khasiana (929).

Identification. — Easily recognized in the breeding season by the black chin and throat; at other times of the year it resembles the next species, but has the crown the same colour as the back.

Nest and Eggs. — Cannot be distinguished from those of the Brown Hill Warbler.

Status and Distribution. — This species extends from Sikkim to Assam and the Chin Hills, where it is resident.

ANDERSON'S HILL WARBLER

Suya superciliaris superciliaris (930).

Local Names. — None recorded.

Identification. — Length 7 inches, including a tail of 4½ inches. The marked white eyebrow, and the head darker and greyer than the unstreaked brown upper-parts distinguish this from the other Hill Warblers. The long tail always has a very moth-eaten appearance.

Voice. — The song is a loud *cho-ee cho-ee cho-ee..*, very like the note of the Tailorbird and sometimes uttered at the same speed (25 per 10 seconds), but usually more slowly, and always from the top of a bush or tall grass stem. The ordinary call-note is also a double note, sharper in tone, repeated several times. The alarm-note is a continuous reel uttered by both sexes near the nest.

Habits and Food. — Those of the genus; it is typically a bird of grass growing under open park-like forest in the higher hills.

Nest and Eggs. — Similar to those of other Hill Warblers, except that it sometimes makes an untidy ball-shaped nest of grass, like a small Munia's nest.

Status and Distribution. — This species is found in the hills of Burma, Yunnan, China and Annam. It is resident in North-East Burma, the Karen Hills, Southern Shan States, Karenni and Tenasserim at elevations above 4,000 feet and is common in most parts, especially in the Kachin and Karenni hills; a few pairs are resident at Thandaung.

[Note: — THE ASSAM STREAKED WREN-WARBLER, *Prinia gracilis stevensi (932)*, has not been recorded from Burma, but is resident in Assam and may one day be found in the extensive grassy plains of the Hukawng valley. Length 5½ inches, nearly half of which is tail; upper-parts streaky brown and under-parts pale tawny. A miniature of the Brown Hill Warbler.]

THE YELLOW-BELLIED WREN-WARBLER

Prinia flaviventris flaviventris (933).

Local Names. — None recorded.

Identification. — PLATE IX, Fig. 9, Page 154. Length 5½ inches. Some individuals have a white eyebrow; the tail is brown and ragged. A bird of *kaing* grass, conspicuous in the breeding season. The flight is weak and top-heavy.

Voice. — The male has a cheery but weak little song consisting of a sharp chirp followed by a little trill of about five notes; a curious clicking sound is made as it moves about, probably with the bill.

Habits and Food. — This bird keeps to reed beds, the surroundings of swamps and jheels, and extensive areas of *kaing* grass. It is an active bird, hopping and climbing about the grasses in search of its insect food. Outside the breeding season it shuns observation.

Nest and Eggs. — The breeding season is from June to September. The nest is built in reeds or tall grass and is well fixed to the supporting stems; occasionally it is quite pendant but as a rule one or more of the stalks are bound into the base and sides. It is egg-shaped with a large entrance near the top, and is made of grass with no lining as a rule. The eggs, 4 in number, are a brilliant glossy brick-red, exceptionally with a darker ring or cap at the larger end; they average 0·60 by 0·47 inches.

Status and Distribution. — This species extends from Nepal through Burma to the Malay States and Sumatra; it is a common resident throughout Burma in suitable localities, but is more local than the Tenasserim Wren-Warbler.

[Note: — STEWART'S ASHY WREN-WARBLER, *Prinia socialis stewarti (936)*, has not been recorded from Burma, but is found in Eastern Assam and may be found one day in the Upper Chindwin. Length 5½ inches, nearly half of which is tail. Upper-parts ashy in summer, rufous-brown in winter; under-parts white to buff; bill black. In habits it is said to resemble the Yellow-bellied Wren-Warbler. The call-note is very loud and sharp. A bird of open country and cultivation in hills and plains alike.]

[Note: — THE JUNGLE WREN-WARBLER, *Prinia sylvatica sylvatica (937)*, has not been recorded from Burma, but is found in the Manipur and Lushai hills and is very likely to occur in the Upper Chindwin. Length 6 inches, nearly half of which is tail. Upper-parts earthy-brown in summer, warm rufous-brown in winter; tail tipped white, the outer pair of tail-feathers all white; eyebrow buff; under-parts pale buff; bill black in summer, brown in winter. A bird of uncultivated country in the plains and foothills.]

THE TENASSERIM WREN-WARBLER

Prinia inornata blanfordi (943).

Local Names. — Burmese: *Hnget-letma* (ငှက်လပ်မ)

Identification. — PLATE IX, Fig. 10, Page 154. Length 5 inches, including a tail of 2–3 inches. A very small bird, dark brown above and buff below, appearing rather dingy in the field; white tips to the tail-feathers and pale flesh-coloured legs are noticeable features, as also the black bill in summer. A bird of standing crops, scrub and grass, never found in forest.

Voice. — The song of this bird is a familiar sound in the cultivation where it lives; it makes up in vigour what it lacks in beauty, consisting merely of a series of loud jingling wheezy trills that suggest the shaking of a bunch of keys.

Habits and Food. — This is typically a bird of standing crops, such as paddy both hill and wet, sugar cane, etc., and it is also partial to *kaing* grass; though it occasionally frequents bush jungle in quite waterless grazing-grounds, it avoids bare ground and forest alike. It is weak on the wing and its top-heavy labouring flight is almost laughable; to compensate for this however it is endowed with strong legs and feet, with which it climbs about the stems of the cover it inhabits, threading its way with dexterity while hunting for insects. It is indifferent to the presence of man and commonly occurs near houses and villages and in gardens.

Nest and Eggs. — The breeding season is from March to September. The nest is built 3 to 6 feet from the ground in standing crops or grass; it is an elegant and distinctive structure, either globular or shaped like a long purse and domed, with the entrance high on one side; it is semi-transparent, being made of a regular lace-work of fine strips torn from the blades of green grass, woven in and out, and anchored here and there with similar grass-work to the surrounding stems and leaves; there is no lining. The eggs too are very distinctive and beautiful; moderately long ovals with a strong shell, fine in texture and highly glossy; the colour is a pale greenish-blue marked boldly with blotches, clouds and fine hairlines of deep chocolate and reddish-brown; they average 0·61 by 0·45 inches.

Status and Distribution. — This species is found in India and Burma, and extends further east. It is a common resident throughout Burma in suitable localities, ascending the hills to about 4,000 feet.

[Note: — The Burmese race, *P. i. burmanica (942)*, is now considered to be the same as the Tenasserim race.]

[Note: — THE GOLDCREST, *Regulus regulus* subsp. *(944)* and *(945)*, has not been recorded from Burma, except for a doubtful record from "Yemathaing," 9,000 feet in the Northern Shan States (F. B. I., Vol. II, Page 541);

no peak in the Shan States attains 9,000 feet. It extends all along the Himalayas to Yunnan and will probably be found some day in the mountains of Northern Burma. Length 4 inches. Sexes differ. The adult male has the centre of the crown flame-colour, edged with bright lemon-yellow; sides of crown black; upper-parts dull olive-green; two broad yellowish-white wing-bars; under-parts whitish. The female only differs in having the centre of the crown yellow. Young birds are like the female but have no gold crest.]

Family IRENIDÆ

FAIRY BLUEBIRDS

This is a small family of only one genus, which appears to have no very near relations among other families.

THE FAIRY BLUEBIRD

Irena puella sikkimensis (950).

Allied Form.—

THE MALAY FAIRY BLUEBIRD, *I. p. malayensis (951).*

Local Names. — Burmese: *Hnget-pya-seik* (ငှက်ပြာစိတ်); Karen: *To-thu-la.*

Identification. — PLATE X, Fig. 1, Page 174. Length 11 inches. The female is dull blue-green with dark brown wing-quills and tail and black round the eye. The young male is like the female but with the feathers of the upper-parts fringed with brighter blue. Both sexes have the bill, legs and feet black. Very similar to the Large Niltava in colour, but distinguished by larger size, light blue back, and absence of the blue patch on either side of the neck.

Voice. — The call-note is *which-ip, which-ip, which-ip.* It also has a short, sharp and loud whistle, sometimes followed by a bubbling call.

Habits and Food. — This bird is found in moist and evergreen forest, and is usually seen singly or in pairs, occasionally in small parties. It frequents the lower bushes and the tree-tops alike, feeding on fruits and berries. It has the quick level flight of a Thrush and is a shy retiring bird, resenting observation.

Nest and Eggs. — The breeding season is from March to May. The nest is built in a tall bush or small sapling in evergreen forest and is a rather shallow flimsy cup of roots, fine twigs, tendrils and moss, lined with moss roots. The eggs, 2 in number, are rather long ovals in shape, and pale grey to reddish-grey or buff in colour, with longitudinal blotches of dull brown and secondary mottlings of grey, greenish-grey or purplish tint. In most eggs the markings are numerous all over the surface but on some they are confined principally to the larger end. They average 1·18 by 0·87 inches.

Status and Distribution. — This species is found in most parts of the Oriental Region, and is resident throughout the foothills of Burma in evergreen forest. It seldom ascends above 3,000 feet and is local and rather scarce. The Malay race is only found in Southern Tenasserim.

PLATE X

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PLATE X

Family ORIOLIDÆ

ORIOLES

This family comprises a number of birds found throughout the tropical and temperate regions of the Old World and represented by two genera in America. The Orioles are beautiful birds, yellow and black in colour except for the Maroon Oriole, which is maroon and black. The females are duller than the males, and the young are densely streaked below and retain traces of these streaks in their plumage for some time, the males till the end of their second year and the females longer still.

They are birds of the tree-tops, rarely descending to the ground on which they move with rather clumsy hops. The flight is swift but rather heavy, with long undulations and a curious unstable action. The sweeping upward curve by which a bird usually reaches the centre of a tree from below is characteristic. They are very active birds, and delight to indulge in aerial games, following each other from tree to tree and darting through the foliage with their bright plumage flashing in the sun.

A typical Oriole's nest is built in a large tree, usually at a height of over 20 feet from the ground, and is suspended within a slender fork towards the extremity of a branch, often where no climber can reach it. From below it looks like a round ball of grass wedged into the fork, and the sitting bird is completely hidden from view; but in the hand it proves to be a most beautifully woven cup, rather deep to prevent the eggs rolling out in a high wind, and composed of fine grass and slender strips of tenacious bark fibres, the ends of which are wound round and round the supporting twigs. Some nests contain no extraneous matter, but others have all sorts of odds and ends interwoven into the exterior, such as scraps of newspaper, rags, shavings, snake-sloughs, thread, and the like. There is always a neat lining of fine grass stems.

The eggs, 2 to 4 in number, vary a good deal in shape and size, some being pear-shaped and others long and cylindrical; the texture is fine with a high gloss; the colour is a pure china-white with well-defined black spots and specks more or less thinly sprinkled over the surface, chiefly at the larger end; on some eggs the spots are pale yellowish-brown or deep reddish-brown. The eggs average 1·10 by 0·80 inches.

THE BURMESE BLACK-NAPED ORIOLE

Oriolus chinensis tenuirostris (955).

Allied Form.—

THE INDIAN BLACK-NAPED ORIOLE, *O. c. diffusus (954).*

Local Names. — Burmese: *Săñwin-wa* (ဆွဲငှက်), *Hnget-shwe-wa* (ငှက်ရွှေ,) *Hnget-wa* (ငှက်) = yellow bird.

Identification. — PLATE X, Fig. 3, Page 174. Length 10½ inches. The female is much duller, with a tinge of green on the back, and the young male is like the female but with no trace of the black

eyestripe and nape band, and with the under-parts heavily streaked with black. A forest bird of the tree-tops.

Voice. — A variety of lovely liquid call-notes, and also a rather harsh mewing note.

Habits and Food. — This bird is found in the drier and more open forests of the foothills and higher hills, where it is seen solitary or in pairs. It feeds chiefly on the fruit of various species of wild fig.

Nest and Eggs. — The breeding season is in May and June. Nest and eggs are typical of the family, except that the latter nearly always have a warm pink ground colour.

Status and Distribution. — This species is widely distributed in the Oriental Region. The Indian race breeds in North-east China and Manchuria and migrates to the Oriental Region in winter; it has been recorded in Burma from Arakan, Mandalay, the Irrawaddy-Sittang Plain and Tenasserim. The Burmese race is resident throughout Burma up to 5,000 feet, except for North-East Burma where it does not seem to occur. These two races are indistinguishable in the field; the resident race has a narrower nape band ($\frac{1}{2}$ inch as compared with $\frac{3}{4}$ inch). This bird may be commonly seen in Maymyo and throughout the Dry Zone.

THE INDIAN BLACK-HEADED ORIOLE

Oriolus xanthornus xanthornus (958).

Local Names. — Burmese: Apparently those applied to the preceding bird.

Identification. — PLATE X, Fig. 2, Page 174. Length 10 inches. The female has the forehead yellow; the black of the upper head duller and more or less streaked with yellowish; chin, throat and upper breast dull yellowish-white streaked with black; the yellow is paler and duller and often tinged with green on the mantle. The young male is like the female but with the head blacker. A bird of the plains and foothills.

Voice. — Probably cannot be distinguished from the Black-naped Oriole. The call-note usually consists of four notes, *yū-hū-a-yu*, answered by three notes *tū-hu-ēē* or *te-hēē*. In addition to its varied range of melodious calls it sometimes utters harsh cawing notes, and the newly-fledged young have a churring cry.

Habits and Food. — Those of the family. A typical bird of the teak forests.

Nest and Eggs. — The breeding season is from February to July, but chiefly in April and May. Nest and eggs are typical of the family; the markings on the eggs are never black.

Status and Distribution. — This species is found in the greater part of India, Ceylon and Burma, extending eastwards to Cambodia and Siam. It is a common resident throughout the plains and foothills of Burma, but seldom ascends into the higher hills.

THE MALAY BLACK-HEADED ORIOLE

Oriolus xanthonotus xanthonotus (960).

Identification. — Length 8 inches. The male resembles *xanthornus* but has

the abdomen white or yellowish-white streaked with black; the female has both nape and crown yellow or greenish-yellow.

Nest and Eggs. — Typical of the family but small, the eggs averaging 1·01 by 0·77 inches.

Status and Distribution. — This race extends from the extreme south of Tenasserim (where it is rare) and South-west Siam through the Malay States to Sumatra and Java.

THE MAROON ORIOLE

Oriolus trailii trailii (961).

Local Names. — Chinghpaw: *Sa-na-la-kha.*

Identification. — Length 11 inches. Sexes differ. The adult male has the whole head, neck, and wings black; tail chestnut-maroon; rest of plumage deep maroon, highly glossed. Bill bluish. The female differs chiefly in having the under-parts greyish-white heavily streaked with blackish. The young male is like the female but more richly coloured. A bird of hill forests.

Voice. — Its call-notes are similar to those of other Orioles but less often heard.

Habits and Food. — Those of the family, except that it is a wilder and shier bird.

Nest and Eggs. — The breeding season is in May and June. Nest and eggs are typical of the family; the latter always have a pink ground colour.

Status and Distribution. — This species is resident throughout the Himalayas and the higher hills of Burma to Siam and Annam. It is common in hill forests from 2,000 to 6,000 feet, but its absence from Maymyo suggests that it is only found in or near evergreen.

Family GRACULIDÆ

GRACKLES & STARES

The Grackles or Talking Mynas are resident birds in the better wooded parts of the Oriental Region; the whole plumage is glossy black, but the most distinctive feature is the presence of fleshy wattles on the nape usually accompanied by bare skin on the sides of the head. All Grackles have an immense repertoire of notes, some of which are melodious and others noisy and raucous; they are also admirable mimics, copying the notes of other birds freely in a wild state and learning to talk well in captivity.

The Stares or Glossy Starlings range from North-east India through Burma and the Malay States and Islands to Australia. The plumage is intensely glossy and the wing long and pointed. In habits the Stares closely resemble the birds of the next family.

THE INDIAN GRACKLE

Gracula religiosa intermedia (964).

Allied Form.—

THE SOUTHERN GRACKLE, *G. r. religiosa (962).*

Local Names. — Hill Myna; Burmese: *Tha-li-ga* (သာလိကာ); Chinghpaw: *Ning-yawng-hkam.*

Identification. — PLATE X, Fig. 5, Page 174. Length 10 inches. Plumage black except for a white wing-patch. An arboreal forest bird of the foothills.

Voice. — Described above. Perhaps the most distinctive note is a high-pitched sibilant whistle of great power.

Habits and Food. — The Grackle is not really gregarious, but it is very sociable and several are often found feeding together and carrying on an incessant conversation in the tree-tops. It feeds mainly on fruits and berries, but also on termites, grasshoppers, etc. It is a characteristic bird of the teak forests, where its variety concert is a frequent source of entertainment.

Nest and Eggs. — The breeding season is from March to May. A natural hollow in a tree is chosen, usually at a height of 10 to 30 feet from the ground, and the eggs are laid either on the bare wood or on a pile of dead leaves, grass, feathers, and other litter; there is no real nest. The eggs, 2 or 3 in number, are a bright deep blue, blotched and spotted to a varying degree with deep chocolate and reddish-brown and with underlying marks of pale blue. The colour fades very quickly after the eggs have been laid. They average 1·24 by 0·91 inches.

Status and Distribution. — The Grackle is found throughout most of the Oriental Region. Though nowhere abundant it is resident throughout the foothills of Burma.

[Note: — The Malay race, *G. r. javana (963)*, is now considered to be the same as the Southern Grackle.]

THE GLOSSY STARE

Lamprocorax panayensis strigatus (967).

Allied Form.—

HODGSON'S GLOSSY STARE, *L. p. affinis (969).*

Identification. — Length 9½ inches. Whole plumage black glossed with brilliant green. It has a sharp metallic single note and is found in large noisy flocks in the tree-tops. It frequents open well-wooded country and, except that it feeds mainly on fruit, is a typical Starling in its habits. In Tenasserim it roosts in coconut palms and pagoda *htees.*

Nest and Eggs. — The breeding season is in April and May. The nest is built in a hole in a tree, a bridge or the roof of a building, or in a toddy palm at the junction of a leaf with the trunk; it is a rough cup of roots, grass and leaves. The eggs, usually 3 in number, are miniature Grackle's eggs, averaging 1·00 by 0·73 inches.

Status and Distribution. — This species extends from Eastern Bengal through Burma and the Malay States to Sumatra, Java and Borneo. The Glossy Stare is resident in Tenasserim and a common breeding bird in Mergui. Hodgson's race is also found in Tenasserim, but no records or specimens are traceable from the Chin Hills, Kachin hills and Shan States (F. B. I., Vol. III, Page 24). There are old and doubtful records of both races from Arakan.

THE SPOTTED-WINGED STARE

Saroglossa spiloptera spiloptera (970).

Identification. — Length 9½ inches. Sexes differ. The adult male has the upper-parts grey in front and brown towards the tail, each feather of the fore-head, crown, nape and upper back edged with black; a white wing-spot; sides

of head black; chin and throat deep rufous; rest of under-parts pale rufous. The female has the upper-parts brown; under-parts grey-brown with white edges to the feathers; white wing-spot as in the male. The young are like the female but with a more streaky appearance. Found in flocks in the tree-tops, keeping up a constant chattering twitter with an occasional soft musical whistle.

Status and Distribution. — This species is resident throughout the Himalayas and further east to Yunnan, Annam and South-west China. It is an erratic winter visitor to Burma and has been recorded from North-East Burma, the plains of Southern Burma, Southern Shan States, and Karen Hills, all the records being from December to February.

[Note: — The Assam race, *S. s. assamensis (971)*, is now considered to be the same as the typical race.]

Family STURNIDÆ

STARLINGS & MYNAS

This family is very closely allied to the *Graculidæ;* it contains a large number of birds of which some are winter visitors, others are sedentary, and others again are local migrants. The Starlings scarcely concern us, but the Mynas include some of the most common and familiar birds in Burma.

[Note:—THE ROSY PASTOR, *Pastor roseus (972)*, has not been recorded from Burma, but it is a winter visitor to India and a rare straggler to Assam and the Andaman Islands, and is likely to occur in Arakan. Length 9 inches. A handsome crested bird, rose-pink in colour with black head, wings and tail. Found in flocks.]

FINSCH'S STARLING

Sturnus vulgaris poltaratzskii (976).

Identification. — Length 8 inches. Plumage black with a purple gloss on the head and fore-neck and a green gloss on the upper-parts. Found in bustling flocks feeding on the ground or in tree-tops.

Status and Distribution. — The Starling has an enormous range over most of Europe and Asia and is a familiar bird in the British Isles. Finsch's race breeds in Siberia and Central Asia and is a common winter visitor to India but has only been recorded once in Burma, at Fort Hertz in North-East Burma.

THE GREY STARLING

Spodiopsar cineraceus (980).

Identification. — Length 9½ inches. Crown, nape and sides of head black; ear-coverts white streaked with black; rest of plumage ashy-brown or dark ashy except for a white band across the rump and the creamy-white abdomen and under tail-coverts.

Status and Distribution. — Breeds in Eastern Siberia and Japan and winters in the eastern part of the Oriental Region. In Burma it is a rare vagrant to the Chin Hills and North-East Burma.

THE CHINESE MYNA

Sturnia buffoniana (981).

Identification. — Length 9 inches. General colour white to pale grey, ashy on the neck and back; tail black broadly tipped with rusty; wing-quills black with metallic green gloss.

Status and Distribution. — Breeds in China, Formosa and Japan and winters in the eastern part of the Oriental Region. A rare vagrant to Burma, only recorded from near Pegu.

THE WHITE-WINGED MYNA

Sturnia malabarica nemoricola (987).

Local Names. — Burmese: *Zăyet* (ဇရပ်ငှက်), a name applied to all Mynas.

Identification. — PLATE X, Fig. 8, Page 174. Length 8 inches. A small pale grey Myna easily confused with Jerdon's Myna but distinguished by the colour of the bill. The most arboreal and active of the Mynas, found in flocks in the tree-tops both in the forest and in gardens.

Voice. — It has querulous rather high-pitched call-note and a quite pleasant song.

Habits and Food. — This little Myna is usually seen in parties, which may number 50 or more birds wherever there is a plentiful food supply. It frequents gardens, small groups of mango trees scattered about the paddy plains, and the more open parts of the teak forests. It feeds on insects and the juices of flowers, and on wild fruits such as teak seed and figs.

Nest and Eggs. — The breeding season is from April to June. A natural hollow or old Barbet's nesting hole is selected in a tree, preferably in a forest clearing at any height from 20 to 50 feet from the ground; the entrance is sometimes enlarged by pecking away the surrounding decayed wood. The nest is a small pad of grass and green leaves. The eggs, 3 to 5 in number, are elongated ovals in shape, fine and delicate in texture with a distinct gloss and pale green in colour without markings. They average 1·04 by 0·77 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region. It is common and resident throughout the plains and foothills of Burma, except in deep forest.

THE DAURIAN MYNA

Agropsar sturninus (988).

Local Names. — None recorded.

Identification. — Length 8 inches. Crown, nape, neck, and upper back grey with a metallic purple patch on the nape; back, rump and wing-coverts metallic purple; tail metallic green; a ring round the eye white; sides of head, neck, and under-parts grey. It is very like the White-winged Myna in voice and habits, but much more shy.

Status and Distribution. — Breeds in Eastern Siberia and Northern China and winters in the eastern part of the Oriental Region, including Tenasserim; there is one record from Pegu.

THE GOLD-CRESTED MYNA

Ampeliceps coronatus (989).

Local Names. — None recorded.

Identification. — Length 8½ inches. A remarkable Myna, easily recognised by its bright black and yellow plumage, long crest, bare yellow skin round the eye and orange bill. Young birds have the whole head black. An arboreal bird of the plains and foothills.

Voice. — Its chattering notes, hardly a song even at their best, are sweet and pleasing.

Habits and Food. — It collects in small parties and hunts the tree-tops for insects, fruit and seeds.

Nest and Eggs. — The breeding season is in April and May. The nest is built in a hole in a tree 20 to 40 feet from the ground and is a very rough affair of fine twigs, leaves and bark. The eggs, 3 in number, are like those of the Common Myna, but paler, and average 1·10 by 0·79 inches.

Status and Distribution. — This species ranges from Assam through Burma to Cochin China, Siam, Annam and the Northern Malay States. It is a rare bird in Burma and has been recorded only from the foothills below Mogok (at 500 feet), the Pegu Yomas, the Plains of Southern Burma, and Tenasserim (where it is rather more common and is known to breed). Outside Tenasserim its status is uncertain.

THE BLACK-NECKED MYNA

Gracupica nigricollis (992).

Local Names. — Burmese: *Zayet* (ဇရပ်), a name applied to all Mynas.

Identification. — PLATE X, Fig. 6, Page 174. Length 11 inches. The white rump is conspicuous in flight. A bird of open country and, where it occurs, a familiar Myna of towns and villages.

Voice. — A great variety of notes and phrases of which *chirr-chu-chu* and *chirr-ta-chu-ta-chu* are the commonest. Also a hoarse Jay-like *kraak-kraak*.

Habits and Food. — This bird resembles the Common Myna in habits; it feeds chiefly on the ground and family parties of four or five may be seen waddling about lawns and roadsides picking up grasshoppers and crickets, which form the bulk of their food. It is strong on the wing and individuals usually collect at dusk at a common roosting place, which they share in common with other Mynas.

Nest and Eggs. — The breeding season is from April to June, with second broods into August. It builds a huge domed untidy nest of grass, leaves, and odds and ends, high up in a tree; several birds sometimes breed in company. The eggs, 3 (rarely 4) in number, are large editions of those of the Common Myna, and average 1·28 by 0·89 inches.

Status and Distribution. — This species is found in Southern China, all the Indo-Chinese countries, Siam and parts of Burma. It is common and resident in the plains of North-East Burma, parts of Central Burma (especially Maymyo), the Shan States, and Tenasserim (where it is rare).

JERDON'S MYNA

Gracupica burmanica (993).

Local Names. — Burmese: *Zăyet* (ဇရက်), a name applied to all Mynas.

Identification. — PLATE X, Fig. 7, Page 174. Length 10 inches. Whole head and breast dirty white; upper-parts dark grey; under-parts purplish. The plumage varies greatly with the seasons. A familiar garden bird of the plains.

Voice. — It has a chattering note, which parties constantly utter while feeding.

Habits and Food. — Jerdon's Myna is usually seen in large parties, which feed on the ground in open grassland, gardens, cultivation, and scrub. It feeds on insects and does an immense amount of good in keeping down pests. It has the family habit of collecting in a communal roost at night.

Nest and Eggs. — The breeding season is from April to June. It breeds both in holes in trees and in *zayats* and houses. Nest and eggs are typical of the family, and the latter average 1·08 by 0·83 inches.

Status and Distribution. — This species is confined to Burma; it is not found in Tenasserim but elsewhere is resident throughout the country at elevations up to 6,000 feet; its stronghold is the Dry Zone of Central Burma, and it is rare south of Pegu and probably does not occur north of Myitkyina.

HUME'S MYNA

Gracupica leucocephala leucocephala (994).

Identification. — Length 10 inches. Like Jerdon's Myna but has the lower rump buff, contrasting with the back. Habits etc. are those of Jerdon's Myna.

Nest and Eggs. — Like those of Jerdon's Myna, but the eggs are smaller.

Status and Distribution. — Found in Cochin China, Annam, Siam and Tenasserim. The typical race is resident throughout Tenasserim.

THE COMMON MYNA

Acridotheres tristis tristis (996).

Local Names. — Burmese: *Zăyet* (ဇရက်), a name applied to all Mynas.

Identification. — PLATE X, Fig. 4, Page 174. Length 9 inches. In flight the rounded white-tipped tail and the large white patch in the wing are conspicuous. This is one of the most general and abundant birds of Burma and may be seen walking about in pairs on the ground everywhere in the plains.

Voice. — A strange mixture of harsh gurglings and liquid notes, *keeky-keeky-keeky, churr-churr, kok-kok-kok;* the last notes are invariably accompanied by a quaint stiff bobbing of the head, generally close in front of the mate. A short song resembling *chĕ-wee chĕ-wee chĕ-wer chĕ-wee* is often uttered repeatedly as the bird rests on a branch or the roof of a bungalow. If disturbed when feeding on the ground the birds rise with a querulous note of alarm.

Habits and Food. — This Myna shares with the House Crow the distinction of being the commonest and best-known bird in Burma;

but the House Crow, with all his audacity, has an uneasy conscience and is ever in expectation of the moment when his sins will find him out. The Myna on the other hand has no such feelings. He is always perky and self-confident, secure in his occupation of some particular beat and ready to wage war on all who dispute it with him. The appearance of a snake or bird of prey is sufficient to collect all the Mynas of the neighbourhood and their harsh scolding reveals the presence of the intruder and is always worth investigation; many a dangerous snake has lost his life through the information given to man by the Mynas.

The generic name *Acridotheres*, which means "the grasshopper-hunter," is unusually apt, for it feeds on the ground, preferring maidans, compounds, and other places covered with short grass, and strides along with rapid determined paces, peering under the fallen leaves in an amusing way. The specific name, "*tristis*" or sad, is however a misnomer, for the Myna is a sprightly and vivacious bird, and perhaps the only one that habitually walks about singing whilst looking for its food. It is almost as omnivorous as the House Crow, and will eat most things; grazing cattle usually have a pair in attendance to pick up the insects that are disturbed by their feet. Normally these birds live in pairs and there is a very obvious affection between them. They feed together and stop occasionally to preen each other's feathers or to indulge in a few quaint remarks or gesticulations expressive of extreme self-satisfaction. They collect at night at some favourite roosting place, which may be a grove of trees or a sugar-cane plantation, and which they often share with other Mynas, House Crows, and Parakeets. They only go to sleep after the most noisy and quarrelsome proceedings, and at intervals during the night short bursts of chattering are to be heard.

Nest and Eggs. — The breeding season is from May to September. The nest is built in the roof of a house or in a hole in a wall, tree or well; occasionally the old nest of a Kite, Crow or squirrel is adopted and relined. The nest is a shapeless and often large mass of straw, feathers, fine twigs, bits of cotton, strips of rag, pieces of rope and string, snake's sloughs, and the like. The eggs, 3 to 6 in number, are rather long pear-shaped ovals in shape, hard and glossy in texture, and pale blue to pure sky-blue or greenish-blue in colour; there are no markings, the small black spots sometimes found on these eggs being the work of parasites. The eggs average 1·20 by 0·86 inches.

Status and Distribution. — This species is found in most parts of India, Burma, and Ceylon. It is resident throughout Burma and very common wherever there are towns or villages of any size, but it is absent from the small villages of hill tribes such as the Karens and Kachins. It is also absent or very rare south of Mergui.

THE INDIAN JUNGLE MYNA

Æthiopsar griseus fuscus (999).

Allied Form.—

THE SIAMESE JUNGLE MYNA, *Æ. g. grandis (1001).*

Local Names. — Burmese: *Zăyet* (ဇရက်), a name applied to all Mynas.

Identification. — PLATE X, Fig. 10, Page 174. Length 9 inches. At a distance it can be confused with the Common Myna, from which it is distinguished by darker plumage, absence of yellow face wattle, and by the tuft of erect feathers above the nostril. A bird of gardens, open grassland, cultivated country, and the fringes of forest.

Voice. — Not recorded.

Habits and Food. — In flight, habits, gait, and behaviour it greatly resembles the Common Myna and is often mistaken for that bird, though it is neither so bold nor such a scavenger. Though called the Jungle Myna it is not found in dense forest, but only in clearings and park-like forest, and in the breeding season it is a very familiar garden bird in the environs of Rangoon. Except when breeding it is found in parties, which feed mostly on the ground.

Nest and Eggs. — The breeding season is from March to July. The nest is nearly always built in a hole in a tree, generally in a large tree at a considerable height from the ground ; but it may be found in a hole in other situations, in walls and ruins, in chimneys, and in the thatch of old houses. The nest is merely a lining to the hole selected, and varies in size and materials, being a collection of fine twigs, dry grass, feathers, moss, wool, and the like; there is a distinct tendency for the birds to nest in colonies. The eggs, 3 to 5 in number, are long ovals in shape, hard and glossy in texture, and pale cream to pale blue or greenish-blue in colour without markings. They average 1·20 by 0·83 inches.

Status and Distribution. — The Jungle Myna is widely distributed in the Oriental Region and is a common resident in the plains of Burma, ascending the hills to about 5,000 feet where the conditions suit it.

[Note: — The Malay race, *Æ. fuscus torquatus (1000)*, is now considered to be the same as the Indian race; the Assam race, *Æ. grandis infuscatus (1002)*, is considered to be the same as the Siamese race.]

THE CHINESE JUNGLE MYNA

Æthiopsar cristatellus cristatellus (1001a).

Identification. — Similar to the Indian Jungle Myna but a larger bird with very thick frontal plumes.

Status and Distribution. — Breeds in China and Yunnan, and in Burma has only been recorded from Malipa in the east of the Northern Shan States.

THE COLLARED MYNA

Æthiopsar albocinctus (1003).

Identification. — Length 9½ inches. In habits and choice of locality this bird closely resembles the Jungle Myna, from which it is distinguished by the white collar on the hind-neck, and the two may be seen together in parties during the rains; they also share the same communal roost.

Nest and Eggs. — Similar to those of the Jungle Myna.

Status and Distribution. — This species is confined to Manipur and Burma; it has been recorded from the Chin Hills, North-East Burma, Central Burma, and the Shan States and is a common resident in these areas; Maymyo and the Pidaung Wild Life Sanctuary are two of its strongholds.

THE BURMESE PIED MYNA

Sturnopastor contra superciliaris (1006).

Allied Forms.—

THE INDIAN PIED MYNA, *S. c. contra (1004).*

THE SIAMESE PIED MYNA, *S. c. floweri (1007).*

Local Names. — Burmese: *Zăyet* (ဇရပ်ငှက်), a name applied to all Mynas.

Identification. — PLATE X, Fig. 9, Page 174. Length 9 inches. A conspicuously pied black and white bird with a distinctive bill. Common in the paddy plains and on open stretches of grassland.

Voice. — Similar to that of other Mynas.

Habits and Food. — The Pied Myna differs from the Common Myna in the fact that it is a bird of open cultivation, where it lives in small parties that spend their time hunting over paddy fields and grassland, and it never enters or perches on houses, though it may frequently be found in gardens. It is one of the birds most commonly seen from the train window, and like other Mynas it roosts in huge vociferous mobs.

Nest and Eggs. — The breeding season is from May to August. The nest is usually built in a tree out in open fields and depends for safety not on concealment, being rarely built in a hole, but rather on its position in the midst of thorns or towards the extremity of a branch; a large tree may contain a colony of breeding birds. The nest is a large clumsy lump, variable in shape but usually domed, made of straw, grass, twigs, roots and rags, the last often trailing in streamers below the nest. The eggs, 4 to 6 in number, are moderately broad ovals, pointed towards the small end, with a high gloss; in colour they vary from a delicate bluish-white to a pure though somewhat pale sky-blue, often tinged with green. There are no markings. The eggs average 1·10 by 0·82 inches.

Status and Distribution. — The Pied Myna is found in most parts of the Oriental Region, and is a common resident throughout the plains of Burma, but is not found in the higher hills, nor in forest. It is said to be a local migrant.

Family PLOCEIDÆ

The members of this family are very Finch-like in general appearance, and more research work may show that they should be united with the Finches into one family.

Sub-family PLOCEINÆ

WEAVERBIRDS

The Weaverbirds have their stronghold in Africa, but a few species are found in India and Burma. They are birds of the paddy plains, open grasslands, cultivation, and very open forest, and often breed near villages and houses provided that there are suitable ponds or swamps nearby, and suitable nesting sites. The nests of the Bayas

are long graceful retort-shaped structures of woven grass, with the mouth of the retort pointing downwards to the ground. They hang in groups of ten or a dozen on a tree or tall bush, suspended by short plaited ropes from the ends of the outer boughs or in vacant spaces in the centre of the tree; many colonies are built in toddy palms, hanging like tassels from the ends of leaves. The nests are built of strips of grass, which the bird prepares itself by cutting a notch in the side of a blade of grass and tearing off the strip above it, a foot or two long. The strips are cut when green, so that new nests may be recognised from old ones by their colour, which also betrays old nests that have been repaired and used again.

The construction of the nest has often been described. Both male and female work together. When a suitable twig has been selected the birds first of all affix to it a woven solid rope up to a foot in length; the end of this is then expanded, and a strong transverse loop is formed beneath it and rather to one side. At first both birds prepare and fetch strips of grass and weave them into position, but when the loop is complete the female stays at the nest sitting in the loop and working with material brought by the male; the loop is then filled in to make a circular chamber, a hole being left at the bottom and another to one side; to complete the egg chamber the hole at the bottom is filled in and finally the hole at the side is covered with the entrance tunnel that hangs down below the nest in tubular form. From the moment that their duties separate the birds work in complete co-operation, the male outside passing the ends of grass through the walls of the structure to the female inside, who threads them back to him, till the beautifully woven structure is complete; it is secured by the serrated edges of the strips of grass and is almost too tough to be torn apart by the hands. There is no lining to the egg chamber, but lumps of clay are stuck here and there in the grass-work, apparently that their weight may keep the nest steady. When entering the nest the bird flies straight up the tunnel without perching at the entrance. Food brought to the nestlings is passed in to them through small holes pierced through the sides of the egg chamber, and the presence of such holes is a sure sign that the eggs have hatched.

A curious fact remains to be noticed; males are considerably in excess of females in the colonies, and this presumably accounts for the number of incomplete "cock nests," which form an outlet for the energies of unmated birds. Weaving is a passion with the birds of this family and even while the female is sitting on eggs the male often continues to lengthen the entrance tunnel.

THE BAYA WEAVERBIRD

Ploceus philippinus (1008).

Identification. — Length 6 inches. The male in breeding plumage resembles the Golden Weaverbird but the rump is brownish, not yellow, and the abdomen and under tail-coverts are pale tawny, not bright yellow. The male in winter and the female at all seasons are probably indistinguishable from the next species.

Nest and Eggs. — The breeding season is during the rains. The nest is typical of the family and the eggs are exactly like those of the next species.

PLATE XI

		See Page No.
1.	**EASTERN BAYA WEAVERBIRD** (adult male, summer) *Ploceus infortunatus burmanicus*	187
2.	**BURMESE STRIATED WEAVERBIRD** (adult male, summer) *Ploceus manyar peguensis*	187
3.	**MALAY CHESTNUT-BELLIED MUNIA** *Munia atricapilla atricapilla*	188
4.	**GOLDEN WEAVERBIRD** (adult male, summer) *Ploceëlla chrysæa*	188
5.	**HODGSON'S MUNIA** (adult) *Uroloncha striata acuticauda*	189
6.	**INDIAN SPOTTED MUNIA** (adult) *Uroloncha punctulata lineoventer*	190
7.	**BURMESE RED MUNIA** (adult male) *Amandava amandava flavidiventris*	190
7a.	Ditto. (adult female)	"
8.	**COMMON ROSE FINCH** (adult male) *Carpodacus erythrinus erythrinus*	195
9.	**MALAY TREE SPARROW** (adult male) *Passer montanus malaccensis*	198
10.	**INDIAN HOUSE SPARROW** (adult male) *Passer domesticus indicus*	197
11.	**PEGU HOUSE SPARROW** (adult male) *Passer flaveolus*	199
11a.	Ditto. (adult female)	"

PLATE XI

SIX INCHES

0 1 2 3 4

0 50 100 150

150 mm.

Status and Distribution. — This species is found through most of India and Ceylon, but has been recorded only once from Burma (at Prome); there are very old records from Arakan.

THE EASTERN BAYA WEAVERBIRD

Ploceus infortunatus burmanicus (1010).

Allied Form.—

THE MALAY BAYA WEAVERBIRD, *P. i. infortunatus (1011).*

Local Names. — Burmese: *Sa-gaung-gwet* (စာကောင်းကွက်), *Mo-sa* (မိုးစာ), *Sa-wădi* (စာဝတီ)

Identification. — PLATE XI, Fig. 1, Page 186. Length 6 inches. The male in winter and the female at all seasons are tawny, streaked with blackish on the upper-parts. An abundant plains bird, found in flocks.

Voice. — A cheerful little bird, which all day long never ceases its conversational chatter. It has no real song, though the cock will keep up a prolonged pleasant twittering when courting.

Habits and Food. — Those of the family. It feeds on seeds of various kinds, and does a good deal of damage in certain crops, but it compensates for this by feeding young on caterpillars, grasshoppers and various harmful insects.

Nest and Eggs. — The breeding season is during the rains. The nest is typical of the family and may be found in toddy palms, in thorn trees in open country, in grass quite near the ground, and even in verandahs of houses. The eggs, 2 to 5 in number, are very hard and stout in texture, and pure white in colour; they average 0·85 by 0·58 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region as far west as Nepal. It is abundant throughout the plains of Burma, and is found in suitable localities in the hills up to 4,000 feet.

THE BURMESE STRIATED WEAVERBIRD

Ploceus manyar peguensis (1015).

Allied Form.—

THE MADRAS STREAKED WEAVERBIRD, *P. m. flaviceps (1013).*

Local Names. — None recorded.

Identification. — PLATE XI, Fig. 2, Page 186. Length 4½ inches. Both sexes are easily recognised by the black streaks on the breast at all seasons. The male in winter and the female at all seasons have the crown black with tawny edges to the feathers, giving a mottled appearance; there is an eyebrow and a moustachial streak, and the chin and throat are whitish streaked with black.

Voice. — Not recorded.

Habits and Food. — Those of the family. It seldom comes near villages and seems to be mainly a bird of jheels.

Nest and Eggs. — The breeding season is during the rains. The nest lacks the long slender neck but is otherwise typical of the family, and is nearly always built into the tops of long grass or reeds. The eggs, 3 to 5 in number, average 0·81 by 0·59 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region. The Madras race has been recorded from Arakan

and the Plains of Southern Burma, but it is not known whether it is resident or merely a vagrant; the Burmese race is resident throughout the country and is probably as abundant as *infortunatus*, but owing to its different habitat it is less often seen.

THE GOLDEN WEAVERBIRD

Ploceëlla chrysæa (1016).

Local Names. — Burmese: *Sa-hpongyi* (စာဘုန်းကြီး)

Identification. — PLATE XI, Fig. 4, Page 186. Length 6 inches. The male in winter and the female at all seasons have the crown tawny-brown, streaked with blackish like the back, the rump and upper tail-coverts dull rufous-brown, a fairly distinct buff eyebrow, and the under-parts tawny buff without streaks. Confined to extensive areas of *kaing* grass.

Voice. — It has no song, only a pleasant and soft conversational chatter.

Habits and Food. — Those of the family. It eats mainly grass seed, but also grain, fruits, and insects.

Nest and Eggs. — The breeding season is during the rains. The nest is built either in a very thorny tree or close to a hornets' nest or a colony of red ants. Two types of nest are made; the commoner one is a spherical affair of grasses, bamboo leaves, bark, and strips of grass, well-woven and fixed to bush twigs or the upright stems of grasses and reeds. The entrance is on one side and has no tube and the whole effect of the nest is very untidy. The less common type is like the nest of the Striated Weaverbird with a tube only an inch or two long, and is pendant from the ends of branches or the tops of reeds. The eggs, 2 or 3 (rarely 4) in number, range through all shades of grey and are rarely pure white; most eggs are uniform in colour but some have freckles and a few have a well-marked ring of darker spots and a few hairlines and scriggles. The eggs average 0·79 by 0·54 inches.

Status and Distribution. — This species is found in parts of Burma, Siam, Cochin China, and Java. It is a common resident in *kaing* grass in the Plains of Southern Burma and has also been recorded from Central Burma and Northern Tenasserim.

Sub-family ESTRILDINÆ

MUNIAS

The Munias are small Sparrow-like birds, strong on the wing, and, except for the Red Munia and the Malay Long-tailed Munia, mainly dark chocolate-brown and white in colour. They are birds of cultivation, or mixed cultivation and scrub, both in the plains and the hills.

THE MALAY CHESTNUT-BELLIED MUNIA

Munia atricapilla atricapilla (1019).

Local Names. — Burmese: *Sa-wadi* (စာဝတီး), *Hnget-pădi* (ငှက်ပတီး). These names seem to be applied to all Munias. Chinghpaw: *Ulik.*

Identification. — PLATE XI, Fig. 3, Page 186. Length 5½ inches. Found in flocks in reeds, bushes or grass near water.

Voice. — A high chatter, usually uttered when the birds are disturbed.

Habits and Food. — Similar to those of other Munias.

Nest and Eggs. — The breeding season is during the rains. The nest is built in grass or reeds, in a bush, or quite high up a tree. It is a ball of reed strips and grass blades, lined with finer strips, with the entrance at the side. The eggs, 4 to 8 in number, are white and average 0·67 by 0·47 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region as far west as the Central Himalayas. In Burma it is a common bird throughout the plains, and ascends the hills where the conditions are suitable to about 4,000 feet.

[Note: — The Northern race, *M. a. rubronigra (1020)*, is now considered to be the same as the Malay race.]

HODGSON'S MUNIA

Uroloncha striata acuticauda (1024).

Local Names. —Burmese: See under the preceding species.

Identification. — PLATE XI, Fig. 5, Page 186. Length 4½ inches. The white rump is conspicuous in flight. Found in parties, the members of which keep very close to one another when feeding and fly in a compact bunch like a swarm of bees. The flight is direct and very strong for so small a bird, but seldom long sustained.

Voice. — A thin chatter is constantly uttered.

Habits and Food. — This is a cheerful sprightly little bird, yet one of the wilds rather than of civilization. It is commonly seen in the paddy fields and *taungyas* of forest villages, feeding both in the growing paddy and in the stubble, in parties of 50 or more birds.

Nest and Eggs. — The breeding season is from May to August. The nest is usually built in forest far from villages or cultivation; it is made almost entirely of grass with no lining and may measure from 6 to 12 inches. There is no attempt at concealment and the nest is very untidy, with grass ends projecting round the mouth and often forming a short rough tunnel. The eggs, 4 to 8 in number, are white and average 0·60 by 0·39 inches.

Status and Distribution. — This species is found in most parts of the Oriental Region and is a common resident throughout Burma, ascending to 4,000 feet.

[Note: — The Chinese race, *U. s. squamicollis (1026)*, is said to occur in the Eastern Shan States (F. B. I., Vol. III, Page 87) but confirmation is desirable before admitting this form to the Burma List. The Malay race, *U. s. subsquamicollis (1025)*, is now considered to be the same as Hodgson's race.]

THE WHITE-BELLIED MUNIA

Uroloncha leucogastra leucogastra (1027).

Identification. — Length 4½ inches. A dark chocolate-brown bird with black upper tail-coverts and the abdomen white. Mainly a forest bird.

Nest and Eggs. — Typical of the family, except that it is said to be a forest breeder.

Status and Distribution. — This species extends from Tavoy southwards through the Malay States to Borneo and Java.

THE INDIAN SPOTTED MUNIA

Uroloncha punctulata lineoventer (1031).

Local Names. — Burmese: See under the Malay Chestnut-bellied Munia.

Identification. — PLATE XI, Fig. 6, Page 186. Length 5 inches. Young birds are a plain brown or buff below. A familiar garden bird.

Voice. — When disturbed the birds fly away with a petulant little *chip chip* call, clear and rather loud.

Habits and Food. — The Munia is found in pairs or flocks feeding in grass or low weeds in open country, especially where scrub alternates with cultivation and the vegetation is luxuriant. The flocks may number as many as 100 birds, and in the cold weather many of these are in the plain brown juvenile plumage.

Nest and Eggs. — The breeding season is during the rains, and even as late as December. It favours gardens and compounds for breeding purposes and often constructs its nest in climbers covering trellis-work on verandahs. It has a curious habit of adding to its nest throughout the season. Nest and eggs are typical of the family, and the latter average 0·65 by 0·46 inches.

Status and Distribution. — This species is found in most parts of the Oriental Region and is resident and common throughout Burma up to 5,000 feet. It is commonly seen in gardens in Rangoon.

[Note: — The Burmese race, *U. p. subundulata (1032)*, is now considered to be the same as the Indian race. The Chinese race, *U. p. topela (1033)*, is said to occur in the Shan States (F. B. I., Vol. III, Page 92) but this needs confirmation.]

THE MALAY LONG-TAILED MUNIA

Erythrura prasina prasina (1034).

Identification. — Length 6 inches. A Munia of very beautiful multi-coloured plumage. Sexes differ. The adult male has the sides of the head blue; upper-parts bright green except for the crimson rump; under-parts orange-buff with a scarlet patch on the abdomen. The female and young male are like the adult male but with no scarlet on the abdomen, less blue on the head, and duller under-parts. It is said to be a shy bird, feeding in paddy fields and retreating to dense bamboo jungle when disturbed. Habits and voice similar to other Munias.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends from Tenasserim through the Malay States to Sumatra and Java.

THE BURMESE RED MUNIA

Amandava amandava flavidiventris (1037).

Local Names. — Burmese: See under the Malay Chestnut-bellied Munia.

Identification. — PLATE XI, Figs. 7 & 7a, Page 186. Length 4½ inches. In non-breeding plumage the male resembles the female. A tiny bird found in flocks in reeds or *kaing* grass in grass plains. The flight is fast with very rapid wing-beats.
Voice. — A shrill little call-note, and a beautiful but feeble little song.
Habits and Food. — This pretty little Munia is found in flocks in the reeds and grasses of damp and well-wooded localities, and especially in the heavy grassy patches surrounding jheels and the wet thickets that often border and intersect paddy fields. They perch and sway on the heads of the tall grasses and fly off in a cloud when disturbed.
Nest and Eggs. — The breeding season is during the rains. The nest is built among the bases of tall reeds and grass, seldom more than 3 feet from the ground, and is a small neat replica of the nests of other Munias. The eggs, 5 to 10 in number, are white and average 0·55 by 0·43 inches.
Status and Distribution. — This species is found from India and Ceylon through Burma to Cochin China, Siam, and Java. It is resident throughout Burma up to 5,000 feet, but is perhaps more local than some of the other Munias.

[Note: — The occurrence of the Indian race, *A. a. amandava (1036)*, in Burma requires confirmation.]

Family FRINGILLIDÆ

GROSBEAKS, CROSSBILLS, FINCHES, SPARROWS & BUNTINGS

This family comprises a very large number of species, which are easily recognised by their short massive bills and forked tails, and which for the most part breed either in high latitudes or at high elevations, the Sparrows being the chief exception. Thus generally speaking the Finches are chiefly to be found in the higher mountains of the Upper Chindwin and North-East Burma, the Sparrows are common residents in Burma, and the Buntings are common winter visitors.

Sub-family COCCOTHRAUSTINÆ
GROSBEAKS

THE ALLIED GROSBEAK

Perissospiza icterioides affinis (1040).

Identification. — Length 9 inches. Adult male black and golden yellow; female and young male ashy-grey. Alarm-note *kurr* like two stones struck together, and a musical call of seven notes *te-de-le-li-di-li-um*. Bill greenish-blue and very massive.
Nest and Eggs. — Unknown.
Status and Distribution. — A bird of the higher Himalayas, only recorded in Burma from the Adung valley at 12,000 feet.

THE WHITE-WINGED GROSBEAK

Perissospiza carnipes carnipes (1041).

Identification. — Length 7 inches. Adult male chiefly black and greenish-yellow with a white wing-spot. Bill horny-brown above, almost white below.

Female similar to the male but duller and paler.

Nest and Eggs. — The breeding season is from June to August. The nest is built in a bush or small tree, and is curiously made; there is an outer fence of prickly twigs, then twisted grass, and then an inner lining of strips of juniper bark. The eggs, 2 or 3 in number, are long regular ovals in shape, fine and smooth in texture, and grey-green tinged with pink in colour; the markings consist of thick and fine hairlines, a few blotches and spots of deep purple-black, and a few underlying ones of neutral tint. The eggs average about 1·10 by 0·77 inches.

Status and Distribution. — A bird of the higher Himalayas, recorded from the Adung valley at 12,000 feet.

THE SPOTTED-WINGED GROSBEAK

Mycerobas melanoxanthus (1042).

Identification. — Length 9 inches. The adult male has the whole head, upper-parts, chin and throat black; under-parts yellow; the huge pale bill is distinctive. The female differs in having the chin and throat yellow, the breast yellow streaked with black, and some yellow on the upper-parts. The young male has some black streaking on the under-parts. On the wing the white and yellow wing-spots show up and the slow dipping flight, rather like that of a huge Skylark, cannot easily be confused with that of any other Finch.

Nest and Eggs. — Little known. One nest was a cup of moss on a basis of fine twigs, lined with fern stems and rootlets. The eggs were similar to those of the White-winged Grosbeak.

Status and Distribution. — Throughout the Himalayas to Western China. In Burma it has been recorded on Mt. Victoria, in North-East Burma, and in the Shan States (where it is probably a rare straggler). It breeds at high elevations but in winter has been recorded as low as 1,000 feet (in the Triangle).

Sub-family FRINGILLINÆ.

BULLFINCHES, ROSE FINCHES, CROSSBILLS, FINCHES, SPARROWS, & MOUNTAIN FINCHES

BEAVAN'S BULLFINCH

Pyrrhula erythaca erythaca (1045).

Identification. — Length 6 inches. Sexes differ. The adult male has a broad band of black round the base of the bill; upper-parts, wings and tail ashy-grey and black; under-parts pale ashy-grey with the breast orange-red. The female has no red on the breast and is browner and duller.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends from Sikkim eastwards to Yunnan and has been recorded from the Adung valley at 12,000 feet.

[Note: — Rippon's race, *P. e. altera (1046)*, is the form in Yunnan and may occur in the Shan States, where Bullfinches are said to have been seen.]

THE MT. VICTORIA BULLFINCH

Pyrrhula nipalensis victoriæ (1048).

Allied Form.—

RICKETT'S BULLFINCH, *P. n. ricketti (1048a).*

Identification. — Length 6½ inches. General colour dark ashy-brown; the wings, upper tail-coverts and tail black glossed with purple; a white patch on the rump; under tail-coverts white.

Nest and Eggs. — Unknown for this race. The nest of the typical race is built in a bush and is a small cup of grass mixed with fine twigs, roots, and moss, lined with rootlets. The eggs are very pale blue with blotches and specks of reddish-brown and secondary markings of pale grey.

Status and Distribution. — Breeds throughout the Himalayas from Gilgit to China and Yunnan. In Burma it has only been recorded from Mt. Victoria and the Adung valley.

THE GOLD-HEADED BLACK FINCH

Pyrrhoplectes epauletta (1049).

Identification. — Length 5½ inches. Sexes differ. The adult male appears completely black except for the golden-chestnut head and a narrow white line on the wing. The female is chiefly chestnut, tinged with yellow on the head. Feeds on berries, seeds, etc., for which it searches trees and bushes.

Nest and Eggs. — Unknown.

Status and Distribution. — The Himalayas and Yunnan. Has only been recorded from the mountains of North-East Burma.

THE HIMALAYAN CROSSBILL

Loxia curvirostra himalayana (1050).

Identification. — Length 6 inches. May be recognised at a glance by the peculiar structure of the bill, in which the tips of the mandibles cross one another. The plumage of the male is mainly red, that of the female green. Collects in parties and feeds chiefly on the seeds of fir cones. The note is a loud incisive *chiip chiip.*

Status and Distribution. — The Crossbill is resident in Scotland and extends eastwards across Europe and Central Asia to the Himalayas. In Burma it has only been recorded from the mountains of the Yunnan frontier in North-East Burma.

THE SCARLET FINCH

Hæmatospiza sipahi (1051).

Identification. — Length 7½ inches. Closely allied to the Crossbill, the male being red and the female greenish, but much larger and with a normal-shaped bill, which is very stout and strong. Nearly always found in small parties; its flight is swift and powerful though rather dipping, and its notes are melodious and strong.

Nest and Eggs. — The nest is usually built in a pine tree, and is a bulky cup of twigs, roots and fibrous material, lined with rootlets. The eggs are pale blue with variable markings of light brown and purplish-brown; they average 0·93 by 0·69 inches.

Status and Distribution. — This species extends from Nepal eastwards to Assam, Mt. Victoria, and the mountains of the Yunnan frontier in North-East Burma.

THE RED-HEADED ROSE FINCH

Propyrrhula subhimachala subhimachala (1052).

Identification. — Length 8 inches. Sexes differ. The adult male has the chin, throat, breast, cheeks and an eyebrow crimson; rest of upper-parts chiefly dull crimson-red; rest of under-parts brownish-grey. The female and young male have an eyebrow and part of the upper breast golden-orange; rest of plumage as in the male but the red replaced by olive-yellow.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends from Nepal eastwards to Yunnan. In Burma it has only been recorded from the mountains of the Yunnan frontier in North-East Burma.

The genus *Carpodacus* comprises the true Rose Finches, the males of which have rose-coloured plumage and the females streaked

brown plumage without any green or yellow. Several species have been recorded from Burma, and the following key may help to distinguish them: —

KEY TO THE ROSE FINCHES.

Males

A. Eyebrow present.
  a. Crown broadly streaked with blackish.
    a′. Forehead and eyebrow rosy-pink with white streaks [*C. thura*]
    b′. Forehead and eyebrow rosy-pink and brown without white streaks. [*C. pulcherrimus*]
  b. Crown uniform.
    c′. Rump rosy-red contrasting with back.
      a². Back uniform deep crimson *C. vinaceus*
      b². Back crimson-brown with rosy streaks *C. verreauxii*
    d′. Rump not contrasting with the back *C. edwardsii*

B. Eyebrow absent.
  c. Wing under 90 mm. *C. erythrinus*
  d. Wing over 100 mm. [*C. rubicilla*]

Females.

A. Eyebrow present.
  a. Ground colour of under-parts not uniform; abdomen whitish [*C. thura*]
  b. Ground colour of under-parts uniform.
    a′. Under-parts ashy-white streaked with brown [*C. pulcherrimus*]
    b′. Under-parts yellowish-buff streaked with brown.
      a². Wing under 80 mm.
        a³. Eyebrow very faint *C. vinaceus*
        b³. Eyebrow broad and conspicuous *C. verreauxii*
      b². Wing over 80 mm. *C. edwardsii*

B. Eyebrow absent.
  a. Wing under 90 mm. *C. erythrinus*
  b. Wing over 100 mm. [*C. rubicilla*]

[Note:— THE YUNNAN WHITE-BROWED ROSE FINCH, *Carpodacus thura femininus (1058)*, is doubtfully recorded from the Shan States (F. B. I., Vol. III, Page 126), and is resident in Yunnan. It is therefore included in the key but confirmation is required before it can be admitted to the Burma List. The Kansu race, *C. t. dubius (1057)*, is not uncommon in Assam in winter, and is likely to occur in Northern Burma.]

[Note:— THE CHINESE BEAUTIFUL ROSE FINCH, *Carpodacus pulcherrimus davidianus (1060)*, has not been recorded from Burma but is found in Assam and Yunnan and is likely to occur in the mountains of Northern Burma. It is therefore included in the key. Length 6 inches.]

THE NEPAL LARGE ROSE FINCH

Carpodacus edwardsii saturatus (1064).

Identification. — Length 6½ inches. See key.

Nest and Eggs. — The nest is built in a bush and is a wide cup of dry grass and roots lined with hair. The eggs are blue in colour, speckled with black or deep purple, and average 0·91 by 0·66 inches.

Status and Distribution. — A rare bird of the Eastern Himalayas and Tibet; it has been recorded from the mountains of the Yunnan frontier in North-East Burma.

SHARPE'S ROSE FINCH

Carpodacus verreauxii (1065).

Identification. — Length 6 inches. See key.

Nest and Eggs. — Unknown.

Status and Distribution. — Found only in Yunnan and just over the border in Burma. It has been recorded from Hpimaw. There is one doubtful record from the Northern Shan States and another from the Bhamo hills.

THE VINACEOUS ROSE FINCH

Carpodacus vinaceus vinaceus (1066).

Identification. — Length 6 inches. See key. Like most Rose Finches it feeds a great deal on the ground in heavy cover and is thus very easy to overlook.

Nest and Eggs. — Unknown.

Status and Distribution. — Chinese Tibet, Yunnan and over the border in Burma. It has been recorded from the mountains of the Yunnan frontier in North-East Burma, and once from the Northern Shan States.

THE COMMON ROSE FINCH

Carpodacus erythrinus erythrinus (1067).

Allied Form.—

HODGSON'S ROSE FINCH, *C.e.roseatus (1069).*

Local Names. — Chinghpaw: *U-swi.*

Identification. — PLATE XI, Fig. 8, Page 186. Length 6 inches. See key, page 194. The only true Rose Finch with no eyebrow, and much the most likely one to be seen. A dull brown bird streaked darker, with a pale double wing-bar; a small proportion of the individuals consist of adult males in a dull scarlet dress, as in the plate. Found in parties in cultivation or open forest in the hills or plains.

Voice. — The call-note is a soft *twee-eck*. The song is very distinctive, a short sequence of loud clear piping notes somewhat like those of the Orioles but shriller and less fluty, *tiu-tiu-fi-tiu;* in Burma however it is ordinarily quiet and unobtrusive and the song is only heard at the beginning of the hot weather when the birds are on passage.

Habits and Food. — In the hills it frepuents open forest and the tiny gardens of hill villages, and in the plains such crops as mustard and sugar-cane, in which it feeds mostly on the ground. It is very fond of the watery nectar contained in the flowers of the coral tree.

Status and Distribution. — This species has an enormous breeding area in Eastern Europe and almost the whole of Asia north of the Himalayas, migrating south to winter in the southern parts of Europe and Asia. Both races are winter visitors to Burma; the typical race has been recorded only from North-East Burma, and is a visitor to the British Isles; Hodgson's race has been recorded from Arakan, the Chin Hills, North-East Burma, Maymyo, the Karen Hills, Shan States, Karenni and Tenasserim.

[Note:—THE KANSU GREAT ROSE FINCH, *Carpodacus rubicilla rubicilloides (1070),* has not been recorded from Burma, but is found in Tibet and Yunnan and probably occurs in the higher mountains of Northern Burma. Length 8 inches. Large size distinguishes it from the Common Rose Finch and the absence of an eyebrow from other members of the genus.]

THE YUNNAN DARK ROSE FINCH

Procarduelis nipalensis (1077).

Identification. — Length 6½ inches. Distinguished from the true Rose Finches by the straight, slender and pointed bill. The male is dark crimson with a rosy eyebrow and a blackish broad line through the eye; the female is chiefly dark brown and unstreaked.

Nest and Eggs. — Unknown for this race.

Status and Distribution. — Throughout the Himalayas and Yunnan. There is one record from the Northern Shan States at 8,000 feet.

[Note:— ROTHSCHILD'S DARK ROSE FINCH, *Procarduelis rubescens saturatior (1079)*, has not been recorded from Burma but is resident in Yunnan and will probably be found in the east of the Shan States. Length 6 inches. The male differs from the Dark Rose Finch in having the forehead and eyebrow the same colour as the crown, not contrasting with it. The female has the rump and upper tail-coverts suffused with red, not plain brown.]

THE YUNNAN GREEN FINCH

Hypacanthis spinoides ambiguus (1090).

Allied Form.—

THE MT. VICTORIA GREEN FINCH, *H. s. heinrichi (1089a).*

Local Names. — None recorded.

Identification. — Length 5 inches. Easily recognised by the blackish head, dark upper-parts with some yellow on the tail, and under-parts olive-green washed with yellow. In flight the broad yellow band from base to tip of wing dividing it into three roughly equal parts is distinctive. Flight strong but dipping, usually at the height of the tree-tops.

Voice. — The call-note is a thin rather high-pitched metallic tinkle, which is quite unmistakable once learnt. The song is a very amorous sounding *screee* or *treeee-tertrah*.

Habits and Food. — This bird is typically found in parties in pine forest, in which it keeps high up and frequently perches on the top of the leading shoot of a pine tree. It also frequents *taungyas* in the hills, and seems partial to lemon trees.

Nest and Eggs. — The breeding season is from July to October. The nest is usually built in a conifer at any height from 3 feet upwards, and is very loosely constructed of pine needles and moss, lined sparingly with wool and feathers. Where pine needles are not available it is made of grass roots blended with moss, and lined with hair. The eggs, 3 or 4 in number, are regular ovals in shape, fine and delicate in texture without gloss, and pale greenish-blue in colour, sparingly spotted with black at the larger end. They average 0·70 by 0·52 inches.

Status and Distribution. — This species is found in Tibet and throughout the Himalayas to Yunnan. It has been recorded from Mt. Victoria, North-East Burma, the Shan States and Karenni. It seems likely that this species is only found in or near coniferous forest. It is quite common in its range and may be observed at Kalaw, where it is known to breed. It ascends up to 12,000 feet in Yunnan.

THE TIBETAN SISKIN

Spinus tibetanus (1091).

Identification. — Length 5 inches. The male is a green bird with deep

yellow under-parts; the female is paler and streaked throughout with dark brown. Found in flocks on open hillsides.

Status and Distribution. — This species is restricted to Sikkim, Tibet and North-East Burma, whence there are several records from 2,000 to 6,000 feet. It is probably only a winter visitor to Burma.

[Note:—THE YELLOW-THROATED SPARROW, *Gymnoris xanthocollis xanthocollis (1094)*, does not occur in Burma. It has been put beyond doubt that the record from Kalaw (F. B. I., Vol. III, Page 167) cannot be accepted.]

THE INDIAN HOUSE SPARROW

Passer domesticus indicus (1096).

Local Names. — Burmese: *Sa* (စာ), a name applied to all Sparrows; Chinghpaw: *Wut-tha.*

Identification. — PLATE XI, Fig. 10, Page 186. Length 6 inches. Distinguished from the Tree Sparrow, which is the common "house sparrow" over most of Burma, by the ashy-grey (not rufous) crown and the black (not ashy-white) breast, and the fact that the female differs from the male. The female has a pale rufous-white eyebrow; upper-parts pale earthy-brown, streaked with black and rufous on the upper back; under-parts ashy-white.

Voice. — Very noisy, especially in the hot weather. The breeding-note is a rather shrill *chissip*, differing but little from the ordinary *tchirp* of daily life. It also has a hard rattling twitter, much used at times of excitement, and various other notes.

Habits and Food. —Similar to those of the Tree Sparrow. It seems to like water habitats and frequents fishing huts near the river or close to the tide-line. Both this bird and the Tree Sparrow may be seen in large flocks during the rains.

Nest and Eggs. — This Sparrow breeds all the year round, but mainly from April to June. More than one brood is certainly reared. The nest is a large shapeless structure, based on an oval and domed plan with an entrance at one side, stuffed into any sort of hole or cavity available, provided that it has some connection with the works of man. Trees are seldom used. The nest is made of grass, straw, wool, rags and any other available material, and is thickly lined with feathers. The eggs, 4 or 5 in number, are elongated ovals in shape, fine in texture, with a slight gloss; the colour is very variable, usually greyish- or greenish-white finely and uniformly spotted with dark and light shades of ashy-grey and brown. The eggs average 0·80 by 0·50 inches.

Status and Distribution. — The House Sparrow is very widely spread through Europe (including the British Isles), Northern Africa and the greater part of Asia and has been introduced into America and Australia. The Indian race is resident throughout the plains of Burma, but in most parts is very local and greatly outnumbered as a "house sparrow" by the Tree Sparrow; only in North-East and Central Burma, particularly in parts of the Dry Zone, does it seem to be the commoner of the two.

[Note:—The Burmese race, *P. d. confucius (1097)*, is now considered to be the same as the Indian race.]

THE MALAY TREE SPARROW

Passer montanus malaccensis (1102).

Local Names. — Burmese: See under the preceding species.

Identification. — PLATE XI, Fig. 9, Page 186. Length 5½ inches. A very familiar bird, which can only be confused with the House Sparrow (*q.v.*). The flight is quite swift, but the rapidly moving wings convey the effect of some exertion; it varies from undulatory to almost straight.

Voice. — Similar to that of the House Sparrow, but it has a distinctive flight-note, a rather hoarse hard *teck teck*.

Habits and Food. — This perky bustling little bird is universally known. It is the real "house sparrow" over most of Burma, to be found wherever man has set up his abode, excluding villages in the forest. It has virtually become a parasite on man, and the larger and more prosperous a city or village the more this Sparrow flourishes; in the open shops and houses of the East it is only considered less of a pest than rats and mice, because it is less offensive to eye and nose. In the food shops it pilfers every variety of grain and cake, pattering over the floors, delving into the dishes and sacks, ejected one moment and returning again the next with undiminished ardour. In private houses it comes in more for shelter than for food, searching for nesting places in the rafters and on the walls, littering the whole place with a selection of the varied assortment of rubbish that in its eyes is the most suitable nesting material possible, and making a further nuisance of itself with the noisy and incessant chirrupping that serves it for a song. Flocks of Sparrows sometimes visit fields and orchards and do some harm to crops, though this is offset by the large numbers of insects on which they feed their nestlings.

Nest and Eggs. — This Sparrow breeds throughout the year, but chiefly from May to August. The nest is built in creeper-covered trees, holes in trees and walls, and especially in roofs and under the eaves of houses. Every rest house, *zayat* and *hpongyi-kyaung* has its quota of resident Sparrows. The eggs, 4 to 6 in number, are smaller than those of the House Sparrow, browner in tint, and more glossy. They average 0·76 by 0·56 inches.

Status and Distribution. — The Tree Sparrow has almost as wide a range as the House Sparrow. The typical race is resident in the British Isles and the Malay race is resident throughout Burma and ascends the hills to about 6,000 feet.

THE YUNNAN CINNAMON TREE SPARROW

Passer rutilans intensior (1107).

Allied Form.—

THE CINNAMON TREE SPARROW, *P. r. cinnamomeus (1105).*

Local Names. — Chinghpaw: *Muwa-u-tsa.*

Identification. — Length 5½ inches. Sexes differ. The male is easily distinguished by cinnamon-red upper-parts, black chin and throat, and yellow under-parts. The female has a broad conspicuous line above the eye, upper-parts ruddy-brown and under-parts pale ashy-yellow. A bird of open forest and *taungyas* in the hills, sometimes found in large flocks. Its note is much

sweeter and softer than that of any other Sparrows, and it has an effective little chattering song, which it utters from a perch high up on an isolated tree.

Nest and Eggs. — The breeding season is from April to August. A favourite site is a hole in an isolated tree standing in a forest clearing or in a *taungya*. The nest and eggs are similar to those of the Tree Sparrow, except that the eggs are more glossy and richly coloured.

Status and Distribution. — This species ranges from Nepal through Burma to Yunnan and Japan. It is found in the Chin Hills, probably the Upper Chindwin, North-East Burma, the Shan States and Karenni. It is resident from the plains up to 6,000 feet or more but is rarely seen below 2,000 feet; it is said to be common at Sinlum in the Bhamo hills but seems to be scarce elsewhere.

THE PEGU HOUSE SPARROW

Passer flaveolus (1108).

Local Names. — Burmese: See under House Sparrow.

Identification. — PLATE XI, Figs. 11 & 11a, Page 186. Length 5½ inches. Young birds are like the female but buff below. A bird of open country and cultivation, usually seen in pairs or small family parties.

Voice. — Conspicuously louder than that of the other Sparrows.

Habits and Food. — In habits this bird resembles the Cinnamon Tree Sparrow though it occasionally enters villages and breeds in houses; it is not typically an urban bird, preferring open forest and cultivated clearings on the outskirts of forest, especially where there are a few isolated trees.

Nest and Eggs. — This Sparrow breeds throughout the year, but chiefly from March to August. Mixed colonies of Pegu, House and Tree Sparrows are often found. The nest is similar to that of the Tree Sparrow and the eggs, 2 to 4 in number, are also similar but darker and more profusely covered with markings; they average 0·72 by 0·55 inches.

Status and Distribution. — This species is found in Burma, Siam, Annam and Cochin China. In Burma it is resident in Arakan, the Chin Hills, Central Burma, Southern Burma, the Shan States and Karenni. It is a local bird and its stronghold appears to be the Dry Zone of Central Burma. It ascends the hills to about 4,000 feet and is a common bird in cultivated country round Maymyo.

HODGSON'S MOUNTAIN FINCH

Fringillauda nemoricola nemoricola (1115).

Identification. — Length 7 inches. A brown bird with white wing-bars. Found in flocks in open country and cultivation.

Status and Distribution. — This species is widely distributed in Central Asia, the Himalayas, and Western China. It normally breeds from 10,000 feet upwards and in Burma has only been recorded from the Adung valley at 6,000 feet, probably as a winter visitor.

Sub-family EMBERIZINÆ

BUNTINGS

This is a very large group of birds, found in most parts of the world. In the hand a Bunting can be distinguished from a Finch by the fact that the edges of the two mandibles are not in contact throughout their length, but show a gap about midway between the gape and the tips.

Except for the Crested Bunting all those on the Burma List are winter visitors to this country.

KEY TO THE BUNTINGS.

A. No white on outer tail-feathers.
  a. With a prominent crest — *M. melanicterus*
  b. With no crest — *E. rutila*

B. A large white patch on the outer tail-feathers.
  c. Under-parts largely yellow.
    a'. Crown dark green, neck and breast green — *E. spodocephala*
    b'. Crown chestnut, neck and breast not green — *E. aureola*
  d. Under-parts not yellow.
    c'. Crown chestnut, rump ashy-grey — *E. pusilla*
    d'. Crown grey, rump chestnut.
      a^2. Eyebrow present. Sides of head white — *E. sodlenskii*
      b^2. No eyebrow. Sides of head chestnut — *E. fucata*

THE GREY-HEADED BUNTING

Emberiza fucata fucata (1120).

Allied Form.—

THE INDIAN GREY-HEADED BUNTING, *E. f. arcuata (1121).*

Identification. — Length 6 inches. See key above. Crown to nape ashy-grey; back tawny, rump dull chestnut; chestnut ear-coverts and shoulder of wing conspicuous; under-parts whitish streaked with black. A shy and inconspicuous bird with a weak flight, found chiefly in wet stubble, rushes, and long grass, usually solitary and easily overlooked.

Status and Distribution. — Two races occur in Burma, both being winter visitors. The typical race breeds in South-east Siberia, Japan and Northern China and migrates south in winter to most of the Oriental Region as far west as Assam; in Burma it has been recorded from all parts of the country in the plains, and is common in the Plains of Southern Burma up to the end of April. The Indian race breeds in parts of the Himalayas and appears to keep to the hills in winter, having been recorded in Burma only from Mt. Victoria and once from North-East Burma at 4,000 feet.

THE LITTLE BUNTING

Emberiza pusilla (1122).

Local Names. — Chinghpaw: *U-thik.*

Identification. — Length 5½ inches. See key above. The rufous sides of the face, grey-streaked back, and smaller size distinguish this from the Grey-headed Bunting: the under-parts are greyish-white with fine black streaks. A small shy inconspicuous bird, which frequents stubble both in the plains and in the hills, and when disturbed flies straight to the tops of nearby trees.

Voice. — The note is distinctive, a high quiet *pwick*, rising slightly and abruptly curtailed. This alarm-note is a low *tick, tick, tick.*

Habits and Food. — This bird is often found in large flocks, frequently associating with other Buntings. It favours especially the bracken and short grass of hillsides and can be looked for wherever seeding grass occurs along mule tracks; in the plains it is a bird of the stubble and often visits the tiny patches of flowers and seeds in rest house gardens along main roads.

Status and Distribution. — This little bird has an enormous breeding range from North-east Europe across Siberia to Manchuria and

Mongolia, and as a winter visitor it extends from the British Isles to China. It reaches Burma late in October and leaves in April and early May. It is the commonest Bunting of Northern and Central Burma, but becomes scarcer further south and does not reach Southern Tenasserim.

THE YUNNAN MEADOW BUNTING

Emberiza sodlenskii yunnanensis (1128).

Identification. — Length 6½ inches. See key. Recognised by blackish coronal streaks above a broad grey eyebrow.

Status and Distribution. — This race breeds in Yunnan and has been recorded once from Lashio in the Northern Shan States; it is probably a casual winter visitor, though a nest and eggs taken in the Shan States have been doubtfully attributed to this bird.

THE YELLOW-BREASTED BUNTING

Emberiza aureola (1131).

Local Names. — Burmese: *Sa-ni* (စာနီ)

Identification. — Length 5½ inches. See key, page 200. Sexes differ, but in flight both show conspicuous white wing-patches and some white in the tail at all seasons. The male in winter has a distinct yellow eyebrow, streaked dark brown upper-parts and bright yellow under-parts; in breeding plumage, which it acquires just before leaving in April, the forehead, face and throat are black, and the upper-parts and a band across the breast are chestnut. The female is boldly streaked on the back and plain yellow below. A bird of stubble, tall grasses and low bushes, particularly near water.

Voice. — It utters a short *zipp* as it flies up into a tree and also has a soft trilling note, *trssit*.

Habits and Food. — On first arriving in Burma it is noticed chiefly in the large plains of grass; but as soon as the rice begins to ripen it comes down in immense flocks and feeds on this grain. Their number is incredible and the damage they cause to the cultivators must be very serious. Where the crops have been reaped they continue picking up grain in the stubble; and even after this has been burnt they steadily search the ground, and the numerous cracks caused by the sun, for the half burnt grains of rice. Towards March this supply fails them, and they then adjourn to the neighbourhood of villages, where they pick up what food they can find. Large numbers of birds may be seen at dusk flighting to roost in a favourite clump of bushes fringing a stream.

Status and Distribution. — This Bunting also has a very wide breeding range, from Northern Russia through Siberia to Japan, and a winter range from the British Isles (where it is a rare vagrant) to China. It misses most of India but is a very common winter visitor to the plains of Burma arriving in October and leaving in May. It is also found in the hills up to 4,500 feet, chiefly on passage.

THE BLACK-FACED BUNTING

Emberiza spodocephala sordida (1132).

Identification. — Length 6½ inches. See key. A greenish bird with a very

dark greenish-grey head, black spots in front of the eyes, and yellow under-parts; it shows a white tip to the tail. A rather shy Bunting and easily overlooked. It is partial to the small gardens in Shan and Gurkha villages and to bushes near running streams. It may also be looked for in wet stubble, sugar-cane, crops such as mustard or peas, and *kaing* grass.

Status and Distribution. — This species has a wide range from Europe to China. The Yangtse race breeds in the Yangtse valley and North-west China and is not uncommon as a winter visitor to North-East Burma from November to March; it has also been recorded from Mt. Victoria, but not elsewhere.

THE CHESTNUT BUNTING

Emberiza rutila (1135).

Identification. — Length 6 inches. See key, page 200. Sexes differ. The male is a handsome bird with the whole upper-parts, chin, throat and breast deep chestnut, the feathers edged with ashy in winter giving a streaked appearance; rest of under-parts yellow. The female has the upper-parts olive-brown boldly streaked with black; chin and throat greyish, darker at the sides; rest of under-parts yellow. The young male is like the female. It utters a thin high *tseep* when disturbed, and its habits are similar to those of the Yellow-breasted Bunting except for its partiality for trees. It may be seen in small clearings in the forest feeding on the seeds of grasses and bamboos or in the bushes surrounding the paddy fields of a jungle village. As in the case of the Yellow-breasted Bunting, hundreds sometimes collect to roost in a bushy hollow.

Status and Distribution. — This species breeds in Eastern Siberia and Northern China, and winters in the Oriental Region as far west as Sikkim. In Burma it occurs everywhere in the plains except in North-East Burma and also ascends the hills to about 4,500 feet on passage, but is rather scarce.

Note: — *Emberiza elegans* and *Emberiza tristrami* are two Yunnan species recently recorded from the mountains of the Yunnan frontier in North-East Burma. I have not been able to obtain a description of these birds.

THE CRESTED BUNTING

Melophus lathami subcristata (1139).

Local Names. — None recorded.

Identification. — PLATE XII, Fig. 4, Page 202. Length 6 inches. The female is much paler, with cinnamon-tinged wings and tail. A bird of dry open scrub, usually solitary or in pairs, but sometimes in parties in the cold weather. The only resident Bunting.

Voice. — It has a characteristic call-note *tweet-twe-twe-too*, the last note lower in pitch, and a rather monotonous song of one or two notes constantly repeated.

Habits and Food. — The Crested Bunting avoids both bare plains and forests and is essentially a bird of rocky slopes and open cultivation on the hillsides, where the stony ground and low scrub jungle suit its requirements. It feeds on the ground at all times of the day collecting small grass seeds, but perches and sings on the tops of bushes. It is partial to old buildings and walls, perching on them and seldom moving far away. In demeanour it is a vivacious, lively, bold little bird, usually carrying the crest erect. Walking about on the ground its attitude is very Peacock-like, the head and breast being held upright, and the tail, which seems to trail behind, being rather expanded.

PLATE XII

		See Page No.
1.	**EASTERN SWALLOW** (adult) *Hirundo rustica gutturalis*	205
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3.	**INDIAN WIRE-TAILED SWALLOW** (adult) *Hirundo smithii filifera*	206
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10.	**INDIAN PIPIT** (adult) *Anthus rufulus rufulus*	214

PLATE XII

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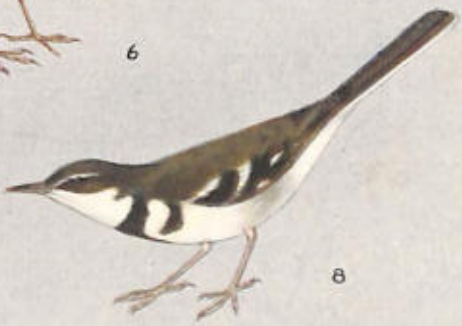

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Aug. Hughes
1939

SIX INCHES

Nest and Eggs. — The breeding season is from April to August. The nest is built in a hole in a bank or wall, or on the ground under the shelter of a stone, clod or bush; it is rather variable and may be a loosely constructed shallow saucer of grass roots without a lining or a neat cup of grass and moss, lined with fine grass, fibres and rootlets.

The eggs, 3 or 4 in number, are broad ovals in shape, with very little gloss, and vary in colour from pale greenish-white to pale stone; the markings consist of spots and blotches of red, brown, and purple, usually most dense about the larger end. The eggs average 0·79 by 0·63 inches.

Status and Distribution. — This species is found throughout the outer Himalayas and through Burma to China. In Burma it has been recorded from Arakan, the Chin Hills, Upper Chindwin, North-East Burma, Maymyo, the Shan States, Karenni and Tenasserim, but it is very local and capricious in its distribution. It appears to be resident in the hills and in North-East Burma large numbers move down to low elevations in the cold weather.

Family HIRUNDINIDÆ

MARTINS & SWALLOWS

The members of this family are so well known that little description is required; they can only be confused with the Swifts, which have much narrower sickle-shaped wings. House Martins can always be distinguished from Swallows by their conspicuous white rumps.

THE KASHMIR HOUSE MARTIN

Martula dasypus cashmeriensis (1142).

Identification. — Length 5½ inches. Distinguished from the next species by the smoky or greyish-white under-parts and weaker flight.

Status and Distribution. — This species breeds in the Western Himalayas, as far east as Sikkim, and wanders south and east in winter. It has been recorded near Myitkyina in January and February and from the Arakan Yomas; but not elsewhere in Burma.

THE SIBERIAN HOUSE MARTIN

Martula urbica whiteleyi (1143).

Identification. — Length 5½ inches. Distinguished from other House Martins by its pure white under-parts and from Swallows by a white rump. The usual note is more chirping than a Swallow's, a slightly hard *chirrp* or *chichirrrp*.

Status and Distribution. — A Palæarctic species. The Siberian race breeds in Siberia and winters in the Oriental Region. It is a winter visitor to Burma, arriving in October or early November and leaving early in May. It has been recorded from North-East Burma, Central Burma (seen), Pegu Yomas (seen), the Karen Hills, Southern Shan States, Karenni (common in April), and Northern Tenasserim.

HODGSON'S HOUSE MARTIN

Martula nepalensis (1144).

Identification. — Length 4½ inches. Easily recognised by its black chin, throat and under tail-coverts, and by the square tail.

Status and Distribution. — Breeds in the central and eastern Himalayas. In Burma it has only been recorded from Arakan (?), the Upper Chindwin (once), and North-East Burma. Its status in Burma is unknown.

THE EASTERN SAND MARTIN

Riparia riparia ijimæ (1147).

Identification. — Length 5 inches. Distinguished from the next and commoner species by a well-defined collar across the breast.
Status and Distribution. — A Holarctic species. The Eastern race ranges from South-east Siberia to Japan. In Burma, though it may be widespread, the only records appear to be from Central Burma and the valleys of the Sittang and Salween rivers. Its status is uncertain; it is known to breed in Assam. The typical race breeds in the British Isles.

THE INDIAN SAND MARTIN

Riparia paludicola chinensis (1148).

Local Names. — None recorded.
Identification. — PLATE XII, Fig. 2, Page 202. Length 4½ inches. Easily distinguished from Swallows and House Martins by its very small size, almost square tail, and brown upper-parts, palest on the rump. Always seen in flocks, rarely far from water, with a fluttering and erratic flight that lacks the sweep and grace of a Swallow on the wing.
Voice. — A rippling chirruping twitter and a harsher alarm-note.
Habits and Food. — The Indian Sand Martin is very gregarious at all times; it feeds chiefly over water and perches on telegraph wires and low branches, projecting roots or vegetation. Breeding birds cling freely to the faces of pits or banks containing their nests and out of the breeding season a flock will often behave in the same way, with no apparent object. When not at the breeding colonies they roost in reed beds and are early astir in the mists of dawn, flitting hither and thither like phantom moths and welcoming the day with their loud hard squeaks; they have no objection to the presence of man, and hawk freely about the houses of water-side villages. A forest fire with its wholesale dispersal of insect life is sufficient to draw them from their usual haunts, in company with other insectivorous birds, to share the feast.
Nest and Eggs. — The breeding season is from November to April, and perhaps earlier. It breeds in colonies in sandy river banks, or occasionally in the banks of lakes and ponds; the nest is built in a chamber at the end of a narrow tunnel, which varies in length from 1 to 4 feet and which is excavated by the bird itself. The nest is a slight pad of grass lined with feathers. The eggs, 3 to 5 in number, are slightly elongated ovals in shape, fine in texture without gloss, and pure white in colour without markings. They average 0·68 by 0·48 inches.
Status and Distribution. — The Indian Sand Martin is found in most parts of the Oriental Region. It is a common resident throughout the plains of Burma except in Southern Tenasserim but moves about locally according to the water supply and consequent abundance of insect life.

[Note:—THE CRAG MARTIN, *Riparia rupestris (1149)*, has not been recorded from Burma but is found from Northern Africa through Central Asia to Yunnan and is likely to occur in Burma. Distinguished from the next species by larger size (length 6 inches) and by having the under tail-coverts much darker than the abdomen.]

THE DUSKY CRAG MARTIN

Riparia concolor sintaungensis (1150a).

Identification. — Length 5 inches. A dark sooty-brown Martin with white spots on the tail-feathers. A bird of rocky hill-tops. It should be looked for wherever a range of cliffs provides a shady lee, in which it is wont to sail backwards and forwards in a leisurely manner. Usually two or three will be found together, and as they hawk about they call to each other with a soft, melodious *chit-chit-chit* uttered rapidly.

Status and Distribution. — This is an Indian species, recently recorded from Mt. Byingye in the Southern Shan States. Crag Martins, probably of this race, were seen in Tenasserim many years ago, and also in the Northern Shan States and in Central Burma north of Mandalay. Its status in Burma is unknown.

THE EASTERN SWALLOW

Hirundo rustica gutturalis (1153).

Allied Form.—

TYTLER'S SWALLOW, *H. r. tytleri (1154).*

Local Names. — Burmese: *Pyan-hlwa* (ပျံလွှား), *Mo-swe-hnget* (မိုးဆွဲငှက်). These names are applied to all Swallows.

Identification. — PLATE XII, Fig. 1, Page 202. Length up to 8 inches according to the length of the outer tail-feathers, which vary from 2½ to 5 inches. Forehead, chin and throat often appear blackish in a poor light or on the wing. The white spots are visible on the tail only when fully expanded. Tytler's race has the under-parts chestnut.

Voice. — The usual note, especially on the wing, is *tswit-tswit-tswit*, often run together into a regular twitter, with variant *titswee* the second syllable higher than the first. When excited or alarmed a loud high-pitched *tswee*, usually single.

Habits and Food. — The Swallow is too well-known to need much description. It goes about in flocks and spends much of its time on the wing, hawking insects over paddy fields or stretches of water, but (unlike the House Martins in Burma) settling freely on telegraph wires, buildings, bridges, and sometimes trees. Its flight is marked by graceful irregularity, with constant swerving or banking, but always with a sweep and elegance that are characteristic. The wing-beats are easy and regular, with frequent interludes of gliding with extended or nearly closed wings. It often skims low over water, picking insects off the surface or sipping water as it skims. At other times it flies over the paddy fields, usually low down but sometimes wheeling at a great height in the air. It is seldom on the ground, but large flocks roost on the bare sandbanks of the larger rivers, where they may be seen at dawn and dusk.

Status and Distribution. — A Holarctic species. Two races are winter visitors to Burma: the Eastern race, which breeds in Baikal, Northern China and Japan, and Tytler's race, which breeds in Kamchatka and North-east Siberia.

The Eastern Swallow may be seen in almost any month of the year; most of the birds arrive in August and leave in April, but some adults, which must have finished their breeding very early, arrive in

mid-July, whereas the last birds do not depart north till early June. They do not normally winter in the hills unless there is a lake to attract them, as at Maymyo, but may be seen in vast numbers over the paddy plains.

Tytler's Swallow is an annual but erratic winter visitor, *i.e.* in some years it is much more abundant than in others. It has been recorded from Arakan, North-East Burma, Central Burma, the Plains of Southern Burma, the Northern Shan States and Karenni.

[Note: — THE COMMON SWALLOW, *H. r. rustica (1152)*, is said to occur over the whole of Burma in winter (F. B. I., Vol. III, Page 241). No specimens are traceable and all birds obtained in recent years are without exception the Eastern Swallow. Until proof is forthcoming the Common Swallow cannot be admitted.]

THE JAVAN HOUSE SWALLOW

Hirundo javanica javanica (1155).

Identification. — Length 5 inches. Distinguished from other Swallows by having the chin, throat and upper breast chestnut and the rest of the under-parts pale ashy-brown, almost white on the abdomen. Found chiefly on the sea coast.

Nest and Eggs. — The breeding season is from March to May. The nest is usually built on a ledge of a sea cliff, and is a shallow half-saucer of mud, lined first with fine roots and then with many feathers. The eggs are long ovals, white in colour with spots and specks of reddish-brown and deep purple-brown and secondary marks of lavender and grey. They average 0·66 by 0·49 inches.

Status and Distribution. — This species is found in Southern India, Tenasserim, the Malay States, Sumatra, Java, Borneo, the Philippines and other islands. It breeds in Tenasserim and nests are said to have been found in Arakan.

THE INDIAN WIRE-TAILED SWALLOW

Hirundo smithii filifera (1157).

Local Names. — Burmese: See under the Eastern Swallow.

Identification. — PLATE XII, Fig. 3, Page 202. Length 5 inches, with a lengthened wire-like shaft to the outer pair of tail-feathers 7 inches extra. At close range the wires in the tail afford easy identification, but at a distance it may be recognised from any other Swallow by the pure shining white of the under-parts and wing-lining. Invariably found near water.

Voice. — The twittering note and short sweet song are similar to those of other Swallows.

Habits and Food. — This beautiful Swallow is always found near water, especially big rivers, lakes and jheels, and it is also partial to wet paddy fields. It never collects or breeds in colonies, though family parties are seen in the breeding season, and on migration a few join the flocks of other migrating Swallows and Martins. It perches very freely on telegraph wires and the parapets of bridges and wells, but it does not as a rule perch on trees, and only descends to the ground to gather mud for its nest. Long after they are able to fly the young are fed in the air by the old birds, parent and youngster circling

round and round and then with a complacent twitter clinging together for an instant, during which the mouthful of insects is transferred.

Nest and Eggs. — Nests have been found in every month of the year except December, but from March to August is the usual season, during which two broods are reared. The nest is built under a bridge or culvert, a shelf of rock or the roof of a building, and if not immediately over water is always close to it. It is a rather shallow cup of mud pellets, fastened at one side to a slanting or perpendicular wall or rock, and is lined with feathers. The eggs, 3 or 4 in number, are long narrow ovals in shape, fine and delicate in texture with a slight gloss, and white in colour with speckles and blotches of reddish-brown; the markings tend to collect towards the larger end. The eggs average 0·72 by 0·53 inches.

Status and Distribution. — This species is found in various parts of Africa and in India and Burma. The Indian race is distributed throughout the plains of Burma, and though a resident bird it moves about a good deal with the seasons. It is nowhere very common, but is usually to be seen round the Maymyo lake and reservoirs.

THE CHINESE STRIATED SWALLOW

Hirundo daurica striolata (1160).

Allied Form.—

HODGSON'S STRIATED SWALLOW, *H. d. japonica (1161).*

Identification. — Length 7 inches. The only Swallow with a chestnut rump; seen from below the uniform creamy striated under-parts, with no black or chestnut on chin and throat, is distinctive. Rather more deliberate in flight than the other true Swallows and the tail appears differently shaped owing to the different angle of the fork.

Voice. — The flight-note, a plaintive *pin* or long-drawn *quitsch*, differs from that of the Eastern Swallow.

Habits and Food. — Very similar to those of the Eastern Swallow and mixed flocks of the two species are often seen. It associates with House Martins in the hills and favours *jheels* and sandy river beds in the plains.

Nest and Eggs. — The breeding season is in April and May. The nest is a remarkable structure of fine mud pellets, collected by the birds a mouthful at a time from the edges of puddles, and it takes several weeks to build. It is usually described as "retort-shaped" and is always built under a rock or culvert or under the ceiling of a house or verandah; a narrow tubular passage, like a white-ant gallery on a large scale, some 2 inches in diameter and from 4 to 10 inches in length, runs along the under surface of the rock or roof and enters a round hemispherical chamber, also applied to the under surface of the site, with no other entrance than the passage. The whole affair is rather large for the size of the birds, and the egg chamber is sparingly lined with pieces of dry grass and feathers. The same site is used year after year, though the actual nest is usually destroyed by the elements. The eggs, 3 or 4 in number, are long ovals in shape with shells of exquisite fineness and a very slight gloss. The colour is pure white without marks. The eggs average 0·78 by 0·55 inches.

Status and Distribution. — This species has a very wide range from Africa and Southern Europe through Asia to China. The Chinese race is a resident in North-East Burma, Maymyo, the Karen Hills, and Shan States. Hodgson's race, a smaller form probably not distinguishable in the field, breeds in the Himalayas and has been recorded as a winter visitor from Arakan, Central Burma, the Plains of Southern Burma (where it is abundant), and the Karen Hills; it is probably found in the hills only on passage.

Family MOTACILLIDÆ

WAGTAILS & PIPITS

Members of this large family are to be found over the whole of Europe, Asia, and Africa. All the Wagtails found in Burma, with the exception of the Forest Wagtail, are winter visitors. The actions on the ground and in the air are similar in all Wagtails. The gait is a brisk walk or run, with a backward and forward motion of the head and a constant up and down movement of the tail; little flutters are frequently made into the air after a passing insect. The flight is strongly undulating, in long curves. Wagtails perch freely on fences, bushes and trees. Although it is easy to recognise a Wagtail as such, the identification of the various species and races is by no means so easy. Firstly the difference between the summer and winter plumage in most of the species is very great; when they first arrive and again just before they leave the plumage is close to the full breeding plumage, whereas during the greater part of the time they spend in Burma they are in winter dress; the effect of this is that they are constantly undergoing a change of colour. Secondly, many species, especially the Yellow Wagtails, are so alike in winter plumage that even specimens can only be identified by an expert.

The Pipits, with two exceptions, are also winter visitors, and as they are all streaky-brown birds their calls and habits are better guides than plumage for field identification.

THE WHITE-FACED WAGTAIL

Motacilla alba leucopsis (1173).

Allied Forms.—

THE INDIAN WHITE WAGTAIL, *M. a. dukhunensis (1166).*
THE MASKED WAGTAIL, *M. a. personata (1168).*
SWINHOE'S WAGTAIL, *M. a. baicalensis (1169).*
THE STREAK-EYED WAGTAIL, *M. a. ocularis (1170).*
HODGSON'S PIED WAGTAIL, *M. a. alboides (1171).*

Local Names. — Burmese: *Mi-nyaung-hnget* (မြေးညှောင်ငှက်), a name that is apparently applicable to all Wagtails; Chinghpaw: *Lămu-sinli* or *Kăbo-shà.*

Identification. — PLATE XII, Fig. 5, Page 202. Length 7 inches. The White Wagtails are small dainty birds of black, white and grey plumage, which walk about on the ground, usually in parties, inces-

santly flirting their long tails up and down; usually seen near water or wading in the shallows.

Four of these races afford a curious case of parallelism; they may be divided into two pairs by the colour of the ear-coverts and sides of the neck, and in each of these pairs in full breeding plumage one form has the back grey and the other black, whereas in all four races the back normally becomes grey in winter plumage.

The pair *dukhunensis* and *leucopsis* both have the ear-coverts and sides of the neck white; in the former the back is grey and in the latter black in breeding plumage. The outer webs of the greater wing-coverts are entirely white in the latter, rarely margined with white in the former.

The pair *personata* and *alboides* both have the ear-coverts and sides of the neck black; in the former the back is grey and in the latter black in breeding plumage.

The forms *baicalensis* and *ocularis* are not easy to distinguish except in March and April, when the former has a black head contrasting sharply with the pale grey back, and the latter has a streak through the eye.

Voice. — The call-note *chiz-zit* is constantly uttered on the wing. The song is a simple but lively warbling twitter.

Habits and Food. — Those of the family. Pairs and small parties may be seen walking about on the ground beside lakes and streams or wading in shallow water, and they also frequent open grassland and cultivation. They often perch on the parapets of bridges and culverts but not on trees. The food consists entirely of insects.

Status and Distribution. — This is a very widely-spread species, breeding almost throughout Europe, North-west Africa, and Northern Asia. Six races are found in Burma, all winter visitors.

The Indian White Wagtail breeds in Western Siberia and winters over the greater part of India; it apparently winters in Northern Tenasserim and has been recorded from the Sittang valley near Pegu either on passage or as a vagrant.

The Masked Wagtail breeds in Turkestan, Afghanistan, and Eastern Persia and is common in the plains of India in winter, but has only been recorded once from Burma (in the Myitkyina district). Westwards it extends to the British Isles as a rare straggler.

Swinhoe's Wagtail breeds in Baikal and Northern Mongolia and winters from Southern China to Yunnan and parts of Burma (Myitkyina, the Shan States and Karenni).

The Streak-eyed Wagtail breeds in Siberia and winters over most of the Oriental Region as far west as Bengal; it has been recorded only from North-East Burma and the Plains of Southern Burma (where it is common from November to April).

Hodgson's Pied Wagtail breeds in the Himalayas, South-west Tibet, and possibly Burma (though this has never been proved); it has been recorded only from North-East Burma, where it is common, and from Kamauli on the Salween.

The White-faced Wagtail breeds from the middle Amur southwards over a large part of China, and winters in Southern China,

Formosa, Burma, and India as far west as Nepal; this form is by far the commonest in Burma and is found throughout the country except in Southern Tenasserim.

THE EASTERN GREY WAGTAIL

Motacilla cinerea melanope (1174).

Local Names. — Burmese: See under the White-faced Wagtail.
Identification. — PLATE XII, Fig. 6, Page 202. Length 8 inches. Differs from all other Wagtails in the comparatively longer and more slender tail and in the blue-grey colour of the upper-parts; it has a conspicuous buff eyebrow and in flight the long tail and sulphur-yellow abdomen and under tail-coverts are conspicuous. A solitary bird usually seen on streams but very partial to gritty roads and paths, especially when wet.

Voice. — The common note is a rather shrill *tzit-zee* uttered on the wing; frequently a single somewhat tremulous *tchipp*.

Habits and Food. — This is more of a marsh and forest bird than the White Wagtails; it frequents the edges of lakes and jheels, and is the only Wagtail (other than the Forest Wagtail) to be seen along the jungle streams of the teak forests. It is found at all elevations up to 7,000 feet, and is often seen feeding on laterite or granite roads and mule tracks and on hard tennis courts.

Status and Distribution. — A Palæarctic species, and a familiar bird in the British Isles. It is widely distributed, chiefly about mountain streams, in Europe and Northern Asia, migrating south to Africa and Southern Asia in winter. The Eastern race breeds from the Urals and Caucasus through Siberia to Kamchatka and south to the Himalayas; in winter it spreads over most of the Oriental Region, and is common throughout Burma, arriving in the first week of September and leaving in May.

THE EAST SIBERIAN GREY-HEADED WAGTAIL

Motacilla flava macronyx (1176b).

Allied Forms.—

THE KAMCHATKAN GREY-HEADED WAGTAIL, *M. f. simillima (1176a).*
THE CHINESE GREEN WAGTAIL, *M. f. taivana (1177).*

Local Names. — Burmese: See under the White-faced Wagtail.
Identification. — PLATE XII, Fig. 7, Page 202. Length 7 inches. Typical Wagtails found in mixed flocks containing two or three forms, of which a small proportion are in adult plumage, greenish above and yellow below, while the majority are in dull nondescript plumages. Distinguished from the Grey Wagtail by very dark upper-parts and pale outer feathers to the tail. This is a very difficult group of Wagtails and the various races can only be distinguished by an expert.

Voice. — It has the usual shrill *chiz-zit* call-note.
Habits and Food. — The general habits are those of the family. On first arrival these birds frequent marshes and tidal flats, but later they are found chiefly in dry grassy uplands or far out on a dried-up

paddy plain. They are found in parties, mingled irrespective of race, and spend their time feeding on the ground; they often accompany herds of cattle and feed round the legs of the grazing animals. At night they roost in reed beds, which they often share with other Wagtails.

Status and Distribution. — A Palæarctic species, two races of which (the Yellow and Blue-headed Wagtails) breed in the British Isles. Three races occur in Burma as winter visitors. The two Grey-headed Wagtails are widely distributed in the plains of Burma, (*simillima* has also been recorded from Arakan); the Chinese Green Wagtail breeds from Lake Baikal to the Amur and winters in China, Formosa and the Indo-Chinese countries, straggling to Burma (one record) and the Malay States.

THE YELLOW-HEADED WAGTAIL

Motacilla citreola citreola (1181).

Allied Form. —

HODGSON'S YELLOW-HEADED WAGTAIL, *M. c. calcarata (1182).*

Local Names. — Burmese: See under the White-faced Wagtail.

Identification. — Length 7 inches. The male in breeding plumage has the whole head yellow; at all ages and seasons this species can be distinguished from the Grey-headed Wagtails by the broad yellow eyebrow and by a certain amount of yellow on the forehead. Hodgson's race is easily recognised in breeding plumage by the black (as opposed to ashy-grey) back and rump.

Voice. — Not recorded.

Habits and Food. — Similar to those of the Grey-headed Wagtail, but this is perhaps the most aquatic of all the Wagtails and is rarely seen far from water. Its favourite haunt is short *dhoob* grass wherever this occurs along streams, and it is also partial to the islands of large round stones that are such a feature of the Upper Irrawaddy.

Status and Distribution. — An Eastern Palæarctic species. Two races are winter visitors to Burma, arriving in September and leaving in April; the typical race breeds in parts of Russia and through Siberia to South-east Mongolia, and winters over most of India and throughout Burma, where it is much commoner in the North than it is in the South; Hodgson's race breeds in Kashmir and Central Asia and winters in Northern India and parts of Burma (the only records are from North-East Burma and the Karen Hills near Papun).

THE FOREST WAGTAIL

Dendronanthus indicus (1183).

Local Names. — None recorded.

Identification. — PLATE XII, Fig. 8, Page 202. Length 8 inches. The prominent buff spots on the closed wing are a useful guide. A forest bird with a distinctive habit of slowly swaying the whole body and tail stiffly from side to side.

Voice. — The notes are a loud chirrup, frequently repeated when flying, running or perching, and a faint single note, difficult to locate.

Habits and Food. — This bird is found only in evergreen and moist forests, where it frequents open glades, forest paths, and sandy stream beds. It is generally seen in pairs and is not shy, permitting a close approach. Its general habits are similar to those of the Tree Pipit and it frequently perches in trees. It feeds on small slugs, snails, tiny worms, and all kinds of insects.

Nest and Eggs. — The breeding season is from May to July. The nest is built on a horizontal branch near a stream in evergreen forest, and is made of grass, leaves, moss, roots and a few twigs, all bound and felted together with cobwebs and with the edges neatly finished off with the same material; the lining consists of hair over fine roots. Like the nest, the eggs bear no resemblance to those of other Wagtails; they are blue-grey to pale slaty-grey, with blotches of black, or dark red edged paler red, dotted irregularly over the whole surface. They average 0·79 by 0·59 inches.

Status and Distribution. — This species breeds in Eastern Siberia and the hills of Northern China and Assam, and winters in most parts of the Oriental Region. It occurs throughout Burma in the foothills and higher hills up to 5,000 feet, but its status is quite unknown; it has never been proved to breed in Burma and is probably a winter visitor. It is quite common in the Insein district close to Rangoon, and common in the Pegu Yomas during the cold weather.

KEY TO THE PIPITS.

A. Hind claw not exceeding hind toe in length.	
a. Pale tips to tail-feathers white	*A. hodgsoni*
b. Pale tips to tail-feathers pale rufous	*A. similis*
B. Hind claw exceeding hind toe in length.	
c. Sides of body plain or with obsolete streaks only.	
a'. Wing over 90 mm.	*A. richardi*
b'. Wing under 90 mm.	*A. rufulus*
d. Sides of body with coarse dark streaks.	
c'. Axillaries and under wing-coverts yellow	*A. roseatus*
d'. Axillaries and under wing-coverts whitish or brownish	*A. cervinus*

THE INDIAN TREE PIPIT

Anthus hodgsoni hodgsoni (1186).

Allied Form.—

THE KANSU TREE PIPIT, *A. h. berezowskii (1188).*

Local Names. — Chinghpaw: *U-ship.*

Identification. — PLATE XII, Fig. 9, Page 202. Length 6 inches. Found in parties feeding on the ground in open wooded country; it flies up into a tree when disturbed and flirts its tail after the fashion of a Wagtail, only more slowly. The flight also is Wagtail-like, slow and dipping.

Voice. — A short plaintive call is uttered as it rises.

Habits and Food. — This Pipit is found in small parties at all elevations, frequenting open country with plenty of shady trees; it is partial to gardens, the shade of tamarind trees, the smooth grass and bracken found in pine forests and round village clearings in the hills, and similar habitats. It feeds quietly on the ground in sparse herbage,

collecting small insects and the seeds of grass and weeds; when disturbed it flies up into a tree and walks about the boughs in a manner unusual among small passerine birds.

Status and Distribution. — This species breeds in the Himalayas and Central Asia to Yunnan and Formosa and migrates south in winter. The Indian or typical race is a winter visitor arriving in October and leaving in April, and is common throughout Burma from the plains up to 6,000 feet; the Kansu race has been recorded from high alpine meadows on the mountains of the Yunnan frontier in North-East Burma, where it probably breeds, and also from Mt. Victoria; it evidently does not move far from its breeding grounds in winter.

[Note: — The Yunnan race, *A. h. yunnanensis (1187)*, is now considered to be the same as the Kansu race.]

THE BROWN ROCK PIPIT

Anthus similis jerdoni (1191).

Local Names. — None recorded.

Identification. — Length 9 inches. See key, page 212. A large Pipit, stronger and quicker on the wing than most, with uniform greyish-brown upper-parts, a pale eyebrow, and sandy-brown under-parts. Perches on rocks rather than bushes or trees, both when resting and when disturbed from feeding on the ground.

Voice. — Not recorded.

Habits and Food. — This Pipit is a bird of open grass country where rocks and boulders are plentiful. The barren hills of the Dry Zone and areas in scrub *indaing* forest where erosion has been particularly heavy appear to be well suited to its requirements.

Nest and Eggs. — There is only one record of this bird's breeding in Burma but it has no doubt been overlooked. It probably breeds during the rains throughout the Dry Zone in suitable localities. A nest found on the 4th August contained two newly-hatched young and one addled egg. The nest was placed on the ground under a projecting piece of rock between the deep ruts of a cart track; in composition it was indistinguishable from that of an Indian Pipit. The egg was whitish in ground colour, heavily marked, especially at the larger end, with brown spots and blotches with underlying markings of neutral tint and purplish-brown; it measured 0·81 by 0·64 inches.

Status and Distribution. — This is an African species, races of which are found across the Persian deserts to the Himalayas and Tibet. The Brown Rock Pipit breeds in the Himalayas, South-west Tibet and Burma, where it has so far been recorded only from the Dry Zone and from the drier parts of the Shan plateau; it is common where found.

RICHARD'S PIPIT

Anthus richardi richardi (1193).

Allied Form.—

BLYTH'S PIPIT, *A. r. godlewskii (1194).*

Local Names. — None recorded.

Identification. — Length 7 inches. See key, page 212. A conspicuously large and long-legged Pipit, which shows some white in the tail and rarely perches in trees. The usual gait is a swift run and the carriage is erect. The flight is strong, undulating and Wagtail-like.

Voice. — On rising it utters a loud, rapid and harsh note, *r-r-rüüp*, unlike that of any other Pipit. A soft double Bunting-like chirp has also been recorded.

Habits and Food. — Similar to those of the Indian Pipit, except that it is more often found on marshes and swamps, and also frequents the mud-flats of the coast.

Status and Distribution. — This species breeds in Siberia and Central Asia and is a common winter visitor throughout Burma from October to May; the two races are indistinguishable in the field and it is impossible to say whether they are equally common or not. Richard's Pipit is a vagrant to the British Isles.

THE INDIAN PIPIT

Anthus rufulus rufulus (1195).

Allied Form.—

THE MALAY PIPIT, *A. r. malayensis (1196).*

Local Names. — None recorded.

Identification. — PLATE XII, Fig. 10, Page 202. Length 6 inches. See key, page 212. A miniature of Richard's Pipit, distinguished by weaker flight and different call-note. It rises from the ground with a flash of white in the tail and settles again a short distance away.

Voice. — A plaintive note is uttered as it leaves the ground, and in the breeding display the male has a jangling rather Bunting-like song.

Habits and Food. — This is typically a Pipit of short grass, such as is found on maidans, golf courses, grazing-grounds, etc. It also frequents cultivation with low crops, short paddy stubble and the grassy margins of lakes and jheels. It feeds on the ground and during the breeding season perches freely on bushes and tufts of grass, but never in trees. In the breeding display the male rises in the air in one ascending succession of dipping curves, uttering his jangling song; having arrived at the highest point in the air he then falls to earth again, in an abrupt curve, with stiff partly extended wings. When disturbed suddenly from the nest the female flutters along the ground as if wounded.

Nest and Eggs. — The breeding season is from March to July; two broods are apparently reared. The nest is built on the ground under or in the midst of a tuft of grass; it is usually cup-shaped, but a few nests have a slight dome, and is made of dry shreds and blades of coarse grass, or fine dry roots, with a slight lining of rootlets, grass and a few hairs. The eggs, 3 or 4 in number, are moderately broad ovals in shape, hard in texture with a slight gloss, and brownish or greenish-stone in colour, thickly streaked, clouded and spotted with dull brownish-red or purplish-red or various shades of brown and purplish-grey; these markings tend to form a cap at the larger end.

Eggs vary a good deal in shape and colour. They average 0·80 by 0·60 inches.

Status and Distribution. — This species is found almost throughout India, Burma and Ceylon, extending eastwards to Siam and southwards to the Malay States and Timor. The Malay race is found only in Tenasserim, but the Indian race is a common resident throughout the rest of Burma up to 4,000 feet. Some authorities regard this species as a race of Richard's Pipit.

THE RED-THROATED PIPIT

Anthus cervinus (1199).

Identification. — Length 6 inches. This Pipit is fairly easy to recognise. In April the pale rusty-red of throat and breast are distinctive. At other times it resembles the Tree Pipit in size and plumage but frequents the edges of ponds, lakes, and jheels, tidal estuaries and similar damp localities, and when disturbed rises with a full musical rather abrupt *chüp chüp*, different in tone to the note of any other Pipit. Out on the great Sittang paddy plain in March and April it is frequently seen in large flocks on burnt stubble, and the constant stream of birds coming to drink at the scattered tanks indicates the immense number in the area.

Status and Distribution. — A Palæarctic species, with a wide winter range from Northern Africa to the Malay Archipelago. In Burma it has been recorded from Arakan, Central Burma, the Plains of Southern Burma (where it is common from October to April) and Tenasserim; it seems to miss Northern Burma and possibly migrates down the Arakan coast.

HODGSON'S PIPIT

Anthus roseatus (1200).

Identification. — Length 6½ inches. A very dark Pipit, which in spring looks almost black in the field. It frequents the sides of jheels, patches of *dhoob* grass, and bare grassy hillsides such as are found near hill villages and Military Police posts. Large flocks are sometimes seen.

Nest and Eggs. — The breeding season is in June and July, at high elevations (over 8,000 feet). The nest and eggs resemble those of the Indian Pipit, but the eggs are dark as a rule and of the finely stippled or speckled type; they average 0·87 by 0·61 inches.

Status and Distribution. — This species breeds throughout the Himalayas from Afghanistan to Yunnan and migrates south in winter; in Burma it breeds in the high mountains of the Adung valley, but a record of breeding in the Northern Shan States requires confirmation. As a winter visitor it occurs in Arakan (?), North-East Burma (where it is the commonest Pipit in the area from November to April), Central Burma and the Northern Shan States.

[Note:—THE JAPANESE WATER PIPIT, *Anthus spinoletta japonicus (1203)*, does not occur in Burma.]

[Note:— THE UPLAND PIPIT, *Oreocorys sylvanus (1204)*, has not been recorded from Burma but is found in the Himalayas and Yunnan and is likely to occur in the mountains of Northern Burma. Length 7 inches. Distinguished from all other Pipits by the sharply pointed tips to the tail-feathers. A bird of grassy hillsides from 4,000 feet upwards.]

Family ALAUDIDÆ

LARKS

Larks closely resemble Pipits, but can generally be distinguished by their heavier build, less nimble and more crouching gait, less slender

bills, and weaker flight. The gait is a walk. The flight over short distances is rather fluttering and wavering, but when more prolonged it is strong and undulating, several wing-beats alternating with sudden closure; the wing-action is perceptibly slower and more floppy than that of other small birds of open country. Dust baths are often taken on roads or light soil. Most of the species found in India are birds of desert and semi-desert regions and do not occur in Burma, and of those species that are found in this country only the Indian Small Skylark is both common and widely distributed.

KEY TO THE LARKS.

A. Primaries 9, the first reaching to about the tip of the wing.	
a. Inner secondaries reaching to tip of wing	*C. brachydactyla*
b. Inner secondaries falling considerably short of tip of wing	*C. raytal*
B. Primaries 10, the first always very small.	
c. First primary exceeding the primary-coverts in length.	
a'. Inner web of outer tail-feathers white or very pale rufous	*M. javanica*
b'. Inner web of outer tail-feathers brown	*M. assamica*
d. First primary not exceeding primary-coverts.	
c'. First primary falls short of tip of wing by more than 5 mm.	*A. arvensis*
d'. First primary falls short of tip of wing by less than 5 mm.	*A. gulgula*

THE JAPANESE SKYLARK

Alauda arvensis japonica (1213).

Allied Form.—

THE PEKIN SKYLARK, *A. a. pekinensis (1213a).*

Identification. — Length 8 inches. Distinguished from *gulgula* by its larger size. A bird of hill cultivation, found in very large flocks in winter.

Status and Distribution. — The Skylark has an immense breeding range from the British Isles to Japan. Two races occur in Burma as winter visitors: the Japanese race, which breeds in Japan and migrates south in winter to Southern China, Yunnan and the Shan States; and the Pekin race, which has been recorded in Burma only from the Northern Shan States. Whether these races are regular or casual visitors is unknown.

THE INDIAN SMALL SKYLARK

Alauda gulgula gulgula (1215).

Allied Forms.—

THE SZECHWAN SMALL SKYLARK, *A. g. weigoldi (1217a).*

THE SIAMESE SMALL SKYLARK, *A. g. herberti (1218).*

Local Names. — Burmese: *Bi-lon* (ဘီလုံး)

Identification. — PLATE XIII, Fig. 1, Page 216. Length 6 inches. See key above. Feeds and settles on the ground in open country, but sings in a characteristic soaring flight. For distinctions from Pipits see the family description above.

Voice. — A liquid bubbling chirrup is uttered when disturbed. The male has a well-sustained though rather monotonous song, into which imitations of other birds' calls are introduced. In the song-flight the

PLATE XIII

		See Page No.
1.	**INDIAN SMALL SKYLARK** (adult) *Alauda gulgula gulgula*	216
2.	**BURMESE BUSH LARK** (adult) *Mirafra assamica microptera*	218
3.	**GANGES SAND LARK** (adult) *Calandrella raytal raytal*	218
4.	**INDIAN WHITE-EYE** (adult) *Zosterops palpebrosa palpebrosa*	219
5.	**INDIAN YELLOW-BACKED SUNBIRD** (adult male) *Æthopyga siparaja seheriæ*	223
6.	**PEGU STREAKED SPIDERHUNTER** (adult) *Arachnothera magna aurata*	229
7.	**BURMESE PURPLE SUNBIRD** (adult male) *Cinnyris asiatica intermedia*	226
8.	**BURMESE SCARLET-BACKED FLOWERPECKER** (adult male) *Dicæum cruentatum ignitum*	231
9.	**LONG-TAILED BROADBILL** (adult) *Psarisomus dalhousiæ*	240
10.	**LESSER BLUE-WINGED PITTA** (adult) *Pitta moluccensis*	236

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THREE INCHES
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1939.

bird mounts vertically or obliquely with a vigorous fluttering action to a great height in the air, the song commencing a few feet from the ground. The bird remains poised, head to wind, the wing-beats momentarily interrupted at brief intervals. It presently sinks gently downwards with wings inclined upwards till it suddenly completes the descent by an abrupt drop to the ground or near it with wings closed. The song is also occasionally uttered on the ground, and may be heard from October to April at all times of the day but especially at dawn, long before it is really light.

Habits and Food. — This is typically a bird of the vast paddy plains of Southern Burma; it lives and feeds on the ground, picking up seeds, insects and fallen grains of rice, and is quite inconspicuous, partly owing to its protectively coloured plumage and partly owing to its habit of squatting instead of running when approached. If disturbed it suddenly springs into life with its *chirrup* call and flies low over the ground with a fluttering undulating flight, only mounting high into the air if it proposes to travel far.

Nest and Eggs. — The breeding season is from March to July, two broods being reared. The nest is built on the ground in a shallow depression scratched by the birds themselves, sheltered by a clod of earth, a tuft of grass or a small stunted bush; it is a shallow cup of dry grass, usually lined with finer grasses. The eggs, 3 to 5 in number, are moderately broad ovals with a fine silky texture and a slight gloss; they are so thickly freckled with pale yellowish-brown, purplish-brown or very pale inky-purple that the greyish or yellowish-white ground colour is almost concealed. They average 0·83 by 0·62 inches.

Status and Distribution. — This species is found throughout a large part of Southern Asia from Turkestan eastwards to Siam and Cochin China and southwards to Ceylon and Tenasserim. The typical or Indian race is resident throughout the plains of Burma; the Chinese race has been recorded only from Mt. Victoria; and the Siamese race only from South-east Tenasserim.

THE RUFOUS SHORT-TOED LARK

Calandrella brachydactyla dukhunensis (1222).

Identification. — Length 5½ inches. A small rather pale sandy-coloured Lark with under-parts nearly white. Tail conspicuously darker than rest of plumage in flight, appearing blackish with a whitish border. Dark patches at sides of upper breast distinctive when visible, but this is a very uncertain field character, the mark being commonly quite concealed unless the bird stretches up its head. Found in large flocks feeding in stubble and open barren country. They perch only on the ground, where owing to their small size and protective coloration they are almost invisible; when approached the birds of a flock rise irregularly, a dozen or two at a time, and when all are in the air they join into a compact flock, which flies with a peculiarly free and swinging motion. The call-note is low and harsh, a short chirruping note.

Status and Distribution. — This species is widely distributed in Asia, Northern Africa and Europe, extending to the British Isles as a rare vagrant. The Rufous Short-toed Lark breeds in Tibet and probably the Gobi desert and appears to be a straggler to Burma, the only records being from Myitkyina (April 1936) and near Pegu (September 1880).

Note: — THE SAND LARK, *Calandrella rufescens* subsp. (?), has recently been recorded from North-East Burma. No particulars are yet available.

THE GANGES SAND LARK

Calandrella raytal raytal (1225).

Local Names. — None recorded.

Identification. — PLATE XIII, Fig. 3, Page 216. Length 5 inches. Almost confined to the sandbanks of the Irrawaddy and Chindwin and the wide sandy streams in the Dry Zone of Central Burma. The flight is not very strong.

Voice. — It utters a few pleasing and musical notes as it flits from one sandbank to another.

Habits and Food. — This is a typical and extremely tame bird of the Irrawaddy and may be observed at any time scavenging among the debris outside fishermen's huts; it is sometimes seen in pea fields but normally only on the barest and most open stretches of sand. Parties of 20 or 30 birds are sometimes seen in the cold weather.

Nest and Eggs. — The breeding season is from mid-February to April. Sand and very scanty vegetation, combined with the vicinity of water that is not turbulent, seem to be the essentials for its nesting site. The nest is a very flimsy affair of grass in a small natural hollow, usually under a tuft of grass, a stone, or a piece of drift-wood. The bird is a very close sitter. The eggs, 2 or 3 in number, are long ovals in shape, rather pointed at one end, and pale grey or yellowish-white in colour, with pale specks or patches of sandy-grey, greyish-brown, or pale reddish-brown. They average 0·79 by 0·58 inches.

Status and Distribution. — This species is only found in Northern India and Burma, where it is resident on the Irrawaddy from Yandoon Island to Katha, on the Chindwin up to Kani and on the larger streams of the Dry Zone.

THE SIAMESE SINGING BUSH LARK

Mirafra javanica williamsoni (1230).

Identification. — Length 6 inches. See key, page 216. A very dark bird, found in stubble during the dry season and in grass during the rains; when flushed it flies a short distance and then hurls itself headlong into the grass, like a Button Quail. It does not soar like the Skylarks, and its song, though sweet, cannot compare with theirs.

Status and Distribution. — This species is found in Siam and Java and has recently been recorded from near Shwebo in Central Burma, where its status is uncertain.

THE BURMESE BUSH LARK

Mirafra assamica microptera (1234).

Allied Form.—

THE SIAMESE BUSH LARK, *M. a. marionæ (1232).*

Local Names. — None recorded.

Identification. — PLATE XIII, Fig. 2, Page 216. Length 6 inches. See key, page 216. A bird of the Dry Zone.

Voice. — It has a sweet but not powerful song, which it utters from a bush or tall patch of grass, or as it flutters a little way into the air and then sails down on outstretched wings. It has not the true soaring flight of a Skylark.

Habits and Food. — This is a characteristic bird of the Dry Zone uplands, frequenting both cultivation and scrub. It is tame and familar and feeds on the ground, collecting small seeds and insects, but perches freely on bushes and small trees.

Nest and Eggs. — The breeding season is from May to August. The nest is usually built on the ground in a depression overhung by tufts of grass, or in a ploughed field under clods of earth, and is a flimsy pad of grass and roots very loosely constructed; there is often a sketchy dome of grass and roots with an entrance hole at one side or near the top. The eggs, 2 (rarely 3) in number, are moderately broad ovals in shape, fine and delicate in texture, with a slight gloss; the colour is white, faintly tinged with grey, and with freckles of yellowish- or pale purplish-brown, which tend to collect in a cap or zone at the larger end. The eggs average 0·83 by 0·61 inches.

Status and Distribution. — This species is found throughout most of India, Ceylon, Burma and Siam; the Siamese race has been recorded from Arakan (?) and once from Tenasserim at "Kyauk Phyon"; and the Burmese race is a common resident in the Dry Zone of Central Burma, extending southwards to Prome, and in the west of the Northern Shan States.

Family ZOSTEROPIDÆ

WHITE-EYES

This is a large family, spread over Africa, Southern Asia and Australia, the members of which are small arboreal birds chiefly olive-green and yellow in colour, and easily recognised by a conspicuous white ring round the eye.

THE INDIAN WHITE-EYE

Zosterops palpebrosa palpebrosa (1247).

Local Names. — Chinghpaw: *Naw-hkum-dum.*

Identification. — PLATE XIII, Fig. 4, Page 216. Length 4½ inches; the under tail-coverts are bright yellow; an arboreal bird, usually seen in parties and liable to be mistaken for a Willow Warbler but easily distinguished by the sharp little curved black bill and the white ring round the eye.

Voice. — A rather monotonous querulous *chee-chee-chee* or *tseer-tseer*, like the cheeping of a one-day-old chick, is constantly uttered by the members of a party and at once attracts attention. In the breeding season the males sing freely. The song is short and rather pretty; it begins so low that it is almost inaudible and increases in volume till it is almost harsh at the end. This is repeated again and again without variation.

Habits and Food. — The White-Eye is a purely arboreal bird, found in active parties hunting busily through the foliage, seldom remaining long in any particular tree and never descending to the ground. It frequents all types of country where there is sufficient tree growth, and is partial to gardens and hill forests close to cultivation, where it finds a mixture of trees and flowering shrubs and consequently a

variety of food; for it feeds on insects, weevils, ants, and their eggs and larvae, and on vegetable matter such as small buds, seeds and wild fruits.

Nest and Eggs. — The breeding season is from April to September, two broods being reared as a rule. The nest is built in bushes or trees at any height from 6 to 60 feet from the ground, and is a delightful little cup slung like a miniature Oriole's nest between two twigs, or very rarely in an upright fork; it is usually made of very fine grass stems, coated with cobwebs and studded with small cocoons and pieces of vegetable down, but there is much variation in size, shape and materials. The eggs, 2 to 4 in number, are elongated ovals in shape, fine in texture with little gloss, and a very delicate pure pale blue or greenish-blue in colour without markings. They average 0·59 by 0·46 inches

Status and Distribution. — This species has a wide distribution in Asia. It is found over most of Burma in the foothills and higher hills to 5,000 feet, but appears to be absent from the Pegu Yomas and Tenasserim, and from the Plains of Southern Burma the only records are from Pegu and Thayetmyo. It is very common in Maymyo and Thandaung.

[Note: — The Northern race, *Z. p. elwesi (1248)*, and the Cachar race, *Z. p. cacharensis (1250)*, are now considered to be the same as the typical race.]

THE PEGU WHITE-EYE

Zosterops simplex (1252).

Identification. — Distinguished from *palpebrosa* by the very pale lemon-yellow throat and under tail-coverts.

Status and Distribution. — This is a Chinese species, which has been recorded from the Sittang valley near Pegu, the Shan States, and Northern Tenasserim. It appears to be rare, and its status is uncertain. A breeding record from Thayetmyo must be regarded with suspicion.

THE SIAMESE WHITE-EYE

Zosterops siamensis (1253).

Identification. — Easily recognised by having the whole under-parts bright yellow. It seems partial to mangrove swamps, but also ascends the hills to 5,000 feet, and unlike other White-Eyes it is often solitary.

Status and Distribution. — This species is resident in Burma, Siam and Cochin China. It has been recorded from the Lower Chindwin, Mt. Popa, the Plains of Southern Burma, Karenni and Tenasserim, but appears to be scarce everywhere.

HUME'S WHITE-EYE

Zosterops aureiventris aureiventris (1254).

Identification. — Difficult to distinguish from *palpebrosa* in the field; it has a broad yellow streak down the centre of the breast and abdomen, and a black tail.

Status and Distribution. — This species extends from Tenasserim through the Malay States possibly to Sumatra and Java.

[Note:— THE KAREN WHITE-EYE, *Z. a. mesoxantha (1255)*, is now considered to be the same as the Indian White-Eye.]

THE CHINESE WHITE-EYE

Zosterops erythropleura (?)

Identification. — Easily recognised by the chestnut patches on the flanks and the pale lemon-yellow throat. In habits and voice it closely resembles the Indian White-Eye.

Status and Distribution. — This species breeds in China and has only recently been recorded from Burma, but it is quite a common winter visitor to the Karen Hills (Thandaung) and Karenni, and has also been obtained in Keng-tung.

Family CHALCOPARIIDÆ

RUBYCHEEKS

This family contains only one species, of Malayan distribution. It shows affinities, structural and biological, with several other very divergent families, in none of which however can it be conveniently included; so it is kept in a family by itself.

THE MALAY RUBYCHEEK

Chalcoparia singalensis singalensis (1257).

Allied Form.—

THE ASSAM RUBYCHEEK, *C. s. assamensis (1257a).*

Local Names. — None recorded.

Identification. — Length 4 inches. Sexes differ. The male has the whole upper-parts brilliant metallic green often appearing black in the field; the tail and greater part of the wings black; the chin, throat and breast rusty; and the rest of the under-parts olive-yellow; the name is derived from the metallic purple on the cheeks and ear-coverts, but this is not conspicuous in the field. The female is green above with black wings and tail, and similar to the male below but duller and paler. A small active bird of the plains and foothills, found chiefly in evergreen forest.

Voice. — A constant twitter when feeding.

Habits and Food. — This is typically a bird of low level evergreen and moist forests, but it also enters gardens, orchards and compounds. It is very active and quick in its movements and when clambering about trees and bushes hunting for insects its actions are similar to those of the White-Eyes; it adopts the same Tit-like attitudes, but in flight it is more like the Sunbirds and sometimes hangs poised on its wings as it probes the flowers for honey and insects. Small parties are sometimes met with, and it is not at all shy.

Nest and Eggs. — The breeding season is from February to July; two broods are probably reared. The nest is a typical Sunbird's nest, a pear-shaped domed affair with a porch over the entrance; it usually hangs beneath the leaves at the end of a branch about 4 to 8 feet from the ground, and is made of fibres, coarse outside and fine inside, bound together with cobwebs. The eggs, 2 in number, are very elongated ovals, cream in colour and much mottled and clouded with pale purplish-grey, with a few spots of purplish-black. They average 0·67 by 0·46 inches.

Status and Distribution. — This species ranges along the foothills of the Himalayas from Sikkim eastwards to Assam, thence through Burma to Siam, the Malay States, Sumatra and Java. In Burma it is resident in Arakan, the Upper Chindwin, North-East Burma, the Pegu Yomas, the Plains of Southern Burma, and Tenasserim, but appears to be scarce everywhere. The distribution of the two races has not yet been fully worked out.

Family NECTARINIIDÆ

Sub-family NECTARINIINÆ

SUNBIRDS

From their habits and the brilliant metallic plumage of the males the Sunbirds are an easy group to recognise; they can only be confused with the Rubycheek and the Flowerpeckers. The females are dull olive-green or yellow. The tongue is long and almost tubular in structure and is capable of extrusion beyond the bill, which in most species is long, slender and markedly curved.

The Sunbirds feed largely at the blossoms of various flowering trees and shrubs, taking from them not only their honey but also the various small insects, caterpillars, spiders and flies that they attract, and in return undoubtedly assisting to pollinate many species. They usually perch on the twigs and stems, flitting actively from flower to flower and indulging in a variety of gymnastics to reach the desired food; they are also able to hover on rapidly vibrating wings in front of a flower, but only for a short time. When perched on a branch they have a curious habit, which they share with the Spiderhunters, of rhythmically stretching and contracting their necks and at the same time swaying the body from side to side.

The various species all build much the same type of nest. It is usually found hanging beneath the leaves at the end of a branch about 3 to 8 feet from the ground. It is a pear-shaped or oval structure with a small round or oval entrance at one side, often sheltered by a projecting porch. Fibres, rootlets and vegetable down are the chief materials used, some species favouring one more than the others, and cobwebs are used extensively on the outside to bind the structure together. The interior of the nest is neatly and softly lined with vegetable down, often from the *letpan* tree.

Local Names. — The local names of these birds, which are well known to the Kachins of all races and are very easily trapped by them, are as follows:— Burmese: *Nan-pyi-sok* (နှုံပြုစုတ်), *Pan-ye-sok* (ပန်းရည်စုတ်). These names allude to the birds' methods of feeding, the former meaning "kiss and suck" and the latter "nectar-sucker." Chinghpaw: *Htingra-kai-set* or *Shringra-tŭng;* Lashi: *Hkawn-cheik.*

MAKLOT'S SUNBIRD

Chalcostetha chalcostetha (1259).

Identification. — Length 5½ inches. Sexes differ. The male has the hind-neck and upper back black; rest of upper-parts brilliant metallic green, with a tinge of purple towards the tail. Sides of head and neck black; chin, throat

and breast metallic copper surrounded by purple; lower breast and upper abdomen purple; rest of under-parts smoky-black. The female has the upper-parts dull olive-green, tail black, broadly tipped with white; chin, throat and upper breast pale grey; rest of under-parts yellow. The note is a shrill trill. Found in evergreen forest and occasionally in gardens, and very partial to rubber plantations.

Nest and Eggs. — The breeding season is from April to September. The nest is typical of the family. The eggs, 2 in number, are a pale greenish- or greyish-stone, mottled all over with dull pale purplish-brown, with a few spots of deep purple. They average 0·59 by 0·44 inches.

Status and Distribution. — This species extends from Southern Tenasserim, where it is said to be scarce, through the Malay States to Sumatra, Java, Borneo and other islands.

KEY TO THE GENUS *ÆTHOPYGA* (males only).

The genus *Æthopyga* contains a group of Sunbirds, the males of which have yellow rumps and the central tail-feathers lengthened and narrow on the terminal halves. Both sexes have the bill slender and well curved downwards. The females cannot be differentiated with any certainty in the field, but the following key may help to distinguish the males; it should be borne in mind that they lose much of their metallic colouring when moulting, and are then often puzzling to identify.

A. Chin and throat crimson — *Æ. siparaja.*
B. Chin and throat dark, not crimson.
  a. Middle tail-feathers all red — *Æ. ignicauda.*
  b. Middle tail-feathers green or purple.
    a′. Dark portion of crown not extending to nape — *Æ. gouldiæ.*
    b′. Dark portion of crown extending to hind-neck.
      a″. Crown, upper tail-coverts and tail steel-blue.
        a^3. Breast black — *Æ. saturata.*
        b^3. Breast yellow — *Æ. sanguinipectus.*
      b″. Crown, upper tail-coverts and tail green — *Æ. nipalensis.*

THE INDIAN YELLOW-BACKED SUNBIRD

Æthopyga siparaja seheriæ (1262).

Allied Form.—

THE TENASSERIM YELLOW-BACKED SUNBIRD, *Æ. s. cara (1260).*

Local Names. — Those of the family.

Identification. — PLATE XIII, Fig. 5, Page 216. Length 5 inches. See key above. The female is an olive-green bird.

Voice. — The usual note is a sharp trill, surprisingly loud, uttered on the wing.

Habits and Food. — Those of the family. In the garden it is partial to cannas and cherry blossom.

Nest and Eggs. — The breeding season is from May to July. The nest is typical of the family but is nearly always attached to the roots of a bush dangling down from the overhanging banks of a small ravine in evergreen forest; only rarely is it found hanging from a branch. The eggs, 2 or 3 in number, are of two definite types: in

one the ground colour is a pale cream or grey marked with numerous patches and spots of light purplish-brown; in the other the colour is pure white with markings of deep brown, sparse over most of the surface but forming a cap or ring at the larger end. The eggs average 0·59 by 0·45 inches. It is frequently parasitized by the Emerald Cuckoo.

Status and Distribution. — This species is resident over the greater part of India and Burma, extending further east to Yunnan and southwards to Sumatra. It is resident in the Chin Hills, Upper Chindwin, North-East Burma, Maymyo, the Pegu Yomas, Shan States, and Tenasserim, and is a common bird up to 4,500 feet. The distribution of the two races has not been fully worked out.

[Note: — The Yunnan race, *Æ. s. viridicauda (1264)*, is now considered to be the same as the Indian race.]

RIPPON'S FIRE-TAILED SUNBIRD

Æthopyga ignicauda flavescens (1267).

Allied Form.—

THE YUNNAN FIRE-TAILED SUNBIRD, *Æ. i. exultans (1268).*

Identification. — Length 5 inches. See key, page 223. The male has the forehead and crown metallic blue; nape, back and upper tail-coverts crimson; rump yellow; chin and throat purple; breast yellow, suffused in the centre with crimson; rest of under-parts dull greenish-yellow. The female is mostly ashy-green. A bird of high elevations, breeding from 6,000 feet upwards, but occasionally found lower in winter; the lowest Burma record is 4,000 feet.

Nest and Eggs. — Unknown for these two races.

Status and Distribution. — This is a Himalayan species, ranging from Nepal eastwards to Yunnan. Rippon's race is only known from Mt. Victoria and the Yunnan race is resident in the mountains of North-East Burma.

DABRY'S SUNBIRD

Æthopyga gouldiæ dabryi (1271).

Allied Forms.—

MRS. GOULD'S SUNBIRD, *Æ. g. gouldiæ (1269).*

THE MANIPUR YELLOW-BACKED SUNBIRD, *Æ. g. isolata (1270).*

Identification. — Length 6 inches. See key, page 223. A bird of the higher hills.

Nest and Eggs. — The breeding season is from May to June. Nest and eggs are typical of the family except that the eggs are very pale: pure white in ground colour with scanty freckles of pale reddish-brown confined to the larger end.

Status and Distribution. — This species extends throughout the Himalayas to Yunnan, and southwards through Burma to Tenasserim. Mrs. Gould's race and the Manipur race are both found on Mt. Victoria, the former above and the latter below 6,000 feet. Dabry's race is resident in North-East Burma, the Mogok hills, Karen Hills, Shan States, Karenni and Mt. Mulayit in Tenasserim. It is not common but visitors to Mogok and Thandaung should keep a look-out for this beautiful bird.

THE BLACK-BREASTED SUNBIRD

Æthopyga saturata saturata (1272).

Identification. — Length 5½ inches. See key, page 223. The male should be easy to recognise; the yellow on the rump is confined to a very narrow band,

the rump and upper tail-coverts being metallic blue; back dark crimson-maroon; chin, throat and breast black; rest of under-parts dull greenish-grey.

Nest and Eggs. — The breeding season is in May and June. The nest is typical of the family, and is made chiefly of rootlets with a thin lining of grass stems and an inner lining of cotton-down. The eggs are of two types; one is similar to the first type of the Yellow-backed Sunbird; the other has a pure white ground colour with bold blotches and spots of deep brown very sparse except at the larger end where they form well-defined rings or a vague cap. They average 0·58 by 0·45 inches.

Status and Distribution. — This species is found along the Himalayas from Garhwal to Yunnan, and is resident in the Chin Hills, Upper Chindwin, North-East Burma, and Shan States. It is a bird of the foothills, ascending to 5,000 feet in the breeding season, and appears to be common throughout its range.

WALDEN'S YELLOW-BACKED SUNBIRD

Æthopyga sanguinipectus sanguinipectus (1273).

Identification. — Very similar to the last species, of which it may be only a race, but distinguished by broad yellow rump-band and olive-yellow breast streaked with red. It is found in all types of hill forest but prefers evergreen, and in the middle of the day is typically seen feeding amongst the vegetation fringing the banks of a shady stream.

Nest and Eggs. — Unknown.

Status and Distribution. — This race is resident in the Karen Hills (Thandaung), Southern Shan States , Karenni and Northern Tenasserim; it is common in the Karen Hills and Karenni. Outside Burma it extends to Yunnan.

THE NEPAL YELLOW-BACKED SUNBIRD

Æthopyga nipalensis nipalensis (1274).

Allied Forms.—

RIPPON'S YELLOW-BACKED SUNBIRD, *Æ. n. victoriæ (1276).*

THE NATTAUNG YELLOW-BACKED SUNBIRD, *Æ. n. karenensis (1276a).*

Identification. — Length 5½ inches. See key, page 223. A bird of pine-rhododendron and high level oak forest in the mountains.

Nest and Eggs. — The breeding season is in April and May. The nest is typical of the family and the eggs, 2 or 3 in number, are white in colour with a ring of reddish-brown spots at the larger end; they average 0·65 by 0·50 inches.

Status and Distribution. — This species extends from Garhwal to Karenni, and is resident on Mt. Victoria, in North-East Burma, the Shan States, and on Nattaung (Karenni). It is common where it occurs, but is not found below 6,000 feet.

KEY TO THE GENUS *CINNYRIS* (males only).

The genus *Cinnyris* contains a group of Sunbirds in which both sexes have short rounded tails and the females are yellow below, both characters distinguishing them from the previous genus. The bill is distinctly curved downwards. Here again the females cannot be distinguished with any certainty in the field, but the following key should help to identify the males.

A. Abdomen dark-coloured.	
a. Upper-parts uniform in colour	*C. asiatica.*
b. Upper-parts varied; green, black and blue	*C. brasiliana.*
B. Abdomen yellow.	
a. Forehead and fore-crown violet-blue	*C. pectoralis.*
b. Forehead and fore-crown like the back	*C. flammaxillaris.*

THE BURMESE PURPLE SUNBIRD

Cinnyris asiatica intermedia (1279).

Local Names. — Those of the family.

Identification. — PLATE XIII, Fig. 7, Page 216. Length 4 inches. See key, page 225. The male in breeding plumage is black with a metallic blue or purple gloss when seen in sunlight; there is a brilliant tuft of crimson and yellow feathers under each wing, which is ordinarily concealed but which projects when the bird is settled for repose and is displayed when courting. In non-breeding plumage, apparently assumed in the rains and early cold weather (up to December), he resembles the female but retains his dark wings and also has a broad stripe of dark metallic violet from the chin to the abdomen. The female is brown and yellow. A minute active bird, which feeds about flowers in gardens and forest.

Voice. — A shrill chirping note is uttered on the wing. It has the rare merit in this country of being a good songster, for the male perches on the topmost twig of a tree with several repetitions of the sharp chirp and then breaks into a loud full song, which seems surprisingly good for so small a bird.

Habits and Food. — Those of the family. It is a familiar garden bird, attracting notice by the boldness of its visits to the flowers that line verandahs or grow over porches. It is equally at home in the more open parts of the teak forests and is a typical bird of the Dry Zone scrub jungles.

Nest and Eggs. — The breeding season is from February to June. The nest is typical of the family, and is characterised by the variety of materials used; fine grass, twigs, dead leaves, chips of bark and fragments of decayed wood, seed cases, and scraps of rag and paper; it is suspended by a short rope of these materials, and a pendant irregular tassel often hangs from the bottom of the nest. The eggs, 2 or 3 in number, are moderately broad ovals in shape, fine and fragile in texture with very little gloss, and dull whitish in colour with a tinge of green, grey, or brown; the markings, which may be thickly disposed over the whole surface or collected in a zone or cap at the larger end, consist of minute freckles of grey, brown and dull purple of various shades. The eggs average 0·63 by 0·45 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is resident throughout Burma in the plains and foothills, though it does not ascend the higher hills and is absent from Southern Tenasserim.

VAN HASSELT'S SUNBIRD

Cinnyris brasiliana (1281).

Identification. — Length 4 inches. See key, page 225. Sexes differ. The male has the forehead to nape metallic golden-green; rest of upper-parts black with metallic purple-blue gloss towards the tail; chin and throat metallic amethyst; breast deep maroon; rest of under-parts black. The female is chiefly olive-green above and dull yellow below. Frequents gardens, coconut groves, thin forest and mangrove swamps.

Nest and Eggs. — More or less unknown.

Status and Distribution. — This species extends from Assam through Burma to the Malay States, Sumatra, Java and Borneo. It is common in Southern Tenasserim and has also been recorded from Arakan, the Pegu Yomas, and the Plains of Southern Burma.

THE MALAY YELLOW-BREASTED SUNBIRD
Cinnyris pectoralis pectoralis (1282).

Identification. — Length 5½ inches. See key, page 225. The male has the forehead, fore-crown and cheeks metallic blue, sides of head and neck and upper-parts olive-yellow; tail very dark brown, the lateral feathers narrowly tipped with white; chin and throat metallic yellow above and bright yellow below.

Nest and Eggs. — The nest is typical of the family, and the eggs, 2 or 3 in number, are pale yellowish-grey with blotches, lines and mottlings of reddish-brown, the general tone being brown rather than grey. The eggs average 0·61 by 0·46 inches.

Status and Distribution. — This race extends from Tenasserim through the Malay States to Java, Sumatra, Borneo and other islands.

THE BURMESE YELLOW-BREASTED SUNBIRD
Cinnyris flammaxillaris flammaxillaris (1284).

Local Names. — Those of the family.

Identification. — Length 4½ inches. See key, page 225. The male has the whole upper-parts olive-green; tail blackish tipped white; chin, throat and upper breast metallic purple; rest of under-parts bright yellow. The female resembles the male above and has the under-parts dull yellow. Frequents gardens and open forest, and is quite fearless.

Voice. — The male has a jubilant little song in the breeding season.

Nest and Eggs. — The breeding season is from March to August. The nest is a clever imitation of a pile of vegetable debris caught up in a branch by the wind. The first part of the structure is pear-shaped, strongly woven from fibres with the ends hanging down below; this is elaborately decorated with a loosely woven covering of all kinds of vegetable refuse, bound together with cobwebs, which hangs down some six inches below the bottom of the actual nest; there is also the usual porch over the entrance. The eggs, 2 in number, are usually pale grey profusely marked all over with yellowish-brown or pale brown, and average 0·61 by 0·44 inches.

Status and Distribution. — This species is found in Burma, Siam, Cochin China, Malay States and the Andamans. It is resident in Southern Arakan, the Pegu Yomas, Plains of Southern Burma, Shan States (?), and Tenasserim, and there is one record from Central Burma east of Mandalay. It is fairly common in its range.

KEY TO THE GENUS *ANTHREPTES* (males only).

The genus *Anthreptes* contains a group of Sunbirds that are easily distinguished from those of the two preceding genera by their almost straight bills. The female of the Banded Sunbird can be recognised by the streaked under-parts, but the females of the other three species found in Burma are indistinguishable in the field. The following key should help to distinguish the males.

A. Under-parts streaked	*A. hypogrammica.*
B. Under-parts plain.	
a. Whole upper-parts metallic.	
a'. Sides of head greenish-yellow	*A. malaccensis.*
b'. Sides of head rufous	*A. rhodolæma.*
b. Metallic plumage confined to head	*A. simplex.*

THE BANDED SUNBIRD

Anthreptes hypogrammica lisettæ (1288).

Identification. — Length 5½ inches. See key above. The male has a collar on the hind-neck, the rump and upper tail-coverts metallic blue; rest of upper-parts olive-green; tail black, the lateral feathers tipped white; under-parts yellowish, streaked with brownish-green. The female resembles the male but has no metallic plumage. Its note is a feeble chirrup and it is found in forests or their outskirts, sometimes entering gardens; in addition to feeding at flowers it often hunts the foliage for insects.

Nest and Eggs. — Very little known. A nest found in Sarawak was attached to the end of a betel palm leaf over 20 feet from the ground and resembled a nest of the Purple Sunbird without a porch over the entrance. The eggs, 2 in number, were pale lilac-grey with a few blotches and many scriggly lines of purple-black, mostly confined to a broad indefinite ring at the larger end. They averaged 0·71 by 0·52 inches.

Status and Distribution. — This race extends from Borneo and Sumatra through the Malay States to parts of Burma. It has been recorded from Akyab (?), the Upper Chindwin, Bhamo, Central Burma, and Southern Tenasserim; judging by its distribution it is likely to occur in other parts of Burma, but is everywhere a scarce bird.

THE BROWN-THROATED SUNBIRD

Anthreptes malaccensis malaccensis (1289).

Identification. — Length 5 inches. See key above. The male has the upper-parts metallic purple-blue; sides of the head dull brownish-olive; chin and throat cinnamon-brown with a metallic purple stripe on each side; rest of under-parts bright yellow with a greenish tinge towards the tail. The female is olive-green above and yellow below. Partial to jungle near the sea.

Nest and Eggs. — It breeds almost throughout the year. The nest is typical of the family and the eggs vary from pure white to purplish-pink in ground colour with numerous twisted lines of purple-black and secondary mottlings of lilac-grey; they average 0·68 by 0·50 inches.

Status and Distribution. — This species extends from Burma, Siam and Annam through the Malay States to Sumatra, Java and Borneo. It is common in Tenasserim and is also found in Arakan; it should occur in the Irrawaddy delta.

THE RUFOUS-THROATED SUNBIRD

Anthreptes rhodolæma (1290).

Identification. — Length 5 inches. Resembles the last species; for distinctions see key above.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends from Borneo and Sumatra to Siam and Southern Tenasserim, where it appears to be scarce.

THE PLAIN-COLOURED SUNBIRD

Anthreptes simplex frontalis (1291).

Identification. — Length 4½ inches. See key above. The male is olive yellow-green to pale olive-yellow, with the forehead dark metallic green. The

female resembles the male without the metallic plumage. It is more of an insect-eater than a honey-sucker and may be seen busily hunting the foliage of mangroves and betel palms along the coast. Found both in forests and in gardens.

Nest and Eggs. — The breeding season is in March. A nest found at Maungmagan in Tenasserim was like a Munia's nest, with no porch over the entrance, made of grass and fibres with the ends sticking out in all directions, and lined with thickly felted silk-cotton. The eggs, 2 in number, resembled those of the Brown-throated Sunbird.

Status and Distribution. — This species extends from Tenasserim and Siam through the Malay States to Sumatra and Borneo.

Sub-family ARACHNOTHERINÆ

SPIDERHUNTERS

The Spiderhunters are distinguished from the Sunbirds by their generally larger size, relatively longer bills, and the non-metallic plumage of the males; in habits they are similar.

THE TENASSERIM YELLOW-EARED SPIDERHUNTER

Arachnothera chrysogenys intensiflava (1292).

Identification. — Length 7 inches. Distinguished from the next species by smaller size, a short eyebrow, and a tuft of brilliant yellow feathers on the sides of the head. Typically seen in gardens.

Nest and Eggs. — Unknown.

Status and Distribution. — This species is resident in Tenasserim as far north as Mergui and extends through the Malay States to Sumatra, Java and Borneo.

THE PEGU STREAKED SPIDERHUNTER

Arachnothera magna aurata (1294).

Allied Form.—

THE INDIAN STREAKED SPIDERHUNTER, *A. m. magna (1293).*

Local Names. — None recorded.

Identification. — PLATE XIII, Fig. 6, Page 216. Length 7 inches. The orange-coloured feet are noticeable in the field. Habitual noisiness and Sunbird-like actions are guides to this forest bird. The flight is very strong and well sustained, consisting of a series of long undulating dips.

Voice. — The usual note is a loud musical trill, uttered both on the wing and from a perch, and can be heard from a great distance; a *chip chip* note is uttered on the wing.

Habits and Food. — This is a typical bird of the teak forests, but it is attracted to villages and the compounds of forest bungalows by flowering trees and shrubs ; it frequents also the oak and evergreen forests of the higher hills. It feeds chiefly on insects and spiders (which it seizes from their webs) but also to some extent on nectar. Plantain flowers afford a favourite hunting ground.

In the breeding season the cock bird displays by hovering in front of the female with plumage puffed out, tail spread, and wings beating rapidly; this continues for a few seconds and then he dashes off, only

to return by a round-about way and hover again. During the display he utters a loud prolonged trill.

Nest and Eggs. — The breeding season is from June to September. The nest is fastened to the under side of a large leaf, plantain leaves being preferred. It is compactly made of fibres and skeleton leaves very strongly bound together with cobwebs and suspended by numerous little threads of silk or fibre, each of which is worked into the material of the nest and then pushed through the leaf and knotted on the upper side. Some nests have a scanty lining of vegetable down. The eggs, 2 or 3 in number, vary greatly in colour, but most appear a uniform chocolate-brown. They average 0·89 by 0·63 inches. It is frequently parasitized by the Large Hawk-Cuckoo, which lays a very similar type of egg.

Status and Distribution. — This species is found throughout the Himalayas to Assam and also in Burma, where it is a common resident throughout the forests up to 6,000 feet.

THE GREY-BREASTED SPIDERHUNTER

Arachnothera affinis modesta (1295).

Identification. — Length 7 inches. Distinguished from the last species by absence of streaks on the upper-parts.

Nest and Eggs. — Unknown.

Status and Distribution. — This species is resident throughout Tenasserim, and is also found in Cochin China, the Malay States, Sumatra and Borneo.

THE LITTLE SPIDERHUNTER

Arachnothera longirostra longirostra (1296).

Local Names. — None recorded.

Identification. — Length 6 inches. Resembles the last species in its unstreaked olive-green upper-parts, but distinguished by smaller size and under-parts yellow as opposed to ashy-green; chin and throat greyish-white. Legs and feet blackish. A forest bird, mainly of the foothills.

Voice. — A restless noisy bird. The ordinary notes are a single bleat, usually uttered on the wing, and a continuous *chat-chat-chat-chat* when feeding.

Habits and Food. — Similar to those of the Streaked Spiderhunter. Its flight is more direct and less dipping, and it keeps more to the forests.

Nest and Eggs. — The breeding season extends from March to September, but May and June are the principal months. The nest is usually found in evergreen forest and is exactly like that of the Streaked Spiderhunter. The eggs are quite different. The ground colour varies from white to pink and the markings consist of specks of reddish-brown, sparse everywhere except in a dense well-defined zone round the larger end. There is no gloss and the shell is very fragile. The eggs average 0·73 by 0·52 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is resident throughout Burma but is scarce every-

where, except perhaps on the east side of the Pegu Yomas ; it occasionally ascends up to 5,000 feet.

Family DICÆIDÆ

FLOWERPECKERS

The Flowerpeckers are small birds that resemble the Sunbirds in habits and appearance; some species have brightly coloured males with metallic plumage and dull-coloured females, whereas others have both sexes similar and plain-coloured. In general they can be distinguished from Sunbirds by their shorter and less curved bills, stumpy tails and minute size.

THE BURMESE SCARLET-BACKED FLOWERPECKER

Dicæum cruentatum ignitum (1298).

Allied Forms.—

THE INDIAN SCARLET-BACKED FLOWERPECKER, *D. c. cruentatum (1297).*
THE SIAMESE SCARLET-BACKED FLOWERPECKER, *D. c. siamensis (1299).*

Local Names. — None recorded.

Identification. — PLATE XIII, Fig. 8, Page 216. Length 3½ inches. The under-parts are uniform buff. The female is olive-brown above, the wings and tail darker with a patch of crimson on the rump, and buff below. A tiny stumpy bird with a short tail and bill, keeping much to the tree-tops, with a strong and swift though dipping and erratic flight.

Voice. — This is a noisy bird and a stream of chicking staccato notes, *tchik tchik tchik.....*, issuing from a tree-top or as the bird flies from one tree to another frequently draws attention to its presence. Other notes are a loud shrill chirp and a constant twitter when feeding.

Habits and Food. — This little bird frequents the tree-tops in forest, though also visiting gardens and cultivation in which there are trees or shrubs; it is partial to the masses of parasitic plants that grow on some trees and look like bunches of mistletoe. Small insects form its main food supply, varied with small berries and seeds, especially those that are enclosed in jelly-like substances. It is usually seen in pairs or family parties.

Nest and Eggs. — The breeding season is from March to May. The nest is cunningly concealed under the drooping leaves of a tree, mango trees being often chosen, and is usually high up; it is a tiny egg-shaped affair of cotton-down, held together with cobwebs and strengthened where attached to the supporting twig by fine strips of grass or rootlets. The eggs, 2 or 3 in number, are white with a grey tinge when fresh, and without markings; they average 0·55 by 0·41 inches.

Status and Distribution. — This species extends over most of the Oriental Region as far west as Nepal and is found throughout Burma. It is a common bird of the plains and foothills, ascending to 4,000 feet, and Maymyo is one of its strongholds.

THE TENASSERIM ORANGE-BELLIED FLOWERPECKER

Dicæum trigonostigma rubropygium (1300).

Identification. — Length 3½ inches. Sexes differ. The male has the upper-parts deep grey-blue except for the back and rump, which are orange-red; chin, throat and breast pale grey; rest of under-parts bright orange. The female is olive-green above, changing to olive-yellow on the rump; chin, throat and breast ashy; rest of under-parts yellow.

Nest and Eggs. — The breeding season extends from February to May. Nest and eggs differ from those of the preceding species only in being larger, the eggs averaging 0·61 by 0·45 inches.

Status and Distribution. — This species extends from Assam through Burma to South-west Siam, Cochin China, the Malay States, Sumatra, Java and Borneo. It has been recorded from Arakan (?), the Sittang plain near Pegu (1 record), Karen Hills, probably Karenni, and Tenasserim. It is scarce except in Southern Tenasserim.

THE BURMESE YELLOW-VENTED FLOWERPECKER

Dicæum chrysorrheum chrysochlore (1302).

Identification. — Length 3½ inches. Upper-parts olive-yellow, the wing-quills and tail black; under-parts whitish with a conspicuous black line down the centre of the breast and abdomen; under tail-coverts orange. The very short tail, rather broad wings and arrow-like flight give a bat-like appearance on the wing.

Voice. — It has the usual twitter of the family consisting of a series of loud staccato notes, broken up into shorter periods than those of the Scarlet-backed Flowerpecker.

Habits and Food. — Those of the family.

Nest and Eggs. — The breeding season is from May to July. Nest and eggs are typical of the family.

Status and Distribution. — This species is widely distributed in the Oriental Region as far west as Nepal. It is resident throughout Burma in suitable localities in the plains, foothills, and higher hills to 5,000 feet, but appears to be nowhere common.

THE FIRE-BREASTED FLOWERPECKER

Dicæum ignipectus ignipectus (1303).

Local Names. — None recorded.

Identification. — Length 3 inches. Sexes differ. The male has the upper-parts metallic green-blue; under-parts buff with a scarlet patch on the breast and below this a patch of black. The female is olive-green above and buff below. A bird of the higher hills.

Voice. — A loud clicking note is uttered on the wing and from a perch. The male often utters the note in a rapid series for a prolonged period from a tree-top. But for this call-note the birds would seldom be noticed.

Habits and Food. — Those of the family. It keeps entirely to the tree-tops and is found in all types of hill forest.

Nest and Eggs. — The breeding season is from March to early June. Nest and eggs are typical of the family. Trees in rocky ravines running through dense forest are often chosen.

Status and Distribution. — This species is widely distributed in the Oriental Region. It is resident in the Chin Hills, North-East Burma, the Karen Hills, Shan States, Karenni and Tenasserim. It is common in parts of its range, notably in the Karen Hills (Thandaung) and Karenni, and seldom descends below 3,000 feet. In Yunnan it ascends to 11,000 feet.

THE PLAIN-COLOURED FLOWERPECKER

Dicæum concolor olivaceum (1306).

Identification. — Length 3 inches. A tiny olive-green bird, buff below, with a dark bill. Usually seen in pairs, which attract attention by their restless activity. It utters the usual twitter of the family, and a constant *chip chip chip* on the wing. It visits gardens but frequents chiefly cultivation and regrowth interspersed with scrub and forest.

Nest and Eggs. — The breeding season is in May and June. Nest and eggs are typical of the family.

Status and Distribution. — This species has a wide range over most of the Oriental Region as far west as the West coast of India; it is resident in Arakan, North-East Burma, Maymyo, the Shan States, Karenni and Tenasserim. It is found in the foothills and higher hills, but appears to be scarce throughout its range. In Yunnan it is found up to 11,000 feet.

TICKELL'S FLOWERPECKER

Dicæum erythrorhynchum erythrorhynchum (1308).

Identification. — Length 3 inches. Upper-parts ashy-olive, the tail and wing-feathers dark brown; under-parts ashy-white. The bill is yellowish. Typically not a forest bird, breeding in open cultivated country round villages and towns.

Nest and Eggs. — The breeding season is from February to June. Nest and eggs are typical of the family, and the former is usually built in a mango tree.

Status and Distribution. — This species is widely distributed in India, but its occurrence in Burma rests on century-old records from Arakan and Moulmein (very common); it is also said to have been obtained in the Shan States. No specimens are traceable and it is admitted with some doubt. It badly needs to be re-discovered.

HUME'S FLOWERPECKER

Piprisoma modestum modestum (1312).

Identification. — Length 4 inches. Upper-parts olive-green; under-parts yellowish; distinguished from the olive-green *Dicæums* by larger size and short thick bill. Mainly a forest bird.

Nest and Eggs. — The breeding season is from March to June. The nest is attached to bushes or trees and is a remarkable structure and quite unmistakable; in shape it is a little bag, nearly as broad at the top as at the bottom, with an entrance close to the top about an inch in diameter, and it is made of vegetable down mixed with spiders' webs into the consistency of red-brown felt, rather thin near the top and over half an inch thick at the bottom; there is no lining, but scraps of bark, leaves, etc., are added as outside decorations, and the whole measures about 3 inches in length by 2 inches in breadth. The eggs, 2 or 3 (rarely 4) in number, are soft and fragile in texture, with little or no gloss, and vary from pale to deep pink in colour with bright red-brown freckles and secondary markings of lavender and pale purple-brown. They average 0·63 by 0·45 inches.

Status and Distribution. — This race is found in Assam, Burma and Siam. It is resident in Maymyo, on the east side of the Pegu Yomas, the Sittang valley near Pegu, Shan States, and Tenasserim; it is to be expected in the Karen Hills and Karenni. It is found up to 4,000 feet but is scarce and local.

THE CRIMSON-BREASTED FLOWERPECKER

Anaimos ignicapillus (1313).

Identification. — Length 4 inches. Sexes differ. The male has the upper-parts dull blue with a crimson patch on the crown; under-parts yellow with a crimson patch on the breast. The female has the upper-parts green with an orange patch on the crown; under-parts dull ashy-green, yellow towards the tail.

Nest and Eggs. — The only nest on record was made of reddish vegetable down lined with a well-matted mass of the same material, and decorated with all sorts of oddments; the single egg it contained was white.

Status and Distribution. — This species extends from Southern Tenasserim and South-west Siam through the Malay States to Borneo.

THE YELLOW-THROATED FLOWERPECKER

Anaimos maculatus maculatus (1314).

Identification. — Length 4 inches. Sexes differ. The male has the upper-parts green with a fiery red patch on the crown; under-parts yellow heavily streaked on the breast with green. The female resembles the male but has the patch on the crown yellow.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends from Mergui and Southern Siam through the Malay States to Borneo.

[Note:— THE YELLOW-BELLIED FLOWERPECKER, *Pachyglossa melanoxantha (1315)*, has not been recorded from Burma, but is found in Eastern Assam and is likely to occur in the higher hills of the Upper Chindwin. Length 4½ inches. Sexes differ. The male has the upper-parts black, middle of chin, throat and breast, and the under wing-coverts white; remaining under-parts bright yellow. The female has the upper-parts olive-brown; under-parts similar to the male but paler and duller.]

Family PITTIDÆ

PITTAS

The Pittas live principally on the ground, and obtain their food by scratching about amongst the leaves and hunting for worms, lizards, ants, small beetles and insects of all kinds. They have long and powerful legs and feet, and though they can fly quite well they usually progress by immense bounds, often several feet long, repeated with extraordinary speed; this habit makes them easy to recognise in the field. All the Pittas are forest birds, but whereas some keep strictly to the densest evergreen and moist forests others may also be found in bamboo jungle and *ponzo*. Burmese names apparently applicable to all Pittas are the following:—*Taung-ngon* (တောငှံး), *Mye-ngon* (မြေငှံး), *Mye-kon* (မြေကုန်း).

PHAYRE'S PITTA

Anthocincla phayrei (1316).

Identification. — Length 9 inches. Distinguished from all other Pittas in having the feathers at the side of the nape long and pointed, forming conspicuous aigrettes. Sexes differ. The male has a black coronal band and black bands through the eyes all meeting on the nape; sides of crown tawny, each feather edged black; upper-parts rufous-brown; under-parts whitish, becoming rufous towards the tail and more or less spotted with black on the breast; a moustachial streak. The female differs in having the black on the crown, etc., replaced by rufous-brown, and the rufous of the under-parts is duller and more freely spotted with black. Keeps entirely to the ground and frequents both dense and open forest between 1,500 and 6,000 feet.

Nest and Eggs. — The breeding season is from April to May. The only nest on record was built on a bank in deep forest covered with evergreen bushes; it was oven-shaped, made of leaves, roots and grasses and lined with fine black roots. The entrance was on one side, low down, with a little raised platform of twigs leading up to it. The eggs, 4 in number, were broad ellipses in shape, very hard and highly glossy in texture, and china-white in colour, with a few minute specks of purple-black at the larger end; they averaged 1·09 by 0·88 inches.

Status and Distribution. — This species is found only in Siam and parts of Burma (Maymyo foothills (1 record), Karen Hills, Shan States, Karenni and Tenasserim) and is a rare bird.

THE BLUE-NAPED PITTA

Pitta nepalensis (1317).

Identification. — Length 9½ inches. Sexes differ. The male is chiefly tawny or tawny-rufous, washed with grass-green on the back, rump, and tail; the back of the crown, nape and hind-neck are bright blue. The female has green on the hind-neck instead of blue. Frequents both dense and open forest and is partial to the outskirts of teak forest where there is a dense undergrowth of dock-leaves mixed with *bizat*. It has a magnificent double whistle, uttered both on the ground and when on a tree and most often heard in the early mornings or late evenings. When feeding in pairs a very soft chuckle is made from time to time by either sex.

Nest and Eggs. — The breeding season is from April to August. The nest is usually built on the ground in bamboo or scrub, more rarely in forest, and is composed almost entirely of bamboo leaves, mixed with grass and a few roots, and lined with the latter. In shape it is like a large Rugby football, with the entrance close to the ground at one end and often more or less buried in fallen leaves and other debris. It is sometimes built in a clump of bamboos, a small sapling, or on a platform of branches and rubbish in a bush, and twigs, roots, etc., are used to strengthen it. All nests are so loosely constructed that they fall to pieces when handled.

The eggs, 3 to 7 (usually 4 or 5) in number, are very broad ovals in shape, hard and glossy in texture, and china-white in colour, with a few specks of purple-black and fewer secondary marks of pale lavender; they average 1·16 by 0·92 inches.

Status and Distribution. — This species is resident in the foothills from Nepal eastwards to Burma, where it has been recorded from Arakan, the Chin Hills, Upper Chindwin, North-East Burma, and the Arakan Yomas. It is found from the plains up to 6,000 feet, and is not uncommon in its range.

THE FULVOUS PITTA

Pitta oatesi (1318).

Identification. — Length 10 inches. Resembles the last species very closely, but has no blue at all on the nape and hind-neck. It has the same beautiful loud double whistle, which is often uttered on moonlight nights and can be heard at an immense distance. It appears to be restricted to evergreen forest.

Nest and Eggs. — The breeding season is from March to May. Nest and eggs are indistinguishable from those of the last species. It always seems to breed in dense evergreen forests.

Status and Distribution. — This species has a small range, from Eastern Burma to Perak in the Malay States. In Burma it has been recorded from the Pegu Yomas (east side), Rangoon, the Karen Hills, Southern Shan States, Karenni and Tenasserim, but is a rare bird.

THE GIANT PITTA

Pitta cærulea cærulea (1319).

Identification. — Length 11½ inches. Much the largest of the Pittas, and easily recognised by bright blue upper-parts and tail and tawny under-parts;

there is a broad black coronal streak, which widens out on the nape and hind-neck and meets black lines running through the eyes. The female has the crown, nape and hind-neck reddish-grey, the back rich rufous, and only the rump, upper tail-coverts and tail blue; the under-parts are tawny, and the sides of the head and a broad eyebrow are ashy-grey. Extremely shy and not at all like other Pittas in that when disturbed it rises and flies off low but rapidly for about 200 yards.

Nest and Eggs. — Unknown.

Status and Distribution. — This race extends from Sumatra through the Malay States to South-west Siam and Tenasserim as far north as Tavoy. Whether the bird is migratory or sedentary is unknown.

THE BLUE PITTA

Pitta cyanea cyanea (1320).

Identification. — Length 9 inches. Sexes differ. The male has a broad coronal streak and lines through the eyes black; a scarlet patch on the nape; upper-parts blue; chin and throat black with a black moustachial streak down each side; remaining under-parts pale blue boldly marked with black. The female is more brown and less blue. The note is a beautiful whistle, very like that of the Blue-naped Pitta but not nearly so powerful. It keeps to evergreen and moist forests, and feeds chiefly on ants and termites.

Nest and Eggs. — The breeding season is from May to July. The nest is built either on the ground or a stump or sapling, and is conspicuous but so untidy that it is easily overlooked. It is a large domed affair, 6 to 10 inches in length and a little less in breadth, and is made chiefly of bamboo leaves; when built on the ground a pile of debris is nearly always collected for it to lie on. It is lined with roots and leaves and is always warm and dry inside, however wet it may be outside. The eggs, 3 to 7 (generally 4 or 5) in number, are spherical in shape, and a highly glossy china-white in colour with fairly numerous specks and short tangled lines of deep purple-black or lighter reddish-brown. They average 1·08 by 0·82 inches.

Status and Distribution. — This race extends from Bhutan through Burma to Siam and Annam. It has been recorded from Arakan, the Chin Hills (?), Arakan Yomas, Pegu Yomas (east side), Southern Shan States, Karen Hills, and Tenasserim. It is mainly a bird of the plains and foothills, occasionally ascending to 6,000 feet, and is locally common. It is a local migrant but little is known about its movements.

THE LESSER BLUE-WINGED PITTA

Pitta moluccensis (1321).

Local Names. — Burmese: See page 234.

Identification. — PLATE XIII, Fig. 10, Page 216. Length 8 inches. A black coronal streak meets the black bands through the eyes on the nape and forms a collar on the hind-neck. When flying away it appears dark blue with conspicuous white wing-patches.

Voice. — A loud melodious double whistle is uttered from a perch in a tree and is usually heard in the mornings and evenings.

Habits and Food. — Those of the family. It is a typical bird of the teak forests during the rains, and keeps less extensively to deep forest than some Pittas, sometimes frequenting the outskirts of villages. Though not gregarious a number of birds often collect together.

Nest and Eggs. — The breeding season is from April to July. The nest is similar to that of the preceding species, and is nearly always found on the bank of a forest stream, often wedged in among the roots of a tree with the opening facing the stream. The eggs are

typical of the family, but the most richly and profusely marked of all. They average 1·04 by 0·84 inches.

Status and Distribution. — This species extends from Burma and Siam through the Malay States to Sumatra and Borneo. It is found in Southern Arakan, the Pegu Yomas, Karen Hills, Southern Shan States, and Tenasserim. Its status is uncertain, and though a few birds undoubtedly winter in the Pegu Yomas the majority seem to be summer residents only.

THE LARGE-BILLED BLUE-WINGED PITTA

Pitta megarhyncha (1322).

Identification. — Length 9 inches. Very similar to the last species, but lacks the coronal streak, has a much darker back, and a larger bill.

Nest and Eggs. — More or less unknown. A nest and egg taken on an island off Tenasserim are said to have been of the usual type.

Status and Distribution. — This species extends from the Island of Banka through the Malay States to parts of Burma; it has been recorded from Arakan (?), "Pahpoon" in the Irrawaddy delta and Tenasserim. It appears to be rare.

THE MALAY SCARLET PITTA

Pitta granatina coccinea (1324).

Identification. — Length 7 inches. The smallest of the family and easily recognised by the purple upper-parts with the crown, nape and hind-neck scarlet, the blackish throat and breast, and the remaining under-parts deep crimson.

Nest and Eggs. — Unknown.

Status and Distribution. — This species is found from Borneo through the Malay States to Tenasserim.

THE GREEN-BREASTED PITTA

Pitta cucullata cucullata (1325).

Identification. — Length 8 inches. Forehead to nape rufous-brown; rest of head, chin, throat, sides of neck and a broad collar on the hind-neck black; back and rump dark green; upper tail-coverts bright blue; tail black tipped with dull blue; white, black, green and blue on the wings; breast pale green; centre of abdomen, vent and under tail-coverts bright crimson. This is more catholic in its choice of habitat than most Pittas, and besides evergreen forest it frequents scrub and grasslands with patches of tree forest here and there.

Nest and Eggs. — The breeding season is from the end of April to July. Nest and eggs are typical of the family, and the latter average 1·07 by 0·83 inches.

Status and Distribution. — This race ranges from Nepal to Assam and through Burma to the Malay States. In Burma it is found in Arakan, the Chin Hills, North-East Burma, Shwebo town, the Pegu Yomas (east side), Karen Hills, Shan States, and Tenasserim. It is mainly a bird of the foothills, but breeds up to 5,000 feet and possibly a little higher. It is not common.

GURNEY'S PITTA

Pitta gurneyi (1327).

Identification. — Length 8½ inches. Black under-parts from the breast distinguish the male from other Pittas; crown and nape blue, the feathers long and forming a crest; forehead and a broad eyebrow black; upper-parts rufous-brown; chin and throat white shading into bright yellow on the upper breast. The absence of a coronal band, the nape orange-rufous like the crown, and the close yellow and black barring on the breast and flanks, distinguish the female. Young birds have the head and neck rufous-brown with black edges to the

feathers and the whole under-parts, except the white chin and throat, probably tawny-brown with black edges.

Nest and Eggs. — Very little known. A nest found in Siam was of the usual type and the eggs resembled those of the Green-breasted Pitta.

Status and Distribution. — This species is found in Southern Tenasserim, and extends to Southern Siam and the Malay States.

Family EURYLAIMIDÆ
BROADBILLS

This family comprises a number of species of chiefly Malayan distribution; of the ten forms occurring in Burma only five have been recorded outside Tenasserim and the Karen Hills. As their name indicates, they can be recognised by their very broad bills, and most of them are beautiful birds with striking plumage. They are typically birds of evergreen forest, though one or two species frequent more open forest as well and occasionally enter shady gardens. During the day they are lethargic, most of their feeding being done in the early mornings and evenings, and at all times they are unwary birds and show no fear of man.

The different species build very similar nests. A Broadbill's nest is usually suspended from the tip of a branch in a shady ravine in evergreen forest, and nearly always hangs over a stream or pool of water. It is shaped like a gigantic pear with a long drawn-out neck attaching it to the supporting branch, and usually has a large porch over the entrance; it is made of grass, twigs, leaves, moss, roots and various other vegetable odds and ends, and is lined with green leaves. Below the nest proper hangs a long tail of oddments fastened on with cobwebs, and the outside of the nest is often decorated with lichen, cocoons, spiders' egg bags, etc.

HORSFIELD'S BROADBILL
Eurylaimus javanicus javanicus (1328).

Identification. — Length 9 inches. Sexes differ. The male has the whole head and neck purplish-red; rest of upper-parts and tail black, the rump and upper tail-coverts with some yellow and whitish subterminal spots or bands on the outer tail-feathers; wings chiefly dark brown and black; under-parts like the head, with a narrow blackish band across the breast. Eye blue; bill blue at the base, yellowish at the tip. The female has no breast band. Found in forests and well-wooded open country in the plains and lower hills. At short intervals it utters a few single notes ending with a rolling metallic *chur-r-r*. It seldom climbs or hops about the branches but seizes insects on the wing and makes short flights from one perch to another. It is sometimes seen in shady gardens.

Nest and Eggs. — The breeding season is from March to May. The nest is quite typical of the family, and the eggs, 2 or 3 in number, are white or creamy-white speckled with deep purple or dark reddish-brown, and average 1·06 by 0·74 inches.

Status and Distribution. — This species extends from Burma and Siam through the Malay States to Sumatra, Java and Borneo. It is found in the Karen Hills and Tenasserim, and is probably a resident.

THE BLACK-AND-YELLOW BROADBILL
Eurylaimus ochromalus (1329).

Identification. — Length 7 inches. Easily recognised by small size, black head with a white collar round the neck, broad black band across the pink breast,

and rest of plumage black and yellow. Eye yellow; bill mostly bright blue. Young birds have the forehead and a line to the eye yellow, no black gorget, and the under-parts pale and dull. The note is of the same type as that of the preceding species, but distinct.

Nest and Eggs. — Said to be exactly like those of the preceding species.

Status and Distribution. — This species extends from Tenasserim and Siam through the Malay States to Sumatra and Borneo.

THE DUSKY BROADBILL

Corydon corydon corydon (1330).

Identification. — Length 11 inches. Easily recognised by large size and black plumage, with a white bar on the wing and another across the ends of the tail-feathers. Bill and bare skin round eye reddish. The call is an oft-repeated mellow note, and a clear whistle is uttered as it flies from tree to tree. It frequents both dense and open forest and is sluggish during the daytime, feeding chiefly in the mornings and evenings.

Nest and Eggs. — The breeding season is from March to June. The nest is typical of the family, and is often very large; one measuring 7 feet from top to bottom has been recorded. The eggs, 2 to 4 in number, are so covered with blotches and freckles of reddish-brown that the dull cream or reddish ground colour is almost obscured. They average 1·16 by 0·87 inches.

Status and Distribution. — This species is found in the Karen Hills and Tenasserim, and extends to Siam, Cochin China, the Malay States, Sumatra and Borneo. It is resident from the plains up to 5,000 feet and is not uncommon.

THE ARAKAN BLACK-AND-RED BROADBILL

Cymbirhynchus macrorhynchus affinis (1332).

Allied Form.—

THE BLACK-AND-RED BROADBILL. *C. m. macrorhynchus, (1331).*

Identification. — Length 10 inches. Upper-parts, wings and tail chiefly black and the under-parts crimson except for a broad black band across the breast. Eye emerald-green shot with gold; upper mandible blue, lower mandible yellowish; legs and feet bright blue. This is the most familiar of the Broadbills and frequents gardens in and round villages and towns; it is also found in forest, both open and dense, and feeds entirely on insects.

Nest and Eggs. — The breeding season is from March to June. The nest is typical of the family, and the eggs, 2 or 3 in number, are very variable; the commonest type is pale dull pink freckled all over with reddish-brown; a second type is white with marks of purplish-red; a third type is white with less numerous marks of purple-black. The eggs average 1·06 by 0·74 inches.

Status and Distribution. — This species ranges from the south of Burma east to Siam, Annam and Cambodia and south through the Malay States to Sumatra and Borneo. It is a bird of the plains, not ascending the hills to any height, and is most common on small islands and along the coast. The Arakan race is found in Southern Arakan, the Arakan Yomas, and the Irrawaddy delta, and the typical race in Tenasserim; the latter is a common bird round Mergui.

GOULD'S BROADBILL

Serilophus lunatus lunatus (1333).

Local Names. — None recorded.

Identification. — Length 7 inches. Sexes differ. The male has a broad black eyebrow contrasting with the ashy-rufous of the crown; upper-parts ashy-brown changing to chestnut on the rump; tail black with white tips to the outer feathers; under-parts grey. Eye dark brown; bill blue, yellow at the base. The female differs in having a gorget of silvery-white feathers across the upper breast.

Voice. — The note is a soft, rather musical whistle and a low *chir-r-r* is uttered both on the wing and from a perch.

Habits and Food. — Those of the family. It frequents all types of forest and feeds principally in the mornings and evenings. It is an unwary bird and shows no fear of man.

Nest and Eggs. — The breeding season is from March to July. The nest is typical of the family, but smaller and neater than most. The eggs, 4 or 5 in number, are whitish in colour sparsely speckled with reddish-purple, chiefly at the larger end. They average 0·93 by 0·68 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region but does not extend west of Burma. It is resident in the Chin Hills (?), North-East Burma and Central Burma east of the Irrawaddy, the Pegu Yomas, Karen Hills, Shan States, Karenni, and Tenasserim. It is not uncommon.

HODGSON'S BROADBILL

Serilophus rubropygius (1334).

Local Names. — Maru: *U-sum-pi;* Chinghpaw: *Sharaw-la-myin.*

Identification. — Very similar to the preceding species, but has the back and crown darker and with little or no rufous tinge.

Nest and Eggs. — Similar to those of the preceding species.

Status and Distribution. — This species extends from Nepal eastwards to Assam and Western Burma. It is resident in Arakan, the Chin Hills, Upper Chindwin, and North-East and Central Burma west of the Irrawaddy, and is not uncommon in these areas.

THE LONG-TAILED BROADBILL

Psarisomus dalhousiæ (1335).

Local Names. — None recorded.

Identification. — PLATE XIII, Fig. 9, Page 216. Length 10 inches. There is a bright blue patch on the crown, and the wings and tail appear bright blue in flight. A very beautiful bird, seldom seen outside evergreen forest.

Voice. — It has a not unmusical, rather shrill, loud whistling call of 5 to 8 notes all on the same pitch; a soft churring note when feeding, an occasional single *weet* call, and several harsh tin-kettley notes when annoyed or disturbed have also been recorded.

Habits and Food. — Those of the family. It has a habit of alighting at the extreme end of a creeper or pendant bough and thence climbing cautiously up it, searching the leaves for insects as it climbs; its actions when thus engaged are very Parrot-like. It flies well but not fast, and often catches insects on the wing.

Nest and Eggs. — The breeding season is from April to August, but chiefly in May and June. The nest is typical of the family and larger than any except that of the Dusky Broadbill. The eggs, 4 to 8 in number, are very variable; some are pure white, others white boldly and handsomely blotched with reddish-brown, and others vary from pale to deep pink with the same variation in the blotches. Most eggs have underlying marks of reddish-neutral tint. They average 1·08 by 0·76 inches.

Status and Distribution. — This species has a wide distribution from the Central Himalayas to Sumatra; in Burma it is found throughout the hills and foothills wherever the forest is evergreen, and is quite common at all elevations up to 5,000 feet.

THE GREEN BROADBILL

Calyptomena viridis (1336).

Identification. — Length 7½ inches. Differs from all other Broadbills in having the greater part of the bill concealed by plumes. Sexes differ. The male has a large spot behind the ear and three broad bands across the wing black; rest of plumage green. The female is paler than the male and has a bright green ring round the eye. Found usually in evergreen but sometimes in thin forest. It has a soft pleasant whistle and keeps much to the tops of the higher trees, and feeds almost entirely on fruits and berries. It is not shy, but at the same time not stupid like other Broadbills, with which it has little in common in the way of voice and habits.

Nest and Eggs. — The breeding season is from April to May. The nest is typical, but generally has more grass than most in its construction; it is also more solid, better put together, and has a very short tail. The lining is of soft grass and leaves, rarely of green leaves. The eggs, 2 or 3 in number, are a uniform pale yellow-cream without markings, and average 1·07 by 0·73 inches.

Status and Distribution. — This species is resident in Tenasserim and extends through the Malay States to Sumatra and Borneo.

Order II CORACIIFORMES.

Sub-order PICI.

Family PICIDÆ

This family comprises the true Woodpeckers, the Pigmy Woodpeckers or Piculets, and the aberrant Woodpecker known as the Wryneck.

Sub-family PICINÆ

WOODPECKERS

Woodpeckers are found in most parts of the world, and are easily recognised by their actions. A Woodpecker flies by noisily flapping its wings for a few strokes and then gliding with them closed; this causes it to dip deeply and results in a heavy undulating flight; one bird often follows another from tree to tree, usually uttering loud discordant call-notes. It usually alights on the trunk or on a main branch and then works its way up with a series of jerks, always resting with the body in a perpendicular position with the head upwards; when it wishes to descend a foot or two to search a likely spot it moves down backwards with the same awkward jerks. Though it is unable to move down a tree trunk head-first like a Nuthatch, its structure is otherwise admirably adapted to its needs. The toes are arranged in two series, the first and fourth pointing backwards and the second and third forwards; the strong claws grasp the crevices of the bark and from their position automatically tilt the body backwards onto the stiff graduated tail, which is pressed into the bark by the bird's own weight. In this position the long neck affords a swing for blows of the pickaxe bill, which is stout and modified into a cutting weapon with the end of the upper mandible vertical and chisel-shaped. It is used to extract the larvae of wood-boring insects from inside and under the bark and to expose the ends of insect galleries, which are then searched by extruding the long tongue with its barbed tip sticky with saliva. At the same time it is interesting to note that many Woodpeckers feed largely on ants, which they obtain either on tree trunks or on the ground, and for capturing which no specialized structure is necessary.

The "drumming" of a Woodpecker is a loud vibrating sound produced by an extremely rapid rain of blows (about 8-10 per second) of the bill on a dead tree trunk or hollow branch; for a long time this drumming was a subject of controversy, some writers maintaining that the sound was vocal, but the leading authorities are now agreed that it is purely mechanical. In its search for insects a Woodpecker

PLATE XIV

See Page No.

1. BURMESE SCALY-BELLIED WOODPECKER (adult male)
   Picus viridanus viridanus 243

2. BURMESE PIGMY WOODPECKER (adult male)
   Dryobates nanus canicapillus 250

3. LARGE YELLOW-NAPED WOODPECKER (adult male)
   Chrysophlegma flavinucha flavinucha 246

4. NORTHERN RUFOUS WOODPECKER (adult male)
   Micropternus brachyurus phaioceps 252

5. TICKELL'S GOLDEN-BACKED WOODPECKER (adult male)
   Chrysocolaptes guttacristatus guttacristatus .. 254

6. BURMESE RUFOUS PICULET (adult male)
   Sasia ochracea reichenowi 256

7. INDIAN GREAT SLATY WOODPECKER (adult male)
   Mulleripicus pulverulentus harterti 255

8. BURMESE GREAT BLACK WOODPECKER (adult male)
   Macropicus javensis crawfurdi 255

9. WRYNECK (adult)
   Jynx torquilla intermedia 257

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frequently makes a loud tapping noise, slow or fast according to the size of the bird, but always much less rapid than, and quite distinct from, the drumming, which has nothing to do with the feeding habits of the bird and the significance of which is obscure. Information as to which of the Woodpeckers found in Burma drum, and which do not, is remarkably scanty.

The economic value of Woodpeckers is great. The bee-hole borer of teak, which causes a serious degrade in the value of timber in many parts of Burma, would cause even more damage were its numbers not kept down by Woodpeckers, and it is only one of the wood-boring insects on which these birds feed. In many countries where similar insects exist Woodpeckers are rigorously protected and their presence in the forests encouraged by the provision of nesting boxes. In Burma, ignorance alone can account for the fact that these birds are not afforded complete protection.

For nesting purposes a hole is bored in a tree trunk or branch at almost any height from the ground, and trees with unsound hearts are invariably chosen. Normally the entrance runs in horizontally for a few inches till the unsound wood is reached, and then turns downwards into a large oval chamber in which the eggs rest on chips and debris; but when tunnelling the birds often hit upon a natural cavity in the wood, which is then utilised however deep or large it may be. The eggs are broad ovals in shape and glossy white in colour without markings.

Although in Burma no less than forty different kinds of Woodpecker occur, each with a distinct English and scientific name, in Burmese all are apparently known only as *Thit-tauk-hnget* (သစ်တောက်ငှက်).

THE LITTLE SCALY-BELLIED WOODPECKER

Picus xanthopygæus (1339).

Identification. — Length 12 inches. See under the next species.

Nest and Eggs. — The breeding season is from March to May. Nest and eggs resemble those of the next species.

Status and Distribution. — This species is widely distributed in India, Ceylon, and parts of Burma; in this country it is resident in Arakan (?), the Chin Hills, Upper Chindwin, and the Arakan and Pegu Yomas as far south as Prome and Toungoo. It ascends the higher hills to 5,000 feet.

THE BURMESE SCALY-BELLIED WOODPECKER

Picus viridanus viridanus (1341).

Local Names. — Burmese: See the family name.

Identification. — PLATE XIV, Fig. 1, Page 242. Length 13 inches. There are three closely allied species, distinguished as follows:—

A. Chin and throat boldly striped or squamated like the rest of the plumage; moustachial streak faint — *P. xanthopygæus.*

B. Chin and throat immaculate or weakly striped; breast squamated like the abdomen; moustachial streak dark — *P. viridanus.*

C. Chin, throat and upper breast immaculate and not squamated like the abdomen; moustachial streak very pronounced — *P. vittatus.*

The Scaly-bellied Woodpeckers have green upper-parts with bright yellow rumps, and the crown and crest are crimson in the male and black in the female; they are distinguished from other green Woodpeckers by the white eyebrow with a black line above it, and the scaly black markings (squamations) on the under-parts.

Voice. — The ordinary note is a loud wild *tcheu-tcheu-tcheu-tcheu* ...., a softer version of which is kept up while feeding.

Habits and Food. — Those of the family; it feeds much on the ground and on moss-covered trees and fallen boulders, and ants constitute a large portion of its diet.

Nest and Eggs. — The breeding season is from February to April. Nest and eggs are typical, and the latter average 1·11 by 0·84 inches.

Status and Distribution. — This race extends from the Malay States northwards to Siam and parts of Burma; it has been recorded from Arakan, Central Burma, Southern Burma, Karenni and Tenasserim.

THE SIAMESE SCALY-BELLIED WOODPECKER

Picus vittatus eisenhoferi (1342).

Identification. — Length 13 inches. See under the preceding species.

Status and Distribution. — This species is found in the Indo-Chinese countries and Malay States and has been recorded at Kawkareik on the Salween, Amherst district.

THE BURMESE BLACK-NAPED GREEN WOODPECKER

Picus canus hessei (1345).

Allied Form.—

THE ASSAM BLACK-NAPED GREEN WOODPECKER, *P. c. gyldenstolpei (1344).*

Local Names. — Lashi: *Kang* or *Sit-daw-ngaw.*

Identification. — Length 12½ inches. Distinguished from the last three species by the black nape, black line down each side of the throat from the base of the lower mandible and plain olive-green under-parts; bill blackish. The crown and nape are crimson in the male and black in the female. A forest Woodpecker, seldom seen in open country.

Voice. — It has a persistent rattling call, and also a peculiar gulping call.

Habits and Food. — Those of the family. It is a typical bird of the teak forests, frequenting the drier and more open parts by preference; in the cold weather it is often seen in small parties of 4–6 birds feeding on the ground or in the understorey.

Nest and Eggs. — The breeding season is from April to June. Nest and eggs are typical and the latter average 1·16 by 0·85 inches.

Status and Distribution. — This species is widely distributed in Europe and Asia, and is a common resident throughout Burma in the foothills, ascending the higher hills in some parts to about 7,000 feet. Over most of Burma the birds are intermediate between the two races, which are not well defined.

THE BURMESE SMALL YELLOW-NAPED WOODPECKER

Picus chlorolophus chlorophoides (1348).

Allied Form.—

THE HIMALAYAN SMALL YELLOW-NAPED WOODPECKER,
P. c. chlorolophus (1346).

Local Names. — Lashi: *Kang* or *Sit-daw-ngaw.*

Identification. — Length 11 inches. Easily distinguished from all Woodpeckers other than the Large Yellow-naped Woodpecker (*q.v.*) by the conspicuous golden-yellow crest on the back of the head. Sexes differ. The male has the forehead, eyebrow, and moustachial streak crimson; back dark olive-green; under-parts mottled brown. The female has the crimson restricted to a short broad line from the eyebrow to the nape.

Voice. — The usual call is a rather high-pitched shrill wailing note, and it also utters a low chuckling sound in the breeding season.

Habits and Food. — Those of the family. This also is a typical bird of the teak forests and is partial to bamboo and scrub. It is usually seen in the lower canopy, but occasionally feeds on the ground like the other green Woodpeckers, and though normally solitary or in pairs as regards its own species it often feeds in mixed parties with other forest birds such as Jays and Magpies. It is not shy and has a curious habit of "freezing" when being watched.

Nest and Eggs. — The breeding season is from March to May. Nest and eggs are typical, the latter averaging 0·96 by 0·71 inches.

Status and Distribution. — This species is found almost throughout India, Ceylon, and Burma, extending eastwards to Yunnan and Siam. It is a common resident throughout the foothills and higher hills of Burma.

THE MALAY CRIMSON-WINGED GREEN WOODPECKER

Picus puniceus observandus (1351).

Identification. — Length 11 inches. Distinguished from other green Woodpeckers by the crimson on the wings; whole crown, fore-crest and sides of neck crimson, and hind-crest bright yellow; the male has a broad moustachial stripe crimson, which is absent in the female. It has a habit of working its way to the top of a tree and sitting there uttering a curious plaintive note and it is especially noisy in the evenings after other Woodpeckers have ceased to call. Said to frequent evergreen forest and clearings therein, and to be solitary as a rule.

Nest and Eggs. — Unknown.

Status and Distribution. — This species ranges from Borneo, Java and Sumatra through the Malay States to Southern Tenasserim.

THE RED-RUMPED GREEN WOODPECKER

Picus erythropygius nigrigenis (1352).

Local Names. — Burmese: See the family name.

Identification. — Length 13 inches. The crimson rump and the black sides of the head contrasting with the bright yellow of the chin and throat distinguish this from all other green Woodpeckers; the barred black and white primaries show up on the closed wing. The crown of the male is crimson, that of the female black.

Voice. — The ordinary call is a loud double note, sometimes a high-pitched staccato phrase *cha-cha-cha, cha-cha-cha,* rapidly repeated with the stress on the first note in each phrase. It is one of the noisiest of the family and a party keeps up a continual noisy chatter.

Habits and Food. — This fine Woodpecker is typically a bird of open scrub country, but it also frequents open forest such as *indaing;* it is usually seen in parties, often associated with Jays or Treepies. It keeps to the tree-tops and understorey and has not been seen feeding on the ground. It is shy, restless, and continually on the move.

Nest and Eggs. — The breeding season is from February to March. Nest and eggs are typical, and the latter average 1·10 by 0·80 inches.

Status and Distribution. — This species ranges through the Indo-Chinese countries and Malay States, extending to South-east Burma. It is resident near Maymyo, in the Pegu Yomas of the Toungoo district, Karen Hills, Shan States, Karenni and Tenasserim; it is chiefly a bird of the foothills, seldom if ever ascending above 3,000 feet, and distinctly local in its distribution.

THE LARGE YELLOW-NAPED WOODPECKER

Chrysophlegma flavinucha flavinucha (1353).

Local Names. — Burmese: See the family name.

Identification. — PLATE XIV, Fig. 3, Page 242. Length 13 inches. Distinguished from the Small Yellow-naped Woodpecker by the absence of crimson on the head, which is of a peculiar triangular shape unlike that of any other Woodpecker; the lemon-yellow chin and throat of the male are also distinctive, but the female has this part rufous-brown.

Voice. — A hesitant *chup — chup* with a long interval between the notes, followed by a quick high-pitched staccato roll, is the usual call.

Habits and Food. — This fine Woodpecker is found in all types of forest, and is a typical bird both of the teak forests of the foothills and of the oak and evergreen forests of the higher hills. Like most of the family it probably pairs for life, and the two birds usually go about together. It feeds both in the understorey and the tree-tops, but seldom if ever descends to the ground.

Nest and Eggs. — The breeding season is from March to May. The nest and eggs are typical and the latter average 1·13 by 0·87 inches. The male has an interesting breeding display.

Status and Distribution. — This species ranges from the Central Himalayas through Burma to Siam; it is a common resident throughout Burma as far south as Moulmein, at all elevations up to 9,000 feet.

THE CHEQUERED-THROATED WOODPECKER

Chrysophlegma mentalis humii (1354).

Identification. — Length 11 inches. Sexes differ. Distinguished from the preceding species by the red upper surface of the wings; the cheeks, chin and throat are dark brown spotted with white in the male, but immaculate brick-

red in the female (except for the centre of the throat, which is the same as in the male). A bird of evergreen forest.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends from Mergui southwards through the Malay States to Sumatra, Java and Borneo.

THE BANDED RED WOODPECKER

Callolophus miniatus malaccensis (1355).

Identification. — Length 10 inches. Sexes differ. The male has the upper part of the head and the crest crimson; mantle chiefly crimson; back barred with dark brown and buff; chin and throat brownish. The female has the sides of the head blackish speckled with white, never crimson, and the chin and throat spotted with white and black. A bird of evergreen forest and mangrove swamps; it hunts for food on trees and has not been seen on the ground; it is solitary as a rule.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends from Mergui southwards through the Malay States to Sumatra, Java and Borneo.

THE PALE-HEADED WOODPECKER

Gecinulus grantia grantia (1356).

Allied Form.—

THE SOUTHERN PALE-HEADED WOODPECKER, *G. g. viridis (1357).*

Local Names. — Chinghpaw: *Kantilauk-kan.*

Identification. — Length 10 inches. The typical race has the upper-parts dull crimson, the under-parts brownish-olive, and a pale bill; round the eye and sides of head pale olive-brown; the male has a crimson patch on the crown and the female has the crown the same colour as the rest of the head. The Southern race differs in having the whole upper-parts golden olive-yellow, and the whole crown and crest of the male are crimson.

Voice. — Its call is unlike that of most Woodpeckers, a curious querulous squeaking note, seldom uttered.

Habits and Food. — This bird frequents all types of forest; it is partial to bamboo jungle, but also occurs in scrub and secondary growth; it is shy and quiet, nearly always seen in pairs or small family parties, and spends most of its time hunting in the under-storey, seldom ascending to the tree-tops or descending to the ground.

Nest and Eggs. — The breeding season is from March to April. The nest is typical of the family, and the eggs, usually 3 in number, average 1·01 by 0·76 inches.

Status and Distribution. — This species ranges from Nepal eastwards through Burma to Siam and Cochin China and southwards to the Malay States. It is resident throughout the foothills of Burma, ascending to about 4,000 feet, and is locally common.

THE EASTERN RUFOUS-BELLIED WOODPECKER

Hypopicus hyperythrus sikkimensis (1358).

Identification. — Length 9 inches. The back is black and white, but it is easily distinguished from other pied Woodpeckers by larger size and bright rufous under-parts; crown and nape crimson in the male, spotted black and white in the female, but neither sex has a crest; under tail-coverts crimson. Bill black above,

pale horny or greyish below. A quiet bird with a querulous call, seldom heard, found chiefly at high elevations. It frequents pine or pine and rhododendron forests in the mountains, occasionally descending to the lower level oak forests. It never associates in parties.

Nest and Eggs. — The breeding season is from April to May. The nest and eggs are typical, the latter averaging 0·87 by 0·65 inches. The boring of the nest hole often takes as long as a month.

Status and Distribution. — This species ranges throughout the Himalayas and is also found in Burma, where it is resident in the Chin Hills, Adung valley, and Southern Shan States, and has been obtained once at Maymyo. It is normally found at elevations above 6,000 feet.

KEY TO THE PIED WOODPECKERS

The genus *Dryobates* contains a number of small Pied Woodpeckers, and the identification of the various species in the field is not easy. The following key may help:

A. Middle tail-feathers all black.
  a. **Back all black.**
    a′. Under-parts not streaked — *D. cabanisi.*
    b′. Under-parts streaked.
      a″. Wing 5-5½ inches. Breast and abdomen tawny — *D. darjellensis.*
      b″. Wing 4 inches. Crimson patch on breast and black patch on abdomen — *D. cathpharius.*
  b. Back barred with white.
    c′. Under tail-coverts crimson — *D. macei.*
    d′. Under tail-coverts not crimson — *D. nanus.*

B. Middle tail-feathers barred or spotted with white.
  c. General colour of head straw-yellow, with a crimson crest in the male — *D. mahrattensis.*
  d. General colour of head black and white, with a crimson crown in the male, black in the female — *D. analis.*

THE KENGTUNG RED-CROWNED PIED WOODPECKER

Dryobates cabanisi cadwaladeri (1362a).

Identification. — Length 11 inches. See key above. A rare bird of the mountains and higher hills. It is said to be shy and quiet, and its tapping on the trees is soft and very rapid, with constant little pauses.

Nest and Eggs. — Little known.

Status and Distribution. — This species ranges from Assam through Burma and Yunnan to China. It is resident in the Bhamo hills and Shan States, and may be seen at Kalaw. The Kengtung race is the form in Kengtung, but elsewhere in Burma the race is uncertain.

THE DARJEELING PIED WOODPECKER

Dryobates darjellensis (1364).

Identification. — Length 10 inches. See key above. A mountain bird, frequenting oak, pine and rhododendron forests.

Nest and Eggs. — It breeds from 5,000 feet upwards, and the eggs average 1·10 by 0·77 inches.

Status and Distribution. — Extends from Nepal eastwards through Burma to Yunnan and Szechwan. In Burma it has only been recorded from Mt. Victoria, the Adung valley and "Toungoo" (probably the Karen Hills).

THE YUNNAN RED-BREASTED PIED WOODPECKER

Dryobates cathparius tenebrosus (1367a).

Identification. — Length 7 inches. See key, page 248. There is a broad black moustachial streak extending down the sides of the neck and surrounding the crimson breast-patch. A bird of the mountains and higher hills, said to resemble a Treecreeper rather than a Woodpecker in its actions.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends along the Himalayas from Nepal eastwards through Burma to Yunnan and Western China. It has been recorded from North-East Burma, the Mogok hills, and Shan States at elevations of 4,000 upwards.

THE FULVOUS-BREASTED PIED WOODPECKER

Dryobates macei macei (1368).

Allied Form.—

THE STRIPE-BREASTED PIED WOODPECKER, *D. m. atratus (1369).*

Local Names. — None recorded.

Identification. — Length 8 inches. See key, page 248. The male has the crown crimson and the female black; the under tail-coverts are crimson and the remaining under-parts tawny streaked with black.

Voice. — It is a quiet bird with a curious squeaking voice.

Habits and Food. — Those of the family; it feeds on the ground as well as on trees and frequents most types of forest.

Nest and Eggs. — The breeding season is from April to June. Nest and eggs are typical and the latter average 0·87 by 0·64 inches.

Status and Distribution. — This species ranges from Nepal eastwards to Burma where it is resident throughout the forests except in the Pegu Yomas. The Stripe-breasted Pied Woodpecker seems to be confined to the higher hills, but is common at Thandaung and in Karenni; the Fulvous-breasted Pied Woodpecker on the other hand appears to frequent low elevations, from the plains to 2,000 feet, occasionally ascending to 4,000 feet. It is still uncertain whether the two birds are different species or races of one species.

THE SIAMESE PIED WOODPECKER

Dryobates analis longipennis (1372).

Identification.—Length 7 inches. See key, page 248. Upper-parts barred black and white; breast spotted and not streaked, and pale dull pink under tail-coverts are distinctive features. The crown is crimson in the male, black in the female. This bird is occasionally seen in forest but prefers open well-wooded country.

Nest and Eggs. — The breeding season is from December to February in Bangkok, but is probably later in Burma. Nest and eggs are typical and the latter average 0·83 by 0·62 inches.

Status and Distribution. — This species extends into Burma from the Indo-Chinese countries and Malay States. It has been recorded in Arakan, the Chin Hills, Central Burma, the Arakan Yomas, Pegu Yomas, Sittang plain, Karen Hills, Shan States, Karenni and Tenasserim; it appears to be confined to the plains and foothills and is nowhere common.

[Note:— The typical race, *D. a. analis (1371)*, does not occur in Burma, assuming the Siamese race is a good one.]

THE NORTHERN YELLOW-FRONTED PIED WOODPECKER

Dryobates mahrattensis aurocristatus (1375).

Local Names. — Burmese: See the family name.

Identification. — Length 7½ inches. See key, page 248. A small dingy Woodpecker, spotted sooty-brown and white on the upper-parts with the centre of the abdomen and the vent crimson. A Dry Zone bird of the plains and foothills.

Voice. — Its call is a feeble *peek* or a sharp *click, click* or *click-r-r-r-r* uttered at short intervals; a shrill note, quite unlike a Woodpecker's, has also been recorded.

Habits and Food. — This little Woodpecker is a bird of roadside avenues, groves and cultivation, low scrub jungle and gardens, and in such localities it feeds quietly on the tree trunks and branches, paying little or no attention to passers-by. Owing to its small size it is rather apt to get into trouble with other small birds and squirrels, but it is a courageous little bird and resists with spirit their endeavours to trespass in its laboriously constructed nest hole. It is one of the drumming Woodpeckers, and except in the breeding season is a solitary bird.

Nest and Eggs. — The breeding season lasts from February to April, but most eggs are found in March. The nest is typical of the family, the entrance hole being about 1½ inches in diameter, and the eggs, 3 in number, average 0.84 by 0.65 inches.

Status and Distribution. — This species is found over the greater part of India and Ceylon, and eastwards through Burma to Cochin China. In Burma it is resident in Central Burma and straggles down the outskirts of the Pegu Yomas as far south as Prome and Toungoo.

THE BURMESE PIGMY WOODPECKER

Dryobates nanus canicapillus (1379).

Allied Form.—

THE YUNNAN PIGMY WOODPECKER, *D. n. obscurus (1378).*

Identification. — PLATE XIV, Fig. 2, Page 242. Length 6 inches (1379) or 7 inches (1378). See key, page 248. The scarlet on the head of the male is restricted to a narrow bar, and the grey crown and absence of crimson under the tail are other distinctive features.

Voice. — The usual note is a short sharp *cheep*, or *chip-chip*.

Habits and Food. — This little Woodpecker is very active and quick in its movements and flies about a good deal from branch to branch when feeding, a trait not common in the family. It frequents most types of forest, but prefers open well-wooded country. It is not shy and is nearly always seen in pairs. It is another of the drumming Woodpeckers.

Nest and Eggs. — The breeding season is from March to April. The nest is usually in a lofty tree and difficult to detect, and the eggs, 3 to 5 in number, average 0.73 by 0.57 inches.

Status and Distribution. — This species ranges from Assam through Burma and Yunnan to the Malay States. The Yunnan race appears to be confined to elevations above 4,000 feet and has only been recorded from North-East Burma and the Southern Shan States; the Burmese race is resident throughout Burma up to 6,000 feet, but is commonest in the plains and foothills.

THE RED-EARED BAY WOODPECKER

Blythipicus pyrrhotis pyrrhotis (1383).

Local Names. — None recorded.

Identification. — Length 12 inches. General colour rufous barred with black; the male has a crimson collar, and the head of the female appears paler than the rest of the plumage; these features, together with the large pale bill and large size, distinguish it from the similar Rufous Woodpecker.

Voice. — Two distinctive calls. One is *churra-cha-churra-cha-churra- ....*, something like a railway engine starting off; the other, heard chiefly in the breeding season, is a loud call of 7 or 8 notes which drop in pitch and also accelerate towards the end; in cadence it is not unlike the call of the Plaintive Cuckoo, but deeper in pitch and slower in pace.

Habits and Food. — This is mainly a bird of evergreen and deep forest, in which it feeds in the understorey and on the ground, occasionally ascending into the tree-tops; it is partial to dense bamboo thickets, is nearly always seen in pairs, and is rather shy.

Nest and Eggs. — The breeding season is in May and June. The nest is nearly always close to the ground, and the eggs, 2 to 4 in number, average 1.17 by 0.84 inches.

Status and Distribution. — This species ranges from Nepal through Burma to Siam, Annam, and the Malay States. In Burma it is probably resident in all forested parts of the country from the plains up to 9,000 feet (not yet recorded from Arakan, the Chin Hills, Central Burma, or the Arakan Yomas); it is not uncommon in the higher hills, but is scarce in the foothills and plains.

THE MALAY BAY WOODPECKER

Blythipicus rubiginosus (1384).

Identification. — Length 9 inches. Differs from the preceding species in smaller size and in having the back unbarred.

Nest and Eggs. — Unknown.

Status and Distribution. — A Malayan species, which extends as far north as Mergui in Tenasserim. It is said not to ascend the higher hills.

THE FULVOUS-RUMPED BARRED WOODPECKER

Miglyptes tukki grammithorax (1385).

Allied Form.—

THE BUFF-NECKED BARRED WOODPECKER, *M. t. tukki, (1386).*

Identification. — Length 7-8 inches. The curved bill distinguishes the genus. General colour barred blackish and buff. It has a soft rather plaintive call,

keeps mainly to evergreen forest, and feeds high up in trees, never descending to the ground.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends from Southern Tenasserim (Mergui) and South-west Siam through the Malay States to Sumatra and Borneo.

THE BLACK-AND-BUFF WOODPECKER

Miglyptes jugularis (1387).

Identification. — Length 7½ inches. Differs from the preceding species in having the back, upper tail-coverts and tail plain black without bars or spots; there is a buff collar on the sides and back of the neck. A bird of evergreen forest.

Nest and Eggs. — More or less unknown.

Status and Distribution. — This species is found in parts of Burma and further east in Annam, Siam and Cochin China. In Burma it has been recorded from Arakan, the Pegu Yomas (east side), Southern Shan States, Karenni, and Tenasserim. It is said to be common in the plains and foothills of Tenasserim in evergreen forest, but elsewhere it is rare.

THE NORTHERN RUFOUS WOODPECKER

Micropternus brachyurus phaioceps (1389).

Allied Form.—

THE SIAMESE RUFOUS WOODPECKER, *M. b. williamsoni (1388).*

Identification. — PLATE XIV, Fig. 4, Page 242. Length 10 inches. The female lacks the crimson line below the eye. For distinctions from the Red-eared Bay Woodpecker see under that species.

Voice. — The call is a high pitched yaffle, like that of the green Woodpeckers but softer and lower and much more seldom used. The alarm-note is a quick low *qū-ūk*.

Habits and Food. — This bird is often seen in the teak forests and also frequents open well-wooded country. It feeds on all kinds of ants and especially those of the genus *Crematogaster*, which have quite a painful sting. To get at the insects it perches on a branch adjoining their nest and pecks the latter with its bill; as the ants swarm out to investigate the disturbance, it picks them off one after another; it also hunts for them on the ground.

Nest and Eggs. — The breeding season is from April to June. The Rufous Woodpecker is remarkable for habitually using the carton-like arboreal nests of the *Crematogaster* ants; these nests are very tough and stand an immense amount of rough usage, although they are very light. The bird cuts an entrance in the middle of one side, works in for a few inches, and then hollows out a chamber for its eggs; the nest selected is nearly always a live one, containing ants, pupae and eggs, on which the birds feed, both whilst cutting out the nest and when incubating, as long as the supply holds out. The eggs, also, are quite unlike those of other Woodpeckers. They are oval in shape, fine and strong in texture, but the shells are thin, quite glossless, and translucent ; though white when first laid they soon become stained a uniform pale brown. They average 1.10 by 0.77 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is resident throughout the forests of Burma in the plains and foothills; it seldom ascends above 3,000 feet but may be seen at Maymyo. It is fairly common, especially in Northern and Central Burma.

KEY TO THE GOLDEN-BACKED WOODPECKERS

Four similar Woodpeckers with golden backs and wings occur in Burma and are distinguished as follows:

A. Nape and hind-neck white. Toes 4. Length 13 inches *Chrysocolaptes*

B. Hind-neck black. Toes 3. Length 11 inches.
   a. No black line down centre of throat (Tenasserim) *Chloropicoides*
   b. A single black line down centre of throat *D. javanensis*
   c. Two black lines down centre of throat, divided by a narrow brown space *D. shorii*

THE BURMESE GOLDEN-BACKED THREE-TOED WOODPECKER

Dinopium javanensis intermedia (1399).

Local Names. — None recorded.

Identification. — See key above.

Voice. — The call-note is a loud discordant scream of several syllables, uttered both on the wing and from a tree, and perhaps the most disagreable of all Woodpecker noises.

Habits and Food. — Those of the family. These birds are found in well-wooded open country and are typical birds of the teak forests, where they are perhaps the commonest of all the Woodpeckers. They also frequent the pine forests of the higher hills, and are usually seen in pairs.

Nest and Eggs. — The breeding season is from March to May. The nest and eggs are typical and the latter average 1.14 by 0.74 inches.

Status and Distribution. — This species is found in most parts of the Oriental Region as far west as Assam. It is resident throughout Burma except in the Upper Chindwin and Myitkyina districts, and is a common bird of the plains and foothills, ascending to 5,000 feet.

THE HIMALAYAN GOLDEN-BACKED THREE-TOED WOODPECKER

Dinopium shorii (1401).

Identification. — See key above. It is seldom if ever possible to distinguish it from the preceding species in the field.

Nest and Eggs. — Only two or three nests seem to have been found.

Status and Distribution. — Ranges from the Central Himalayas to Burma, where it is resident in Arakan, the Chin Hills, Upper Chindwin, Lower Chindwin, Bhamo hills, probably the Arakan Yomas, and the Pegu Yomas. Owing to its similarity to the preceding species it is difficult to say whether it is common or scarce.

THE MALAY GOLDEN-BACKED THREE-TOED WOODPECKER

Chloropicoides rafflesi peninsularis (1402).

Identification. — Length 11 inches. See key, page 253. The rump is either golden-olive or tinged with crimson, not crimson as in the other species. Said to frequent only dense forest.

Nest and Eggs. — Unknown.

Status and Distribution. — Found in the Malay States, South-west Siam, and the greater part of Tenasserim.

TICKELL'S GOLDEN-BACKED WOODPECKER

Chrysocolaptes guttacristatus guttacristatus (1404)

Local Names. — None recorded.

Identification. — PLATE XIV, Fig. 5, Page 242. See also key, page 253.

Voice. — It has a harsh loud prolonged call, uttered both in flight and from a tree, incessant and strident such as might be made by a giant cicada.

Habits and Food. — This bird frequents any kind of well-wooded country and is a typical bird of the teak forests; it feeds both on the ground and on trees.

Nest and Eggs. — The breeding season is from March to May. The nest is typical, the entrance hole being about 3 inches in diameter, and the eggs average 1.18 by 0.87 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region, and is resident throughout the forests of Burma, though seldom found above 3,000 feet. A different race probably occurs in Tenasserim, but the name is uncertain.

THE GREY-AND-BUFF WOODPECKER

Hemicercus concretus sordidus (1408).

Identification. — Length 5½ inches. The male has the forehead and crown crimson, behind which is a long grey crest; the female has the forehead and crown grey like the rest of the head; upper-parts black, grey and buff, and under-parts olive-grey.

Nest and Eggs. — Unknown.

Status and Distribution. — This species is a rare resident in the extreme south of Tenasserim, whence it extends through the Malay States to Sumatra, Java and Borneo.

THE HEART-SPOTTED WOODPECKER

Hemicercus canente canente (1409).

Identification. — Length 6½ inches. The male has a long black crest, forehead and crown black with white streaks, upper-parts black except for the white rump; chin, throat and sides of neck buffy-white; remaining under-parts blackish; shoulder of wing, a patch on the hind-wing near the body, and the under wing-coverts buff. The female has more buff on the wings and the forehead and fore-crown buffy-white. It has a shrill piercing cry and is generally found in pairs both in forests and in open country, keeping much to the tree-tops.

Nest and Eggs. — The breeding season appears to extend from November to April; two broods are probably reared. Nest and eggs are typical of the family and the latter average 0.98 by 0.71 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region as far west as Assam; in Burma it is resident in the south, but rather scarce, and has not been recorded north of latitude 20° North.

THE INDIAN GREAT SLATY WOODPECKER

Mulleripicus pulverulentus harterti (1411).

Local Names. — Chinghpaw: *Du-wan.*

Identification. — PLATE XIV, Fig. 7, Page 242. Length 20 inches. In its noisy flight it appears dark grey with the head and neck paler.

Voice. — It has a peculiar and quite distinctive whinnying note.

Habits and Food. — This magnificent Woodpecker is found in teak forests and open well-wooded country; it remains throughout the year in small parties of 4 to 6 birds, which follow one another at intervals from the top of one tall tree to another, calling as they fly. The noise of their tapping is peculiar, starting with slow very resonant taps, which accelerate and finish off with a roll that can be heard at a great distance. It is not a shy bird.

Nest and Eggs. — The nest is typical, the entrance hole being about 4 inches in diameter, and the eggs average 1.43 by 1.13 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region, and is resident throughout Burma in the foothills, but is local and does not ascend the higher hills.

THE BURMESE GREAT BLACK WOODPECKER

Macropicus javensis crawfurdi (1413).

Allied Form.—

THE MALAY GREAT BLACK WOODPECKER, *M. j. javensis (1412).*

Local Names. — None recorded.

Identification. — PLATE XIV, Fig. 8, Page 242. Length 16 inches. The female has the forehead and fore-crown black and has no crimson on the cheeks, but otherwise resembles the male. The Malay race has the rump black, not white, and lacks the white wing-spot shown by the Burmese race in flight.

Voice. — A powerful single note is uttered from a perch, and a loud discordant chattering note on the wing.

Habits and Food. — Similar to those of the preceding species, but it is nearly always seen singly or in pairs; the sound of its tapping is not reverberatory but consists of loud single blows slowly repeated. Like some of the other large Woodpeckers it often rests in a commanding position on a bough at the top of a tree and moves the head, neck and upper part of the body from side to side with a swaying motion, until it finally makes up its mind to fly to another tree.

Nest and Eggs. — The breeding season is from February to May. The nest is typical and the eggs average 1.32 by 0.98 inches.

Status and Distribution. — This species ranges from Burma through South-west Siam and the Malay States to Sumatra, Java, Borneo and Bali. It is resident throughout Burma in the forests of the plains and foothills, but rarely ascends into the higher hills. It is not uncommon in the Pegu Yomas.

Sub-family VIVIINÆ

PICULETS

The Piculets are distinguished by their very small size and soft short tail-feathers. They are found principally in South America, but extend to Africa and Asia and two species are found in Burma. The flight is straighter and less dipping than that of most Woodpeckers.

THE MALAY SPECKLED PICULET

Vivia innominata malayorum (1417).

Allied Form.—

THE HIMALAYAN SPECKLED PICULET, *V. i. innominata (1416).*

Local Names. — Chinghpaw: *Kandi-let-let.*

Identification. — Length 4 inches. Upper-parts olive with an orange tinge; under-parts white with bold black spots; a black band behind the eye, with narrow white bands above and below it.

Voice. — A little piping imitation of the call of the larger Woodpeckers.

Habits and Food. — This tiny Woodpecker frequents the undergrowth in forests or on the outskirts thereof, and is partial to dense bamboo thickets. Its presence is usually revealed by its quiet tapping, and it is a tame little bird, taking little notice of human beings and continuing its search for insects within a few feet of them. It is usually solitary, but often accompanies a mixed hunting party of small Babblers; it has not been observed actually on the ground, but feeds close to it, often on bamboos growing out of short grass. It drums occasionally.

Nest and Eggs. — Similar to those of the next species.

Status and Distribution. — This species ranges from the Central Himalayas through Burma to Annam and the Malay States. In Burma it is resident and widely distributed in the foothills and higher hills, and is quite common in the latter.

THE BURMESE RUFOUS PICULET

Sasia ochracea reichenowi (1421).

Allied Forms.—

THE INDIAN RUFOUS PICULET, *S. o. ochracea (1419).*

THE CACHAR RUFOUS PICULET, *S. o. querulivox (1420).*

Local Names. — None recorded.

Identification. — PLATE XIV, Fig. 6, Page 242. Length 4 inches. General colour rufous with a short black tail and greenish wings; there is a white eyebrow behind the eye and a ring of bare red skin round the eye.

Voice. — Its note is a querulous miniature of that of the larger Woodpeckers and is uttered both on the wing and when climbing.

Habits and Food. — Similar to those of the Speckled Piculet. It is a restless little bird and in addition to energetic climbing, constant tapping, and search for insect prey, it has a curious habit of making little fluttering flights of a few yards and then returning to its original

hunting ground. Though it cannot move head-first down a tree like a Nuthatch, it sometimes slides tail-first down a bamboo. It drums occasionally.

Nest and Eggs. — The breeding season is from April to June. The nest is nearly always in a bamboo, the entrance hole being bored just below a node and the eggs laid on the node below; they are 2 to 4 in number and average 0·60 by 0·48 inches.

Status and Distribution. — This species has much the same range as the preceding one, both in Burma and beyond. The races and their distributions need to be revised when more specimens are available.

TEMMINCK'S RUFOUS PICULET

Sasia abnormis (1422).

Identification. — Differs from the preceding species in having no white eyebrow.

Nest and Eggs. — Little known; said to be like those of the preceding species.

Status and Distribution. — Extends from South-west Siam through the Malay States to Sumatra, Java and Borneo, and has been recorded from near Ye in Tenasserim.

Sub-family JYNGINÆ

WRYNECKS

The Wrynecks are peculiar Woodpeckers with long soft and flexible tails and skulking habits. One species occurs in Burma.

THE WRYNECK

Jynx torquilla intermedia (1423a).

Local Names. — None recorded.

Identification. — PLATE XIV, Fig. 9, Page 242. Length 8 inches. A rather slim elongated grey-brown bird, with upper-parts delicately streaked and mottled like those of a Nightjar and the under-parts profusely spotted. The flight is slow, hesitant and undulating, and resembles that of a large Warbler.

Voice. — The call-note is a loud shrill *quee-quee-quee-quee-* constantly repeated and the alarm-note is a short *tuck* repeated several times.

Habits and Food. — In general appearance and habits this bird is unlike the true Woodpeckers; it is solitary, shy and elusive, frequenting scrub jungle in open country and thickets round fields and cultivation. It is also found in the forest, where it keeps mainly to the crowns of trees, sometimes perching and sometimes clinging to the trunk like a Woodpecker. It does not bore for food but picks insects off the bark and leaves or up from the ground with exceedingly rapid movements of the long worm-like tongue. It derives its name from its habit of twisting its head into extraordinary positions when feeding.

Status and Distribution. — A Palæarctic species, including the British Isles in its breeding range, and wintering in tropical Africa and Asia. It winters in parts of Burma in small numbers, arriving in

October and leaving in April; it has been recorded from the Chin Hills, North-East Burma, Central Burma, the Pegu Yomas, Shan States and Karenni, and is found chiefly in the plains and foothills, ascending to 6,000 feet.

Family CAPITONIDÆ

BARBETS

This family has a wide range in the Oriental Region and is also represented in South America. Except for the Brown Barbet, the members of the family occurring in Burma are mainly green in colour, usually with gaudy markings of blue and scarlet about the head and neck, and have strong massive bills. They are essentially birds of the tree-tops, in which they sit and utter loud monotonous call-notes for hours on end; owing to their colour they are difficult to pick out from the foliage, and owing to their sluggish habits they are seldom seen on the wing; it is not surprising therefore that though their voices are among the commonest bird sounds in the tropics, comparatively few people know the birds by sight. The various species are however not difficult to distinguish either by sight or sound.

In their nesting habits the Barbets resemble the Woodpeckers; like them they excavate holes in the trunks and branches of trees, and lay their pure white eggs on chips and debris at the bottom of a rounded chamber.

THE BROWN BARBET

Calorhamphus fuliginosus hayi (1425).

Identification. — Length 7 inches. The general colour is dark brown above, whitish below, the sides of the head, chin and throat being suffused with red. The note is a low soft whistle. It is said to be more of a Tit than a Barbet in its actions, hunting about the leaves and branches of trees and peering into the crevices of the bark, and its food consists as much of insects as of fruit.
Nest and Eggs. — These are typical of the family and the eggs average 1·03 by 0.79 inches.
Status and Distribution. — This species extends from the extreme south of Tenasserim, where it is said to be rare, and South-west Siam through the Malay States to Sumatra and Borneo.

THE CHINESE GREAT BARBET

Megalaima virens virens (1426).

Allied Form.—

THE ASSAM GREAT BARBET, *M. v. magnifica (1428).*

Local Names. — Lashi: *La-kyung, tsawng-u.*

Identification. — PLATE XV, Fig. 1, Page 258. Length 13 inches. In spite of the gaudy plumage when closely examined, in the forest it appears a dark dully-coloured bird, chiefly conspicuous for the large yellow bill, dark head, under-parts streaked green and yellow, and the red patch under the tail. Size and voice distinguish it from all other Barbets. The flight is strong and vigorous, with undulations and noisy wing-beats, like that of a Woodpecker.

PLATE XV

		See Page No.
1.	**CHINESE GREAT BARBET** (adult) *Megalaima virens virens*	258
2.	**BLUE-THROATED BARBET** (adult) *Cyanops asiatica asiatica*	260
3.	**BURMESE CRIMSON-BREASTED BARBET** (adult) *Xantholæma hæmacephala indica*	262
4.	**ASSAM LINEATED BARBET** (adult) *Thereiceryx lineatus hodgsoni*	259
5.	**RED-WINGED CRESTED CUCKOO** (adult) *Clamator coromandus*	271
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8.	**MALAY KOEL** (adult male) *Eudynamis scolopaceus malayanus*	272
8a.	Ditto. (adult female)	"
9.	**MALAY LARGE GREEN-BILLED MALKOHA** (adult) *Rhopodytes tristis longicaudatus*	273
10.	**HUME'S CROW-PHEASANT** (adult) *Centropus sinensis intermedia*	274

PLATE XV

Voice. — The call-note is a mournful loud musical *pyi-woo* uttered monotonously from high up in a shady tree; at first the call often sounds very hoarse, but the bird gradually finds its voice and is then audible half a mile away or more; another characteristic note is *gyok-gyok-gyok,* and a harsh *karr-r* is uttered repeatedly when feeding. Two or three birds often call to one another from different trees.
Habits and Food. — This is typically a forest bird of the higher hills, a frequenter of wild and difficult country, where its voice carrying across the precipitous ravines is always a welcome sound. Like all Barbets it is a great fruit eater, and is very partial to wild figs; the larger kinds are torn into pieces before being swallowed, but the smaller ones are gulped down whole. It is a wary bird and does not permit a close approach.
Nest and Eggs. — The breeding season is from February to July. The nest is typical of the family, and the eggs, usually 4 in number, are fine and very fragile in texture and average 1·35 by 1·06 inches.
Status and Distribution. — This species is found throughout the Himalayas and extends eastwards to China; it is common and resident throughout the higher hills of Burma.

THE ASSAM LINEATED BARBET

Thereiceryx lineatus hodgsoni (1432).

Local Names. — Burmese: *Hpo-gaung* (ဖိုးခေါင်း)
Identification. — PLATE XV, Fig. 4, Page 258. Length 11 inches.
Voice. — This bird has a variety of calls: 1. *Po-gaung, po-gaung,* etc., two not unmusical notes low-high; 2. *Hoo-hoo-hoo* or *hoo-hoo-hoo-hoo* uttered rapidly and repeated for minutes on end, and preceded by a rattling run up the scale *tur-r-r-r;* 3. A single harsh guttural *whirrp;* 4. If angry or annoyed it utters a wheezy *pench pench,* with the bill wide open, wings drooping, and a general attitude of ferocity quite out of keeping with so feeble a sound. The first two are the usual call-notes and are among the characteristic sounds of the teak forests ; they may be heard at all times of the day and sometimes at night, but the bird is most persistent in the afternoons and evenings.
Habits and Food. — Those of the family. It frequents gardens, where these adjoin forest, but avoids the towns and villages of the paddy plains.
Nest and Eggs. — The breeding season is from April to May. Nest and eggs are typical of the family, and the latter average 1·21 by 0·90 inches.
Status and Distribution. — This species is found in the Oriental Region and Australia. It is common and resident throughout the forests of Burma, ascending to 4,000 feet.

[Note:— The Burmese race, *T. l. intermedius (1433),* is now considered to be the same as the Assam race.]

THE GAUDY BARBET

Chotorhea mystacophanes mystacophanes (1435).

Identification. — Length 9 inches. Resembles all the following species in having bright colours on the head and neck, but distinguished by the rather long

black bill. The crimson chin and throat of the male are also distinctive. The female has the forehead and sides of the head blue and the chin and throat yellow. Young birds are almost uniform green. The call-note is *tok-toktok — tok — toktok*, or *tok-tok-tok — tok-tok-tok*, uttered incessantly by day and also on moonlight nights. It frequents evergreen forest, less often open forest, and is fond of clinging to the trunks of trees and tapping away like a Woodpecker.

Nest and Eggs. — Unknown.

Status and Distribution. — This is a common resident in Tenasserim as far north as Tavoy, and extends southwards through the Malay States to Sumatra and Borneo.

THE BLUE-THROATED BARBET

Cyanops asiatica asiatica (1436).

Allied Form.—

DAVISON'S BLUE-THROATED BARBET *C. a. davisoni (1437).*

Local Names. —Burmese: *Kok-kă-laung* (ကုဋ္ဌကလောင်း)

Identification. — PLATE XV, Fig. 2, Page 258. Length 9 inches. This and the two following species all have blue throats.

Voice. — The call-note is *took-a-rook, took-a-rook, ...* uttered very rapidly, harsh and loud, for minutes at a time; it is liable to be confused with the call of the Blue-eared Barbet *(q. v.)*.

Habits and Food. — Similar to those of the Lineated Barbet, and it is likewise a characteristic bird of the teak forests. So regular and persistent are the calls of these two birds that the ear of the jungle dweller soon learns to class them with the shrilling of cicadas and the croaking of frogs and other typical evening sounds of a tropical forest and ceases to pay attention to them.

Nest and Eggs. — The breeding season lasts from April to July. Nest and eggs are typical and the latter average 1·10 by 0·81 inches.

Status and Distribution. — This species is found over the greater part of the Oriental Region, extending westwards along the Himalayas to Kashmir. It is a common resident throughout the foothills of Burma, and occasionally ascends up to 6,000 feet.

HUME'S BLUE-THROATED BARBET

Cyanops incognita (1439).

Identification. — Length 9 inches. Blue-green crown, yellow eye-ring, marked black eyebrow, and moustachial streak distinguish this species; a narrow red line across the forehead joining crimson spots in front of the eyes and a red patch on the hind-crown are other features. Voice and habits said to be the same as those of the preceding species.

Nest and Eggs. — Unknown.

Status and Distribution. — It appears to be confined to Tenasserim, from Tavoy in the south to Amherst and the Thaungyin river in the north. Whether it is common or scarce is unknown.

THE INDIAN BLUE-EARED BARBET

Cyanops duvauceli cyanotis (1441).

Allied Form.—

THE TENASSERIM BLUE-EARED BARBET, *C. d. stuarti (1442).*

Local Names. — Arakanese: *Nyet-pa-din.*

Identification. — Length 7 inches. Readily distinguished from other blue-throated Barbets by small size and bright grass-green under-parts; in addition the forehead and fore-crown are black, the posterior crown blue, and the ear-coverts blue with a patch of crimson above and below.

Voice. — The call-note is said to be the word *koturr* or *turruk* repeated incessantly and sometimes ending with a rolling *rrrrooo*.

Habits and Food. — Those of the family. A bird of evergreen and moist forests, and one of the characteristic birds of the Pegu Yomas (east side).

Nest and Eggs. — The breeding season is from April to early June. The nest is typical of the family, usually found in a tree in evergreen forest, and the entrance hole measures 1½ inches in diameter; the eggs, 2 to 4 in number, average 0·97 by 0·72 inches.

Status and Distribution. — This species ranges along the Himalayas and thence through Burma to Cochin China, the Malay States and Sumatra. It is widely distributed in Burma but appears to be scarce everywhere, though it has probably been largely overlooked or confused with the Blue-throated Barbet.

[Note.— THE THICK-BILLED BARBET, *Cyanops robustirostris (1443)*, is said to have been obtained in Karenni (F.B.I., Vol. IV, Page 123) but recent work in that state has failed to confirm the record. It is a little known bird, resident in the Cachar hills of Assam. Length 5½ inches, no larger than the Coppersmith; whole plumage green; found in flocks in winter.]

RAMSAY'S GOLDEN-THROATED BARBET

Cyanops franklinii ramsayi (1445).

Allied Form.—

THE GOLDEN-THROATED BARBET, *C. f. franklinii (1444).*

Local Names. — None recorded.

Identification. — Length 9 inches. The yellow chin and throat, bordered with grey, are distinctive; in addition, the forehead and hind-crown are crimson and the centre of the crown is yellow. A bird of the higher hills.

Voice. — The call-note is a loud resonant shout *look-up, look-up, ..*, the first syllable very short and the second higher in pitch; the call is shorter, different and less musical in tone, than that of the Lineated Barbet. A single *tonk* is sometimes uttered. A harsh shrill chatter of excitement is indulged in when courting at the start of the breeding season.

Habits and Food. — Those of the family; it is not shy and will permit a close approach.

Nest and Eggs. — The breeding season is from April to June; fresh eggs have been found at the end of July, possibly a second brood. The nest is typical and the eggs average 1·08 by 0·83 inches.

Status and Distribution. — This species extends from Nepal eastwards to Assam and through Burma to Siam and the Malay States. It is widely distributed in the higher hills of Burma (not yet recorded from the Arakan Yomas) and is extremely common in the Karen

Hills (Thandaung) and Karenni; it also occurs at Mogok but has not been recorded from Maymyo or Kalaw.

THE BURMESE CRIMSON-BREASTED BARBET or COPPERSMITH

Xantholæma hæmacephala indica (1446).

Local Names. — Burmese: *Hnget-pădein* (ငှက်ပျံုးတိုး)

Identification. — PLATE XV, Fig. 3, Page 258. Length 6 inches. A small heavily built Barbet with yellow chin and throat, crimson patch on the breast and remaining under-parts yellowish-white boldly streaked with green.

Voice. — The note is a loud but mellow *took* or *tonk*, like the tap of a small hammer on metal (hence the name of Coppersmith); this note never changes or varies and is repeated indefinitely at regular intervals but not at night. The bird calls persistently throughout the hot weather and intermittently in the rains.

Habits and Food. — This is a common bird of the plains, and the only Barbet that habitually frequents the larger towns; it is catholic in its tastes, being found in every type of open country where trees abound and also throughout the teak forests.

Nest and Eggs. — The breeding season is from February to May. The nest is typical of the family and the eggs, 3 or 4 in number, average 1·00 by 0·69 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is a common resident throughout Burma in the plains and foothills. It is also common round Maymyo, but as a rule does not ascend the hills to any height.

Sub-order CUCULI.

Family CUCULIDÆ

The Burmese Cuckoos fall into two general groups, the one arboreal and parasitic (sub-families *Cuculinæ* and *Eudynaminæ*) and the other terrestrial and non-parasitic (sub-family *Phænicophainæ*). Like the Barbets, the Cuckoos are birds with loud noisy call-notes, or more properly "songs" as they are heard only during the breeding season, and are far more familiar to the ear than the eye; it may therefore serve a useful purpose to list out briefly the calls of the various species.

SUMMARY OF CUCKOO CALL-NOTES AND SONGS

(1453)	Khasia Hills Cuckoo	*Coocoo* (male); water-bubbling note (female).
(1454)	Himalayan „	A dull booming note *hud-hud-hud-hud* similar in tone to the call of a Hoopoe.
(1455)	Small „	*Who-who-whăr, who-who-wha,* rather like a cackling hen, with the stress on the third syllable.
(1456)	Indian „	*Yauk-hpa-hkwe-hkaw,* melodious.
(1457)	Large Hawk „	*Brain-fever* or *Pi-pee-ah,* repeated several times, louder and shriller each time.
(1460)	Javan Hawk „	Thin shrill version of above.

(1463)	Plaintive Cuckoo	1. The cadence call, *Tee-tee-tee-tee-tita-tita tita-tita-tee,* down the scale. 2. *Tay-ta-ta-tay, tay-ta-ta-tay, tay-ta-ta-tay* each call higher in pitch than the last, and often ending up with call 1. Also other calls.
(1464)	Banded Bay "	Thin shrill version of *yauk-hpa-hkwe-hkaw.*
(1467)	Violet "	Not recorded.
(1468)	Emerald "	A rattle of descending notes.
(1470)	Drongo "	1. A human whistle of 5 or 6 ascending notes. 2. A loud *wee-whip.*
(1472)	Pied Crested Cuckoo	A very wild metallic double note, *pleue.*
(1474)	Red-winged " "	A whistle, sometimes hoarse, sometimes loud and clear, and a loud screech.
(1475)	Koel	1. *You're ill, you're ill,* etc. louder and shriller each time. 2. *Ho-y-o.* 3. Water-bubbling note.

Sub-family CUCULINÆ

CUCKOOS

This sub-family comprises the true Cuckoos, all of which are parasitic, laying their eggs in the nests of other species. The following description of the habits of the Common Cuckoo *(Cuculus canorus)* is generally applicable. Each hen confines herself to a limited locality and shows a decided preference for some particular fosterer. She finds nests by watching birds in the process of building, and her egg is often laid on the same day as the fosterer's first egg. Whether she lays directly into the nest or inserts the egg with her bill has for long been a subject of controversy, but in the case of the Common Cuckoo all reliable evidence goes to prove that she lays directly into the nest, or when the entrance is too small raises herself with outspread wings and tail against the opening and ejects her egg into it, though not invariably successfully; if it falls to the ground or rests on the edge of the nest it is left lying there, and no attempt is made to insert it with the bill. The possibility that some species do insert their eggs with the bill cannot be ruled out, but so far there is no proof.

It seems to be the rule for a Cuckoo to remove an egg of the fosterer's before laying her own. Sometimes she removes the egg first and then sits on the nest to lay, holding the fosterer's egg in her bill meanwhile; after a very short time she flies off with the egg in her bill and either swallows it or breaks it up on alighting; in this case it is reasonable to suppose that the egg is removed to make room for the Cuckoo's own eggs. At other times however she removes a single egg from a nest without depositing one of her own, possibly to test whether the fosterer's eggs are fresh; for obvious reasons the Cuckoo does not want to deposit her egg in a nest containing eggs on the point of hatching.

The number of eggs laid by one bird in a normal season is probably 12 or fewer; 2 or exceptionally 3 Cuckoo's eggs are some-

times found in a nest, but these are nearly always laid by different hens whose territories overlap.

The young Cuckoo usually hatches out before the fosterer's family, the incubation period for the Common Cuckoo being only 12½ days, and then proceeds to eject the other eggs or newly hatched young by getting them on its back and pushing them gradually over the side one by one; a curious hollow formation of the back in the early day's of the Cuckoo's life is obviously adapted to this nefarious purpose; when two Cuckoos hatch out in the same nest, each tries to evict the other, but if neither succeeds they settle down amicably together after about 4 days. The great bulk of the Cuckoo compared with the size of the foster-parents requires all the food they can bring; so great is this disproportion in size that they frequently have to perch on the back of the young Cuckoo to place food in its mouth.

The parasitic Cuckoos are a very interesting group to study; those interested should consult various papers by Capt. Livesey in the Journal of the Bombay Natural History Society (the references will be found in the Bibliography.)

The larger Cuckoos (*Cuculus* and *Hierococcyx*) are mostly grey or brown birds with barred under-parts and are not easy to distinguish in the field by their plumage, though readily recognised by their notes; the following key may help:

KEY TO THE LARGER CUCKOOS (*Cuculus* & *Hierococcyx*)

A. Wings long and pointed, Falcon-like. Secondaries in closed wing scarcely exceed half the length of the primaries.	
a. No subterminal black band to tail.	
a′. Wing under 7 inches	*C. poliocephalus.*
b′. Wing over 8 inches.	
a″. Edge of wing mixed brown and white	*C. canorus.*
b″. Edge of wing white	*C. optatus.*
b. A broad black subterminal band on tail	*C. micropterus.*
B. Wing shorter and more rounded. Secondaries in closed wing at least two-thirds the length of the primaries.	
c. No distinct dark cheek-band from the eye.	
c′. Wing over 8 inches. Abdomen banded	*H. sparveroides.*
d′. Wing 7 inches or under. Abdomen not banded	*H. fugax.*
d. A distinct dark cheek-stripe (Tenasserim only)	*H. nanus.*

THE KHASIA HILLS CUCKOO

Cuculus canorus bakeri (1453).

Local Names. — None recorded.

Identification. — Length 13 inches. See key above. Upper-parts and breast blue-grey, remaining under-parts whitish with dark bars; tail rather long. Chiefly seen on the wing when it appears not unlike a Sparrow-Hawk, though the pointed wings and graduated tail with the feathers marked and tipped with white at once distinguish it. Young birds have the upper-parts either grey-brown and little marked or reddish-brown strongly barred; the under-parts in both types are buffish-white barred black, with a white patch on the nape. The flight

is direct and hurried, with the wings moving rapidly, often with a long glide on extended wings before settling.

Voice. — The song of the male, *coocoo,* carries a long distance; *coo-cooc-oo* and *cooc-cooc-coocoo* are variants sometimes heard. The female has an entirely different water-bubbling chuckle. Rare instances of the same bird giving both bubble and cuckoo notes have been recorded. A number of less familiar notes are also known. It calls from mid-March to the break of the rains and occasionally in June ; its call is seldom heard in the plains.

Habits and Food. — The Cuckoo frequents all types of wooded country but prefers open forest and cultivation surrounded by scrub. As it is shy and keeps largely to leafy trees its presence is usually heralded by its well-known voice long before the bird itself is seen. It is nearly always solitary and does not pair in the ordinary sense, mating being promiscuous in the breeding season. It usually perches on trees, but also on bushes, walls, rocks, posts, etc., often alighting in a clumsy fashion with a crash and steadying itself with wings and elevated tail. On the ground it proceeds with a waddling gait or a succession of awkward hops. Its food consists chiefly of injurious insects, and it is partial to large hairy caterpillars.

Nest and Eggs. — The breeding season is from April to July. The eggs are laid in the nests of a great variety of species, but perhaps the most common are the Indian Pipit, Marsh Warbler, Fantail Warbler, Hill Warbler, and Burmese Stonechat. The eggs are broad blunt ovals in shape, with the shell very heavy and thick in texture (thus lessening the risk of breakage when the egg is squirted into an inaccessible nest). The colour is very variable and as a rule imitates closely the colour of the fosterer's eggs, from which it can often be distinguished only by its greater size. Thus one bird specializes in Stonechats and lays a pale yellowish-white egg with light red markings closely resembling the Stonechat's egg; another bird specializes in Bush Chats *(Rhodophila ferrea)* and lays a pale blue egg without markings, admirably adapted to the pale blue eggs of the Bush Chat. It sometimes happens that the Bush Chat specialist cannot find enough nests in the season and then lays in one or two Stonechat's nests, where the pale blue egg affords a violent contrast. Other birds specialize in other species. The eggs average 0·97 by 0·72 inches, which is very small for the size of the bird.

Status and Distribution. — The Cuckoo is a migratory bird found at one season or another throughout the greater part of the Old World, and even in Australia; it is a summer resident in the British Isles. The Khasia Hills race is found from Assam through Burma to Yunnan and Western China. It is widely distributed in Burma, though not common and its breeding range is imperfectly known ; the problem is complicated by the fact that it is a local migrant. It certainly breeds in Assam and the Shan States, and probably throughout the higher hills of Northern Burma.

[Note :— The Asiatic race, *C. c. telephonus (1452),* is said to wander over the whole of the Oriental Region in winter as far as New Guinea (F. B. I., Vol. IV, Page 137). Reliable records from Burma appear to be lacking, and no specimens are traceable; as it can only be distinguished from the Khasia

Hills race in fresh adult plumage, and then only by an expert, it seems safer not to admit this form to the Burma List for the present.]

THE HIMALAYAN CUCKOO

Cuculus optatus (1454).

Identification. — Length 13 inches. See key, page 264. Probably not distinguishable from the Khasia Hills Cuckoo in the field. "Hepatic" females, with upper-parts barred chestnut and blackish-brown, have been recorded for this species and for the Asiatic Cuckoo, but not for the Khasia Hills Cuckoo. The song is a dull booming note, *hud-hud-hud-hud-*, similar in tone to the call of the Hoopoe, and may be heard from mid-April to mid-July. In habits it resembles the Khasia Hills Cuckoo.

Nest and Eggs. — The breeding season is from May to June. It lays in the nests of various Willow Warblers, Bush Chats, Tailorbirds, etc.

Status and Distribution. — Breeds in Central and Eastern Siberia and the Himalayas, migrating south in winter; in Burma it has only been recorded from the Chin Hills (?), and Maymyo. Its status is uncertain.

THE SMALL CUCKOO

Cuculus poliocephalus poliocephalus (1455).

Identification. — Length 10 inches. See key, page 264. A miniature edition of the Khasia Hills Cuckoo. It has a loud shrill six-syllabled song, rather like a cackling hen with the stress on the prolonged third syllable: *who-who-whār, who-who-wha,* said to be maddening and monotonous. Another call, perhaps the same one, is syllabified as *That's your smoky pepper,* very unmusical and repeated several times, each time in a lower key. It frequents all types of hill forest.

Nest and Eggs. — The breeding season is from the end of May to the end of July. Two types of egg are known, one of which is pure white and the other varies from pinkish-chestnut to deep chocolate. The white eggs are normally laid in the nests of Willow Warblers, Wrens, and other genera that lay eggs either pure white or white slightly speckled with darker colours; the chocolate eggs are usually laid in the nests of Bush Warblers. The eggs are elliptical in shape, close and fine in texture, and with a slight gloss. They average 0·83 by 0·56 inches.

Status and Distribution. — Found throughout the Himalayas and through the mountains of China to Japan. In Burma it has been recorded from Mt. Victoria, North-East Burma, and Maymyo. It seems to be confined to the higher hills and is rather scarce.

THE INDIAN CUCKOO

Cuculus micropterus micropterus (1456).

Local Names. — Burmese: *Yauk-hpa-hkwe-hkaw* (ယောက်ဖခွေးခေါ်), which means "Brother-in-law, call the dog."

Identification. — PLATE XV, Fig. 7, Page 258. Length 13 inches. See key, page 264.

Voice. — The Burmese name syllabifies the loud melodious song of this bird; though reiterated with great persistence it never becomes a nuisance like the "songs" of some of the other Cuckoos. It may be heard from the end of January to June.

Habits and Food. — Those of the family. This bird's voice is a familiar sound in the forests, both of the foothills and the higher hills, in the hot weather and late cold weather. At other times of the year it makes itself very scarce. It is purely a forest bird, avoiding open country.

Nest and Eggs. — The breeding season is in April and May. One type of egg is exactly like the pale blue egg laid by the Khasia Hills Cuckoo; this type is found in the nests of species that lay blue eggs, such as the various Chats. Other types may also be laid, but little is known about the breeding of this common bird.

Status and Distribution. — This species is widely distributed in the Oriental Region and is found throughout the forests of Burma, but seems commoner in the higher hills than at low elevations. To what extent it is a local migrant is unknown.

THE LARGE HAWK-CUCKOO

Hierococcyx sparveroides (1457).

Local Names. — Brain-fever Bird. Lashi: *Sawnchang.*

Identification. — Length 16 inches. See key, page 264. Like the Khasia Hills Cuckoo in size and appearance, and easily mistaken for a Hawk on the wing. A bird of the higher hills.

Voice. — A three-note call, *pi-pee-ha, pi-pee-ha,*....each repetition louder and shriller than the last. The call is often syllabified as *brain-fever;* it is repeated at intervals throughout the day and often at night, frequently for an hour or more at a stretch. It is heard from the beginning of February to the end of June, most persistently in the hot weather and very occasionally at other times of the year. The call is neither so loud nor so shrill as that of the real brain-fever bird of India (*Hierococcyx varius*), an allied species. A peculiar squeal every 15 seconds is sometimes uttered, and has been heard in December.

Habits and Food. — Those of the family. A shy forest bird.

Nest and Eggs. — The breeding season is from early April to June. Two types of egg are known. One type is pale bright blue, and is laid in the nests of various Laughing-Thrushes, Babblers, and the Whistling Thrush, all of which lay blue eggs with or without sparse markings. The other type is brown in colour and imitates closely the eggs of the Large Spiderhunter, in whose nests it is laid. These two types of egg differ not only in colour to suit the fosterer, but also in size: the blue eggs average 1·19 by 0·86 inches and the brown eggs average 1·02 by 0·74 inches.

Status and Distribution. — This species is found throughout the Oriental Region as far west as the Central Himalayas. It is distributed throughout the forests of Burma at all elevations, but is much commoner in the higher hills than in the plains and foothills.

HODGSON'S HAWK-CUCKOO

Hierococcyx fugax nisicolor (1460).

Allied Form.—

THE JAVAN HAWK-CUCKOO. *H. f. fugax (1459).*

Identification. — Length 11½ inches. See key, page 264. The call is a thin shrill version of *brain-fever.* It is partial to evergreen and dense forests and keeps mainly to the understorey.

Nest and Eggs. — The breeding season seems to be very prolonged, from May to September. The eggs are pale grey-green, yellowish or pale brown profusely speckled all over with dark reddish-brown; the shells are thin and fragile for those of a Cuckoo. Flycatchers and Shortwings seem to be the usual fosterers.

Status and Distribution. — This species is widely distributed in the Oriental Region as far west as Nepal. It has been recorded from the Chin Hills (?), Sittang plain, Karen Hills, Southern Shan States and Tenasserim; it seems to be scarce but is quiet for a Cuckoo and therefore easily overlooked.

THE SMALL HAWK-CUCKOO

Hierococcyx nanus (1461).

Identification. — Length 11 inches. See key, page 264. Said to be confined to evergreen forest.

Nest and Eggs. — Unknown.

Status and Distribution. — Extends from Tenasserim and the Mergui Archipelago southwards through the Malay States to Borneo.

THE BURMESE PLAINTIVE CUCKOO

Cacomantis merulinus querulus (1463).

Allied Form.—

THE INDIAN PLAINTIVE CUCKOO, *C. m. passerinus (1462).*

Local Names. — None recorded.

Identification. — PLATE XV, Fig. 6, Page 258. Length 9 inches. The back is ashy-grey and the tail blackish with a white tip. A white patch on the wing is noticeable in flight. The under-parts of the female are barred with brown. Young birds resemble the female and are difficult to distinguish from adults of the Banded Bay Cuckoo. A small active Hawk-like bird.

Voice. — This bird has a variety of calls.

1. The cadence call, *tee-tee-tee-tee-tita-tita-tita-tita-tee;* the first 4 notes are plaintive, uttered fairly slowly, the next 4 notes are double ones uttered twice as fast, and the last note is again mournful; the whole forms a cadence down the scale. This seems to be purely a breeding call.

2. The ascending call, *tay-ta-ta-tay, tay-ta-ta-tay, tay-ta-ta-tay,* each phrase higher in pitch than the last. This call often ends off with the cadence call and both are characteristic of the bird and unmistakable. It is not confined to the breeding season and may be heard from November onwards.

3. A harsh screech, usually uttered in thick cover, *tchree-tchree.*

4. A run of 2, 3 or 4 trilled notes, dying away, *prrreee-prree-pree-pre.*

Habits and Food. — This Cuckoo is found in all types of lightly wooded country, scrub, gardens and cultivation; it is typically seen at or near the top of an isolated tree, though it is much more familiar to the ear than to the eye. In the breeding season it seems to retreat to the higher hills, and its voice is the most characteristic of all the bird sounds to be heard along the Mawchi road in April. At other times it favours marshland and the sides of jheels.

Nest and Eggs. — The breeding season is probably from April to June, and the eggs are usually laid in the nests of small Warblers, such as the Tailorbird, Fantail Warbler, Brown Hill Warbler, and Wren-Warbler. The eggs are usually white or pale blue marked with light reddish blotches and average 0·75 by 0·55 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is common throughout Burma in the plains, foothills and higher hills alike.

THE INDIAN BANDED BAY CUCKOO

Cacomantis sonneratii sonneratii (1464).

Allied Form.—

THE MALAY BANDED BAY CUCKOO, *C. s. venustus (1465).*

Identification. — Length 9½ inches. Upper-parts barred brown and rufous; under-parts whitish with fine wavy bars of brown; distinguished from the young Plaintive Cuckoo by larger size.

Voice. — One call is a high-pitched version of *yauk-hpa-hkwe-hkaw*, and another is said to resemble the call of the Plaintive Cuckoo but to have a different cadence.

Habits and Food. — Similar to those of the Plaintive Cuckoo except that it is said to be more of a forest bird.

Nest and Eggs. — The breeding season seems to be in May and June. A large number of fosterers have been recorded, amongst them various Bulbuls and small Babblers. The eggs are very variable in colour and average 0·76 by 0·62 inches.

Status and Distribution. — This species also has a wide range in the Oriental Region ; it has been recorded from the Upper Chindwin, North-East Burma, Central Burma, Thayetmyo, the Southern Shan States, Pegu Yomas and Central Tenasserim. It seems to be rather scarce but is said to be common round Kalaw.

THE VIOLET CUCKOO

Chalcites xanthorhynchus (1467).

Identification. — Length 6½ inches. Sexes differ. The male has the whole head, upper-parts and upper breast glossy violet and the remaining under-parts heavily barred; the orange-red bill is a noticeable feature. The female is bronze-green above and barred below, with a dull yellow bill. Young birds are barred rufous and brown above and white with brown bars below. Often seen sitting sluggishly on a bare tree in or near evergreen forest. Its habits are said to be similar to those of the Emerald Cuckoo.

Nest and Eggs. — The eggs are usually laid in the nests of the Little Spider-hunter, whose eggs they closely resemble, being pure white to pink in colour with a ring of reddish markings at the larger end.

Status and Distribution. — Widely distributed in the Oriental Region as far west as Assam. In Burma it is confined to evergreen forest and is either scarce or has been overlooked in the past; it has been recorded from the Arakan Yomas near Thayetmyo, the Pegu Yomas, Karenni and Tenasserim.

THE EMERALD CUCKOO

Chalcites maculatus maculatus (1468).

Local Names. — None recorded.

Identification. — Length 7 inches. Sexes differ. The male in breeding plumage has the whole head, upper-parts and upper breast brilliant metallic green; remaining under-parts heavily barred; in winter the upper-parts are bronze and the head and upper breast are barred like the rest of the under-parts. The female has the crown and

nape rufous, the upper-parts light copper-green, and the under-parts heavily barred. Young birds are barred rufous and brown above, and below dull white and brown in alternate bars except for the chin and throat, which are dull rufous simply marked with black.

Voice. — A quick high-pitched rattle of 5 to 6 notes, descending in pitch, is uttered by members of a party.

Habits and Food. — This Cuckoo may be seen perched on a bare tree by the roadside or flying from tree to tree in a *taungya* with its beautiful emerald plumage flashing in the sun; normally however it keeps to the tops of leafy trees in dense evergreen forest and is a sluggish bird, sitting motionless for long periods.

Nest and Eggs. — The breeding season is from April to July; the eggs are usually laid in the nests of various species of Sunbird, Warbler, and the Small Spiderhunter. They are coarse in texture and very light and fragile for a Cuckoo's eggs, but in colour generally resemble closely the eggs of the foster-parent. In size they average 0·67 by 0·48 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region as far west as the Central Himalayas. In Burma it is found throughout the country in evergreen forest, at all elevations up to 6,000 feet.

THE INDIAN DRONGO-CUCKOO

Surniculus lugubris dicruroides (1470).

Allied Form.—

THE MALAY DRONGO-CUCKOO, *S. l. brachyurus (1469).*

Identification. — Length 10 inches. Like the Black Drongo but distinguished at once by the square tail; in addition it has white bars under the tail, a white bar on the under side of the wing, and white spots on the primaries. The flight is dipping and buoyant as a rule, but direct and speedy on occasion.

Voice. — It has a distinctive very human call of 5 or 6 whistling notes on an ascending scale, ending abruptly, and also a loud clear *whee-wheep*, the second note higher than the first. It calls much at night.

Habits and Food. — This bird is probably often mistaken at a casual glance for a Drongo. It inhabits the same types of country, i.e. open grassland, cultivation, scrub and open park-like forest. It perches in the open on leafless branches, telegraph wires and posts.

Nest and Eggs. — The breeding season is from April to June. The eggs are laid in the nests of the Black Drongo, various Shrikes, Bulbuls, Leschenault's Forktail, and the Striated Marsh Warbler. They are cream-coloured with blotches of reddish-brown and average 0·89 by 0·69 inches. As with all Cuckoos' eggs, unless the bird is actually seen laying the egg there is always some doubt over the identification, and few eggs of this particular species are known for certain.

Status and Distribution. — This species is widely distributed in the Oriental Region and is found sparingly throughout Burma, but seems to be nowhere common.

THE PIED CRESTED CUCKOO

Clamator jacobinus jacobinus (1472).

Local Names. — Burmese: *Hkwe-hkaw-yeik* (ခွေးခေါ်ငှက်)

Identification. — Length 13 inches. Easily recognised by the long pointed crest (as in the next species), black upper-parts, black and white wings, and white under-parts. The tail is long and graduated, and the wings are short and rounded. The flight is rather laboured.

Voice. — It has a variety of shrill metallic calls, faintly reminiscent of the Koel's wildest shrieks, but the common call-note is *ple-ue*.

Habits and Food. — This is a bird of open well-wooded country and is partial to damp well-watered localities. The food consists of ants, spiders, beetles, etc., and a few green leaves are also eaten. It is restless and noisy and birds may often be seen chasing each other. It is a common bird in the Dry Zone during the rains.

Nest and Eggs. — The breeding season is probably in May and June. The eggs are laid in the nests of Babblers and Laughing-Thrushes, and are perfect ovals in shape, blunt at both ends, thick-shelled and fine in texture with a high gloss, and a delicate sky-blue in colour, varying in depth of tint; both in colour and shape they imitate closely the eggs of *Argya gularis* and *Argya earlii*, which are the usual foster-parents. The eggs average 0·94 by 0·73 inches.

Status and Distribution. — This species is found over a wide area in Africa and throughout India, Ceylon and parts of Burma. It is typically a Dry Zone bird, straggling down the Irrawaddy valley to the Tharrawaddy district. Its status is uncertain and it may be only a summer resident from May to October (wintering in Africa?).

THE RED-WINGED CRESTED CUCKOO

Clamator coromandus (1474).

Local Names. — None recorded.

Identification. — PLATE XV, Fig. 5, Page 258. Length 18 inches, including a tail of 10 inches. There are white tips to the long graduated tail-feathers and the wings appear mostly chestnut in flight, and remind one of a small Crow-Pheasant.

Voice. — It has a loud harsh screech *creech-creech-creech*, and a hoarse whistle as if something had stuck in its throat; a very soft *too-too* is sometimes heard. On moonlight nights in the hot weather it has been heard to utter a loud clear whistle.

Habits and Food. — This Cuckoo is found in light forest, scrub and open country, and also in clearings and glades in high forest, where it keeps to the understorey. It frequently visits gardens, and three or four birds are often seen together, their harsh cries attracting attention. Though not strong on the wing it is adept at dodging about low bushes and the crowns of the trees. It feeds on harmful insects such as termites, locusts, and caterpillars, and also probably on fruit and berries.

Nest and Eggs. — The breeding season is probably from April to June. The eggs are usually laid in nests of Quaker Babblers, Laughing-Thrushes (especially the Black-gorgeted and Necklaced Laughing-

Thrushes), Ground Thrushes, and Magpie-Robins ; the eggs closely resemble those of the Black-gorgeted Laughing-Thrush but are more spherical in shape, and average 1·06 by 0·90 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is found throughout Burma, frequenting chiefly the plains but occasionally ascending the higher hills. It seems to be a local migrant, but its movements have not been worked out.

Sub-family EUDYNAMINÆ

KOELS

This sub-family contains only one genus; the Koels are parasitic and arboreal, resembling the true Cuckoos in habits, but in structure they are close to the Malkohas and Crow-Pheasants, thus forming a link between the two.

THE MALAY KOEL

Eudynamis scolopaceus malayanus (1476).

Local Names. — Burmese: *Ok-aw* (ဥသြ)

Identification. — PLATE XV, Figs. 8 & 8a, Page 258. Length 17 inches. The crimson eye is conspicuous and in flight the long tail and short rounded wings are noticeable.

Voice. — The unpleasant shrieking call must be known to everyone in the plains; it consists of two syllables *you're ill, you're ill,* repeated several times, louder and shriller each time till it reaches feverish pitch and breaks off abruptly; this call is uttered by both sexes all day long, and often at night, and is an unmistakable token of the hot weather. Another call, *ho-y-o,* is apparently uttered by the male alone, and a third call of the water-bubbling type is probably common to both sexes. The female utters a sharp *kik-kik-kik* as it flies from tree to tree or hops about the branches. These are all breeding-notes and the bird is silent at other times of the year.

Habits and Food. — The Koel is a common garden bird and also frequents well-wooded cultivated areas, light forest and scrub. It haunts groups of large trees in whose shady boughs it finds concealment; the usual diet consists of fruit, especially of the various species of wild fig, but snails are also eaten. It never descends to the ground.

Nest and Eggs. — The breeding season coincides with that of the House Crow, in whose nest it lays its eggs. It is not unusual to find two or three Koel's eggs in one Crow's nest, and as many as eight have been recorded. The female Koel is said often to feed her offspring after they are fledged, an unusual trait in a parasitic Cuckoo. Great enmity exists between adult Koels and House Crows, and the latter are often to be seen chasing the former; it is rather surprising that the Koel is able to get the better of a clever scoundrel like the House Crow. The eggs resemble Crow's eggs but are considerably smaller, averaging 1·20 by 0·90 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is common throughout Burma in the plains, but

is only found in the hills at places like Maymyo where the House Crow is common. It is a local migrant about whose movements little is known.

Sub-family PHŒNICOPHAINÆ

MALKOHAS & CROW-PHEASANTS

This sub-family contains the non-parasitic Cuckoos with short rounded wings and poor flight, but with powerful legs and feet and terrestrial habits.

THE LESSER RED-BILLED MALKOHA

Zanclostomus javanicus (1477).

Identification. — Length 18 inches, including a tail of 11 inches. A greenish-grey bird easily recognised by red bill and small patch of blue skin round the eye and very long graduated tail; under-parts pale rufous.

Nest and Eggs. — The nest is a flimsy affair of grass and twigs built in a bush and the eggs resemble those of the next species and average 1·14 by 0·91 inches.

Status and Distribution. — Extends from Tavoy southwards through South-west Siam and the Malay States to Sumatra, Java and Borneo.

THE MALAY LARGE GREEN-BILLED MALKOHA

Rhopodytes tristis longicaudatus (1480).

Allied Form.—

THE HIMALAYAN LARGE GREEN-BILLED MALKOHA, *R. t. saliens (1479).*

Local Names. — Burmese: *Wapale* (ဝက်ပလဲ)

Identification. — PLATE XV, Fig. 9, Page 258. Length 24 inches, including a tail of 16 inches. A forest bird.

Voice. — The usual note is a low *cook..cook..cook* sometimes ending with a run *co-co-co-co-co--*. A characteristic whistle of 4 notes is also uttered, chiefly in the mornings.

Habits and Food. — This is mainly a forest bird, though often seen in wet thickets and regrowth on the outskirts of towns and villages; it is said to mate for life and is nearly always seen in pairs; it seldom flies and is usually seen quite low down in a thick bush or amongst the foliage of a creeper-covered tree, hopping up the branches in cork-screw fashion and manipulating its long unwieldy tail with dexterity. It feeds on insects, fruits and seeds.

Nest and Eggs. — The breeding season is from February to June. The nest is usually built in a thick high bush or bamboo clump within ten feet of the ground, and may be found in high forest or mixed forest and scrub. It is a glorified Dove's nest, a platform of twigs sometimes mixed with a few roots and scraps of grass and nearly always lined with green leaves. The eggs, 2 or 3 in number, are white when fresh but soon stain to a dirty yellowish-white ; they are broad ellipses in shape and average 1·33 by 1.02 inches.

Status and Distribution. — This species ranges from the Central Himalayas through Burma to Sumatra. It is common throughout Burma in forests and scrub, ascending to 5,000 feet.

DIARD'S GREEN-BILLED MALKOHA

Rhopodytes diardi (1481).

Identification. — Length 14 inches, including a tail of 9 inches. A small dark replica of the preceding species, with more black on the abdomen.

Nest and Eggs. — Like those of the preceding species, and the eggs average 1·24 by 0.99 inches.

Status and Distribution. — Extends from Mergui southwards through the Malay States to Sumatra.

THE RUFOUS-BELLIED MALKOHA

Rhopodytes sumatranus (1482).

Identification. — Length 16 inches, including a tail of 9 inches. Distinguished from all the preceding species by the rusty-red abdomen and orange skin round the eye, which is pale blue.

Nest and Eggs. — Unknown.

Status and Distribution. — A Malay species, which is found in Tenasserim and is said to be very common on the island of Mergui.

THE CHESTNUT-BREASTED MALKOHA

Ramphococcyx erythrognathus (1483).

Identification. — Length 19 inches, including a tail of 10½ inches. The genus differs from *Rhopodytes* in having no white tips to the tail-feathers; this species is easily recognised by the chestnut throat and breast.

Nest and Eggs. — Similar to those of the Large Green-billed Malkoha.

Status and Distribution. — Extends from Ye southwards through the Malay States to Sumatra and Borneo.

RAFFLES'S GREEN-BILLED MALKOHA

Rhinortha chlorophæa chlorophæa (1485).

Identification. — Length 13 inches, including a tail of 7 inches. Sexes differ. The male has the head, upper back and most of the wings bright chestnut; rump, upper tail-coverts and tail dull black with narrow bars of grey and white tips to the tail-feathers; chin, throat and breast a paler chestnut than the head, and remaining under-parts dark brown; skin round eye pale green, bill apple-green. The female has the wings and back as in the male; head and neck grey; rump chestnut-brown; tail chestnut tipped white and subtipped black; chin, throat and breast pale grey, passing into chestnut-brown on the under tail-coverts. Young unknown. It has a peculiar cat-like mew and frequents the thickest parts of evergreen forest, such as cane-brakes, and the densest of scrub. It is generally found in pairs and feeds mainly on insects.

Nest and Eggs. — Typical of the sub-family, but the eggs are large for the size of the bird.

Status and Distribution. — Extends from Ye southwards through the Malay States to Sumatra.

HUME'S CROW-PHEASANT

Centropus sinensis intermedia (1491).

Local Names. — Burmese: *Bok* (ဘုတ်)

Identification. — PLATE XV, Fig. 10, Page 258. Length 18 inches. A big black bird with chestnut wings, which from its size and voluminous tail is often mistaken for a game-bird. The fine white streaks shown in the plate are not visible in the field. The flight is remarkably slow.

Voice. — It has a distinctive dull booming call up and down the scale, usually ending with about a dozen notes all on the same pitch, and the

whole full-toned and melodious, but rather depressing ; from this call the bird derives its Burmese name. It also has a large variety of croaks and chuckles, heard mostly in the breeding season.

Habits and Food. — The Crow-Pheasant is a common bird of cultivation and waste land wherever dense scrub and wet thickets are to be found; it keeps mainly to cover and is often seen walking about sedately on the ground and picking up beetles and grasshoppers or catching lizards, snakes and similar food; when disturbed it flies or runs into heavy masses of bush and grass. It is seldom far from water and penetrates into the heart of the forest where *bizat* and *kaing* grass replace trees along the banks of streams. It is a frequent source of disappointment to the sportsman, popping out of a beat just when he is keyed up and expecting Junglefowl to emerge. Owing to the frequency with which it has been mistaken for a game-bird by the uninitiated it has been christened " The Subaltern's Pheasant."

Nest and Eggs. — The breeding season is during the rains. The nest may be built in the centre of a bush or clump of grass, or in an exposed position on the fork of a tree; it is normally a large globular domed affair, with the entrance at one side from which the tail of the sitting bird projects, but a rough saucer nest is sometimes made. It is either a fairly neat structure of dry twigs lined with green leaves or a loosely built ball of dry reeds and coarse grass. The eggs, 3 to 5 in number, are broad regular ovals in shape, rather coarse and chalky in texture, and a dull pure white in colour; they average 1·40 by 1·20 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is a common resident throughout Burma, ascending the hills to about 4,000 feet.

THE LESSER CROW-PHEASANT

Centropus bengalensis bengalensis (1495).

Local Names. — Burmese: *Bok-hnan* (ဘုတ်နှံ)

Identification. — Length 15 inches. The adult is a miniature of the Crow-Pheasant; young birds have the upper-parts brown streaked with white, the tail blackish tipped with rufous, and the under-parts tawny-white. It utters a series of whoops, much higher in pitch than those of the larger " Bok ", followed by a series of notes like *kurook*. Typically a bird of extensive areas of *kaing* grass, though occasionally seen elsewhere.

Nest and Eggs. — Similar to those of the preceding species, except that twigs and green leaves are seldom used in the nest and the eggs are smaller, averaging 1·11 by 0·94 inches.

Status and Distribution. — Widely distributed in the Oriental Region, and found throughout Burma in the plains and lower valleys, but rarely seen and much more local in its distribution than Hume's Crow-Pheasant. Whether it is sedentary or a local migrant is uncertain.

Sub-order PSITTACI.

Family PSITTACIDÆ

PARRAKEETS & LORIKEETS

The great family of the Parrots is found throughout the tropics and in all the continents except Europe; it is represented by 7 species

in Burma, of which one occurs only in Tenasserim and the others have all been illustrated (PLATE XVI, Page 276) so that their identification should be a simple matter.

The various species differ little in their habits. They live in pairs in the breeding season, and at other times gather into flocks and parties, which from their universality, the damage they do in gardens and fields, their noisiness, and their brilliant coloration, are known to all and sundry. They are wonderful climbers, equally at home in any position, and are normally arboreal; but a field of ripening paddy will attract them in large numbers, to the despair of the unfortunate cultivator. It is not so much the grain they eat as their very wasteful method of feeding that does the damage, for they often break off a whole head, select one or two grains, and throw away the rest. On the ground their short feet, specially adapted for climbing and holding food, and their long tails result in an awkward sidling gait that looks very quaint. There is something sedate and knowing about their demeanour, familiar to all who have studied tame Parrots, which is further heightened when they sit on one foot and with the other hold up a piece of food to be eaten bite by bite.

The flight is very swift and a flock hurtling through the forest, swerving gracefully to avoid trees and branches, affords a fine sight. In the open the flight is direct and is best seen in the evening when flock after flock hurry in succession along the same line to a patch of trees, where they roost in company with Crows and Mynas. Some species are common cage birds, especially the Rose-ringed Parrakeet, but though individuals may be taught to say a few words the best of them never talk as well as some African Parrots.

Most birds breed in the hot weather. The females are accomplished flirts and their behaviour in the presence of the favoured male is most amusing. No nest is made, the eggs being laid on debris in holes in trees or less commonly in walls or buildings. The hole may be a natural one, but the bird often excavates a tunnel and chamber similar to that of a Woodpecker. The eggs are pure white in colour. A Burmese name for the family is *Kyet-tu-ywe* (ကြက်တူရွေး).

THE BURMESE LARGE PARRAKEET

Psittacula eupatria avensis (1498).

Local Names. — Burmese: *Kyet-taw* (ကြက်တော), *Kye-paung-ka* (ကျဲပေါင်းကား)

Identification. — PLATE XVI, Fig. 1, Page 276. Length 22 inches. Females and young birds lack the rose collar and the black moustachial stripe.

Voice. — The cry is described as harsh and sonorous, or loud and shrill.

Habits and Food. — Those of the family. It is chiefly a bird of the plains and of *indaing* forest.

Nest and Eggs. — The breeding season is from February to April. The eggs, 2 to 5 in number, are broad regular ovals, stout and rather

PLATE XVI

See Page No.

1. **BURMESE LARGE PARRAKEET** (adult male)
   Psittacula eupatria avensis 276

2. **EASTERN ROSE-RINGED PARRAKEET** (adult male)
   Psittacula krameri borealis 277

3. **EASTERN BLOSSOM-HEADED PARRAKEET** (adult male)
   Psittacula cyanocephala rosea 277

4. **BURMESE SLATY-HEADED PARRAKEET** (adult male)
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   Coracias benghalensis affinis 280

8. **BROAD-BILLED ROLLER** (adult)
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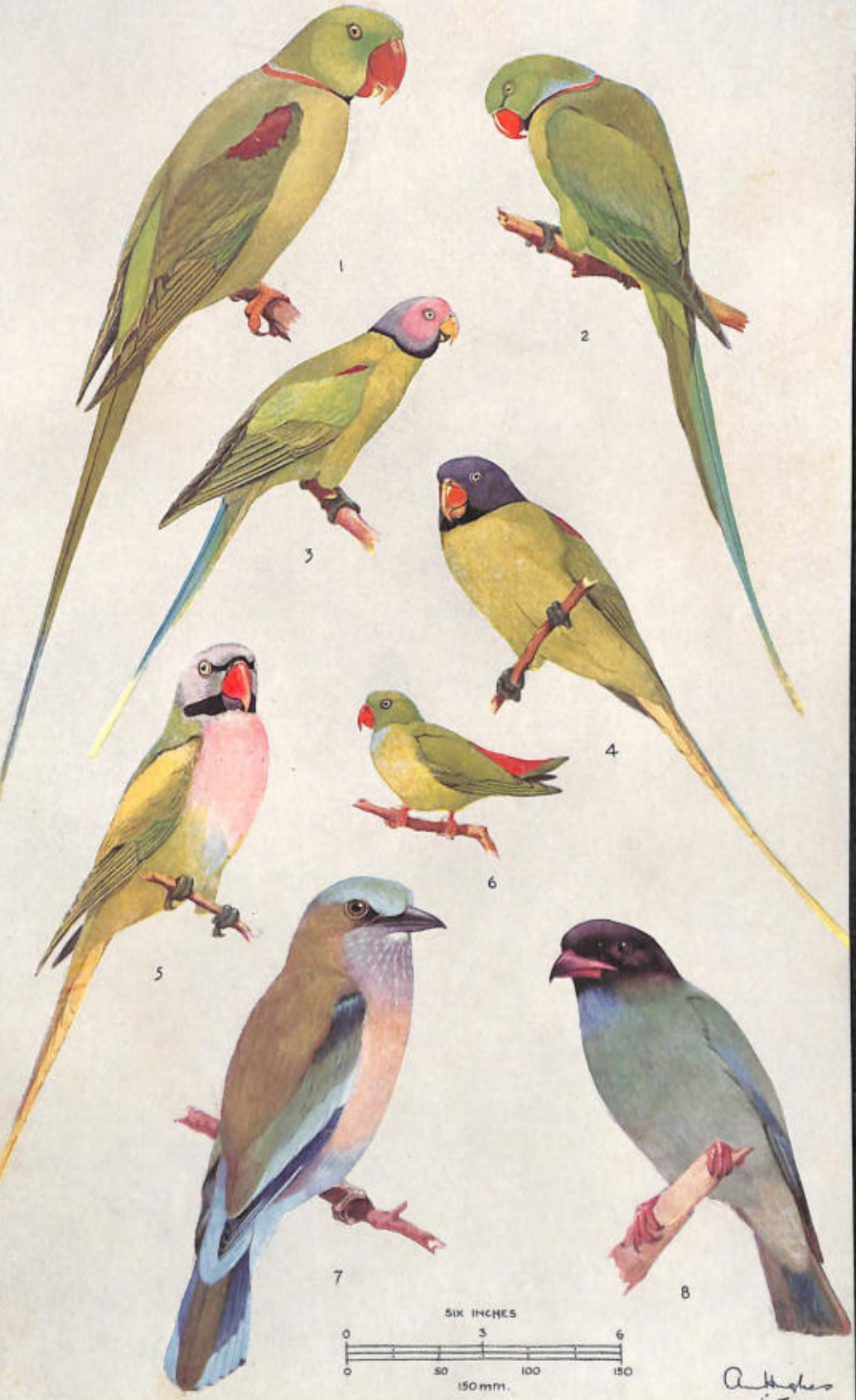
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coarse in texture with a slight gloss. They average 1·32 by 1·00 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is found throughout Burma, but seems to be typically a bird of the Dry Zone and is scarce elsewhere.

THE EASTERN ROSE-RINGED PARRAKEET

Psittacula krameri borealis (1501).

Local Names. — Burmese: *Kye-gyok* (ကျေးကျုပ်)

Identification. — PLATE XVI, Fig. 2, Page 276. Length 16½ inches. Young males do not acquire the rose collar and black band till their third year, and the female has them replaced by an indistinct emerald-green band.

Voice. — The ordinary call is a harsh, rather shrill, inarticulate scream, but when courting the male has a pleasant gentle murmuring warble which he utters as he scratches the head of the hen with the point of his beak or rubs her beak in a loving kiss.

Habits and Food. — Those of the family. In Burma it is a fairly common bird of the plains and of dry open forest but nowhere attains the vast numbers that are to be seen in India, where it is the commonest and most familiar of all Parrakeets.

Nest and Eggs. — The breeding season extends from February to May, though most eggs are laid in March. The eggs, 4 to 6 in number, are moderately broad ovals, slightly pointed towards one end, hard and compact in texture with a slight gloss ; they average 1·20 by 0·95 inches.

Status and Distribution. — This species ranges from Africa through India to the Shan States. In Burma it is typically a Dry Zone bird, straggling thence down the Irrawaddy and Sittang valleys to about the latitude of Pegu, and extending eastwards to the Shan States and Karenni; it appears to be absent from Northern Burma and Tenasserim.

THE EASTERN BLOSSOM-HEADED PARRAKEET

Psittacula cyanocephala rosea (1503).

Local Names. — Burmese: *Kye-tăma* (ကျေးတမာ).

Identification. — PLATE XVI, Fig. 3, Page 276. Length 13½ inches. The female has the red on the head replaced by a dull bluish-grey and there is no black on the chin and throat and the red wing-spot is lacking ; a yellow ring replaces the black collar. She is apt to be confused with the next species, but the tip of the tail, usually conspicuous in flight, is whitish, whereas in the next species it is bright yellow. Young birds are wholly green and have the bill all pale yellow.

Voice. — Its voice is said to be softer and more musical than that of other Parrakeets, and in flight it utters a peculiar sharp interrogative cry *tooi?*

Habits and Food. — Those of the family. It frequents cultivation and the outskirts of forest and clearings, and its flight is very strong.

Nest and Eggs. — The breeding season is from January to March, a few birds laying as late as April. The eggs, 4 to 6 in number, are

broad ovals in shape, fine in texture without gloss, and average 1·00 by 0·80 inches.

Status and Distribution. — This species is found almost throughout India, extending eastwards to Siam and Southern China. It is distributed through Central and Southern Burma, the Shan States and Tenasserim, but seems to be local and scarce, though 60 years ago it was abundant in the Irrawaddy-Sittang Plain. It is believed to be a local migrant, but its movements have not been worked out.

THE BURMESE SLATY-HEADED PARRAKEET

Psittacula himalayana finschii (1505).

Local Names. — Burmese: *Kye-käla* (ကျဲးကုလား)

Identification. — PLATE XVI, Fig. 4, Page 276. Length 16-18 inches. The female has no red wing-patch and young birds are wholly green, but apparently acquire the black head in their first year.

Voice. — It has a loud screaming call, constantly uttered on the wing and from trees, and a shrill whistle not unlike that of the Long-tailed Broadbill.

Habits and Food. — Those of the family. This is a typical bird of the teak forests and seems to avoid the plains. Large numbers have been observed to congregate at a salt-lick in the bank of a sandy stream where they appeared to be eating the earth.

Nest and Eggs. — The breeding season is said to be in March and April. Nest and eggs are typical of the family, the latter averaging 1·11 by 0·87 inches.

Status and Distribution. — This species is found along the Himalayas to Yunnan and through Burma to Tenasserim. It is found throughout the forests of Burma, ascending to 5,000 feet, and is very common in the Pegu Yomas, round Maymyo, and probably elsewhere.

THE INDIAN RED-BREASTED PARRAKEET

Psittacula alexandri fasciata (1508).

Local Names. — Burmese: *Kälăma kyet-tu-ywe* (ကုလားမကြက်တူရွေး)

Identification. — PLATE XVI, Fig. 5, Page 276. The female has the head duller, generally more tinged with blue or green, and the breast redder and darker, not tinged with plum; the most obvious difference however is that the upper mandible is black and not red. Young birds are green but show a certain amount of plum colour, rather dull and brownish, about the head, and acquire the black on the forehead and neck after the first moult.

Voice. — The loudest and most raucous of all Parrakeets, and their trumpet-like screams can be heard at a great distance.

Habits and Food. — Those of the family. This is the other Parrakeet typical of the teak forests. It is particularly common round Myitkyina, where it roosts in bamboo clumps, teak forest, and sugar-cane; the roosting flight at dusk is thus described by Stanford: "In November and December the flights are hardly noticeable, only a few small and more or less silent parties coming in; but from February onwards they begin to increase, reaching their maximum about mid-

May or June, when huge waves of many hundred Parrakeets, strung out abreast across half a league of sky, come chuckling noisily in from the distant hills before they cluster and sweep down into the bamboos. It is a magnificent sight, the steady onward rush of each main body, while above and below the wave are small parties of birds swerving up or down and chasing each other at racing speed. The teak forest does not attract these birds until the leaves begin to sprout, when they do a good deal of damage by nipping off the leaves or breaking them off as they settle, the ground below being carpeted with leaves and feathers. . . . In the early morning one can hear the roost "boiling up" as those of Starlings do, ere the birds depart and scatter themselves over five hundred square miles or more of hilly country."

Nest and Eggs. — The breeding season seems to start in December, continuing until early April. Nest and eggs are typical of the family, the latter averaging 1·22 by 1·01 inches.

Status and Distribution. — This species has a wide distribution in the Oriental Region as far west as the Central Himalayas. It is resident throughout the forests of Burma, mainly in the foothills but occasionally ascending to 6,000 feet, and is probably the commonest Parrakeet in the country. All the Parrakeets seem to avoid high elevations, and are rarely seen above 3,000 feet except at places like Maymyo, which is rather remarkable considering their powers of flight.

THE MALAY LITTLE PARROT

Psittinus cyanurus macropterus (1512).

Identification. — Length 7½ inches. Easily recognised by the very short tail (2 inches); it is larger than the Lorikeet and has the rump blue, not red. The sexes differ considerably in colour. The usual note is a sharp not unpleasant whistle, and it has a series of warbling notes, which it utters from a perch. It is found in all types of forest, feeding principally on the small gummy flowers of a plant that grows where forest has been felled and burnt. The flight is very swift and strong, and parties indulge in aerial exercises and evolutions, whistling as they fly.

Nest and Eggs. — Typical of the family; the eggs average 0·93 by 0·79 inches.

Status and Distribution. — A Malay species, resident in Southern Tenasserim.

THE INDIAN LORIKEET

Coryllis vernalis vernalis (1513).

Local Names. — Burmese: *Kyc-thă-ta* (ကြက်သာတ)

Identification. — PLATE XVI, Fig. 6, Page 276. The female has little or no blue patch on the throat, and young males have the red rump mixed with green. The flight is as quick and powerful as that of the Parrakeets, but consists of several rapid wing-beats followed by a short pause and a consequent slight dip.

Voice. — A loud whistle or sharp trisyllabic *chee-chee-chee* repeated every 2 seconds or so is uttered on the wing and twittering and warbling notes when feeding; it is a silent bird compared with the Parrakeets and easily overlooked.

Habits and Food. — This bird is found in all types of forest, but is more often seen in deep moist forest than elsewhere. The members

of a party have a curious habit of suddenly flying off the top of a tree and wheeling about in wide circles, whistling loudly all the time, and then equally suddenly hurling themselves back onto the tree, where they settle down for a few minutes. It feeds on flowers, fruit, and the hardest of nuts and berries. These birds have a curious habit of hanging by their feet head downwards when at rest after the manner of a bat.

Nest and Eggs. — The breeding season is from January to February. The nest is usually low down in an old stump or rotten tree, and the eggs, 3 or 4 in number, are broad blunt ovals, coarse and porous in texture, and average 0·75 by 0·62 inches.

Status and Distribution. — This species has a wide range in the Oriental Region as far west as Sikkim. It is likely to occur sparingly throughout the forests of Burma, but at present there seem to be no certain records north of Mandalay; it is scarce and local.

Sub-order CORACII.

Family CORACIIDÆ

ROLLERS

This family is found throughout the tropical and temperate countries of the Old World. It is represented by only two species in Burma.

THE BURMESE ROLLER

Coracias benghalensis affinis (1519).

Local Names. — Blue Jay; Burmese: *Hnget-hka* (ငှက်ခါး)

Identification. — PLATE XVI, Fig. 7, Page 276. Length 13 inches. The general appearance suggests a corvine bird such as a Jay. At rest it is inconspicuous and the sudden flash of blue wings when it takes flight is thus all the more startling. The ordinary flight is strong and buoyant, with slow but continuous wing-beats.

Voice. — A sharp harsh *tjock* is uttered from a perch and the usual cry on the wing is a loud harsh *rack-rack kacker,* etc., with rapidly repeated variants especially associated with the tumbling display (see below); young birds just out of the nest call incessantly, and swallow each morsel brought to them by the parents with a loud screaming gobble.

Habits and Food. — This is a bird of open country with scattered trees, avoiding heavy jungle where it is replaced by the next species. It chooses an elevated perch in an exposed situation, such as the branch of an isolated tree, a telegraph wire, a ruined building, or in default of something better a bush or heap of stones; there it sits motionless, its large dark eyes watching the ground in every direction, and occasionally jerking its tail; but a grasshopper has only to walk along a blade of grass, or a cricket or mouse to emerge from its burrow, and the dark lumpy bird reveals the beauty of its wings and tail as it launches itself straight at the spot; it settles on the ground to pick up the morsel and then returns to its perch. Frogs, when available, form a very

large proportion of this bird's diet. When on the ground it hops heavily but it never hops in trees, preferring to fly from branch to branch. In early February the Roller betrays the secret of its name ; its sedateness is exchanged for the display in which it rises and falls in the air with wildly flapping wings and harsh grating screams, even turning somersaults in its abandon.

Nest and Eggs. — The breeding season is from March to May. The nest is usually built in a hole in a tree but occasionally the deserted nest of some other bird e.g. the Black-necked Myna and Chinese Magpie is utilized. The nest may consist of a pad of vegetable fibres, grass, old rags, and similar materials, but the eggs are occasionally laid on the debris and chips in the bottom of the hole without any real pad being made. The eggs, 4 or 5 in number, are very broad ovals in shape, highly glossy and hard in texture and pure white in colour; they average 1·30 by 1·05 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region, and is a common and familiar resident throughout Burma in the plains; in the hills it is only found where the conditions are sufficiently open to suit it, e.g. at Maymyo and in pine forests, in which it has been seen up to 5,000 feet.

THE BROAD-BILLED ROLLER

Eurystomus orientalis orientalis (1520).

Local Names. — Burmese: *Mo-gaung-hnget* (မိုးခေါင်ငှက်) ; Chinghpaw: *U-shing-gyep*

Identification. — PLATE XVI, Fig. 8, Page 276. Length 12 inches. In flight a large, almost translucent patch is seen on each wing, hence the name of "Window-pane bird" sometimes applied to this species. The blackish appearance and red bill are distinctive at rest.

Voice. — A harsh croak is uttered at long intervals. It is a much quieter bird than the Burmese Roller, but has a similar noisy display in the breeding season.

Habits and Food. — The habitats of this and the preceding species are more or less mutually exclusive, this being purely a forest bird, though the two are occasionally seen together in forest clearings or in pine forest. The Broad-billed Roller is a characteristic bird of the teak forests, and is typically seen on the topmost branch of a dead tree in a small clearing, where it sits motionless with its head sunk into the puffed-out feathers of its shoulder and breast all through the hotter hours of the day. Like the Burmese Roller it seems to feel no inconvenience when sitting in strong direct sunlight. Though normally a sluggish bird it is a typically active Roller when excited. It feeds on wood-boring insects, grasshoppers, cicadas, etc.

Nest and Eggs. — The breeding season is from April to May. No nest is made, the eggs being laid on the bare wood or debris at the bottom of a hole in a tree. The eggs, 3 or 4 in number, are indistinguishable from those of the preceding species and average 1·43 by 1·11 inches.

Status and Distribution. — This species is found throughout the Oriental Region as far west as the Central Himalayas; it is resident

throughout the forests of Burma in the foothills, but is rare in the higher hills. It is not uncommon in the Pegu Yomas, and perhaps elsewhere in its range.

Family MEROPIDÆ

BEE-EATERS

This family, like the preceding one, extends throughout the tropical and temperate regions of the Old World. The predominantly green plumage, long curved slender bill, and fly-catching habits from a perch, with a loud snap of the bill each time an insect is taken, render the Bee-Eaters easy to recognise. The flight is slightly undulating, usually a succession of quick wing-beats alternating with momentary closure of the wings. When hawking for insects a Bee-Eater has an easy and graceful wheeling action, in which more or less brief periods of rapid wing movement alternate irregularly with intervals of sailing round on rigid wings.

The eggs are laid in a circular chamber at the end of a tunnel, which may be 5 feet or more in length, excavated in the face of a bank or cutting. No nest is built, the eggs being laid on the bare floor of the cavity. The eggs are hard and brilliantly glossy in texture, and pure white in colour without markings.

THE BURMESE GREEN BEE-EATER

Merops orientalis birmanus (1524).

Local Names. — Burmese: *Hnget-păsin-hto* (ငှက်ပဆင်းထိုး) or *Pasin-hto* (ပဆင်းထိုး)

Identification. — PLATE XVII, Fig. 1, Page 282. Length 9 inches, including 2 inches for the elongated central pair of tail-feathers. A green bird with a golden gleam about the head, a bronze tint on the wings, and a beautiful patch of blue on the throat ; it has a bright red sparkling eye. Only careful examination with glasses reveals the full beauty of its plumage.

Voice. — The note is a pleasant cheerful but rather monotonous trill, *tree-tree-tree-tree*, which is usually uttered on the wing.

Habits and Food. — This species avoids dense forest but otherwise is almost universal in Burma, and owing to its habit of perching on telegraph wires, trees, low bushes and walls it soon attracts attention; it has an unexplained partiality for resting on sandy river beds or gritty roads. Like others of the family it spends its life hawking insects from a perch, to which it returns after every flight. Small insects are swallowed at once with a quick upward jerk of the bill, but larger ones are carried to the perch and there battered to death and eaten. The Bee-Eater is well named; though naturalists in the past have expressed doubts of its ability to tackle so large an insect as a bee, it has recently been proved to eat no less than four species, including the formidable rock honey-bee, and it is one of the bee-keeper's worst enemies. In addition to bees it takes dragon-flies and other beneficial insects.

PLATE XVII

		See Page No.
1.	**BURMESE GREEN BEE-EATER** (adult) *Merops orientalis birmanus*	282
2.	**BLUE-TAILED BEE-EATER** (adult) *Merops superciliosus philippinus*	283
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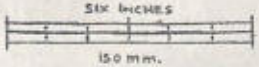

Nest and Eggs. — The breeding season is from February to May. The nest and eggs are typical of the family. On the coast many birds breed in holes out on the flat open dunes above the normal tide-mark. The eggs average 0·75 by 0·67 inches.

Status and Distribution. — This species has an extensive range from Egypt through India, Ceylon and Burma to Siam and Cochin China. It is a common resident throughout the plains of Burma, also ascending the hills to 4,000 feet, and is a local migrant about whose movements little definite is known.

THE BLUE-TAILED BEE-EATER

Merops superciliosus philippinus (1526).

Local Names. — Burmese: The same as for the preceding bird.

Identification. — PLATE XVII, Fig. 2, Page 282. Length 12 inches. Larger size and blue rump and tail distinguish it from the preceding species. General colour green with a bronze tinge; chin yellowish, throat chestnut.

Voice. — The call-note is freely uttered on the wing and is a rather mellow and characteristic sound, a rolling whistle or chirp *teerp*.

Habits and Food. — This fine Bee-Eater is partial to water and is typically seen over rivers and jheels; it is catholic in its tastes and may be seen over the paddy plains or flying past pine forest in the higher hills. Though sometimes hawking insects from a perch in the usual family manner, it is more often seen in a small party flying steadily in a fixed direction and catching insects as it goes along. Like the Green Bee-Eater it is an injurious species, feeding mainly on beneficial insects such as bees, dragon-flies and wasps.

Nest and Eggs. — The breeding season is from February to May. The birds nest in colonies; they like cultivated *kaing* land along the Irrawaddy, making their tunnels in small holes in pea fields, in banks, and the sides of earthen wells; on the coast they breed on open flat sand dunes behind the beach. The nest and eggs are typical of the family, the eggs averaging 0·88 by 0·75 inches.

Status and Distribution. — This species is found throughout the greater part of the Oriental Region. It is common throughout the plains of Burma, but appears to be a summer visitor to most parts; there are few winter records outside Tenasserim. In Southern Burma a few birds winter on jheels (including the Hlawga lake) but the majority disappear between November and February. Its migrations are little known, but it is said to visit Northern India in summer and Southern India in winter, which agrees with its movements in Burma.

THE CHESTNUT-HEADED BEE-EATER

Merops leschenaulti leschenaulti (1528).

Local Names. — Burmese: The same as for the two preceding birds.

Identification. — PLATE XVII, Fig. 4, Page 282. Length 8½ inches. The chestnut crown, nape and back and pale yellow throat distinguish this bird, the prettiest of all Bee-Eaters; rump and tail-coverts pale blue. A forest bird.

Voice. — A musical trill uttered frequently on the wing.

Habits and Food. — The Chestnut-headed Bee-Eater is one of the typical birds of the teak forests, and a highly ornamental one; it frequents glades and clearings, streams and mule tracks, and a telegraph wire run through the forest is always much appreciated ; there is little overlap between its habitat and that of the Green Bee-Eater, which does not penetrate beyond the outskirts of the forest, so that the two are rarely seen together.

Nest and Eggs. — The breeding season is from February to May. Its nesting habits are typical of the family (see page 282) and the eggs average 0·85 by 0·75 inches.

Status and Distribution. — This species is found in most parts of the Oriental Region and is a common resident throughout the forests of Burma, ascending to 4,000 feet, but like all the Bee-Eaters it is a local migrant.

THE BLUE-BEARDED BEE-EATER

Alcemerops athertoni (1529).

Local Names. — Burmese: *Pădu-hnget* (ပဒုဖွတ်)

Identification. — Length 14 inches. A typical Bee-Eater easily distinguished from the others by its much greater size. A green bird with a blue cap and a line of pale blue feathers running from the chin down to the breast (hence the name) ; the remaining under-parts are dull yellowish-buff. Bill dark, long and curved. The flight is powerful but less graceful than that of other members of the family.

Voice. — A harsh double croak, ending in a chuckle. The first note is uttered with the head held low, and the long blue feathers of the throat puffed out; with each succeeding note the head is raised, the last note being sounded with it pointing straight up. It also utters its croaks and chuckles on the wing, alternately soaring and nose-diving.

Habits and Food. — This magnificent Bee-Eater is entirely a forest bird, though it is often seen in Maymyo gardens. It feeds little on the wing, searching the leaves and flowers of trees and shrubs for insects, and clambering about with slow awkward movements. It is less obtrusive than the smaller Bee-Eaters and were it not for its arresting call it would often be overlooked. The *letpan* tree in flower is said to afford a special attraction for these birds.

Nest and Eggs. — The breeding season is from March to May, sometimes extending to August. The nesting tunnel, 3 to 4 feet in length, is usually made in the sandy bank of a stream or road cutting. The nest cavity is deeply lined with quantities of legs, wings and other hard parts of insects. The eggs, 4 to 6 in number, average 1·11 by 1·00 inches.

Status and Distribution. — This species is found in India, Burma and Siam. It is sparingly distributed throughout the forests of Burma, ascending to about 5,000 feet, and is rather local. Like other Bee-Eaters it is resident but a local migrant.

THE RED-BEARDED BEE-EATER

Alcemerops amictus (1530).

Identification. — Like the preceding species in size and general colour, but the forehead and crown are purplish and the long feathers of the throat and breast

forming "the beard" are scarlet. Young birds however have no red or pink colour and are green throughout.

Nest and Eggs. — In the Malay States nests have been found in February in the banks of small streams running through evergreen forest. The eggs are slightly smaller than those of the preceding species.

Status and Distribution. — Extends from Borneo and Sumatra northwards to Tenasserim, where it extends up to Moulmein and the Thoungyin valley and is said to be fairly common. Status uncertain.

Family ALCEDINIDÆ

KINGFISHERS

Kingfishers are found all over the world and both as a family and individually they are easy to recognise, thanks to their usually brilliant colouring and their fishing habits. The bill is long, stout and pointed and the legs and feet are feeble. For nesting purposes a tunnel is excavated in the bank of a river or stream, and varies in length from 1 to 5 feet. At the end of the tunnel a chamber is hollowed out, and apart from fish-scales and other debris no nest is made. The eggs are almost spherical in shape, hard in texture and highly glossy, and always white in colour.

The Burmese names: — *Dein-nyin* (စိန်ညင်းဖြူ) and *Bein-nyin* (စိန်ညင်းဖြူ) seem to be applicable to all Kingfishers.

THE INDIAN PIED KINGFISHER

Ceryle rudis leucomelanura (1531).

Local Names. — Burmese: Those of the family.

Identification. — PLATE XVII, Fig. 7, Page 282. Length 12 inches. Sexes differ. The male has two black gorgets across the breast, the upper broad and the lower narrow. Can only be confused with the next species (*q.v.*); an excitable noisy Kingfisher of open country.

Voice. — A sharp querulous twittering cry *chirruk, chirruk,* is freely uttered in flight.

Habits and Food. — This is a familiar bird of the Irrawaddy and other large rivers and streams, but having a voracious appetite and strong flight it wanders far afield and may be seen on jheels and tidal creeks and even on the coast. It lives entirely on small fish and its method of catching them is interesting to watch. It flies over the water at a height of 10 or 20 feet above the surface, and on catching sight of a shoal of fish below it checks itself in mid-air and hovers with the wings vibrating rapidly and the bill pointing perpendicularly downwards, as if taking aim; from this position it plunges headlong into the water, and if the aim has been true it emerges with a small fish in the bill and flies away with it, uttering cries of satisfaction ; but often the plunge is unsuccessful, or the bird checks itself in mid-dive and hovers again, or goes off finally without diving at all. When not fishing the bird rests on a high bank or post, and these favourite perches are often marked by pellets of indigestible fish-scales that the bird disgorges, like the castings of a bird of prey. When resting the bird at intervals gives its tail a sharp upward flick.

Nest and Eggs. — The breeding season commences very early, in October, but lasts until April. The nesting habits are typical of the family (see page 285) and the eggs, 4 to 6 number, average 1·20 by 0·95 inches.

Status and Distribution.— This species has a wide distribution from Egypt to China. It is a common resident throughout Burma on suitable rivers and jheels, and in Yunnan has been found at 5,500 feet, though it is normally a plains bird.

THE HIMALAYAN PIED KINGFISHER

Ceryle lugubris guttulata (1532).

Local Names. — Burmese: Those of the family.

Identification. — Length 16 inches. Sexes differ. Distinguished from the preceding species by larger size, big dark crest, slower flight, and the network of transverse bars on the upper-parts, which look like grey checks. The female and young birds have the wing-coverts and axillaries pale rufous-brown. The flight is powerful and usually rather deliberate.

Voice. — A silent bird as a rule but a harsh shrill call is sometimes uttered and a deep croak is used when one bird is calling to its mate.

Habits and Food. — This bird differs in several ways from its smaller relation ; it is a bird of forest streams and it normally dives for fish from a perch and seldom hovers in the air.

Nest and Eggs. — The breeding season is from March to May. The nesting tunnel is usually in the bank of a small stream and tends to be short. The eggs are typical and average 1·52 by 1·18 inches.

Status and Distribution. — This species is found throughout the Himalayas and eastwards through Yunnan to Japan. In Burma it is resident and sparingly distributed throughout the country as far south as Amherst.

THE COMMON INDIAN KINGFISHER

Alcedo atthis bengalensis (1533).

Local Names. — Burmese: Those of the family.

Identification. — PLATE XVII, Fig. 3, Page 282. Length 7 inches. Can only be confused with the Blue-eared Kingfisher (*q.v.*). The flight is very swift and straight, generally low over the surface of the water.

Voice. — A hard sharp squeak *ch'kee* is uttered on the wing, and little subdued *clicks* from time to time when sitting, bolt upright as its wont, on a perch.

Habits and Food. — The Common Kingfisher frequents fresh water of every description,including forest streams, and occasionally wanders to tidal creeks and the coast. It usually captures its food by plunging obliquely into the water from a suitable vantage point, such as an overhanging bough, a stump, or a clump of reeds, on which it sits motionless waiting for something to come within its reach ; but at times it hovers over open water with the body almost at right angles to the

surface and some 15 to 20 feet above it, and from this position dives perpendicularly into the water. Large fish are beaten on a branch or other perch before being swallowed head-first, and may be tossed in the air and caught again to adjust the position. It is a pugnacious little bird and once a pair have established their right to a stretch of water they are very intolerant of the presence of others of their kind. The frequent up and down movement of the head accompanied by a forward flick of the tail seems to indicate uneasiness or excitement.

Nest and Eggs. — The breeding season is irregular, but most eggs will be found from March to June. The nesting habits are typical of the family (see page 285) and the eggs, up to 7 in number, average 0·80 by 0·70 inches.

Status and Distribution. — This is a familiar species in the British Isles, whence it extends to Northern Africa and across Asia to Japan. It is a common resident throughout Burma.

THE BLUE-EARED KINGFISHER

Alcedo meninting subsp. *(1536 — 40).*

Local Names. — Burmese: Those of the family.

Identification. — Length 6 inches. The deep purple-blue colour of the back as opposed to greenish-blue and, in adults, the blue and not rusty ear-coverts distinguish this from the Common Kingfisher. Young birds however have rufous ear-coverts.

Voice. — Said to have a similar note to the Common Kingfisher, but less often uttered.

Habits and Food. — Except that it is more or less confined to streams in evergeen forest it does not differ from the Common Kingfisher.

Nest and Eggs. — The breeding season is from April to August. The tunnel is usually high above the water to allow for floods, and the eggs are typical and average 0·80 by 0·69 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region, but in Burma it seems to be scarce and confined to the east of the Irrawaddy. It has been recorded from North-East Burma, Central Burma, the Pegu Yomas, and Tenasserim. Until more specimens are available it is impossible to say what races occur and what their distributions are.

BLYTH'S KINGFISHER

Alcedo hercules (1542).

Local Names. — Chinghpaw: *Tettet-bo.*

Identification. — Length 9 inches. Upper-parts speckled blue and black except for the brilliant pale blue rump and whitish stripe on each side of the neck; under-parts red except for whitish chin and throat. A shy retiring bird of streams in evergreen forest. The call is said to be a loud but soft replica of the Common Kingfisher's. It apparently eats insects as well as fish.

Nest and Eggs. — The breeding season is from April to June. The eggs are laid in the usual tunnel and average 1·03 by 0·85 inches.

Status and Distribution. — This species has a small range along the Himalayas from Sikkim to Northern Burma. It has been recorded once from the Arakan Yomas, Chin Hills (?), and once from north of Myitkyina.

THE BROAD-ZONED KINGFISHER

Alcedo euryzona (1543).

Identification. — Length 8 inches. Smaller than Blyth's Kingfisher with the head sooty-brown, only faintly marked with blue. The male has a broad green band across the breast but this is lacking in the female. Another rare and shy bird of streams in evergreen forest.

Nest and Eggs. — Little known. Eggs have been found early in February in the banks of small streams running through dense forest.

Status and Distribution. — Extends from Northern Tenasserim through the Malay States to Java and Borneo.

THE INDIAN THREE-TOED KINGFISHER

Ceyx erythaca erythaca (1544).

Identification. — Length 5½ inches. Small size and violet colour are unmistakable; under-parts rusty orange-yellow. A bird of streams in evergreen forest, favouring the smallest trickles, and it is often seen away from water, flashing at a tremendous pace through the trees. As sunshine and shade flicker on its plumage it appears gleaming blue, vivid pink, and colourless by turns. It has been observed feeding on spiders, snatching them from their webs, and it also eats small fish and shrimps. It has a low sibilant note, uttered on the wing.

Nest and Eggs. — The breeding season is in April and May, and again in July and August. The eggs, 4 to 7 in number, average 0·74 by 0·61 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is probably found sparingly through the evergreen forests of Burma. It has been obtained in the grounds of the old Rangoon College.

THE BROWN-WINGED KINGFISHER

Ramphalcyon amauroptera (1546).

Identification. — Length 14 inches. Resembles the next species in size and shape but has the wings and tail brown and not blue. Chiefly a bird of the coast, tidal creeks and mud-flats, rarely found inland. It is extremely noisy, having a very harsh penetrating voice.

Nest and Eggs. — Little known.

Status and Distribution. — Extends along the coast from Bengal to Tenasserim and South-west Siam. It is common in Tenasserim.

THE BURMESE STORK-BILLED KINGFISHER

Ramphalcyon capensis burmanica (1549).

Local Names. — Burmese: *Hsin-bein-nyin* (ဆင်စိန်ညင်း)

Identification. — PLATE XVII, Fig. 5, Page 282. Length 14½ inches. Young birds have finely barred plumage, the bars broader on the breast and forming a broad pectoral band.

Voice. — The ordinary note is a loud raucous cry, and in addition the birds of a pair call to one another in a characteristic, arresting and plaintive manner.

Habits and Food. — This is a typical bird of streams in the teak forests and is equally common in the paddy plains. It is not a shy bird and fishes from a perch like the Common Kingfisher.

Nest and Eggs. — The breeding season is during the hot weather. It is apt to lay its eggs in peculiar places, such as in a burrow in a white ants' nest, a hollow in a tree, or an old nest in a bamboo clump, in addition to the normal tunnel in a bank. The eggs are typical and average 1·43 by 1·22 inches.

Status and Distribution. — This species is found throughout most of the Oriental Region, and is a common resident throughout Burma, ascending the hills to about 4,000 feet. It is occasionally seen on the Rangoon lakes.

THE WHITE-BREASTED KINGFISHER

Halcyon smyrnensis subsp. *(1551).*

Local Names. — Chinghpaw: *Ngā-shā-gălang;* Burmese: Those of the family.

Identification. — PLATE XVII, Fig. 6, Page 282. Length 11 inches. In flight the white wing-patch is conspicuous.

Voice. — A loud screaming cry, easily mistaken for that of a Woodpecker, is uttered both on the wing and from a perch.

Habits and Food. — Like the preceding species this beautiful Kingfisher is catholic in its tastes. It is equally at home in the depths of the teak forests and in the open spaces of the paddy plains, and though at times it is found along streams fishing like any other member of the family it is seen just as often far from water; in fact it is mainly a land bird, and feeds largely on insects, lizards, frogs and such small fry, which it captures after the manner of a Roller, flying down from an elevated perch to take them on the ground. Custom cannot stale the bright blues, deep rich browns, and dazzling white of its plumage.

Nest and Eggs. — The breeding season is during the hot weather. The nesting tunnel is not near water as a rule. In the Pidaung Wild Life Sanctuary it breeds freely in borrow-pits beside the paths, and when walking along these in the hot weather the birds fly out of their tunnels just before the visitor reaches them, with startling effect. The eggs are typical and average 1·15 by 1·05 inches.

Status and Distribution. — This species has an immense range from Asia Minor to Persia and the whole Oriental Region, and is a common resident throughout the plains and foothills of Burma, occurring even in Rangoon gardens. It has been divided into a number of races, but which one inhabits Burma is uncertain.

THE BLACK-CAPPED KINGFISHER

Halcyon pileata (1554).

Local Names. — Burmese: Those of the family.

Identification. — PLATE XVII, Fig. 9, Page 282. Length 12 inches. Young birds have the breast-feathers edged with black.

Voice. — Shrill and loud, but not so unpleasant as that of the White-breasted Kingfisher.

Habits and Food. — This is mainly a bird of the coast and tidal waters, but it is seen less commonly inland on the larger rivers. It is the most markedly characteristic bird of the Rangoon river coast-line, and is there extremely abundant, not only alongshore, where it feeds on crabs, but inland as well in mangrove swamps and willow jungle. Its habits resemble those of the White-breasted Kingfisher except that it is far more of a fish-eater.

Nest and Eggs. — The breeding season is during the hot weather. The nesting habits are typical of the family and the eggs average 1·17 by 1·04 inches.

Status and Distribution. — This species is found throughout the Oriental Region. It is common all round the coast of Burma and is believed to be a summer visitor inland to breed ; it has not been recorded from North-East Burma but it ascends the Chindwin river right up to the Upper Chindwin district, where it is common in April, and it also breeds in the Shan States. It occurs as high as 6,000 feet.

THE INDIAN RUDDY KINGFISHER

Entomothera coromanda coromanda (1555).

Local Names. — Burmese: Those of the family.

Identification. — Length 10 inches. Except for the white rump the whole bird is orange-rufous and unmistakable; the upper-parts have a violet sheen, not usually visible in the field. Bill and legs red. Young birds have the feathers of the under-parts from breast to abdomen edged with black, and the bill black with an orange-red tip.

Voice. — A shrill high-pitched note.

Habits and Food. — This is a bird of the coast and mangrove swamps, and of streams in evergreen forest. It is very shy and flies fast, so that all one sees of it as a rule is a flash of brilliant opal as it passes through a gleam of sunshine. It feeds on insects, land shells, tadpoles, and probably fish.

Nest and Eggs. — This bird breeds only in evergreen forest, making its tunnel in the bank of a deep and gloomy ravine. The eggs, 4 to 6 in number, average 1·08 by 0·91 inches.

Status and Distribution. — This species extends from Nepal through Burma to the Malay States. It is probably sparingly distributed throughout Burma in evergreen forest except for the Pegu Yomas, but the only records are from the Lower Chindwin, Pegu, Kalaw, Karen Hills, Karenni and Tenasserim. It is found up to 6,000 feet, and seems to be not uncommon along the coast and rare elsewhere.

THE WHITE-COLLARED KINGFISHER

Sauropatis chloris armstrongi (1557).

Identification. — Length 9½ inches. A pale green Kingfisher with white under-parts and a white collar on the back of the neck. The bill is black, rather short and broad, with the lower mandible noticeably curved upwards. Young birds have the feathers of the breast edged with dusky. The call is a harsh cry *krerk-krerk-krerk-krerk*. It is purely a bird of the coast and tidal creeks, and is said to be very tame. The flight is curiously hesitant and weak, like that of a Cuckoo-Shrike.

Nest and Eggs. — Nothing is known of this bird's nesting habits in Burma, but round Bangkok it habitually makes its tunnel in ants' nests in hollow trees, usually about 20 feet from the ground. The eggs, 4 in number, average 1·14 by 0·95 inches.

Status and Distribution. — This species has a wide distribution in the Oriental Region. In Burma it is found all along the coast, and is fairly common in pairs round the islands of the Mergui Archipelago.

THE SUMATRAN KINGFISHER

Caridagrus concretus (1561).

Identification. — Length 9 inches. The bill is broad and short. Sexes differ. The male has the upper-parts mainly blue with a rufous collar on the hind-neck and a pale rufous eyebrow; a black line through the eye and round the green crown; a broad blue moustachial streak; under-parts bright red. The female has green wings spotted with buff. This is not a water Kingfisher at all, but a bird of evergreen forest, in which it feeds on the ground on lizards and wood-lice. It is shy and flies off when disturbed with a sort of low chuckle.

Nest and Eggs. — Unknown.

Status and Distribution. — This species extends from Borneo northwards to the extreme south of Tenasserim, where it is probably resident.

THE PEGU BANDED KINGFISHER

Lacedo pulchellus amabilis (1562).

Identification. — Length 9 inches. Sexes differ. The male has chestnut cheeks and forehead, upper-parts banded blue and black, and under-parts pale rufous, changing to pure white on the under tail-coverts. The female differs in having the upper-parts barred rufous and black and the breast and flanks barred with black. Bill red, legs pale green. This is another bird of evergreen forests, and like the preceding species is usually seen feeding on insects far from water.

Nest and Eggs. — This bird's nesting habits in Burma are unknown. Elsewhere it is said to breed from February to May, making a tunnel in the bank of a small stream. The eggs are typical and average 0·97 by 0·82 inches.

Status and Distribution. — This race is found in the Malay States and Siam, extending northwards through Tenasserim to Karenni and the east side of the Pegu Yomas as far north as the Toungoo district. It appears to be rare outside Tenasserim. Another race is found in Java.

Family BUCEROTIDÆ

HORNBILLS

The Hornbills are a tropical family; they are recognised at once by their enormous bills, which are often furnished with a horny excrescence on the top of the head known as a casque, of varying shape and description. Nothing is known about the purpose of the casque, which is not solid (except in the case of the Helmeted Hornbill) but cellular and partly hollow in structure and therefore very much lighter than it appears. Captive birds are said to be destructive, using the bill as a pickaxe, and it is possible that the casque functions as a shock absorber. They also perform a curious trick that may provide a clue. When a pellet of food is thrown to one, it is caught dexterously and moulded between the bill and tongue; then it is tossed into the air and the process repeated several times till it has been moulded to the bird's liking; finally it is thrown directly upwards and allowed to fall straight down the gullet into the crop.

The family is remarkable for its curious nesting habits. No nest is made, the eggs being laid inside a large hole in the trunk of a tree, at any height from 10 feet upwards; they are white when fresh but become stained brown as incubation progresses. When ready to lay the female enters the nest hole and remains therein until the young are about a week old. She spends the first two or three days in plastering up the entrance to the hole with her own droppings, which are very

viscid and strong and harden into a clay-like substance, and the male often assists with clay on the outside. For this work they use the flattened sides of their bills like a trowel. When the work is completed only a narrow vertical slit is left, about the width of a man's finger and two or three inches deep. After this the droppings are thrown out daily through the slit. The female is now completely a prisoner and is dependent on the male for all her food. This he brings held in his bill; he perches on a neighbouring bough and then flies to the entrance of the nest hollow and clings with his claws to the bark whilst feeding the female, who extrudes the point of her bill through the slit to receive the morsel. During the period spent incubating in the nest the female becomes very fat and dirty, and on first emerging is so stiff that she can hardly fly.

THE GREAT HORNBILL

Dichoceros bicornis bicornis (1563).

Local Names. — Burmese: *Aung-laung* (ဧာင်ဧာင်း), *Yaung-yin* (ယောင်ယင်း)

Identification. — FRONTISPIECE, Fig. 1. Length 52 inches. Can only be confused with the Wreathed Hornbills, from which the yellow stains on the primaries, visible at a considerable distance in flight, at once distinguish it. The flight consists of a number of wing-beats alternating with glides, but the flapping predominates and the flight is less undulating than in some other species. The tremendous droning noise made by the wings is characteristic and can be heard a mile away.

Voice. — A very noisy bird, apt to indulge in the most extraordinary rattling roars, chucklings and bellows.

Habits and Food. — This is a typical bird of the teak forests and is not found in open country. It is said to pair for life, and outside the breeding season is usually seen in parties of 6 to 18 birds. It feeds mainly on fruit, but is omnivorous and readily takes insects, lizards, grain and even snakes, all of which are jerked into the air and caught in the manner described on page 291, though snakes are always well battered before being swallowed.

Nest and Eggs. — The breeding season is from January to April. The breeding habits are typical of the family, the same nest hole being used year after year. The eggs are variable in shape and the shell is hard and compact but as a rule conspicuously pitted with pores and also covered with tiny pimples and roughnesses. The eggs average 2·60 by 1·88 inches.

Status and Distribution. — This species is widely distributed from India through Burma to Sumatra. It is not uncommon throughout the foothills of Burma, and ascends to 4,000 feet or so.

THE BURMESE PIED HORNBILL

Hydrocissa malabarica leucogaster (1566).

Local Names. — Burmese: *Auk-chin* (ဧာဂ်ချင်း); Chinghpaw: *Gawkha.*

Identification. — PLATE XVII, Fig. 8, Page 282. Length 28 inches. In flight the white abdomen and wing-tips give it a more pied appearance. Commonly found in parties in open forest. The flight consists of alternate flapping and gliding; the absence of any perceptible dip in the flight gives rise to the illusion that the wing-beats have no effect and are merely done for amusement.

Voice. — A noisy bird with high-pitched and most unmusical notes.

Habits and Food. — This is a typical bird of the teak forests, frequenting deep forest but especially the more open parts where forest and paddy fields are intermingled. It is usually seen in a party of about a dozen birds and is partial to fig trees when in fruit. On the ground its actions are very awkward and it progresses by alternate leaps and little runs.

Nest and Eggs. — The breeding season is in March and April. The nest is usually built at a height of 50 feet or more in one of the largest trees in the forest; the eggs, 2 or 3 in number, are quite typical and average 1·73 by 1·34 inches.

Status and Distribution. — This bird is found throughout Burma in the foothills, and is the only Hornbill that is both common and widely distributed. It also occurs in Annam, Siam, and Cochin China. Another race occurs in parts of India.

THE MALAY WREATHED HORNBILL

Rhyticeros undulatus (1567).

Local Names. — None recorded.

Identification. — Length 40 inches. In flight this is a jet-black bird with a white tail; the chin and throat are naked, forming a pouch that is capable of great inflation. The male has the pouch orange in colour with a broad black band across it; the centre of the crown and the crest are purplish and the sides of the crown and head white, whereas in the female these parts are black and the bare skin of the throat is blue, with a black band as in the male. Can only be confused with the next species (*q.v.*). The flight is noisy but less so than that of the Great Hornbill.

Voice. — It has loud menacing roars like the Great Hornbill, but is less noisy as a rule. It also has a hoarse deep double note, a sort of grunt, audible at some distance.

Habits and Food. — Similar to those of the Great Hornbill. It seems to be confined to evergreen forest and like other Hornbills it is very partial to wild figs.

Nest and Eggs. — The breeding season is during February and March. Nest and eggs are similar to those of the Great Hornbill, except that the eggs are much smoother and average 2·44 by 1·70 inches.

Status and Distribution. — This species extends from Assam through Burma and Malaya to Borneo. It has a curious distribution in Burma, being common in the Northern Chin Hills, North-East Burma, and Tenasserim, and scarce elsewhere; the only other records are from Arakan and the east side of the Pegu Yomas. It is common in the Pidaung Wild Life Sanctuary.

BLYTH'S WREATHED HORNBILL

Rhyticeros subruficollis (1568).

Identification. — Length 34 inches. This bird differs from the preceding species in having no grooves or corrugations on the sides of the upper and lower mandibles near the base, and no black bar across the bare skin of the throat. Its call is said to be a short hoarse bark and the resonant swish made by its wings in flight is a much higher-pitched sound than the drone of the Great Hornbill.

Nest and Eggs. — Similar to those of the preceding species, but the eggs are smaller, averaging 2.26 by 1.72 inches.

Status and Distribution. — Ranges from Burma to Borneo; it has been recorded from Arakan, the Upper Chindwin, North-East Burma, the east side of the Pegu Yomas, the Karen Hills, Karenni and Tenasserim. It seems to be nowhere common.

THE RUFOUS-NECKED HORNBILL

Aceros nepalensis (1570).

Local Names. — None recorded.

Identification. — Length 45-48 inches. Sexes differ. The grooves on the side of the basal half of the upper mandible, the absence of a casque, the bright blue facial skin and bright scarlet skin of the throat, and the rufous head and neck and white tail, are distinctive. The wings are black with a white tip, and the tail is black on the basal half and white on the terminal half. The female has the wings and tail marked with white as in the male and the remainder of the plumage black glossed with green except on the head and crest; the facial skin is dull pale blue. Young birds have much smaller bills without ridges.

Voice. — It has a deep double croak, sounding like the guttural bark of a dog, and in the breeding season the usual roars and cacklings are uttered.

Habits and Food. — This is a bird of evergreen forest, chiefly in the higher hills, and in habits resembles the Wreathed Hornbills. In flight it makes nearly as much noise as the Great Hornbill but the sound is high-pitched and less regular.

Nest and Eggs. — The breeding season is in February and March. The nesting habits are typical of the family and the eggs, 1 or 2 in number, average 2·33 by 1·70 inches.

Status and Distribution. — This species extends from Nepal eastwards to Burma and thence to Siam and Annam. It has been recorded from the Chin Hills, North-East Burma, Pino Taung (Shwebo district), the Shan States, Karenni, and Tenasserim as far south as Mt. Mulayit, but seems to be nowhere common.

THE BUSHY-CRESTED HORNBILL

Anorrhinus galeritus (1571).

Identification. — Length 35 inches. Except for the basal part of the tail, which is brownish-grey, the whole plumage is black. The bare skin of the face and throat is pale blue. Bill black, with a small compressed and sharp-edged casque. There is a well developed crest. A bird of evergreen forest, keeping much to tall trees, and very shy and difficult to approach. The call is said to be like that of the Pied Hornbill.

Nest and Eggs. — Unknown.

Status and Distribution. — Extends from Borneo and Sumatra up to Mt. Nwalabo in Southern Tenasserim. Presumed to be resident.

TICKELL'S HORNBILL

Ptilolæmus tickelli tickelli (1572).

Identification. — Length 29 inches. Sexes differ. The male has the upper-parts dull to dark brown and the sides of the neck and under-parts rufous. The wings and tail are tipped with white. Bill yellowish-white; bare skin of face blue; unlike the preceding species the throat is feathered and not bare. The female differs in having the sides of the neck the same colour as the crown, and the under-parts more brown than rufous. The whole bill is dark dull brown. It is said to have a piercing scream. It keeps much to tall trees in evergreen forest and is said to be very wild and difficult to approach except in the breeding season. The flight is almost noiseless.

Nest and Eggs. — The breeding season is during February and March. The nest is typical of the family but as a rule within 25 feet of the ground; the eggs, 3 to 5 in number, average 1·83 by 1·33 inches.

Status and Distribution. — This race is only known from Tenasserim and seems to be confined to the Thaungyin valley.

[Note:— Godwin-Austen's race, *P. t. austeni (1573)*, is found in the extreme east of Assam and will probably be found some day in the Upper Chindwin.]

THE LONG-CRESTED HORNBILL

Berenicornis comatus (1574).

Identification. — Length 40 inches. Sexes differ. The male has the head, neck, breast, wing-tips and tail white; remaining plumage black. The female has the sides and back of the neck and the whole under-parts black. Both sexes have a crest of hair-like feathers, a black bill with a casque as in the Bushy-crested Hornbill but much smaller, the facial skin deep blue, legs and feet black. The central tail-feathers are much longer than the others. The call is a single soft *hoo* when it takes wing, and the same sound repeated rapidly about a dozen times when it is feeding. The flight is almost noiseless with continuous rapid flappings of the wings and no alternate sailings. It is found in small parties in forest, keeping much to dense undergrowth and the ground, and feeding on fruit, lizards, small birds, etc.

Nest and Eggs. — Unknown.

Status and Distribution. — Extends from Borneo and Sumatra to Mt. Nwalabo in Tenasserim, and is probably resident.

THE HELMETED HORNBILL

Rhinoplax vigil (1578).

Identification. — Length 44 inches, the central tail-feathers, which are twice as long as the others, 12-18 inches extra. General colour black and white, with much white on the wings in flight; the whole chin, throat, neck, centre and upper back are naked and deep dull red in the male; in the female the naked back and hind-neck are reddish-lilac, and the sides and front of the neck are greenish-blue, veined with sky-blue. The bill has a high flat solid casque with a curious corrugated horizontal line. The bill and casque are crimson at the base, yellow on the front half. Young birds are like the adult but have no casque. It has been aptly described as "a perfect nightmare of a bird." Its call begins with a series of whoops uttered at intervals of about half a minute, gradually becoming faster till it ends in a harsh quacking laugh. A shy bird of evergreen forest, keeping to tall trees and never descending to the ground.

Nest and Eggs. — Unknown.

Status and Distribution. — Extends from Borneo and Sumatra northwards to the extreme south of Tenasserim, where it is presumed to be resident.

Family UPUPIDÆ

HOOPOES

The Hoopoes are close to the Hornbills in anatomy, although so different externally.

THE BURMESE HOOPOE

Upupa epops longirostris (1583).

Allied Forms.—

THE TIBETAN HOOPOE, *U. e. saturata (1580).*

THE INDIAN HOOPOE, *U. e. orientalis (1581).*

Local Names.— Burmese: *Taung-bi-sok* (တောင်ဘီစုတ်)

Identification. — PLATE XVIII, Fig. 3, Page 296. Length 12 inches. In flight the rounded wings barred black and white, and the desultory butterfly-like wing-action are distinctive. The crest is depressed when at rest, but erected when excited or alarmed and for a moment on settling. The Tibetan race has white subterminal spots on the hinder feathers of the crest and may be recognisable by someone endowed with quick enough sight. The other two races are not distinguishable in the field.

Voice. — The ordinary note in the breeding season is a low soft *hoop-hoop-hoop* with considerable carrying power. When uttering it the bird puffs out its neck and bobs its head. A harsh grating note is used at the nest.

Habits and Food. — The Hoopoe feeds almost entirely on the ground and is very partial to grassy lawns, on which it walks and runs with an accompaying movement of the head; it quarters the ground methodically, probing grass roots and the interstices of the soil or turning over leaves and rubbish for the insects, caterpillars and grubs that shelter there; ants are said to form the major portion of its diet. When disturbed it flies up into trees or buildings. It is not confined to open country and, in the breeding season at any rate, is common in dry bamboo forests and *indaing*. Out of the breeding season it is commonly seen in noisy parties of half a dozen birds. It is a tame and striking bird, with definite names in many languages, and is the Lapwing of the Bible.

Nest and Eggs. — The breeding season is during the hot weather. The nest is a slight collection of grass, hair, leaves or feathers placed roughly on the floor of a hole, which may be in a tree or building. It is usually very smelly and offensive. The eggs, 3 to 10 in number, are rather long ovals in shape, smooth in texture without gloss and when fresh vary from pale greenish-blue to pale olive-brown in colour, becoming stained a dirty brown as incubation progresses. They average 1·00 by 0·66 inches.

Status and Distribution. — This species is found in Europe, Asia and Africa. The typical race visits the British Isles as a passage migrant. The Tibetan race is a winter visitor to Burma and has only been recorded from Prome. The Indian race has been recorded from Thayetmyo and Mt. Victoria, and its status is uncertain.

PLATE XVIII

		See Page No
1.	RED-HEADED TROGON (adult male) *Harpactes erythrocephalus erythrocephalus* ..	297
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PLATE XVIII

1
2
3
4
5
6
7
8
9
10
SIX INCHES
0 3 6
0 50 100 150
150 mm.
A. Thorburn
1939.

The Burmese race is resident throughout Burma, but a local migrant; it is found up to 5,000 feet, and is perhaps most common in the Dry Zone.

Sub-order TROGONES.

Family TROGONIDÆ

TROGONS

This family is distributed throughout tropical Asia, Africa and America.

THE RED-HEADED TROGON

Harpactes erythrocephalus erythrocephalus (1586).

Local Names. — Burmese: *Htat-tă-yu* (ထပ်တော်ယူ); Chinghpaw: *U-htaw.*

Identification. — PLATE XVIII, Fig. 1, Page 296. Length 13½ inches. The female differs in having the head, neck and upper breast dull orange-brown. White on the wings and tail shows up in flight. The very broad square-cut tail is characteristic. Young birds have the wing-coverts black, broadly edged with buff, and the whole under-parts from the throat buff.

Voice. — Its ordinary call is a low mew, seldom uttered. In the breeding season it utters a rather plaintive call of 6 or 7 notes *tyaw-tyaw-tyaw* . . . at the rate of 2 per second.

Habits and Food. — This is a typical bird of the teak forests, where it is usually seen solitary or in pairs in the top of the undergrowth or in bamboos, sitting very silent and quiet throughout the heat of the day. In the early mornings and evenings it hawks for moths. It feeds principally on the wing, occasionally descending to the ground, and besides moths it takes all kinds of insects.

Nest and Eggs. — The breeding season is from March to May. The eggs, 2 to 4 in number, are laid in a hollow in a bamboo or tree stump; they are broad ovals in shape, pale buff in colour, and average 1·13 by 0·95 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region. The typical race extends from Nepal to Assam and through Burma to Tenasserim. It is a common resident throughout Burma in the forests, ascending to 6,000 feet.

THE RED-RUMPED TROGON

Harpactes duvauceli (1587).

Identification. — Length 10 inches. The male differs from the male of the preceding species in having the head and neck black, and the female has the crown dark brown contrasting with the lighter brown of the back. The call-note is a very soft *too-too-too-* repeated quickly; if suddenly alarmed it utters a note as it takes to flight sounding like *kir-r-r.*

Nest and Eggs. — So far as is known the nesting habits do not differ from those of the preceding species. The eggs are nearly pure white and average 0·95 by 0·78 inches.

Status and Distribution. — Extends from Borneo and Sumatra northwards to the south of Tenasserim, where it is not uncommon and presumably resident.

ROBINSON'S YELLOW-BREASTED TROGON

Harpactes oreskios uniformis (1588).

Local Names.— None recorded.

Identification. — PLATE XVIII, Fig. 2, Page 296. Length 12 inches. The female has the head browner and the abdomen more yellow, less orange.

Voice. — Not recorded.

Habits and Food. — This is a bird of moist forests, though it sometimes frequents open forest or isolated clumps of trees. It feeds more on the ground than other Trogons, and is a tame bird and does not resent being watched.

Nest and Eggs. — The breeding season is from February to April. The eggs, usually 2 sometimes 3 in number, are laid on wood chips in the nesting hollow, which is apparently excavated by the birds themselves in rotten stumps or dead bamboos. In Northern Tenasserim where these birds are common many nests were found in hollow stumps about 2-3 feet from the ground beside tracks running through moist forest. The eggs are of the usual pale brownish-buff colour and average 1·04 by 0·84 inches.

Status and Distribution. This race extends from the Malay States to Tenasserim, Arakan, and the Pegu Yomas as far north as Yamethin. It is very common in Tenasserim but local and scarce elsewhere though probably resident throughout its range. The species is represented by another race in Java.

WARD'S TROGON

Harpactes wardi (Not in F. B. I).

Identification. — No description is at present available.

Status and Distribution. — This species is only known from the Seingkhu valley, north of Fort Hertz, 8,000 feet.

Sub-order CYPSELI.

Family APOPIDÆ

SWIFTS

Though somewhat resembling the Swallows in outline, the Swifts are very different in structure and do not even belong to the same order. They are the most aerial of all birds, spending the whole of their waking existence on the wing. The flight is very rapid and highly characteristic, only that of the Swallow family being at all like it; a Swift wheels and dashes through the air with frequent changes of direction, tilting now to one side, now to the other, with a succession of rapid wing-beats alternating with long glides on extended wings, never with the wings partially closed like a Swallow. It does not voluntarily settle on the ground, the short legs with all the toes directed forwards being only adapted for clinging to rocks, masonry, etc. At times it courses singly or in scattered bands low over pastures or sheets of water, and

will skim low to sip water from the surface; at other times it hawks for food high overhead, sometimes in great numbers together. The theory that they spend the night on the wing is improbable, though data on roosting are meagre.

In Burmese all Swifts are referred to as *Pyan-hlwa* (ပျံလွှား)

Sub-family APOPINÆ

This sub-family includes the Common Swifts, which are found in most parts of the world. The feathered tarsus distinguishes them from the other large Swifts. The sexes are alike.

[Note:—THE ALPINE SWIFT, *Apus melba melba (1589)*, has not been recorded from Burma, but it is common in parts of Assam in winter, and is therefore likely to occur at times in Northern Burma. It is easily recognised by its large size (length 8 inches), pale brown upper-parts and white under-parts with a dark band across the breast.]

[Note:—THE EASTERN SWIFT, *Apus apus pekinensis (1590)*, has not been recorded from Burma, but it has been obtained in Assam and the Andamans, and is therefore likely to occur. Easily recognised by its uniform sooty brown plumage, except for the whitish throat (this and larger size distinguish it from the Palm Swift). Length 6½ inches. The typical race is the common Swift of the British Isles.

[Note:—THE KHASIA HILLS SWIFT, *Apus acuticaudus (1592)*, has not been recorded from Burma, but Swifts have been seen in the Myitkyina district that were believed to be either this or the preceding species. Upper-parts black, chin and throat white streaked with black; under tail-coverts black; rest of under-parts black with white margins to the feathers. Length 6 inches.]

THE BURMESE WHITE-RUMPED SWIFT

Apus pacificus cooki (1594).

Allied Form.—

THE LARGE WHITE-RUMPED SWIFT, *A. p. pacificus (1593).*

Local Names. — Burmese: See the Family name.

Identification.— Length 7 inches. The white rump distinguishes it from all other Swifts except the next species, from which it is separated by the deeply forked tail and much larger size. Typical Swift outline (as in Plate XVIII, Fig. 4) prevents confusion with the House Martin, the only other Swallow-like bird with a white rump.

Voice. — On the wing it utters a scream lasting two or three seconds and gradually descending in pitch and also a shorter scream with constant pitch, which seems to be uttered when the bird is specially excited. Both screams are of a trilling nature.

Habits and Food. — Those of the family. It sometimes associates with a party of Crested Swifts or House Martins when hawking for insects. It roosts in caves. A flock of at least 500 Swifts has been seen on migration flying over the Pegu Yomas. Owing to the great height at which they were flying it was impossible to identify the species for certain but they were either White-rumped Swifts or Brown-throated Spinetails. They were flying round in circles, acting in unison like a flock of Star-

lings and every now and then they would fly down at an angle and produce a noise like a thousand Snipe "drumming". It was this noise that first drew attention to the flock.

Nest and Eggs. — The breeding season is from April to June. It breeds in thousands in the Gokteik gorge, and in similar limestone caves all over the Shan States. The nest is a saucer of leaves and grass matted together and stuck onto the rock face with saliva. The eggs are pure white and average 0·98 by 0·63 inches.

Status and Distribution. — The typical race breeds in Central Asia from Baikal to Japan, and is a winter visitor to Burma arriving in September and leaving in March or early April. The Burmese race breeds in the Shan States, and probably wanders from there over the greater part of Burma; owing to confusion between these two races it is impossible to define their relative status and abundance, though one or other may be seen in any part of the country. The only certain records of *pacificus* seem to be from North-East Burma and the Pegu river.

THE MALAY HOUSE SWIFT

Apus affinis subfurcatus (1599).

Local Names. — Burmese: See the Family name.

Identification. — Length 6 inches. This Swift has a white rump like the preceding species, from which it is distinguished by smaller size and by having the tail only slightly forked.

Voice. — It has the usual squealing call of the family.

Habits and Food. — Those of the family. They are said to feel cold greatly and wet weather or a cold spell sends them half torpid to their nests.

Nest and Eggs. — The breeding season is from May to early October. These birds breed in colonies, either about buildings, or under bridges, or in caves. The colonies are in constant use, the nests being used to rest or sleep in, and as breeding is rather irregular eggs and young may be found at any time. The nest is the usual structure of feathers, grass and straw cemented with saliva. The eggs, 2 to 4 in number, are very long and narrow ovals in shape, much pointed towards the small end, rather frail in texture and almost without gloss, and a pure spotless white in colour. They average 0·89 by 0·59 inches.

Status and Distribution. — This species has an extensive range from North-west Africa through Southern Asia to Borneo. The Malay race is resident in the Shan States and Tenasserim, and breeds in the High Court and Secretariat in Rangoon. It has also been recorded from North-East Burma and Central Burma.

THE EASTERN PALM SWIFT

Cypsiurus parvus infumatus (1602).

Local Names. — Burmese: *Mo-sa* (မိုးစာ)

Identification. — PLATE XVIII, Fig. 4, Page 296. Length 5 inches.

Uniform sooty-brown colour with no white on the rump distinguishes this species. A common bird of the plains. The flight is typical of the family, but slower than that of most Swifts.

Voice. — The scream takes the form of a little trilling cry, freely uttered, and much more musical than that of the larger Swifts.

Habits and Food. — The toddy palm being one of the characteristic features of the Burmese countryside, it is not surprising to find that this bird is one of the commonest and most familiar birds of the plains, frequenting gardens and compounds even in the centre of large towns. Its whole life revolves round its chosen group of palms and it spends its time hawking for insects nearby. Midges are said to be the chief item of food, but moths and other insects are taken. A flock will sometimes cluster together on the palm leaves between the ribs and the fronds and shuffle up and down.

Nest and Eggs. — The breeding season is from March to August. Although the birds live in colonies it is unusual to find more than two or three nests in one tree. The great fan-leaves of the palm hang down so that the points of the leaves turn inwards and provide a sloping platform. The nest, which is composed of fine feathers or vegetable down cemented with saliva, is attached near the point to one of the furrows formed by the large pleats in the leaf. In North-East Burma, where palm trees are scarce, the birds breed in the thatched roofs of Kachin houses, and the sight of them wheeling round over the forest often shows that a village is near. They breed either in tunnels or in the loose edges of the thatch. The eggs, 3 to 5 in number, are long ovals in shape, fine in texture without gloss, and white in colour; they average 0·67 by 0·46 inches.

Status and Distribution.— This species has a wide range in Africa and Southern Asia. The Eastern race is found throughout the Oriental Region as far west as Assam, and is a common resident throught the plains of Burma; it also frequents hill villages up to 5,000 feet.

Sub-family CHÆTURINÆ

This sub-family contains those Swifts that have spiny shafts to the tail-feathers (not visible in the field) and the little Swiftlets that make edible nests.

[Note.—THE WHITE-THROATED SPINETAIL, *Chætura caudacuta nudipes (1603)*, has not been recorded from Burma, except for a sight record of some Swifts over the Hpimaw pass, Myitkyina district, that were believed to belong to this species. It is a very large square-tailed Swift, pale brown in colour with white on the rump and the chin and throat pure white.

THE COCHIN-CHINESE SPINETAIL, *C. c. cochinchinensis (1604)*, is another race of the same species found in Assam and the Malay States and almost certain to occur in Burma at times; it differs from the White-throated race in having the chin and throat smoky-grey.]

THE BROWN-THROATED SPINETAIL

Chætura gigantea indica (1605).

Local Names. — Chinghpaw: *Pyi-lai.*

Identification. — Length 9 inches. A large blackish Swift with white under tail-coverts, apt to be confused with *caudacuta* from which its darker colour and the chin and throat not noticeably lighter than the rest of the under-parts should distinguish it. Broader wings and more massive build distinguish it even afar off from the White-rumped Swift.

Voice. — A loud screaming cry.

Habits and Food. — This bird is usually seen hurtling through the air in small parties with a loud swish of wings, the individuals following one another at intervals. At other times it hawks insects over some ridge-top, taking advantage of the rising currents of air to remain almost motionless in one spot or moving back and forth along the ridge in a wide circuit. When hawking over water it circles lower and lower until it is in a position to dip down at one point in the arc and brush the surface, apparently with its breast; when swooping down to the water a drumming sound of 3-4 beats is often heard, not unlike the drumming of a snipe; before dropping and again when rising from the water the wings are brought together over the back with an audible smack. Whether they take insects off the surface or sip water is not clear. The whole evolution is carried out at breathless speed, and before sunset the birds depart again as swiftly as they came.

These large Spinetails are the fastest birds in the world. In ordinary level flight some Ducks, usually considered fast birds, can achieve 60 miles an hour; but the Spinetails normally feed at 60-70 miles an hour, and when really on the move they attain 200 miles an hour, as proved with a stopwatch over a two-mile course.

Nest and Eggs. — No nests have so far been found in Burma. The breeding season in Travancore is from February to early April, and there the birds nest on the ground inside large hollow trees, with no opening at the base, but with some means of access, such as a Woodpecker's hole, high up the bole. The eggs, 3 to 5 in number, are in a filthy condition unless quite fresh, and are broad ovals in shape, extremely strong and stout in texture, and rather coarse-grained. They average 1·21 by 0·87 inches.

Status and Distribution. — This species has a wide distribution in the Oriental Region. It may some day be found breeding in Burma, and is likely to be seen anywhere during the cold weather; it also occurs in the rains. It seems most common in the higher hills, especially in the Karen Hills and Karenni.

THE GREY-RUMPED BLACK SPINETAIL

Rhaphidura leucopygialis (1607).

Identification. — Length 4½ inches. Whole plumage black except for the grey rump and upper tail-coverts. The habits are similar to those of the preceding species.

Status and Distribution. — Extends from Borneo and Sumatra northwards to the extreme south of Tenasserim; whether it is resident in the latter is uncertain.

THE HIMALAYAN SWIFTLET

Collocalia brevirostris brevirostris (1609).

Allied Form.— THE YUNNAN SWIFTLET, *C. b. inopina (1609a).*

Identification. — Length 5½ inches. General colour dark brown, paler below. Probably difficult to distinguish from the Palm Swift except that it is noticeably bigger. The only note recorded is a low cheep like that of a bat.

Nest and Eggs. — No nests have yet been found in Burma. In Assam the birds breed in caves in March, laying two eggs in a nest of feathers cemented with saliva and attached to a rock face.

Status and Distribution. — This species is widely distributed in the Oriental Region. It is a bird of the higher hills, normally breeding from 4,000 feet upwards, but the only Burma records are of birds of both races that appeared in large numbers over Myitkyina in mid-February in 4 successive years, possibly regular migrants, and of a bird obtained in the Adung valley at 8,000 feet. The Yunnan race may be resident in the mountains of Northern Burma.

HUME'S SWIFTLET

Collocalia innominata (1610).

Identification. — Length 5 inches. Difficult to distinguish from the preceding species in plumage, but is a bird of the sea coast and the two are most unlikely to occur together. It hawks along the coast and up the tidal estuaries, over paddy fields, and sometimes a little way inland.

Nest and Eggs. — Unknown.

Status and Distribution. — This species occurs in the Andamans, Southern Tenasserim, Selangor and South-west Siam. It may breed in the Mergui Archipelago.

OUSTALET'S GREY-RUMPED SWIFTLET

Collocalia germani germani (1613).

Allied Form.—

THE ANDAMAN GREY-RUMPED SWIFTLET, *C. g. inexpectata (1612).*

Local Names. — Burmese: *Zi-we-so* (ဆီးဝေးဆိုး)

Identification.—Length 4½ inches. Probably indistinguishable from the preceding species in the field. In the hand the unfeathered tarsus separates it from all other Swiftlets.

Nest and Eggs. — The breeding season is in March and early April. It is this species that makes the edible birds' nests of commerce; the nest consists of almost pure saliva looking like silvery-white gelatine, and measures 2-2½ inches across by ½-1 inch deep. If the first nest is taken the second one always has a certain amount of feathers, etc., mixed with the saliva but even second nests of this species are much purer than first nests of other species. The eggs, 2 in number, average 0.80 by 0.53 inches. The sale of the right to collect the nests in islands of the Mergui Archipelago brings in an annual revenue to Government of several thousand rupees.

Status and Distribution. — This species extends from the Mergui Archipelago through the North Malay Peninsula and South-west Siam to the Philippines. The typical race is resident in the Mergui Archipelago and has also been obtained on islands off the west coast of Bassein. The Andaman race has been obtained once in Tenasserim; a few birds no doubt stray over occasionally from the Andamans where it breeds.

OBERHOLSER'S SWIFTLET

Collocalia linchi elachyptera (1615).

Identification. — Length 4 inches. A tiny Swiftlet, and the only one with a white abdomen. Upper-parts glossed with green. Little is known about this race, but the Andamans form is a very familiar bird, often entering houses and roosting in a tightly-packed mass on the roof like a swarm of bees.

Nest and Eggs. — Unknown.

Status and Distribution. — This race is resident in the Mergui Archipelago and extends southwards to Singapore. It is replaced by other races southward to Java and in the Andamans and Nicobars.

Sub-family HEMIPROCNINÆ
CRESTED SWIFTS

This sub-family contains a single genus of remarkable Swifts, which differ from other members of the family both in their habits and in their anatomy.

THE INDIAN CRESTED SWIFT

Hemiprocne coronata (1616).

Local Names. — None recorded.

Identification. — PLATE XVIII, Fig. 6, Page 296. Length 9 inches. The female has no chestnut on the face. Young birds have the feathers finely edged with white and sub-edged black or brownish-grey. On the wing the crest does not show up, and the bird looks a light grey in colour and is readily identified by the habit of frequently opening and closing the forked tail; the flight is wheeling and graceful, and in character and pace recalls that of a Swallow rather than a Swift.

Voice. — The call is loud and Parrot-like, *kia kia kia,* uttered frequently both on the wing and from a perch; the bird is particularly noisy in the evenings when preparing to roost.

Habits and Foods. — The Crested Swift is a typical bird of the teak forests, frequenting the more open parts especially where forest and paddy fields are intermingled; outside the breeding season it is seen in small parties hawking for insects. It constantly perches on trees, usually preferring the topmost branches and those that are dead or bare of leaves, and sits upright with its crest erect; in this respect it is peculiar among Swifts. It has the usual family habit of descending rapidly from the air to the surface of water, touching it, and mounting again in one graceful curve. It is astonishingly tame and confiding, especially on the nest.

Nest and Eggs. — The breeding season lasts from March to June. The nest is a very shallow half-saucer, composed of thin flakes of bark and a few small feathers gummed together with saliva and attached to the side of a horizontal branch. It is remarkable for its minute size, smaller than two 8 as. coins placed side by side; the greatest thickness is ⅛ inch and the depth about ½ inch. The branch chosen is usually a dead one often at the top of a high tree, but many nests are built much lower on small trees growing in open scrub jungle. Viewed from below it looks just like a knot on the branch to which it is attached, and it is only by watching the constant return of the hen bird to one particular spot that the nest can be detected. When incubating the parent bird sits across the branch, which takes her weight, and covers the egg with the feathers of her abdomen. The single egg, which completely fills the nest, is a very elongated oval,

with little or no gloss, greyish-white in colour, and averages 0.94 by 0·61 inches.

Status and Distribution. — This species is confined to India, Burma, Ceylon and Assam. It is resident throughout Burma in the forests, and fairly common in parts. Its nesting habits can be observed in the Pidaung Wild Life Sanctuary, where it breeds in March.

THE MALAY CRESTED SWIFT

Hemiprocne longipennis harterti (1617).

Identification. — Length 9 inches. Differs from the preceding species in having the back greenish-bronze instead of bluish-grey.

Nest and Eggs. — Similar to those of the preceding species.

Status and Distribution. — This race extends from Tenasserim southwards to Borneo and is replaced by another race in Java. It is presumed to be resident in Tenasserim, and occurs as far north as Mt. Nwalabo near Tavoy.

THE TUFTED TREE SWIFT

Hemiprocne comata comata (1618).

Identification. — Length 6½ inches. Small size, small crest, white eyebrow and white moustachial streak distinguish this species. It frequents clearings in forest and is not shy.

Status and Distribution. — This race extends from Mergui southwards through the Malay States to Java, Borneo and the Philippines.

Sub-order CAPRIMULGI.

Family CAPRIMULGIDÆ

NIGHTJARS

This family is found over almost the whole world, excluding the Arctic and Antarctic regions and many islands, including New Zealand. A Nightjar is a bird with rather long wings and tail, usually seen as dusk turns into darkness hawking insects in open spaces near trees. The flight is easy, silent and wheeling, with sudden twists and zigzags in pursuit of insects, and with deliberate wing-beats varied by gliding and floating on extended wings. It is nocturnal in its habits, spending the day resting quietly on the ground with eyes almost, but not quite, closed. The plumage is finely mottled dark and light brown, black, grey and white, and the protective coloration is remarkable; the bird seems to be conscious of the fact, only springing into life when the intruder comes within a yard or two. As in the case of the Owls, the silent flight is made possible by the soft texture of the feathers.

To the huge mouth is due the legend and the name, widely spread in many countries and languages, that the "Goatsucker" (*Caprimulgus* in Latin) feeds from the udders of cows and goats, whereas the width of the gape is in fact very useful for catching large moths and other night-flying insects. Another feature of the Nightjar is its large lustrous eye, and travellers by motor car

at night must often have seen these birds sitting in the middle of the road, their eyes gleaming like red-hot coals in the glare of the headlights. Another peculiarity of the Nightjar is that it normally perches lengthwise on a branch, resting on its breast, and only exceptionally perches across it in the normal manner; this is no doubt due to the structure of the feet, three toes of which point forwards and the long central toe backwards. On the inside of this central toe there is a comb, probably used to clean out insects that get caught up in the long stiff bristles surrounding the gape.

The various species resemble each other closely in plumage and in any case the observer seldom gets the chance to study them in a good light; fortunately they all have distinctive breeding-calls, which are the best guide to identification; these are summarised below:—

SUMMARY OF NIGHTJAR CALLS

(1621–3) Long-tailed Nightjar.	*Chounk chounk chounk* .. an indefinite number of times, sometimes ending in a rolling *churr*. Deliberate and loud, like a hammer hitting a plank with a richness of tone that defies description. Speed about 15 times in 10 seconds.
(1626) Jungle Nightjar.	*Tuck tuck tuck* .. at the rate of 5 per second, at a steady even pace. Also *wock, wock,* uttered on the wing.
(1629) Franklin's Nightjar.	*Che-weeze,* a squealing noise uttered on the wing and from a perch in a tree.
(1630) Common Indian Nightjar.	*Took-took-took-took-irr-r-r-r-r,* like a stone skimming over the surface of a frozen pond.
(1631) Great Eared Nightjar.	*Pee-wĕyēw* on the wing. A loud clear musical call of 3 syllables. Also a low deep croak.

Burmese names applicable to all Nightjars are, — *Mye-wut* (ဗြဝဒ်) and *Hnget-pyin* (ငှက်ပျင်း).

THE BURMESE LONG-TAILED NIGHTJAR

Caprimulgus macrourus ambiguus (1621a).

Allied Form.—

THE INDIAN LONG-TAILED NIGHTJAR, *C. m. albonotatus (1623).*

Local Names. — Burmese: Those of the family.

Identification.— Length 12 inches. Seen in daylight the tone is brown or buffish-brown, varying greatly in depth of colour.

Voice. — See summary above. A low chirping cry or liquid chuckle is sometimes uttered on the wing.

Habits and Food. — This is the common forest Nightjar of Burma and in the hot weather its call may be heard throughout the teak forests, and the hill forests of Maymyo and other stations.

During the breeding season it likes to perch on fence posts round the compound, and it is very tame and confiding. It will seize and devour beetles of the largest size, such as the monster stag-horn beetles that occasionally whirr and crash against one's table lamp at night. It feeds much on the ground and can run quite well for a few feet.

Nest and Eggs. — The breeding season is during the hot weather. No nest is made, the eggs being laid on the ground in scrub or deciduous forest; in colour they vary from pale to deep salmon-pink, less often a creamy-yellow, indistinctly blotched with pale reddish-brown and with secondary marks of neutral tint. The markings are usually numerous but often faint and smudgy. The eggs average 1·34 by 0·88 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is found throughout the forests of Burma, both in the foothills and higher hills.

THE HIMALAYAN JUNGLE NIGHTJAR

Caprimulgus indicus hazaræ (1625a).

Identification. — Length 12 inches. A blackish bird with larger white patches on the wings and tail than the preceding species has. A bird of the higher hills. For voice see summary, page 306. Each series of *tucks* is constant in speed but one series may be uttered rather faster or slower than the next. It may be heard "waking up" at dusk, when it indulges in a long series of quiet calls from the depths of some shady tree; then just as dusk is deepening into night it will emerge with its deep *wock wock* call and hawk insects for a short time in the open. It calls freely just before dawn.

Nest and Eggs. — The breeding season is said to be from April to July. The eggs may be found almost anywhere from grassland or unsheltered stony places in the open to small clearings in dense evergreen forest. They are white in colour, marbled with greyish-brown and dark grey, and average 1·30 by 0.91 inches.

Status and Distribution. — This species has a wide range throughout the Oriental Region. In Burma it appears to be a scarce and local bird of the higher hills and has only been recorded from the Chin Hills, North-East Burma, and Karenni. It is uncertain whether the Japanese race, *C. i. jotaka* (1626), also occurs in Burma.

FRANKLIN'S NIGHTJAR

Caprimulgus monticolus monticolus (1629).

Identification. — Length 10 inches. The male is probably recognisable by having the two outer tail-feathers all white except at the tip. In the female they are mottled throughout.

Nest and Eggs. — The breeding season is March to August, but most eggs are laid before the middle of May, and later ones are probably second broods. The eggs, 2 in number, are usually laid in open deciduous forest; in colour they vary from salmon to deep salmon-red, and average 1·19 by 0·87 inches.

Status and Distribution. — This species is found in most parts of the Oriental Region. It is locally distributed in Burma as far south as Amherst in Tenasserim; it appears to be nowhere common.

THE COMMON INDIAN NIGHTJAR

Caprimulgus asiaticus (1630).

Local Names. — Burmese: Those of the family.

Identification. — PLATE XVIII, Fig. 5, Page 296. Length 9½ inches. A small pale brown Nightjar.

Voice. — See summary, page 306. It starts calling in November.

Habits and Food. — This Nightjar prefers cultivation, scrub, and dry open forest to the depths of the jungle, and in the hot weather may often be heard uttering its "stone-on-ice" call round towns and villages.

Nest and Eggs. — The breeding season is from February to April. The eggs, 2 in number, are similar to those of the Long-tailed Nightjar, but smaller, averaging 1·04 by 0·77 inches.

Status and Distribution. — This species is confined to India, Burma, and Ceylon. In Burma it is typically a Dry Zone bird and appears to be absent from Northern Burma and Tenasserim; elsewhere outside the Dry Zone it is rather local.

THE BURMESE GREAT EARED NIGHTJAR

Lyncornis macrotis cerviniceps (1631).

Local Names. — Burmese: *Taung-daung-hnget* (တောင်ဒေါင်းငှက်)

Identification. — Length 16 inches. The largest of the Nightjars, and distinguished from all others by having ear-tufts.

Voice. — See summary, page 306. It calls from December to June, and in March on moonlight nights may often be heard all night long.

Habits and Food. — This is a typical bird of the teak forests, and is not normally found in open country. Its lovely clear whistle is one of the most attractive sounds to be heard in the forest.

Nest and Eggs. — The breeding season is from January to April. Only one egg is laid, similar in colour to those of the Long-tailed Nightjar when fresh, but fading very quickly to a pale cream; the markings are rather sparse as a rule. Few eggs have been measured, but they average about 1·65 by 1·18 inches.

Status and Distribution. — This species is found in parts of India and through Burma to Malaya. It is resident throughout the forests of Burma in the foothills, but seldom if ever ascends the higher hills. It is locally common.

Sub-order PODARGI.

Family PODARGIDÆ
FROGMOUTHS

This family is found throughout the Oriental and Australian Regions. The Frogmouths resemble small Nightjars, and are scarce birds of the evergreen forests in the higher hills.

HODGSON'S FROGMOUTH

Batrachostomus hodgsoni hodgsoni (1633).

Allied Form.—

THE INDO-CHINESE FROGMOUTH, *B. h. indochinæ (1633a).*

Identification. — Length 9 inches. Distinguished from all Nightjars by small size; the sexes differ in colour, the male being dull brown and blackish in

narrow wavy bars and the female chestnut throughout, with a white band across the throat and another across the lower breast. A soft *croo-croo* is uttered at the nest; a loud squealing note is also attributed to this bird. It is confined to the interior of dense evergreen forests. It resembles the Nightjars in habits, being strictly nocturnal and hawking moths and beetles at dusk or by moonlight in a similar fashion, though it never settles on the ground; on trees it perches lengthwise on the larger branches, but every now and then perches upright on the smaller ones. It is extremely tame and confiding and will swoop about and perch within a few feet of anyone watching it.

Nest and Eggs. — March and April are the principal breeding months, but nests have been found as late as the end of August. Unlike the Nightjars, the Frogmouths build a nest. This is always built on a horizontal branch of a small tree 5 to 15 feet from the ground, and the material of the nest is so firmly wedged into the crevices of the bark that some force is required to remove it. The nest is a small pad made entirely of the down and tiny feathers from the breast and abdomen of the female, and measures 2½ to 3½ inches in diameter by 1 inch in depth. The outside is decorated with scraps of lichen, bark, moss, etc., so that the nest looks just like an excrescence of the branch and is very hard to find. The eggs, 2 in number, are long ellipses in shape, very fine and fragile in texture with a smooth surface, and pure white in colour. They average 1.04 by 0.69 inches.

Status and Distribution. — This species is found in North-east India, Burma and Malaya. Though not uncommon in Assam, very few have been recorded in Burma; the typical race has been obtained on Mt. Victoria and in Karenni and the Indo-Chinese race in the Southern Shan States. It appears to be rare.

BLYTH'S FROGMOUTH

Batrachostomus javensis continentalis (1634).

Identification. — Length 8½ inches. Probably not distinguishable from the preceding species in the field. Smaller size, and absence of black markings on the crown and nape of the male, identify it in the hand.

Nest and Eggs. — Similar to those of the preceding species but smaller.

Status and Distribution. — It has been recorded once in the Thaungyin valley, Northern Tenasserim.

Sub-order STRIGES.

Family STRIGIDÆ

OWLS

This family is found in all parts of the world, and is easy to recognise. Owls are predacious birds with broad rounded heads, flattened faces, and large eyes directed forwards, usually surrounded by a more or less distinct "facial disk" of radiating feathers. Owing to the looseness of the plumage the head generally appears to merge into the body without a perceptible neck, but the latter is really rather long and very mobile, so that the bird without shifting its position can follow the movements of the observer, even to the extent of turning the head completely back to front. Nearly all species are more or less nocturnal though some also hunt regularly by day. The flight is slow with regular wing-beats, and owing to the soft loose plumage it is noiseless; the normal gait is a walk, though many species are seldom seen on the ground. When disturbed by day or detected roosting an Owl is frequently mobbed by small birds. The feet are power-

ful and furnished with very strong curved claws with immense grasping power, as anyone who has handled even a small Owl alive will appreciate. Except when too large, the prey is generally swallowed whole instead of being picked to pieces as is usual with the Hawks and Eagles; indigestible portions are disgorged in the form of pellets.

The majority of Owls nest in hollow trees or in buildings, though some nest on the ground. All lay white eggs without markings. No doubt because of their sedate and solemn appearance, the attribute most commonly credited to Owls is that of wisdom. There is however no evidence to show that they are notably superior to other birds in this respect.

Most Owls have a variety of calls, including one or more having the character of "songs", i.e. either one note or a simple combination of notes repeated at varying intervals. We have already dealt with three families, namely the Barbets, Cuckoos and Nightjars, that are more often heard than seen, and the Owls fall in the same category. The calls most usually heard are therefore given in the following summary.

SUMMARY OF OWL NOISES

(1636) (1638)	Barn Owl. Grass Owl.	A screech.
(1639)	Bay Owl.	1. A single soft hoot. 2. Hideous screeches in March — May.
(1643)	Short-eared Owl.	Generally silent. 1. A harsh note on the wing. 2. A shrill clear *keaw, keaw.*
(1645)	Himalayan Wood Owl.	1. A not unpleasant double hoot. 2. A variety of cat-calls.
(1647–8)	Brown Wood Owl.	1. A deep musical call of 4 syllables, *who-hoo-hoo-hoo,* with the emphasis on the first note, lasting about one second. 2. Diabolical screaming shrieks.
(1650)	Malay Wood Owl.	Commences with a rolling *hoo-hoo-hoo* and ends with a prolonged and deep drawn *hoooo.*
(1654)	Brown Fish Owl.	1. A deep murmuring three-fold moan, *Glo-om oh-ho glo-om,* the *oh-oh* part higher in pitch than the rest. 2. A strange screaming call on the wing.
(1656)	Malay Fish Owl.	1. A soft musical *to-wee, to-wee.* 2. A low querulous call.
(1660)	Rock Eagle-Owl.	The call is a loud *dur-geon* or *to-whoot,* solemn and deep in tone, but when disturbed by day it will sit on a rock bowing and squawking at the intruder, hissing and snapping its bill.
(1662)	Dusky Eagle-Owl.	*Wruck — Wruck — Wruck — Wruck-wruck wruck wruck wruck wruck wruck* getting quicker and quicker. Very aptly likened to the noise made by an engine starting

		to pull a heavy train out of a station. When heard from a distance it bears a slight resemblance to the call of a Nightjar. Burmans syllabise the call *Goke—Goke—Goke Goke-kaloo,* hence the Burmese name of the bird.
(1663)	Forest Eagle-Owl.	1. Two soft but resounding *booms* at about 3 seconds interval and audible from a great distance. 2. A single piercing caterwaul, seldom used.
(1671)	Collared Scops Owl.	A musical low mournful hoot, *who-oo* at intervals.
(1672)	Spotted Scops Owl.	A plaintive double whistle with the tone of a hammer on an anvil *plew-plew,* a slight interval between the two notes.
(1675)	Large Malay Scops Owl.	Unknown.
(1681)	Burmese Scops Owl.	*Tonk tonk ta tonk,* repeated with great persistence and apt to be mistaken for the call of a Nightjar.
(1682)	Malay Scops Owl.	Unknown, but probably same as above.
(1685)	Spotted Owlet.	A great variety of calls, often heard in the daytime.
(1690–2)	Barred Owlet.	A very beautiful rippling call, often heard at dawn. Also many other notes, some of which resemble those of the Spotted Owlet.
(1697)	Pigmy Owlet.	Rather metallic *tonk-ta-tonk-tonk,* high pitched and usually repeated many times. Often heard in the daytime.
(1699)	Brown Hawk-Owl.	*Whōō-woop* a musical double hoot repeated several times, the second note higher in pitch.

Most Owls when alarmed or annoyed make hissing noises and snap their beaks rapidly a number of times.

Sub-family TYTONINÆ.

This sub-family contains medium-sized Owls of great beauty. It differs from the *Strigina* in having the inner toe as long as the middle toe and the claw of the latter serrated.

THE BARN OWL

Tyto alba subsp. *(1636).*

Local Names. — Burmese: *Lin-gaung-bo* (လင်ဂေါင်ဗို့) *Hnget-hso* (ငှက်ဆိုး)

Identification. — PLATE XVIII, Fig. 8, Page 296. Length 13½ inches. Chiefly seen on the wing at dusk as a ghostly whitish form, but when seen in daylight the pale appearance, with pale grey upper-parts, pure white face, and white under-parts spotted with brown, are distinctive. Can only be confused with the Grass Owl (*q.v.*). When perched the attitude is upright and the long legs are rather noticeable.

Voice. — It utters its screeching cry from November to January and is silent or nearly so at other times.

Habits and Food. — This is a truly nocturnal Owl, feeding throughout the night and roosting by day in a building or hollow tree. It feeds largely on rats and mice, which it takes from the ground, but it will devour any small animal or bird, often taking the latter when at roost; it can kill birds of large size such as Partridges and Quail. It has regular stations at which its prey is eaten or deposited, sometimes considerably in excess of its present needs. The pellets are usually blackish even when dry, with a characteristic varnished appearance.

Nest and Eggs. — The breeding season is mainly in December and January, but nests may be found in most months of the year. It prefers to nest in buildings, either in the roof or in a hole in the wall, but it also uses holes in wells and banks, and hollow trees. As a rule no nest is made, but the eggs are often laid year after year on an accumulating pile of animal remnants and pellets. The eggs, 4 to 7 in number, average 1·62 by 1·32 inches.

Status and Distribution. — This is a cosmopolitan species, found in all five continents. It is probably found throughout Burma in the plains and seems to be not uncommon.

THE GRASS OWL

Tyto longimembris (1638).

Identification. — Length 14 inches. Closely resembles the Barn Owl, but has the upper-parts dark brown and barred, not grey and speckled. It is a bird of *kaing* grass. Its voice and habits are said to resemble those of the Barn Owl.

Nest and Eggs. — The breeding season is from October to March. The eggs are always laid on the ground and nearly always on level ground in fairly long grass. The eggs, 4 to 7 in number, are laid on a good pad or nest of soft shreds of grass sometimes two inches thick, and average 1.57 by 1.29 inches.

Status and Distribution. — This species is confined to India and Burma; in Burma it has been recorded from the plains between Toungoo and Pegu and from the Shan States, but it is only found where there are extensive areas of *kaing* grass, and is therefore not often seen. Owls that might have been this species have been flushed out of *kaing* grass in the Tharrawaddy and Shwebo districts.

Sub-family PHODILINÆ

The inner toe is longer than the middle toe and the claw of the latter is serrated, as in the *Tytoninæ*. Only one species occurs in Burma.

THE BAY OWL

Phodilus badius badius (1639).

Identification. — Length 11 inches. Upper-parts chestnut spotted with black, wings and tail barred with black; facial disk pinkish, under-parts pinkish, sparingly spotted with black. A very beautiful bird. Like the Barn Owl this is entirely nocturnal in its habits, and is said to be most stupid and incapable by day; but unlike the Barn Owl it is a bird of evergreen and pine forests. It feeds chiefly on mammals and birds, and as it is very fond of frequenting pools and riversides it may also eat fish.

Nest and Eggs. — The breeding season is during the hot weather. The eggs are always laid in a hollow tree; the same hollow is used year after year, so that there is usually a large accumulation of food remains, but no actual nest. The eggs, 3 or 4 in number, average 1·38 by 1·18 inches.
Status and Distribution. — This species is found in parts of India and thence through Burma to the Malay States, Java, and Borneo. It is resident in Arakan, Thayetmyo, Bhamo, and the Karen Hills, Shan States, Karenni, and Tenasserim; it seems to be confined to the evergreen forests of the higher hills and is rare outside Tenasserim.

Sub-family STRIGINÆ.

The inner toe is much shorter than the middle toe and the claw of the latter is not serrated.

THE SHORT-EARED OWL

Asio flammeus flammeus (1643).

Identification. — Length 15 inches. Upper-parts brown with pale edges to the feathers; under-parts white streaked blackish, especially on the throat and breast. Eyes bright lemon-yellow. Terrestrial and largely diurnal habits, long wings, and regular occurrence in open country distinguish the Short-eared from other Owls. The wings in flight look rufous and conspicuously long in proportion to the size of the bird. The short ear-tufts, from which it derives its name, are hardly discernible even at close range. It is a bird of the plains, both of open country and of extensive areas of *kaing* grass and similar cover. It ordinarily settles on the ground, but occasionally perches on posts, bushes, stumps, etc. It is sometimes seen in parties.
Status and Distribution. — A cosmopolitan species. The typical race breeds over the greater part of Europe, including the British Isles, and Northern Asia, and wanders south in winter to Northern Africa and Southern Asia as far east as Burma. In this country it appears to be well distributed in the plains, but is overlooked. It probably arrives at the end of October and leaves about March.

THE HIMALAYAN TAWNY OWL

Strix aluco nivicola (1645).

Identification. — Length 16 inches. If disturbed during the daytime or seen on the wing at dusk it appears as a moderately large mottled brown bird with disproportionately large head, and broad rounded wings. One of the most nocturnal species.
Nest and Eggs. — The breeding season is from January to April. The eggs, 2 or 3 in number, are laid either in a hollow tree or on the ground. They average 1·90 by 1·64 inches.
Status and Distribution. — This species is found through most of Europe and Asia; the British race is a familiar bird in England, but the Himalayan race is a rare bird in Burma, and has been recorded only from Mt. Victoria and the Southern Shan States. It may be resident there, and seems to be a forest bird of the higher hills.

THE BROWN WOOD OWL

Strix indranee subsp. *(1647-8).*

Local Names. — Taungyo: *Tit-ter-oo;* Taungthu: *Tit-til-loo.*
Identification. — Length 20 inches. Distinguished from the Tawny Owl by larger size, under-parts barred but not streaked, and different voice. A forest bird mainly of the higher hills.
Voice. — See summary, page 310. Its scream has been described as like that of a demented person casting himself over a precipice.

Habits and Food. — This is a bold fierce bird, preying on Pheasants, Junglefowl, the larger squirrels, and small monitor lizards, in addition to the smaller birds and mammals. During the daytime it keeps to deep forest, but in the evening comes out to glades and the more open parts.

Nest and Eggs. — The breeding season is from February to April. The eggs are always laid on the ground, either in a cave, a hollow scratched at the foot of a cliff, or at the foot of a cliff-growing tree. The eggs, 2 in number, are very broad ovals in shape, and average 2·21 by 1·81 inches.

Status and Distribution. — Widely distributed in the Oriental Region. This species probably occurs throughout Burma in well-wooded localities, and it is certainly found at all elevations up to 6,000 feet. There are said to be three races in Burma but specimens are scarce and it is impossible to say what races actually occur and what their distributions are.

THE MALAY WOOD OWL

Strix orientalis orientalis (1650).

Identification. — Length 18½ inches. Distinguished from the preceding species by having the bars on the abdomen broad, more than ¼ inch apart. Probably indistinguishable in the field except by the call, which is quite different to that of any other Wood Owl, (see summary, page 310).
Nest and Eggs. — More or less unknown.
Status and Distribution. — Extends from Southern Burma and Tenasserim through the Malay States to Java, Sumatra and Borneo; also found in Siam and Cochin China. Sixty years ago it was common round Rangoon and Pegu, and may be so today.

THE BENGAL BROWN FISH OWL

Ketupa zeylonensis leschenaulti (1654).

Allied Form.—

THE CHINESE BROWN FISH OWL, *K. z. orientalis (1654a).*

Local Names. — Burmese: *Di-dok* (ဒီးဒုတ်)
Identification. PLATE XVIII, Fig. 10, Page 296. Length 21½ inches. A massive solemn brown bird, which sleeps by day in trees and on the ground. Distinguished from the Eagle-Owls by the bare unfeathered legs. The flight, though appearing rather laboured, is swift and powerful. Liable to be confused with the Rock Eagle-Owl (*q.v.*).

Voice. — See summary, page 310.

Habits and Food. — The Fish Owl is a typical bird of the teak forests, frequenting both the larger and smaller streams; it sleeps by day in a large heavy-foliaged tree or in the face of a rocky cliff, and with the fall of dusk wings its way to the neighbouring water; it is less nocturnal than some Owls and is often abroad early in the evening. Its food, though including birds and small mammals, consists very largely of fish and crabs, which it catches at the edge of rivers and streams. Its feet and claws are unlike those of most other Owls, resembling rather those of

the Osprey. The leg is almost entirely free of feathers, which are replaced by granular scales, the soles of the feet are thickly covered with prickly scales particularly adapted for holding slippery prey, and the large well-curved claws have sharp cutting edges as well as highly-sharpened points.

Nest and Eggs. — The breeding season is from December to March, but most eggs are found in February. It nests in clefts and ledges of rocky banks or mud cliffs, in holes and hollows of ancient trees, or in deserted nests of Fishing Eagles and Vultures. These varied sites are lined with a few sticks and feathers or dry leaves. The eggs, 2 in number, are perfect broad ovals in shape, close-grained and compact in texture with a slight gloss, though the whole surface is freely pitted, and white in colour with a faint creamy tinge. They average 2·38 by 1·88 inches.

Status and Distribution. — This fine Owl is a widely distributed species, ranging from Palestine through India and Burma to China. It is found throughout the forests of Burma in the foothills, but does not appear to ascend the higher hills.

THE MALAY FISH OWL

Ketupa ketupu aargaardi (1656).

Identification. — Length 18 inches. Differs from the preceding species in smaller size and absence of bars on the under-parts. Though said to frequent streams in forest, it is mainly a bird of tidal waters. It is the most powerful and savage of all the Fish Owls, and is said to be very wide-awake and shy in the daytime.

Nest and Eggs. — The breeding season is from January to March. The eggs are laid either in caves or in hollow trees, and are smaller than those of the next species.

Status and Distribution. — A Malayan species extending along the Burmese coast right up to Assam. It is common in the Irrawaddy delta. Away from the coast it is said to be common in the Thaungyin valley, but has not been recorded elsewhere.

THE TAWNY FISH OWL

Ketupa flavipes (1657).

Identification. — Differs from the preceding species in larger size and much richer, more rufous, colour. In addition the leg is feathered one third behind and more than half-way down in front. It is another bird that frequents streams in forest. It is the most powerful and savage of all the Fish Owls, frequently killing Junglefowl, Pheasants and Wood Partridges, though it feeds chiefly on fish, crabs and beetles. It often hunts by daylight, but is sluggish until the late afternoon, and when disturbed it usually prefers to sit still and be watched rather than to take wing.

Nest and Eggs. — The breeding season is from November to February. It usually lays in old Eagles' nests, which it does not repair nor re-line; it sometimes nests in caves, laying on the bare earth. The eggs average 2·24 by 1·84 inches.

Status and Distribution. — A Himalayan species, which has been recorded in Burma only from Lonkin on the Uyu river, Upper Chindwin.

THE ROCK EAGLE-OWL

Bubo bengalensis (1660).

Identification. — Length 22 inches. A large solemn bird, mottled tawny-buff and blackish-brown, with conspicuous tufts above large orange eyes, which sits motionless by day amongst rocks and ravines and occasionally in trees. This

bird and the Brown Fish Owl are difficult to distinguish in the field when the legs are not visible. The Fish Owl carries the ear-tufts lower and is reddish-brown in general colour whereas the Rock Eagle-Owl is yellowish-tawny with more black on the head. This bird frequents hollows and clefts in rocky cliffs or buildings, and brushwood on stony hillsides, and when these are wanting it takes refuge in clumps of trees. Though mainly nocturnal, it sometimes moves by day and long after sunrise may be seen perched on the summit of a rocky scree, looming large in view against the clearness of the new-born sky. It feeds on frogs, lizards, mammals, snakes, birds and insects.

Nest and Eggs. — The breeding season extends from December to May, but most eggs are found from February to April. No nest is made, the eggs merely lying in a hollow scraped in the soil, generally in a ledge or recess of a cliff or bank face, but some eggs are laid on the ground at the foot of a tree or under a bush. The eggs, 2 to 4 in number, are perfect broad ovals in shape, fine and close in texture with a distinct gloss, and white in colour with a faint creamy tinge. They average 2·10 by 1·73 inches.

Status and Distribution. — Confined to India and Burma; its occurrence in this country rests on a century-old record from Arakan.

THE SIAMESE DUSKY EAGLE-OWL

Bubo coromandus klossi (1662).

Local Names. — Burmese: *Gok-kă-lu* (ကဗ်ကလူ)

Identification. — Length 23 inches. Similar to the Rock Eagle-Owl in the field, but it is a grey and not a tawny bird, and it is always found sitting in trees; the eyes are paler.

Voice. — See summary, page 310. In hot and sultry weather its call may be heard at intervals throughout the day. It is particularly noisy at dusk and dawn.

Habits and Food. — This Owl avoids deep forest, and frequents woods and groves in open country in well-watered areas. By day it sleeps in trees, sitting on a leafy bough or close up to the trunk and wakes to activity about dusk. The food consists chiefly of Jungle and House Crows, the eggs and young of other birds, and the usual diet of small mammals, etc..

Nest and Eggs. — The breeding season is from December to March. The nest is a large rough cup of sticks built in a fork of a large tree 30 to 40 feet from the ground. *Letpan* trees are frequently chosen. It is generally lined with green leaves or dry grass, and is sometimes a large structure added to and used year after year. Old nests of Eagles and Vultures are often used, and it occasionally lays in hollow trees or in the depressions at the junctions of branches, depositing a few leaves in the place by way of lining. While the female is sitting the male sleeps in a tree nearby, the spot being marked by the remains of meals that strew the ground below. The eggs, 1 to 4 (usually 2) in number, are similar to those of other Eagle-Owls, but more variable in size and shape; they average 2·33 by 1·90 inches.

Status and Distribution. — This species is distributed over the greater part of India, thence through Burma to Malacca. It is found in Arakan and Tenasserim(?). An Eagle-Owl believed to be of this species is a typical breeding bird of the Dry Zone and may be observed in February at nests high up in the tall *letpan* trees that grow in the irrigated tracts near Mandalay.

THE FOREST EAGLE-OWL

Huhua nipalensis (1663).

Local Names. — Burmese: None recorded.

Identification. — Length 24 inches. Like the other Eagle-Owls in appearance, but even larger, and with a brown (not yellow) eye. Blackish above and white below with blackish bars and spots. Eyelids yellow. Aigrettes well developed. Young birds are pale buff, whiter on the head, barred above and below with dark brown.

Voice. — See summary, page 311. The note of this bird has also been described as a deep mumble, just like two old men conversing in very deep tones; this would also apply to the call of the Brown Fish Owl, and further observations are needed to decide whether both species make this call, and if so whether they can be distinguished.

Habits and Food. — This magnificent Owl is the boldest of all, preying constantly on the largest Pheasants, Junglefowl, and even Peafowl. The power of its grip is immense, and it will drive its claws half an inch deep into the leg or arm of a man. It frequents forests and the outskirts thereof, and like other Eagle-Owls sometimes hunts by daylight. It has been known to feed on carrion.

Nest and Eggs. The breeding season is from February to March with second broods up to June. The egg, nearly always one, is laid in similar situations to the eggs of other Eagle-Owls, and averages 2·41 by 1·96 inches.

Status and Distribution. — A Himalayan species, which extends down to Moulmein. It appears to be absent from Northern Burma, but has been recorded from the Pegu Yomas, Southern Shan States, and Tenasserim.

THE MALAY EAGLE-OWL

Huhua sumatrana sumatrana (1664).

Identification. — Length 18 inches. Distinguished from the preceding species by wavy cross-bars on the back, and much smaller size. Young birds are white with narrow bars everywhere, dark brown above and paler below.

Nest and Eggs. — More or less unknown.

Status and Distribution. — Extends from Southern Tenasserim through the Malay States to Sumatra, Java, and Borneo.

THE BURMESE COLLARED SCOPS OWL

Otus bakkamœna lettia (1671).

Local Names. — Burmese: *Myi-wun* (မြီးဝှန်း)

Identification. — Length 10 inches. A small Owl with conspicuous ear-tufts, the general effect of the plumage being buff, rather richly marked with dark brown, especially about the head. Presence seldom detected until the call is heard.

Voice. — See summary, page 311. The call is uttered slowly at long intervals from nightfall to dawn.

Habits and Food. — The Scops Owls are thoroughly nocturnal, only awaking to activity as dusk has almost merged into night. This species is a typical bird of the teak forests, but little is known of its habits. The food consists chiefly of insects.

Nest and Eggs. — The breeding season is from January to April. The eggs are laid in a hole in a tree, slightly lined with leaves and grass. They are 2 to 5 in number,almost spherical in shape, fine in texture and fairly glossy, and average 1·25 by 1·05 inches.

Status and Distribution. — This handsome little Owl is found throughout the Oriental Region, and is fairly common and resident all over Burma in forests and well-wooded areas; it is said to ascend to 7,000 feet, and is common in and about Rangoon.

THE EASTERN SPOTTED SCOPS OWL

Otus spilocephalus latouchii (1672).

Identification. — Length 9 inches. Has no pale collar on the hind-neck, but otherwise resembles the preceding species. A forest bird.
Nest and Eggs. — The breeding season is from April to June. The eggs, 3 or 4 in number, are laid in holes in trees, and average 1·28 by 1·11 inches.
Status and Distribution. — This species is found in India and Burma, extending to China; it has been recorded from North-East Burma and Karenni; it seems to be a hill bird and is no doubt more widely distributed than the records indicate.

THE LARGE MALAY SCOPS OWL

Otus sagittatus (1675).

Identification. — Length 11½ inches. The large size, intense rufous or chestnut colour, and white bill are distinctive.
Nest and Eggs. — The breeding season near Perak is in February and March. The eggs average 1·35 by 1·12 inches.
Status and Distribution. — A Malayan species, which extends into Tenasserim as far north as Mt. Mulayit.

THE BURMESE SCOPS OWL

Otus sunia modestus (1681).

Allied Form.—

THE MALAY SCOPS OWL, *O. s. malayanus (1682).*

Local Names. — Burmese: *Taw-lon-hnget* (တောလုံငှက်)

Identification. — Length 8 inches. This bird has ear-tufts like the Collared Scops Owl, which it resembles in general appearance, but it is normally dark grey; there is also a rufous phase, in which the upper-parts are plain rufous. A forest bird.

Voice. — See summary, page 311. The call, which is syllabified by Burmans as *Kyet-wet-chauk-gaung*, is one of the most familiar sounds after dark throughout the teak forests. The striking thing about the call is the way it goes on and on without variation or alteration in pace for what seem like hours on end. It is occasionally uttered in daylight at any hour.

Habits and Food. — This is quite one of the commonest birds of the teak forests, but is entirely nocturnal, spending the day asleep

in a leafy tree, and is therefore rarely seen. The flight is dipping, with frequent closure of the wings, but in the breeding season it often sails round on stiffly outspread wings, squawking softly at the same time. When hunting it can fly with great speed and power. The food consists of moths, beetles, small mammals, and birds. It makes a tame and amusing pet.

Nest and Eggs. — The breeding season is from February to April, with second broods into May and June. The eggs, 3 or 4 in number, are laid in a hollow tree, and average 1·24 by 1·06 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region as far west as Hazara in the Himalayas. It is a common resident throughout the forests of Burma at all elevations up to 6,000 feet.

THE BURMESE SPOTTED OWLET

Athene brama pulchra (1685).

Local Names. — Burmese: *Zi-gwet* (စီးကြီး)

Identification. — PLATE XVIII, Fig. 9, Page 296. Length 8 inches. A small dark brown Owl, spotted with white, which is very wide-awake by day and makes extraordinary noises at all times, but especially at dawn and dusk. It has no ear-tufts like the Scops Owls, and the eyes are bright yellow. The flight is undulating with quick wing-beats. It is mainly a bird of the Dry Zone.

Voice. — See summary, page 311. It has a great variety of calls, amongst them: (1) A harsh 2-syllabled call in an ascending scale, accelerating towards the end and ending almost in a screech; (2) as above, but the pitch remaining constant throughout; (3) a trilling call; (4) a call consisting of a single note, in tone like the first note of call (1). All these were heard during half an hour when listening to one bird at 8 a.m. in bright sunlight. Some of its calls are not easy to distinguish from some of those of the Barred Owlet. It conducts a duet at night in the breeding season.

Habits and Food. — A very familiar garden bird in India, but less common in Burma and typically a bird of the Dry Zone. It frequents desert, cultivation, and forest alike, and is equally at home in rocks, trees, ruins and houses. It sometimes hovers some 15 or 20 feet above the ground, much after the fashion of a Kestrel, but not so gracefully and skilfully. Though truly nocturnal it is less sleepy by day and intolerant of light than most Owls; it often sits on a solitary tree in bright sunlight, nodding and bowing and glaring if looked at and finally taking wing to avoid the annoyance. The food consists almost entirely of insects and the nest holes and resting places will be found littered with pellets containing the indigestible portions of beetles and crickets, proving the amount of good done by these little birds; small mammals and birds are occasionally taken.

Nest and Eggs. — The breeding season is from February to May, but most eggs are laid in March and April. No very definite nest is made, but the eggs generally rest on a few feathers, some dry

grass, and other rubbish that is usually already present in the hole, though perhaps sometimes gathered by the Owlet itself. The favourite site is a hole in a tree, but holes in buildings and clefts in rock are often used. The eggs, 3 to 6 in number, are moderately broad ovals, of a close uniform satiny texture, and average 1·25 by 1·04 inches.

Status and Distribution. — This species is found in India, Burma, Siam and Yunnan. It is common in the Dry Zone, straggling down the Irrawaddy valley to Henzada and down the Sittang valley to (?) Rangoon; in the north it is absent from North-East Burma but has been obtained in the Upper Chindwin.

THE BURMESE BARRED OWLET

Glaucidium cuculoides rufescens (1690).

Allied Forms.—

THE SIAMESE BARRED OWLET, *G. c. brugeli (1691).*

THE TENASSERIM BARRED OWLET, *G. c. fulvescens (1692).*

Local Names. — Burmese: *Zi-gwet* (စီးဂွက်)

Identification. — PLATE XVIII, Fig. 7, Page 296. Length 8½ inches. Differs from the Spotted Owlet, which it resembles in size and appearance, by the barred and not spotted upper-parts.

Voice. — See summary, page 311. In March and April as day dawns its long rolling call can be heard from far and near and is a typical and delightful sound of a hot-weather morning. It has a variety of other notes, some of which resemble those of the Spotted Owlet.

Habits and Food. — Similar to those of the Spotted Owlet. It is found in all types of forest and often enters gardens. It is the most diurnal of all Owls and may be seen about at any time of the day. The tail is often wagged like a pendulum.

Nest and Eggs. — It breeds during the hot weather; the eggs, 3 to 5 in number, are laid in a hollow tree, and average 1·44 by 1·20 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is common throughout Burma at all elevations up to 7,000 feet. It is the common Owlet of Rangoon and starts breeding there in February. Whether the Siamese and Tenasserim races are really distinct is doubtful.

THE COLLARED PIGMY OWLET

Glaucidium brodei subsp. *(1696-7).*

Local Names. — None recorded.

Identification. — Length 6 inches. Its small size at once distinguishes it from any other Owl. The plumage is extremely variable, but the usual type in Burma is a deep rufous barred with blackish.

Voice. — See summary, page 311. It also is very diurnal, and its call may be heard at any hour of the day particularly in hot sultry weather.

Habits and Food. — This handsome little Owl is a typical bird of the teak forests, and seems to be equally common in the pine and

evergreen forests of the higher hills. It feeds mainly on insects, but is a bold little bird and a ruthless destroyer of nestlings, including such birds as Barbets, Woodpeckers, Minivets and Magpie-Robins among its victims.

Nest and Eggs. — The breeding season is from March to May, with second broods into July. Preference is given to holes high up in trees and in the branches, rather than in the trunk or main boughs, for nesting purposes. The nest holes of Barbets and Woodpeckers are sometimes used, the rightful owners being ruthlessly expelled, and not always escaping with their lives. The eggs, 2 to 5 in number, average 1·10 by 0·93 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region. It is probably found throughout the forests of Burma at all elevations up to 6,000 feet (not yet recorded from Arakan or the Chin Hills), and is a common resident.

THE BURMESE BROWN HAWK-OWL

Ninox scutulata burmanica (1699).

Local Names. — Burmese: *Hkin-bok* (ခင်ဗုတ်)

Identification. — Length 12½ inches. Unbarred upper-parts, absence of ear-tufts, and long pointed wings, giving a close resemblance to a Sparrow-Hawk in flight, distinguish this species; the under-parts are white with dark markings on the throat.

Voice. — See summary, page 311. The call is only heard during the hours of darkness.

Habits and Food. — This bird frequents open forest, scrub jungle, the surroundings of paddy fields, and gardens. It is a nocturnal Owl, coming out at dusk to sit on the branches of dead trees, whence it sallies out to hawk insects like a Flycatcher. It spends the day in thick bamboo clumps and similar cover, and seems very confused when caught by sunlight. It may often be seen when beating for Junglefowl. Its food is similar to that of other Owls, but consists to a greater degree of insects.

Nest and Eggs. — The breeding season is in April and May, occasionally March and June. The eggs, 3 to 4 in number, are usually laid in a hollow tree within 20 feet of the ground, and average 1·38 by 1·16 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is found throughout Burma in the plains and foothills, but seldom in the higher hills.

Order III ACCIPITRES.

Family PANDIONIDÆ

OSPREYS

The Osprey differs in many ways from all other Hawks, chiefly in anatomical features, and is therefore placed in a family by itself.

THE OSPREY

Pandion haliætus haliætus (1704).

Local Names. — Burmese: *Wun-let* (ဝေယန်လက်)

Identification. — PLATE XIX, Fig. 1, Page 322. Length 20-23 inches. Constant association with water and the contrast of the dark brown upper-parts with the white under-parts and whitish head, with a broad dark band on the side, are distinctive features. The wings are long and narrow, distinctly angled in ordinary flight; there is a light brown band on the breast and the feathers at the back of the crown are elongated as a kind of crest.

Voice. — The ordinary note is a short shrill musical whistle repeated a number of times, tending to drop in pitch towards the end of the sequence. A more definite alarm-note is a repeated *kyick-kyick-kyick- - - -*, interspersed when excitement is rising with a toneless *krrk, krrk.*

Habits and Food. — The Osprey frequents rivers, lakes, jheels, and tidal waters. When fishing it flies 30 to 100 feet over the surface with alternate flapping and gliding; on sighting a fish it generally hovers for a short time with legs dropped and then plunges with half-closed wings, throwing up a shower of spray and sometimes completely submerging for a second or two. On rising it shakes the water from its plumage with a convulsive quiver during which some elevation is lost. Sometimes it snatches a fish from the surface without a preliminary hover and plunge. The fish is carried head foremost, gripped by both feet unless quite small, to a perch, usually the dead bough of a tree, a post in the water, or a rock. After feeding it often flaps along the surface dragging its feet in the water to rid them of slime, and it may duck its head under water as well. The feet are very powerful, and the sharp prickly scales beneath the toes are specially adapted to catching and holding fish. It feeds almost entirely on fish up to 4 lbs. weight, and is said occasionally to be drowned in attempting to capture one beyond its strength, but when pressed by hunger it has been known to take chickens, beetles, frogs, small birds and mammals.

PLATE XIX

		See Page No.
1.	**OSPREY** (adult) *Pandion haliætus haliætus*	322
2.	**NORTHERN CRESTED GOSHAWK** (adult) *Accipiter trivirgatus indicus*	350
3.	**EASTERN PEREGRINE FALCON** (adult) *Falco peregrinus calidus*	326
4.	**BURMESE RED-LEGGED FALCONET** (adult) *Microhierax cærulescens burmanicus*	331
5.	**HIMALAYAN KESTREL** (adult male) *Falco tinnunculus interstinctus*	330
6.	**BURMESE CRESTED SERPENT EAGLE** (adult) *Hæmatornis cheela burmanicus*	338
7.	**RUFOUS-BELLIED HAWK-EAGLE** (adult) *Lophotriorchis kieneri*	335

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Nest and Eggs. — The breeding season is in April and May. The nest is built on a large tree or on the face of a cliff and is a huge structure of sticks added to year after year. The eggs are very handsome; white or pinkish in colour with numerous markings of various shades of brown and secondary markings of grey and pale purple; they average 2.43 by 1.82 inches.

Status and Distribution. — This is a cosmopolitan species, found in all the continents. The typical race formerly bred in Scotland, but is now only a passage migrant to the British Isles. It breeds in the Himalayas and is suspected of breeding in Burma, but so far no nest has ever been found. A single bird has been observed on the Maymyo lake in June, July, and August, not continuously but for two or three days at a time, which must have been either a non-breeding resident or one of a breeding pair. In winter it is found all over Burma on suitable pieces of water.

Family AEGYPIIDÆ

VULTURES

The Vultures differ from the Hawks in their enormous size and in having the head and neck bare, or only partly covered with short down. The very broad square-ended wings, with front and hind borders roughly parallel for nearly the whole length and with the head and the short broad tail projecting only a little beyond them, give a rectangular outline when soaring. At short ranges it can be seen that the pressure of the air causes the feathers at the ends of the wings to splay out and turn upwards like the fingers of a hand, and the rushing tearing noise is surprisingly loud. When at rest the hunched-up high-shouldered attitude is characteristic, and after a spell of rain they are typically seen with their wings half-opened to dry.

As they plane over a hillside with easy sweeping flight, with now and again a single leisurely but powerful down-stroke through a wide arc, or as they soar on rigid wings in wide circles often at a great height, the Vultures are most majestic birds; but seen together in a jostling scrambling mêlée round a carcass they can only be described as revolting. They spend much of their time circling high overhead on the look-out for food, and one carcass will draw birds from a wide area owing to each observing the movements of others within its range of vision. The apparently miraculous manner in which a horde of Vultures descends on a carcass, out of a sky that seemed innocent of the birds at the time of the animal's death, gave rise to the theory that Vultures find their food by scent; this however is no longer accepted, and the explanation is in fact very simple.

An animal dies somewhere, whether in the open or under cover; if it has not been watched before death by the Crows and pariah dogs, it is soon found by one or other of them; a single Crow or a single dog pulling at a carcass is immediately noticed by others of the tribe, and a number collect. The concourse is soon spotted by one of the Vultures patrolling the sky far overhead; it comes lower to

verify the existence of the carcass and finally descends to the ground nearby with the peculiar tearing rush that unmistakably indicates food. Vulture follows Vulture as they patrol with a lively interest in each others' movements, the circle of interest widening like the ripples of a stone thrown into water, and new arrivals plunge down with half-closed wings, sometimes in a kind of spiral dive, to swell the gathering. Having settled on the ground they move up with a clumsy waddling walk, or run in huge ungainly hops aided by their wings; bickerings ensue and the weaker scavengers give place to the jostling striving mass of Vultures; these soon cover the carcass completely, tearing it to pieces with their powerful bills, and rapidly devouring everything except the largest bones. Having gorged their fill they sit about on the ground, or with difficulty rise into the surrounding trees, till digestion allows them to wing a heavy way to a resting place. This is usually a fixed and favourite spot where they sit and meditate till returning hunger again sends them on patrol.

The stench emitted by these birds is very sickening, and is strong even in the nest and eggs. Repulsive and evil-smelling though they may be, useful scavengers they certainly are, and in this land of rapid putrefaction the countryside would tend to be an unsavoury place without them. The nest is built in a tree, usually high up in a large tree, and is a huge structure of sticks and branches, used for several years but always renewed and lined with green branches and leaves. Only one egg is laid.

THE CINEREOUS VULTURE

Ægypius monachus (1705).

Identification. — Length 4 feet. Distinguished from all other Vultures occurring in Burma by its immense size and uniform dark brown colour. The head is covered with down, short on the crown and longer on the nape. Like other Vultures this feeds on carrion and offal: its note varies from the querulous mewing indulged in by all Vultures when feeding to much louder squalling and roaring when fighting.

Status and Distribution. — It has a wide range in Southern Europe, Northern Africa, South-west and Southern Asia as far east as Burma and (?) China. It has only been seen three times in Burma: on the Irrawaddy just below Myitkyina, on the Taiping river in the Bhamo district, and near Namkham in the Northern Shan States. It is a rare straggler to this country.

THE BLACK or KING VULTURE

Sarcogyps calvus (1706).

Local Names. — Burmese: *Lăda-teik-ni* (ဠဒ်းတဲက်နိ)

Identification. — FRONTISPIECE, Fig. 2. Length 32 inches. The black plumage and the bare red head and neck wattles are distinctive on the ground and in flight these together with the conspicuous white thigh-patches and the wings held high above the line of the back place the identification beyond doubt.

Voice. — Not recorded.

Habits and Food. — Some say that this species is called the King Vulture because it is bold and pugnacious, driving other Vultures off till it has eaten its fill ; in Burma however it does not seem to be-

have in this manner, possibly because competition is less fierce; for it is a fact that in this country Vultures are never seen in such numbers as in parts of India, the Indo-Gangetic plain for example, where the number of cattle per square mile of country is far greater on the average. Jungle Burmans say that it can detect "kills" in thick forest more readily than the other Vultures. It is not a gregarious bird and rarely will more than two or three be seen at a carcass.

Nest and Eggs. — The breeding season lasts from the end of January till April; some pairs start repairing their nests before the end of October, but most eggs are laid in March. This bird usually builds near the top of a large tree, but it has no hesitation in building on low thorny trees or even bushes where large trees are scarce; it never breeds on rocks or buildings. Old nests of Eagles are sometimes appropriated. The solitary egg is a round oval in shape, with a very strong shell and a moderately fine texture, usually without gloss; when fresh the colour is a pale greenish-white, but as incubation advances the shell becomes discoloured. The egg averages 3·55 by 2·50 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is resident throughout India and Burma. It is normally seen in the plains, but has been recorded up to 8,000 feet in the Himalayas. It is fairly common.

THE NORTHERN LONG-BILLED VULTURE

Gyps indicus nudiceps (1711).

Local Names. — Burmese: *Lăda* (ဂျင်းတော)

Identification. — FRONTISPIECE, Fig. 3. Length 35 inches. When overhead it is distinguishable from the common White-backed Vulture by the uniform, not contrasting, coloration of the underside of its wings and body.

Voice. — Not recorded.

Habits and Food. — Those of the family.

Nest and Eggs. — The breeding season is from the middle of November to the end of February. This species often breeds in colonies. Nest and egg are typical of the family, and the latter averages 3·34 by 2·51 inches.

Status and Distribution. — This species is found almost throughout India and Burma though there are no definite records as yet from Northern Burma; it is less common than the next species.

THE INDIAN WHITE-BACKED VULTURE

Pseudogyps bengalensis (1713).

Local Names. — Burmese: *Lăda* (ဂျင်းတော)

Identification. — FRONTISPIECE, Fig. 6. Length 35 inches. On the ground the conspicuous white rump-patch is distinctive; in flight the dark leaden colour and the white band along the fore-part of the

under surface of the wings, interrupted by the blackish breast and abdomen, distinguish it from the preceding species.

Voice. — Caterwauls and squeals when feeding, and a loud roaring noise when pairing have been recorded.

Habits and Food. — This bird, like the preceding one, has a cowardly nature; it makes no protest against any marauding jackal or pariah dog that drives it away from its meal and it never assaults any living creature for food unless the latter is on the point of death. When very hungry it will eat worms, frogs, small lizards and the bigger beetles.

Nest and Eggs. — The breeding season is from October to February, but most eggs are laid in December and January. The nest is built in a high tree in or near a village or town, less often in open cultivated country far from houses. The nest is sometimes solitary but as a rule several pairs breed near one another. The egg is white, sometimes with a faint greenish tinge, and a fair number are lightly spotted and blotched with varying shades of red and reddish-brown. It averages 3·38 by 2·53 inches.

Status and Distribution. — This species is found in India, Burma, Siam, and the northern parts of the Malay States and French Indo-China. It is the commonest Vulture in Burma, found throughout the plains, but only making casual visits to the higher hills, except where towns like Maymyo offer a special attraction.

Family FALCONIDÆ

FALCONS, HAWKS, KITES, EAGLES, HARRIERS & BUZZARDS

This family contains the diurnal birds of prey, recognisable by their curved sharp-pointed beaks and strong powerful feet and claws, only found otherwise in the Vultures and Owls. The male is nearly always smaller than, or the same size as, the female. Though most people can recognise a bird as being a member of this family, the identification of the various species in the field is often very difficult; this is due to the fact that many species have no distinctive features or else they have a number of plumages differing both in colour and pattern, according to the age and sex of the birds; thus though about seventy forms occur in Burma, it is not a question of learning to recognise seventy plumages, but rather seventy times seven.

[Note:—THE ALTAI BEARDED VULTURE, *Gypaëtus barbatus altaicus (1717)*, has not been recorded from Burma, but has been obtained in the Cachar hills of Assam and is not unlikely to occur in the mountains of Northern Burma. It breeds at high elevations in Central Asia and Tibet. The colossal size of this bird, which exceeds even the Cinereous Vulture, very pointed wings, wedge-shaped tail, and feathered head should distinguish it. The "beard" is distinct up to some distance and shows black against the pale head and bright rufous neck and breast of the adult. Immature birds are dull blackish all over.]

THE EASTERN PEREGRINE FALCON

Falco peregrinus calidus (1718).

Allied Form.—

THE SHAHIN FALCON, *F. p. peregrinator (1719).*

Local Names. — None recorded.

Identification. — PLATE XIX, Fig 3, Page 322. Length 14-19 inches, the female larger than the male. Falcons are characterised by quick dashing flight and pointed wings. The Peregrine is the largest species occurring in Burma, only the Laggar Falcon approaching it in size. On the wing it is a compact robust-looking bird with long sharply pointed wings, medium-length rather tapering tail, and very characteristic flight, swift and direct with a few rapid winnowing beats alternating with long glides on extended wings. The female in addition to larger size is usually more heavily barred below. Young birds are browner above with under-parts streaked and not barred. The Eastern race (1718) is almost white below, whereas the Shahin (1719) is much darker above and rusty below.

Voice. — Often very noisy when the breeding place is invaded, especially when the young have hatched out. The main cries are a shrill chattering *kek-kek-kek-kek----* and a hoarse almost quacking *kwaahk-kwaahk-kwaahk----* of more intense excitement. A clear drawn-out plaintive cry rising very slightly at the end is mainly a call or recognition note. Usually silent outside the breeding season.

Habits and Food. — The Peregrine is fairly common in the paddy plains during the cold weather, and is most frequently seen at dusk, when it often takes the same route night after night; it has been seen far out on the mud-flats below the tide-line, but perches chiefly on rocks, commonly on some ledge or pinnacle of a cliff, in an upright attitude with the head sunk between the shoulders; it is sometimes seen on a building (*e.g.* the Secretariat in Rangoon), fence, post, tree, or eminence on the ground. Swift and powerful on the wing, the Peregrine typically strikes down its prey by a magnificient headlong stoop at almost incredible speed, with wings folded but held slightly out from the sides, producing a rushing sound out of all proportion to the size of the bird; immediately after striking the victim it shoots upwards and usually circles round a few times before descending to the kill. The victim is dealt a blow with the powerful hind claw, which will rip the back of a Duck or similar sized bird from end to end. Sometimes the Falcon will grip as it strikes, at other times it will pursue and capture a bird without stooping, and it has been known to roll over on its back and seize the bird from below. It usually has special plucking places to which the prey is carried, and cliff-tops or ledges near its eyrie are often littered with the remains of birds; the head is usually torn off and eaten and the carcass left with the breast-bone uppermost and well cleaned. It evidently pairs for life, but the two birds do not as a rule hunt together. It normally roosts on cliffs, crags or tall buildings. It feeds freely on all game-birds from Quail to the largest Pheasants, but its favourite prey seems to consist of Pigeons, Parrots, bats, Duck and Teal. It occasionally feeds on carrion.

Nest and Eggs. — The breeding season in India varies from January to May, and in Burma is probably about March. The nest is always built on a ledge or in a rocky crevice or cave on the face of a cliff or high river bank. It is usually a well-made affair of sticks, sometimes more or less mixed with tufts of grass, weeds, wool or

other oddments; it is sometimes lined with wool or green leaves and sometimes unlined. Not infrequently the eggs are laid on the bare ground. The eggs, 3 or 4 in number, are blunt ovals in shape and pale stone, pale yellowish-cream, or pale brick-red in colour marked with blotches of brick-red or reddish-brown, which on some eggs are bold and rather sparse and on others small and numerous, covering the whole surface. They average 2·08 by 1·60 inches.

Status and Distribution. — The Peregrine has a world-wide distribution, and is resident in the British Isles. In Burma it is represented by the Eastern race, which breeds in Siberia and is a winter visitor from early November to early April, and the Shahin, which is a resident. The latter has been recorded from various places in Burma, but only Hopwood has obtained its eggs (locality not stated) and its breeding distribution is far from being worked out. A pair is said to have bred on the crags at Taunggyi for a number of years, and it probably breeds all over the Shan States.

THE LAGGAR FALCON

Falco jugger (1721).

Local Names. — None recorded.

Identification. — Length 16-18 inches, the female being larger than the male. Ashy-brown upper-parts distinguish it from the Peregrine, which it otherwise resembles. A Dry Zone bird, found in pairs.

Voice. — Not recorded.

Habits and Food. — This is a bird of open plains, wherever trees are found either in cultivation or in semi-desert country. It mates for life, and the birds of a pair keep very much together and often hunt in couple, driving the quarry towards each other and stooping at it in turn. Though a fine flier it has not the speed and courage of a Peregrine, and its food consists more frequently of lizards, insects, and small birds than of bigger game.

Nest and Eggs. — The breeding season is from January to April, but most eggs are found in February. The nest varies a good deal. The eggs may be laid in a hollow scraped on a rocky ledge of a cliff, or in a slight nest of sticks in a similar situation; or a larger nest of sticks and twigs lined with grass, straw, or leaves may be built on buildings or on trees; or old nests, usually those of Eagles or Vultures, may be appropriated and repaired. The eggs, 3 to 5 in number, are broad ovals in shape, slightly chalky in texture without gloss, and reddish, brownish or yellowish-brown in colour, very thickly speckled and spotted all over with a darker and richer shade of the ground colour; some eggs are lightly and dully marked whereas others are richly coloured with large blotches and clouds. The eggs average 2·00 by 1·55 inches.

Status and Distribution. — This species is found only in India, where it is fairly common, and Burma, where it is confined to the Dry Zone and the Southern Shan States. It is a strictly resident species.

THE CHINESE HOBBY

Falco subbuteo streichi (1727).

Local Names. — None recorded.

Identification. — Length 11-13 inches. The Hobby is the most graceful and agile of the Falcons; it is about the size of a Kestrel, but with long scythe-like wings, comparatively short tail, and Peregrine-like flight: a rapid winnowing alternating with glides on extended wings. At close range or at rest the dark slaty upper-parts, broad black moustachial stripe, white under-parts with conspicuous black streaks, and rusty-red thighs and under tail-coverts are characteristic. Has to be distinguished from the Burmese Hobby (*q.v.*).

Voice. — (1) A clear repeated *kew-kew-kew-kew-kew* very variable in form and timbre; (2) a high-pitched incisive *keek,* usually uttered singly; (3) a sibilant *whit-yoo* uttered when the birds are excited, frequently high up in the air.

Habits and Food. — The Hobby has wonderful powers of flight, and is capable of capturing on the wing even such rapid fliers as Swifts. It employs on occasions all the tactics of the Peregrine, *i.e.* the stoop, pursuit and capture without stoop, and seizure from below; it will also dash straight through a flock of birds and seize one in passing without any abatement of speed. Unlike the Peregrine it feeds largely on flying insects, and its steep descent and swerving pursuit after a dragon-fly is a performance of extraordinary grace. Insects are seized in the claws and held up to the beak to be eaten on the wing. Birds if small enough may be eaten in the air in the same manner, but are usually plucked on a branch or on the ground in the open. It sometimes hovers for a few seconds. The Hobby hunts chiefly over open country, with scattered trees, in which it ordinarily perches. It is crepuscular in its habits and often remains active till well after twilight. It is usually seen in pairs or singly, but several are occasionally seen together.

Nest and Eggs. — The breeding season is from May to July; the eggs, 2 to 4 in number, are laid in old nests of Kites, Magpies, Crows and Mynas and other tree-nesting birds; they are blunt ovals in shape and are stippled all over with small spots, which are red-brown when fresh but rapidly fade to yellowish-brown; they average 1·58 by 1·25 inches.

Status and Distribution. — This is another species with a world-wide distribution and is resident in the British Isles. A form occurs in Burma, probably the Chinese race, but it has only been recorded definitely from the Shan States, and has been seen in North-East Burma. Its status is uncertain, but eggs are said to have been obtained in the Mogok hills (by Harington).

THE BURMESE HOBBY

Falco severus severus (1728).

Local Names. — None recorded.

Identification. — Resembles the preceding species in size and appearance, but distinguished by the rusty-red under-parts.

Voice. — A loud squealing note is repeated continuously if the bird is angry till the intruder retires.

Habits and Food. — Those of the preceding species. Remains of Barbets, Bulbuls, Bustard-Quail, and other birds, lizards, mice and rats have been recorded in or near its nest.

Nest and Eggs. — The breeding season is from April to June. Nest and eggs resemble those of the preceding species, except that the nest is sometimes found on a ledge of rock, and the eggs are much more richly coloured, though of the same average size.

Status and Distribution. — This species is found from Kumaon along the Himalayas to Assam and through Burma and Siam to the Philippines. It has been recorded from Arakan, the Chin Hills, North-East Burma, the Southern Shan States, Karenni (?) and Tenasserim. Its status is uncertain; it is said to be a resident species, and is known to breed in parts of Burma, but whether it breeds everywhere and whether it stays throughout the year is unknown.

THE HIMALAYAN KESTREL

Falco tinnunculus interstinctus (1741).

Allied Form. —

THE EUROPEAN KESTREL, *F. t. tinnunculus (1740).*

Local Names. — None recorded.

Identification. — PLATE XIX, Fig. 5, Page 322. Length 13-14 inches. sexes not markedly different in size. Habitual hovering is the most distinctive feature of the Kestrel, and the pointed wings distinguish it from the Sparrow-Hawks, which it resembles in its rather long tail. The female differs in her duller colouring and in having no blue-grey on the head and tail, the latter being barred rufous and black.

Voice. — The usual cry is a loud shrill *kee-kee-kee* with some variation in form and pitch; sometimes a single *kik*. Rather silent outside the breeding season.

Habits and Food. — The Kestrel is a bird of the paddy plains and open cultivated country with scattered trees. It perches on trees, telegraph wires, walls, buildings, fences, rocks, etc., and sometimes on the ground, but seldom for long except when plucking. The flight with rapid wing-beats and an occasional short glide is more leisurely than that of the Hobby; it is usually seen 20-30 feet up in the air and well out in the open; its course is constantly checked by the bird hanging stationary, head to wind, with rapidly fanned wings and depressed and outspread tail, as it scans the ground below. If no quarry is sighted it slips forward for a few yards and repeats the manoeuvre until the discovery of some beetle or small mammal rewards its search and it drops to earth to secure it, generally on a slant and seldom vertically. When adult birds are taken they are usually secured by a sudden dash whilst they are feeding or perched, being seized before they have taken wing or just after; they are rarely if ever captured in full flight. When watching for food from a perch the head is incessantly turning and bobbing; having spotted

something the bird flies silently with half-bent wings towards the ground, putting on a desperate dash and spurt as it approaches the object of its flight. All the movements of this little Falcon are graceful and a pleasure to watch. Small mammals form the bulk of its food, eked out with grasshoppers, insects and small birds.

Nest and Eggs. — The breeding season is probably from March to May. The eyrie is nearly always in a hole or on a rocky ledge of a cliff, but it is occasionally found in a tree or on a ruined building. The nest, which is often a mere apology, is made of twigs, roots, rags, strips of cloth and other rubbish. In a tree it appropriates old nests of Crows, Magpies, and other species. The eggs, 2 to 6 in number, are broad ovals in shape, fine and rather chalky in texture without gloss, and various shades of red in colour, blotched and freckled with darker tints of red, the markings being thickly and evenly distributed; the eggs average 1·55 by 1·20 inches.

Status and Distribution. — This species is widely distributed in Europe, Asia and Africa. Kestrels may be seen throughout Burma in open country from October to April but the status and distribution of the various races is an unsolved problem. The European race is a winter visitor; it has been recorded from North-East Burma, Katha, Prome, and the Northern Shan States, but is no doubt much more widely distributed. The Himalayan race has been recorded from Prome and Myingyan, but may also be widely distributed. Records of Kestrels breeding in Arakan, the higher Chin Hills, and Shan States may be referable to this race.

[Note: — The Burmese race, *F. t. saturatus (1742)*, and the Japanese race, *F. t. japonicus (1743)*, are now considered to be bad races.]

THE CHINESE LESSER KESTREL

Falco naumanni pekinensis (1745).

Identification. — Length 12 inches. Closely resembles the Kestrel, but is much more gregarious in habits; the male is more brightly coloured than the male Kestrel, with a richer red and unspotted mantle, but the female is not distinguishable in the field.

Status and Distribution. — Passage migrant. Breeds in the Mediterranean region, and thence across Central Asia to China. It is a very rare vagrant to the British Isles and is a winter visitor to India. It has been recorded twice from Burma, at Lunbye on the Sittang plain, and at Sumprabum in North-East Burma.

THE BLACK-LEGGED FALCONET

Microhierax fringillarius (1733).

Identification. — Length 6 inches. For general characters see the next species, from which it differs in having no white collar and the thigh-coverts black instead of red.

Nest and Eggs. — Breeds in March; it lays in deserted nest holes of Barbets and Woodpeckers, and in the Malay States has been known to breed in the roofs of houses.

Status and Distribution. — Extends from Southern Tenasserim through the Malay States to Sumatra, Java and Borneo.

THE BURMESE RED-LEGGED FALCONET

Microhierax cærulescens burmanicus (1735).

Local Names. — None recorded.

Identification. — PLATE XIX, Fig. 4, Page 322. Length 6-7 inches, the female slightly larger than the male. The head appears white except for a black patch on the crown and the black stripe through the eye.

Voice. — Not recorded.

Habits and Food. — This pigmy Falcon has the imposing carriage and the fierce eye of the largest Eagle. It is a typical bird of the teak forests, especially of *indaing,* and is usually seen perched near the top of a dead tree, whence it has a good view all round. Its food consists mainly of insects, which it captures on the wing, either by sailing round in circles like a Swallow-Shrike, or by pouncing on them from its perch. It is capable of great speed, and kills birds much larger than itself, such as Scimitar Babblers, Thrushes, etc., by stooping at them like a Peregrine. Insects are captured by the grasp of a foot and conveyed at once to the mouth; small birds and mammals are carried to a perch and large ones are eaten on the ground.

Nest and Eggs. — The breeding season is in March and April. The eggs are laid in a hole in a tree, and are broad ovals in shape and dirty yellowish-white in colour; only one or two nests have been recorded; the eggs average about 1·18 by 0·87 inches.

Status and Distribution. — This species is found from the Central Himalayas eastwards through Burma and Siam to Annam. It is found throughout the forests except in Southern Tenasserim, but is nowhere common, nor does it seem to ascend the higher hills except at Maymyo.

FIELDEN'S HAWK

Neohierax insignis insignis (1737).

Allied Form.—

THE TENASSERIM HAWK, *N. i. cinereiceps (1738).*

Identification. — Length 10-11 inches, the female slightly larger than the male. Back very dark grey, contrasting with the pale grey head of the male and the pale rufous head of the female; rump and upper tail-coverts pure white; tail black broadly barred with white and strongly graduated; under-parts shining white, the sides of the head, breast and flanks heavily streaked with blackish. The flight is said to be weak and dipping and like that of a Magpie or a young Parrot. It is said to frequent clearings in dry forests, perching high up on a bare branch whence it makes sallies after its prey, much like the Red-legged Falconet. It feeds chiefly on locusts, grasshoppers, and various other insects.

Nest and Eggs. — Very little is known. The breeding season is from March to April and the nest is made of twigs and is built in a tree; the eggs are said to be grey-white and similar to those of the Shikra, but smaller.

Status and Distribution. — This species is confined to Burma and the Indo-Chinese countries. It is resident in Arakan, Central Burma, Southern Burma and Tenasserim. It appears to be rather scarce, except perhaps in the Dry Zone; sixty years ago it was recorded as very common in the Thayetmyo district.

THE EASTERN RED-LEGGED FALCON

Erythropus amurensis (1739).

Identification. — Length 12 inches. A slim-bodied grey Falcon, darker on the head and back, with a patch of rusty-red under the tail. The female has the plumage barred with black. Usually seen in a large flock, which may

number 100 birds, often soaring at an immense height and looking like insects in the sky. Nearer the ground it circles over the tree-tops with motionless wings, except for occasional flaps. It has a querulous cry like that of the Kestrel.

Status and Distribution. — A passage migrant, passing through Burma in April on its way to its breeding quarters in North-east China, and returning in November to its winter quarters in North-east India and South and East Africa. It has been recorded from Thayetmyo (in January and February) the Upper Chindwin, Central Burma (Popa and Maymyo), and the Shan States.

KEY TO SOME OF THE LARGER EAGLES

(wing over 15 inches in all except *Nisaëtus alboniger*, which has wing 13 inches).

As the larger Eagles are difficult to separate in the field, and as records and notes on their occurrence and distribution are badly needed, the following key to the genera most likely to be confused is given:—

A. Between eye and beak densely feathered, without bristles — *Pernis.*
B. Between eye and beak with bristles or with feathers ending in bristles.
  a. Tarsus not feathered throughout — [*Circaëtus.*]
  b. Tarsus feathered throughout.
    a′. Claws much curved; hind claw longer than inner claw.
      a″. Primaries exceed secondaries by more than length of tarsus.
        a^3. Nostrils round — *Aquila.*
        b^3. Nostrils oval — *Hieraëtus.*
      b″. Primaries exceed secondaries by less than length of tarsus — *Nisaëtus.*
    b′. Claws little curved. Hind claw shorter than inner claw — *Ictinaëtus.*

KEY TO THE GENUS *AQUILA*

A. Nostrils elliptical or ear-shaped, higher than broad.
  a. Claws very large, hind claw over 50 mm. — [*A. chrysaëtus*]
  b. Claws moderate, hind claw under 50 mm.
    a′. Wing, male over 530 mm., female over 600 mm. — *A. nipalensis.*
    b′. Wing, male under 530 mm., female under 575 mm. — [*A. rapax.*]
B. Nostrils round, as high as broad.
  c′. Wing, female over 540 mm., male 486-501 mm. — *A. clanga.*
  d′. Wing, female under 510 mm., male 470-505 mm. — *A. pomarina.*

[Note:—THE HIMALAYAN GOLDEN EAGLE, *Aquila chrysaëtus hodgsoni (1746)*, has not been recorded from Burma but is found in Eastern Assam and should be looked for in the mountains of Northern Burma. Length about 3 feet. The plumage is dark, varying in adults from almost uniform tawny to chocolate-brown with a tinge of yellowish on the head. Young birds have the tail white with a broad black band at the end. In flight resembles a Buzzard, but much larger with broad wings and wide-spread upward-curving primaries. Usually a silent bird.]

THE EASTERN STEPPE EAGLE
Aquila nipalensis nipalensis (1748).

Local Names. — Burmese: *Wun-lu* (ဝဏ္ဏလူ)

Identification. — Length 25 to 28 inches, female larger than the male. A large brown bird, the shade varying from light to dark, of rather fierce ap-

pearance with sharply hooked beak and feathered legs armed with sharp claws; it sits heavily on the tops of trees or on the ground, or soars in great circles above the Kites, from which it is easily distinguished by rounded tail and larger size. Habits help to distinguish it from the Spotted Eagle, from some adults of which (those without white at the base of the tail) the Steppe Eagle is not distinguishable in the field; the latter haunts tree-less plains and generally flies low, rarely soaring, whereas the Spotted Eagle is partial to well-watered and swampy localities, and soars to great heights. The immature Steppe Eagle is not boldly spotted like the young Spotted Eagle, the ground colour is a good deal paler, and the juvenile has two fairly distinct buffish wing-bars, though these afterwards disappear.

Status and Distribution. — The typical race breeds in Central Asia and Northern China, and winters in Southern China, India and North-east Africa. It is not uncommon in the plains of Southern Burma and Tenasserim in winter, and might be seen in open country anywhere in Burma.

[Note:— THE TAWNY EAGLE, *Aquila rapax vindhiana (1749)*, is the commonest Eagle of India, but there is no proof that it occurs in Burma, apart from one record based on eggs alone. For the present therefore it is not admitted to the Burma List. In appearance it closely resembles the Eastern Steppe Eagle.]

THE GREATER SPOTTED EAGLE

Aquila clanga (1750).

Identification. — Length 26-29 inches. A large dark brown Eagle, unspotted when adult, but with broad whitish or buff spots in immature plumage. It is like the next species, and not always distinguishable in the field; birds showing well-marked white on the upper tail-coverts are *clanga*, but those having a little dingy white or none at all may be either species. Habits are also rather different, the Lesser Spotted Eagle being more of a woodland bird, though hunting over open country, without such a pronounced liking for water as *clanga* has. The note is said to resemble the high-pitched barking of a small dog. The flight is direct, with regular, leisurely and powerful wing-beats; the bird often glides for long stretches with no perceptible movement of the wings except for a single downward stroke now and again; it frequently soars to great heights.

Status and Distribution. — This species has a wide breeding range in Eastern Europe and Asia including North-east India. It winters in North-west Africa, eastwards to India and Burma, and it occurs as a rare vagrant in the British Isles; in this country it is probably a winter visitor in small numbers and has been recorded from Arakan, Thayetmyo, the Sittang plain, and Tenasserim, and there is one recent record from the Paunglin In, Minbu district.

THE INDIAN LESSER SPOTTED EAGLE

Aquila pomarina hastata (1751).

Identification. — Length 23 inches. See under preceding species. Its call is described as a very high-pitched cackling laugh.

Status and Distribution. — This species is found from Eastern Europe eastwards to India. It is resident over almost the whole of India but the only record for Burma is a century-old one from Arakan. It is said to occur in Northern Burma and as far south as Pegu (F. B. I., Vol. V, Page 76) but no records are traceable.

BONELLI'S EAGLE

Hieraëtus fasciatus fasciatus (1752).

Identification. — Length 25-27 inches. A far more courageous bird than the Eagles described so far, with more slender build, smaller beak and longer feet and tail. The adult is brown above and white to rufous-buff below, streaked

with blackish; the pale plumage under the wing is noticeable in flight; there is a broad subterminal black band on the tail; young birds however lack this band, and are paler above. The call is said to be a shrill creaking cry. The flight is swift and powerful and the carriage very majestic and imposing. It frequents well-wooded and well-watered country and feeds much on waterfowl of all kinds. These birds nearly always work in pairs; from a great height they swoop down at terrific speed to snatch a fowl or Pigeon, the rush of the wings making a noise like a huge rocket going through the air. In pursuing a Pigeon the tactics employed are for one bird to follow the quarry, relentlessly pursuing it wherever it turns, while the other Eagle flies above, ready to swoop when the opportunity offers, or to continue the chase if the first bird is outdistanced. Poultry and other small ground game are taken in a sudden swoop, and are gone before the owner has realised what has happened.

Nest and Eggs. — The breeding season is from November to February. It builds a huge nest of sticks either on a cliff or in a tall tree, and lines it carefully with green leaves. It is said to use occasionally the old nests of Vultures or other Eagles. The eggs, normally 2 (rarely 3 or 1) in number, are pure white with or without very faint flecks of pale reddish; a few are fairly well marked with light reddish-brown. The eggs average 2·51 by 1·96 inches.

Status and Distribution. — This species has a wide range in Southern Europe and South-west and Central Asia. It is found throughout India and in Burma has been recorded from Central Burma (Monywa, Myingyan, Maymyo) and Taunggyi (Southern Shan States). Its status is uncertain, but it is said to have been found breeding at Sagaing and is therefore probably resident.

THE BOOTED EAGLE

Hieraëtus pennatus (1753).

Identification. — Length 19-24 inches, the female considerably larger than the male. Resembles the preceding species but smaller. It is a bold powerful bird for its size, preying on all kinds of small mammals and birds.

Status and Distribution. — This species is found in Southern Europe, Northern Africa, West and Central Asia to India, Burma and Malaya; though it has been found breeding in India on several occasions, it occurs mainly as a winter visitor. In Burma it has been recorded from Thayetmyo, the Southern Shan States, Thaton and Tenasserim, and is probably a winter visitor only; so far there are no breeding records.

THE RUFOUS-BELLIED HAWK-EAGLE

Lophotriorchis kieneri (1754).

Local Names. — None recorded.

Identification. — PLATE XIX, Fig. 7, Page 322. Length 20 inches. In flight the under surface of the wings and tail is pale grey in contrast to the deep rufous abdomen and white throat and upper breast. Young birds are brown above, the feathers with pale edges and dark centres, and there is a broad white eyebrow extending in a line across the forehead; the under-parts are white throughout. Rapid wing-beats in flight.

Voice. — A plaintive scream is the only note described.

Habits and Food. — This is a forest Eagle, frequenting both evergreen and deciduous forest from the foothills to about 5,000 feet. It is a most courageous bird and very like the Falcons in its flight and manner of stooping and killing prey. It feeds much on game, especially on Junglefowl and Pheasants, stooping at them as they are

running along the ground or actually squatting amongst grass or cover. It is extremely quick in its movements and dashes headlong through the forest without coming to grief.

Nest and Eggs. — The breeding season is from the middle of December to the middle of March. The nest is a massive structure of sticks built high up in a tall tree standing in dense forest. There is a lining of green leaves, which is sometimes replaced by a fresh supply when withered. The solitary egg is a dull grey-white, nearly always flecked and blotched with light red. The average size is 2·41 by 1·89 inches.

Status and Distribution. — This species is found in India and the Malay islands to the Philippines, but it appears to be a rare bird throughout its range. In Burma it has only been recorded twice, at Thandaung and in the Kabani reserve, Toungoo district, but judging by its distribution it should occur in other parts of the country; its status is uncertain.

THE INDIAN BLACK EAGLE

Ictinaëtus malayensis perniger (1755).

Identification. — Length 27 inches. Whole plumage blackish except for a white patch under the eye and the tail, which is blackish barred with grey. The feet are bright yellow and bill greenish-horny. Young birds are paler brown, with oval drops of tawny-brown on the throat and breast. The call is said to be a discordant squeal. This magnificent Eagle keeps much to the interior of evergreen forest, though it may sometimes be seen sailing in small circles, Harrier-fashion, low over a forested hillside. It feeds often on worms, frogs, lizards and large insects and is said to be a confirmed robber of the eggs and young of other birds. It also kills Pheasants, Jungle-fowl and Wood Partridges on occasion. The flight is generally deliberate, but it is capable of immense speed and is very active through heavy forest.

Nest and Eggs. — The breeding season is prolonged, from December to early May, but most eggs are laid between November and March. The nest is built in a large tree, usually in evergreen forest, and varies from a neat compact structure 2 feet in diameter to a massive affair 4 feet in diameter. The eggs are the most handsome and the most varied of all Eagles' eggs. The ground colour is white or nearly so, and the markings may consist of numerous fine pale-red freckles, or large bold blotches of reddish-brown, or deep grey blotches and clouds. The eggs average 2·47 by 1·96 inches.

Status and Distribution. — This species is found throughout India, Burma and Malaya to the Celebes. In Burma it has been recorded from the Chin Hills, North-East Burma, and Tenasserim, but probably occurs also in some of the intervening areas. Its status is uncertain, and there are as yet no breeding records.

KEY TO THE GENUS *NISAETUS*

A. Feathering of tarsus not extending to division of toes — *N. cirrhatus.*

B. Feathering of tarsus extending to base of toes.
  a. Large. Wing over 16 inches — [*N. nipalensis.*]
  b. Small. Wing under 13 inches — *N. alboniger.*

THE CHANGEABLE HAWK-EAGLE

Nisaëtus cirrhatus limnaëtus (1758).

Allied Form.—

THE INDIAN CRESTED HAWK-EAGLE, *N. c. cirrhatus (1756).*

Local Names. — None recorded.

Identification. — Length 26-29 inches, the female larger than the male. A lightly built slender Eagle, with a proportionately long narrow tail. There are two main colour phases, of which the dark phase is usually considered adult and the pale phase immature. The two races with which we are concerned differ in several points. The Indian Crested Hawk-Eagle has a curious tuft of long black feathers springing from the crown to form a crest; upper-parts dark brown and under-parts either pure white becoming rufous towards the tail, or white heavily streaked with blackish-brown. The Changeable Hawk-Eagle has little or no crest, and appears light grey in colour; it also has a "melanistic" phase, which is very common, and in which the whole plumage is dark brown or even black ; this is liable to be confused with the Black Eagle. Except for this phase the under side of the wing in both races in flight appears white barred and streaked with blackish-brown.

Voice. — The call is a prolonged shrill scream, and the bird is very vociferous, *Yeep-yip yip yip, Yeep-yip yip yip.*

Habits and Food. — This is a bird of forests and well-wooded country near cultivation. It spends much of its time sitting on the tops of tall trees and pouncing occasionally on its prey, which consists mainly of ground-feeding birds and mammals, *e.g.* game-birds, squirrels, rats, etc. In habits it resembles the Hawks far more than the Eagles, and is more often seen flying between the trees than soaring above them.

Nest and Eggs. — The breeding season is from January to April. The nest is a large untidy structure of sticks and branches, well lined with green leaves, and is built near the top of a large tree, usually overhanging a stream. The solitary egg is greyish-white, rarely with a few faint reddish freckles, and averages 2·75 by 2·04 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region. The Indian or typical race has only been recorded once in Burma, at Sumprabum in North-East Burma, and its status is uncertain; the Changeable Hawk-Eagle is a common resident throughout the forests of Burma in the foothills and higher hills.

[Note:—HODGSON'S HAWK-EAGLE, *Nisaëtus nipalensis nipalensis (1760)*, THE CHINESE HAWK-EAGLE, *Nisaëtus nipalensis fokiensis (1761)*. This species closely resembles the Indian Crested Hawk-Eagle (1756), and has the same long black crest. Hodgson's or the typical race has been recorded from Eastern Assam, and the Chinese race is said to occur in Tenasserim, but there appear to be no records thence. This species is therefore not admitted to the Burma List for the present, though it is almost certain to occur sooner or later.]

BLYTH'S HAWK-EAGLE

Nisaëtus alboniger (1763).

Identification. — Length 23 inches. Like the other Hawk-Eagles of this genus but much smaller. Little is known about it.

Nest and Eggs. — Unknown.

Status and Distribution. — Extends from Southern Tenasserim through the Malay States to Borneo.

[Note:— THE SHORT-TOED EAGLE, *Circaëtus gallicus (1764)*, has not been recorded from Burma but is found over most of India to Eastern Bengal and

again in Siam and the Malay States. It is a bird of open country and is most likely to occur in Central Burma or the Shan States. Its cry is described as a plaintive scream. Wing 21 to 23 inches. The general colour of the adult is earthy-brown except for the abdomen and under tail-coverts, which are white barred with pale brown. There is no crest.]

THE BURMESE CRESTED SERPENT EAGLE

Hæmatornis cheela burmanicus (1767).

Local Names. — Burmese: *Lin-yon* (လင်းယုန်)

Identification. — PLATE XIX, Fig. 6, Page 322. Length 26-28 inches, the female larger than the male. The wings appear very broad and rounded, and are held sloping backwards in flight. A narrow black border with a broad white band inside it running along the whole length of the hinder-edge of the wing makes this bird easy to recognise when seen from below.

Voice. — Rather noisy, frequently uttering on the wing a plaintive whistling call of several notes *kuk-kuk-kuk-kuk- queear-queear-queear*, the *kuks* forming a preparatory run up the scale.

Habits and Food. — This is a bird of forests and well-wooded open country. It feeds chiefly on snakes, both poisonous and harmless varieties up to 7 or 8 feet in length, lizards, frogs, insects, and birds. It is very bold and shows remarkably little fear of man, usually allowing a close approach. It often soars in great circles and attains a great height.

Nest and Eggs. — The breeding season is from January to May. The nest is always built in the fork of a tree; it is small for the size of the bird, a loosely made cup of sticks and twigs, lined with fresh leaves, fine twigs and grass roots. The single egg is a broad oval, with a strong shell rough and glossless in texture; the ground colour is bluish- or greenish-white with spots and clouds of pale purple, purplish-brown or brownish-red; some eggs are very heavily marked and handsome. They average 2·75 by 2·20 inches.

Status and Distribution. — This species is widely distributed from Kashmir to Southern China ; the Burmese race is a common resident in the forests of this country, at all elevations.

[Note:—THE CHINESE SERPENT EAGLE, *H. c. ricketti (1768)*, is said to occur in North-East Burma (F. B. I., Vol. V, Page 100) but recent specimens from that area have all been the Burmese race.]

THE WHITE-EYED BUZZARD-EAGLE

Butastur teesa (1774).

Local Names. — None recorded.

Identification. — PLATE XX, Fig. 1, Page 338. Length 16 inches, the female slightly larger. A medium-sized brown Hawk, heavy in build with pointed wings, easily identified by the whitish eyes, prominent white nape-patch, and three dark stripes on the white throat. The axillaries are conspicuous as reddish-brown patches on the white undersurface of the wings. Young birds have the forehead and a broad eyebrow white; feathers of the crown and nape brown with broad

PLATE XX

See Page No.

1. WHITE-EYED BUZZARD-EAGLE (adult)
   Butastur teesa 338

2. RUFOUS-WINGED BUZZARD-EAGLE (adult)
   Butastur liventer 339

3. HIMALAYAN GREY-HEADED FISHING EAGLE (adult)
   Ichthyophaga nana plumbea 342

4. PALLAS'S FISHING EAGLE (adult)
   Haliaëtus leucoryphus 340

5. COMMON PARIAH KITE (adult)
   Milvus migrans govinda 343

6. COMMON BRAHMINY KITE (adult)
   Haliastur indus indus 343

7. BLACK-WINGED KITE (adult)
   Elanus cæruleus vociferus 345

8. BURMESE SHIKRA (adult)
   Accipiter badius poliopsis 349

9. BURMESE BLACK-CRESTED BAZA (adult)
   Baza leuphotes burmana 353

10. PIED HARRIER (adult male)
    Circus melanoleucus 346

PLATE XX

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pale edges; feathers of upper-parts more or less pale-edged; under-parts buffish more or less streaked with dark brown, the chin and cheek stripes narrow or wanting. The flight is quick and strong, with rapid beats of the rounded wings. A bird of the Dry Zone.

Voice. — A very noisy bird, frequently uttering its plaintive mewing cry, *pit-weer, pit-weer,* which varies from a low call to a prolonged squeal.

Habits and Food. — This bird avoids both hills and forest, and frequents open country with low scrub and cultivation; it is a dull sluggish creature, unusually tame for a bird of prey, and spends most of its time sitting on a telegraph post, tree or low bush; thence it makes occasional journeys to the ground to capture the grasshoppers and other insects that form its food. It also sits on the ground and sometimes walks about on foot.

Nest and Eggs. — The breeding season is in the hot weather: March and April. The birds are very leisurely over the building of their nest, which is usually situated in the fork of a shady tree like a mango about 20 feet from the ground; it is a shallow unlined cup composed loosely of twigs and sticks. The eggs, 2 to 4 in number, are broad ovals in shape, fine in texture with a slight gloss, and greyish-white or pale bluish-white in colour, rarely marked with reddish-brown. They average 1·85 by 1·50 inches.

Status and Distribution. — This species is common through the greater part of India, but in Burma is almost confined to the Dry Zone of Central Burma, where it is common; it has also been recorded from Arakan, the Chin Hills, the Upper Chindwin, Thaton, and Amherst in Northern Tenasserim.

THE RUFOUS-WINGED BUZZARD-EAGLE

Butastur liventer (1775).

Local Names. — None recorded.

Identification. — PLATE XX, Fig. 2, Page 338. Length 16 inches. At rest the bird appears dark grey with white thighs, and the yellow bill with a black tip is noticeable; in flight the rufous wings and tail give it a very different appearance; the wings appear rounded and the wing-beat is rapid. Young birds have a distinct whitish eyebrow; generally darker and more heavily streaked with blackish; wing-coverts much mottled and barred with whitish; chin and throat white, brown at the sides; under-parts pale grey.

Voice. — A loud plaintive mewing note or squeal, *chip-hweeee, chip-hweeee,* uttered both from a perch and on the wing.

Habits and Food. — This bird frequents thin forest and open country, often near rivers and lakes. A pair usually hunt together, soaring over the tree-tops in small circles, and occasionally hovering for a second, but never for long like a Kestrel. It feeds on small snakes, frogs, lizards, mice, and large insects, which it seizes on the wing. Freshwater crabs are said to attract the bird to water. In taking its food it sometimes remains on the ground for a minute or two, and it is not unusual to see these birds in grass.

Nest and Eggs. — The breeding season is from February to May. Nest and eggs exactly resemble those of the preceding species, and the eggs average 1·82 by 1·49 inches.

Status and Distribution. — This species ranges from Burma and Yunnan through Siam to Java and Borneo. It is found throughout Burma, and is fairly common, especially in the Shan States. A pair usually breeds at Maymyo.

THE GREY-FACED BUZZARD-EAGLE

Butastur indicus (1776).

Identification. — Length 17 inches. The tail has no rufous tinge, and has broad dark bands, features that distinguish this from the other Buzzard-Eagles. Eye bright yellow.

Status and Distribution. — This species has a wide range in the eastern part of the Oriental Region but does not occur in Burma outside Tenasserim. Its status is uncertain, but it is probably a winter visitor.

THE WHITE-BELLIED SEA EAGLE

Haliaëtus leucogaster (1778).

Local Names. — Burmese: *Wun-lo* (ဝဉ်လို)

Identification. — Length 28 inches. Whole head and under-parts pure white; upper-parts ashy-brown, the wing-tips blackish; tail blackish with a broad white tip. In sailing flight the wings are held above the body in an open V. Young birds have the head, neck and under-parts tawny. It has a loud clanging cry of many notes, audible at a great distance. Entirely a coastal bird, though it may be found up the tidal estuaries of the larger rivers. It does not wander far from its breeding haunts, fishing near the nest and often using it as a larder after the young have hatched. It feeds mainly on fish, occasionally on snakes, lizards, frogs, birds, and carrion.

Nest and Eggs. — The breeding season is from October to December. The nest is very large, often made of branches and sticks of considerable size, and is used year after year, being merely patched with a few more sticks when necessary. Nests have been recorded nine feet across and six feet deep. The eggs, 2 in number, are pure white, coarse-grained, with an inner membrane of deep green; they average 2·84 by 2·12 inches.

Status and Distribution. — Found on the coasts of India, Burma and Ceylon, thence through the Malay Archipelago to Australia and Western Polynesia. It is said to be more or less abundant on the coast of Burma, ascending the larger rivers for a distance of 60 miles or so.

PALLAS'S FISHING EAGLE

Haliaëtus leucoryphus (1779).

Local Names. — Burmese: *Wun-bo* (ဝဉ်ဘို)

Identification. — PLATE XX, Fig. 4, Page 338. Length 32 inches, the female larger. When soaring it appears as a dark bird with buff head, cheeks and neck, and a white tail with a black tip. The lovely chestnut-sandy colour of the head and nape can only be seen in a good light when the bird is at rest, and the white band across the tail appears much wider than it really is (4½ inches). Young birds are all brown above, with pale fringes to the feathers; tail dark brown, sometimes mottled with white at the base; chin and throat tawny with darker centres to the feathers; remaining under-parts pale brown.

Voice. — It has a sonorous whinnying call, heard throughout the cold weather and said to resemble the shrieking of an ungreased cart-wheel.

Habits and Food. — In contrast to the last species, this bird is almost entirely a freshwater fisher. It is usually seen perched on the top of a gigantic *letpan* tree or a low mud cliff, or else beating up and down the river with somewhat hurried flight. It soars well and attains tremendous heights in the air.

The staple food of this Eagle is undoubtedly fish. It does not plunge for them like an Osprey, but takes those that have ventured into the shallows or become stranded in drying pools. It has been known to capture a thirteen-pounder, but with a fish of this size it makes no attempt to rise to any height, the struggling prey being dragged along over the surface of the water to the nearest bank and eaten there. When fishermen are dragging a river with nets they are often attended by one of these birds, which tries to steal any fish left unguarded on the bank. Wounded Duck or Geese on a river are soon picked up, though the Eagle is hardly fast enough to take them when uninjured. It is also a pirate, trying to rob Cormorants and Terns of their fish or Harriers and Eagles of their varied booty. Carrion is not too mean for its attention and it may be seen feeding on carcasses floating down the river. All things considered however it is a fine bird, and much nearer to the popular conception of an Eagle than many other Burmese species of that group.

Nest and Eggs. — The breeding season is from November to February. The nest is usually built at the top of a large tree, often an isolated one within easy distance of a jheel or river. Solitary *letpan* trees afford favourite sites. The nest is a huge platform of sticks, some of which are often as thick as a man's arm, with a superstructure of thinner sticks and twigs. The slight depression made to hold the eggs is lined with fine twigs and green leaves and sometimes rushes and straw. The whole structure is rough and rugged and as much of the material brought to it is rejected or dropped it takes a long time to build. It may be repaired and used again from year to year, having perhaps been borrowed in the meantime by an Owl or a Vulture. The eggs, 2 or 3 in number, are broad ovals in shape, rather fine and smooth in texture, and greyish-white in colour, but the shell appears intensely dark green if held to the light. The eggs average 2·77 by 2·17 inches.

Status and Distribution. — This species ranges from Southern Russia through Central Asia to India and Burma. It is found throughout Burma on the jheels and larger rivers (recorded from Arakan, North-East Burma, Central and Southern Burma, and Tenasserim). Its status is uncertain; it appears to be a cold weather and hot weather resident, and to be absent in the rains, but where it goes is unknown.

THE LARGE GREY-HEADED FISHING EAGLE

Icythyophaga icthyaëtus icthyaëtus (1780).

Local Names. — None recorded.

Identification. — Length 29 inches. Differs from the next species in its lighter colour and in having the upper surface of the tail white except for a dark brown band across the terminal quarter, and from Pallas's Fishing Eagle in its dark brown head. Young birds have the white of the tail heavily mottled with brown; upper-parts dark brown, the head and neck streaked with whitish; chin, throat and sides of head grey; breast and flanks pale brown, broadly streaked with white.

Voice. — A very loud deep call.

Habits and Food. — This Eagle seems to require woods as well as water and spends most of the day perched on some tree watching for fish, upon which it swoops with great speed and accuracy; its food is similar to that of Pallas's Fishing Eagle, and it has been known to capture a mahseer of which the remains alone weighed over 12 lbs.

Nest and Eggs. — The breeding season is from November to early March. The nest, which is the usual huge structure of branches occupied year after year, is nearly always found in a tree directly on the bank of a large river or small stream. The eggs, 2 to 4 in number, are pure white, but nearly always much stained; they average 2·70 by 2·04 inches.

Status and Distribution. — This species has a wide distribution throughout the Oriental Region, including most of India and Burma. In this country it is sparingly distributed throughout in suitable localities, but appears to be absent from North-East Burma.

THE HIMALAYAN GREY-HEADED FISHING EAGLE

Icthyophaga nana plumbea (1783).

Allied Form.—

THE MALAY GREY-HEADED FISHING EAGLE, *I. n. nana (1782).*

Local Names. — None recorded.

Identification. — PLATE XX, Fig. 3, Page 338. Length 23-25 inches. In both this and the preceding species the white thighs, abdomen and under tail-coverts contrast sharply with the dark brown breast and abdomen. This species differs in having the central tail-feathers brown throughout on the upper surface, and the lateral ones mottled white and brown on the basal two-thirds.

Voice. — Except that it is said to be extremely noisy on moonlight nights nothing has been recorded.

Habits and Food. — This is a forest bird of the foothills and higher hills, frequenting the banks of rivers and streams, but avoiding estuaries. Little is known of its habits.

Nest and Eggs. — The breeding season varies from January to April. The nest is typical of the genus, and the eggs, 2 or 3 in number, only differ from those of the preceding species in being smaller, averaging 2·54 by 1·97 inches.

Status and Distribution. — This species is found from the Central Himalayas eastwards through Burma to Sumatra. In this country it appears to be a rare bird, but has been recorded from the Upper Chindwin, Pegu river, Southern Shan States and Tenasserim.

THE COMMON BRAHMINY KITE

Haliastur indus indus (1784).

Allied Form.—

THE MALAY BRAHMINY KITE, *H. i. intermedius (1785).*

Local Names. — Burmese: *Sun-gaung-byu* (သွန်ခေါင်းဖြူ) i.e. "The Kite with a white head".

Identification. — PLATE XX, Fig. 6, Page 338. Length 18 inches; the female is considerably larger. The dark stripes on the white parts are not visible on the wing. Young birds are brown above with pale tips to the feathers; head and neck paler with broad terminal streaks of tawny; chin and throat tawny; under-parts rufous-brown broadly streaked with tawny. In intermediate plumage the head, neck and breast are pale rufous, with black lines as in the adult. Rounded tail prevents confusion at all ages with the Pariah Kite.

Voice. — A long shrill mewing squeal *chee-e-e*, said to be like that of a Pariah Kite suffering from acute hoarse throat.

Habits and Food. — This bird resembles the Common Pariah Kite in its flight and habits, except that it is always found near water. It is catholic in its tastes, and favours equally the largest lakes and rivers, small village ponds, and the headwaters of streams in deep forest, where the Pariah Kite never penetrates. Over paddy fields it beats back and forth like a Harrier, but does not fly so close to the ground, or floats lazily in wide circles overhead. It is very partial to fishing villages, perching on trees, posts, or houses, and pouncing on any scrap of fish-offal thrown away or on such fish as it can steal; it can also catch fish for itself, but prefers crabs, frogs, small reptiles and insects. It sometimes robs Crows and Pariah Kites of their food.

Nest and Eggs. — The breeding season is from January to March. The nest is built in a tree, usually a solitary one growing in cultivation or on the shores of a jheel, less often in thin forest. It is a large loose structure of sticks, either unlined or with a sparse lining of green leaves; some nests are lined with mud or with oddments such as wool, grass, hair, etc. The eggs, 2 (rarely 3) in number, are moderately broad ovals in shape, fine and hard in texture with a slight gloss, and greyish-white in colour, either unmarked or feebly speckled and blotched, mostly towards the larger end, with various shades of dull red and brown. The eggs average 2·00 by 1·65 inches.

Status and Distribution. — This species has a wide distribution in the Oriental Region, extending to Australia. It is a common resident throughout Burma.

THE COMMON PARIAH KITE

Milvus migrans govinda (1787).

Allied Form.—

THE LARGE INDIAN KITE, *M. m. lineatus (1788).*

Local Names. — Burmese: *Sun* (သွန်) or *U-bok-saung-the-hgnet*, because they go away for the Buddhist Lent.

Identification. — PLATE XX, Fig. 5, Page 338. Length 24 inches (1787) or 28 inches (1788). On the wing the forked tail distinguishes it from all similar birds. Young birds have a white patch under the eye; upper-parts darker brown than in the adult, with broad pale streaks on the head and the feathers elsewhere tipped or edged pale; under-parts brown with broad whitish streaks. One of the most familiar birds of the plains in the cold weather. The flight is unmistakable with its lightness and buoyancy, long leisurely strokes alternating with short glides, and the direction continually changing with spirals and cants. The Large Indian Kite differs from the Common Pariah Kite in having white patches on the under surface of the wings at the base of the primaries and a much less deeply forked tail, which appears almost straight-edged when fully expanded.

Voice. — A shrill mewing squeal, long-drawn and almost musical, is freely uttered.

Habits and Food. — The Kite is a fearless scavenger and more or less spends its whole life in attendance on man, either robbing him of food that he fain would keep or eating the offal that he has thrown away. Numbers frequent every bazaar and village, and municipal rubbish dumps offer a special attraction. There they may be seen perching on buildings or trees, sitting on the ground, or patrolling in wide circles and searching for food, which is taken with a swift stoop and a snatch; as the bird flies away it transfers the morsel from its foot to its beak, though larger fragments are taken to a perch to be devoured at leisure. The woodlands round the Royal Lakes in Rangoon are one of the principal strongholds of these Kites, and the evening flight is quite a feature of the town; a large troop of them hawking termites on the swarm affords a wonderful sight. After a shower of rain numbers resort to grassy maidans and waddle about picking out earthworms. Odd birds may be seen far out on the mud-flats of the coast.

Nest and Eggs. — The breeding season is from November to February. The nest is usually built in a large tree, often in a town or village, and is a large clumsy mass of sticks lined and intermingled with rags, leaves, tow, and other rubbish. The eggs, 1 to 4 in number, are perfect ovals in shape, hard and fine in texture, often with a slight glaze, and pale greenish- or greyish-white in colour, blotched, clouded, speckled and streaked with various shades of brown and red; the colour and markings are very variable. The eggs average 2·20 by 1·75 inches.

Status and Distribution. — This species is represented by various races in all the continents except America and the race known as the Black Kite has occurred in England. The Common Pariah Kite is the breeding form of India, Burma and Ceylon, but in this country it starts leaving in May and disappears by early June; where it goes in the rains is unknown, but two birds have been seen in Central Burma on the 7th July, so that some birds may spend the rains in the Dry Zone; others probably migrate to India and a flock of at least 50 birds has been observed migrating up the Sittang valley on the 4th June; it returns about the middle of September. The Large Indian Kite breeds

in Japan, Northern China, and the Himalayas. In Burma it arrives in large numbers from the 24th August onwards long before *govinda* has appeared, and remains till the middle or end of April; it is thought to be a winter visitor, but it is said to breed in Assam, and may do so in the higher ranges of Northern Burma.

THE BLACK-WINGED KITE

Elanus cæruleus vociferus (1789).

Local Names. — None recorded.

Identification. — PLATE XX, Fig. 7, Page 338. A small handsome little Kite, with pure white under-parts. Young birds have the crown feathers brown with broad white edges; upper-parts more brown, the feathers broadly edged with white. Its habit of hovering and its pale grey colour distinguish it at once in the field. It flies with slow deliberate wing-beats like a Roller.

Voice. — It occasionally utters a high-pitched squeal, characteristic and arresting, but is normally a silent bird.

Habits and Food. — This is typically a bird of the paddy plains, where it is seen singly working over the ground like a Kestrel, occasionally hovering rather cumbrously, and pouncing on rats, mice, locusts, crabs, and sometimes small birds. It may also be seen in well-wooded country with some cultivation and scrub, but it avoids forest. It is rather sluggish during the day, but is much more active in the mornings and evenings. When perched it has a habit of cocking its tail from time to time and jerking it up and down between the drooping wings.

Nest and Eggs. — This bird seems to have two breeding seasons, one in the cold weather and another in the rains, but nests have been found in almost every month of the year. The nest is built in a tree, usually in the open, and is made of sticks loosely and clumsily put together; it is not large for the size of the bird. Some nests have a good lining of roots and coarse grass, others have none. The eggs, 3 to 5 in number, are white to buff, heavily blotched and smeared with deep red or red-brown, some appearing uniform brick-red. They are handsome eggs and average 1·55 by 1·22 inches.

Status and Distribution. — This species is found in Africa, India and Burma. It is sparingly distributed throughout Burma, excluding Southern Tenasserim, and ascends the hills to 5,000 feet or more. In Northern Burma it seems to occur only in the dry season.

KEY TO THE HARRIERS.

(For field characters of the Harriers, see under Hen-Harrier).

A. Exposed bill over 29 mm. — *C. æruginosus.*
B. Exposed bill under 29 mm.
  a. Primaries 2, 3 and 4 emarginate on outer web.
    a'. Second primary shorter than fourth. Tarsus over 64 mm. — *C. macrourus.*
    b'. Second primary usually longer than fourth. Tarsus under 64 mm. — [*C. pygargus.*]

b. Primaries 2, 3, 4 and 5 emarginate on outer web.

c'. Second primary shorter than fifth — *C. cyaneus.*
d'. Second primary longer than fifth — *C. melanoleucus*

Daung-sun (ဒေါင်းစွန်း) is a Burmese name apparently applicable to all Harriers.

THE PALLID HARRIER

Circus macrourus (1790).

Identification. — Length 17-19 inches, female rather larger than the male. The adult male is a strikingly pale grey bird; the absence of a pure white rump-patch, and the nearly white breast and sides of head distinguish it from the similar male Hen-Harrier; the black on the wing-tips is also less extensive. Females and young are indistinguishable from those of Montagu's Harrier. For general characters of the Harriers see under Marsh Harrier.

Status and Distribution. — Breeds in Eastern Europe and South-west Asia. It has been recorded twice from the British Isles, and is a winter visitor to Burma, not uncommon in the Sittang plain and also recorded from the Southern Shan States and Arakan.

[Note:—MONTAGU'S HARRIER, *Circus pygargus (1791).* There are only very old and unreliable records of this species in Burma, and it is therefore not admitted to the Burma List. The male differs from the male Hen-Harrier in having a dark bar across the secondaries, which shows also on the under side of the wing, and in the grey or greyish-white rump; never a broad area of pure white as in the Hen-Harrier. At close range the rufous streaks on the flanks can be seen. Female and young are not distinguishable from the Hen-Harrier.]

THE COMMON HEN-HARRIER

Circus cyaneus cyaneus (1792).

Identification. — Length 17-20 inches. The blue-grey male closely resembles males of the Pallid and Montagu's Harriers; for distinctions see under those birds. Females and young are not distinguishable in the field. For general characters of Harriers see under Marsh Harrier.

Status and Distribution. — A Holarctic species; a winter visitor to the British Isles (breeding in the Orkneys) and a winter visitor to Burma, but only recorded once: on the Irrawaddy in North-East Burma.

THE PIED HARRIER

Circus melanoleucus (1793).

Local Names. — Burmese: *Thein-gya* (သိန်းကြာ)

Identification. — PLATE XX, Fig. 10, Page 338. Length 17-18 inches. On the wing the male is a conspicuously pied bird, appearing more white than black. The wings are white with black tips and black patches near the body connected by a black patch across the back. The female is not distinguishable from females of the Pallid and Montagu's Harriers in the field.

Voice. — The call is a weak but rapid *wek-wek-wek,* seldom uttered. At the nest the female utters a loud sixfold "chack-ing" note, like that of a Magpie.

Habits and Food. — Similar to those of the Marsh Harrier.

Nest and Eggs. — The breeding season is in April and May. The nest is usually out on a dry open plain in a natural hollow of the ground, which is lined with grass and leaves. The eggs, 4 or 5 (occasionally 6) in number, are broad obtuse ovals in shape, white in colour, sometimes unmarked but usually spotted or blotched with reddish-brown. They average 1·75 by 1·35 inches.

Status and Distribution. — This species breeds in Eastern Siberia, Mongolia and Northern China, and a nest was recently found near Myitkyina; it migrates south in winter to the Oriental Region as far west as the eastern parts of India. Most birds are winter visitors to Burma, arriving in September and leaving in April, but some of those seen in April and May are likely to be breeding birds. It is common throughout Burma in the cold weather, but disappears in the rains.

THE COMMON MARSH HARRIER

Circus æruginosus æruginosus (1794).

Local Names. — Burmese: *Daung-sun* (ဒေါင်းစွန်း).

Identification. — Length 19-22 inches. Harriers are large long-winged, long-tailed, and long-legged hawks frequenting open country. Their flight is characteristic, often only a few feet from the ground or above the tops of the reeds or crops; several leisurely wing-beats are followed by a glide on stiff half-raised wings with banking and turning at intervals; at times they will rise in wide circles to a great height. When hunting they quarter the ground with much regularity and seize their prey by a sudden pounce.

The Marsh Harrier is the largest species occurring in Burma, with broader more rounded wings, slower flight and heavier build than the others. The plumage is predominantly dark rusty-brown, much the commonest phase having lighter buffish shoulders and head. The adult male has the tail, secondaries and some coverts ashy-grey, so that in flight the wings show a broad oblique band of grey contrasted with the black wing-tips.

Voice. — Generally silent outside the breeding season.

Habits and Food. — Like the other Harriers, this bird is usually seen hunting over the paddy plains, marshes and jheels, dropping occasionally to the ground in a rather clumsy fashion after some unwary bird or humbler quarry; it will wait on the sportsman to pick up wounded or dead birds. It settles on posts, bushes, or on the ground and it will occasionally perch on the low branch of a dead or fallen tree, but never at any height from the ground. It roosts on the ground amongst reeds or swamp vegetation and feeds chiefly on frogs.

Status and Distribution. — A Palæarctic species, found throughout the greater part of Europe, Asia, and Africa, either as a breeding bird or as a winter visitor. A very few pairs still breed in England (Norfolk). In Burma it is not uncommon from October to March,

this and the Pied Harrier being the two common Harriers. It is suspected of breeding in India but so far there is no proof.

THE EASTERN MARSH HARRIER

Circus spilonotus (1795).

Identification. — Differs from the preceding species in having the abdomen plain white or buff with dark streaks, as opposed to dark brown or rufous-brown.
Status and Distribution. — This species breeds in Tibet and Western China, It has been recorded in Burma as a winter visitor in the Southern Shan States and near Moulmein, and it has been seen near Mogok.

KEY TO THE BUZZARDS.

Owing to the extreme individual variation in the Buzzards it is almost impossible to distinguish the different species in the field. As notes on their occurrence and distribution in Burma are badly wanted the following key, which will enable specimens to be named, is inserted.

A. Adults

A. Tail more brown than rufous, with 4-12 transverse bars, not always distinct.
  a. Tail with 1 subterminal and 7 other bars, the base and inner webs of the tail-feathers white; flanks dark brown — [*B. hemilasius.*]
  b. Tail with 4 or 5 nearly obsolete dark bars; flanks and thighs rufous — *B. burmanicus.*

B. Tail more rufous than brown, the bars obsolete except for the subterminal one — *B. rufinus.*

B. Immature

A. Tail uniform brown — *B. burmanicus.*
B. Tail brown or ashy-brown with transverse bars.
  a. Thighs buff streaked with dark brown — *B. rufinus.*
  b. Thighs ashy-brown, spotted with white — [*B. hemilasius.*]

THE LONG-LEGGED BUZZARD

Buteo rufinus rufinus (1796).

Identification. — Length 22-24 inches, wing 16½-18 inches, the female larger than the male. A heavy lumpish bird that sits dully on trees and on the ground. In soaring the rounded tail is spread and the wings seen from below are peculiarly moth-like in the arrangement of the pattern, a crescent-shaped patch at the base of the outer flight-feathers being distinctive. The colour is very variable, with a pale phase and a dark phase and innumerable gradations between them; most specimens have the rounded tail rufous.
Status and Distribution. — This species is found in South-east Europe, North-east Africa and Asia. It has only been recorded once in Burma, at Fort Hertz.

[Note:— THE UPLAND BUZZARD, *Buteo hemilasius (1797)*, is said to occur in Burma in winter (F. B. I., Vol. V, Page 141) but no records are traceable. Breeds in Japan, South-east Siberia, Tibet, and the Himalayas. For distinctions from other Buzzards see key above. It is the largest of the three, wing 19-20 inches.]

THE JAPANESE DESERT BUZZARD

Buteo burmanicus (1799).

Identification. — Wing 18 inches or under. See key above. Distinguished from the preceding species by smaller size.

Status and Distribution. — Breeds in Japan and China and possibly the Northern Himalayas and migrates south in winter; it is a rare visitor to Burma. Buzzards have been seen several times in Central Burma and also at Thandaung, but the species has not been identified for certain.

THE EASTERN GOSHAWK

Accipiter gentilis schvedowi (1801).

Identification. — Length 19-23 inches; female considerably larger than the male. Resembles a huge Sparrow-Hawk, having the same long tail and rounded wings; the colouring recalls that of the female Sparrow-Hawk, dark ashy above, with a whitish streak from the eye over the ear-coverts, whitish below closely barred with dark brown, and tail strongly barred. Young birds have the under-parts warm buff streaked, not barred, with broad drop-like markings of dark brown. A silent bird except near the nest. In ordinary flight and habits it is like the Sparrow-Hawks, except that being a much larger and more powerful bird it takes bigger game. In its hunting flights it combines speed with a perfect control of movement, the broad wings and long tail enabling it to thread its way swiftly amongst tree trunks or other obstacles and to check its course or perform abrupt turns with the utmost facility. It either waits on a suitable perch or flies low amongst trees or along the borders of woods and fields, relying in either case on a lightning dash on its quarry, often with a long glide at the end, killing it by a formidable grip of the huge claws.

Status and Distribution. — A Holarctic species; the typical race is a rare vagrant to the British Isles. The Eastern race breeds in Northern and Central Asia and is a winter visitor to Northern India and Burma. It has only been recorded twice in Burma, near Myitkyina and near Bhamo.

THE BURMESE SHIKRA

Accipiter badius poliopsis (1805).

Local Names. — Burmese: *Gyo-thein* (ကျိုးသိန်း)

Identification. — PLATE XX, Fig. 8, Page 338. Length 12-14 inches; female larger than the male. Young birds have the under-parts white with broad dark brown streaks (not bars), becoming spots on the abdomen; upper-parts dark brown, the feathers edged with rufous; white bases of neck-feathers often show through strongly. The common type of small Hawk in Burma, found sitting in trees, or soaring over fairly open country; distinguished from the Sparrow-Hawks by smaller size, stouter feet, shorter toes, and paler coloration.

Voice. — This is a rather noisy Hawk, and the shrill call of two notes, *titu-titu,* is a familiar sound in the breeding season.

Habits and Food. — It prefers cultivated land with plenty of large trees, but it is also to be seen in the heart of the teak forests, where it frequents streams and glades. It spends most of its time sitting up in the leafy branches of large trees whence it keeps a sharp look-out and launches surprise attacks on its prey; but it is also fond of soaring high in the air, circling for a time with wings outstretched and then flapping them vigorously. It feeds on lizards, frogs, grass-hoppers and small birds; I have seen it taking a Swallow on the wing, and killing a Red-breasted Parrakeet on the ground.

Nest and Eggs. — The breeding season is in March and April. The nest is a loosely built cup of twigs and sticks, lined with fine grass roots, built in the fork of a tree. The eggs, 3 to 5 in number, are moderately long ovals in shape, smooth fine and glossless in texture,

and a delicate pale bluish-white in colour, normally unmarked but occasionally slightly speckled with grey. They average 1·55 by 1·22 inches.

Status and Distribution. — This species has a wide distribution from Central Asia and Southern Persia throughout India, Burma, and Ceylon and eastwards to Southern China. It is a common resident throughout Burma.

HORSFIELD'S GOSHAWK

Accipiter soloensis (1808).

Identification. — Size of the Shikra, but ashy-black above and either white or white more or less deeply tinged with rufous below.

Nest and Eggs. — Unknown.

Status and Distribution. — Found throughout the eastern part of the Oriental Region from Southern China to New Guinea, but only entering Burma in Southern Tenasserim .

THE NORTHERN CRESTED GOSHAWK

Accipiter trivirgatus indicus (1810).

Allied Form.—

THE CRESTED GOSHAWK, *A. t. trivirgatus (1809).*

Local Names. — None recorded.

Identification. — PLATE XIX, Fig. 2, Page 322. Length 16 inches. The thin pointed black crest, which lies very flat, is distinctive. In flight the wings appear broad and rounded and the whole under surface is very pale, with some blackish barring, the under tail-coverts however being pure white. Young birds have the under-parts buff or pale rufous, the throat and breast with broad spots of dark brown, and the thighs more or less barred with the same colour; head-feathers dark brown broadly edged with tawny; a broad tawny eye-brow.

Voice. — It is said to have a shrill cry of one syllable, or a shrill prolonged yelp. It also makes a hoarse chuckling note, and when attacking nest-thieves screams loudly and utters deep croaks as it swoops.

Habits and Food. — This is a forest bird, spending much of its time on trees, high up and well screened by foliage, whence it can see and watch for its prey without being seen itself. It lives principally on frogs and lizards, small mammals and birds.

Nest and Eggs. — The breeding season is in March and April. A large nest of sticks and twigs, lined with green leaves, is built high up in a tree in forest. The eggs, 2 or 3 in number, are like large Shikra's eggs, and average 1·91 by 1·56 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is found in most parts of Burma, but is rather scarce.

THE INDIAN SPARROW-HAWK

Accipiter nisus melanoschistus (1812).

Allied Form.—

THE ASIATIC SPARROW-HAWK, *A. n. nisosimilis (1811).*

Local Names. — Burmese: *Thein* (သိန်း)

Identification. — Length 11-15 inches; female considerably larger than the male. Long tail, broad rounded wings, barred not streaked under-parts, and characteristic mode of hunting distinguish the Sparrow-Hawk. The male looks like a large Shikra (Plate XX, Fig. 8); the female has the upper-parts considerably browner, a whitish eye-streak, and the under-parts whitish, or only slightly rufous except on the flanks. Young birds have the upper-parts brown with lighter rufous edgings to the feathers and the barring of the under-parts broader and more irregular. In the hand all species of Sparrow-Hawk are easily recognised by the very long middle toe, which greatly exceeds the lateral ones in length.

Voice. — In the breeding season it utters a shrill *trek-trek-trek* ending in a scream, but is silent at other times of the year.

Habits and Food. — When hunting it flies fast and low along wood-borders or along streams and watercourses, gliding along with 3 or 4 wing-beats at long intervals; it has a slower but still rapid form of hunting flight in which it threads its way with astonishing dexterity through the undergrowth of a wood; though preferring to secure its prey by surprise it will sometimes pursue and fairly outfly it in the open. It feeds much on Sparrows, where these are available, but also on bigger birds up to the size of Pigeons and also on small mammals, reptiles and large insects. The prey is eaten on the branch of a tree or frequently on the ground and old nests of Hawks, Pigeons, etc., are also used as feeding platforms. On the ground it walks but can also hop; soaring is not infrequent, the bird circling upwards generally with 3 or 4 wing-beats from time to time, and being often mobbed by small birds (especially the Swallow family). In Burma it keeps chiefly to forest or well-wooded open country.

Status and Distribution. — This species breeds throughout most of Europe and Asia, including the British Isles. The Asiatic race is a winter visitor and the Indian race also so far as we know at present, but it breeds throughout the Himalayas to Eastern Assam and may be found to breed in the mountains of Northern Burma. One or both are widely scattered through Burma from October to March, but are not often seen.

THE NORTHERN BESRA SPARROW-HAWK

Accipiter virgatus affinis (1814).

Identification. — Length 12 inches; the female is rather larger than the male. Differs from the preceding species in having a broad black line down the centre of the throat, and it is much smaller, smaller even than the Shikra, from which it is not easily distinguishable in the field.

Nest and Eggs. — The breeding season is in April and May. It generally makes use of an old nest of some other species, repairing it and adding a good lining of green leaves and small twigs. The eggs, 3 or 4 (rarely 2 or 5) in number, are white in colour lightly marked with bold dark blotches of red-brown, and average 1·48 by 1·18 inches.

Status and Distribution. — This species ranges from India through Burma to Yunnan and Western China. It is said to breed in the higher ranges of Northern Burma, and has been recorded from Arakan, the Chin Hills, North-East Burma, Thayetmyo, and Central Burma; though fairly widely distributed it is not common.

THE INDO-CHINESE SPARROW-HAWK

Accipiter gularis nisoides (1817).

Identification. — A small Hawk, about the same size as the preceding species from which it differs in having a narrow black line down the centre of the throat. The male has the under-parts intensely rufous, with the barring restricted to the flanks.

Nest and Eggs. — Similar to those of the Besra Sparrow-Hawk. The breeding season is in March and April; the birds are said to be very plucky in defending their nest.

Status and Distribution. — Widely distributed in the eastern part of the Oriental Region, but in Burma only recorded from Southern Tenasserim, where nests attributed to this bird have been found.

[Note: — THE JAPANESE SPARROW-HAWK, *A. g. gularis (1815)*, and THE PALE EASTERN SPARROW-HAWK, *A. g. stevensoni (1816)*, are both said to be winter visitors to Burma, but no records are traceable: there may be specimens in the British Museum, but until this has been confirmed these two races cannot be admitted.]

THE CRESTED HONEY BUZZARD

Pernis ptilorhynchus subsp. *(1818-9).*

Identification. — Length 20 inches. The plumage of the adults is more variable than in any other member of this family, which is saying a good deal. At close range scale-like feathers in front of the eyes distinguish Honey Buzzards from all other Hawks. In overhead flight the rounded tail, cross-barred black and white, is conspicuous. Distinguished from the next species by having the black bands towards the tip of the tail as wide as the paler bands. This species has a crest like that of the Crested Serpent Eagle. It has a high-pitched loud ringing note of four syllables, which can be heard a mile or more away, and frequents well-wooded open country, often near villages and towns. Its normal flight is a quick flapping, unrelieved by sailing, from one tree to another, but it occasionally soars. As its name indicates, it feeds mainly on bees and their honey, wax and larvae; it also eats small snakes, lizards, frogs, mammals, and birds, and is a confirmed stealer of other birds' eggs and young.

Nest and Eggs. — The breeding season is probably from March to May in Burma. The nest is built in a tree, usually a solitary one in cultivaton or a garden. It is made of small sticks, sometimes lined with grass but always with a final bed of green leaves; it varies greatly in size, and takes a month to six weeks to build. The eggs, usually 2 in number, are very variable. Some are brick-red all over, others resemble large Kestrels' eggs, others are marked like Sparrow-Hawks' eggs, and others are like Kites' eggs. They average 2·08 by 1·68 inches.

Status and Distribution. — Widely distributed in the Oriental Region and found sparingly throughout Burma, where the race is uncertain.

THE SIBERIAN HONEY BUZZARD

Pernis apivorus orientalis (1820).

Identification. — Length 20-23 inches. In flight recalls a Buzzard, but the wings are rather longer and narrower and the tail longer; the head and neck are usually more extended and the banding of the tail is different. It differs from the preceding species in having the dark bands towards the tip of the tail much narrower than the paler bands. The upper-parts are dark brown, and the under-parts very variable, ranging from white with only a few dark markings through types with bold dark blotches and bars on a white ground to a uniform dark brown like the upper-parts. The flight resembles that of the Buzzard, each primary standing out by itself and curling slightly upwards, and it soars fairly freely and sometimes hovers. It perches on trees, etc., and settles freely on the ground, where it walks with an easy manner.

Status and Distribution. — A Palæarctic species, visiting the British Isles and occasionally breeding there. In Burma the Siberian race is a rare winter visitor south to Tenasserim.

THE SLENDER-BILLED PERN

Machæramphus alcinus (1821).

Identification.— Length 19 inches. Feathers round the eye white; throat and fore-neck white, the chin and a line down the centre of the throat black; rest of the plumage black; upper breast with a certain amount of white. There is a well-developed crest on the nape. Said to be crepuscular in habits and to feed chiefly on bats. It frequents forests or open well-wooded country.

Nest and Eggs. — Unknown.

Status and Distribution. — Extends from Southern Tenasserim through the Malay States and Archipelago to New Guinea. Status in Burma unknown.

THE BURMESE BLACK-CRESTED BAZA

Baza leuphotes burmana (1823).

Local Names. — None recorded.

Identification. — PLATE XX, Fig. 9, Page 338. Length 12-13 inches; the female slightly larger than the male.

Voice. — A shrill arresting Gull-like cry, and a whistle like a Kite's have been described.

Habits and Food. — This is a forest bird, seen singly or in small parties, and is rather shy, keeping to densely foliaged trees and flying off on approach. It is crepuscular in habits and may be seen at dawn or dusk sailing in small circles just over the tree-tops. It feeds mainly on insects, mice, tree-frogs, lizards, etc.

Nest and Eggs. — The breeding season is from April to May. The nest is built in a tree, and is well made of small twigs, lined with grass or fibre with an over-layer of green leaves. The tree selected is usually in deep forest, and preferably near water. The eggs, 2 or 3 in number, are broad obtuse ovals in shape, and grey-white in colour, generally much stained, and average 1·47 by 1·22 inches.

Status and Distribution. — This species has a wide range in the Oriental Region and is sparingly distributed throughout Burma.

BLYTH'S BAZA

Baza jerdoni jerdoni (1824).

Identification. — Length 18-19 inches Differs from the preceding species in its brown upper-parts and much larger size. The male has the chin and throat rufous, white in the middle with a bold mesial line of black; breast rufous-brown; tail brown with three dark bands. The female is creamy or whitish below with pale rufous streaks on the chin, throat and breast, and bars of rufous on the remaining under-parts as in the male.

Nest and Eggs. — The breeding season is from April to June. Little is known about the nest and eggs. Two nests found in the Darjeeling district were built in tall trees and each contained two unspotted chalky-white eggs, much stained, which averaged 1.76 by 1.44 inches.

Status and Distribution. — Ranges from Southern India and Sikkim through Assam and the Malay States to Burma. It occurs in Tenasserim and a specimen was recently obtained in the Yamethin district. Judging by its distribution it is to be expected in other parts of Burma, though it is a rare bird.

Order IV COLUMBÆ.

Family COLUMBIDÆ
PIGEONS & DOVES

Members of this family are found in most parts of the world. It comprises the Green Pigeons, which frequent and roost in trees, the true Pigeons, which frequent trees principally but are also found about buildings or cliffs and can run and walk well on the ground, and the Doves, which are mainly terrestrial in their habits. In their nesting habits they are all much alike. The nest is usually built at a moderate height in a tree and consists of a slight platform of interlaced twigs, often so sketchy in construction that the eggs are visible from below; it is unlined and has only a slight depression on which the eggs rest. The eggs, nearly always 2 in number, are broad regular ovals in shape, hard and close in texture with a good deal of gloss, and pure unmarked white in colour.

Sub-family TRERONINÆ
GREEN PIGEONS

The Green Pigeons are beautiful birds, recognisable by their bright green or yellowish-green plumage and the exceptionally broad fleshy soles to their feet. They are found throughout the tropical and subtropical regions of the Old World. The various species can only be distinguished with practice, especially the females. They are birds whose relative status is difficult to define and few notes have been made on the abundance or scarcity of the various species in different parts of Burma.

Ngu (ငှက်) is a Burmese name applicable to all Green Pigeons.

THE BURMESE GREEN PIGEON

Crocopus phœnicopterus viridifrons (1827).

Local Names. — Burmese: *Ngu* (ငှက်), *Bonmădi* (ဘုံမတီး)

Identification. — PLATE XXI, Fig. 2, Page 354. Length 13 inches. The distinctive features of this species are the yellow feet, orange chin and throat, and the barred chocolate and white of the under tail-coverts. A white wing-bar is conspicuous in flight. The purple wing-patch is less pronounced in the female, and wanting in the young male.

Voice. — The note is a beautiful soft whistle, like a human whistle with no defined tune yet full of melody.

PLATE XXI

		See Page No.
1.	**PURPLE WOOD PIGEON** (adult) *Alsocomus puniceus*	361
2.	**BURMESE GREEN PIGEON** (adult) *Crocopus phœnicopterus viridifrons*	354
3.	**THICK-BILLED GREEN PIGEON** (adult male) *Treron curvirostra nipalensis*	357
3a.	Ditto. (adult female)	„
4.	**INDIAN EMERALD DOVE** (adult) *Chalcophaps indica indica*	360
5.	**INDIAN GREEN IMPERIAL PIGEON** (adult) *Muscadivora ænea sylvatica*	359
6.	**BURMESE SPOTTED DOVE** (adult) *Streptopelia chinensis tigrina*	363
7.	**BURMESE RED TURTLE DOVE** (adult male) *Œnopopelia tranquebarica humilis*	364
7a.	Ditto. (adult female)	„
8.	**SIAMESE ORANGE-BREASTED GREEN PIGEON** (adult male) *Dendrophasa bicincta prætermissa*	356
8a.	Ditto. (adult female)	„
9.	**BURMESE RING DOVE** (adult) *Streptopelia decaocto xanthocycla*	364
10.	**INDIAN RUFOUS TURTLE DOVE** (adult) *Streptopelia orientalis agricola*	362

PLATE XXI

Habits and Food. — Green Pigeons are stoutly built sluggish birds, usually rolling in fat, which are found in flocks and lead an entirely arboreal existence. Their feet are strong and adapted for climbing, and they move about the branches of a tree much like Parrakeets in search of the fruits on which they feed; they are very partial to wild figs, and are most often seen on the various species of *Ficus*. In colour they so closely resemble the foliage, and they are so sluggish in their movements, that an entire flock easily escapes notice in a tree; but when flushed the flight is strong and the birds travel well like other Pigeons, though they are loath to desert their particular grove. They live mostly on wild fruits of various kinds, especially figs, and also eat grain, some buds and shoots, and even maize. They seem to have regular roosting grounds from and to which they flight regularly in the mornings and evenings, often in large flocks if the birds are locally common; while thus flighting they afford admirable shooting, for they travel at a great pace and they have a disconcerting habit of suddenly altering the height at which they are flying. For the table they are excellent, especially if skinned before being cooked. The Burmese Green Pigeon is a bird of the plains and foothills and is one of the characteristic birds of the teak forests.

Nest and Eggs. — The breeding season is from March to June. The display of the Green Pigeons, except that it takes place on trees and not on the ground, is similar to that of all other Pigeons and Doves. The cock bird puffs out his throat and breast, lowers his wings and ruffles his feathers and then prances solemnly up and down a branch, bowing his head and whistling softly all the time. The female sometimes ignores him and sometimes indulges in a similar step-dance in response. Nest and eggs are typical of the family, and the latter average 1·25 by 0·95 inches. The female is a very close sitter, and will only leave on the near approach of the climber.

Status and Distribution. — This species is found almost throughout India, Burma and Ceylon, extending farther east to Cochin China and Siam. It is a common resident throughout the plains and foothills of Burma as far south as Moulmein.

THE ASHY-HEADED GREEN PIGEON

Dendrophasa pompadora phayrei (1830).

Local Names. — Burmese: *Ngu* (ငူ)

Identification. — Length 10 inches. This species is not easy to distinguish from the Thick-billed Green Pigeon. The males of both have a maroon patch on the back and wings, but in this species the yellow-green of the face extends above the eye and there is no white on the under tail-coverts, whereas in the Thick-billed Green Pigeon the space above the eye is bare and bright green, and there is some white on the under tail-coverts; the latter also has the base of the bill and the gape a brilliant red, which distinguishes it from all other species. The female differs chiefly in having no maroon on the back and mantle.

Voice. — Similar to that of the Burmese Green Pigeon.

Habits and Food. — For general habits of the Green Pigeons see under the Burmese Green Pigeon. This species is perhaps the commonest "greener" of the teak forests, at any rate in Southern Burma. Flocks number anything from a dozen to three hundred birds.

Nest and Eggs. — The breeding season is chiefly in April and May. The nest and eggs are typical of the family, and the latter average 1·08 by 0·86 inches.

Status and Distribution. — This species has a similar range to the preceding one and is a common resident throughout the plains and foothills of Burma as far south as Tavoy.

THE CINNAMON-HEADED GREEN PIGEON

Dendrophasa fulvicollis fulvicollis (1833).

Identification. — Length 11 inches. The male is easily recognised by the cinnamon head and upper breast. The female has the cinnamon of the head and the maroon of the mantle and wings replaced by dull olive-green, but like the male has bright yellow feathers on the legs.

Nest and Eggs. — Little known, but appear to be typical of the family.

Status and Distribution. — This species is found in Tenasserim, but whether it is resident there or only a winter visitor is uncertain; it extends southwards through the Malay States to Sumatra and Borneo.

THE SIAMESE ORANGE-BREASTED GREEN PIGEON

Dendrophasa bicincta prætermissa (1836).

Local Names. — Burmese: *Ngu* (ငူ)

Identification. — PLATE XXI, Figs. 8 & 8a, Page 354. Length 11-12 inches.

Voice. — Similar to that of other Green Pigeons.

Habits and Food. — Those of the family. The Pidaung Wild Life Sanctuary is one of the best places in Burma in which to study Green Pigeons; all four of the common species occur there together, frequenting the salt-licks especially in large numbers, and while waiting for a sight of bison, *saing* or other game an amusing hour can be spent in watching their antics and trying to sort out the various species. The Orange-breasted Green Pigeon is the commonest species in the sanctuary and the male with his beautiful orange and lilac breast contributes to the beauty of the surroundings.

Nest and Eggs. — The breeding season is from March to May, with occasional nests in February. Nest and eggs are typical of the family, and the latter average 1·16 by 0·90 inches.

Status and Distribution. — This species ranges through most of India, Burma and Ceylon, extending further east to Siam. It is resident throughout the plains and foothills of Burma, but appears to be commoner in the north than in the south.

THE MALAY PINK-NECKED GREEN PIGEON

Dendrophasa vernans griseicapilla (1837).

Identification. — Length 11 inches. The male has a broad patch of orange on the breast like the preceding species, from which it is distinguished by

the narrow (½ inch) grey tip to the tail and the purple-lilac all round the neck. The female has the whole head, neck and breast olive-green like the female of the preceding species, but differs in the narrow grey tip to the tail and the colour of the under tail-coverts, which are pale yellowish-buff suffused with cinnamon. It is said to have a soft low whistle ending in a sort of coo.

Nest and Eggs. — The breeding season is from March to June. The nest is built in forests or in mangrove swamps along the shore. The eggs average 1.08 by 0.85 inches.

Status and Distribution. — This species extends from Mergui southwards through the Malay States and Islands to the Philippines.

THE THICK-BILLED GREEN PIGEON

Treron curvirostra nipalensis (1838).

Local Names. — Burmese: *Ngu* (ငူ)

Identification. — PLATE XXI, Figs. 3 & 3a, Page 354. Length 10 inches. It is liable to be confused with the Ashy-headed Green Pigeon (*q.v.*).

Voice. — In addition to the usual whistling notes it is said to have a low guttural *groo-groo,* common also to other Green Pigeons but more constantly uttered by this bird.

Habits and Food. — Except that it is said to be even more quarrelsome than most Green Pigeons its habits are typical of the family.

Nest and Eggs. — The breeding season is from March to June. Nest and eggs are typical and the latter average 1·13 by 0·89 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region as far west as Nepal. It is resident throughout the plains and foothills of Burma in the forests.

THE LARGE THICK-BILLED GREEN PIGEON

Butreron capellei (1839).

Identification. — Length 16-17 inches. The largest of the Green Pigeons. The male is green with an orange breast and purple-chestnut under tail-coverts; bill pale whitish-green; legs, feet and skin round the eye yellow. The female has the breast golden yellowish-green, and the under tail-coverts buff with dull greenish-brown centres to the feathers.

Nest and Eggs. — Unknown.

Status and Distribution. — Extends from Elphinstone Island in the Mergui Archipelago southwards through the Malay States to Sumatra, Java and Borneo.

THE PIN-TAILED GREEN PIGEON

Sphenocercus apicauda apicauda (1840).

Local Names. — Burmese: *Ngu* (ငူ)

Identification. — Length 16-17 inches, including a tail of 9-10 inches. The elongated central tail-feathers, which extend 2-3 inches beyond the next pair, at once distinguish this species. Usually seen in the higher hills only.

Voice. — In addition to the usual whistling notes it often indulges in a curious chattering.

Habits and Food. — Similar to those of other Green Pigeons, though they are tamer than most. In trees their actions are very Parrot-like.

Nest and Eggs. — The breeding season extends from March to August. Nest and eggs are typical, and the latter average 1·25 by 0·94 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region as far west as the Central Himalayas. It is resident throughout the higher hills of Burma, (Shan States?), and it often makes sudden irruptions into the foothills and plains, though how far down it breeds is unknown.

THE WEDGE-TAILED GREEN PIGEON

Sphenocercus sphenurus sphenurus (1841).

Local Names. — Burmese: *Ngu* (ငူ); Lashi: *Jay-u.*

Identification. — Length 13 inches, including a tail of about 5 inches. The long graduated tail in combination with the deep maroon on the back and wings, and orange and pink breast separate the male from other species. Skin round the eye pale blue; bill blue: legs red. The female lacks the orange on the breast and the maroon on the back and wings, these parts being olive-green; under tail-coverts dark green with broad buff borders.

Voice. — The whistling is said to be sweeter and fuller than that of any other species, and it is a favourite cage bird for this reason. It is roughy described by the words *why, we what cheer; what are we waiting for?* The courting-note is a low *coo-coo.*

Habits and Food. — Similar to those of other Green Pigeons, except that it is usually very tame. A party will wait until the observer is almost under the tree before flying off one or two at a time, generally swooping down low and flying between the lichen-covered boles of the trees.

Nest and Eggs. — The breeding season is from April to June. Nest and eggs are typical, except that the latter are very elongated ovals and average 1·18 by 0·89 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region, extending westwards throughout the Himalayas. It is sparingly distributed throughout the hills of Burma and has been recorded as low as 50 feet in Arakan; it is probably a local migrant.

Sub-family DUCULINÆ

IMPERIAL PIGEONS

This sub-family contains a number of very large Pigeons, which are essentially arboreal in habits but not expert climbers like the Green Pigeons. It is represented throughout India and Burma, extending eastwards to Polynesia.

THE GREY-HEADED IMPERIAL PIGEON

Ducula badia griseicapilla (1844).

Allied Form.—

THE MALAY IMPERIAL PIGEON, *D. b. badia (1842).*

Local Names. — Burmese: *Hnget-nga-nwa* (ငှက်ငန်းဝံ)

Identification. — Length 18—20 inches. General colour grey, with the head noticeably paler than the rest of the plumage. The weight is 1¼ to 1½ lbs. A bird of forests in the higher hills. The flight is strong and direct.

Voice. — The call is distinctive, *click whroom whroom;* the preliminary *click* is only audible at close range, but the *whroom whroom* is a deep melodious call that resounds across the mountain valleys.

Habits and Food. — This is typically a forest bird of the higher hills, frequenting both evergreen and pine forests; it is often seen flying high overhead when crossing from one lofty ridge to another and is usually in small parties, but when the fig trees are in fruit it is said to collect in large flocks numbering hundreds of birds. It can swallow with ease a fig or other fruit larger than its own head. It occasionally descends to the ground to drink or eat mud and earth at salt-licks, and it can walk well and fairly easily. It is excellent eating, but should be skinned before being cooked.

Nest and Eggs. — The breeding season is prolonged, March and April being the principal months, but eggs have been found at the end of January on Mt. Mulayit. The nest is usually built in a small tree and is typical of the family; the single egg averages 1·78 by 1.34 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region. It is locally common throughout the higher hills of Burma, and is probably resident from 2,000 feet upwards; in North-East Burma it is common down to 1,000 feet.

THE INDIAN GREEN IMPERIAL PIGEON

Muscadivora ænea sylvatica (1847).

Allied Form.—

THE MALAY GREEN IMPERIAL PIGEON, *M. æ. ænea (1846).*

Local Names. — Burmese: *Hnget-nga-nwa* (ငှက်ငန်းဝံ)

Identification. — PLATE XXI, Fig. 5, Page 354. Length 17 inches. Can only be confused with the preceding species, from which the green on the wings and tail and the call-note at once distinguish it. The flight is fast and powerful with few wing-beats.

Voice. — The call is a lovely deep coo *click-hroooo,* somewhat like a cow mooing in the distance; it also has a characteristic cooing chuckle of 5 or 6 notes.

Habits and Food. — This species is usually seen in small parties in the foothills, and is a characteristic, but somewhat local, bird of the teak forests. As a rule it is shy and wary and difficult to approach. It drinks regularly in the mornings and evenings, and for this purpose alights on the ground, moving quite freely thereon, and every now and then walking to the water's brink and taking a long draught. It is a great frequenter of salt-licks situated in the forest. It is excellent for the table, though the destruction of so beautiful a bird is apt to cause a pang of remorse.

Nest and Eggs. — The breeding season is from February to May. The nest is quite typical and is usually built in a small tree in the forest

close to a stream, sometimes in a bamboo clump. The single egg averages 1·79 by 1·32 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is resident throughout the forests of Burma in the foothills, rarely ascending to 6,000 feet.

THE PIED IMPERIAL PIGEON

Myristicivora bicolor bicolor (1850).

Identification. — Length 16 inches. A creamy-white bird with black tips to the wings and tail; legs and feet pale blue. The flight is powerful, direct, and swift. Its note is said to be a deep *hu-hu-hu*. In spite of its handsome plumage it is by no means conspicuous when on trees, the black and white looking like patches of sunlight and shadow. It feeds exclusively on fruits, favouring nutmegs, and is said to be tame and fearless.

Nest and Eggs. — The breeding season is in February. The nest is typical, and is usually about 25 feet from the ground. Only one egg is laid.

Status and Distribution. — Extends from the Andamans through Malaya to New Guinea and Australia; it has been recorded from Sandoway and is common in the Mergui Archipelago, but whether it breeds anywhere in Burmese limits is unknown. It seems to be purely a bird of islands and the coast, not occurring inland.

Sub-family PHABINÆ

EMERALD DOVES

This sub-family contains a large number of species, spread over Africa and Asia, but only one is found in Burma.

THE INDIAN EMERALD DOVE

Chalcophaps indica indica (1852).

Local Names. — Burmese: *Gyo-sein* (ကြိုးစိန်း)

Identification. — PLATE XXI, Fig. 4, Page 354. Length 10 inches. The female differs in having less white on the forehead and the grey crown and nape is usually suffused with reddish; the white wing-patch and white bars across the rump are not so pronounced. Young birds are like the female but still duller in colour, and the bronze-green is less in extent and freely barred with copper-red; there is a broad rufous bar across the wing and the whole under-parts are barred dull brown and rufous. The flight is direct and very fast, and it attains a surprising speed through thick cover.

Voice. — The note is a very deep low coo.

Habits and Food. — This little Dove is a forest bird, frequenting both the evergreen and deciduous types, and is a typical bird of the teak forests. Like other Doves it is partial to rice and may be seen in the small paddy fields of jungle villages after the harvest in the cold weather; at other times it keeps mainly to deep forest. It lives chiefly on fruits, but will also eat termites, in pursuit of which it can run quite fast on the ground. It likes to feed in the middle of jungle tracks and when disturbed flashes ahead for several hundred yards and then dives sideways into the jungle when a suitable opening presents itself. It is said to be very partial to salt-licks.

Nest and Eggs. — The breeding season is in January and February in Tenasserim but from March to May further north. The nest is

typical and is built in a small tree, bush or bamboo clump, or even a young coconut palm. The eggs, 2 in number, are elliptical in shape, fine and close in texture with a smooth surface, and not pure white like most Doves' eggs but either creamy-yellow or buff in colour. They average 1·06 by 0·83 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is resident throughout the moister forests of the foothills in Burma, ascending to 6,000 feet. It breeds in the cane-brake portions of the scrub jungle close to Rangoon.

Sub-family COLUMBINÆ

SNOW PIGEONS, WOOD PIGEONS & DOVES

In this sub-family all the genera have 12 tail-feathers and the feet are adapted for walking, even the most arboreal species being able to walk well and freely on the ground.

[Note :—THE INDIAN BLUE ROCK PIGEON, *Columba livia intermedia (1856)*, is the blue-coloured Pigeon that lives in a semi-domesticated state round many monasteries, especially in Central Burma. There is no proof that it occurs anywhere in a truly wild state, and it is therefore not admitted to the Burma List.]

THE TIBETAN SNOW PIGEON

Columba leuconota gradaria (1859).

Identification. — Length 13-14 inches. Found near the snow-line, and in flight appears as a white bird with dark wings; on the ground it is most inconspicuous except when feeding on grass.

Status and Distribution. — This species is resident throughout the Himalayas at high elevations, extending through Tibet to China and Yunnan, and has been recorded from the Adung valley at 11,000 to 13,000 feet, feeding on seeds on stony or grassy slopes. It probably occurs all along the Burma-Tibet border, but its status is unknown.

THE ASHY WOOD PIGEON

Columba pulchricollis (1864).

Identification. — Length 15-16 inches. General colour dark grey, with the head pale grey and a collar of black feathers tipped with buff on the base of the neck; next to this collar the feathers are blackish-brown highly glossed with green and purple; chin and centre of throat white; under tail-coverts buff. Legs deep red. Its flight is like that of other Pigeons but when starting it descends instead of rising suddenly into the air. A forest bird of the higher hills, sometimes found at low elevations in winter. It is a quiet bird and said to be one of the most shy of all the Pigeons, keeping much to densely foliaged trees. It is usually seen solitary or in pairs.

Nest and Eggs. — The breeding season is probably from April to June. The nest is quite typical and the single egg averages 1·48 by 1.08 inches.

Status and Distribution. — Found at high elevations from Nepal eastwards to Formosa. In Burma it has only been recorded from the Upper Chindwin and the Shan States, and appears to be rare.

THE PURPLE WOOD PIGEON

Alsocomus puniceus (1865).

Local Names. — None recorded.

Identification. — PLATE XXI, Fig. 1, Page 354. Length 16 inches.

The flight is swift and strong with the usual deliberate wing-beats of a Pigeon.

Voice. — The call is a monosyllable, characteristic and arresting.

Habits and Food. — This is a forest bird of the plains and foothills, frequenting both evergreen and bamboo forest. It is usually seen solitary or in pairs and feeds on fruits and grain.

Nest and Eggs. — The breeding season appears to be in June and July. The nest is built in a small tree or bamboo clump, and the eggs average 1·48 by 1·15 inches.

Status and Distribution. — This species extends from Bengal through Burma to the Indo-Chinese countries and the north of the Malay Peninsula. It has only been recorded from Arakan, the foothills near Maymyo, Pegu Yomas, Shan States, Karenni and Tenasserim, and appears to be a scarce bird everywhere.

THE SPECKLED WOOD PIGEON

Dendrotreron hodgsonii (1867).

Identification. — Length 14-16 inches. The adult male has the whole head, throat and neck slaty-grey; the breast and abdomen are red, the feathers margined with grey to a greater or less extent; back and wing-coverts red, white spots on the median wing-coverts. The adult female has the whole head greyish; the upper-parts are more brown and less maroon, and the red of the under-parts is replaced by dark grey. The claws are bright yellow, contrasting with the green legs. The note is a very deep one, sounding like *whock-whr-o-o -- whr-r-oo.* A forest Pigeon of the higher hills and mountains; it feeds on fruits and berries, and frequents patches of hill cultivation to feed on the rice when ripe.

Nest and Eggs. — The breeding season appears to be in May and June. The nest is usually built in a small tree in dense forest and the single egg averages 1.55 by 1.19 inches.

Status and Distribution. — This species extends throughout the Himalayas eastwards to Yunnan, and southwards to the Shan States. It has been recorded from the Chin Hills, North-East Burma, Mogok hills, and the Shan States, and is probably resident over 5,000 feet, but it seems to be a rare bird everywhere.

THE INDIAN RUFOUS TURTLE DOVE

Streptopelia orientalis agricola (1872).

Allied Forms.—

THE COMMON RUFOUS TURTLE DOVE, *S. o. orientalis (1870).*

Local Names. — Burmese: *Gyo-pein-du* (ဂျိုးပိန်းတူး); Chinghpaw: *Kuktun.*

Identification. — PLATE XXI, Fig. 10, Page 354. Length 12-13 inches. A rather large vinous-brown Dove with conspicuous rufous scale markings on the wings and a patch of black and blue-grey scale markings on the sides of the neck; the dark graduated tail edged with white is conspicuous in flight. Can only be confused with the Spotted Dove, from which larger size and much darker, more purple, appearance distinguish it.

Voice. — The note is a dull sleepy *cooo-kakour,* rather deep in pitch.

Habits and Food. — The Rufous Turtle Dove is a typical bird of the teak forests; when breeding it is found in deep forest, but at other

times is mostly seen in the more open and cultivated areas round forest villages; it likes to feed on the fallen grains of rice and will be found where large trees and patches of scrub provide it with shelter within easy reach of the paddy stubble. It is very active on the ground, running and walking freely, and when disturbed invariably takes refuge in trees. In the cold weather numbers may be found in company but it is not gregarious, the individuals flying off in all directions when disturbed. It spends the heat of the day in the forest and flights out to the paddy fields in the afternoon; it flies strongly with tricky alterations in height, and if one happens on one of its flight lines good sport may be had; it is excellent eating, rather rich but with more flavour than an Imperial Pigeon.

Nest and Eggs. — The breeding season is from February to April. The nest is typical and the eggs, 2 in number, average 1·22 by 0·93 inches.

Status and Distribution. — This species extends from Eastern Siberia, China and Japan through Tibet to West-central Asia and southwards to the greater part of India, Burma and Ceylon. It is a common resident throughout Burma in or near forest, and ascends the hills to 5,000 feet. The distribution of the two races has not been worked out.

THE BURMESE SPOTTED DOVE

Streptopelia chinensis tigrina (1874).

Allied Form.—

THE YUNNAN SPOTTED DOVE, *S. c. forresti (1875).*

Local Names. — Burmese: *Gyo-lè-byauk* (ကျီးလယ်ပြောက်)

Identification. — PLATE XXI, Fig. 6, Page 354. Length 11 inches. In flight it appears a dull greyish colour, and before alighting the tail is always fully expanded, thus showing the white tips to the side tail-feathers. It feeds much on the ground and is a tame familiar bird.

Voice. — The call is a soft trisyllabic coo, *ku-krroo-ku,* freely uttered.

Habits and Food. — This Dove is one of the commonest birds of Burma, being found in almost every type of country provided that water is easily accessible, for it is intolerant of thirst and drinks freely. It is most common in the paddy plains, and it might be said that the cooing of *gyos* and the rattle of *kalauks* are the two sounds that the average Burmese villager has with him all his days. Though never collecting into flocks, vast numbers pepper themselves about the stubble after the paddy has been reaped. It likes to walk about on roads and village paths and search for grain and seeds. When disturbed it rises almost vertically into the air for a few feet, with a great fluster and clapping of wings, and then flies away swiftly with quick distinct wing-beats and the tail partly spread and showing the white edging. It seldom flies for any distance, and when settling it glides downwards to the chosen perch with occasional wing-beats, the whole action and carriage appearing very stiff.

It seems to pair for life, and the birds of a pair keep much together, feeding and flying in company and resting side by side in trees. The courting display consists of a flight straight up into the

air followed by a volplane downwards, the wings and tail stiffly spread.
Nest and Eggs. — The breeding season extends throughout the year, and several broods are probably raised annually. It comes into gardens round Rangoon at the end of the rains to breed. Nest and eggs are typical and the latter average 1·06 by 0·82 inches.
Status and Distribution. — This species is widely distributed in the Oriental Region and is ubiquitous throughout Burma though seldom seen in the higher hills. The Yunnan race is confined to the hills of North-East Burma, where it is resident over 5,000 feet.

THE BURMESE RING DOVE

Streptopelia decaocto xanthocycla (1880).

Local Names. — Burmese: *Gyo-lin-bya* (ဂျိုးလင်းငှာ။)
Identification. — PLATE XXI, Fig. 9, Page 354. Length 12 inches. A Dry Zone bird. It is swift and strong on the wing.
Voice. — The call is a dreamy *how-do-do,* and it has a mewing Hawk-like cry.
Habits and Food. — Though by far the commonest Dove in India, the Ring Dove is not so in Burma and is more or less confined to the Dry Zone; it collects freely into parties and flocks, often of considerable size, which leave their perch with a resounding clatter of hard pointed wings. It feeds on the seeds of various grasses and weeds.
Nest and Eggs. — The breeding season lasts more or less throughout the year, though most nests will be found in the hot weather. Nest and eggs are typical and the latter average 1·16 by 0·90 inches.
Status and Distribution. — This species has a very wide range from Eastern Europe across Asia to China and Japan. In Burma it is resident in the Dry Zone and has been recorded from the Upper Chindwin and once from near Bhamo.

THE BURMESE RED TURTLE DOVE

Œnopopelia tranquebarica humilis (1882).

Local Names. — Burmese: *Gyo-ni-pu* (ဂျိုးနီပု။), *Gyo-ni-do* (ဂျိုးနီတိုး။)
Identification. — PLATE XXI, Figs. 7 & 7a, Page 354. Length 9 inches. The only Dove in Burma with the sexes different. Seen at close range the male is a handsome bird with the back and part of the wing brick-red contrasting with the dark grey wing-coverts and edge of wing; the female is distinguished from the female Ring Dove by the smaller size, more compact shape and browner colouring. The flight is faster and more direct than that of other species.
Voice. — The call is distinctive, a rather deep *cru-u-u-u-u* repeated four or five times quickly without a pause, and with the emphasis on the first syllable.
Habits and Food. — This bird is more gregarious than the other Doves, and is usually seen in large flocks, the members of which act together and not independently. It is also less familiar and confiding though it is typically a bird of the paddy plains. It feeds entirely on

the ground, and when disturbed it usually flies straight ahead instead of alighting on the nearest tree like the other common Doves. It requires a good supply of water, being a very thirsty bird.

Nest and Eggs. — The breeding season extends throughout the year, but most eggs are to be found from March to July; two broods are probably reared. Nest and eggs are typical and the latter average 1·02 by 0·80 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region, including most of India, Burma and Ceylon; it is probably resident throughout the plains of Burma but is rather local in its distribution, and not seen as often as the other common Doves. In the Irrawaddy-Sittang plain it is very common in flocks from November to March and though a few pairs stay to breed the majority seem to migrate elsewhere for the hot weather and rains.

THE BAR-TAILED CUCKOO-DOVE

Macropygia unchall tusalia (1884).

Local Names. — Lashi: *Loip-mö.*

Identification. — Length 16-17 inches, including a tail of 8 inches. This species and the next are easily recognised by their very long barred tails, and slim elongated appearance; this species is recognised by its larger size and much more rufous colouring; the upper-parts and tail are barred rufous and black and the under-parts are mainly buff. The female has the head and breast barred with dark brown and the upper-parts much duller. Young birds are like the female but with no gloss.

Voice. — The call is a very deep *croo-um,* the second syllable being a booming note audible at a considerable distance. Another call is *we-hoop-hoop-hoop,* loud and unmistakable. It is silent outside the breeding season.

Habits and Food. — This bird is more or less confined to evergreen forest, but is found both in the foothills and higher hills. It is said to frequent cultivated clearings in large numbers, but it has not yet been observed to do so in Burma. It is a shy and wary bird.

Nest and Eggs. — The breeding season is from May to August in Assam, probably somewhat earlier in Burma. The male has a pretty display in which he suddenly soars into the air from a perch, loudly clapping his wings above his back, and then from 30 or 40 feet up he sails down with wings outspread and all his plumage puffed out, the long spiny feathers of the rump standing up like a puff ball. The nest is typical, though better made than most Doves' nests, and the eggs average 1·39 by 1·00 inches.

Status and Distribution. — This species has a wide range from the Central Himalayas through Assam and Burma to Java. It has been recorded from the Chin Hills, Upper Chindwin, and all the eastern hills, except for the Bhamo hills, as far south as Mt. Mulayit in Tenasserim. It is fairly common in the Karen Hills (Thandaung) and Karenni and probably throughout its range. It is found from 500 feet to 6,000 feet, but it may not be resident at low elevations.

THE BURMESE LITTLE CUCKOO-DOVE

Macropygia ruficeps assimilis (1886).

Local Names. — None recorded.

Identification. — Length 13 inches, including a tail of about 7 inches. The long barred tail distinguishes it from all except the preceding species *(q.v.)*; the female is darker and duller than the male. Neither sex is barred when adult, but young birds have the whole upper-parts barred rufous and black.

Voice. — The call, heard only in the breeding season, is *Oo-who-oo-oo-who-oo-who* rapidly repeated, not unlike a quiet version of the call of the Hoolock gibbon.

Habits and Food. — This is a forest bird of the higher hills, frequenting evergreen and oak forests and occasionally emerging into the open along roadsides and glades. Like the preceding species it is shy and retiring, and feeds mainly on trees, seldom descending to the ground.

Nest and Eggs. — The breeding season is from April to May; few nests have been recorded, but one was a solid pad of moss in a clump of bamboo, and not the usual Dove's nest of sticks; the one egg it contained measured 1·26 by 0·84 inches.

Status and Distribution. — This species extends from Java through the Malay States into Burma as far north as the Karen Hills (Thandaung) and Karenni, in both of which areas it is locally common.

Sub-family GEOPELIINÆ

GROUND DOVES

This sub-family contains only one genus, which resembles the Green and Imperial Pigeons in having 14 tail-feathers.

THE BARRED GROUND DOVE

Geopelia striata striata (1887).

Identification. — Length 8-9 inches. The very small size distinguishes this at once from all the other Burmese Doves. The upper-parts are earthy-brown barred with black; the greater part of the head is ashy-grey; breast a beautiful vinous-pink, changing to pure white on the under tail-coverts. The note is a soft *kok-a-kurr-kurr*, repeated several times. It frequents open country or scrub jungle, avoiding forest, and is common round villages near the coast in cultivated fields and grasslands; it is generally seen running about on the ground in pairs, hunting for seeds and fruits.

Nest and Eggs. — The nest is a tiny fragile affair of twigs built in a low bush and the eggs, 1 or 2 in number, average 0.87 by 0.65 inches.

Status and Distribution. — This species extends from Southern Tenasserim through the Malay States to Java, Sumatra, Borneo, the Philippines and the Celebes.

Order V GALLINÆ.

Sub-order ALECTOROPODES.

Family PHASIANIDÆ

PEAFOWL, JUNGLEFOWL, PHEASANTS, PARTRIDGES & QUAILS

This family includes all the true game-birds of Burma except the Bustard-Quails. They have powerful legs and feet and live mostly on the ground. Except for the Tragopans, which nest in trees, they lay their eggs on the ground. The young are hatched covered with down, and can run about within a few moments of emerging from the egg.

Of the comparatively large number of species occurring in Burma some are birds of the higher mountains and others are so skulking in their habits that they provide no sport. The Peafowl is rarely found in sufficient numbers to offer the chance of more than a shot or two. Thus one might say that the sportsman is concerned almost entirely with three species; the Junglefowl, the Burmese Francolin, and the Kalij Pheasant.

The Kalij Pheasant is a forest bird, and rather a skulker; it is usually obtained when beating for Junglefowl, and forms a welcome addition to the bag; in few places are the birds sufficiently numerous to afford much sport by themselves.

The Burmese Francolin is found in considerable numbers in the drier parts of the country, but is difficult to flush from cover and very difficult to drive; good sport can however be obtained in the early mornings and evenings by walking them up with a dog or a couple of men whilst they are feeding out in the open fields. They fly strongly and offer sporting, if rather easy, shots.

The Junglefowl provides some of the finest small-game shooting in the country. It is a strong runner, but rises reasonably quickly when walked up alone or with a dog; when driven between the belts of forest intersecting cultivation it offers splendid shots. In parts of Upper Burma big bags are often obtained, but in most parts of Lower Burma half a dozen birds is satisfactory for an ordinary evening's shoot, and the enthusiast who beats all likely places, often with untrained beaters, must be prepared for plenty of blank days.

Sub-family PAVONINÆ

This sub-family contains only two species, the Common Peafowl and the Burmese Peafowl. The former is not found in Burma.

THE BURMESE PEAFOWL

Pavo muticus spiciferus (1898).

Local Names. — Burmese: *Daung.* (ဒေါင်း)

Identification. — FRONTISPIECE, Fig. 5. The cock measures 40 to 46 inches to the end of the tail and 78 to 90 inches to the end of the train; the hen measures about 38 inches. The beautiful train of the cock is no part of the tail, but consists of the modified and enormously lengthened upper tail-coverts. Burmans assert that some cocks never acquire a train nor utter the characteristic trumpet-like call and such birds are referred to as *Ma-go* (မဂို), *Pa-go Daung* (ပဂိုးဒေါင်း) and occasionally *Haing* (ဟိုင်း), a name usually applied to a tuskless male elephant. The hen has no train; the whole back and rump are brownish-black, more or less barred and marked with buff; the bronze and black borders of the breast are broken and less conspicuous; the tail is brown with paler bars and tips.

Voice. — A loud trumpet-like call, *kay-yaw, kay-yaw,* is uttered, usually in the late evening and early morning. When suspicious the usual sound is a sharp clucking note, which may be increased to a loud chatter or succession of screams when alarmed and flying off. It is also suspected of considerable powers as a mimic. A covey has been heard to make a curious noise, *tak-tak-kerr-r-r-r-oo-oo ker-r-r-roo,* after the cock had been shot.

Habits and Food. — The most marked characteristic of the Peafowl is its habit of roosting early in the evening on very high and large trees with little foliage, and calling loudly as it goes up to roost and again when it descends in the morning. It may be found in any description of jungle from heavy *kaing* grass swamps to light scrub forest, but is most commonly found in light grass and scrub jungle or dry open forest on the banks of large rivers and near cultivation. It lives in small parties, resting and lazily feeding in the undergrowth by day and moving out into cultivation for the morning and evening feed. It is the most sharp-eyed of the denizens of the jungle, and is very shy and wary, running swiftly on foot when approached, and being persuaded to fly with the utmost difficulty; once on the wing it can travel fast with regular rather slow sustained wing-beats and without the gliding common to most game-birds. It feeds chiefly on vegetable matter, grain, and seeds, though insects, small reptiles, and even mammals are also eaten.

Nest and Eggs. — The breeding season is mainly from March to May, but eggs may be found up to September. The Peacock is polygamous, his harem consisting of from two to five hens, and takes no share in the family duties. The nest is a hollow scraped in the ground, more or less filled with leaves, small sticks, grass, and other debris. The eggs, 3 to 5 (occasionally up to 8) in number, are broad blunt ovals in shape, with very thick and glossy shells closely pitted all over with minute pores, and vary from pale fawn to warm buff in colour; some eggs are freckled with darker buff or reddish-brown. They vary from 2·45 to 3·12 inches in length and from 1·42 to 2·20 inches in breadth.

Status and Distribution. — This species is found from Burma through the Malay States to Java. In Burma it is sparingly distributed

throughout the country in small numbers, but is distinctly local. Owing to constant persecution it is steadily decreasing in numbers and it is remarkable that in a Bhuddhist country which has chosen a "Peacock in its Pride" as a national emblem this magnificent bird is not afforded complete protection.

Sub-family ARGUSIANINÆ

This sub-family comprises birds of grey plumage with metallic ocelli or "eyes", brilliant in the male but duller or obsolete in the female.

THE ARGUS PHEASANT

Argusianus argus (1899).

Local Names. — Burmese: *Min-daung* (မင်းဒေါင်း)

Identification. — FRONTISPIECE, Fig. 7. Length: male 70 inches, including a tail of 50 inches; female 30 inches. This very handsome bird is distinguished from all other Burmese game-birds by having the secondaries much longer than the primaries: in the male they are twice as long, in the female only slightly longer. The male weighs 4½ to 5½ lbs.

Voice. — Both sexes call freely at all times of the day and night. The call of the male is *how-how* repeated ten to a dozen times, while that of the female is *oowhoo-how-oo-whoo* or *how-owoo*, the last syllable much prolonged, and repeated with increasing rapidity till the notes run into each other.

Habits and Food. — The Argus Pheasant is a solitary bird of evergreen forest and is very shy and difficult to observe. The cock makes a displaying ground some 6 to 10 yards square, usually on a level space on a ridge or spur, which he keeps free of all vegetation during the dry season; it seems probable that the hens resort to these places when the mating instinct urges them. The display of the Argus is a magnificent sight. The food consists of fallen fruits, insects, ants, slugs, etc.

Nest and Eggs. — Very little known. It probably breeds throughout the year. The few eggs so far obtained are long well-pointed ovals, with a fine close texture, and vary from a faint buff to creamy-white in colour. They average about 2·64 by 1·73 inches.

Status and Distribution. — This species extends from Sumatra through the Malay States into Tenasserim as far north as Tavoy. It has been much poached in the past for the sake of its beautiful feathers, and is now a completely protected bird under the Burma Wild Life Protection Act.

THE BURMESE PEACOCK-PHEASANT

Polyplectron bicalcaratum bicalcaratum (1900).

Allied Form. —

THE BHUTAN PEACOCK-PHEASANT, *P. b. bakeri (1901).*

Local Names. — Burmese: *Daung-min* (ဒေါင်းမင်း), *Daung-kala* (ဒေါင်းကုလား); Kachin: *Wograw.*

Identification. — PLATE XXII, Fig. 1, Page 370. Length 22-30 inches (male) including a tail of 12-16 inches. The female is smaller and differs from the male in being duller with fewer "eyes". The male weighs about 1¼ to 2 lbs.

Voice. — Its call-note is a deep guttural *hoo* rapidly repeated, a harsh Grouse-like cackle; it also has a large vocabulary of low soft chuckling notes.

Habits and Food. — This is an inveterate skulker in evergreen and dense bamboo jungle, and even where it is common is rarely seen. On the wing it is slow and heavy, though it attains a considerable speed when swooping down the face of a hill. Its food consists of insects, worms, beetles, small frogs, grain and seeds, and its flesh though rather dry is well flavoured. The display of this Pheasant is very beautiful, both wings being fully expanded with the tail, so that the whole looks like an ocellated fan. The wide tail is used as a screen for the young birds, who move about under its shelter close to the heels of the parent.

Nest and Eggs. — The breeding season is from March to April. It is said to be monogamous, probably pairing for life. It favours ravines in forests with dense undergrowth or else thick regrowth on deserted cultivation. No nest is made, as a rule, other than a pile of leaves and rubbish scraped together in a natural hollow. The eggs, 2 to 5 (rarely 6) in number, are like small richly coloured eggs of the domestic fowl but nearly all have the surface minutely stippled with small chalky pits; they are exceptionally thick-shelled and heavy eggs, and average 1·83 by 1·41 inches.

Status and Distribution. — This species is found from Sikkim eastwards along the Himalayas and through Burma to Siam. In Burma it is resident in Arakan, the Chin Hills, North-East Burma, Central Burma, the Karen Hills, and Tenasserim and is not uncommon in places, notably the Pidaung Wild Life Sanctuary.

THE MALAY PEACOCK-PHEASANT

Polyplectron malaccensis (1902).

Identification. — About the same size as the preceding species, but the male has a crest of pointed metallic feathers, and the female has no crest. The upper-parts from the upper back are rufous-buff dotted with black; the under-parts of the male are browner and more uniform than those of the preceding species, with black blotches on the breast and under tail-coverts.
Nest and Eggs. — More or less unknown.
Status and Distribution. — Extends from Tavoy southwards through the Malay States to Sumatra.

Sub-family PHASIANINÆ

This sub-family contains the true Pheasants and the birds most closely connected with them.

THE BURMESE JUNGLEFOWL

Gallus gallus subsp. *(1904).*

Local Names. — Burmese: *Taw-gyet* (တောကြက်)

PLATE XXII

		See Page No.
1.	**BURMESE PEACOCK-PHEASANT** (adult) *Polyplectron bicalcaratum bicalcaratum*	369
2.	**BLACK-BREASTED KALIJ PHEASANT** (adult male) *Gennæus lathami*	374
3.	**BURMESE JUNGLEFOWL** (adult male) *Gallus gallus* subsp.	370
3a.	Ditto. (adult female)	"
4.	**PHAYRE'S BURMESE FRANCOLIN** (adult male) *Francolinus pintadeanus phayrei*	382
5.	**BLACK-BREASTED or RAIN QUAIL** (adult) *Coturnix coromandelica*	379
6.	**BURMESE BUTTON QUAIL** (adult) *Turnix tanki blanfordi*	385
7.	**BLUE-BREASTED QUAIL** (adult male) *Excalfactoria chinensis chinensis*	378
8.	**BURMESE SILVER PHEASANT** (adult male) *Gennæus lineatus*	374
8a.	Ditto. (adult female)	"

PLATE XXII

Identification. — PLATE XXII, Figs. 3 & 3a, Page 370. Length 26-28 inches (cock), including a tail of 11-13 inches ; 17· inches (hen). When flying away the most noticeable feature of the cock is the white patch above the tail; flying towards one it appears a blue-black bird except for the red wattles on the head. The flight is the typical game-bird glide on stiff wings, with occasionally a few rapid wing-beats. The cock usually carries the tail low, and when running it moves with a shame-faced crouching gait, the neck outstretched, and the tail almost to the ground. Cocks weigh from 2 to 3 lbs.

Voice. — The calls of both sexes resemble those of domestic fowl, but the cock's crow is shorter, the last note being cut abruptly.

Habits and Food. — This is a typical bird of the teak forests, frequenting deep forest during the rains and moving in the cold weather to those places where a few paddy fields of a forest village are surrounded by scrub or tree forest. After the harvest it comes out into the stubble in the early mornings and late afternoons and retires during the heat of the day to its forest haunts, where also it roosts during the night. It may be extremely shy and cunning or very confiding, depending on the degree of molestation it is accustomed to suffer from men. It is usually seen in small parties, but in January and February these often amalgamate into large assemblies of 50 or more birds. It is the teak wallahs' game-bird *par excellence*. Where beats have been laid out beforehand and rides cut it can give magnificent sport, and even without preparation, by putting the guns along streams and glades, good results are obtained. In the open the birds are fairly easy to hit, though they are far from slow on the wing, but from the narrow rides and glades over which the birds are usually beaten they offer little more than a snap-shot and tax the skill of the expert. Some parts of Upper Burma are famed for their Junglefowl shooting but elsewhere blank beats are the rule rather than the exception, and three or four birds to a gun is a good bag. Young cocks and hens are excellent for the table, but old cocks are inclined to be rather tough.

Nest and Eggs. — The breeding season proper is from March to May, but I have on the 3rd March found a nest of eggs and in the same place shot a young bird quite 3 months old; nests are occasionally found as late as October, so that the season in effect extends throughout the year. The eggs are generally laid on leaves at the base of a bamboo clump or bush, or in some concealed hollow, occasionally in the fork of a tree several feet off the ground. They are usually 4 to 6 (occasionally up to 9) in number and vary a good deal in size and shape, but typically are miniature hens' eggs. The shell is fine and smooth with a fair amount of gloss, though duller and coarser specimens with visible pores occur. They vary in colour from an almost pure white to a deep creamy-buff, and average 1·78 by 1·36 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region, and is said to be the species from which all domesticated poultry are descended. It is common throughout Burma,

ascending the hills to about 4,000 feet, but the race is uncertain. The close season is from the 15th March to the 30th September.

THE BURMESE BARRED-BACK PHEASANT

Syrmaticus humiæ burmanicus (1908).

Allied Form.—

MRS. HUME'S PHEASANT, *S. h. humiæ (1907).*

Local Names. — Burmese: *Yit-min* (ရှဉ့်ငှက်)

Identification. — Wing 8-9 inches in the male, slightly less in the female. There is no crest and the tail of 16 or 18 feathers is very long and strongly graduated, measuring 16 to 21 inches in the cock. Sexes differ. The cock has the upper-parts black or steel-blue, with some white on the rump ; white, brown and chestnut on the wings ; chin, throat and upper breast black ; remaining under-parts chestnut and brown; face bare and deep crimson in colour. The male weighs about 2 lbs. 6 oz. The general colour of the hen is brown with dark brown markings ; the face is feathered, but there is a small bare red space round the eye. A bird of the higher hills.

Voice. — Its call is said to be a low grunting note, and a harsh chucking sound is uttered when alarmed.

Habits and Food. — This beautiful Pheasant is usually found in small parties on broken rocky ground and steep hillsides and it is partial to open grassy slopes dotted with light oak and pine forests. It is a confiding bird and not very fast on the wing. It feeds on acorns, seeds, berries, roots and shoots, as well as on all kinds of insects. The cock drums in the breeding season.

Nest and Eggs, — The breeding season is from March to May. There is no nest, the eggs being laid on wind-blown leaves and rubbish in a natural hollow in the ground, usually under a bush, rock or patch of grass. The eggs, 6 to 10 in number, are like small fowls' eggs and average 1·92 by 1·39 inches. The hen is a very close sitter and will sometimes allow herself to be touched.

Status and Distribution. — This species has a small range from Manipur through Burma to Yunnan. It has been recorded from the Chin Hills, Upper Chindwin, Mogok hills, Shan States and Karenni. It is found at all elevations above 4,000 feet, and may be seen to advantage in the Shwe-u-daung Wild Life Sanctuary.

STONE'S PHEASANT

Phasianus elegans (1909).

Local Names. — Kachin: *Wucru.*

Identification. — There is no crest, and the bare skin on the face of the cock is developed into wattles, scarlet in colour. Sexes differ. The cock has the head various shades of green and purple-blue; upper back golden-chestnut, changing into deep chestnut on the back and wing-shoulders, each feather with a black centre; rest of upper-parts pale green-grey with subterminal bars of emerald-green; tail-feathers rufous-brown with broad black bars, narrowly edged with golden-buff; breast deep glossy green, flanks and sides of the breast golden-copper with black edges; under tail-coverts chestnut marked with black and wing-shoulders chestnut with white sub-edging, fine black edging,

and a bold bar of black between the chestnut and the white. This bird is said to have a harsh guttural chuckle and also a crow like that of the English Pheasant, which belongs to the same genus but a different species. A bird of the higher hills and mountains, found singly, in pairs or small coveys.

Nest and Eggs. — Unknown.

Status and Distribution. — Found in the mountains of Western China, Eastern Tibet, Yunnan and North-East Burma. It has been recorded as common only on the open bracken-covered hills near the Panwa Pass at about 6,000 feet, but has been shot as low as 2,000 feet.

THE AMHERST PHEASANT

Chrysolophus amherstiæ (1915).

Local Names. — Lashi: *U-cree.*

Identification. — Sexes differ. The distinguishing feature of the cock is the curious cape-like arrangement of erectile feathers rising from the neck and hanging over the neck and extreme upper back; the tail is composed of 18 feathers and is of very great length (34 to 46 inches) the central pair of feathers being four times the length of the outermost; there is a crimson crest, the head and neck are Peacock-green, the lower back and rump brilliant golden-buff, each feather with a broad band of metallic dark blue-green, and the upper tail-coverts black and white (the longest with flame-coloured tips); lower breast, abdomen and flanks white; under tail-coverts deep blue-green, edged with black. The skin of the face is blue; there is a short spur on the leg, a mere knob seldom more than ½ inch long. The hen has a much shorter tail (12-15 inches); the upper-parts are barred buff and dark brown, and the under-parts are various shades of buff. It is said to be a very noisy bird but a great skulker. A bird of the mountains.

Nest and Eggs. — Two clutches of eggs taken in Szechwan were said to have been laid on the ground under the shelter of a bush in dense forest; they are described as being like small fowls' eggs, quite unmarked, and average 1.95 by 1.40 inches.

Status and Distribution. — Confined to Western China, Eastern Tibet and, in Burma, to the east of the Northern Shan States and the Yunnan frontier in North-East Burma. It is not found below 6,000 feet.

VIEILLOT'S FIRE-BACK PHEASANT

Lophura rufa (1916).

Identification. — Length 28 inches (male), including a tail of 9-13 inches; 23 inches (female), including a tail of 7½ inches. Sexes differ, but both have bare skin on the face produced as fleshy pendant wattles below the cheeks, and an erect brush-like tuft of feathers for a crest. The cock has the tail only slightly longer than the wing; upper-parts deep purple except for the lower back and rump, which are a fiery red. It has a spur about 2½ inches long, and weighs 4¼ to 5 lbs. The hen has the head, neck and mantle chestnut; rest of upper-parts a paler rufous-buff, profusely covered with narrow irregular bars of black; lower neck and breast bright chestnut; rest of under-parts black with broad white edges to each feather; under tail-coverts black and chestnut.

It is a bird of dense low-level evergreen and is generally seen in small coveys, which run well and make a great fluster when rising but are strong and speedy on the wing. It has a note like that of the black-backed squirrel, and another *chukan chukan;* a whirring noise is also made with the wings.

Nest and Eggs. — More or less unknown.

Status and Distribution. — Extends from Sumatra through the Malay States to Southern Tenasserim, where it is said to be not uncommon.

[Note:— THE SIAMESE FIRE-BACK, *Lophura diardi (1917),* occurs in Siam, Annam and Cambodia, and is said to occur in the Shan States and Karenni, but proof appears to be lacking; for the present it is not admitted to the Burma List. The male differs from *rufa* in having the upper breast grey

as opposed to black, and the central tail-feathers black as opposed to white. The female has the wing-coverts black with broken buff bars, as opposed to chestnut vermiculated with black.]

THE BLACK-BREASTED KALIJ PHEASANT

Gennæus lathami (1921-2).

Local Names. — Burmese: *Yit* (ရှဉ်း); Arakan: *rak.*

Identification. — PLATE XXII, Fig. 2, Page 370. Length 20-27 inches. For general characters of the Kalij Pheasants see under the Burmese Silver Pheasant. Individuals vary greatly and some cocks have grey backs like the Burmese Silver Pheasant. The female differs from the Burmese Silver Pheasant in having the under-parts mottled or squamated but without white or buff streaks. Young males are like the females but generally darker.

Voice. — The call-note is the same as that of the next species. In addition it has a harsh single crow, uttered from a perch, and a deep guttural cooing sound connected with breeding.

Habits and Food. — Those of the genus.

Nest and Eggs. — The breeding season is from February to May, with second broods up to October. There is no real nest, a hollow being scratched in a pile of debris under thick bushes. The hen usually sits very close and does not rise till almost touched. The eggs, 4 to 10 in number, are white to buff in colour and average 1·86 by 1·43 inches.

Status and Distribution. — This species is found along the Himalayas from Bhutan eastwards to Assam and thence to parts of Burma. It has been recorded from Arakan, the Chin Hills, North-East Burma and Central Burma. In this area it is not uncommon, ascending the hills to about 6,000 feet. It is common in the Pidaung Wild Life Sanctuary.

[Note: — The two forms *Gennaeus horsfieldii horsfieldii (1921)* and *G. h. williamsi (1922)* are probably one and the same, any differences being due to hybridisation.]

THE BURMESE SILVER PHEASANT

Gennæus lineatus (1923-5).

Local Names. — Burmese: *Yit* (ရှဉ်း); Arakan: *rak;* Talaing: *pynklouk;* Karen: *Phugyk.*

Identification. — PLATE XXII, Figs. 8 & 8a, Page 370. Length 20-27 inches. The female differs from the preceding species in having the under-parts with white or buff streaks and not squamated. The Kalij and Silver Pheasants are the most closely allied of all Burmese Pheasants to the Junglefowl; they are heavily built powerful birds with comparatively short rounded wings and a tail of 16 feathers, compressed and of great or moderate length with the central tail-feathers longest; their legs are stout and fairly long, armed in the case of the male with a powerful spur (rarely two) on each leg; there is a well-developed crest and a vividly coloured bare space round the eye.

Voice. — In common with all other species of *Gennæus* this bird utters a guttural *whoop-keet-keet,* rapidly repeated as it feeds and moves about. The cock calls from its roost in the morning and evening and flaps its wings loudly after the manner of a Junglecock.

Habits and Food. — This is a typical bird of the teak forests, especially of the moist deciduous type, and it is nearly always seen in parties near small streams. It is a shy retiring bird except in remote forests, running rather than flying but quite strong on the wing when forced to fly. Like other birds of the genus, the males have the power of puffing out or inflating their wattles and they always do so when displaying or angry. It is excellent eating.

Nest and Eggs. — The breeding season is from February to May so far as is known at present. The cock may be heard drumming at this season; it is not polygamous. The eggs, 4 to 10 in number, are laid in slight hollows scraped in debris, usually in bamboo jungle; they are pale buff to deep buff-brown in colour and do not differ in size from the eggs of the preceding species.

Status and Distribution. — This species seems to be confined to Burma and Siam. It is common in Southern Burma (except in the drier parts) and has also been recorded from Arakan, Central Burma, the Shan States, Karenni and Tenasserim. It ascends the hills up to 5,000 feet, and is common in the Shwe-u-daung Wild Life Sanctuary.

[Note: — Three races of *lineatus* are given in the F.B.I., and it is by no means certain that these are recognisable. Owing to hybridisation and individual variation the Kalij and Silver Pheasants are a very difficult group to determine. At one time no less than 25 different forms were recogised. Here they have been reduced to 3: *lathami, lineatus,* and *nycthemerus.*]

THE YUNNAN SILVER PHEASANT

Gennæus nycthemerus subsp. *(1926).*

Local Names. — Burmese: *Yit* (ရစ်); Kachin: *wuri.*

Identification. — In size similar to *lineatus,* but the cock has a very long tail (18-25½ inches). The cock is easily recognised by almost white upper-parts, black crown, crest and under-parts. The hen is rich olive-brown, the crest darker. The feathers of the under-parts have whitish centres, or else are buff with bold bars or edges of dark brown. Both sexes have crimson facial skin. The cock weighs 3 lbs. on the average.

Voice. — Similar to that of *lineatus.*

Habits and Food. — This bird is usually seen in the thin scattered oak forests of the mountains, where patches of forest alternate with wide stretches of upland covered with low grass and dotted here and there with stunted oaks or pines. In these sunlit bleached expanses the dazzling white of the cock's back is not only inconspicuous but is very hard to make out. It is a great skulker and runner like other members of the genus, but once on the wing it is a most conspicuous object as well as a noisy one. Small coveys of 6-8 birds, cocks only, are sometimes seen.

Nest and Eggs. — Unknown.

Status and Distribution. — This species appears to be confined to Yunnan, North-East Burma, the Mogok hills and Shan States. It is a bird of the higher hills, not uncommon in its range, and can be seen to advantage in the Shwe-u-daung Wild Life Sanctuary.

SCLATER'S MONAL PHEASANT

Lophophorus sclateri (1929).

Identification. — Sexes differ. The cock is a magnificent bird with most of the upper-parts and wings metallic greens and purples; rump and upper tail-coverts white; tail black at the base, then chestnut, with a broad white terminal band; under-parts black; a short crest of curly feathers, and a patch of bare blue skin round the eye. The hen is brown in colour, the tail black broadly tipped with white and with six or seven narrow bars of white; under-parts dull wavy brown, the chin and throat white. The call is said to be a loud whistling note.

Nest and Eggs. — More or less unknown.

Status and Distribution. — Confined to the mountains of Assam, South-east Tibet, Yunnan, and North-East Burma, and seldom seen below 10,000 feet.

[Note:— ELWES'S HORNED PHEASANT, *Crossoptilon harmani (1930)*, has not been recorded from Burma but is found in the Abor and Mishmi hills and is likely to occur in the Naga hills or along the Tibet frontier. It is easily recognised by the fact that it is one of the "Eared Pheasants," the ear-coverts being so prolonged that they stick out behind the head like two small horns or ears.]

Sub-family PERDICINÆ.

TRAGOPANS, BLOOD PHEASANTS, PARTRIDGES & QUAILS

THE GREY-BELLIED TRAGOPAN

Tragopan blythii blythii (1933).

Identification. — Wing 10-11 inches (cock), 8-9½ inches (hen). Sexes differ. Tragopans are popularly known as Horned Pheasants, on account of two small fleshy bright blue horns that lie hid among the feathers on either side of the crown; in the breeding season these become swollen and erectile, and there is also some folded wrinkled skin dependent from the chin that in display becomes a brilliantly coloured balloon. The cock is a magnificent bird, with a great deal of crimson in its plumage, and the hen is brown or brown-grey mottled with black, rufous and white. Its call is a fine sonorous *wak*, sometimes lengthened into *wa-ai-ai*, reminiscent of a Peacock's call but much less harsh. It is found from 6,000 feet upwards, in dense evergreen forest with plenty of undergrowth, where it goes about in small parties.

Nest and Eggs. — The breeding season is in April and May. It makes a rough bulky nest of twigs and leaves in a tree. The eggs, 2 to 5 in number, are smooth and fairly fine in texture, but very stout and strong; they are pale buff in colour and average 2·30 by 1·73 inches.

Status and Distribution. — Resident in the mountains of Assam, the Chin Hills, Upper Chindwin, and North-East Burma.

TEMMINCK'S TRAGOPAN

Tragopan temminckii (1935).

Local Names. — Maru: *Nang;* Chinghpaw: *Prag-u-ri;* Lashi: *Ning.*

Identification. — The cock has the under-parts crimson, each feather with a grey centre, whereas the male of the preceding species has the abdomen smoky or grey and the upper breast crimson without any grey. The female of *temminckii* has no crimson on the shoulder of the wing in contrast to the female of *blythii*. For general characters of *Tragopans* see under *blythii*.

Nest and Eggs. — More or less unknown.

Status and Distribution. — Found in the mountains of China, South-east Tibet and North-East Burma, where it appears to be common over 7,000 feet.

THE YUNNAN BLOOD PHEASANT

Ithaginis cruentus kuseri (1937).

Identification. — The male has a wing of 8 inches and a tail of 6-7 inches, and the female is slightly smaller. The bill is short, stout and Grouse-like in character, and black in colour. There is a small patch of scarlet bare skin round the eye. Sexes differ. The cock has the forehead, chin, throat and breast crimson; the crest and upper-parts grey with central white streaks to the feathers; under tail-coverts crimson with yellow specks at the tips. The female is brown finely vermiculated nearly all over, with the nape and crest almost black; the feathers of the face and sides of the head are light brown, contrasting with the crown and crest. Its alarm-note is a harsh *ship, ship,* and it has a peculiar cry not unlike the squeal of a Kite. It is said to be remarkable for its stupidity and fearlessness.

Nest and Eggs. — Little known. Breeds in May near the snow-line.

Status and Distribution. — Extends along the Himalayas from Nepal to Yunnan and South-east Tibet. It is found in the mountains of North-East Burma from 8,000 feet upwards, and seems to be common.

THE YUNNAN BAMBOO PARTRIDGE

Bambusicola fytchii fytchii (1945).

Allied Form.—

THE ASSAM BAMBOO PARTRIDGE, *B. f. hopkinsoni (1946).*

Identification. — Wing 5½ to 6 inches. This species is like *Arborophila* in appearance. A broad white eyebrow and below it a broad black line from the eye; sides of the head rufous-buff; crown and nape rufous-brown; upper-parts greyish; chin and throat pale rufous-buff; breast chestnut, the feathers with white terminal spots and grey semi-edges; remaining under-parts white with broad black bands except on the vent and centre of the abdomen. A loud cheerful call *chi-chirree; chi-chirree; chiree, chiree, chiree,* is heard at all hours in the breeding season. It also has a harsh churring note, and rises with much the same screaming cries as the English Partridge. It frequents grasslands in the hills, especially where there is pine forest at the top and a stream at the bottom, and is also found in heavy cover. At night it roosts on low branches of pines or in bamboo clumps, but nearly always at the edge of the forest and not inside it; it feeds on all kinds of insects and berries, seeds and grain. The flesh is dry but white and tender.

Nest and Eggs. — The breeding season is from May to September, but most eggs are laid from April to July. The cock is monogamous and keeps with the hen whilst she is incubating and looking after the chicks; the hen is a very close sitter and often betrays her nest by flustering off at the last moment. The eggs are usually laid in grassland, sometimes in bamboo jungle, and rarely in scrub or forest; no nest is made, but the birds usually collect a good deal of rubbish to fill the hollows they select or scratch out for their eggs. These are 4 or 5 (occasionally 3, 6 or 7) in number, and are distinguishable from all other game-birds' eggs by the extremely hard thick shell. The colour is a pale to warm buff and the eggs average 1.58 by 1.17 inches.

Status and Distribution. — This species is found in Assam, Burma, Yunnan and Szechwan. It has been recorded from the Chin Hills, North-East Burma and the Shan States. It is found from 1,000 to 7,000 feet and is locally common.

THE GREEN WOOD QUAIL

Rollulus roulroul (1947).

Identification. — Length 11 inches. This species is remarkable for its bright green colour. The cock has a thick crest of bristly red feathers, a white band across the head from eye to eye and the rest of the head and neck black; the hen has the whole head dark slaty-grey. The call is a soft mellow whistle.

This quaint little Partridge is a forest bird, found in small parties, and is a confirmed skulker and runner; it is said to be very stupid and easily trapped.
Nest and Eggs. — Unknown.
Status and Distribution. — Extends from Tenasserim and South-west Siam through the Malay States to Sumatra and Borneo. It is said to be very common on the Little Tenasserim river, and is also found on some islands of the Mergui Archipelago.

THE BLUE-BREASTED QUAIL

Excalfactoria chinensis chinensis (1948).

Local Names. — Burmese: *Ngon* (ငုံး)
Identification. — PLATE XXII, Fig. 7, Page 370. Length 6 inches. Sexes differ. The male appears a very dark almost black little bird when flushed out of the grass. The back is rufous-brown and the legs yellow. Weight 1½ to 2 oz. The female is like the male above but with no slaty markings; the slaty-blue on the head is replaced by rufous; chin and throat whitish; remaining under-parts pale buff, the breast and flanks barred with black; the tail is brown with buff and black markings. The young male is like the adult but has no blue or chestnut above and the chestnut below is either wanting or is restricted to the centre of the abdomen; there are broad buff centres to the feathers of the rump and upper tail-coverts.
Voice. — When flushed it utters a quiet *tir-tir-tir*, but the call-note to the male or young is a sweet double whistle sounding like *ti-yu, ti-yu*.
Habits and Food. — This little Quail is partial to grasslands and stubble, and also frequents scrub jungle and reeds bordering swamps, but never forests. It scuttles into cover at the least alarm, and is then very difficult to flush, even with dogs and beaters. It eats seeds, berries and insects and in the early morning may be seen in the open if its usual feeding ground is quietly approached.
Nest and Eggs. — Nests have been recorded (in Assam) in all months of the year, but in Burma most eggs are laid in January and again from June to October. The nest is a mere scrape in the earth, sometimes lined with a little grass, and is nearly always in grassland or stubble. The eggs, 4 to 7 (rarely 8) in number, vary from pale yellowish to brown in colour; most eggs are unmarked but a few have darker freckles. They average 0·97 by 0·75 inches.
Status and Distribution. — This species has a wide range in the Oriental Region, extending to Australia. It is found throughout Burma in suitable localities but is a local migrant whose movements have not been worked out.

THE COMMON or GREY QUAIL

Coturnix coturnix coturnix (1950).

Allied Form.—

THE JAPANESE GREY QUAIL, *C. c. japonica (1951).*

Local Names. — Burmese: *Ngon* (ငုံး)
Identification. — Length 7-8 inches. A plump seemingly tailless little bird, with a striped head and sandy coloration streaked with white; the male of the typical race has a distinctive black anchor-

mark on the throat. The male of the Japanese race has the chin and throat light brick-red, as opposed to blackish, with no cross-bars. The female differs in having the feathers of the chin and lower cheeks stiff, long and pointed, forming a little bristly beard. Has to be distinguished from the Black-breasted Quail (*q.v.*). Weight 3¼ to 4 oz.

Voice. — The call of the male, heard mainly in the breeding area, is a liquid whistle *wat-wa-lak*.

Habits and Food. — Though the Common or Grey Quail is extremely well known in India as a sporting bird for the gun, a favourite delicacy for the table, and a cage-bird for fighting and betting purposes, it is comparatively scarce in Burma and not often seen. Its flight and habits resemble those of other Quails.

Status and Distribution. — This species is found almost throughout Europe, Africa, and the greater part of Asia, and is sparingly distributed through Burma in the cold weather. The distribution of the two races has not been worked out. The typical race is resident in the British Isles.

THE BLACK-BREASTED or RAIN QUAIL

Coturnix coromandelica (1952).

Local Names. — Burmese: *Ngon* (ငုံး)

Identification. — PLATE XXII, Fig. 5, Page 370. Length 7 inches. Very difficult to distinguish from the Common Quail in the field except by the call and smaller size, unless the black breast is visible. In the hand both sexes are at once distinguished by the primaries, which are plain on the outer webs, whereas the Common Quail has all the primaries except the first barred with rufous on the outer webs.

Voice. — A rapidly repeated and musical *whit-whit-whit-whit*.

Habits and Food. — Like the Grey Quail, this species is purely a bird of open country, being found in cultivation and grasslands, often near houses and villages. During the breeding season it is found in pairs, but otherwise is a solitary bird though suitable cover often attracts many individuals to the same ground.

Nest and Eggs. — The breeding season is in the monsoon, from the end of June to October, though most eggs are found in August or the beginning of September. The nest is a hollow scraped in the ground and lined sparsely with grass and leaves; it is placed amongst standing crops or thin grass. The eggs, 4 to 11 (usually about 9) in number, are very variable; they are broad ovals in shape, fine and smooth in texture with a fair gloss, and vary from pale yellowish-white to rich brownish-buff in ground colour. The eggs are of three types: a finely and evenly speckled egg, a boldly blotched and freckled egg, and a marbled egg: and the markings may be blackish, purplish, or olive-brown, but all the markings on one egg are of one colour, and all the eggs of one clutch resemble each other closely. The eggs average 1·10 by 0·84 inches.

Status and Distribution. — This species is peculiar to India, Burma and Ceylon. It is found throughout Burma in suitable localities except apparently the Myitkyina district and Tenasserim. It is very

common in the Dry Zone of Central Burma and is believed to be a local migrant, but its movements have not been worked out.

[Note:—THE MANIPUR BUSH QUAIL, *Cryptoplectron manipurensis manipurensis (1957)*, has not been recorded from Burma but is certain to occur within Burmese limits in the Naga hills on the Manipur border. Wing 3-3½ inches. Sexes differ. The male has the forehead, round the eye, cheeks, chin and throat deep rufous-chestnut; a line through the eye white; upper-parts slaty-grey barred with black; neck and upper breast ashy-grey with black centres to the feathers; lower breast and abdomen rufous-buff, each feather with a black cross; under tail-coverts black, tipped and spotted with white. The female has no chestnut on the head, and the rufous on the under-parts is replaced by greyish-buff. The call is a sweet low whistle, uttered principally in the evenings. It frequents the foothills and keeps closely to dense grass and reeds, and is easily overlooked. Usually seen in small coveys.]

THE COMMON HILL PARTRIDGE

Arborophila torqueola subsp. *(1959), (1961).*

Local Names. — Lashi: *Ngaw-tu.*

Identification. — Wing about 6 inches. The colour is largely olive-brown, variegated with chestnut and black with white spots on the flanks. The male has a chestnut crown and a black and white throat enclosed in a white gorget. The female has the throat spotted with black. It has a plaintive call, a very gentle melancholy whistle *poor* or *pheew*, uttered singly at short intervals and audible for some distance. It also has a whistling solo in which it runs up the scale in double notes. Habits apparently similar to those of the next species.

Nest and Eggs. — The breeding season is in April and May. The eggs are typical of the genus and average 1·60 by 1·26 inches.

Status and Distribution. — Found along the Himalayas from the Kangra valley to Yunnan; in Burma it has only been recorded from the Chin Hills and North-East Burma, at elevations over 4,000 feet.

[Note:— As it is doubtful whether OGILVIE-GRANT'S HILL PARTRIDGE, *A. t. batemani (1961)*, is a recognisable race, the form occurring in Burma should probably be attributed to the typical race, *A. t. torqueola (1959)*. The question is still undecided.]

THE TENASSERIM RUFOUS-THROATED HILL PARTRIDGE

Arborophila rufogularis tickelli (1964).

Allied Forms.—

THE ARAKAN HILL PARTRIDGE, *A. r. intermedia (1963).*

Local Names. — Lashi: *Ngaw-tu.*

Identification. — Length 11½ inches. A brown-coloured bird deriving its name from the bright rufous chin and fore-neck, which are also spotted with black.

Voice. — The call is a loud double whistle, commencing soft and low but gradually becoming more and more rapid and rising higher and higher till the bird has to stop, *waw... wa... waw... waw... wa.*" etc. answered by *wick wick wick wick* etc. Members of a party utter a soft whistle from time to time, or croon a few chuckling notes, but if they get further apart they call loudly to one another with a startling but musical *wheea-whip*, which can be heard at an immense distance.

Habits and Food. — All the Hill Partridges are great skulkers and runners and are usually seen as shadows slipping away into thick cover. They frequent dense forests, especially those that have extensive bamboo thickets, and are partial to streams in evergreen forests, where they are often found in the heat of the day. This species is monogamous and the small coveys probably consist of the old birds and their last brood. It is active and quick, yet sedate and quiet in its movements; it flies well and fast, and twists in and out of the trees with remarkable speed. It is very good eating, though rather dry.

Nest and Eggs. — The breeding season is from April to June. The nest varies greatly. Some are elaborate structures built in the grass; a depression among the roots is well lined with a good thick pad of green blades; round this the living grass is so arranged that it forms sides and roof, completely enclosing the nest, whilst at the front it is beaten down and a little tunnel a few inches long worked through it, by which the birds leave or enter the nest. Other nests are just masses of bamboo leaves under the shelter of a bamboo clump, the eggs shining up conspicuously when the bird leaves them exposed. Intermediate types are also found. The eggs, 3 to 6 in number, are pointed ovals in shape, fine and close in texture, and a pure glossy white in colour; they average 1·54 by 1·17 inches.

Status and Distribution. — This species is found from the Central Himalayas through Burma to the Malay States; it is found almost throughout the higher hills of Burma and is locally common.

THE WHITE-CHEEKED HILL PARTRIDGE

Arborophila atrogularis (1965).

Local Names. — Kachin: *Wogam* or *Gamtoung;* Lashi: *Ngaw-tu.*

Identification. — Length 11 inches. Distinguished from the two preceding species by having no chestnut on the flanks. The cheeks are white and the chin, throat and fore-neck black.

Nest and Eggs. — The breeding season is from April to June. Nest and eggs are typical of the genus, the eggs averaging 1·48 to 1·12 inches.

Status and Distribution. — Apparently confined to Assam and Northern Burma. It has been recorded from Arakan, the Chin Hills, Upper Chindwin, North-East Burma, and the Northern Shan States, and is found mainly in the foothills, ascending to about 5,000 feet; it is locally common.

THE BROWN-BREASTED HILL PARTRIDGE

Arborophila brunneopectus brunneopectus (1967).

Local Names. — Kachin: *Wo-gam;* Burmese: *Taung-kha* (တောင်ခါး)

Identification. — Length 11 inches. White chin, cheeks and ear-coverts, buffy-brown breast and a black patch on each side of the neck distinguish this species from the others. In addition to the loud double whistle of the genus, this bird is said to make a curious low *purr-r-r.* Its habits are typical of the genus, and it frequents evergreen forest.

Nest and Eggs. — Little known, except that a typical nest with 4 eggs was found near Rangoon in June.

Status and Distribution. — Extends from Yunnan and Burma through Siam to Malaya. It is found in the Pegu Yomas (east side), Karen Hills, Shan States, probably Karenni, and Tenasserim. It is found mainly in the foothills, occasionally ascending to 4,000 feet (as at Thandaung, where it is not uncommon).

THE GREEN-LEGGED HILL PARTRIDGE

Tropicoperdix chlorophus chlorophus (1968).

Identification. — Length 11½ inches. Green legs distinguish it from all except the next species. Upper-parts brown with narrow crescentic black bars; chin, throat, and sides of the head white, each feather with a black spot at the tip; neck and sides bright rufous, similarly spotted; breast brown like the back, with wavy black bars on the upper breast changing to rusty-red on the lower breast. A bird of both evergreen and dry forests, found chiefly in the foothills.
Nest and Eggs. — Unknown.
Status and Distribution. — Found in Burma, Cochin China, Annam and Siam. In Burma there are a few records from the Upper Chindwin, North-East Burma, Central Burma, the Pegu Yomas (east side) and Tenasserim; it appears to be scarce.

[Note: — THE MALAY GREEN-LEGGED HILL PARTRIDGE, *Tropicoperdix charltoni charltoni (1969)*, was not admitted by Oates in his "Birds of British Burmah", and since then no records or specimens have been traceable. It should be looked for in Southern Tenasserim. Upper-parts and wings similar to those of the preceding species, but from back to rump and tail the whole surface is more or less vermiculated with black, grey and dull buff. The upper part of the breast is chestnut, not olive-brown.]

THE FERRUGINOUS WOOD PARTRIDGE

Caloperdix oculea oculea (1970).

Identification. — Length 11 inches. Differs from *Arborophila* and *Tropicoperdix* in having one or more spurs on each leg. Whole head, neck and under-parts bright rusty-red. Upper-parts black with various bars and markings on the feathers. Legs green.
Nest and Eggs. — Little known. A nest found in May was a matted pad of grass under a scrubby bush and contained one glossy white egg.
Status and Distribution. — The species ranges from Borneo, Java and Sumatra through the Malay States to South-west Siam and Tenasserim as far north as the Dawnas.

THE LONG-BILLED WOOD PARTRIDGE

Rhizothera longirostris longirostris (1971).

Identification. — Length 9 inches. The long, heavy, much bent-down bill distinguishes this species. Sexes differ. The male has the chin and throat pale chestnut; neck and breast grey, changing to rufous-buff on the lower breast and flanks and again to almost pure white on the abdomen. The female has neck and breast rufous-chestnut, not grey, and the rusty colour of the under-parts is deeper and more extensive. The note is a loud clear whistle, often heard at night.
Nest and Eggs. — Unknown.
Status and Distribution. — Extends from Tenasserim and South-west Siam through the Malay States to Sumatra and Borneo.

[Note: — THE ASSAM BLACK PARTRIDGE, *Francolinus francolinus melanonotus (1978)*, has not been recorded from Burma but is almost certain to occur in the Naga hills on the Manipur border and possibly in Northern Arakan. Distinguished from all the Hill Partridges by the tail being more than half the length of the wing. Both sexes have a peculiar scaled type of coloration on the top and sides of the body, and the male is conspicuous for its black under-parts, white cheek-patch, and chestnut collar. The loud grating call-note *che-chirree, chick-chiree* resembles that of the Burmese Francolin but is differently phrased.]

PHAYRE'S BURMESE FRANCOLIN

Francolinus pintadeanus phayrei (1981).

Local Names. — Burmese: *Hka* (ခါ)

Identification. — PLATE XXII, Fig. 4, Page 370. Length 13 inches. Usually heard and not seen. The bird has a general grey appearance, due to the scaled character of the plumage. The under-parts of the female are whitish barred with black, except on the chin and throat.

Voice. — The call-note is distinctive, and is freely uttered at most times of the year, but particularly at dawn and dusk in the cold weather; it is a harsh grating *Do-be-quick-papa,* normally uttered from a low perch in a tree or bush, the neck being stretched upwards each time the bird calls.

Habits and Food. — This Partridge frequents all types of country except dense forest, but it favours dry areas, especially where scrub and light open forest are found near cultivation or small areas of paddy land. Its stronghold is in the Dry Zone, where it feeds on the ground in bean and ground-nut crops or paddy stubble, picking up seeds and grain of all kinds and also insects; it runs rather like a Wren, with lowered head and tail erected vertically. It does not form coveys and is generally seen solitary or in pairs, and though difficult to flush it is strong on the wing and offers quite good sport; the best method is to walk through stubble or low crops in the early morning with a dog or a line of beaters. It is less of a skulker in the Pidaung Wild Life Sanctuary, and may be watched feeding on the roads in the hot weather.

Nest and Eggs. — The breeding season is from March to September. The eggs, 3 to 6 in number, are laid in a scrape in the ground, usually in scrub jungle or light forest; they vary from a pale yellowish-buff to a warm coffee colour, and average 1·39 by 1·15 inches.

Status and Distribution. — This species is found in China, the Indo-Chinese countries, Burma and Manipur. It is found throughout Burma except for Tenasserim but is much commoner in the Dry Zone than elsewhere. It ascends the hills to about 5,000 feet where the conditions suit it, and has nested in the Botanic gardens, Maymyo.

[Note: — THE SWAMP PARTRIDGE, *Francolinus gularis (1982),* has not been recorded from Burma but should be looked for in the vast swamp in the Patkoi hills. Length 15 inches. Upper-parts brown with buffy-white bars; chin, throat and fore-neck rusty, under-parts whitish with black margins to each feather; some birds have the abdomen and under tail-coverts rufous The call is a loud ringing *chuck, chuck, chukeroo, chukeroo.* It frequents extensive areas of *kaing* grass round lakes and swamps and along rivers.]

THE KANSU PARTRIDGE

Perdix hodgsoniæ sifanica (1987).

Identification. — Length 12 inches. Differs from all other Partridges in Burma in having 16 tail-feathers. Members of a party call to one another with a curious buzzing sound like the creaking lid of a lunch-basket. A bird of the higher mountains.

Nest and Eggs. — The breeding season is from May to early July, and the eggs are olive in colour.

Status and Distribution. — Found in Tibet, parts of the Himalayas, and parts of Central Asia. It has been recorded from the headwaters of the Irrawaddy at elevations over 12,000 feet.

Order VI HEMIPODII.

Family TURNICIDÆ

BUSTARD-QUAILS & BUTTON QUAILS

These little Quails closely resemble the true Quails, but, so far as our Burmese birds are concerned, can always be identified by the fact that they have only three toes, the hind-toe being absent. They are found in all types of jungle except dense forest, but most commonly in stubble, open grasslands and marshes. When disturbed they prefer to run into thick cover, but if forced to take wing they fly very straight and fast with whirring wings for 50 yards or so and then drop down into cover as if shot.

The family life of these birds is remarkable in that the females usurp the functions natural to the males in most walks of animal life. They are larger than the males, often more richly coloured, and do all the courting; they fight with rival females for the favour and possession of the males, to whom they relegate the care and incubation of the eggs and the upbringing of the young. One hen will apparently go on laying eggs as long as she can find a supply of males to incubate them and to look after her innumerable progeny when hatched, for as soon as she has laid her first clutch she goes off to hunt up another male to look after her second clutch, and so on through the breeding season, which becomes so extended that eggs may be found in any month of the year.

The nest consists of a hollow in the ground lined with grass and leaves, and is usually under the cover of a bush or clump of long grass. The eggs, normally 4 (occasionally 3 or even 2) in number, are fine in texture, very hard and stout, often with a pronounced gloss; they are somewhat conical in shape and are laid point to point, in the same manner as Plovers lay their eggs.

After hatching the eggs, which takes about 12 days, the male looks after the young and brings them up, performing his duties in an admirable manner; he feeds and tends them with the greatest solicitude, brooding them at night and fighting for them against all possible enemies, sometimes including their own mother, with the greatest bravery. As in the family *Phasianidæ* the young are covered with down when they hatch and can run about and feed themselves in a very short time.

Our Burmese species are resident throughout their range, though moving up and down to some extent with the seasons.

THE BUSTARD-QUAIL

Turnix suscitator subsp. *(1997).*

Local Names. — Burmese: *Ngon* (ငုံး)

Identification. — Length 5-5½ inches. Distinguished from the two following species by the black bars right across the breast of the male and the black breast of the female. In general appearance it is dark reddish-brown above with a greyish tinge, and pale buff below.

Voice. — The female has a loud drumming call *drr-r-r-r* and also a booming note *boom-boom-boom*, which can be heard at a considerable distance.

Habits and Food. — Those of the family.

Nest and Eggs. — These are typical of the family; the eggs are greyish-white, profusely marked with tiny specks of brown of various shades, and average 0·98 by 0·80 inches.

Status and Distribution. — This species has a wide range in the Oriental Region and is found throughout Burma in suitable localities; four different races are said to occur in this country (F. B. I., Vol. V. Pp. 445-450) but without far more specimens from different places it is impossible to say what races are recognisable and what their distributions are.

THE LITTLE BUTTON QUAIL

Turnix dussumieri (2003).

Local Names. — Burmese: *Ngon* (ငုံး)

Identification. — Length 5 inches. A plump rounded bird with a soft pointed tail and a slaty bill, features that distinguish it from the next species: it has a pale stripe down the crown and a mixture of rufous-black and yellow in the upper-parts.

Voice. — The ordinary call-note is a soft booming sound, ventriloquial in character, and usually described as a cross between a coo and a purr. This is uttered by the female and attracts the male, whom she courts, turning and twisting and posturing.

Habits and Food. — Those of the family.

Nest and Eggs. — The breeding season is mainly from June to September, but eggs may be found in almost every month of the year. Nest and eggs are typical of the family, but the latter are more richly marked than most, with bold blotches of colour, and average 0·84 by 0·66 inches.

Status and Distribution. — This species is found almost throughout India, thence through Burma to Hainan and Formosa. In Burma it has only been recorded from the Irrawaddy-Sittang plain and the Shan States, and appears to be scarce.

THE BURMESE BUTTON QUAIL

Turnix tanki blanfordi (2004).

Local Names. — Burmese: *Ngon* (ငုံး)

Identification. — PLATE XXII, Fig. 6, Page 370. Length 5 inches. The male is distinguished from the preceding species by the yellow bill and short tail and the female by a broad rufous collar.

Voice. — The female has a loud challenging call *boom-boom-boom;* the male utters a soft *chuck-chuck* to the young.

Habits and Food. — Those of the family. It appears to be common in the higher hills, especially where short grassy undergrowth occurs in pine forest or in the open.

Nest and Eggs. — These are typical of the family; the eggs are mostly of the speckled and not the blotched type, and average 1·00 by 0·82 inches.

Status and Distribution. — This species is widely distributed in India and Burma, extending to Yunnan, Siam, China and Manchuria; it is found throughout Burma except in the Chin Hills, Upper Chindwin, and North-East Burma. It ascends to at least 7,000 feet and is locally common.

PLATE XXIII

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10a.	Ditto. (adult female)	"

PLATE XXIII

Order VII GRALLÆ.

Sub-order FULICARIÆ.

Family RALLIDÆ

RAILS, CRAKES, MOORHENS, WATERCOCKS, & COOTS

Members of this family are found almost throughout the world.

The various Rails and Crakes are much alike in their habits. They are great skulkers, nearly always hiding in reeds and *kaing* grass, and seldom venturing into the open except in the early mornings and late evenings. They walk well with long strides, but in an ungainly fashion with a jerk of the head and tail at each step; when disturbed they run fast into the nearest cover with the head and tail depressed, and are very loath to take wing.

The Watercock resembles the Rails and Crakes in its habits, but the Moorhens and Coots are more birds of open water and are often seen swimming about the surface of a jheel. They feed on seeds, plant shoots, buds, etc., and also on insects, especially grasshoppers and their larvae.

THE INDIAN WATER RAIL

Rallus aquaticus indicus (2006).

Identification. — Length 13 inches. Crown and nape black with a blackish line through the eye, above which is a white eyebrow; upper-parts ruddy-brown streaked with black; under-parts similar to those of the next species (Plate XXIII, Fig.1.). The eye is red and the bill brown with some red at the base. The ordinary note is a softly repeated *chip chip chip*.

Status and Distribution. — The Water Rail is a familiar bird in the British Isles, whence it extends right across Europe and Asia to Japan; the Indian race breeds in North-east China and Eastern Siberia to Japan and in winter visits parts of Bengal, Assam and Burma. It has been recorded only from Arakan, the Myitkyina district, and the Inle lake in the Southern Shan States, but is likely to occur in the cold weather over a large part of Northern Burma.

THE INDIAN BLUE-BREASTED BANDED RAIL

Rallus striata gularis (2008).

Local Names. — None recorded.

Identification. — PLATE XXIII, Fig. 1, Page 386. Length 10 inches. The dark brown upper-parts with wavy white bars, the ashy-blue breast, and the white bars on the flanks are distinctive. The female is a trifle duller, and paler on the abdomen. Young birds lack the white bars and spots on the back, which is streaked with dark brown, and have the crown and neck rufous-brown, freely streaked with dark brown. The flight is weak and laboured. The stub-tail is twitched up and down at every step, as with all Rails.

Voice. — Not recorded.

Habits and Food. — Except that it is said to be tame and confiding this bird's habits do not differ from those of other Rails. It frequents jheels, swamps and marshes of all kinds. It swims well, very high in the water, and can dive without much effort.

Nest and Eggs. — The breeding season is during the rains. The nest is built in *kaing* grass about one foot from the ground, and is a thick pad of dead grass blades fixed amongst the stems of the growing *kaing*. The eggs, 5 to 8 in number, are creamy-white to pinkish-buff in colour, marked either with sparse blotches and spots of reddish-brown with underlying marks of neutral tint, or with specks and spots of pale reddish scattered profusely over the whole surface. The eggs average 1·33 by 1·02 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and breeds throughout Burma in suitable swamps; it has been known to breed on the Rangoon race-course, and is locally common. It is not clear whether it stays in Burma during the dry season, and it may possibly be a summer resident only.

THE SPOTTED CRAKE

Porzana porzana (2011).

Identification. — Length 8-9 inches. Differs from the next species in having the neck, breast and back spotted with white.

Status and Distribution. — This species breeds in the British Isles and through Europe to West-Central Asia, migrating to North Africa and India in winter. Its occurrence in Burma rests upon a century-old record from Arakan, but it has been obtained in Assam and is likely to occur in Burma as a rare straggler.

THE EASTERN BAILLON'S CRAKE

Porzana pusilla pusilla (2013).

Identification. — Length 7 inches. In this and the preceding species the upper-parts are rufous-brown and curiously marked as if with smears of white paint. There is a small streak through the eye, the sides of the head and under-parts being grey except for the under tail-coverts, which are barred brown and white. The white edge to the first primary quill is conspicuous. In flight it much resembles a small Quail, for which it is no doubt often mistaken, but the long greenish legs usually hang down.

Status and Distribution. — This species is a vagrant to the British Isles, extending across Europe and Asia to the Philippines, and is found over the greater part of Africa. The typical or Eastern race breeds in Kashmir and in winter is found over the greater part of Burma, except apparently in the north, in suitable swamps; it has never been proved to breed in Burma, and is at present regarded as a winter visitor.

THE BANDED CRAKE

Rallina superciliaris superciliaris (2014).

Identification. — Length 10 inches. Chin and throat pure white; head, neck and breast chestnut; remaining upper-parts dark brown, and remaining under-parts barred black and white. Eye red, bill mainly green, legs slaty. Young birds have the upper-parts of the head and neck the same colour as the back, and the breast brown; eye dull brown.

The cry is described as like that of a hen after laying an egg, whilst if suspicious the bird utters a sound like *k-r-r-r-r* in a subdued tone. It calls in the mornings and evenings, and in wet weather during the day also; when flushed it takes to the nearest thickly foliaged tree, and seems to have a great fondness for taking refuge in buildings.

Status and Distribution. — This species is widely distributed in the Oriental Region, but its occurrence in Burma is based on only two records, one from

the Southern Shan States and the other from Thayetmyo; its status is unknown and it appears to be a rare vagrant.

THE MALAY BANDED CRAKE

Rallina fasciata (2015).

Identification. — Length 10 inches. Whole head, neck and breast deep chestnut; wings and under-parts barred black and white; remaining upper-parts rufous-brown. Eye, legs and feet red; bill blackish. Young birds have the head and neck the same colour as the back and the under-parts are whitish, obscurely barred. It frequents dense forests and sometimes scrub jungle round villages and paddy fields, and is very shy.

Status and Distribution. — This species extends from Assam through Burma and the Malay States to Borneo and the Celebes. In Burma it has been recorded from Mt. Popa, Thayetmyo, Rangoon, Karenni and Tenasserim, and its status is unknown.

THE NORTHERN RUDDY CRAKE

Amaurornis fuscus bakeri (2019).

Allied Forms.—

THE RUDDY CRAKE, *A. f. fuscus (2017).*

THE CHINESE RUDDY CRAKE, *A. f. erythrothorax (2020).*

Local Names. — Burmese: *Ye-ngon* (ရေငုံး), a name applicable to all Crakes.

Identification. — Length 8-9 inches. Upper-parts dark olive-brown and the mask and under-parts rufous. The bright red legs are conspicuous, even in flight. Young birds are darker above with the head the same colour as the back, and the under-parts whitish barred with blackish. Eye crimson in adults, brown in young; bill brownish-green. It flies fast and straight, looking much like a Quail except for the hanging legs as it rises.

Voice. — The call is a soft crake, *keek-keek-keek,* but it is a silent bird even in the breeding season.

Habits and Food. — This bird spends the heat of the day in scrub or *kaing* grass, coming out in the mornings and evenings to feed in paddy fields, swampy meadows and semi-open country. It is a great skulker.

Nest and Eggs. — The breeding season is during the rains. The nest is a pad of reeds and grass built on the ground amongst vegetation on the edge of a swamp or marsh. The eggs, 5 to 8 in number, are a pale cream well covered with small blotches of rufous-brown or deep reddish-brown and secondary markings of neutral tint. They average 1·27 by 0·89 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and occurs throughout Burma in suitable localities; it certainly breeds in Burma, but whether it is a resident or a summer visitor is uncertain and winter records are needed to clear up this point. It is the only Crake that is at all common.

THE CHINESE WHITE-BREASTED WATERHEN

Amaurornis phœnicurus chinensis (2022).

Local Names. — Burmese: *Kalu-gwet* (ကလူကွက်), *Ye-kyetma* (ရေကြက်မ)

Identification. — PLATE XXIII, Fig. 2, Page 386. Length 12 inches. Young birds have the feathers of the forehead and face tipped with slaty, obscuring the white. A common bird of village ponds and jheels.

Voice. — An exceedingly noisy bird in the breeding season and remarkable for its weird calls, which consist of a series of grunts, croaks, and chuckles followed by a monotonous *kee-wak, kee-wak, kee-wak-a-wak-wak,* which is often kept up for 15 minutes at a stretch. The ordinary note is a sharp metallic sound much like the noise of a pestle and mortar, and this is often uttered all night long.

Habits and Food. — This is one of the commonest water-birds of Burma, and is to be found wherever water is surrounded by a certain amount of thick cover, whether in marshes and jheels or about village ponds and in gardens. It comes out to feed in the mornings and evenings and searches for grain and insects on the ground; when disturbed it is loath to take flight but runs rapidly into cover. It is a quarrelsome species and inclined to fight a good deal, the birds sparring like chickens. It is by no means earth-bound and seems to enjoy clambering about bushes.

Nest and Eggs. — The breeding season is during the rains. The nest is built on the water amongst rushes or bushes, or more usually in a raised situation in a bush, bamboo clump or tree at varying heights, sometimes far from water; the bird does not fly up to it but climbs up the surrounding vegetation. The nest is a saucer of sedges, dried grass, bamboo leaves, and twigs. The eggs, 4 to 8 in number, are moderately elongated ovals in shape, hard and fine in texture with a slight gloss, and a pale buff in colour, spotted and blotched with brownish-red and pale purple; the markings form a cap at the larger end and are sparse elsewhere. The eggs average 1·57 by 1·18 inches.

Status and Distribution. — This species is found over most of the Oriental Region and is a common resident throughout Burma in suitable localities.

ELWES'S CRAKE

Amaurornis bicolor (2025).

Identification. — Length 11 inches. Head, neck and under-parts dark ashy-grey; upper-parts brown; tail black. Bill greenish, legs dull to bright red. A bird of the higher hills, and a typical Rail in habits, frequenting small marshes, pools and streams with thick cover nearby.

Nest and Eggs. — The breeding season is during the rains. The nest is the usual pad of reeds, grass and rushes, built a few inches above the surface of the water as a rule; the eggs, 4 to 6 in number, are buff to pink with spots and blotches of pale reddish-brown and deep reddish-purple sparsely scattered over the surface. They average 1.33 by 1.03 inches.

Status and Distribution. — This species extends from Nepal eastwards to Yunnan and southwards to Karenni. In Burma it has only been recorded from the Chin Hills and Karenni but is likely to occur also in the Shan States. Its status is unknown, but it is probably resident in the higher hills.

THE INDIAN MOORHEN

Gallinula chloropus indicus (2026).

Local Names. — Burmese: *Ye-gyet* (ရေကြက်)

Identification. — PLATE XXIII, Fig. 3, Page 386. Length 12½ inches. It swims with a characteristic bobbing action of the head and on land incessantly jerks up the tail, like all Rails, thus revealing the white patches underneath. The red-gartered green legs and the red bill with a yellow tip are distinctive features. The flight is rather heavy and and laboured, with the neck and legs extended, usually low over the water.

Voice. — The call is a loud harsh *prruk*, with something startling and sudden in the sound, which is audible some distance away.

Habits and Food. — The two essentials for the Moorhen are an abundance of weeds, rushes and other cover and a perennial supply of deep water; unlike the English race it is seldom found along rivers and streams. It spends most of its time swimming about amongst the water-weeds, feeding on vegetable matter, small molluscs, water-insects and their larvae. It swims well and when necessary is a good diver, though it seems to dive only if danger threatens. It feeds a good deal on land in the cover round the water's edge and often wanders out into the open; like the White-breasted Waterhen it often perches on trees, climbing about the branches quite easily.

Nest and Eggs. — The breeding season is during the rains. The nest is a mass of grasses and rotting vegetation heaped up to form a hollow for the eggs; it is built either on the water amongst vegetation or in tufts of grass, or occasionally in the fork of a tree above the ground or water level. According to the situation it varies from a sketchy platform to a well-built nest. The eggs, 6 to 9 (rarely up to 14) in number, are moderately broad ovals in shape, compact and firm in texture with little gloss, and a pale stone in colour, marked with spots and blotches of deep reddish-brown and purple. They average 1·62 by 1·21 inches.

Status and Distribution. — The Moorhen is a cosmopolitan species, common in the British Isles and found in all the continents except Australia. It is found throughout Burma on suitable jheels, and is resident in most parts, but its status in North-East Burma is uncertain.

THE WATERCOCK or KORA

Gallicrex cinerea (2027).

Local Names. — Burma: *Baung-dok* (ဗောင်တွဲဝံ)

Identification. — PLATE XXIII, Fig. 4, Page 386. Length 17 inches. The frontal shield is much larger in males than in females, and in the breeding season ends in a fleshy horn-like protuberance. The illustration shows the male in breeding plumage; in non-breeding plumage he resembles the female, which has the upper-parts mottled light and dark brown, and the under-parts paler brown barred everywhere with wavy lines of dark brown; the eye is yellow, the bill horny-yellow with no casque and the legs and feet dull greenish-brown. Young birds are like the female, but more rufous and less barred below.

Voice. — The call or challenge of the male is a deep boom, *ogh-ogh-ogh* ___, uttered in rapid repetition. When calling the neck is puffed out and the bill is pointing vertically downwards; at intervals it is

lowered out of sight and the note then changes, sounding exactly as if the bird were blowing into the water. It also has many chuckling notes.

Habits and Food. — During the rains this bird frequents chiefly flooded grazing-grounds and marshy land covered with rank grass and bushes, but at other times of the year it retreats to jheels. There is little on record about its habits.

Nest and Eggs. — The breeding season is during the rains. The nest is usually a pad of grass built near the ground in patches of *kaing* grass surrounding paddy fields; some nests are bulky structures of weeds and rushes, and others are flimsy and badly put together. The eggs, 3 to 5 (rarely up to 8) in number, are like handsome richly marked eggs of the Moorhen and average 1·66 by 1·22 inches.

Status and Distribution. — This species is found throughout most of the Oriental Region and is not uncommon throughout Burma in suitable localities. It moves about locally a good deal, and where it goes in the winter is not clear.

THE INDIAN PURPLE MOORHEN

Porphyrio poliocephalus poliocephalus (2028).

Local Names. — Burmese: *Me-nyo* (မယ်ညို)

Identification. — PLATE XXIII, Fig. 6, Page 386. Length 17 inches. The female is like the male but has a smaller casque. The flight is very weak and laboured, and seldom sustained.

Voice. — It is a noisy bird, uttering cacklings, grunts and hoarse rippling notes.

Habits and Food. — This bird is confined to jheels, and favours especially those that have extensive areas of *kaing* grass, reed beds or bushes round their shores. It lives in small parties, which spend their time chiefly within the reed beds, threading their way through the labyrinth of vegetation with remarkable ease and climbing up the reed stems hand over hand like gigantic Reed Warblers. They not infrequently sun themselves and preen their plumage on the broken-down reeds and on the tops of bushes near the water's edge, but otherwise are seldom seen unless beaten out of cover. It is said to be good eating; where it is not unduly harassed it is very tame and easily approached.

Nest and Eggs. — The breeding season is during the rains. The nest is a large bowl made of the stalks of water plants and built up from the surface of the water; as the surrounding plants within a radius of several yards are broken off to supply the necessary material, the nest is not difficult to find. The eggs, 3 to 10 in number, are like richly coloured well-marked eggs of the Moorhen and average 1·99 by 1·41 inches.

Status and Distribution. — This species has a wide range from Asia Minor through India and Burma to Malaya. It is resident throughout the plains of Burma wherever suitable jheels are found, and is locally common.

THE COOT

Fulica atra atra (2029).

Local Names. — Burmese: *Ye-gyet-don* (ရေကြက်ဒုံး), *Thinbaw-ye-gyet* (သင်္ဘောရေကြက်)

Identification. — PLATE XXIII, Fig. 7, Page 386. Length 16 inches. Young birds are brown above and have the under-parts paler and much more mottled with white. Found in flocks in open water. Once on the wing it flies well for a Rail, but it is slow to start and skitters along the top of the water for some yards before rising. In flight it has a peculiar appearance with the heavy feet extending beyond the short tail.

Voice. — The call is a loud harsh *kraw-kraw;* it has many other conversational notes.

Habits and Food. — The Coot is more definitely aquatic than most of the Rail family and frequents the larger jheels, spending most of the day swimming about in the open water; in the mornings and evenings it often resorts to the fields, where it hunts for insects and snails and feeds on the young crops. It is not above devouring the eggs and chicks of other aquatic birds. In winter it collects into flocks, but the birds do not merge their individuality in the herd or act on mob impulse as will a flock of Ducks. Though a great bully to other birds, it does not fight with its own kind.

Nest and Eggs. — The breeding season is during the rains. The nest is built low down amongst reeds or other aquatic vegetation either on the water or on the ground at its edge; it is a large mass of rushes with a depression on top for the eggs. The eggs, 6 to 10 in number, are a pale buffy-stone closely and evenly stippled all over with blackish-brown and with larger underlying marks of neutral tint. They average 2·09 by 1·40 inches.

Status and Distribution. — The Coot is a familiar bird in the British Isles, whence it extends over almost the whole of Europe, Asia and North Africa and is represented by other races in Australia and Tasmania. It is common on most of the suitable jheels in the cold weather. Its status is uncertain and though suspected of breeding in Burma this has never been proved and it may be only a winter visitor.

Family HELIORNITHIDÆ

FINFOOTS

This is a small family, represented in Burma by only one species. This bird shares with the Argus Pheasant the distinction of being one of Burma's two completely protected birds under the Wild Life Protection Act.

THE MASKED FINFOOT

Heliopais personata (2030).

Local Names. — Burmese: *Ye-balon* (ရေဘဝဲလုံး) from its peculiar call.
Identification. — PLATE XXIII, Fig. 5, Page 386. Length 24 inches.

In the breeding season the male has a small fleshy horn rising from the base of the bill, which shrivels up and disappears at the end of the rains. The female has no horn, and the eye is yellow and not dark brown; the white line on the forehead is broader, the chin, throat and fore-neck are white surrounded with black, which is edged with white as in the male. Young birds are like the female but have no black on the crown. It rises like a Coot, skittering along the top of the water with legs hanging down, but once on the wing it flies fast and well, more like a Duck than a Coot.

Voice. — The call is characteristic and is like the sound made by blowing air through a tube into water, the note being rather high-pitched.

Habits and Food. — In the breeding season this is typically a bird of flooded forest areas and vast swamps, but at other times of the year it is also found on tidal creeks and singly along streams in or near evergreen forest. As a rule when seen it seeks safety by swimming ashore and disappearing at a great pace into the densest jungle it can find; it is a strong runner and an equally fine swimmer and diver; when undisturbed it swims high out of the water, but when frightened it submerges all but the head and neck.

Nest and Eggs. — The breeding season is during the rains. The nest is a massive structure of sticks, rather like a Crow's nest, lined with leaves; it is built in flooded forest, usually in the tangled branches of a climber-clad tree or bush, from a few inches to nine feet above the surface of the water. The eggs, 5 to 7 in number, are spherical in shape and a pale cream in colour, with reddish-brown blotches very sparsely scattered over the whole surface and with secondary markings of lavender-grey. They average 1·98 by 1·70 inches.

Status and Distribution. — This species extends from Assam through Burma to Sumatra; the only known breeding haunt in Burma is the flooded area of the Myitmaka river in the Tharrawaddy district, but the bird has been recorded from Northern Arakan, Central Burma, the Pegu river, Karenni and Tenasserim. It is a rare bird outside the drainage of the Myitmaka.

Sub-order JACANÆ

Family JACANIDÆ

JACANAS

This family is represented by only two species in Burma, characterised by having all four toes greatly lengthened with very long straight claws, a special adaption for walking about on the floating leaves of aquatic plants.

THE BRONZE-WINGED JACANA

Metopidius indicus (2031).

Local Names. — Burmese: *Bi* (ဗျိ), *Kya-bet-nin* (ကြာဖက်နှင်း)

Identification. — PLATE XXIII, Fig. 9, Page 386. Length 11 inches. Young birds have the crown and nape rufous-brown and the under-parts mostly pale rufous-white; there are also other differences. The flight is poor and laboured, with legs hanging down at the start like those of a Rail.

Voice. — The breeding-call is a harsh grunt or crake, but it also utters a variety of piping calls and has low guttural conversational notes.

Habits and Food. — The Jacanas frequent the larger jheels with reed-fringed shores and stretches of water-lilies and lotus plants, on the leaves of which they walk about and feed. The walk is typically Rail-like, slow and deliberate with a high-stepping action of the feet and an accompanying jerk of the tail at each step. They swim very high in the water, as a rule, but will half-submerge the body for concealment; they feed on insects of all kinds, water snails, fish and the leaves and shoots of water-plants. When frightened or in pursuit of prey they can run at great speed. This species harmonises well with dead *bedabin* (Water Hyacinth) in which it sometimes "freezes" when approached in a boat, flattening itself with head and neck well stretched out on a level with the body. It is usually very tame.

Nest and Eggs. — The breeding season is during the rains. The nest is the usual pad of rotting vegetation floating on the water with a slight depression for the eggs ; the latter, normally 4 in number, are moderately broad ovals, with a fine hard texture and the most brilliant gloss of all Burmese eggs. In colour also they are handsome, varying from buff to deep red-brown with numerous long lines and intricate scrawls of black, resembling the irresponsible scribblings of a child. They average 1·47 by 1·03 inches.

Status and Distribution. — This species is widely distributed from India through Burma to Malaya and is a common resident throughout Burma on suitable jheels.

THE PHEASANT-TAILED JACANA

Hydrophasianus chirurgus (2032).

Local Names. — Burmese: *Kya-bet-nin* (ကြာဖက်နှင်း။) because it treads on the water-lily leaves *(kya-bet)*; this name is sometimes applied to the Bronze-winged Jacana as well. Also called *Bi-gya* (ဘီကြား။) the pied *Bi*.

Identification. — PLATE XXIII, Fig. 8, Page 386. Length 12-15 inches, the tail-plumes 6 inches extra ; the female is larger than the male. The plate shows the breeding plumage. In non-breeding plumage the long tail-plumes are missing, there is a white eyebrow, a line from behind this running down the side of the neck golden-yellow ; a black line through the eye and down below the yellow line, expanding into a broad band across the breast; the rest of the under-parts are white, but there is less white on the wing. The eye is yellow and the bill is yellow at the base and brown at the top. Young birds have no yellow on the sides of the neck and the dark band

across the breast is broken up with white ; the feathers of the upper-parts have pale edges.

Voice. — The note is a peculiar nasal mewing call *tewn, tewn,* in addition to which it has a piping note, *hoo-hoo-hoo,* rather pleasant and musical.

Habits and Food. — This beautiful bird seems to prefer jheels with more open water than the preceding species, and is more elegant in all its actions. It is more accustomed to wander to flood water, streams and similar spots free of weeds on which the Bronze-winged Jacana is never found, but otherwise its habits are similar. It rather resembles the Pond Heron in its capacity for startling the unobservant : standing on submerged weeds in the water it easily escapes observation, but it rises with a sudden startling flash of the white wings, flitting away over the water with a wader-like flight until it settles again and once more becomes invisible. In the cold weather it is often seen in parties.

Nest and Eggs. — The breeding season is during the rains. Some nests are a mass of weeds and rushes heaped together on a small island or in the water amongst thick grass or growing rice; others are floating pads of weed and grass. The nests are often very small and flimsy and the eggs are half immersed in the sun-warmed water, the heat of which combined with that of the decaying vegetation no doubt assists the process of incubation. The eggs, 4 in number, are pear-shaped like those of a Plover and lie point to point in the nest in the same way ; the texture is hard and compact and the surface is highly glossy. When fresh they are a rich deep bronze colour with either a rufous or a greenish tinge but no markings; as incubation progresses they bleach sadly under the combined influence of sun and water. They average 1·46 by 1·12 inches.

Status and Distribution. — This species has an even wider range than the last, being found over most of the Oriental Region, and is a common resident on most suitable jheels in Burma. Its movements in the dry weather require study.

Sub-order ROSTRATULÆ.

Family ROSTRATULIDÆ

PAINTED SNIPE

Though called Painted Snipe, the members of this family seem to be more closely related to the Rails than to the true Snipe; the bill is slender and long but shorter than in most species of Snipe and not pitted at the end. They resemble the Button Quails in that the female is larger and more brightly coloured than the male and the dominating partner in sexual matters. The family is represented by only one species in Burma.

THE PAINTED SNIPE

Rostratula benghalensis benghalensis (2033).

Local Names. — None recorded.

Identification. — PLATE XXIII, Figs. 10 & 10a, Page 386. Length 10 inches (male), 11 inches (female). It flies well but rises with hanging legs like a Rail, and is weak on the wing compared with a true Snipe.

Voice. — The challenge of the female is a loud note, sounding as if someone was blowing into an empty bottle, without blowing hard enough to produce a whistle. In addition both sexes have a soft purring note, whilst the female, possibly the male also, has a pleasant whistling note.

Habits and Food. — This handsome little bird frequents swampy ground on the edges of jheels and paddy fields, where small patches of open water alternate with heavy cover. It is less of a skulker than most Rails but runs, swims and dives much as they do. It feeds on insects and vegetable matter, chiefly in the mornings and evenings. Like the Jack Snipe it sometimes collects into a small flock on the edge of a marshy patch.

Nest and Eggs. — The breeding season extends throughout the year, but most eggs are found during the rains. The Painted Snipe is believed to be polyandrous like the Button Quails, though this point has not yet been settled beyond dispute. The females challenge one another and fight for the males. The display consists of a fanwise spread of the tail and wings, the latter being brought forward to beyond the top of the bill, whilst the bird crouches on its breast and is transformed into a patch of brightly spotted markings; it seems to be both a warning to other females or enemies and an invitation to the male, being always accompanied by a loud hissing or swearing note.

The nest is a neatly interwoven pad of grass or weeds in a depression on the ground and may be built almost anywhere within reach of water, usually in a wet situation but occasionally on dry grassland. The eggs, 4 to 6 in number, are moderately broad in shape, very hard and close in texture with a slight gloss, and a clear bright yellow in colour, thickly and boldly blotched and streaked with an intensely deep and rich brown. They are beautiful eggs and average 1·40 by 0·99 inches. The female takes no more interest in the eggs after laying them, and probably lays as many clutches of eggs as she can find males to look after them.

Status and Distribution. — This species has a wide range in Africa, Asia, Australia and Tasmania and is not uncommon and probably resident in Burma in most suitable localities, ascending the hills to 5,000 feet.

Sub-order GRUES.

Family GRUIDÆ

CRANES

The true Cranes are birds of large size with long necks and legs, but with the bill only equal to or a little longer than the head, a

feature that distinguishes them from the Storks. They are almost cosmopolitan in range, but only three species occur in Burma.

THE EASTERN COMMON CRANE

Grus grus lilfordi (2034).

Local Names. — None recorded.

Identification. — Length 45 inches. A huge grey bird with long neck and legs, the head and upper neck blackish and white with a dull red patch on the nape ; the tail is concealed by a mass of drooping curly plumes. Found in large flocks on open plains, the birds flying in a regular V formation. The black markings on the head and neck distinguish it from the Sarus Crane. Legs black.

Voice. — A loud trumpeting note is the usual call.

Habits and Food. — In Burma this Crane is found in flocks feeding in long lines on the paddy stubble, and repairing at night to lonely jheels; they keep sentinels posted and at all times except in fog are as wary and difficult to approach as Geese, with which they have much in common. They fly with measured regular wing-beats with the neck and legs extended horizontally, and perch only on the ground, where the normal gait is a sedate walk with long strides; all the movements are more graceful than those of Storks or Herons. The diet is mainly vegetarian and the bird picks up much of its food from the surface of the ground or vegetation, but also probes the ground or levers up soil with its bill to get at burrowing larvae.

Status and Distribution. — A Palæarctic species, extending in winter from Southern Europe and Northern Africa to China. The typical race is a rare vagrant to the British Isles. The Eastern race is a winter visitor to Burma, arriving early in November and leaving early in March ; it is said to be common in North-East Burma and the Shan States, but has not been recorded elsewhere.

[Note: — THE HOODED CRANE, *Grus monachus (2035).* There are doubtful sight records of this species from west of Bhamo and from Myothit; until proof of its occurrence in Burma is forthcoming it cannot be admitted to the Burma List. It resembles the Common Crane but has the throat white, not grey, and the greater part of the sides and back of the neck white, whereas in the Common Crane the white on the neck is confined to a line down the sides. It is also a smaller bird, wing 510-545 mm. as against wing 533-608 mm..

[Note: — THE BLACK-NECKED CRANE, *Grus nigricollis (2036),* has not been recorded from Burma, but is found in Tibet and Yunnan and may straggle into Northern Burma. Wing 625-668 mm. A grey Crane with a black tail.]

THE BURMESE SARUS CRANE

Antigone antigone sharpei (2039).

Local Names. — Burmese: *Gyo-gya* (ကြိုကြာ) ; Chinghpaw: *Kha-u* or *Mali-tao.*

Identification. — FRONTISPIECE, Fig. 4. Length 5 feet. Young birds have the whole head and neck covered with buff feathers. Found in pairs in marshy spots; bold in demeanour and always frequents the

same place. The flight is strong with regular rhythmic beats of the huge wings.

Voice. — A characteristic raucous note is uttered just before and just after taking wing ; it is also said to have a beautiful trumpet-like call.

Habits and Food. — The Burmese Sarus is typically a bird of grassy plains and *lwins*, even small ones surrounded by forest. The birds pair for life and are very devoted and close companions, feeding together a few yards apart and always flying in close company, one slightly behind the other. So obvious is their affection that the legend has arisen that if one of a pair is killed the other dies of a broken heart. If caught young it is said to make a delightful pet, and kept loose in a garden makes a most efficient watch-dog. The food consists of vegetable matter, insects, reptiles and molluscs.

In the hot weather and rains Sarus sometimes collect in flocks of anything from 8 to 60 birds, but they are always in pairs and each pair acts independently. The reason for these assemblies is obscure ; it has been suggested that they are marriage marts where the young birds are given an opportunity of meeting their kind, but this does not explain the flocks seen in mid-monsoon near Thaton ; there seems little doubt that conditions of water and food cause the birds to collect in favoured areas, and it is possible that they are local migrants and collect before moving.

Nest and Eggs. — The breeding season is during the rains. The pair frequently indulge in a striking dance, spreading their wings and lowering their heads and leaping into the air, trumpeting loudly the while. The nest is a huge irregular mass of reeds, rushes, and straw pulled up by the roots, and therefore much mixed with mud ; it is built on the ground in the middle of a rice field or patch of swamp, and is often surrounded by shallow water ; there is usually no attempt at concealment, the sitting bird being visible some distance off. The eggs, 1 to 3 in number, are elongated ovals, very hard and strong, pitted with small pores but highly glossy ; the colour is a pinkish-cream or pale greenish and most eggs are more or less spotted or clouded with pale yellowish-brown, purple, or purplish-pink. They measure from 3·5 to 4·5 inches in length and 2·4 to 2·8 inches in breadth.

Status and Distribution. — This species is found in most parts of the Oriental Region and is resident and locally distributed throughout Burma, but seems to be commoner in Northern and Central Burma than elsewhere ; this may be because it prefers grassy plains to paddy plains. It is another of the birds that can be observed to advantage in the Pidaung Wild Life Sanctuary.

[Note: — THE DEMOISELLE CRANE, *Anthropoides virgo (2040)*. The occurrence of this bird in Burma is based on sight records from the Shweli and at Namkham by Wickham; confirmation is desirable and it is not at present admitted to the Burma List. It is a small grey Crane (wing 450-530 mm.) distinguished from the others by a white plume of soft feathers behind each eye and the black under surface of the whole neck terminating in black plumes pendant over the breast. In India it ranks as a first-rate game-bird, most difficult to stalk and excellent eating.]

Sub-order OTIDES.

Family OTIDIDÆ
BUSTARDS

The family is represented thoughout Europe, Asia, Africa and Australia, but there is only one record of one species from Burma.

THE EASTERN GREAT BUSTARD

Otis tarda dybowskii (2041).

Identification. — Length 40 inches (male), 30-33 inches (female). The male is a huge bird with the upper-parts sandy-rufous banded with black and the under-parts whitish with a chestnut band across the breast; the female is much smaller and lacks the chestnut breast-band. In flight the great bulk of the body as compared with the wings, very prominent breast, and great amount of white on the wing, mostly concealed when at rest, are striking features. The flight is rapid, much faster than it appears, with regular beats of the broad wings. A comparatively silent bird, the main note being a low gruff bark or hoarse grunt.

Status and Distribution. — A Palæarctic species; a rare vagrant to the British Isles and also to India and Burma; in this country the only record is of a male obtained near Fort Hertz in 1933.

[Note: — THE BENGAL FLORIKEN, *Sypheotides bengalensis (2046),* has not been recorded from Burma but it occurs as near as Chittagong and may be found some day in Northern Arakan. Wing 338-368 mm. The general colour is sandy-buff and blackish and the male has a full crest and the feathers of the chin, throat and lower neck conspicuously elongated. It is found chiefly in grassy plains and has a curious habit of jumping into the air.]

PLATE XXIV

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PLATE XXIV

Order VIII CHARADRIIFORMES.

Sub-order OTI-LIMICOLÆ.

Family ŒDICNEMIDÆ

STONE PLOVERS

Stone Plovers are found almost throughout the Old World, and three species occur in Burma.

THE INDIAN STONE PLOVER

Burhinus œdicnemus indicus (2047).

Local Names. — None recorded.

Identification. — PLATE XXIV, Fig. 1, Page 400. Length 16 inches. In flight the wing pattern is rather conspicuous, the secondaries (*i.e.* the hind-wing near the body) and the whole wing beyond the wrist being black with white marks on the primaries and two conspicuous whitish bars on the basal part. The flight is direct with regular rather slow wing-beats, sometimes with a long glide; the bird usually flies low over the ground with the yellow legs stretched out behind. When standing still the carriage is markedly upright, and when suspicious it often makes a sudden downward bob of the head with a corresponding elevation of the hind part of the body, as though hinged on the legs. On the ground it runs rapidly in little bursts with short pattering steps, and with the head lowered and the neck retracted in a thoroughly shame-faced manner.

Voice. — The call is a loud *curlivee,* very eerie and plaintive in tone and said to be uttered freely at dusk or during the night. The wild and musical outcries, so characteristic of this bird in its European breeding haunts, have not been heard in Burma.

Habits and Food. — This bird requires dry open country with patches of scrub and grass, and for this reason is most commonly seen in the Dry Zone, and occasionally on Irrawaddy sandbanks. It is strictly a ground species, and largely nocturnal as is suggested by the large eyes. It is usually seen solitary or in pairs but sometimes in small parties. Owing to its protective coloration and shyness it generally escapes notice till it suddenly takes wing in front of the observer ; if taken by surprise it squats with the body pressed close to the ground and the head and neck outstretched. It feeds entirely on insects, worms, frogs, etc., and also swallows large quantities of tiny flints and small stones.

Nest and Eggs. — The breeding season is in the hot weather. It breeds in open scrub and on sandbanks, laying on the bare ground and

not even scraping out a hollow as a rule. The eggs, 2 or rarely 3 in number, are broad ovals in shape, fine and hard in texture without gloss, and yellowish-white to buffy-brown in colour, with specks, streaks and blotches of deep olive-brown or black combined in an endless variety of designs over the surface of the egg: there are also a few secondary markings of inky-purple. The eggs average 1·90 by 1·39 inches.

Status and Distribution. — A Western Palæarctic and Oriental species, resident in the British Isles. It is resident in Arakan, Central Burma (where it is locally common), the Plains of Southern Burma, and Tenasserim.

THE GREAT STONE PLOVER

Esacus recurvirostris (2049).

Local Names. — Burmese: *Mein-zein* (မိန်းစိန်)

Identification. — PLATE XXIV, Fig. 2, Page 400. Length 22 inches.

Voice. — The call is a loud harsh croak and a hissing noise is made if the bird is disturbed. It is also occasionally heard piping at night.

Habits and Food. — This bird frequents the sandbanks of the Irrawaddy and other large rivers and also occurs on the coast. It prefers banks with some mud, stones and light vegetation to pure sand. In the rains and the cold weather it gathers in parties of a dozen or twenty birds, and when the rivers are in flood these flocks haunt the grasslands above flood-level. Except in the breeding season it rarely crouches or runs when approached, preferring to stand stock-still even if a steam launch passes close by.

Nest and Eggs. — The breeding season is during the hot weather. The eggs, 2 in number, are laid in a shallow depression and are like large eggs of the Indian Stone Plover, though the markings consist of scrolls rather than blotches ; they average 2·14 by 1·60 inches.

Status and Distribution. — This species is found in India, Burma, Ceylon and Hainan. It is resident on the Irrawaddy from Henzada to the Confluence, and also on other large rivers such as the Shweli, and has been recorded from the Bassein coast and the mouth of the Sittang. It is locally common.

THE AUSTRALIAN STONE PLOVER

Orthoramphus magnirostris magnirostris (2050).

Identification. — Length 25 inches. Differs from the preceding bird in having the top of the bill straight, or nearly so, and rather Gull-like. The upper-parts are brown and the under-parts white.

Status and Distribution. — This species extends from Australia through Malaya to the Andamans and Tenasserim. It has been recorded from various islands of the Mergui Archipelago, but whether it breeds within Burmese limits is unknown. It occurs only on the coast.

Sub-order LARO-LIMICOLÆ.

Family GLAREOLIDÆ

SWALLOW-PLOVERS or PRATINCOLES

This family is divided into two sub-families: the Coursers, which frequent dry and desert regions and do not occur in Burma, and the

Swallow-Plovers with short legs and rather Tern-like action and flight.

THE LARGE INDIAN PRATINCOLE or SWALLOW-PLOVER

Glareola maldivarum maldivarum (2055).

Local Names. — None recorded.

Identification. — Length 9-10 inches. A Swallow-like bird with narrow pointed wings and deeply forked tail; upper-parts brown with a white rump ; a black line across the breast runs up to each eye ; remaining under-parts pale rufous, changing to pure white towards the tail, which is black with some white at the base. Found in flocks, which fly very strongly and at great speed, constantly wheeling.

Voice. — A sort of harsh chitter.

Habits and Food. — This is perhaps the most distinctive breeding bird of the Plains of Southern Burma in the hot weather ; it seems to prefer dark soil or blackish burnt grass and is only found in open country, running about at great speed in short dashes hither and thither and feeding on insects of various kinds.

Nest and Eggs. — The breeding season is in the hot weather. It breeds in colonies, which may number anything from half a dozen to forty or fifty pairs, in the burnt rice fields. The birds sit very close and often feign injury like the next species when approached. The eggs, 2 or 3 in number, are yellow in colour with numerous black markings and closely resemble half-burnt yellow pieces of stalk. They average 1·21 by 0·94 inches.

Status and Distribution. — This species is found throughout the Oriental Region extending north to Eastern Siberia and south to Australia. It is a common resident throughout Burma in the more open parts of the country, but it is a local migrant whose movements require further study. Large flocks of several hundred birds have been seen apparently migrating eastwards in December, and again migrating northwards in April. It is not clear where the birds that breed in the paddy fields go to in the rains, but a few remain up to August, and some may remain throughout the year.

THE SMALL INDIAN PRATINCOLE or SAND PLOVER

Glareola lactea (2056).

Local Names. — Burmese: *Thaung-din* (သောင်ဒင်း), *The-hpa* (သိမ်း)

Identification. — PLATE XXIV, Fig. 3, Page 400. Length 7 inches. On the wing it appears rather like a brown Swallow with conspicuously bi-coloured wings, blackish-brown in front and whitish behind except near the tips, and a barred white tail. Common on river sandbanks. The flight is swift and graceful.

Voice. — A curious low, rather harsh, note is freely uttered.

Habits and Food. — This is one of the typical birds of the Irrawaddy sandbanks, and is also found along some of the other large

rivers. It is always seen in large colonies at all times of the year and is social in all it does: breeding in large numbers together and feeding in large flocks, which skim about the surface of the water. In spite of its short legs it can run very fast. It sometimes frequents jheels, where it is chiefly active in the evening, hawking insects like a Swallow; sometimes it appears to slide over the surface with the wings vibrating rapidly just above the back and looking as though they are never brought into the horizontal position at all.

Nest and Eggs. — The breeding season is in April. The birds nest in large colonies on sandbanks, and sudden rises in the river level often wipe out nests wholesale. To approach a colony is to provoke a scene of widespread alarm. Some of the birds skim about uttering their curious notes, others drop down on to the sand and there gasp and flutter, lying exhausted with outspread wings, or dragging themselves along in all the apparent throes of a mortal wound. The eggs, 2 to 4 in number, are laid in a hollow scraped in the sand, as often as not under an isolated tuft of grass for shade. They are broad ovals in shape, close and chalky in texture without gloss, and pale greenish-white to pale fawn or stone in colour; the markings consist of spots, streaks, lines and clouds of olive, reddish-brown or purple; the eggs are usually finely and lightly marked and blend fairly well with the sand on which they lie. They average 1·05 by 0·88 inches.

Status and Distribution. — This species is confined to the larger rivers of India, Burma and Ceylon. It is a common resident on suitable rivers in Burma, but is a local migrant whose movements require to be studied.

[Note. — THE CRAB PLOVER, *Dromas ardeola (2057)*, has never been recorded from Burma but is likely to occur on the coast. It breeds at Adam's Bridge, Ceylon, and straggles in small numbers to the islands of the Bay of Bengal and has also occurred off the west coast of the Malay Peninsula. The back and the greater part of the wings are black, and the rest of the plumage is white. It is a Plover-like bird, flying well and running with great speed in short jerky bursts. It also breeds on the islands of the Southern Red Sea, and should be looked for on the voyage to England.]

Family STERCORARIIDÆ

SKUAS

Skuas are parasitic birds living principally on food robbed from Terns and Gulls, which they closely resemble except for their brown colour. They have long pointed wings and magnificient powers of flight. The family is represented in most parts of the world, but there is only one record of a Skua from Burma.

THE POMATORHINE SKUA

Stercorarius pomarinus pomarinus (2059).

Identification. — Length 22 inches. This bird has two phases; in one the whole plumage is brown, almost black on head, tail and primaries; in the other the under-parts are white except for a broad band of deep brown across the breast and the straw-yellow sides of the neck and collar round the hind-neck. Young birds have the upper-parts spotted with buff on the shoulders and rump and the head, neck, and under-parts dull buff barred with dusky

(light phase), or the whole plumage sooty greyish-brown barred with buff on the rump, sides of breast and abdomen (dark phase).

Status and Distribution. — A Holarctic species. In winter it ranges the oceans from the Arctic Seas to Peru, South Africa and Northern Australia. The only record for India and Burma is of a bird obtained at Moulmein nearly a century ago.

Family LARIDÆ

GULLS

Gulls are familiar birds, found in most parts of the world, and do not need any introduction. Three species occur in Burma.

THE GREAT BLACK-HEADED GULL

Larus icthyætus (2060).

Identification. — Length 28 inches. When seen standing next to the Brown-headed Gull it appears about twice its size. In breeding plumage the whole head and upper neck are black except for two white patches above and below the eye, but in winter these parts appear white much streaked with black. The eye is brown and the bill yellow with a black sub-terminal band and a crimson tip; legs and feet yellow to orange-yellow. Young birds have no black on the head and the upper-parts and wings are brown mottled with white. Whether the bill and legs are the same colour as in the adult or greenish is not certain. It is said to have a very loud raucous cry much like that of the Greater Black-backed Gull.

Status and Distribution. — The species breeds on the inland seas and lakes of South-east Russia and Central Asia to Turkestan, and in winter is found in the Red Sea and Persian Gulf, extending to India and Burma. It winters on the coast of Burma in small numbers and passes up and down the Irrawaddy at the beginning and end of the cold weather; it has been recorded as far south as Amherst and one stormy October day a bird was seen on the Lake at Maymyo.

[Note: — THE BLACK-HEADED GULL, *Larus ridibundus (2061)*, has not been recorded from Burma, but it has been obtained on the Hooghly and the Ganges and is likely to occur either on the coast or on passage on the Irrawaddy. This is the common Gull of the voyage to England and is seen in large numbers at Aden, Suez, Port Said and Gibraltar. Length 16 inches. The adult is easily distinguished at all times of the year from the Brown-headed Gull by the wing-tip; in this species the end of the wing is white with a narrow black edge posteriorly, whereas in the Brown-headed Gull it is black with two white patches near the tip, which in the field look like a broad subterminal white band. In breeding plumage the blacker head and whiter appearance also help to distinguish this species.]

THE BROWN-HEADED GULL

Larus brunnicephalus (2062).

Local Names. — Burmese: *Zin-yaw* (စင်ယော်)

Identification. — PLATE XXIV, Fig. 5, Page 400. Length 16 inches. In winter plumage the dark brown head disappears, except perhaps for a few dark feathers near the eye. Young birds are brown above with pale grey edges to the feathers, giving a mottled appearance; the tail is white with a broad brownish tip and the wing-tips appear uniform brownish-black. Birds may be seen in every intermediate phase of plumage. For distinctions from the Black-headed Gull see above.

Voice. — The two notes most often heard are a harsh *gek*, *gek* and a

loud wailing *ka-yek, ka-yek,* but it has many other harsh calls and cries.

Habits and Food. — It is hardly necessary to say much about this bird, which is the common Gull of the Rangoon River and probably the first bird to greet the visitor to this country; each ship is escorted by a large party all up the river and the birds are very bold, flying alongside almost within reach and affording perfect opportunities for studying them at close range. Anything edible dropped overboard is immediately pounced upon by one bird, which is usually chased by several others and forced to drop its booty: this is promptly snatched up by another, the chase continuing until one bird succeeds in swallowing the morsel. It cannot dive and therefore seldom catches live fish. When not feeding it rests either on the sea or on sands and mud-flats. It is quite common on the big jheels near Mandalay where it seems to feed chiefly on insects, picking them off the surface of the water as it swims along.

Status and Distribution. — This species breeds on the lakes of Central Asia from Turkestan to Tibet. It migrates south and is a winter visitor to Burma, arriving in September and leaving in April-May. It winters on the coast and apparently inland also on rivers and jheels. It occurs regularly on the Maymyo lake on passage, but does not winter there.

[Note: — THE YELLOW-LEGGED HERRING GULL, *Larus argentatus cachinans (2066),* has been recorded from Assam and the Bay of Bengal but never from Burma, though it seems likely to occur as a rare straggler either inland or on the coast. It is common at Aden, Port Said, etc., and the typical race is a familiar bird in the British Isles. In size it is slightly smaller than the Great Black-headed Gull and the adult is a white Gull with a pale grey mantle and wings; the longest primaries are black with a white tip and a broad sub-terminal white bar. The bill is yellow with a red spot near the tip of the lower mandible, and the legs are bright yellow. Young birds are mottled brown and white.]

Family STERNIDÆ

TERNS

Terns are found in all parts of the world. They are dainty and graceful birds and their beautifully modelled lines and buoyant airy flight combined with the delicate tints of their plumage place them very high in the bird watcher's affections.

They are usually seen flying over wide expanses of open water, such as rivers or jheels and the sea. In general they are rather small birds with tapering pointed bills, short legs, and small webbed feet; most species have long and deeply forked tails, the outermost feathers being attenuated and greatly lengthened, but those that live mainly on inland waters have the tail shorter and much less forked. The various species are easy to recognise in breeding plumage but at other times they lose most of their distinctive features and identification in the field becomes much more difficult. The sexes are always alike and the young usually resemble the winter plumage of the adults but have the upper-parts mottled with brown.

THE WHISKERED TERN

Chlidonias hybrida subsp. *(2067), (2069).*

Local Names. — Burmese: *Zin-yaw* (စင်းယော်)

Identification. — PLATE XXIV, Fig. 4, Page 400. Length 10 inches. The plate shows the bird in breeding plumage. In non-breeding plumage the under-parts are white, the crown of the head is greyish streaked with black, there is an indefinite band through the eye, and the upper-parts are light ashy-grey. Distinguished in the field from most other common Terns by the short scarcely forked tail, but it is not distinguishable from the next species.

Voice. — Not recorded.

Habits and Food. — This is typically a Tern of the jheels, but it also frequents the coast. It feeds on the wing in small companies in the most methodical manner, starting at one end of the jheel and working up against the wind to the far end; as they go each bird dips down incessantly to pick food off the water or weeds. Dragon-flies and their larvae appear to be their staple diet, but water beetles and other aquatic insects are freely taken. Having arrived at the far end of the jheel the flock flies back to the start again; those that are satisfied rest on a rocky islet or the bough of some water-logged fallen tree and preen their plumage while the unsatisfied commence another beat in search of further food.

Nest and Eggs. — The breeding season is during the rains. No nest has yet been found in Burma. Normally it is a slight platform of rushes and weeds built out in deep water in the centre of the jheel. The eggs, 2 to 4 in number, are moderately broad ovals in shape, fine and close in texture with little gloss, and usually pale olive-green in colour with streaks, spots and blotches of deep blackish-brown or reddish-brown and secondary markings of pale purplish-brown. The eggs average 1·51 by 1·09 inches.

Status and Distribution. — This species is found in the temperate parts of Europe, the whole of Africa, Southern Asia, and Australia. It is known to breed in Assam, but there is no breeding record from Burma, though it may breed on some of the larger jheels. It is widely distributed in Burma, but it is uncertain whether the Indian race, *C. h. indica (2067)*, or the Javan race, *C. h. javanica (2069)*, is the form that occurs; it is quite possible that both occur. The typical race is a vagrant to the British Isles.

THE WHITE-WINGED BLACK TERN

Chlidonias leucoptera leucoptera (2070).

Identification. — Length 10 inches. In winter it is indistinguishable in the field from the preceding species. In breeding plumage the whole head, neck, under-parts and upper back are velvety-black.

Status and Distribution. — A Palæarctic species. It is a winter visitor to Burma but has only been recorded from the Sittang plain and the Southern Shan States; it may be fairly common and is no doubt often mistaken for the preceding species. It is a vagrant to the British Isles.

THE CASPIAN TERN

Hydroprogne caspia caspia (2071).

Identification. — Length 20 inches. Easily recognised by its great size, large red bill, and slightly forked greyish-white tail. In breeding plumage the upper part of the head is black, the hind-neck white, and the remaining upper-parts pale grey; under-parts white. In winter the head is black streaked with white and the white collar on the hind-neck is more conspicuous. Young birds have no black on the head, the upper-parts are barred with brown, and the bill is dull orange. It is generally solitary and has a loud harsh cry.

Status and Distribution. — Breeds on the coasts and inland lakes of North America, Europe, Africa, and Central and Southern Asia. The only Burma records are from the Irrawaddy-Sittang delta and it is probably a winter visitor in small numbers to the coast. It is a rare vagrant to the British Isles.

THE GULL-BILLED TERN

Gelochelidon nilotica nilotica (2072).

Allied Form.—

THE JAVAN GULL-BILLED TERN, *G. n. affinis (2073).*

Local Names. — Burmese: *Zin-yaw* (ဇင်ယော်)

Identification. — Length 15 inches. The stout black bill, black legs, and short and moderately forked tail distinguish it from other Terns of similar size. In breeding plumage the upper part of the head is black, and in winter it has dark ear-coverts and a small black patch near the eye. It is stoutly built for a Tern, intermediate in this respect between a Gull and a typical Tern. Young birds have the head dull white with dusky streaks; back and shoulders buff spotted with brown; wing-coverts and primaries ashy-grey; bill and feet reddish-brown.

Voice. — Not recorded.

Habits and Food. — This is perhaps the commonest Tern of the coast, where it hunts along the foreshore and up and down the tidal creeks. It is usually seen singly or in pairs.

Nest and Eggs. — The breeding season is in the hot weather. No nest has yet been found in Burma. The eggs, 2 or 3 in number, are usually laid on bare sand and vary much in colour, ranging from pale yellowish or greenish to buffy-brown with large blotches of brown of various hues and underlying blotches of grey and lilac. They average 1·89 by 1·35 inches.

Status and Distribution. — This species is found in Europe, Northern Africa, and Southern Asia. The typical race breeds on the larger rivers of North-west India and also in Ceylon, and as it is common on the coast in July a breeding colony may some day be found within Burmese limits. It has also been recorded inland, presumably on passage, and it extends westwards to the British Isles as a vagrant. The Javan race occurs in the Mergui Archipelago, but its breeding haunts are unknown.

THE LARGE CRESTED TERN

Sterna bergii subsp. *(2077-8).*

Identification. — Length 20 inches. In size only exceeded by the Caspian Tern. It has a long, black and slightly curved crest, yellow bill (usually tinged with

greenish), and black legs; in breeding plumage the forehead is white and the upper part of the head is mainly black; in winter the crown is white streaked with black and the nape and crest are dull black. Young birds resemble the adults in winter plumage, with some mottling on the back.

Nest and Eggs. — The breeding season is probably from April to June. Only one egg is laid, either on bare rock or on a depression in the sand, and it is probably the most beautiful of all seabirds' eggs; the colour varies from pure white to pale cream or pink, and the markings are either large blotches of various shades of brown or large scrolls and scriggly lines all over the surface. The eggs average 2.36 by 1.67 inches.

Status and Distribution. — This species has a very wide range from the East African coast through the Red Sea along the Southern Asian coast to China. It is believed to be resident on the Tenasserim coast as far north as Mergui and a colony is said to have bred on Oyster Island, Arakan. It is reported to be common on the west coast near Bassein. The race is probably the Ceylon race, *S.b.edwardsi* (2077), but this is not certain.

THE INDIAN LESSER CRESTED TERN

Sterna bengalensis bengalensis (2079).

Identification. — Length 15 inches. Similar to the preceding species but smaller; the upper-parts much paler grey; tail deeply forked, greyish-white. Bill orange, feet black. The call *cher-ruk* uttered while fishing is characteristic.

Status and Distribution. — This species breeds on the islands of the Persian Gulf and is a winter visitor to the coast of India, Burma and Ceylon. Its occurrence in Burma rests on century-old records from Arakan and Tenasserim.

THE INDIAN RIVER TERN

Sterna aurantia (2080).

Local Names. — Burmese: *Zin-yaw* (ဇင်ရော်), *Myit-htwe* (မြစ်ထွေး)

Identification. — PLATE XXIV, Fig. 6, Page 400. Length 18 inches. The plate shows the bird in breeding plumage. In winter the black cap is replaced by white or greyish-white but some black usually remains on the cheeks and round the eye and the nape is usually more or less streaked with black. Young birds have the forehead and a broad eyebrow white and the feathers of the upper-parts edged buffy-white and sub-edged black. The flight is slightly jerky with strong deep beats of the long pointed wings, and the general colour on the wing is grey above and white below.

Voice. — It has the usual harsh cries of the family.

Habits and Food. — This is another typical bird of the Irrawaddy sandbanks and is found also on the larger tributaries and adjacent jheels; a few birds also frequent the mud-flats of the coast. It spends the greater part of its time fishing, flying 20 or 30 feet above the surface of the water and looking for the shoals of small fish on which it feeds. The actual capture of a fish is effected by a perpendicular drop to the water, the fish being carried off in the bill and swallowed on the wing. Once a suitable fishing ground is discovered the direct purposeful flight is abandoned for graceful wheeling curves, which show to the full its powers of flight, and after its appetite is satisfied it sits in parties on the sandbanks near the water's edge, often in company with other species. It never perches on trees nor settles on the surface of the water. It is remarkably fearless and will attack an intruder on its breeding ground by incessant swoops at his head.

Nest and Eggs. — The breeding season is during the hot weather. The River Tern breeds on bare glittering sandbanks and several pairs usually breed near one another; the same sandbanks are usually tenanted by colonies of Skimmers, Little Indian Pratincoles, Black-bellied Terns, Little Terns and a few pairs of the Great Stone Plover, the Spur-winged Plover and the Little Ringed Plover. The nest is a small depression scraped in the sand, which is at this season almost too hot to touch with the naked hand; during the daytime therefore the River Terns are very casual about brooding their eggs and spend much of their time fishing in the vicinity. A human being has only to set foot on the sandbanks for a scene of great excitement to ensue. Sitting birds rise from the nests, others arrive from the river, and while the sand is covered with Pratincoles fluttering and staggering in simulated death throes the air is filled with Terns flashing backwards and forwards and wheeling round and round overhead, their shrill plaintive cries indicating only too surely the presence of the eggs and offspring they seek to protect.

The eggs, 2 or 3 in number, are broad ovals in shape, very smooth and fine in texture with little gloss, and a delicate greenish-grey or buffy-stone in colour; the markings consist of blotches, lines and streaks of dark brown, with underlying clouds and streaks of pale inky-purple. The eggs average 1·65 by 1·25 inches.

Status and Distribution. — This species is found in India, Burma and the Malay States. It is a common resident on the larger rivers of Burma, but probably only a visitor to the coast.

THE BLACK-BELLIED TERN

Sterna melanogaster (2081).

Local Names. — Burmese: *Zin-yaw* (ဇင်ယော်)

Identification. — PLATE XXIV, Fig. 7, Page 400. Length 14 inches. The plate shows the bird in breeding plumage; after breeding the black cap and belly are lost for a short time, the head being white streaked with black, with a black patch behind the eye, and the under-parts white tinged with grey on the breast and fore-neck. Young birds have the upper-parts buffy-grey, edged paler buffy-white and sub-edged blackish. In breeding plumage it closely resembles the Whiskered Tern but the long tail at once distinguishes it.

Voice. — A shrill but pleasant *krek krek* is the usual call.

Habits and Food. — This is another typical bird of the Irrawaddy, and in habits closely resembles the River Tern, in company with which it is generally found. It is more adept at catching insects, lifting them from the surface of the water with a gentle glide or chasing them over the sand in the evenings. Fish are swallowed head-first so that the sharp fins fold against the body and do not harm the gullet. Prawns for the same reason are swallowed tail-first, their sharp points being the legs and mandibles, which project forwards. It is the only freshwater Tern that habitually leaves the main rivers and hawks over wayside ditches and village ponds.

Nest and Eggs. — The breeding season is from February to April. It breeds on the sandbanks, scattered nests and not colonies being the rule. The nest is a mere scrape in the sand, and the eggs, 2 to 4 in number, resemble those of the River Tern but can be recognised by their more elongated shape and smaller size, averaging 1·25 by 0·98 inches.

Status and Distribution. — This species is peculiar to India, Burma and Ceylon. In Burma it is resident along, and confined to, the Irrawaddy and its larger tributaries.

[Note: — THE TIBETAN TERN, *Sterna hirundo tibetana (2084).* The occurrence in Burma of this bird rests on one record from near Myitkyina in 1933 which is apparently not now accepted. This bird is the same size as the River Tern, but is distinguished by the red bill tipped blackish, black crest, and blackish wing-tip. It breeds at high altitudes in Ladak and Tibet and may occur between October and May on rivers or the coast.]

THE EASTERN ROSY TERN

Sterna dougalli korustes (2086).

Identification. — Length 15 inches. Purely a sea Tern, with very long outer tail-feathers. In breeding plumage the under-parts are white suffused with delicate pink, not always easy to see in the field; there is a black cap and crest and a white collar on the hind-neck; upper-parts pale grey. In winter the forehead and fore-crown are marked with white and the pink on the under-parts is duller and nearly disappears. Bill all black in winter, red at the base in breeding plumage; legs bright red. Young birds have the head buff with black streaks; upper-parts mottled with ashy-brown; a dark grey band along the upper wing-coverts; under-parts white; bill and feet dusky.

Nest and Eggs. — This Tern breeds in large colonies. The eggs, 1 or 2 (rarely 3) in number, are very variable in colour and spotted with various shades of brown; they average 1.58 by 1.15 inches.

Status and Distribution. — This species extends from the British Isles across Europe and Asia to Australia. The Eastern race is probably the form occurring in the Mergui Archipelago; there is no breeding record from Burma, but there is a colony on the Andamans. It has also been recorded from the Bassein estuary.

THE RIVER TERNLET or THE LITTLE TERN

Sterna albifrons sinensis (2088).

Local Names. — Burmese: *Zin-yaw* (ဇင်ရော်)

Identification. — PLATE XXIV, Fig. 8, Page 400. Length 10 inches. The plate shows the bird in breeding plumage. Small size, weak "flickering" flight, deep yellow legs, pale yellow black-tipped bill and white forehead are distinctive features. In winter the crown is much mixed with white, the bill becomes blackish and the legs and feet dusky-red. Young birds have the whole upper-parts, including wing-coverts and tail, beautifully mottled black and white.

Voice. — It has a curious "chittering" note *jek-ek-jek-ek*, and over the breeding ground it constantly utters a call-note like *tiri-iri, tiri-iri.*

Habits and Food. — The River Tern, the Black-bellied Tern, and the Little Tern are the three characteristic Terns of the Irrawaddy, and their elegant forms and graceful flight add much to the pleasure of a trip on the river. In its habits the Little Tern does not differ from the other two except that it is equally common on the coast.

Nest and Eggs. — This species nests on sandbanks, both on the coast and the larger rivers, in colonies of half a dozen to a hundred or more pairs. The breeding season is in the hot weather, and the nest is the usual depression in the sand. The eggs, 1 to 3 in number, are pale yellowish to deep buff in colour, marked with blotches and spots of dark brown and equally numerous secondary blotches of pale grey. They average 1·27 by 0·93 inches.

Status and Distribution. — This species has a wide range in Europe, Northern Africa and Asia. It is a common resident on the coast and larger rivers of Burma; there is no record from Arakan, the Southern Shan States, or north of Bhamo.

[Note: — The River Ternlet, *S. a. pusilla (2089)*, and the White-shafted Ternlet, *S. a. sinensis (2088)*, are now considered to be the same.]

THE BLACK-NAPED TERN

Sterna sumatrana sumatrana (2092).

Identification. — Length 14 inches. Purely a sea Tern with a very long forked tail; white forehead and crown, black nape below which is a broad white collar, and a narrow black line through the eyes. Black feet and black bill tipped yellow are distinctive. The under-parts have a rosy tinge in summer. Young birds have the top of the head buffy-white with blackish streaks and a black patch on the nape; upper-parts grey, the feathers barred with ashy-brown and tipped with buff; bill yellowish, feet yellowish-brown.

Nest and Eggs. — These birds nest in colonies of anything from fifty to two hundred pairs, the eggs being laid very near to one another. They are close sitters, and only when the intruder is within a few yards do they rise together and circle screaming round his head. The eggs are laid on bare rocks and are nearly always two in number; they are very like eggs of the Rosy Tern already described and average 1.56 by 1.13 inches.

Status and Distribution. — This species breeds in the Andamans and extends through Malaya to the Celebes; it also occurs on the Seychelles and Amerante Islands. It has been recorded from the Bassein estuary and the Layna creek in Tenasserim, but whether it breeds anywhere within Burmese limits is unknown ; it may occur all along the coast, but there are no records since 1880.

THE BROWN-WINGED TERN

Sterna anætheta subsp. *(2093-5).*

Identification. — Length 14 inches. Purely a sea Tern, with dusky upper-parts and white under-parts, often found far from land and sometimes alighting on passing ships. The white eyebrow and forehead and very dark brown mantle, tail and wings are probably distinctive field characters. Bill, legs and feet black. It is said to alight on the water more frequently than most Terns. Young birds have the head mottled with brownish, pale tips to the feathers of the upper-parts, and greyish-white under-parts.

Status and Distribution. — This species is found along the east coast of Africa and the south coast of Asia round to China. It is said to be generally distributed on the coast of Burma but the only records appear to be sight records from the Bay of Bengal and Mergui, and the race is uncertain.

THE SOOTY TERN

Sterna fuscata subsp. *(2096).*

Identification. — Length 17 inches. An oceanic bird, often found at great distances from land. A dark Tern with very long outer tail-feathers, sooty-black upper-parts, and abdomen suffused with grey. Distinguished from the Brown-winged Tern by having a broad white band on the forehead ending above the eyes. Bill and feet black with a slight reddish tinge. Young birds

have the upper-parts sooty-brown, the mantle mottled with white, and brown under-parts, paler on the abdomen. It swims well and frequently alights and rests on the water.

Status and Distribution. — This species breeds in great numbers on the Laccadives and is also found in the Maldives, Andamans, Ceylon, Mauritius and the Seychelles. A young bird was found near the mouth of the Sittang on the Pegu Canal more than half a century ago and there is no other record from Burma.

[Note: — The Noddies are distinguished from the Terns by their wedge-shaped tails with a V cut out of the centre, like a "W" on its side. They are oceanic birds, only frequenting land regularly during the breeding season and then selecting rocky reefs and small islands or the wilder and more broken areas on large islands; unlike the Terns they nest in trees. Their flight is in appearance much slower and more lethargic than that of a Tern; they wheel about more lazily and seldom hover and plunge but feed on small surface molluscs and floating oddments.

THE PHILIPPINE NODDY, *Anous stolidous pileatus (2097)*, breeds in the Laccadives and has been seen off Cape Negrais; it is likely to occur at times on the coast of Burma. Length 15 inches. A blackish bird with a white forehead, grey crown, and a blackish band from bill to eye. Young birds are lighter and browner, with the top of the head greyish-brown and a narrow white line above the eye.

THE WHITE-CAPPED NODDY, *Anous minutus* subsp. *(2098)*, is found throughout the Malay Archipelago and has been recorded once from Calcutta and again from the Bay of Bengal near the mouth of the Ganges; it is therefore likely to occur as a rare vagrant along the coast of Burma. Length 14 inches. Distinguished from the Philippine Noddy by smaller size and white cap; the rest of the plumage is blackish.]

[Note: — THE INDIAN OCEAN WHITE TERN, *Gygis alba monte (2099)*, breeds in the Seychelles and has been obtained in the Bay of Bengal. Length 13 inches. A pure white Tern except for a narrow ring round the eye; tail long and deeply forked. Bill black, blue at the base. Young birds have a black spot behind the eye. In habits it resembles the Noddies but is faster, lighter and more elegant on the wing.]

Family RHYNCOPIDÆ

SKIMMERS

In this family the mandibles are greatly compressed, much as if two knife blades had been set edge to edge, and the lower is much longer than the upper. Only one species occurs in Burma.

THE INDIAN SKIMMER

Rhyncops albicollis (2100).

Local Names. — None recorded.

Identification. — PLATE XXIV, Fig. 9, Page 400. Length 17 inches. Young birds have the upper-parts lighter brown and the tail mottled with white near the tip. At a distance it would pass for a very clumsy black and white Tern, remarkable for the expanse of wing and the deep deliberate flapping of its flight, but the curious bill and feeding habits prevent confusion with any other bird.

Voice. — A shrill chattering scream.

Habits and Food. — The Skimmer is a bird of the larger rivers, occasionally visiting jheels in their neighbourhood, but only when there

is a clear expanse of water free of weeds, and also the coast. The reason for the curious shape of the bill is soon apparent. Singly or in small parties of ten to twenty birds they fly backwards and forwards along the surface of the water as if they were ploughing it, the elongated portion of the lower mandible cutting through the surface and leaving scarcely a ripple. The older writers attributed this habit to a meaningless fascination in disturbing the placid surface, but the more prosaic habit of mind of the modern naturalist has ascertained by observation that the bird is catching fish. It skims with the bill wide open in shallow water, the lower mandible below the surface, the upper mandible clear of the surface; if a small fish strikes the razor edge it runs up the incline and the bill closes swiftly across it. The nestling has the perfectly normal bill of a young Tern.

Nest and Eggs. — The breeding season is in the hot weather. The nest is a mere scrape on a bare sandbank, which it sometimes shares with River Terns and Pratincoles. The eggs, 3 or 4 in number, are moderately broad ovals in shape, fine in texture with a slight gloss, and variable in colour; they may be delicate greenish- or greyish-white, pale pink, or pale buff, marked with bold blotches and streaks of dark brown or reddish-brown and underlying streaks and blotches of pale inky-purple; as a rule the markings appear twisted as if they had been deposited while the egg was rotating. The eggs average 1·60 by 1·18 inches.

Status and Distribution. — This species is found only on the larger rivers of India and Burma, extending westwards to Persian Baluchistan. It breeds all along the Irrawaddy from Henzada to Myitkyina, but little is known of its movements outside the breeding season. It has been observed on the mud-flats of the coast in July.

Sub-order LIMICOLÆ.

This sub-order contains the typical waders. They are walking and running birds of small to medium size, often with long legs, and they are essentially birds of open country, not resorting to cover; a few however (*e.g.* Woodcock) are mainly woodland birds, a few (e.g. Woodcock, Snipe) regularly resort to cover by day, and some breed in wooded localities and perch freely on trees in the breeding season. Nearly all of them are more or less closely associated with water and wet places and are characteristic birds of marshes and the sea shore, though a few (*e.g.* Lapwing, Golden Plover) also regularly frequent dry ground. They are mostly birds of rapid flight with quick wing-action, the wings being usually rather pointed and appearing angled in flight because they are not extended to the full; slower flying birds with rounded wings (*e.g.* Lapwing) also occur. The legs are extended beneath the tail in flight.

There are two main types: the round-headed, short-billed Plover type and the longer-billed Curlew, Sandpiper and Stint type. Amongst the most important field characters are the pattern of the wings, rump and tail in flight, and the notes. Most of the waders are winter visitors to Burma, and as the summer and winter plumages often

differ conspicuously, the time of moulting being very erratic so that adults in nearly complete winter and nearly complete summer plumages may be seen together, and as the juveniles are often more or less distinct from either, the beginner is apt to find the field identification of some species rather puzzling. Immature and non-breeding adults of many species remain in Burma throughout the summer, a fact that complicates the study of their migrations.

Most, but not all, waders are gregarious outside the breeding season and a number of them are amongst the most characteristic birds of the sea shore, especially of the extensive mud-flats that comprise the coast of Southern Burma, where they are to be found in vast numbers. The general behaviour of all these shore-birds is much the same; their times of feeding are mainly conditioned by the tides, and when the tide is high the flocks, which may number thousands of individuals, pack on the higher parts of the saltings; a bird like the Curlew may travel some way inland, to return at the ebb.

Nearly all typical waders have certain mannerisms in common. The normal carriage of the body is horizontal and the neck is generally more or less withdrawn, but when nervous or particularly alert a more slanting pose of the body is often adopted and the neck is more stretched up. The typical attitude of rest is with the bill tucked into the wing-feathers, either while the bird is standing or prone on the ground. Frequently they rest on one leg with the other drawn up into the feathers of the abdomen, and many or most of both the Plover and the Stint and Sandpiper types, if not unduly disturbed, will shift their ground by hopping along in this position without troubling to lower the disengaged leg. A typical and graceful pose is with a leg stretched out rather to one side and the wing of the same side extended over it, and another graceful habit common to many species is that of holding the extended wings almost vertically above the back for a moment on alighting. While some waders swim habitually, most or probably all can do so on occasions or if wounded and unable to escape by flight, when some will even dive.

(The above is extracted from the " The Handbook of British Birds ").

Family CHARADRIIDÆ

This family contains the Plovers and their allies, and is divided into three sub-families.

Sub-family PRE-CHARADRIINÆ.

TURNSTONES, GREY PLOVERS, KENTISH PLOVERS & OYSTERCATCHERS

Members of this sub-family are found throughout the world, and most of the species occurring in Burma are birds of wide range, extending across the continents of Europe and Asia.

THE TURNSTONE

Arenaria interpres interpres (2101).

Identification. — Length 9 inches. In breeding plumage the black breast with a black line running up to each eye distinguishes it at once from all other

waders. In non-breeding plumage the orange-red legs, tortoise-shell appearance of the back, white ring round the eye, stiff pointed black bill, white under-parts, except for the brown sides of the head and neck, are distinctive.

The Turnstone keeps entirely to the coast, where it feeds above the tideline; it is an active little bird, running in short bursts here and there with the head held low and horizontal. It is chiefly met with in small parties, which usually fly a short distance when disturbed with a wavering flight, though when necessary they are swift and strong fliers. The stone-turning habit, from which the bird gets its name, is a regular method of uncovering sandhoppers, etc. The bird bends its legs and inserts its bill under the stone, clod, shell or other object and throws it over with a vigorous jerk. The ordinary note of birds flushed on the shore is a twittering metallic *kititit*.

Status and Distribution. — A Northern Holarctic species, which winters over a large area from the British Isles through Europe, Northern Africa and Southern Asia to Sumatra. It is a winter visitor to Burma in small numbers, arriving in October and leaving in April, though a bird obtained on the 23rd July, 1940, suggests that some individuals are non-breeding residents. There are few records, from Arakan, the west coast near Bassein, and the coast of Southern Burma.

THE GREY PLOVER

Squatarola squatarola (2102).

Identification. — Length 12 inches. A compact bullet-headed bird, like a Golden Plover but larger and paler and in adult plumage spangled on the upper-parts with silver, not gold. Adults in winter have the upper-parts brownish-grey and much more uniform than any plumage of the Golden Plover; young birds on the other hand have the upper-parts spangled and tinged with yellowish and can easily be confused with the Golden Plover, but in flight the conspicuous black axillaries, whitish rump and tail and whitish wing-bar distinguish the Grey Plover at all ages. It is usually met with in small parties and its flight and behaviour are like the Golden Plover's. The ordinary flight-note is higher-pitched than the Golden Plover's, not so mellow and liquid, and typically trisyllabic *tlee-oo-ee*, the middle note being short and lower-pitched.

Status and Distribution. — A Holarctic species, with an almost world-wide distribution in winter, including the British Isles. It is a winter visitor to Burma, arriving in October and leaving in March, and probably occurs in small numbers all along the coast; it might be met with inland on passage, and has been recorded from Toungoo.

[Note: — There are no races, the Eastern race, *S. s. hypomela (2103)*, having been separated on insufficient grounds.]

THE KENTISH PLOVER

Leucopolius alexandrinus alexandrinus (2106).

Allied Forms.—

THE CHINESE KENTISH PLOVER, *L. a. dealbatus (2108).*
THE ? „ „ *L. a. cantianus (2106a).*

Local Names. — None recorded.

Identification. — Length 6½ inches. Distinguished from the Ringed Plovers by the dark bill and legs, the obscure dusky patch on each side of the breast in place of the breast-band, and the greater amount of white on the face. It is very like a Sand Plover, but smaller and whiter in appearance. In breeding plumage the crown is pale rusty.

Voice. — The two main call-notes are a monosyllabic *wit-wit-wit-* and one with an "r" sound, *chirr*. Its alarm-note is a shrill *too-it, too-it, ittup, ittup*.

Habits and Food. — Its habits are similar to those of the Ringed Plovers, but it is perhaps even more active in its movements. It is one of the typical birds of the mud-flats and tidal creeks of the coast in winter.

Status and Distribution. — The Kentish Plover is a familiar bird in the British Isles, and extends eastwards through Europe and Asia to China, and is also found in North and South America. It is a winter visitor to Burma, arriving in October and leaving in March or April, though a few birds, possibly non-breeding residents, have been observed on the coast on the 23rd July; it winters on the coast and passes up and down the Irrawaddy valley on both migrations. Three races have been recorded: the typical race, which breeds in Europe and Western Asia to Sind and seems to be the common form in Burma; the Chinese race, which has been obtained in Tenasserim; and another race, which has been recorded from near Myitkyina.

[Note: — THE MALAY KENTISH PLOVER, *Leucopolius peronii (2109)*, is included in the Indian Avifauna (F. B. I., Vol. VI, Page 164) although no place within Indian or Burmese limits is given in the bird's distribution, unless "Malay Archipelago" is a mis-print for "Mergui Archipelago". The white band on the hind-neck is separated from the back by a black band, which distinguishes it from the preceding species.]

THE OYSTERCATCHER

Hæmatopus ostralegus subsp. *(2110-1)*.

Identification. — Length 18 inches. Easily identified by its bold pied black and white plumage, long stout orange-red bill, and flesh-pink legs and feet. One of the wariest and shiest of our waders, and almost entirely a bird of the sea-coast; it is found in small parties hunting along the shore or sitting during the heat of the day in a closely-packed flock just above the tide-line. Its plaintive whistle of two notes is shrill and high-pitched and it has a short, shrill single note of alarm.

The flight is strong and direct with regular wing-beats through a small arc, and the ordinary gait is a sedate walk though it can run rapidly when necessary. It feeds on molluscs, such as mussels and limpets, and the method of attack has been described in great detail (see The Handbook of British Birds, Vol. IV, pp. 414-415). It also probes in sand and mud for worms.

Status and Distribution. — An almost cosmopolitan species and a familiar bird of the coasts of the British Isles. There are only two records from Burma, one from Bassein and the other from Arakan, but it probably occurs all round the Burmese coast where the conditions suit it, and it may possibly breed there. The Chinese race, *H. o. osculans (2111)*, has been found breeding on the Sundarbans in Bengal, and is probably the form occurring in Burma, though this is not certain.

Sub-family CHARADRIINÆ

RINGED PLOVERS, SAND PLOVERS & GOLDEN PLOVERS

JERDON'S LITTLE RINGED PLOVER

Charadrius dubius jerdoni (2115).

Allied Form.—

THE CHINESE LITTLE RINGED PLOVER, *C. d. dubius (2113)*.

Local Names. — None recorded.

Identification. — PLATE XXV, Fig. 1, Page 418. Length 6 inches. Young birds have no black on the head or breast, this being replaced by brown. The swift flight is emphasised by sharply pointed wings, and there is no wing-bar.

Voice. — A sharp plaintive pipe or whistle, *pink pink pink*, is constantly uttered on the wing, and is particularly marked in the breeding season.

Habits and Food. — The small Plovers are energetic and lively and unlike the Stints, which when feeding move along with the heads down constantly probing the mud, they run rapidly here and there with the head not (or only slightly) lowered, pausing for a moment every few yards; a small mollusc or other item of food is seized with a quick tilt over of the whole body as though it were hinged on the legs, or by a quick dart sideways. They have a trick of sometimes raising the wings vertically for a moment. Feeding parties scatter over the wet sand or mud-flats and as a rule maintain only a loose contact, though flocks on the wing are often more compact. The flight is rapid, generally low down with regular rather deliberate wing-beats, gliding when about to pitch, and the birds usually run a little way with the wings raised after settling.

The Little Ringed Plover is essentially a bird of the sandy and stony margins of rivers and wider streams, and of the dried mud-flats that form round the edges of jheels and swamps; it also wanders temporarily to places where the presence of rubbish or the drying up of temporary ponds and inundations produces an abundant supply of insect food. It seems to avoid the coast and tidal estuaries. On the approach of an intruder it twinkles rapidly over the ground and largely escapes notice with its mixture of protective and obliterative plumage, the brown upper-parts blending with the colour of the ground and the black and yellow markings tending to break up the shape of the bird. Except when breeding it is usually seen in small parties, the members of which run about independently on the ground but at once unite when they take wing.

Nest and Eggs. — The breeding season is in the hot weather. In the breeding display the feathers on both sides of the breast are fluffed out and the tail is spread into a broad fan. At this period the male is very pugnacious and chases away other species of small birds from near the nest. A fast flight round and about the female forms part of his display. The nest is a slight depression scraped amongst sand or shingle, generally in the bed of a small river or stream or on the sandbanks of the larger rivers. The eggs, 4 in number, are broad ovals in shape though very sharply pointed towards the small end, fine and compact in texture without gloss, and buffish-stone to pale greenish-grey in colour; the markings consist of fine spots and speckles and fantastic little lines of brownish-purple or black, together with a few secondary markings of very pale inky-purple. The eggs average 1·14 by 0·84 inches.

Status and Distribution. — A Palæarctic and Oriental species. The Chinese or typical race is a winter visitor, and Jerdon's race is proba-

PLATE XXV

		See Page No.
1.	JERDON'S LITTLE RINGED PLOVER (adult, summer) *Charadrius dubius jerdoni*	417
2.	PAMIRS LESSER SAND PLOVER (adult, winter) *Charadrius mongolus atrifrons*	419
3.	ASIATIC GOLDEN PLOVER (adult, winter) *Pluvialis dominica fulva*	420
4.	SPUR-WINGED PLOVER (adult) *Hoplopterus duvaucelii*	421
5.	BURMESE RED-WATTLED LAPWING (adult) *Lobivanellus indicus atronuchalis*	421
6.	GREY-HEADED LAPWING (adult) *Microsarcops cinereus*	422
7.	BLACK-WINGED STILT (adult) *Himantopus himantopus himantopus*	423
8.	EASTERN CURLEW (adult) *Numenius arquata orientalis*	424

PLATE XXV

bly a resident and a local migrant. Whether the European race, *C. d. curonicus (2114)*, also occurs is uncertain; it is a rare vagrant to the British Isles.

THE LONG-BILLED RINGED PLOVER

Charadrius placidus (2116).

Identification. — Length 9 inches. The black bill is nearly twice as long as the bill of Jerdon's Ringed Plover; this and greater size prevent confusion between the two species.

Status and Distribution. — Breeds throughout Eastern Siberia, Manchuria, Japan and Northern China and migrates south in winter. There are only two records from Burma, both from the Myitkyina district, and it is probably a winter visitor and much overlooked on the shingle beds of the larger rivers. In Yunnan it has been recorded as high as 6,000 feet in rice fields.

THE PAMIRS LESSER SAND PLOVER

Charadrius mongolus atrifrons (2117).

Local Names. — Burmese: *Di-lon-gaung* (ဒိုလုံးခေါင်း), literally "brick-head", from the brick colour of the crown and breast in breeding plumage.

Identification. — PLATE XXV, Fig. 2, Page 418. Length 7½ inches. In breeding plumage the rufous breast and pale rufous crown and hind-neck are distinctive features. In non-breeding plumage (as in the plate) the bird appears a rather nondescript brown with whitish under-parts and a greyish patch on the sides of the neck; there is a brown eye-stripe and a white wing-bar, neither very marked.

Voice. — A distinctive chittering Tern-like note is uttered in flight.

Habits and Food. — This is the commonest wader of the mud-flats on the coast, where it may be seen in countless thousands. Its flight, run, and habits are exactly like those of the Ringed Plover.

Status and Distribution. — This species breeds on the high plateaus of Central Asia, and in winter is found over an enormous area in Africa and Southern Asia. It seems unlikely that it breeds in Burmese limits, yet it is remarkably common on the mud-flats of the coast in mid-July; possibly many birds are non-breeding residents. It is often seen inland on rivers and jheels, but whether it winters inland or occurs only on passage is again uncertain. There is much to be learnt about the movements of this common bird.

THE LARGE SAND PLOVER

Charadrius leschenaultii leschenaultii (2118).

Identification. — Length 8½ inches. A much larger bird than the preceding species, with a stout black bill, blackish patch in front of and round the eye and no white ring round the neck; in breeding plumage it looks foxy-red, with a black line through the eye and on the forehead, and is then a remarkably beautiful bird. Unlikely to be confused with any other wader on the shore. In habits it resembles the preceding species.

Status and Distribution. — This species breeds in Japan, Formosa and Hainan and is found in winter from East Africa through Southern Asia to Australia. It is a winter visitor to Burma and is found all round the coast on the tide-line; there is no evidence that it passes along the Irrawaddy on passage.

bly a resident and a local migrant. Whether the European race, *C. d. curonicus (2114)*, also occurs is uncertain; it is a rare vagrant to the British Isles.

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Charadrius mongolus atrifrons (2117).

Local Names. — Burmese: *Di-lon-gaung* (ဒိုလုံးခေါင်း), literally "brick-head", from the brick colour of the crown and breast in breeding plumage.

Identification. — PLATE XXV, Fig. 2, Page 418. Length 7½ inches. In breeding plumage the rufous breast and pale rufous crown and hind-neck are distinctive features. In non-breeding plumage (as in the plate) the bird appears a rather nondescript brown with whitish under-parts and a greyish patch on the sides of the neck; there is a brown eye-stripe and a white wing-bar, neither very marked.

Voice. — A distinctive chittering Tern-like note is uttered in flight.

Habits and Food. — This is the commonest wader of the mud-flats on the coast, where it may be seen in countless thousands. Its flight, run, and habits are exactly like those of the Ringed Plover.

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THE LARGE SAND PLOVER

Charadrius leschenaultii leschenaultii (2118).

Identification. — Length 8½ inches. A much larger bird than the preceding species, with a stout black bill, blackish patch in front of and round the eye and no white ring round the neck; in breeding plumage it looks foxy-red, with a black line through the eye and on the forehead, and is then a remarkably beautiful bird. Unlikely to be confused with any other wader on the shore. In habits it resembles the preceding species.

Status and Distribution. — This species breeds in Japan, Formosa and Hainan and is found in winter from East Africa through Southern Asia to Australia. It is a winter visitor to Burma and is found all round the coast on the tide-line; there is no evidence that it passes along the Irrawaddy on passage.

THE ASIATIC GOLDEN PLOVER

Pluvialis dominica fulva (2120).

Local Names.— Burmese: *Talaing-gaung* (တလိုင်းကောင်း), *Hnok-thi-do* (နှုတ်သီးတို)

Identification. — PLATE XXV, Fig. 3, Page 418. Length 10 inches. The plate shows the non-breeding plumage. The rump and tail appear dark in flight and there is no wing-bar. In breeding plumage, which is seen in early May, it is a much darker-looking wader and the forehead is broadly white, running back as a broad white eyebrow and down the sides of the neck and breast; the under-parts are black and the gold spangles on the back are more noticeable. Usually seen in parties distinguished by their wonderful powers of flight, it is distinguished from the Grey Plover by smaller size, more slender shape, and smoky-grey axillaries and under-wing in flight.

Voice. — The call is a shrill but melodious double whistle *tuill, tuill.*

Habits and Food. — The Golden Plover is a bird of grazing-grounds, Snipe grounds, and mud-flats on the coast and it likes newly ploughed fields, wet grass and stubble. The flight is very rapid with fairly quick regular wing-beats. Birds fly in a compact body with the astonishing precision common to many wader flocks, now opening out into a looser formation, now contracting again, and wheeling as though at a word of command. Feeding flocks scatter over the ground and the individuals run in the usual Plover manner; when running the body is nearly horizontal but when the bird stops it stands more upright, especially if at all suspicious. It is not difficult to approach, but is difficult to shoot ; it is good to eat, and ranks high as a sporting bird. It feeds on all kinds of insects, berries and shoots, and when by the sea on small molluscs, crustaceans and sea worms.

Status and Distribution. — An Eastern Palæarctic and Nearctic species. The Eastern race breeds in Northern Siberia and winters from India through Malaya to Australia. In Burma it arrives with the Pintail Snipe, and very large numbers have been recorded as passing over Sadon, in the hills east of Myitkyina, on a dark night in August. Parties in full summer plumage are to be seen on the return passage, which lasts up to mid-May. It is a rare vagrant to the British Isles.

[Note: — The wings of all birds shot should be carefully examined. The SOUTHERN GOLDEN PLOVER, *Pluvialis apricaria apricaria (2119)*, has pure white axillaries and under-wing and is a rare visitor to India but has been recorded as far east as Dibrugarh in Assam; it is therefore not unlikely to occur in Burma as a rare vagrant.]

Sub-family VANELLINÆ

PLOVERS, LAPWINGS, STILTS, AVOCETS & IBISBILLS

This sub-family contains the larger Plovers.

THE LAPWING, PEEWIT, or GREEN PLOVER

Vanellus vanellus (2121).

Identification. — Length 12 inches. The narrow pointed crest, black breast, broad rounded green-glossed wings, patch of chestnut at the base of the tail

and pied appearance on the wing are distinctive. Its flight is a leisurely flapping but it indulges in much twisting and turning and is capable of great speed when frightened. Usually seen in small parties. The well-known call is syllabified as *Pee-wit*, but is a more mewing cry than this word would express. In this country it invariably frequents open grassland close to a jheel.

Status and Distribution. — A Palæarctic species and a familiar bird in the British Isles; in winter it is found from Northern Africa to the Indo-Chinese countries; it is a regular winter visitor in Northern Burma in small numbers from mid-November to February and has been recorded from the Upper Chindwin, North-East Burma, and Central Burma.

THE SPUR-WINGED PLOVER

Hoplopterus duvaucelii (2124).

Local Names. — Burmese *Sit-Talaing* (စစ်တလိုင်း), *Chaung-Talaing* (ချောင်းတလိုင်း)

Identification. — PLATE XXV, Fig. 4, Page 418. Length 12 inches. Can only be confused with the next species, from which the head at once distinguishes it. The curious horny spur on the wing, from which it derives its name, is not visible in the field, and little is known of the use to which this formidable weapon is put.

Voice. — The call is similar to that of the next species, but perhaps less loud and shrill.

Habits and Food. — This is another typical bird of river sandbanks and when these are flooded in the rains it is found in gardens, grasslands and fallow. It is commonly seen on the larger jungle streams where banks of shingle occur and it is found less frequently on the upper reaches of tidal creeks. Otherwise it much resembles the Red-wattled Lapwing in its ways. It is said to be a good swimmer.

Nest and Eggs. — The breeding season is in the hot weather. The nest is the usual scrape in a shingle or sandbank, and the eggs, 3 or 4 in number, are like those of the next species but longer in shape and duller and more grey or olive-brown in general tone ; they average 1·62 by 1·16 inches.

Status and Distribution. — This species is found in India, Burma and the Indo-Chinese countries. It is a common resident on the rivers and streams throughout Burma, and occasionally ascends the hills ; it has been recorded at 6,000 feet in Yunnan, and has been seen on the Maymyo lake.

THE BURMESE RED-WATTLED LAPWING

Lobivanellus indicus atronuchalis (2127).

Local Names. — Burmese: *Tit-ti-du* (တစ်တီတူး) from the call.

Identification. — PLATE XXV, Fig. 5, Page 418. Length 13 inches. Young birds have the feathers of the head broadly fringed with brown, and the chin and throat are white.

Voice. — The call is a series of loud shrill notes, well expressed by the words *did-he-do-it, pity-to-do-it*, usually uttered on the wing when the bird is disturbed. Another common note sounds much like the syllable *ping*.

Habits and Food. — This species is usually found in pairs, and though often seen along sandy river beds like the Spur-winged Plover it is much more catholic in its tastes, preferring open cultivation, the fallow fields of the Dry Zone uplands, and the outskirts of jheels ; it has not however been recorded within tidal limits. It seems conscious of the fact that its striking coloration is of the "obliterative" type and by remaining motionless it often escapes the notice of the passer-by; if however he approaches too near the pair spring into life with their shrill cries and fly round his head until he leaves their territory. It has a habit of ducking at intervals when being watched.

Nest and Eggs. — The breeding season is in the hot weather. The nest is to be found in almost any type of open ground provided water is near. It is a circular depression scraped in the soil, and is sometimes encircled with small stones or pieces of hard clay. The eggs, 4 in number, are of the usual pear-shaped Plover type, close and slightly chalky in texture with very little gloss, and pale olive-green to yellowish or reddish-buff in colour, thickly and evenly covered with blotches, streaks and clouds of deep brown or black. They average 1·65 by 1·20 inches. They harmonise so well with their surroundings that they are most difficult to spot, even in the open situations in which they are laid. The young are equally well protected by their coloration and "freeze" when approached.

Status and Distribution. — This species is widely distributed in the Oriental Region and extends westwards to Mesopotamia. It is a common resident throughout the plains of Burma and is also common round Maymyo and doubtless elsewhere on the Shan plateau.

THE GREY-HEADED LAPWING

Microsarcops cinereus (2129).

Local Names. — None recorded.

Identification. — PLATE XXV, Fig. 6, Page 418. Length 14 inches. Young birds have the head, neck and breast the same colour as the back. In flight the pure white of the posterior part of the wing near the body contrasting with blackish tips, and the white rump and tail, the latter with a broad black subterminal bar, are distinctive features.

Voice. — A plaintive *chee-it, chee-it,* and a sharp *pink* uttered on the wing are the commonest notes, but it is quiet for a Lapwing.

Habits and Food. — This bird is usually seen in parties of a dozen or twenty birds, which keep loosely together in flight. It frequents marshes and swamps, the edges of jheels and lakes, and is sometimes found in the heat of the day among bushes in scrub jungle. It is very common on the Sittang plain in the big grassy depressions, which in the rains are uncultivated swamps.

Status and Distribution. — This species breeds from Central Siberia and North-west China to Japan and Korea and in winter extends over a wide area in the Oriental Region as far west as Kashmir. It is a winter visitor to Burma from mid-September to mid-May. A flock usually winters on the lake at Maymyo, but it is more often seen in the plains than in the hills.

THE BLACK-WINGED STILT

Himantopus himantopus himantopus (2130).

Local Names. — Burmese: *Daung-lan-chidauk* (ဒေါင်းလန်ခြေထောက်။)

Identification. — PLATE XXV, Fig. 7, Page 418. Length 15 inches. Can only be confused with the Avocet, which has the long bill curving upwards. In flight the long legs project 6-7 inches beyond the tail.

Voice. — The ordinary call is reminiscent of that of a Tern, a repeated sharp *kik-kik-kik*....., and the alarm-note is a shrill pipe. A disyllabic note *kiwik* has also been recorded. At the nest the birds are very noisy and demonstrative, flying towards an intruder and passing backwards and forwards over his head with loud cries; though when the actual site of the nest is reached they retire and alight at a distance.

Habits and Food. — The Stilt is purely a water-bird found in small parties about the shallower portions of lakes, jheels and marshes, and sometimes on village ponds and flooded paddy fields. Owing to its long legs and long bill it is able to wade into deeper water than most waders, and thus to tap supplies of food that are not available to them; its mode of progression when wading appears somewhat awkward, the long legs being drawn backwards out of the water, brought forwards in the air, and then deliberately placed in the water. Stilts occasionally associate with Avocets and Godwits, similarly long-legged birds, but they do not as a rule mix with the other waders. The food consists of minute seeds of water-plants, insects, small molluscs, and worms.

The flight is direct with fairly quick beats of the pointed wings, and the bird sometimes glides for some distance when well up in the air as well as prior to pitching. The gait on land is a graceful deliberate walk with long strides, quickened occasionally to almost a run. Just as the bird rises the long legs are bent almost double, so that it gives quite a big jump into the air. The legs are normally extended rigidly behind in flight, but on short flights their position in relation to the body is frequently altered to act as a rudder or brake.

Nest and Eggs. — The breeding season is from April to June. The birds nest in colonies about the margins of jheels and the nests are built actually in the water or on the mud beside it in a natural or artificial hollow in the ground, and may be lined with a few sticks or unlined. The eggs, 3 or 4 in number, are moderately broad ovals in shape, fine and compact in texture with a slight gloss, and olive-brown, greenish-stone or creamy-buff in colour; the markings consist of specks, blotches and streaks of black and rich brown, with a tendency to collect at the larger end. The eggs average 1·64 by 1·13 inches.

Status and Distribution. — This species is another "globe-spanner". The typical race occurs in Southern Europe, Africa, and Central and Southern Asia. Some individuals are probably resident in Burma, eggs and young having been recorded from near Myingyan and Kinu in the Dry Zone, whereas others are probably winter visitors. It is a rare vagrant to the British Isles.

THE AVOCET

Recurvirostra avosetta (2131).

Identification. — Length 17 inches. Rather smaller than the Stilt and easily recognised by the beautiful snow-white plumage boldly patterned with black and long turned-up black bill and bluish-grey legs. The call is a melodious clear liquid *klweet, klweet,* and the male has a low *chuck, chuck, chuck hawy* note uttered on the ground. It keeps to rivers and jheels and obtains its food by a circular action of its curved bill. It walks slowly and quietly, flies well with outstretched legs, and swims well and high in the water.

Status and Distribution. — Breeds over the greater part of Europe and Asia and parts of Africa, and is a vagrant to Burma, the only records being from the Irrawaddy and Chindwin rivers. It is a regular visitor to the British Isles, where it once used to breed.

THE IBISBILL

Ibidorhyncha struthersii (2132).

Identification. — Length 15 inches. The red bill, shaped like the Curlew's but shorter and more sharply turned down at the end, is unmistakable. Face as far back as the eye, throat and crown black; upper-parts ashy; neck, sides of head and upper-breast bluish-grey, below which is a narrow white band followed by a broad black one. Rest of under-parts white. Legs and feet pinkish-grey (non-breeding and young) to blood-red (breeding adults). The note is a musical *klew-klew* and it has a loud harsh call of fear. The flight is like that of the Common Sandpiper and rather slow. It keeps entirely to the big shingle banks of mountain rivers.

Status and Distribution. — This species extends from the Pamirs to North-west China. A breeding pair has been observed in the Seinghku valley, which runs into the Adung valley, at 11,000 feet, and other birds, probably winter visitors, have been recorded from low elevations in North-East Burma. It probably occurs on the stony beds of all the big rivers running into the Malikha north of Sumprabum.

Family SCOLOPACIDÆ

This family comprises a large number of waders of all sizes, including such familiar birds as the Snipe, "snippets", and Woodcock. It is divided into four sub-families, of which we are concerned with three.

Sub-family TRINGINÆ

CURLEWS, WHIMBRELS, GODWITS, SANDPIPERS, REDSHANKS, GREENSHANKS & RUFFS

This sub-family contains chiefly large waders.

THE EASTERN CURLEW

Numenius arquata orientalis (2134).

Local Names. — Burmese: *Hkayu-sok* (ခရူပင်)

Identification. — PLATE XXV, Fig. 8, Page 418. Length 23 inches. Can only be confused with the Whimbrel (*q.v.*). The pure white rump is very noticeable in flight.

Voice. — The commonest notes are a loud musical *quoi quoi* and *crooee, crooee, crooee,.....*, with the second syllable higher-pitched and more emphatic than the first and often uttered in long sequences. The song begins with a succession of low drawn-out liquid notes, the

first three or four delivered in a rather slow measured manner, *oorrr-oorrr-oorrr*....., then gaining speed and passing into a louder and higher-pitched bubbling trill impossible to render in words, finally sinking again and often ending with some low notes like the opening ones. We have not heard the full song in Burma but only a curtailed version of it, which maintains a fairly constant pitch and is uttered freely at night.

Habits and Food. — This is a typical bird of the mud-flats all round the coast, where it is usually seen in mixed parties with Whimbrel ; it is a wily bird and normally unapproachable. The flight is swift with slower wing-beats than most waders use; the gait is a sedate walk with the body horizontal and the neck generally more or less retracted, but when suspicious or on the alert the body is often held more slanting and the neck is stretched straight up. When feeding it wades in the water and picks up food on the surface or probes deeply for it in the mud, shifting it without effort from the tip of the bill to the gullet with a slight jerking motion of the head. Feeding birds often scatter rather widely on the mud-flats, but it is markedly gregarious and is usually seen in flocks, though single birds and small parties are frequently seen inland on passage. It can swim well but seldom does so except to cross a creek, though it has been observed to settle even on the sea.

Status and Distribution. — A Palæarctic species and a familiar breeding bird of the British Isles ; in winter it is found over most of Africa and Southern Asia. The Eastern Curlew is a winter visitor to Burma, though a large number of non-breeding (immature ?) birds stay throughout the year: it has been recorded as common at the mouth of the Sittang in May and June, as late as the very end of July, and again in October. Inland it passes up and down the Irrawaddy on passage and a bird has been seen at Maymyo. Odd birds are occasionally seen flying over Rangoon.

THE EASTERN WHIMBREL

Numenius phæopus variegatus (2136).

Local Names. — None recorded.

Identification. — Length 17 inches. A miniature Curlew ; when the two are seen together the difference in size is obvious, but when seen alone the brown barring on the white rump, the comparatively short bill (about half the length of the Curlew's), and the two broad dark bands on the crown divided by a narrow pale streak, should distinguish the Whimbrel.

Voice. — The ordinary note is a rapid tittering or rippling whinny difficult to put into words, something like *titti-titti-titti-titti-titti-tit* in very even time and with even emphasis throughout.

Habits and Food. — Do not differ from those of the Curlew. In the Sittang plain both Curlew and Whimbrel when feeding follow the narrow winding creeks far into the interior, and are met with in mangrove swamps and even high forest.

Status and Distribution. — A Holarctic species, and familiar bird of the British Isles. In winter it spreads over most of Africa, Asia and Australia. The Eastern race is a winter visitor to Burma and is common on the mud-flats ; though it probably passes up and down the Irrawaddy on migration like the Curlew the only inland records are from Prome, Thayetmyo, Sagaing and Myitkyina.

THE EASTERN BLACK-TAILED GODWIT

Limosa limosa melanuroides (2138).

Identification. — Length 15-17 inches. Markedly larger than the Redshank and much smaller than the Curlew, Godwits are easily recognised among shore-birds by their long, straight or upward curved bills. As this bird flies away, the rump appears dark grey and the tail white with a broad subterminal band of black; the long legs project conspicuously beyond the tail, and there is a broad white wing-bar. In full summer plumage, which is not assumed till May, the whole bird is more or less rufous, the breast and flanks barred with black and the upper-parts marked with blackish-brown; even in mid-winter it shows some rufous marks on the head, neck and breast.

The flight is fairly rapid with quick wing-beats, and the neck is withdrawn so that the bird looks compact and stocky in shape. The ordinary gait is a brisk walk, with an occasional short run. The flight-call, heard chiefly from flocks on the move, is a loud clear *wicka-wicka-wicka;* otherwise it is often rather silent outside the breeding season, but feeding birds sometimes use a monosyllabic *kuk* or *kik*. It may be seen singly, in small parties, or in large flocks.

Status and Distribution. — A Palæarctic species and a visitor to the British Isles, in winter found in Africa, Southern Asia and Australia. The Eastern race is a winter visitor to Burma in small numbers; it has occurred on various parts of the coast and there are inland records from Minbu, Myingyan and Yandoon.

THE SNIPE-BILLED GODWIT

Limnodromus taczanowskius (2140).

Identification. — Length 13½ inches. Probably difficult to distinguish in the field from the preceding species; the bill is black as opposed to dull orange-red or dusky orange and there are dark brown bars on the lower breast, flanks and under tail-coverts. As its name indicates the long bill is like that of a Snipe, swollen and pitted towards the tip. In summer plumage the whole head, neck and under-parts are rufous; back rufous with large black spots; a black line through the eye.

Status and Distribution. — An Eastern Palæarctic species. It is a rare vagrant to India and Burma, and in this country the only records are from near Pegu and Rangoon.

THE TEREK SANDPIPER

Xenus cinerea (2142).

Identification. — Length 9 inches. The long sharply up-turned black bill with some yellow at the base and the orange legs are distinctive. There is no white on the upper-parts, which are "Greenshank" grey except for a white edge to the hind-wing near the body (seen in flight); under-parts all white. On the wing it resembles a small Redshank. It has a distinctive trilling note. One of the typical waders of the mud-flats on the coast, usually seen in mixed flocks with Marsh Sandpipers, Curlew-Sandpipers and Greenshanks.

Status and Distribution. — A Northern Palæarctic species, wintering in Africa, Asia, and Australia. It is a winter visitor to Burma, and is common all round the coast, but has not been observed inland or away from the tide-line. Odd birds seen on the mud-flats on the 23rd July may have been non-breeding residents. It is a rare vagrant to the British Isles.

[Note: — The Western race, *X. c. cinerea (2141),* and the Eastern race, *X. c. javanica (2142),* are now considered to be the same.]

PLATE XXVI

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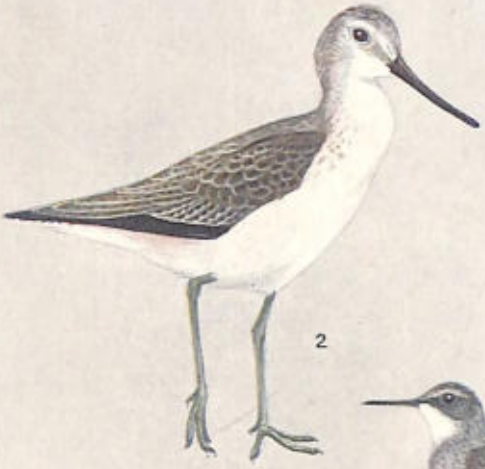

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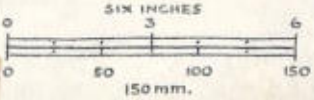

1939

THE COMMON SANDPIPER

Actitis hypoleucos (2145).

Local Names. — None recorded.

Identification. — PLATE XXVI, Fig. 4, Page 426. Length 8 inches. A small Sandpiper with no white on the upper-parts. In flight it almost invariably skims low over the surface of the water, progressing by means of two or three curious stiff wing-beats with the wings moving through a very small arc, alternating with glides during which the wings are held motionless in a characteristically bowed position. A white wing-bar is conspicuous in flight, and it is slow compared with other Sandpipers. Chiefly a bird of rivers and streams.

Voice. — A shrill note *twee-dee-dee-dee-dee* is uttered on the wing, the second and subsequent notes perceptibly shorter and lower in pitch than the first.

Habits and Food. — The Common Sandpiper is usually found solitary feeding along the banks and beds of rivers and streams and the sides of jheels and ponds; it also frequents the mud-flats and tidal creeks of the coast in small numbers. Although well able to swim and dive it prefers to feed exactly along the margin of the water, tripping along the sand or mud with its toes just awash; hence it is seldom found in marshy ground with other Sandpipers. It is very busy and active, incessantly nodding its head and jerking its tail up and down. The food consists of insects and their larvae, sand-hoppers, freshwater shrimps and similar items.

Status and Distribution. — A Palæarctic species, including the British Isles in its breeding range; in winter migrating south to Africa, India, the East Indies, Australia and Tasmania. It is a common winter visitor to Burma, arriving early in August and leaving early in May, and is found in all parts of the country. A few individuals may remain throughout the year.

THE GREEN SANDPIPER

Tringa ochropus (2143).

Local Names. — Burmese: *Ye-hnyaung* (ရေငှက်)

Identification. — PLATE XXVI, Fig. 1, Page 426. Length 9½ inches. The blackish wings contrasting in flight with the pure white rump, tail and abdomen, and the solitary habits distinguish this from all other Sandpipers. When flushed it zigzags sharply in its flight at first, then mounting high and flying right away or circling in the sky like a Snipe.

Voice. — The usual note when flushed is a full clear musical *tlooi, tlooi-tlooi,* or *klu-wit,* the first syllable frequently rather prolonged.

Habits and Food. — On migration it sometimes collects into small parties but normally the Green Sandpiper is a solitary bird, and its habit of dropping in to feed along the margins of any pond or even buffalo wallow however small is characteristic ; for this reason it is often seen at small pools in the forest where no other Sandpiper would occur; it also frequents jheels and casual flood-water, but is not com-

mon on the mud-flats and tidal creeks of the coast. It is a curious mixture of confidence and shyness, feeding busily close to a man until disturbed and then becoming wild and difficult to approach. The gait is a brisk walk or run and it bobs its head and moves its tail up and down in the same way as the Common Sandpiper, but much less persistently.

Status and Distribution. — A Palæarctic species and a common visitor to the British Isles, in winter found in Africa and Southern Asia. It is a common winter visitor to Burma and found throughout the country in suitable localities. Birds may be seen in any month of the year; this may be due to the earliest arrivals coming before the last birds have departed, or it may be due to some individuals being non-breeding residents.

THE MARSH SANDPIPER

Tringa stagnatilis (2144).

Local Names. — The Little Greenshank.

Identification. — PLATE XXVI, Fig. 8, Page 426. Length 9 inches. Very like a small Greenshank, Dove-grey above with the lower back and rump white, but it is altogether slighter and more graceful with conspicuously slender legs and bill; under-parts pure white; tail lightly barred above. Legs nearly twice as long as those of other Sandpipers. In summer plumage the upper-parts, throat and breast are blotched with black.

Voice. — Its note is a shrill *kewip,* said to be distinctive, and a feeble twittering note has also been recorded.

Habits and Food. — This is typically a Sandpiper of jheels and marshes, round which it is usually seen in small flocks; it also frequents the mud-flats, but seems to avoid rivers and streams. Its habits do not differ from those of other Sandpipers. It often feeds like the Greenshank by moving the bill from side to side.

Status and Distribution. — A Palæarctic species and a rare vagrant to the British Isles, in winter found in Africa, Southern Asia and Australia. It is a winter visitor to Burma and is to be seen throughout the country, but is the least common of the four Sandpipers of this genus.

THE WOOD SANDPIPER

Tringa glareola (2146).

Local Names. — None recorded.

Identification. — PLATE XXVI, Fig. 3, Page 426. Length 8 inches. This bird is somewhat similar to the Green Sandpiper, of which it is a "milder edition". It has the same rapid twisting flight, but it is slighter in build with narrower wings, and it is much paler in colour, more brown and less black, with the under side of the wing greyish and not blackish. On the ground the spotting of the upper-parts is much more conspicuous. Said not to wag its tail up and down like the Common Sandpiper. The commonest "snippet" of Burma.

Voice. — Its note is milder, less liquid and challenging, than that of the Green Sandpiper, *chiff-chiff-chiff, chic-iff-iff,* etc.

Habits and Food. — This species frequents Snipe grounds from which it often rises in clouds, much to the exasperation of the keyed-up Snipe-shooter, but the birds do not behave as a flock except when actually migrating. The term "snippet" covers any small wader that is not a Snipe, but about 90 per cent of the snippets are either Green, Marsh or Wood Sandpipers, the last being much the commonest; the very small "snippets" are usually one or other of the various Stints. The Wood Sandpiper occurs on every jheel and along every river, but is a freshwater bird and avoids the tidal creeks; its name is rather misleading and the Green Sandpiper has a better claim to the title of "Wood" Sandpiper.

Status and Distribution. — A Northern Palæarctic species and a regular visitor to the British Isles, in winter found in Africa and Southern Asia to the Philippines. It is a very common winter visitor to all parts of Burma, from August (early record the 20th July) to the third week in May.

THE TIBETAN REDSHANK

Tringa totanus eurhinus (2147).

Allied Form.—

THE CENTRAL ASIAN REDSHANK, *T. t. terrignotæ (2148).*

Local Names. — Burmese: *Chi-ni* (ခြေနီ)

Identification. — PLATE XXVI, Fig. 5, Page 426. Length 11 inches. In flight the white rump and tail-coverts and the pure white of the posterior part of the wing near the body contrasts with the dark brown of the rest of the wing. Perhaps the most beautiful of all waders. The Central Asian race is distinguished by the upper-parts being much paler but more rufous in summer and greyer in winter, a difference that can often be seen in the field. In summer plumage the upper-parts are marked with black and the under-parts are densely streaked with brown.

Voice. — The commonest notes, which have a musical whistling quality, are a single *tüü* and a triple *tu-hü-hu,* the second two notes rather lower than the first. When excited it dashes up with a noisy clamour.

Habits and Food. — The Redshank is a typical wader of the mud-flats and tidal creeks, and inland it frequents the larger jheels; birds on passage drop in to feed on Snipe grounds or flooded paddy fields. It is a shy restless and noisy bird. The flight is swift and rather erratic, tending to tilt from side to side, with regular fairly quick wing-beats, sometimes planing for some distance; there is usually a perceptible pause at the end of each down stroke, giving a jerky or flicking effect. The gait is a brisk walk or run and the bobbing action when suspicious, common to most Sandpipers, is perhaps more conspicuous in the Redshank than in any other. Another action common to most waders and especially noticeable in the Redshank is the graceful holding of the wings raised above the back for a mo-

ment after alighting. It feeds largely by picking insects, etc., from the surface of the ground or bottom of shallow water but it also regularly probes mud. It may be seen singly, in twos and threes, or in parties, and it associates freely with other waders.

Status and Distribution. — A Palæarctic species, breeding in the British Isles; in winter it spreads over a wide area from South Africa to the Philippines. Both races are winter visitors, often found in mixed flocks, and appear to be equally common, though most, if not all, birds obtained in April belong to the Central Asian race. It is very common on the coast in early May and hundreds may be seen in mid-July, so that here again it seems that many birds are immature non-breeding residents.

THE SPOTTED or DUSKY REDSHANK

Tringa erythropus (2149).

Identification. — Length 12 inches. The sharp double note *ke-wip* or *tchuet*, lacking the full musical quality of the Redshank's calls, is distinctive. It derives its name from the black summer plumage, spotted with white on the back, which is assumed before it leaves Burma and is unmistakable. In winter plumage it is distinguished from the Common Redshank by more ashy-grey colour with the wing-coverts and shoulder noticeably barred and spotted with white; it lacks the conspicuous white on the hind-wing of the Redshank in flight, the secondaries being barred brown and white instead of pure white. In autumn it has been described as a "measly-looking Redshank": a sort of small Whimbrel without a curved bill and dark breast.

Status and Distribution. — A Northern Palæarctic species, migrating south in winter to Africa and Southern Asia. It is a winter visitor to Burma in small numbers and is seen chiefly on the coast, but has been recorded on the Irrawaddy on passage. It is an uncommon passage-migrant in the British Isles.

THE GREENSHANK

Tringa nebularia (2150).

Local Names. — None recorded.

Identification. — PLATE XXVI, Fig. 2, Page 426. Length 12 inches. In flight the white rump and white tail lightly barred with light brown are noticeable, and there is no white on the wing. Can only be confused with the rare Armstrong's Sandpiper, (*q.v.*).

Voice. — On rising it utters a loud alarm-whistle, a mellow but plaintive *thew-thew, tew-tew-theeuw,* less musical and lower pitched than that of the Redshank. The ordinary call in flight is *chee-wet.*

Habits and Food. — The Greenshank is usually a solitary bird, frequenting the sandy margins of rivers and jheels, especially where no vegetation separates the open water from the bank, and it is common on the mud-flats of the coast. It is catholic in its tastes and is a frequent visitor to village ponds and the smallest patches of temporary water, such as flooded borrow-pits. It does not probe the mud for which its up-tilted bill is not very suitable, but picks minute life from the surface of the mud or water. It is rather shy and rises with a swift erratic flight, mounting high into the air like the Green Sandpiper. It feeds in the shallows with a side-to-side motion of the bill or by picking and probing; it also chases small fish by a succession of

rapid dashes through the water with the neck extended and the bill submerged.

Status and Distribution. — A Northern Palæarctic species, resident in the British Isles; it winters in Africa, tropical Asia, Australia, Tasmania and New Zealand. It is a winter visitor to Burma from August till the third week in May and is the commonest large wader in the country. A few individuals seen in June and July on the mud-flats were probably non-breeding residents.

ARMSTRONG'S SANDPIPER

Tringa guttifer (2151).

Identification. — Length 13 inches. In size intermediate between a Redshank and a Greenshank, and closely resembles the latter, but the legs have a yellowish tinge and are no longer than those of the Redshank (2 inches). In summer plumage it is much darker above and spotted with black below.

Status and Distribution. — This species breeds in North-east Siberia and is casual in Tibet. It appears to be a rare vagrant to North-east India and Burma, the only records from this country being from Elephant Point (Hanthawaddy) in 1875 and from Amherst in 1877.

THE RUFF AND REEVE

Philomachus pugnax (2152).

Identification. — Length 12 inches (male), 10 inches (female). This is the only genus in which the sexes differ markedly in size. In winter plumage it lacks outstanding features but an oval white patch on each side of the dark central area of the tail is a good character at all ages. Upper-parts light brown, breast pale ashy-brown. The male in breeding plumage has a long ruff of feathers, which may be of any colour, extending down each side of the neck to cover the entire breast, but this plumage is probably not to be seen in Burma. The flight is rapid with strong regular wing-beats, much like that of the Redshank, and it shows a narrow white wing-bar. It walks with a deliberate gait, probing mud for food, and is said to prefer creeks and tidal estuaries to the open mud-flats. In general it is a very silent bird. When flushed it seldom makes any noise, occasionally a low *tu-whit* or similar sound.

Status and Distribution. — A Palæarctic species, migrating south to Africa and Southern Asia as far as Ceylon and Tenasserim. It is a winter visitor to Burma and has been recorded from the Sittang estuary, Bassein and Arakan, but not since 1883, when it was described as "tolerably abundant". It does not appear to arrive early or to stay late. It is a passage migrant in the British Isles.

Sub-family CALIDRIDINÆ.

SANDERLINGS, STINTS, KNOTS, & BROAD-BILLED SANDPIPERS

This sub-family contains most of the smaller waders.

THE SANDERLING

Crocethia alba (2153).

Identification. — Length 8 inches. Larger than a Stint and has no hind toe. Its extreme activity is no less characteristic than the almost white appearance in winter. It shows a prominent white wing-bar in flight; the tail has a dark centre and shows white at the sides. In summer plumage the whole head, neck and upper breast are light chestnut rather sharply defined from the pure white abdomen. The note in flight or when flushed is a shrill but liquid and pleasant *twick-twick*.

Status and Distribution.— A Holarctic species, breeding in the Arctic regions and found all over the world in winter. It is a common visitor to the British Isles but apparently a rare vagrant to Burma, the only records being from Elephant Point (1886) and Myingyan (1902); except on passage it is entirely a shore bird, not even found up the tidal creeks.

THE SPOON-BILL STINT

Eurynorhynchus pygmæus (2154).

Identification. — Length 6 inches. Easily distinguished from all other waders by the remarkable shape of its bill, which terminates in a broad flat disc. It is also a whiter bird than the other Stints, the upper-parts being the same shade as those of the Broad-billed Sandpiper. Bill, legs and feet black. Found singly or in pairs on the tide-line, usually in a mixed flock of other waders.

Status and Distribution.— Said to breed in North-east Siberia, this species migrates south in winter to China, Burma and eastern Bengal. It is probably a regular winter visitor to Burma in very small numbers. A bird obtained on the Sittang estuary in 1939 was picked out at once from a very large flock of waders by its bill, and was the only one seen out of thousands of waders inspected. Previous records are from Arakan, Elephant Point and Amherst, all dating from over 60 years ago.

THE LITTLE STINT

Calidris minuta (2155).

Local Names. — None recorded.

Identification. — Length 6 inches. The four Stints belonging to this and the three succeeding species can only be distinguished with practice. They are all tiny waders, about the size of Sparrows, found in parties and flocks about water. The Little Stint is a grey-brown bird with small darker mottlings above and white below; a little white shows at the base of the tail when the bird is alighting, but not near the tip. In breeding plumage the upper-parts are black with broad rufous edges, and there is a rufous tinge on the breast.

Voice. — It rises with a monosyllabic *chit* or *tit* repeated about three times, and a more twittering variant is used when feeding. Many less common notes have been described.

Habits and Food. — Small shore-birds of the Stint type all have much the same habits. They are very gregarious and mixed parties often fly about together. Much of their food is obtained on recently uncovered flats, which they search methodically for small burrowing organisms by tapping or probing with the bill or they pick up minute molluscs, etc., on the surface. The mode of feeding has been carefully studied and described in great detail (see The Handbook of British Birds, Vol. IV, Page 234). Though at times they run about with great activity in search of food on the surface, the typical gait is a brisk walk with short mincing steps. When excited or uneasy they bob with a backward jerk of the head and a depression of the hinder end of the body, but much less freely and conspicuously than in the larger waders like the Redshank. The flight is swift with regular quick wing-beats, the birds wheeling and swerving in a characteristic fashion and tilting as they do so, so that a flock now appears dark and now flashes white as first the upper side and then the under side of every bird is turned towards the observer. When about to pitch they glide with the wings extended, usually alighting with a little flutter and often keeping the

wings raised for a moment or two before folding them. A similar raising of the wings may be seen when the birds are becoming restless on the approach of an observer and will shortly take flight.

The Little Stint is a common bird of the mud-flats, where it is found in large mixed parties with other Stints and Curlew-Sandpipers. When the tide is out they feed on the mud and as it comes up they retreat to the grassy saltings, which are only covered at high tide. They are invariably very busy, pattering along with their tiny feet in and out of the water, their heads down busily collecting minute insects, crustacea and worms from the mud.

Status and Distribution. — A Northern Palæarctic species, in winter extending from Africa along Southern Asia to India, Burma and Ceylon; it is a passage migrant to the British Isles and a winter visitor to Burma; it is common on the coast and has been recorded inland on passage.

THE EASTERN LITTLE STINT

Calidris ruficollis (2156).

Local Names. — None recorded.

Identification. — Length 6 inches. Unmistakable in breeding plumage with rufous cheeks, throat and neck; in winter plumage it has the upper-parts greyer than the Little Stint, but is indistinguishable in the field.

Voice. —

Habits and Food. — } So far as is known these do not differ from those of the Little Stint.

Status and Distribution. — This species breeds in Eastern Siberia and migrates to the Oriental Region and Australia in winter. It is common on the coasts of Burma but has not been recorded inland, though it probably passes up and down the Irrawaddy on passage like the Little Stint.

THE LONG-TOED STINT

Calidris subminuta (2157).

Local Names. — None recorded.

Identification. — PLATE XXVI, Fig. 7, Page 426. Length 6 inches. Dark appearance with black markings on the upper-parts giving a tortoise-shell appearance, grey on the neck and breast, and absence of white on the tail are distinctive features. The middle toe, including the claw, measures nearly an inch in length and at once distinguishes the bird in the hand.

Voice. — It is said to have a shrill piping cry, uttered as it rises and also when running about on the mud.

Habits and Food. — For general habits of the Stints see under the Little Stint. The Long-toed Stint is common on Snipe grounds and the edges of jheels as well as on the tide-line.

Status and Distribution. — This species breeds in Siberia and winters in the Oriental Region as far west as Eastern India and Ceylon. It is a common winter visitor to Burma.

TEMMINCK'S STINT

Calidris temminckii (2158).

Local Names. — None recorded.

Identification. — PLATE XXVI, Fig. 6, Page 426. Length 6 inches. This Stint is distinguished by its uniform grey upper-parts, white outer tail-feathers and more or less grey breast. As the Little Stint has the lateral tail-coverts white, giving a general impression of a dark centre to the tail and white at the sides, the white outer tail-feathers of Temminck's Stint, though a useful character, need to be observed with care; white towards the tip of the tail must be looked for, and this shows up best when the bird is rising or alighting. In breeding plumage the feathers of the upper-parts have black centres, giving a mottled appearance. It resembles a miniature Common Sandpiper and gets up with a distinctive note. The flight is erratic and twisting, with a fluttering bat-like action. Members of a party in flight are generally more or less independent and show less co-ordination than most waders.

Voice. — It utters a sharp twittering whistle, almost cricket-like, as it rises.

Habits and Food. — For general habits of Stints see under the Little Stint. Whereas the Little Stint is essentially a bird of the mud-flats, Temminck's Stint is primarily a freshwater bird and is much the commonest Stint on jheels and rivers; it not infrequently resorts to cover amongst low plants and tends to "tower" when flushed or at least to rise quite high even if it pitches again close at hand. It also occurs on the coast in small numbers, but there it prefers creeks to the open shore. We have found it tame and confiding but its behaviour is said to be variable and at times wild.

Status and Distribution. — A Northern Palæarctic species wintering in Northern Africa and Southern Asia and a rare passage migrant to the British Isles. It is a common winter visitor to Burma, arriving in mid-August and leaving in mid-May, and it has been recorded up to 4,000 feet in the hills.

THE SIBERIAN PECTORAL SANDPIPER

Calidris acuminata (2159).

Identification. — Length 7-8 inches, the largest of the Stints. The crown, neck and back are streaked blackish and brown or buff, the striped effect being characteristic. In winter plumage the breast is only slightly streaked, chiefly at the sides. Bill black, legs dull greenish-slate.

Status and Distribution. — Breeds in North-east Siberia and Alaska and winters in Australia and the Oriental Region, but a very rare vagrant to India and Burma. There are two records from near Rangoon. It is also a rare vagrant to the British Isles.

THE CURLEW-STINT or PIGMY SANDPIPER

Calidris testacea (2160).

Identification. — Length 8 inches. The short black bill bent down near the tip is distinctive. A small Sandpiper with long wings, narrow white wing-bar and white upper tail-coverts. The breeding plumage is mostly rufous, mottled with black on the upper-parts. Strong on the wing. It has a twittering call

and a rather shrill single note. For general habits of Stints see under the Little Stint. The Curlew-Stint is a typical bird of the mud-flats.

Status and Distribution. — Breeds in Northern Siberia and spreads in winter from Africa through Southern Asia to Australia, passing through the British Isles on migration. It is a common winter visitor to the coast of Burma arriving in August and leaving in May. Odd birds seen on the mud-flats on the 23rd July may have been non-breeding residents. There are no inland records.

[Note: — THE DUNLIN, *Erolia alpina alpina (2151)*, a Palæarctic species and a common visitor to the British Isles, has not been recorded from Burma but in India it straggles as far east as Assam and should be looked for on the Arakan coast. Length 7 inches. The black bill curves downwards at the end and is like that of the Curlew-Stint but shorter, and except for its smaller size and blackish-brown upper tail-coverts it resembles that bird in winter plumage. It has a rounded "hunch-back" profile when at rest.]

THE EASTERN KNOT

Calidris tenuirostris (2162).

Identification. —Length 12 inches. Distinguished from the preceding species by larger size, white upper tail-coverts, and no chestnut on the under-parts in breeding plumage.

Status and Distribution.— This species breeds from Central Siberia to Japan and in winter is found in India, Malaya and Australia. It is a winter visitor to the coast of Burma, either regularly in very small numbers or purely as a vagrant.

THE KNOT

Calidris canutus canutus (Not in F. B. I.)

Identification. — Length 10 inches. A smaller bird than the preceding species with a much smaller bill (30-37 mm. as against 39-47 mm.). Upper-parts dark grey; in breeding plumage the under-parts are chestnut, in winter white. A large short-legged plump wader that often feeds in densely packed masses. A wing-bar shows in flight and at close quarters black bars are visible on the upper tail-coverts.

Status and Distribution. — Breeds in the Arctic regions, and is a common winter visitor to the British Isles, but a very rare vagrant to India and Burma, there being two records from the former and one from the latter; it was obtained at Kamaklok near the mouth of the Rangoon river in 1932.

THE EASTERN BROAD-BILLED SANDPIPER

Limicola falcinellus sibirica (2164).

Identification. — Length 7 inches. It resembles a large Stint but is distinguished by the long stout bill, usually held almost vertically as the bird moves over the mud. In winter plumage the upper-parts are uniform grey, and the very white throat and eyebrow are noticeable. A narrow pale wing-bar is visible in flight, and the tail is blackish with white at the sides. The ordinary note when flushed is a trill not unlike that of Temminck's Stint. Its habits resemble those of the Little Stint (see page 432) and it is found in great numbers on the mud-flats of the coast, but has not been recorded inland.

Status and Distribution. — A Palæarctic species, and a rare vagrant to the British Isles, spreading in winter from the Red Sea to Australia. It is a common winter visitor to the coast of Burma.

[Note: — THE RED-NECKED PHALAROPE, *Phalaropus lobatus (2166)*, is a Northern Holarctic species, including the Orkneys in its breeding range, and has been recorded from India and Malaya as a winter visitor, though not as yet from Burma. It differs from all other waders in its love of swimming; it is often seen floating lightly on the surface of the water or swimming with little jerks and bobs like a Coot. It is remarkably tame, showing little fear

of human beings. It is the same size as the Broad-billed Sandpiper. A grey wader with a blackish patch round the eye and a very conspicuous white wing-bar.]

Sub-family SCOLOPACINÆ

WOODCOCK & SNIPE

The Woodcock and Snipe differ from the other sub-families in having the eyes placed so far back in the head that they are visible from directly behind the bird, thus enabling it to "see backwards." The bill is specially adapted for probing in mud, being long, slender, and very sensitive with the tip slightly swollen and provided with nerves.

THE WOODCOCK

Scolopax rusticola (2167).

Local Names. — Burmese: *Sanaik-kyi* (စနိုက်ကြီး); Shan: *Ngok-sut-tok.*

Identification. — PLATE XXVI, Fig. 10, Page 426. Length 14 inches. Generally seen as a medium-sized, round-winged, russet-coloured bird with a long straight bill, which rises from cover in open forest and flies off with a twisting flight amongst the trees. When flighting at dusk the Woodcock has a curious bat-like flight with short rapid wing-beats and the bill inclined downwards.

Voice. — A silent bird and no note has been heard in the cold weather.

Habits and Food. — The Woodcock is typically a bird of the higher hills, favouring small streams in evergreen forest or thick undergrowth on the edge of a marsh or places where shallow streams run out into fields through thick scrub jungle. It is crepuscular in habits, and though birds are occasionally seen feeding along streams in the middle of the day it normally prefers to lie up in thick cover until dark, when it flights out to its feeding-grounds; these are usually in a marsh either in the open or in a forest clearing, and may be recognised by the marks of bills and feet in the mud. The normal method of feeding is by probing all around at every few steps, the bill often being driven in to the base; the terminal part of the upper mandible can be raised independently of the rest, and this enables the bird to swallow all but the larger worms without withdrawing the bill; the same mechanism is found in the Snipe and less conspicuously in other probing waders. It is amongst the least sociable of the waders, and even if a number of birds are present in the same patch of forest they act independently. When flushed in its daytime resting place it twists in and out of trees with deceptive variations of pace and is very difficult to shoot, but in the open it usually presents an easy target.

Status and Distribution. — A Palæarctic species, whose breeding range extends from the British Isles, where it is a familiar sporting bird, to Japan, the Himalayas, and possibly the higher hills and mountains of Northern Burma, though this is pure conjecture. It spends less time in Burma than most of our visiting waders, not arriving till the end of October (early record the 6th September in the Pakokku district) and leaving again about mid-April (late record the 20th May in the Kamti Shan plain). It is distributed through-

out the country in the cold weather but is casual in the plains and confined to a few favoured localities; it is common in the Shan States and Karenni (7,500 feet) and on an average 40-50 birds are probably shot annually at Maymyo.

THE WOOD SNIPE

Capella nemoricola (2168).

Identification. — Length 13 inches. A slightly larger and darker species than the Fantail with barred under-parts, easily recognised by heavy, slow wavering flight. It frequents *kaing* grass, reeds, etc., growing in swamps or along the banks of streams as opposed to the open fields and marshes in which the Fantail and Pintail Snipe are found. It rises with a guttural croak and flies for only 100 yards or so before flopping back into cover.

Status and Distribution. — Breeds in the Himalayas, and may some day be found breeding in the mountains of Northern Burma or the Shan States. It has been recorded in the Chin Hills and all along the eastern hills of Burma to Southern Tenasserim, and is common in the Shan States (where 20 have been shot in a day) and on the mountains of North-East Burma.

THE EASTERN SOLITARY SNIPE

Capella solitaria (2169).

Identification. — Resembles the Fantail in flight, etc., but has a larger wing (153-169 mm.) and a shorter tail (55-63 mm.); it is also said to be less wild and to get up with a louder and harsher *pench*.

Status and Distribution. — Breeds from the Altai mountains eastwards to Manchuria and Japan and southwards to the Himalayas. The only Burma records are one from the Chin Hills, one from the Shan States and one from near Bhamo; its status seems to be uncertain, but it appears to be only a rare vagrant.

THE COMMON or FANTAIL SNIPE

Capella gallinago gallinago (2170).

Local Names. — Burmese: *Sanaik* (စနိုက်)

Identification. — PLATE XXVI, Fig. 9, Page 426. Length 11 inches. It springs suddenly out of marshy herbage with a harsh call that distinguishes it from all but other Snipe, and mounts high in the air with a rapid twisting flight. For distinctions from Pintail see under that species. Tail feathers 12-18 (usually 14).

Voice. — The alarm-note is *scap-scap* or *pench* pronounced sharply with a nasal twang unlike the note of any other bird.

Habits and Food. — The Fantail Snipe is found in a variety of situations where soft mud and water are combined with cover; thus it frequents paddy fields (particularly the winter-planted *mayin* paddy), the edges of lakes and jheels, small marshes, and similar localities: it is a particular bird and will only be found where the water is level with or just below the top of the soil: flooded and dried-out paddy fields are alike avoided. As the large eye indicates it is, like the Woodcock, mainly nocturnal, but it also feeds in the mornings and evenings.

During the heat of the day it rests in thick cover on the edge of the feeding ground, and sometimes in dry crops and scrub if sufficiently shady. It feeds on the seeds of marsh plants and small molluscs, but a great portion of its food consists of minute worms and larvae obtained by boring in soft mud; to this end the long bill is

specially adapted, being furnished with sensitive nerves at the end and with muscles that allow the terminal half to open when the base is closed. During the heat of the day the Snipe is often sluggish and unwilling to rise. At other times it is shy and active, zigzagging quickly over the ground, and either dropping sharply back into cover with the wings held high over its head or mounting into the sky at a great pace like a Green Sandpiper. It is always reluctant to leave its chosen spot and often flies round at a great height in wide circles, calling occasionally, and then if the coast is clear drops down near the place whence it originally arose. On the ground it is very jerky and nervous in its movements.

Status and Distribution. — This species is found in all the continents except Australia. The typical race breeds in the Palæarctic Region, including the British Isles, and is a winter visitor to Burma in vast numbers. It arrives nearly a month after the first Pintail.

[Note: — Radde's Snipe, *C.g.raddii* (2171), is now considered to be the same as the typical race.]

THE PINTAIL SNIPE

Capella stenura (2173).

Local Names. — Burmese: *Sanaik* (စနိုက်)

Identification. — Length 11 inches. Difficult to distinguish in the field from the Fantail except by the slight difference in the call, the slower and heavier flight, and the less red appearance, though difference in habitat often indicates the species. In the hand it is identified at once by the tail of 26-28 feathers (occasionally 24 or very rarely 22) of which the outermost 8 on each side are stiff, narrow, and wire-like and explain the bird's name; the under wing-coverts are barred all over and lack the clear white spaces of the Fantail.

Voice. — As mentioned above, very like that of the Fantail from which it can only be distinguished by long experience and a good ear.

Habits and Food. — The Pintail has not such a highly specialised bill as the Fantail and therefore feeds less on worms and more on insects, larvae and molluscs; consequently, though often found in company with the Fantail in the paddy fields, it is more typically a bird of swamps, grazing-grounds, and grasslands and occasionally visits dry grass and stubbles where no Fantail is ever found.

Status and Distribution. — This species breeds in Siberia and is a winter visitor to Burma in vast numbers, arriving in Northern Burma in the first week in August (earliest date the 4th), and leaving early in May (latest date recorded the 21st May). In Southern Burma it naturally arrives slightly later and leaves slightly earlier. Sportsmen frequently allege that they have seen Pintail Snipe in Upper Burma in June and July, but these statements are not yet adequately confirmed; it is possible that a few "pricked" birds give up the idea of migrating and stay throughout the rains.

SWINHOE'S SNIPE

Capella megala (2174).

Identification. — Indistinguishable in colour from the Pintail on the wing, but can always be identified by the tail, which consists of 20 feathers, the outer-

most 6 on each side being attenuated but never less than 5 mm. wide, whereas in the Pintail they are wire-like and less than half this width. The white tips to the tail-feathers are slightly more conspicuous than in the Pintail.

Status and Distribution.— This species breeds in Eastern Siberia and Northern China and winters in the Oriental Region as far west as Assam and Madras. There are very few authentic records from Burma, probably because it is often mistaken for a Pintail (and many sportsmen never bother to examine the Snipe they shoot); there are two or three records from the Myitkyina district and (?) 1 from Tharrawaddy.

THE JACK SNIPE

Lymnocryptes minimus (2175).

Identification. — Length 8 inches. Easily recognised by small size, wedge-shaped tail of 12 pointed feathers with no white on them, and patches of glossy-green on the upper-parts, visible in the hand. It normally rises without a sound but does occasionally utter a low weak call, and settles again close at hand. It prefers small patches of thick cover in the corners of paddy fields and swamps.

Status and Distribution. — A Northern Palæarctic species, in winter ranging from the British Isles across Northern Africa and Southern Asia to China and Formosa; it is a winter visitor in small numbers to Burma, and is said to be commoner in the Shan States than elsewhere. There are only two or three records from Southern Burma (Yamethin district, Insein district, and near Rangoon) but as its habitat is rather different to that of other Snipe it may be less rare than the records would lead one to suppose.

Order IX STEGANOPODES.

Family PELECANIDÆ

PELICANS

Pelicans are found throughout the tropical and temperate regions of the world. Three species occur in India but they are difficult to distinguish in the field.

THE EASTERN WHITE or ROSY PELICAN

Pelecanus onocrotalus roseus (2177).

Local Names. — Burmese: *Sekkawet* (စက္ကဝက်)

Identification. — Very similar in appearance to the Spotted-billed Pelican but larger (wing 680 — 720 mm. male and 600 — 653 mm. female) and the feathers of the forehead terminate in a point. In breeding plumage the whole head and neck are suffused with rosy-pink.

Status and Distribution. — This species breeds from Hungary through the lakes of Central Asia to Northern China. The Eastern race is a winter visitor to Burma, arriving probably in August and leaving in January or February. There is no certain record in the last half century, though a party believed to be of this species was seen at the mouth of the Sittang in 1939.

[Note: — THE DALMATIAN PELICAN, *Pelecanus crispus (2178)*, has never been recorded from Burma but has been shot in Assam and may occur as a rare vagrant. In size it is even larger than the preceding species (wing 720-800 mm. male and 680-720 mm. female) and the feathers of the forehead end in front in a transverse concave line. It has no rosy tinge in breeding plumage.]

THE SPOTTED-BILLED PELICAN

Pelecanus philippensis (2179).

Local Names. — Burmese: *Wunpo* (ဝှမ်းပို)

Identification. — PLATE XXVII, Fig. 1, Page 440. Length 5 feet. In full adult breeding plumage the bird is white almost throughout with the lower back, rump, flanks and a patch below the tail pinkish. It derives its name from the row of blue-black spots along the middle of the bill; these cannot be made out in the field. Distinguished from the Rosy Pelican by the brownish mane-like crest growing up the hind-neck and terminating in an upward tuft just behind the crown. The feathers of the forehead terminate in a transverse concave line, as in the Dalmatian Pelican, from which it is distinguished by smaller size (wing under 607 mm.). On the wing Pelicans appear white with the points of the wings black, and they fly well with the neck bent and the head close to the shoulder, the huge wings beating in rhythmic unison. The flocks fly in regular lines or wedges like Geese and often ascend to a great height in the air.

Voice. — The only note seems to be a deep guttural croak, which rises to a harsh screech when the birds are angry or frightened.

PLATE XXVII

		See Page No.
1.	**SPOTTED-BILLED PELICAN** (adult, summer) *Pelecanus philippensis*	440
2.	**LITTLE CORMORANT** (adult, summer) *Phalacrocorax niger*	443
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6.	**INDIAN DARTER or SNAKEBIRD** (adult) *Anhinga melanogaster*	443
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8.	**WHITE-NECKED STORK** (adult) *Dissoura episcopa episcopa*	451
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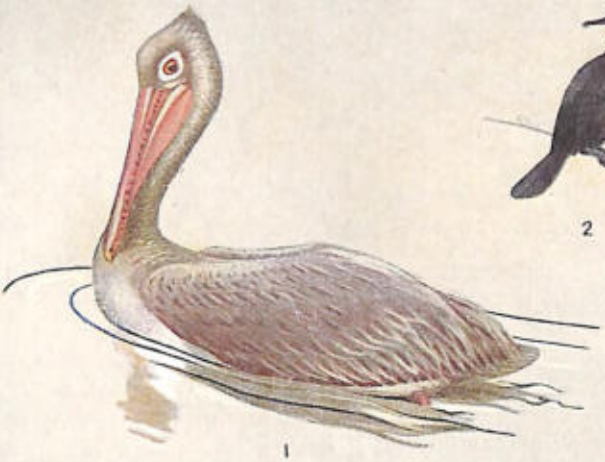
10.	**BLACK-NECKED STORK** (adult) *Xenorhynchus asiaticus asiaticus*	452



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Habits and Food. — This Pelican is purely a water-bird, being found either singly or in small parties or large flocks wherever there are large expanses of water suitable for it to fish in. Being a clumsy walker it is seldom seen on land, except at the edge of the tide-line, but in the water it swims well and buoyantly. The food consists of fish, which are caught not by diving, of which the bird is incapable, but by scoops of the great lower mandible with its pendant and elastic pouch of naked membrane, which acts as an ideal landing net. A flock when fishing often forms a line or lines across the water and the birds drive the fish before them into the shallows by beating the water with their wings. On the mud-flats the Pelican is a very wily bird and quite unapproachable.

Nest and Eggs.— The only known Indian breeding haunt outside Ceylon used to be near Shwegyin on what is now the Pyuntaza Government Estate. In Oates's day, 60 years ago, the combined Pelican and Adjutant colony was calculated to be twenty miles long and five miles broad and the total number of birds was estimated in millions. The most striking point about this Pelicanry was the complete silence that prevailed, save for the whistle of the wings of birds flying far overhead. Since Oates's day much of the area has been cleared of its timber, and though the colony is still said to exist in the remnants of the forest along the right bank of the Sittang no one appears to have visited it in the breeding season in recent years.

In Burma the breeding season starts in November, whereas in Ceylon the birds breed in February and March. A huge nest is built entirely of sticks, without a lining, and 3 to 15 nests may be found in a single tree at a height of 100 feet or so from the ground. The eggs, 3 in number, are long and narrow, equally pointed at both ends. The true shell is smooth and white but it is covered by an outer coating of chalky texture; when the egg is fresh this is pure white but it gradually becomes stained and is dark brown or black by the time the chick hatches. The eggs measure from 2.6 to 3.3 inches in length and about 2.1 inches in breadth.

Status and Distribution. — This species is distributed throughout the Oriental Region, radiating out from a few breeding haunts. In addition to the Sittang colony mentioned above it is suspected of breeding in the vast forests of the Hukawng valley or the upper waters of the Malikha near Fort Hertz, but this is pure conjecture. Small parties are to be seen at any time of the year along the Irrawaddy, round various jheels, and on the coast.

Family PHALACROCORACIDÆ

This family contains birds of blackish plumage, which obtain their food by diving for fish and hunting them under water.

Sub-family PHALACROCORACINÆ.

CORMORANTS & SHAGS

THE INDIAN LARGE CORMORANT

Phalacrocorax carbo sinensis (2180).

Local Names. — Burmese: *Din-gyi* (ဒင်းငယ်)

Identification. — PLATE XXVII, Fig. 3, Page 440. Length 32 inches. Distinguished from other members of the family in the breeding plumage, which is assumed from the beginning of September to the middle of December, by the white cheeks and flanks. Young birds are browner with white under-parts, mottled with brown at the sides and sometimes in the centre as well.

Voice. — It is usually silent away from the nesting site, where the chief notes are a harsh croak, *karrk* or *kworrk*, and many unpleasant guttural sounds. Various breeding-notes have been described.

Habits and Food. — Unlike the British Cormorant this species is mainly a freshwater bird, frequenting rivers and jheels and often found in large flocks. The flight is direct and fairly swift with regular rapid wing-beats and the neck extended in front. Unlike the Ducks it does not rest on the water when not feeding, but sits on the shore or perches on trees typically with the wings extended and the plumage ruffled as it basks in the sun. On land the carriage is erect like that of a Penguin and it walks with difficulty but is capable of little spurts. In the water it swims low with the head erect and when suspicious or alarmed it sinks the body till only the head and neck show above the surface, a trick also performed by the Darter. It bathes freely, splashing and flapping the wings and dipping its head under water. Though an expert diver it rarely remains under water for more than 60 seconds and its captures are ordinarily brought to the surface before being swallowed, and if necessary are jerked about until in the right position to go down head-first. It eats enormous quantities of small fish, which it catches by chasing them under water at great speed; anything over half a pound is said to be exceptional. It rises from the water with some difficulty except in a strong wind, flapping along over the surface before getting under way; and if frightened or hustled it disgorges some of its catch before taking flight.

Nest and Eggs. — In Oates's day there was an immense colony at Myitkyo on the Pegu Canal, but there are no recent records of the breeding of this bird in Burma, though large colonies no doubt still exist in the more inaccessible parts of the country. Such colonies are usually found on low trees in swamps or on rocks by the sides of rivers. October seems to be the breeding month. A fairly large nest of sticks is made and lined with grass and water-weeds. The eggs, 3 to 6 in number, have a dense chalky covering of white, which often breaks away in flakes to reveal the pale sea-blue below. They average 2.39 by 1.54 inches.

Status and Distribution. — This species has a world-wide distribution and is a familiar bird round the coast of the British Isles. The Indian race is common on the rivers and jheels of Burma but seems to avoid the coast. Its status is uncertain, and though probably resident it is a local migrant; it has been recorded up to 6,000 feet in the cold weather, and occurs on the Maymyo lake on passage.

THE INDIAN SHAG

Phalacrocorax fuscicollis (2181).

Identification. — Length 25 inches. As size is often difficult to judge in the field this is probably often mistaken for either the Large Cormorant or the

Little Cormorant. The adult Shag has a fine recurved crest, but this is not achieved till the bird is three years old. In breeding plumage the absence of the white thigh-patches distinguishes it from the Large Cormorant and a white border to the pouch, white tuft behind the eye, and white speckles on the side of the head and neck distinguish it from the Little Cormorant. The immature Large Cormorant is larger and not so slim and snakish as the Shag, and its breast is at times noticeably white. The agile Shag makes a high inverted "U" when diving and often leaps clean out of the water in so doing, whereas the Large Cormorant dives with a smaller leap and does not stay so long under water, coming up for a breather every few seconds.

Nest and Eggs. — The breeding season is during the rains. The nest is normally built in a tree, but in Burma it has been recorded breeding in a swamp at Myitkyo. The eggs are similar to those of the preceding species and average 2.02 by 1.31 inches.

Status and Distribution. — This species seems to be confined to India, Burma and Ceylon. In Burma it is probably a bird of the coast and tidal rivers and creeks. The only records are from the southern part of the Sittang plain, where it said to be very abundant, and Northern Tenasserim.

THE LITTLE CORMORANT

Phalacrocorax niger (2182).

Local Names. — Burmese: *Din-gyi* (ခဉ်ကြီး), *Aw-yaw* (ဧာအိဝယော)

Identification. — PLATE XXVII, Fig. 2, Page 440. In non-breeding plumage there is a white patch bordering the throat-pouch. Young birds are brown, with the throat and the centre of the abdomen white. It rises with difficulty from the water with a long flapping struggle, but once on the wing flies strongly and swiftly with the head and neck outstretched in front and the feet stretched straight behind.

Voice. — Said to be the same as that of other Cormorants.

Habits and Food. — This is the commonest species of Cormorant in Burma and though occasionally found on the coast is typically a freshwater bird of jheels and even roadside ditches and ponds. It is found either singly or in large flocks, which roost in company in trees. It lives on small crabs, tadpoles, frogs and fish, which it catches under water, swimming and diving with the utmost ease: compared with a Duck it swims very low in the water. It perches both on the ground and on rocks and trees, but prefers a low stump sticking out of the water; it stands very upright and has the family habit of sitting for long periods with the wings hanging out to dry in the sun.

Nest and Eggs. — The breeding season is during the rains. The birds breed in colonies of great size, often in company with Egrets of all species, in bamboos, palms, trees and occasionally in reed beds. The nest is a flattish cup of sticks, comparatively small for the size of the bird; old nests are repaired from year to year. The eggs, 3 to 5 in number, are typical of the family and average 1·75 by 1·15 inches.

Status and Distribution. — This species is found throughout India, Burma, Ceylon and Malaya to Sumatra, Java, and Borneo. It is a common resident throughout Burma.

Sub-family ANHINGINÆ.

DARTERS

THE INDIAN DARTER or SNAKEBIRD

Anhinga melanogaster (2183).

Local Names. — Burmese: *Din-gyi* (ခဉ်ကြီး), *U-ban* (ဥဗန်း)

Identification. — PLATE XXVII, Fig. 6, Page 440. Length 3 feet. The long snaky neck, spear-like bill and whitish chin, throat and breast prevent confusion with the Cormorants. Close to the ground or the surface of the water it is very ungainly on the wing, but once high in the air it can fly strongly like a Cormorant.

Voice. — A harsh disyllabic croak.

Habits and Food. — The Darter is a freshwater bird and frequents rivers and jheels where the water is deep enough for it to swim and dive. It is even better adapted to catching fish than the Cormorants. It swims very low in the water, often with only the head and neck sticking out like a periscope, and as it moves along the head turns from side to side and the long neck twists and bends with snake-like movements that at once suggest the name of Snakebird. As a fish rises or swims past, the bill darts forward and impales it or seizes it between the mandibles; the sudden rapier-like thrust is explained by a bend in the neck at the 8th and 9th vertebrae, which straightens for the thrust and acts as a spring. It follows fish and captures them under water. It frequently dives whilst swimming or plunges in from its perch, often remaining under for a long time and appearing a hundred yards or so from the place where it dived. It pursues fish under water and if successful it emerges with the captured fish in its bill, throws it up in the air, and catches it in a position to swallow head foremost.

It is a gregarious bird, found in parties at all seasons, and seems to enjoy the society of the Little Cormorant, the two species often breeding, fishing and resting in company. Having caught their fill of fish, they leave the water and settle on trees and stumps, opening their wings to the sun. When approached they crane their long necks and tiny snake-like heads at the intruder in a most ridiculous manner, eventually taking to the water with mighty flappings and splashings.

Nest and Eggs. — The breeding season is in June and July. The birds build in colonies, constructing rough unlined stick-nests in clumps of trees; the same sites and nests are used year after year. The eggs, 3 or 4 in number, are much elongated ovals, typical of the family and averaging 2·15 by 1·37 inches. They are considered good eating by some villagers and colonies are frequently robbed of their eggs.

Status and Distribution. — This species is found throughout the Oriental Region, and is a common resident in Burma; birds occasionally visit the Maymyo lake for a few days.

[Note: — Family SULIDÆ — GANNETS.

Gannets, or Boobies as they are sometimes called, are large long-winged sea-birds with stout, conical pointed bills, fairly short necks, stout bodies and long wedge-shaped tails. They have a small pouch of naked skin on the throat and there are also unfeathered areas on the face. Young birds of most species are brown and take two or three years to acquire the mature plumage.

They are typical oceanic birds, coming to land only to breed. They are sociable and usually seen in small parties or large flocks; the flight is direct and steady, with wing-beats alternating with glides, and the birds often follow one behind the other in a long line, usually close to the surface of the water; occasionally a Gannet will fly round a ship or follow it for some time ready to pounce on any fish that may be disturbed by its passage. Most characteristic is their method of fishing, for they fly round over a shoal of fish at a height of 60 to 100 feet above the surface and periodically dive headlong into the water with half-closed wings; this dive comes next to the stoop of the Pere-

grine as the most impressive sight afforded by a bird on the wing. Gannets have special air sacks on the breast, evidently designed to lessen the terrific impact when they hit the water. They sometimes dive to a great depth and have been caught in fishermen's nets 90 feet below the surface. Terns and Tropicbirds are the only other sea-birds in our area that dive for food from the air but in the speed and power of their diving the Gannets are in a class by themselves.

THE BROWN GANNET, *Sula leucogaster plotus (2184)*, has been obtained once in the Laccadives and should be looked for in the Mergui Archipelago and round about Ceylon; the species is a "globe-spanner," found in all the tropical seas. Length 26 inches. Whole head, neck, breast, upper-parts, wings and tail dark chocolate-brown; under-parts and under the wing white; bill, legs and feet yellow. Young birds are dusky-brown, paler below.

THE AUSTRALIAN RED-LEGGED GANNET, *Sula sula rubripes (2185)*, has been seen near the Laccadives and has been once obtained in the Bay of Bengal; it should be looked for in the Mergui Archipelago. The species ranges the tropical seas.

Length 27 inches. Adult mostly white tinged with buff, with black-tipped wings, pale greyish-brown tail, and grey under wing-coverts; bill light blue with a brown tip and a red base; naked skin of face blue, of throat black; feet red. Young birds are dull brown. In intermediate plumage head and under-parts are lighter brown than the back and wings; rump, upper and under tail-coverts white. This intermediate plumage is unlike that of any other Gannet, and as individuals in this phase are usually numerous they serve to identify the species.

THE MASKED BOOBY OR GANNET, *Sula dactylatra (2187)*, is another "globe-spanner" and has been recorded from the Laccadives and the Bay of Bengal; it is likely to occur in the Mergui Archipelago. Distinguished from the Red-legged Gannet by its larger size, black tail, and greenish-blue legs and feet.]

[Note:—Family PHÆTHONIDÆ—TROPICBIRDS.

Tropicbirds, or Bo'sun Birds as sailors call them, are well named, being found throughout the tropical seas and almost confined to them. They are beautiful white birds with straight heavy bills, long wings, and short legs with all four toes webbed. Their tails are wedge-shaped and in adult birds the two central tail-feathers are enormously elongated. The white plumage is more or less marked with black bars, often crescentic in form, and frequently more or less suffused with rosy or salmon-pink.

These birds frequent the high seas, feeding mainly on fish and squids upon which they plunge from a height of 50 feet or more. They fly with quick strong wing-beats like a Pigeon and unlike any other sea-bird, and they frequently circle round a ship or travel above it for a time, sometimes resting on the mast and occasionally uttering a shrill rasping call. They do not often settle on the water, but when they do they float high and keep their tails elevated.

THE SHORT-TAILED TROPICBIRD, *Phæthon indicus (2188)*, breeds on the islands of the Persian Gulf, its range extending to the coasts of India and the Bay of Bengal. Length 24 inches, the tail when fully developed being about 26 inches. Distinguished by its red bill, black-barred back, and elongated white central tail-feathers.

THE RED-TAILED TROPICBIRD, *Phæthon rubricauda (2189)*, is found in the tropical Indian and Pacific Oceans, and is said to breed in great numbers in the Malay Archipelago; it probably occurs at times in the Bay of Bengal. The adult with long slender red streamers to its tail is unmistakable. Length 19 inches, tail 19 inches. It is more buoyant in flight than the preceding species, flapping its wings much more slowly and often sailing with only occasional wing-beats.

THE WHITE TROPICBIRD, *Phæthon lepturus (2190)*, is found in tropical seas and is said to breed in the Andaman Islands. Length 16 inches, the

tail when fully developed about 21 inches. The adult can be distinguished by its white back and tail.]

[Note: — Family FREGATIDÆ — FRIGATEBIRDS.

These are large tropical sea-birds with very long wings, long forked tails and very short legs. Adults are either entirely black or black above with white areas below; they have long slender bills with a sharp hook on the end and a patch of naked skin between the edges of the lower mandible on the chin. In males this forms a bright red pouch, which can be inflated to a very large size and is the bird's chief ornament in the breeding season.

They are the most completely aerial of water-birds, and perhaps of all birds except Swifts; they never settle on the water or on a level shore and are probably incapable of rising from such situations. Throughout the hours of daylight they remain in the air, floating over the water or their island home without the slightest effort on motionless wings. In ordinary sailing flight the tail is not spread, and its forked nature is only apparent when the birds are playing or fighting in the air. Their food consists of fish, molluscs, jellyfish and other creatures picked up from the surface of the water by a swift movement of the bill when they are in flight, and they also pursue Gannets, Pelicans, Cormorants, Gulls or Terns and force them to disgorge fish that they have caught, resembling the Skuas in this respect. At dusk they retire in companies to some favourite clump of trees near the coast to roost.

Adult females are decidedly larger than males, and are differently coloured. Young birds can always be distinguished by their white heads, and they probably take at least two years to attain the adult plumage.

THE CHRISTMAS ISLAND FRIGATEBIRD, *Fregata andrewsi (2191)*, breeds on Christmas Island and ranges over the Indian Ocean. Length 40 inches. The male is the only Frigatebird with black plumage and a white abdomen. The adult female has the breast also white, the bill rose colour and the legs and feet red. Young birds are brownish-black with white head, neck and under-parts. Bill and feet bluish.

THE WESTERN LESSER FRIGATEBIRD, *Fregata minor aldabrensis (2192)*, breeds in the Seychelles and has been obtained in Ceylon. Length 40 inches, with a wing-span of about 7 feet. The male is all black, the feathers above glossed with green. The female is the only Frigatebird with white under-parts and a whitish throat. Young birds have the upper-parts brownish-black; head, neck and under-parts white more or less tinged with rusty. Bill and feet bluish.

IREDALE'S FRIGATEBIRD, *Fregata ariel iredalei (2193)*, breeds on Cocos Keeling Island and ranges the Indian Ocean. Adults are distinguished from all other species by the conspicuous white patch on the side of the body. Length 31 inches. The adult female has a chestnut collar on the hind-neck and the breast buffy-white. Young birds have the upper-parts brownish-black, the neck, breast and abdomen white steaked with rusty, and the head white or brown.]

Order TURBINARES

[Note: — Family PROCELLARIIDÆ - PETRELS & SHEARWATERS

The Petrels are the smallest of sea-birds, ranking in size with such land-birds as Mynas and Swallows. Though extremely fragile in appearance they have wonderful powers of flight and seem at home in the wildest storms. They have rather slender hooked bills, on the upper surface of which the nostrils open within a single tube; their slender legs are frequently very long in proportion to the size of the bird and the toes are united by webs. The species that occur within our limits are dusky in colour.

The flight of a small Petrel is usually very erratic and has been likened to the flight of a butterfly, bat, or Swift. They normally feed on small organisms obtained from the surface of the sea, but any oily food appears to at-

tract them and they will congregate in the wake of a steamer to pick up the refuse. When flying low over the surface, especially in calm weather and when feeding, they often assist their progress or support themselves on the surface by patting the water with their feet. As a rule both feet are brought down together and the birds spring along the surface in a series of hops, keeping their wings spread; occasionally one foot alone is used, the other leg being trailed behind, or the feet are used to run or walk over the water.

WILSON'S PETREL, *Oceanites oceanicus (2194)*, breeds in the South Polar regions and in the non-breeding season wanders up to the south and north Temperate Zones, reaching the British Isles as a rare vagrant. It has been recorded in the Indian Ocean. Length 7 inches. The sooty-black colour, white rump, square tail, and yellow-webbed feet extending nearly half an inch beyond the tail in flight are distinctive features. Habitually follows ships.

THE DUSKY-VENTED PETREL, *Pregetta tropica melanogastra (2195)*, breeds in the South Indian Ocean and the Southern Seas of Australia and has been recorded once in the Bay of Bengal. Length 8 inches. The large white areas on the sides of the abdomen, which leave only a longitudinal dark band in the centre, at once distinguish this species, but are not always easy to observe; tail square with the upper tail-coverts and all but the central pair of tail-feathers white.

The larger Petrels and Shearwaters can generally be recognised at a distance by their rapid gliding flight with rigid wings, and the fact that they do not follow ships. They usually skim low over the waves, collecting the small fish and floating organisms that form their food; where these are concentrated they often settle and either swim about feeding or dive a short distance below the surface. Young birds resemble the adults, and the sexes are alike. The bill is the distinguishing feature of the family, being hooked at the tip, somewhat compressed at the base, and with the two nostrils opening together at the end of a double tube on the upper mandible. Colour variations in individual birds of the same species make identification at sea difficult.

THE WEDGE-TAILED or GREEN-BILLED SHEARWATER, *Puffinus pacificus hamiltoni (2196)*, ranges over the Pacific and Indian Oceans and has been recorded from Ceylon and the west coast of India. Length 11 inches. Upper-parts dark brown, the head, tail, and primaries almost black; under-parts paler, the chin and throat almost pure grey. Bill greenish, feet fleshy-white.

THE SLENDER-BILLED SHEARWATER, *Puffinus tenuirostris (2197)*, is another bird of the Pacific and Indian Oceans and has been recorded on the Mekran coast. Length 13 inches. A sooty-brown bird, much paler below. Bill blackish-brown, feet grey.

THE PINK-FOOTED SHEARWATER, *Puffinus carnipes (2198)*, is a bird of the Western Australian seas and has been obtained once in Ceylon. Length 15 inches. Red legs and feet combined with absence of white on the under-parts are distinctive.

THE WHITE-FRONTED SHEARWATER, *Puffinus leucomelas (2199)*, is a bird of the Western Pacific and has once been obtained in Ceylon. Length 16 inches. The only Shearwater with white under-parts. Head, nape and neck much marked with white.

THE CAPE PETREL, *Daption capense (2201)*, is a bird of the South Polar seas and has once been obtained in Ceylon. Length 14 inches. The chequered black and white mantle is distinctive. Head blackish with a small white streak beneath the eye; under-parts white, including the under surface of the wing except the edge (which is sooty-brown). Bill, legs and feet blackish.

Order X HERODIONES.

Sub-order PLATALEÆ.

Family PLATALEIDÆ

SPOONBILLS

The Spoonbills are closely related to the Ibises. One species is a rare visitor to Burma.

THE INDIAN SPOONBILL

Platalea leucorodia major (2202).

Identification. — Length 33 inches. A tall white bird immediately recognised by its black spoon-shaped bill and black legs and feet. In adults at close range a crest is visible and an orange-tawny patch on the crop. The call is a low grunting note, only audible at close range. Usually seen flying in single file in long white gleaming lines at a considerable height above the ground; it flies with the long neck and legs extended, and moves in a very regular and stately manner. It frequents the bare margins of the larger and more open jheels, the shores of tidal creeks, and the sandbanks of the larger rivers. It occasionally feeds by day in company with other birds but the flocks are more often seen standing at the water's edge idly dozing in the sunlight. The feeding action is remarkable: the bird wades quickly through the water with its neck stretched out and the bill half-immersed, turning from side to side with a regular sweeping action like a man scything grass.

Status and Distribution. — This species is a regular visitor to the British Isles and is widely spread through Central and Southern Europe, Africa and Asia. The Indian race has been recorded only from Arakan and Minbu and though said to be a resident species it seems unlikely that it is anything but a rare visitor to Burma.

Family IBIDIDÆ

IBISES

The members of this family have long curved bills like the Curlews.

THE WHITE IBIS

Threskiornis melanocephalus (2203).

Local Names. — Burmese: *Hka-yu-sok-ahpyu* (ခရုတ်အစ်ဖြူ)

Identification. — PLATE XXVII, Fig. 5, Page 440. Length 30 inches. The head and neck are naked. Young birds have the upper part and sides of the head and nape covered with brown feathers and the throat and neck covered with short white feathers.

Voice. — Said to have a peculiar booming call, but is normally silent.

Habits and Food. — The White Ibis is a bird of paddy fields, the muddy banks of rivers, marshes, and jheels, especially where wide areas of water are covered with bushes and trees; it also frequents the

coast and a flock of nearly 100 birds has been observed on a pool in the saltings. It wades about in the water or stalks along the edge of it collecting molluscs, crustaceans and similar organisms; small groups that have satisfied their appetites for the time being may be seen standing idly on the sandbanks or in shallow water, or perched on a favourite clump of trees.

Nest and Eggs. — The breeding season is during the rains. The birds breed in small colonies of less than a dozen pairs, which either keep to themselves or associate with Herons, Egrets and Cormorants. It is said to breed indifferently on the outskirts of villages or on wild secluded jheels. The nest is built in a tree and is made of sticks with a fairly deep hollow for the eggs but no lining. The eggs, 2 to 4 in number, are variable in size and shape but are typically long ovals, much pointed at the smaller end, and rather chalky in texture; when freshly laid they are a delicate bluish or greenish-white in colour but this soon stains to a dull and dirty brown. The eggs average 2·50 by 1·70 inches.

Status and Distribution. — This species is found throughout India and Ceylon, extending through Burma to China and Southern Japan. Its status in Burma is uncertain; it is said to be a resident species, migrating locally to some extent, but there are as yet no breeding records from Burma. It does not seem to occur in the North but has been recorded from Arakan, Central and Southern Burma, the Southern Shan States and Tenasserim. It is common on the coast and in the southern part of the Irrawaddy-Sittang plain.

DAVISON'S BLACK IBIS

Pseudibis papillosus davisoni (2205).

Local Names. — Burmese: *Hka-yu-sok-anet* (ခရူတ်သနက်။)

Identification. — Length 30 inches. A large black bird, easily distinguished from the Glossy Ibis by the bare head, conspicuous white wing-spot, and absence of chestnut on the under-parts. Bill bluish, legs and feet pale coral-red. Young birds are like those of the White Ibis. Perches on trees and feeds on the ground.

Voice. — It utters a weird cry when rising from the ground and its voice in the breeding season is described as loud and peculiar and audible fully two miles away.

Habits and Food. — Except that it goes about singly or in pairs and not in flocks its habits resemble those of the White Ibis; it frequents marshes and the banks of muddy streams and has been seen out on the burnt-up paddy plains in the hot weather. It searches the ground busily for food and is less inclined to rest and meditate than other members of the family. It roosts and breeds in trees and has regular flight-lines to and from the roosting places, flying in V formation.

Nest and Eggs. — The breeding season is in February and March. The nest is a large structure of sticks with the egg-cavity lined with straw, grass, feathers and rags. It is built high on the top of a large tree, and is usually solitary. Old nests of Hawks and Eagles are

sometimes used. The eggs, 3 or 4 in number, are moderately long ovals in shape, rather coarse in texture, but a beautiful sea-green in colour; most eggs are unmarked but a few are spotted or streaked with brown or yellowish-brown. They average 2·43 by 1·70 inches.

Status and Distribution. — This species is found from Continental India through Assam to parts of Burma, Siam and Cochin China. It has been recorded from Central and Southern Burma and Tenasserim and has been found breeding near Pegu and Myingyan and is probably a resident species. It seems to be scarce outside Tenasserim, though it used to be not uncommon sixty years ago in the Sittang plain between the Pegu and Sittang rivers.

[Note: — The occurrence of the typical or Indian race, *P.p.papillosus* (2204), in Arakan requires confiirmation.]

THE GLOSSY IBIS

Plegadis falcinellus falcinellus (2206).

Local Names. — None recorded.

Identification. — Length 25 inches. It appears blackish and chestnut in colour with metallic reflections and has a feathered head. Can only be confused with the preceding species, (*q.v.*). In non-breeding plumage the shoulder of the wing is glossy green-blue instead of chestnut and the head and neck are brown streaked with white. Young birds resemble the adult in non-breeding plumage but have the under-parts all brown and the upper-parts much less glossy; the upper back is brown like the neck but not streaked with white.

Voice. — It is said to utter a harsh croak when disturbed.

Habits and Food. — This Ibis is said to be a marsh-bird frequenting the larger jheels; it is sociable, usually seen in parties, and is said to be very tame and confiding.

Nest and Eggs. — The breeding season is from the end of April to early June. The birds breed in colonies, usually with other Ibises, Herons, Cormorants, etc. The nest is a typical structure of sticks in a tree and the eggs are a deep unspotted blue and average 2·28 by 1·50 inches.

Status and Distribution. — A cosmopolitan species found in all the continents, and distributed throughout the Oriental Region; it is a regular visitor to the British Isles. Information on its status in Burma is badly needed. It is believed to be mainly a Dry Zone bird, the only records being from Arakan, Central Burma, Thayetmyo and the Shan States.

Sub-order CICONIÆ

Family CICONIIDÆ

STORKS

Storks have very long legs, long very stout bills, and long broad wings.

[Note: — THE EASTERN WHITE STORK, *Ciconia ciconia boyciana (2208)*, is said to occur in Burma, but there is no authentic record; it has a

wide range in Europe and Asia, extending as a vagrant to the British Isles, and has been recorded in Assam and Manipur and is therefore likely to occur. Length 42 inches. In size it is close to the Black-necked Stork but has shorter legs and a shorter bill. It is white throughout except for the black wing-coverts and primaries, the colour pattern resembling that of the Openbill *(q.v.)*; bill black, legs red.]

THE BLACK STORK

Ciconia nigra (2209).

Identification. — A large Stork black or, when immature, dark brown with white under-parts, red facial skin, bill and legs. In flight the whole wing appears black from below. Found in large parties on river sandbanks or jheels, occasionally on dry land.

Status and Distribution. — The Black Stork is a vagrant to the British Isles and breeds from Germany through Eastern Europe to North-Central Asia and winters in Africa, India and China. It is probably a regular winter visitor to the upper waters of the Irrawaddy and Mogaung rivers in North-East Burma and has also been seen in Central Burma (quite common in the Shwebo district), and at Sipein (Mongmit, Northern Shan States). It arrives at the end of October and leaves towards the end of April.

THE WHITE-NECKED STORK

Dissoura episcopa episcopa (2210).

Local Names. — Burmese: *Chi-gyin-sut* (ချဲ့ဂြင်းစုတ်)

Identification. — PLATE XXVII, Fig. 8, Page 440. Length 36 inches. Young birds have the glossy black replaced by dull dark brown. It is strong on the wing and at times may be seen soaring at a great height like other Storks and Vultures.

Voice. — It is said to have a deep grunting note, the usual hiss, and the usual loud clattering noise made with the bill, but is normally a silent bird in winter.

Habits and Food. — This solemn-looking Stork is found singly, in pairs or in small parties in open well-watered country, frequenting flooded land, small patches of marsh and paddy fields; unlike other Storks it also commonly occurs on jungle streams in the depths of the forest and then is always in pairs. It is quiet and sedentary in its habits, standing about in meditation on the ground or feeding in company with other Storks and Ibises. It feeds on reptiles, frogs, fish, and a variety of other creatures. It rarely settles on trees except in the breeding season.

Nest and Eggs. — The breeding season is probably at the beginning of the rains, some birds laying as late as September. The nest is the usual structure of twigs in a tree, sometimes thinly or thickly lined with down and feathers, sometimes with straw and dry grass in addition. The eggs, 3 or 4 in number, are variable in shape, fine and chalky in texture without gloss, and a faintly bluish-white colour when fresh, but gradually stain to a dirty brown. They average 2·50 by 1·83 inches.

Status and Distribution. — The White-necked Stork has a wide distribution in the Oriental Region and is also found in Africa. It is a common resident throughout Burma.

THE BLACK-NECKED STORK

Xenorhynchus asiaticus asiaticus (2211).

Local Names. — Burmese: *Hnget kala* (ငှက်ကုလား။)

Identification. — PLATE XXVII, Fig. 10, Page 440. Length 52 inches. Young birds have the head, neck and mantle brown; upper tail-coverts brown in the centre; tail brown with a white bar and tip; sides of the breast brown. In flight it appears pied black and white, the wings from beneath showing white with a black line along the arm and another along the body-edge. When disturbed it flies off with slow and heavy flaps but after acquiring sufficient impetus it sails quietly along on outstretched wings.

Voice. — Not recorded.

Habits and Food. — This fine Stork is not gregarious and is usually seen solitary or in pairs resting on the tops of trees or feeding along the edges of rivers, jheels and marshes. It feeds on fish, reptiles, frogs, crabs and molluscs. It has a singular habit of dancing: two birds gravely stalk up to each other and when a yard or so apart stand face to face, extend their long wings, and flutter them very rapidly, with the points of one bird's wings flapping against those of the other; they then advance their heads till they nearly meet and both simultaneously clatter their bills. This display lasts for nearly a minute after which one walks a little apart, to be followed after a moment by the other, when they repeat the performance; and so on for perhaps a dozen times.

Nest and Eggs. — The breeding season is in December and January. The nest is always solitary and usually in a large tree; it is a large structure of sticks, up to 6 feet in diameter and deep in proportion; it is carefully lined with rushes, grass, water-weeds and similar material; some nests are used year after year. The eggs, 3 to 5 (normally 4) in number, are broad ovals in shape, rather coarse in texture with a smooth but glossless surface, and almost pure white when fresh, but soon become dirty and stained. They average 2·90 by 2·10 inches.

Status and Distribution. — This species ranges from Ceylon and India to Australia, and is resident in Burma and not uncommon in suitable localities.

THE ADJUTANT

Leptoptilos dubius (2212).

Local Names. — Burmese: *Don-zat* (ဒုံဇတ်)

Identification. — PLATE XXVII, Fig. 9, Page 440. Length 5 feet (male), 4½ feet (female). The red colour on the head, neck and pouch is apparently shown only by adult males in breeding plumage; most birds have these parts yellowish and young birds have far more feathering on them. The pouch can be extended to a great size, looking like a pink baloon with smeary black spots. The largest and most impressive of Burmese Storks with a wing-span equalling that of the largest Vultures (the Cinereous and Bearded Vultures). In flight the wings look like those of the White-backed Vulture, i.e. black with a white band along the middle.

Voice. — This bird has no voice muscles, but makes a curious grunting noise loud enough to be heard at some distance; how the noise is produced is not known.

Habits and Food. — The Adjutant is primarily a scavenger, and it is said to have been so common in Calcutta fifty years ago during the rains that a bird could be seen on almost every house-top. It does not ever seem to have adopted Rangoon in the same way and in Burma is chiefly a bird of the mud-flats, jheels and paddy plains. On the ground it is most ungainly and the love dance is a ludicrous affair. When approached it sidles off with an amusing expression and then launches into the air with a short run. It is usually seen in parties of two or three to twenty birds, and on leaving the ground the birds seem always to make two or three circles, alternately flapping their wings and gliding, gaining height and increasing the size of the circles as they go round. The noise made by the wings is rather high-pitched and resembles a small circular saw. It is quite omnivorous and there are few things it will not swallow; it also has a curious habit of picking up bright unusual objects, from small pieces of metal to articles the size of a soda-water bottle.

Nest and Eggs. — The breeding season is from October to December. There is no up-to-date information about this bird's breeding haunts. Sixty years ago it bred in large numbers in the Sittang pelicanry (see under the Spotted-billed Pelican), and also on the limestone crags near Moulmein (on the Ataran river). A very large nest of sticks is built on one of the lower branches of the largest tree available. The eggs, 3 or 4 in number, have the close pitted texture and fine surface typical of the family and are whitish in colour, with a dark green interior skin. They average 3·06 by 2·26 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region. Its status in Burma is uncertain. Oates described them as arriving in immense numbers in October and leaving again in February or March, and it seems that while a few individuals stay throughout the year the majority are winter visitors to breed. In the cold weather it is more or less distributed throughout the country in suitable localities.

THE SMALLER ADJUTANT

Leptoptilos javanicus (2213).

Local Names. — Burmese: *Don-mi-gwet* (ဒုံမြီးကွက်)

Identification. — Length 54 inches (male), female probably less. A smaller edition of the preceding bird with no gular pouch. The upper-parts appear brownish-grey in the field. Except that it is not a scavenger and is usually solitary it resembles the Adjutant in habits.

Nest and Eggs. — The breeding season is from November to January. It breeds in the same colonies as the Adjutant, and in this case also there is no recent information. Nest and eggs do not differ from those of the Adjutant, and it is remarkable that the eggs of the two species are almost exactly the same size.

Status and Distribution. — Widely distributed in the Oriental Region. Its status in Burma is uncertain; Oates recorded it as distributed over the whole province and comparatively scarce though probably a constant resident, and

that is all that can be said today. It has been observed in most months of the year.

THE PAINTED STORK

Ibis leucocephalus leucocephalus (2214).

Local Names. — Burmese: *Hnget-kya* (ငှက်ကြား)

Identification. — PLATE XXVII, Fig. 4, Page 440. Length 40 inches. The orange-yellow bill and orange face show up in the field. The pink feathers are not on the tail, as they appear to be, but on the innermost secondaries, i.e. the hinder edge of the wing near the body. In flight it is a white bird with black wings and tail. Young birds have the head, neck, back, and wing-coverts brown, and the under-parts smoky-white with no black band across the breast. Some birds have brown or fleshy-brown legs, appearing dark in the field.

Voice. — Said to have no note.

Habits and Food. — This is a familiar bird in Burma and to be seen in parties on the mud-flats of the coast, where it is one of the typical birds, on flooded paddy fields, the edges of jheels, marshes and similar localities. It feeds mainly on fish, eels and frogs caught in the water and is more exclusively a fish-eater than most Storks.

Nest and Eggs. — The breeding season is believed to be from February to April in Burma. The nest is flimsy and ill-made with little or no lining and a number are usually built in the same tree close to one another. The eggs, 3 to 5 (rarely 6) in number, are typical of the family and average 2·59 inches by 1·77 inches.

Status and Distribution. — This species extends from India, Burma and Ceylon to Indo-China and South-west China. It is a common resident throughout Burma.

THE OPENBILL

Anastomus oscitans (2215).

Local Names. — Burmese: *Hkayu-sok* (ခရုစုတ်), because it sucks up small snails, very like winkles, called *Hkayu*.

Identification. — PLATE XXVII, Fig. 7, Page 440. Length 32 inches. Identified at once by the curious bill, the gap between the mandibles being visible even at a distance in flight. In many birds the white is sullied with smoky-grey, darkest on the nape and upper back. It seems uncertain whether this represents winter plumage or immaturity.

Voice. — It is said to have a low grunt, only to be heard at close range.

Habits and Food. — This is another familiar Burmese Stork, frequenting rivers, jheels, and marshes, though it does not seem to occur on the coastal mud-flats; it is a social bird and is usually seen in large flocks, which often soar up to a great height and then wheel about very slowly, looking little larger than gnats. It feeds chiefly on freshwater molluscs, which it crushes before swallowing. It

frequently perches on trees, and indulges in the dances and bill-clatterings common to most members of the family.

Nest and Eggs. — The breeding season is probably during the rains. It breeds in large colonies, numbering up to 400 or 500 pairs. The nest is a circular platform of sticks with a slight depression in the centre scantily lined with grass and leaves. It is built on a large tree, which may contain as many as 60 nests. The condition of the branches and the ground under such trees may easily be imagined, and the fact that the nest-linings are usually wet adds to the decay and fermentation characteristic of such a colony. The eggs, 4 or 5 in number, are typical ovals in shape, close and satiny in texture, and when fresh a kind of creamy-white in colour without markings, but this soon becomes soiled to a dirty brown. The eggs average 2·25 by 1·60 inches.

Status and Distribution. — This species is found in India, Ceylon, Burma, Siam, and Cochin China. It is found throughout Burma and is believed to be a resident, moving about locally in accordance with water conditions. As with all the Storks, much more information is required about its breeding and movements.

Sub-order ARDEÆ.

Family ARDEIDÆ

HERONS, EGRETS & BITTERNS

Herons have long slender straight bills and long legs, and are accomplished fishermen. The family includes some of our most familiar birds.

THE EASTERN PURPLE HERON

Ardea purpurea manillensis (2216).

Local Names. — Burmese: *Nga-hit* (ငှက်ဆိတ်)

Identification. — PLATE XXVIII, Fig. 4, Page 456. Length 38 inches. The under-parts are chestnut. A retiring bird usually flushed out of reed beds.

Voice. — Its cry is a loud harsh croak, uttered as it rises and also on the wing.

Habits and Food. — This is a bird of reed beds and dense *kaing* grass and is crepuscular in habits. It is said to be intensely curious and its long neck may often be seen stretched up above the reeds to watch passers-by, and when on trees it allows a close approach. In flight and methods of fishing it does not differ from the Grey Heron.

Nest and Eggs. — The breeding season is during the rains. The birds usually breed in colonies of ten or twenty to several hundred pairs, and the favourite site is a bed of dense reeds, some of which are trampled down to form a platform, on which a massive nest of sticks is built. Nests are sometimes built in trees. The eggs, 3 to 5 in number, are pale green or greenish-blue and average 2·15 by 1·56 inches.

Status and Distribution. — This species breeds in Africa, Southern Europe, and Southern Asia and occurs as a vagrant in the British Isles. It is a common resident in Burma on most suitable jheels, but more information on breeding colonies is needed.

THE EASTERN GREY HERON

Ardea cinerea rectirostris (2218).

Local Names. —Burmese: *Nga-hit* (ငှစ်)

Identification. — PLATE XXVIII, Fig. 1, Page 456. Length 40 inches. Bill yellow in breeding plumage, brown in winter. The bird has a long slender neck, often sunk between the shoulders in the attitude shown in the plate. It flies with head drawn back, legs extended behind and slow regular beats of the broad rounded wings, which are grey with black tips; soaring flights are not uncommon, but neither as regular nor as characteristic as in the Storks. Its gait is a deliberate walk. Young birds are a much darker and browner grey, with the neck nearly all grey and the fore-neck more conspicuously streaked with black.

Voice. — The ordinary note is a loud harsh *frarnk*. A great variety of weird and raucous noises emanate from a heronry.

Habits and Food. — The Grey Heron is essentially a solitary bird and is catholic in its tastes, frequenting jheels, rivers, the mud-flats of the coast, and almost any kind of water not too deep and shelving to wade in. It perches freely on trees but spends much of its time on the ground and is frequently seen standing erect and motionless, often on one leg, with only the cold keen eye to show that it is not asleep. When on the alert the neck is stretched upwards with only a slight curve, but when fishing it walks slowly and noiselessly along in shallow water with the neck curved in an "S" ready to be shot out to seize its prey. Fish are swallowed head-first; large fish and eels are frequently speared with the bill and then hurriedly taken to the bank, where they are either stabbed or beaten on the ground or anything handy to disable them before swallowing. Small mammals and birds, molluscs, insects and crustacea are also eaten, and fish-scales, fur and the hard remains of insects are ejected in the form of pellets. The bird is partly nocturnal.

Nest and Eggs. — The breeding season is probably during the hot weather. Many pairs breed in company, either in a heronry by themselves or in company with Egrets. The nest is a large flat loosely-built structure of twigs and sticks, scantily lined as a rule with straw and leaves, and is built in a tree at a considerable height from the ground. The eggs, normally 3 in number, are moderately broad ovals in shape, with a firm and rather coarse shell studded with minute pores, and slightly chalky in texture without gloss; the colour is a delicate sea-green, which soon fades. The eggs average 2·27 by 1·66 inches.

Status and Distribution. — The Grey Heron is a familiar fisherman of the British Isles, and is widely distributed in Europe, Asia and Africa. It breeds here and there throughout Burma and is a

PLATE XXVIII

		See Page No.
1.	**EASTERN GREY HERON** (adult) *Ardea cinerea rectirostris*	456
2.	**EASTERN LARGE EGRET** (adult, summer) *Egretta alba modesta*	457
3.	**LITTLE EGRET** (adult, summer) *Egretta garzetta garzetta*	458
4.	**EASTERN PURPLE HERON** (adult) *Ardea purpurea manillensis*	455
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7.	**CATTLE EGRET** (adult, winter) *Ardeola ibis coromandus*	460
7a. and b.	Ditto. (adult, summer)	"
8.	**BLACK BITTERN** (adult) *Dupetor flavicollis flavicollis*	464
9.	**CHESTNUT BITTERN** (adult male) *Ixobrychus cinnamomeus*	463
9a.	Ditto. (adult female)	"
10.	**NIGHT HERON** (adult) *Nycticorax nycticorax nycticorax*	462

PLATE XXVIII

1

2

3

4

5

6

7a

7b

7

8

9

9a

10

ONE FOOT

0" 6" 12"

0 150 300

300 mm.

1940.

common resident. It moves about locally and birds often visit the Maymyo lake for short spells.

THE DUSKY GREY HERON

Ardea sumatrana sumatrana (2219).

Identification. — Length 50 inches. Distinguished from the Grey Heron by grey crown and crest, dark slaty-brown upper-parts, black bill with some yellow at the base, and black legs and feet with pale yellow soles. Purely a coastal species, so far as is known, wandering up tidal estuaries.

Status and Distribution. — Extends from Australia through Malaya to the Burmese coast. It has been recorded from Arakan and Tenasserim and is said to be not uncommon round Mergui. There are no breeding records from Burma, so that its status is uncertain.

THE GREAT WHITE-BELLIED HERON

Ardea imperialis (2220).

Identification. — Length 4½ feet. Distinguished from other grey Herons by great size and length of neck, and white under-parts contrasting with the dark slaty-brown upper-parts; the crown and crest are grey as in the Dusky Grey Heron. Young birds are dark brown above, the head and neck pale rufous-brown streaked with whitish. It is said to have a very loud deep croak, but often rises silently. It is a bird of rivers and streams both inside and outside forest, frequenting alike the Irrawaddy and the forest streams of the Pegu Yomas. It is usually solitary and does not seem to be shy.

Nest and Eggs. — Very little is known about the breeding of this bird. A nest found in Arakan in April was a huge structure of sticks high up in a tall tree and contained 4 eggs, which only differed from those of the Grey Heron in their greater size, averaging about 2·80 by 1·97 inches.

Status and Distribution. — This fine Heron has a very restricted distribution from Sikkim eastwards along the Himalayas to Burma. It has been recorded from Arakan, the Northern Chin Hills, North-East Burma, Central Burma (Madaya river) and the Pegu Yomas (Toungoo and Pegu districts). The only breeding record is from Arakan, and its status elsewhere is uncertain.

[Note: — THE GIANT HERON, *Ardea goliath* (2221), has not been recorded from Burma, but it is said to be not uncommon in the Sunderbunds and probably occurs on the Arakan coast as a rare vagrant. It is even larger than the preceding species, and recognised by the deep chestnut crown and crest, and whole under-parts, except for the white chin and throat, deep rufous. It breeds in Africa.]

THE EASTERN LARGE EGRET

Egretta alba modesta (2223).

Local Names. — Burmese: *Byaing* (ဗြိုင်း)

Identification. — PLATE XXVIII, Fig. 2, Page 456. Length 35 inches. At some distance in a swamp with nothing available for comparison this can easily be confused with the Little Egret, but the Large Egret is a proportionately slimmer and less compact-looking bird; blackish feet, absence of long crest, and bill yellow outside the breeding season also distinguish it. For distinctions from the Intermediate Egret see under that species.

Voice. — A very silent bird.

Habits and Food. — This beautiful Egret is a familiar bird of the paddy plains during the rains, and after the paddy has been reaped it moves to rivers, jheels and streams. Except that it is usually soli-

tary its habits do not differ from those of the Little Egret. It is a common bird of the coastal mud-flats and as the tide comes in large numbers can be seen belly-deep in the shallows, often two or three hundred yards out to sea.

Nest and Eggs. — These birds breed in colonies during the rains, often in company with other Egrets. The nest is a rough platform of sticks and the eggs, 3 or 4 in number, are typical and average 2·12 by 1·52 inches.

Status and Distribution. — This species has a world-wide distribution, and is a common resident throughout Burma. The typical race, known as the Great White Heron, is a very rare vagrant to the British Isles.

THE INDIAN SMALLER EGRET

Egretta intermedia intermedia (2224).

Local Names. — Burmese: *Tharrawaddy Byaing* (သာယာဝတီဖြူငှက်)

Identification. — Length 28 inches. This bird has defeated the efforts of the best ornithologists to distinguish it in the field from the Large Egret. The difference in size is not sufficient to be recognisable, and the only character that seems reliable is the presence of breast plumes in breeding plumage (which the Little Egret, but not the Large Egret, also has), but these normally lie closely pressed to the breast, and are only visible when ruffled out by wind.

Voice. — Either this or the Large Egret, possibly both, utters a harsh rasping call, *kraa-krr,* when rising from the ground; a cross between the call of a Crane and that of a Heron. As the Handbook of British Birds gives no such note for the Large Egret, it is possible that it is uttered by the Smaller Egret only.

Habits and Food. — In India this bird often assembles in large flocks; it is said to be very easily tamed.

Nest and Eggs. — Do not differ from those of the Large Egret, except that the eggs average 1.87 by 1.41 inches: the largest eggs however overlap the smallest eggs of the Large Egret.

Status and Distribution. — This species is widely distributed throughout the Oriental Region. Owing to the confusion that exists between this and the Large Egret it is impossible to define the relative status of the two. The only certain records of the Smaller Egret are from the Sittang plain and North-East Burma, and Oates described it as rather rare. It may quite possibly be common and widely distributed.

THE LITTLE EGRET

Egretta garzetta garzetta (2225).

Local Names. — Burmese: *Byaing* (ဖြူငှက်)

Identification. — PLATE XXVIII, Fig. 3, Page 456. Length 22 inches. Black bill at all seasons distinguishes it at once from the Cattle Egret, which has the bill yellow at all seasons. For distinctions from the Large and Smaller Egrets see under those species. In

non-breeding plumage the crest plumes are missing. The flight of all the Egrets is rather slow and leisurely with regular beats of the broad rounded wings; the head is drawn back and the legs stretched out behind as with all Herons.

Voice. — Generally silent except in the breeding colony, where its notes are much like those of other Herons.

Habits and Food. — This is one of the typical birds of the paddy plains from the break of the rains until the reaping of the crop; at other times of the year it frequents jheels, rivers and streams. It lives in parties, wading about in the shallows and hunting for food, mainly fish and frogs. To appreciate the beauty of the Egrets they should be seen on some late afternoon in the middle of the rains, when the sun breaks through the monsoon vapours just before setting and lights up the emerald-green and yellow patchwork carpet of the fields; as the sun sets line after line of Egrets, dazzling white against the dark purple cloud-capped background of the hills, wing their way to roost among the village trees.

The wonderful nuptial plumes of the Egret are well known, and during the last century these birds suffered greatly from the depredations of the plume trade, Victorian fashions having decreed that "Osprey" feathers were in vogue. As the birds nest in large colonies and the aigrettes are only donned in the breeding season much harm was done and great cruelty inflicted by the plume collectors, who wiped out whole colonies by shooting the adults and leaving the young to starve. It was discovered in Sind that the birds would breed in confinement and that the plumes could easily and more profitably be harvested from the captive birds. Since then the shameful trade has almost ceased.

Nest and Eggs. — The breeding season is during the rains. The birds breed in colonies in trees, often in the centre of towns and villages and generally in company with other Egrets, Herons and Cormorants. The nest is a rough shallow cup of sticks, occasionally lined with a little sedge or coarse grass. The eggs, 4 or 5 in number, are moderately broad ovals in shape, with a firm and rather coarse glossless shell pitted with minute pores, and in colour a delicate sea-green or bluish-green that soon fades. They average 1·73 by 1·32 inches.

Status and Distribution. — This species is a very rare vagrant to the British Isles, but is widely distributed in all the continents except America and is a common resident throughout Burma.

THE EASTERN REEF HERON

Demiegretta sacra sacra (2227).

Identification. — Length 21-24 inches. A purely coastal bird. It has two phases, one pure white and the other dark slaty-black except for the white chin; intermediate piebald birds are common. These phases are not understood and do not seem to depend on sex or age. There is a crest of thick feathers and the legs are pale yellowish-green to almost black, with lemon-yellow soles conspicuous in flight. Said to be a very quiet and solitary bird outside the breeding season, usually seen sitting hunched up on mangrove roots.

Nest and Eggs. — The breeding season is during the rains. The birds breed in colonies in mangrove swamps, scrub or coconut palms. The nest is built close to high-water mark and is typical of the family. The eggs, 2 to 5 in

number, are typical also, rather darker than the eggs of the Cattle Egret, and average 1.76 by 1.31 inches.

Status and Distribution. — This species is found all along the coast-line of the Oriental Region, excluding India, and extends to Australia and some of the islands of the Pacific Ocean. It is a common resident on the coast of Burma, and breeding colonies have been recorded on Oyster Island off the Arakan coast and in the Mergui Archipelago.

THE CATTLE EGRET

Ardeola ibis coromandus (2226).

Local Names. — Burmese: *Kywe-gyaung Byaing* (ကျွဲကျောင်းဖြိုင်း) "Buffalo-herd Egret."

Identification. — PLATE XXVIII, Figs. 7, 7a & 7b, Page 456. Length 20 inches. The yellow bill distinguishes it from the Little Egret at all seasons, and the black legs from the Reef Heron; in non-breeding plumage the differently shaped bill and small size distinguish it from the Large and Smaller Egrets.

Voice. — A variety of croaking and guttural notes may be heard at the breeding colony; elsewhere it is a silent bird.

Habits and Food. — This Egret differs from the others in being found in parties at all times of the year, whereas the others tend to be solitary outside the breeding season, and in its constant attendance on grazing cattle, whence it derives its name; for though it feeds sometimes on small fish, tadpoles and aquatic insects, its chief food consists of grasshoppers and flies, which it obtains off the grass and off the animals themselves. Though generally stalking round their legs it sometimes perches on their backs and performs a definite service by ridding their skins of leeches, ticks and other parasites. It is a tame confiding bird and its nuptial plumes are not sought after by plume-hunters, who confine their attentions to the white Egrets.

Nest and Eggs. — The breeding season is during the rains. The birds breed in colonies, usually with other Egrets. The nest and eggs are typical of the family, except that the latter are nearly always recognisable by their colour, white with a faint blue or green tinge as opposed to the usual delicate sea-green tint. They average 1·71 by 1·32 inches.

Status and Distribution. — This species inhabits the warmer parts of Europe and Asia and the whole of Africa, and has once occurred in England. The Eastern race is a common resident throughout Burma in the plains and on the coast, and has been recorded as high as 6,000 feet.

THE INDIAN POND HERON

Ardeola grayii (2229).

Local Names. — Paddybird. Burmese: *Byaing-auk* (ဖြိုင်းဆောက်)

Identification. — PLATE XXVIII, Fig. 5, Page 456. Length 18 inches. It escapes notice by its dingy coloration until it springs to life with a flash of white wings. Found on every village pond.

Voice. — It usually rises with a harsh croak of annoyance.

Habits and Food. — This is one of the most familiar of Burmese birds. It feeds on frogs, crabs, small fishes, insects, and other odd-

ments, and in pursuit of this mixed diet it spends its life on the edge of jheels and ponds, the mud-flats of the coast, and the beds of jungle streams. No puddle is too small, no water too dirty for its attention. It stands motionless on the mud or ankle-deep in water, or stalks along moving each foot with slow caution, and every now and then capturing its prey with a quick stab of its bill. It is usually solitary by day, but collects to roost at night or to rest in shady branches during the day.

Nest and Eggs. — The breeding season is in the rains. The birds nest in colonies, usually with other species of Egret, and the nest is the usual structure of sticks in a tree. The birds scramble and clamber along the branches with great facility, an accomplishment shared by the chicks when they are two-thirds grown. The eggs, 4 to 6 in number, are deep sea-green or greenish-blue when fresh but are liable to fade, and average 1·48 by 1·17 inches.

Status and Distribution. — This species is found from the Persian Gulf through India and Burma to Malaya. It is a common resident throughout Burma.

THE CHINESE POND HERON

Ardeola bacchus (2230).

Identification. — Length 18 inches. In breeding plumage the head and neck are pure maroon, the back blackish and the rest white. In non-breeding plumage it is less easy to distinguish from the Indian Pond Heron, but has a rufous or chocolate tinge on the back instead of plain ashy-brown.

Status and Distribution. — This species has a wide distribution in the Oriental Region as far west as Assam. In Burma it has only been recorded from North-East Burma, Central Burma, the Southern Shan States and Tenasserim. It is said to breed in Burma. It is no doubt often confused with the Indian Pond Heron, and much more information on its status and distribution is needed.

THE INDIAN LITTLE GREEN HERON

Butorides striatus actophilus (2231).

Local Names. — None recorded.

Identification. — PLATE XXVIII, Fig. 6, Page 456. Length 18 inches. The bill and feet are conspicuously orange in flight and the general colour is slaty-grey rather than green. The crest is erected on alighting. A forest bird found singly along forest streams.

Voice. — Said to utter a deep stifled croak as it rises.

Habits and Food. — This is a solitary and secretive little Heron, and is a typical bird of the teak forests, in which it frequents the smaller and shadier streams; running water is not essential, and a bird may be seen at the last remaining wallow along an otherwise bone-dry stretch of stream; when disturbed it usually flies up into the bushes at the side. It feeds almost entirely on small fish, crabs, frogs and molluscs, and will sometimes catch fish by diving on them from a perch in a tree or bush, or even dropping on them whilst in flight, but normally it hunts on the ground like any other Heron. In the breeding season it is neither shy nor crepuscular, and birds may be seen flying to and from their nests or chasing each other all day long. On the Irrawaddy it

may be watched during the rains crouching among the shingle on the river's edge or hopping with great agility from stake to stake of the fences erected in the shallows by the fishermen.

Nest and Eggs. — The breeding season is a long one, from April to October. It sometimes breeds in colonies, as in the gardens of the civil station at Myitkyina, or each pair may prefer to breed in its own fishing area. The nest is the usual crude structure of sticks either high up in a tree or in a dense bush overhanging a stream. The eggs are exactly like those of the Pond Heron, and average 1·56 by 1·15 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and occurs also in Mauritius. It is not uncommon throughout Burma in suitable localities, and is resident.

THE NIGHT HERON

Nycticorax nycticorax nycticorax (2233).

Local Names. — Burmese: *Lin-wet* (လင်းဝက်)

Identification. — PLATE XXVIII, Fig. 10, Page 456. Length 24 inches. A small heavy Heron, largely nocturnal in its habits, sleeping by day in thick trees. In flight it is a compact-looking bird with the closely retracted head appearing to merge directly into the rather stout body, so that the black of the crown and mantle form a continuous area contrasting with the grey of the broad rounded wings and tail. It has a drooping black crest and three long filament-like white feathers on the nape. Young birds are dull dark brown above spotted and streaked with buffish-white; under-parts dull greyish with dark streaks.

Voice. — The call is a hoarse croak or quack, *wock* or *kwaak*, and may sometimes be heard by day from a bird concealed in the cover of a tree; when flighting at dusk this call is freely uttered and is distinctive. At breeding colonies an assortment of raucous noises is heard and young birds keep up an incessant *click, click, click*, whilst clambering about the branches.

Habits and Food. — The Night Heron is well named, for it is definitely nocturnal in habits and is shy and secretive by nature. The members of a colony spend the day sleeping in the thick foliage of a clump of trees, waiting for the fall of dusk; then the whole colony moves off in a continuous stream, each bird flying separately and spreading far afield for the night's fishing.

Nest and Eggs. — The breeding season is during the rains. The nest is a rough and slight structure of sticks, with no lining, built in a tree. A few nests are solitary, but usually the birds build in colonies, often wth other Herons and Egrets. The eggs, 4 or 5 in number, are typical of the family and average 1.92 by 1·35 inches.

Status and Distribution. — The Night Heron is found in all the continents except Australia and is a vagrant to the British Isles. It is a common resident throughout the plains of Burma.

THE MALAY BITTERN

Gorsakius melanolophus melanolophus (2234).

Identification. — Length 19 inches. Black crown and crest and light rufous colour of the upper-parts are unmistakable. A shy and retiring bird of streams in evergreen forest.

Nest and Eggs. — The breeding season appears to be in May and June. The nest is solitary and is usually built in a tree, occasionally in reed beds. It is the usual structure of twigs, and the eggs, 4 or 5 in number, differ from most Herons' eggs in being dead-white in colour. They are very broad ovals and average 1.82 by 1.46 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region but seems to be a rare bird in Burma. It has only been recorded from Ramree Island in Arakan, the Southern Shan States, Karenni, and Southern Tenasserim. It occurs on streams in evergreen forest up to 4,000 feet, and is probably resident, though there are no breeding records.

THE YELLOW BITTERN

Ixobrychus sinensis sinensis (2237).

Local Names. — ~~Burmese: Hmate do (cobiosis)~~ None recorded.

Identification. — Length 15 inches. Small size distinguishes it from all except the Chestnut Bittern, from which it can be separated at once by the black flight-feathers, and by the black crown and crest. Back and mantle varying shades of light brown; rump and tail blackish; under-parts mainly buff. This tiny Bittern is only found on jheels and swamps with extensive areas of *kaing* grass, rushes, or similar cover. It is not entirely nocturnal and may be seen feeding by day at the edge of the reeds, but it does not seem to fly about in daylight like the Chestnut and Black Bitterns. When disturbed it creeps away quietly into the jungle, taking long slow steps and furtively looking round to see what is happening.

Nest and Eggs. — The breeding season is during the rains. The nest is a mere pad of dead *kaing* leaves or twigs in a patch of dense *kaing* grass, and the eggs, 3 to 5 in number, are a pale milky-blue and average 1·22 by 0·93 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is a common resident in suitable jheels and swamps in Burma, though not yet recorded from the Upper Chindwin or North-East Burma.

THE CHESTNUT BITTERN

Ixobrychus cinnamomeus (2238).

Local Names. — None recorded.

Identification. — PLATE XXVIII, Figs. 9 & 9a, Page 456. In flight the male appears bright reddish-brown and is unmistakable. The female is chestnut brown above with the crown blackish, and buffy-rufous below, streaked with dark brown from chin to tail; except in old birds the wings are spotted with buff. Young birds resemble the female but are more definitely barred and spotted above, and more brown and less chestnut in colour. For distinctions from the Yellow Bittern see under that species.

Voice. — The ordinary call is a slight croak.

Habits and Food. — This species is neither crepuscular nor shy in the breeding season, when it may frequently be seen flying round in wide circles in broad daylight (apparently displaying), but at other times is chiefly nocturnal. It moves about more than the Yellow Bittern and visits flooded grazing-grounds and similar localities in the rains. Like the Larger Herons it often stands still and solitary waiting for its prey, but it can also be very active, climbing about the reeds and stems on foot; it frequently perches on trees. Both species probably have the habit, when danger threatens, of standing with the head and neck extended skywards, the feathers closely pressed against

the skin, the whole attitude and coloration being protective amongst the varied lights and shades of a reed bed.

Nest and Eggs. — The breeding season is during the rains. The nest is a shallow pad, built either in *kaing* grass or in the bush and scrub jungle bordering marshy depressions and flooded grazing-grounds. The eggs, 4 or 5 in number, are broad regular ovals in shape, very fine and compact in texture without gloss, and dull white in colour, sometimes with a faint bluish tinge, but the surface quickly becomes dirty and stained. The eggs average 1·30 by 1·05 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region and is a common resident throughout Burma in suitable jheels.

SHRENK'S BITTERN

Ixobrychus eurythmus (Not in F. B. I.)

Identification. — Smaller than the Chestnut Bittern; general colour bright maroon with white spots on the wings and dark back; under-parts buff with broad dark streaks on throat and upper breast. Legs green.

Status and Distribution. — This species occurs in Eastern China, Japan and Indo-China. There is one record from Yedwingon, Amherst district, September 1935, and the bird is presumably a rare vagrant to Burma.

THE BLACK BITTERN

Dupetor flavicollis flavicollis (2239).

Local Names. — None recorded.

Identification. — PLATE XXVIII, Fig. 8, Page 456. Length 24 inches. Very long neck and slender build mark this bird when on the alert.

Voice. — It is said to have a booming note in the breeding season.

Habits and Food. — This is a typical bird both of the plains and of streams in evergreen forest in the hills. Its habits are like those of the Chestnut Bittern; it is nocturnal in habits except in the rains when it flies about a good deal by day like most Bitterns, and is commonly seen flying overhead singly at dusk.

Nest and Eggs. — The breeding season is during the rains. The nest is typical of the family and is usually found in *kaing* grass or bushes, and the eggs, 3 to 5 in number, are a very pale green when fresh, but soon become dingy; they average 1·64 by 1·24 inches.

Status and Distribution. — This species is widely distributed in the the Oriental Region and is common throughout Burma in the rains; it may be a summer visitor to breed, or (as seems more likely) it may retire in the dry season to streams in evergreen forests, where it is seldom seen. In the rains it may be seen at the Hlawga lake at any time of the day.

THE BITTERN

Botaurus stellaris stellaris (2240).

Identification. — Length 30 inches. Very large size and golden-brown colouring mottled with black distinguish this bird from other Bitterns. It flies with slow rather Owl-like action over the tops of the reeds, and the rounded wings and trailing green legs are noticeable. On the ground it stands with the neck either retracted or fully extended nearly vertically upwards in the protective

attitude, as described under the Chestnut Bittern. It is essentially a skulking and secretive bird, keeping to the cover of reeds and swamp vegetation round the larger jheels; it may occasionally be seen standing in the open near the water's edge, though nearly always close to cover. It often progresses above ground or water level by grasping reeds, several at a time, with the toes and moving in this manner with astonishing facility for so large a bird. It only rarely perches in trees, and is decidedly crepuscular.

Status and Distribution. — This species is widely distributed in Europe, Africa, Asia and Australia. It breeds regularly in the British Isles, but is only a winter visitor to Burma; there are only four records: Pegu, Insein, Bhamo and Myitkyina: but it is probably overlooked in the big jheels.

Order XI ANSERES.

Family ANATIDÆ

SWANS, GEESE & DUCKS

The Ducks, and their allies the Geese, are among the most interesting of all the birds of Burma, and as they have a wide appeal they are dealt with here fairly fully. Their numerical strength is vast, their plumage beautiful, and their flight strong and swift. Many of them are migrants and only visit us during the cold weather months; to attain the rich feeding-grounds of our rivers and jheels they have to fly great distances and cross high mountain barriers. Most of them belong to species that are also found thousands of miles away in the British Isles: the Wigeon and the Pintail for example that come to Burma are the same as the ones to be found in a wild Scottish estuary or being fed with crumbs beside the placid waters of St. James's Park.

To the sportsman they represent the ideal, or something near it. Their numbers leave nothing to be desired, but cunning and careful preparation are necessary to come to terms with them; they present a greater variety of shots, nearly all of sufficient difficulty to test the expert, than any other form of winged game; most of them are excellent for the table; and there is a thrill in their pursuit unobtainable in any other form of shooting. To get up in the paralysing predawn of a cold weather morning, to push out into the jheel in the clammy mist, to listen to the swish of unseen wings above whilst waiting for the dawn, and then with the first shot to hear the tremendous thunder of the rising multitude accompanied by the music of the Geese: that is to savour the essence of the sport; and when the first hectic hour of shooting is over there is time to watch the Duck, wedging across the sky or pitching in the open water in the middle of the jheel, and to observe the many different kinds of water-fowl.

Thirty-four different forms of Duck (including Geese) are known to occur in Burma, but of these only six are resident; the remainder are winter visitors, arriving in September or October and leaving again in March for their breeding haunts in Northern and Central Asia and in the Himalayas. The resident species are: the Comb Duck, the White-winged Wood Duck, the Cotton Teal, the Common Whistling Teal, the Large Whistling Teal, and the Burmese Grey Duck. These all breed in trees, making their nests in a natural hollow or a depression of a big fork, and often roost and perch in the branches.

When looking at PLATES XXIX & XXX in this book it must be remembered that our visiting Ducks are rarely seen in the full adult

plumage there depicted. The idea that this state of affairs is due to the Ducks being in "winter plumage" is erroneous: Ducks have no winter plumage in that sense, only the eclipse plumage, from July to September-December (the month depending on the species), and the normal or full plumage throughout the rest of the year. There is good evidence that the old drakes do not migrate so far south as the females and young, the former far out-numbering the latter in the north of the winter range, while in the south the reverse is the case. It is the old story of the flighty female and the hot-headed youth seeing life and leaving the "old man" behind. Burma being as far south as most migratory Duck care to wander, it is not surprising to find that females and immature birds out-number the adult drakes by nearly 100 to 1; such adult drakes as do reach this country would probably be moulting from eclipse into normal plumage on first arrival, but from December onwards nearly all species should have assumed their full plumage.

The popular division of the family into Swans, Geese and Ducks, though it has no scientific basis, is nevertheless a useful one. Swans scarcely concern us, but it is necessary to mention two species.

[Note:—ALPHERAKY'S SWAN, *Cygnus bewickii jankowskii (2245)*, breeds in Eastern Siberia and winters in China; it has been shot once in India and there is a sight record of a small Swan at Bhamo that might have been of this species. It is an eastern form of Bewick's Swan, which occurs in the British Isles.

THE MUTE SWAN, *Cygnus olor (2246)*, lives in a domesticated state on the Maymyo lake. It is a rare vagrant to North-west India, and is unlikely to occur in Burma in the wild state.]

Ducks are smaller, shorter-necked, narrower-winged birds than Geese, and much more aquatic; like Geese and Swans they fly with the neck extended, though the wing-beats are considerably more rapid, but unlike them the sexes are usually conspicuously different in plumage and have quite different call-notes. A side-to-side waggling movement of the tail is common and the sleeping position is with the bill tucked under the shoulder feathers.

Sub-family PLECTROPTERINÆ.

The distinguishing features of this sub-family are the rather long hind toe without a lobe, the neck shorter than the body, the upper-parts, especially in the male, more or less glossy, and the rather long tail.

THE COMB DUCK or NUKHTA

Sarkidiornis melanotus (2247).

Local Names. — Burmese: *Mauk-tin* (မောက်တင်း)

Identification. — PLATE XXIX, Fig. 1, Page 468. Length 30 inches (male), 24 inches (female). The upper-parts of the male are black brilliantly glossed with metallic green, purple and bronze and the fleshy comb at the root of the bill is most developed in the breeding season. The female is markedly smaller and duller and lacks the comb. The flight is powerful and fairly rapid.

Voice. — The ordinary note of the male is a low grating noise; loud trumpet-like calls are uttered when the birds are disturbed near the nest.

Habits and Food. — This is essentially a tree Duck and is found singly, in pairs, or in small parties in jheels and lakes with reedy margins and plenty of trees nearby; in the non-breeding season it may be seen on river sandbanks. It moves about freely in the daytime, and roosts in trees. It is an unwary species and quite easy to stalk, though the flesh is rank and unsuitable for the table. It feeds largely on rice, but roots, seeds, and the shoots of various water plants are also eaten, together with a few worms and the spawn and larvae of aquatic insects.

Nest and Eggs. — The breeding season is from June to September. The nest is normally built in a hole in a tree and is a rough structure of sticks and grass lined with a few dead leaves and feathers. The eggs, 7 to 12 (occasionally up to 47) in number, are regular ovals, close and compact in texture, and when fresh look like polished ivory but the shells soon become stained and dirty as incubation progresses. They average 2·40 by 1·70 inches. Eggs of the Cotton Teal are sometimes found in the same nest.

Status and Distribution. — This species is found in Africa, India, Burma and Ceylon. It is scarce in Northern Burma but a common resident in Central and Southern Burma.

THE WHITE-WINGED WOOD DUCK

Asarcornis scutulatus (2248).

Local Names. — Burmese: *Taw-be* (တောဘဲ)

Identification. — PLATE XXIX, Fig. 2, Page 468. Length 30 inches (male), 24 inches (female). The male is olive-brown above and dull chestnut below, with a green-glossed black breast; the upper-parts of old males appear brilliant metallic green in sunlight; the speculum is bluish-grey, separated from the white of the shoulder by a black band; bill orange or yellow, blotched with black, the base becoming swollen and red in the breeding season in the case of the drake; eye crimson. The female is duller than the male. The flight is direct and strong, but the birds are not particularly wary, and will take the same line night after night even though shot at.

Voice. — A double trumpet-like call-note, *cronk, cronk*, may be heard just before dark when the birds flight from their daytime retreat to the feeding-grounds.

Habits and Food. — The Wood Duck is found generally in pairs and is typically a bird of streams and pools in evergreen forest away from cultivation and human beings; there amid the cane-brakes and the dark over-hanging foliage it makes its home, roosting and nesting in trees. It is usually seen on the wing just before nightfall when flighting to its feeding-grounds, which are often in wet stubble at the edge of the forest. When the bird moults in September or October it loses all the flight-feathers from the wings at once, and is incapable of rising into the air for about a fortnight before the new feathers

PLATE XXIX

		See Page No
1.	**COMB DUCK or NUKHTA** (adult male) *Sarkidiornis melanotus*	467
2.	**WHITE-WINGED WOOD DUCK** (adult) *Asarcornis scutulatus*	468
3.	**COTTON TEAL** (adult male, summer) *Nettapus coromandelianus*	469
3a.	Ditto. (adult male, winter)	"
4.	**GREY LAG GOOSE** (adult) *Anser anser* subsp.	471
5.	**LESSER or COMMON WHISTLING TEAL** (adult) *Dendrocygna javanica*	474
6.	**BAR-HEADED GOOSE** (adult) *Anser indicus*	473
7.	**BRAHMINY DUCK or RUDDY SHELDUCK** (adult male, winter) *Casarca ferruginea*	476
8.	**LARGE WHISTLING TEAL** (adult) *Dendrocygna fulva*	475
9.	**MALLARD** (adult male, summer) *Anas platyrhyncha platyrhyncha*	477
10.	**BURMESE GREY DUCK** (adult) *Anas pœcilorhyncha haringtoni*	478

PLATE XXIX

1

2

3 3a

4

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9

10

ONE FOOT

300 MM.

have grown; it is said that, prior to the moulting, these birds all retire to morasses lying in impenetrable forest and there remain out of harm's way till they are once more able to fly. Though excellent eating the shooting of this rather rare bird for the pot is to be deprecated.

Nest and Eggs. — The breeding season is probably during the rains. Little is known about this bird's nesting habits; the nest is built in a hollow in a tree, in one case about 20 feet from the ground, and is described as being a mass of grass and rubbish lined with feathers and down. The eggs are very glossy and creamy-white in colour, and average 2·56 by 1·90 inches.

Status and Distribution. — This species extends from Assam through Burma to Sumatra. It is sparingly distributed throughout Burma wherever there is evergreen forest and is not uncommon in Northern Burma; visitors to the Pidaung Wild Life Sanctuary may expect to see it, and it is often seen in the Katha district and the upper waters of the Mu river. In Southern Burma it is more local, and in the Pegu Yomas appears to be confined to the Tharrawaddy and Insein districts.

THE PINK-HEADED DUCK

Rhodonessa caryophyllacea (2249).

Identification. — Length 14 inches. The male is glossy dark brown, with a wing-bar and the under surface of the wings buff; whole head and neck, except for the broad black band down the throat and front of the neck, a crude and brilliant rose-pink that does not harmonise with the bright red eye. The female is duller, with no black on the throat, but with a black streak along the crown. Young birds have the head and neck rosy-white but otherwise resemble the female. Its flight is powerful and fast and its voice is a musical edition of that of the Mallard. It is a "wood" Duck, and the most shy and secretive of all.

Nest and Eggs. — The breeding season is in June. It breeds in dense forest, making a nest of grass and weeds in tangled undergrowth or grass close to the edge of a pool or swamp. The eggs are unlike those of any other Duck in shape, being almost spherical, but they have the satin texture and intense gloss typical of this sub-family. They average 1·81 by 1·65 inches.

Status and Distribution. — This species inhabits the dense jungles of the Himalayan foothills from Nepal eastwards to Burma. It has been recorded from Arakan, Bhamo, the Mandalay district, and probably occurs in the huge terai of the Upper Chindwin; it is a rare bird and its status in Burma is uncertain.

Sub-family CHENONETTINÆ.

The characters of this sub-family are the short Goose-like bill and the forward position of the feet, enabling the birds to walk well and freely.

THE COTTON TEAL

Nettapus coromandelianus (2250).

Local Names. — Burmese: *Kalagat* (ကလကတ်)

Identification. — PLATE XXIX, Figs. 3 & 3a, Page 468. Length 13 inches. The smallest of the Burmese Ducks. The male in full plumage is largely white, with the crown metallic dark brown; a broad

black collar below the neck; upper-parts metallic green and purple; a white patch on the wing, prominent in flight; bill black, eye red, and feet black. The female is brown where the male shows his metallic hues; there is a brown line through the eye; head and neck speckled with brown; no white patch on the primaries. Young birds resemble the female, more marked about the head with brown and more banded with light brown on the flanks. The male in eclipse plumage resembles the female but retains some green on the wings and also the white patch. The flight is fast with rapid wing-beats and is usually close to the water with skilful twists and turns to dodge stumps, bushes, and other obstructions.

Voice. — On the wing it is very noisy, uttering a peculiar cackling note that has been likened to the words *fixed bayonets*.

Status and Distribution. — This little Duck is found in parties, both on open sheets of water such as the big lakes and rivers, and in small overgrown ponds and dykes and channels choked with grass and weeds. When undisturbed it is a confiding and unwary species, and can be seen feeding close to where villagers are bathing and washing their clothes. It dives well, and is also able to walk quite proficiently (some observers deny this). The food consists both of aquatic plants and insects, taken from the surface or obtained by diving.

Nest and Eggs. — The breeding season is from June to August. The nest is built in a hollow tree near the water's edge, usually at a height of 10 to 15 feet above the ground, and is lined with twigs, grass, or feathers. The eggs, normally 8 to 14 (occasionally up to 22) in number, are almost spherical in shape, very fine and smooth in texture with a high gloss, and ivory-white in colour. They average 1·70 by 1·29 inches. Eggs of this bird and the Comb Duck are sometimes found in the same nest. The parent birds are said to transport their young soon after hatching to the water, carrying them with their feet.

Status and Distribution. — This species is widely distributed in the Oriental Region, and is found throughout Burma on jheels and village ponds. It is a resident species but a local migrant, visiting flooded areas in the rains and leaving them when they dry out in the cold weather.

THE MANDARIN DUCK

Aix galericulata (2251).

Identification. — Length 19 inches. Apart from its wonderful plumage this species is easily distinguished from all other Ducks by its wings, which are shaped more like those of a Pigeon, the quills being pointed and long-drawn. The male has a long full crest, copper-red in front, metallic green behind, and white at the sides; there is a ruff of bright chestnut hackles round the neck; breast purplish-maroon; under-parts white; the wing is adorned on the inner side with a fan, 3 inches broad, of chestnut and blue; bill rose-red. The female is a brown bird with conspicuous silvery-grey and steely-blue primaries. The young male resembles the female.

Status and Distribution. — An Eastern Asiatic species, found in Central and Southern China, Formosa and Japan. It has once been recorded from Burma, at the foot of the Chin Hills near Gangaw.

Sub-family ANSERINÆ.

GEESE

Grey Geese in winter are thoroughly gregarious, usually seen in parties numbering from half a dozen or so to several hundred birds. They frequent open country and are purely terrestrial, never perching even on low objects, and owing to the forward position of the legs they walk easily and well, much better than the Ducks and with none of the waddle of the domestic goose. In Burma they frequent the larger jheels but are essentially land-feeders, grazing on grasslands and cultivation, though at times they will feed in shallow water, dipping their heads and "up-ending" like Ducks. They are normally diurnal feeders, unless their feeding-grounds are much disturbed by day, but in Burma they prefer to spend the hot hours on the river sandbanks or on some secluded backwater of the jheel, flighting in the mornings and evenings from and to their feeding-grounds, and grazing through the night on the crops and fresh young green-stuff on the shore. Though much less aquatic than Ducks they swim buoyantly and well, and wounded birds often escape by diving. They rise easily from the ground, less easily from water. They sometimes perform striking evolutions on the wing, plunging through the air in a kind of spiral nose-dive with wings half-folded or tilting over and side-slipping in a remarkable manner (termed "whiffling" by sportsmen). Preparatory to settling they plane down in a wide sweep with wings extended, braking when about to pitch, with wings turned sharply forwards and downwards and the tail spread, dropping almost vertically with a vigorous rotary action of the wings. Grey Geese are perhaps the most acute and wary of all birds. From the cultivator armed with a stick they know that they have nothing to fear and permit him to approach almost within striking distance before they deign to move; but should a sportsman appear with a gun the flock will rise when he is still two hundred yards away or more.

KEY TO THE GREY GEESE.

A. Nail at tip of upper mandible white or nearly so.
  a. Little or no white on forehead; rump grey — *A. anser.*
  b. A good deal of white round base of bill; rump dark greyish-brown.
    a'. Wing over 15 inches — *A. albifrons.*
    b'. Wing under 15 inches — *A. erythropus.*

B. Nail at tip of upper mandible black or nearly so.
  c. Pale parts of bill rose-pink — *A. neglectus.*
  d. Pale parts of bill not rose-pink — *A. fabalis.*

Records of any Grey Geese other than *A. anser* would be of great interest, and whenever possible the skin, or even the head and bill, should be preserved together with careful notes on the colours of the soft parts when fresh, and sent to a museum for identification; this applies particularly to *A. fabalis*, the races of which can only be determined by an expert.

THE GREY LAG GOOSE

Anser anser subsp. *(2252).*

Local Names. — Burmese: *Ngan* (ငန်း)

Identification. — PLATE XXIX, Fig. 4, Page 468. Length 30-35 inches. The largest of the Geese that visit Burma. The large stout bill, heavy head, and pale grey fore-wing and rump are noticeable in the air; the general colour is brownish-grey, browner in some birds, greyer in others. Old birds have black markings on the abdomen, which are absent on young birds. The flight is direct with regular wing-beats, and is faster than it appears. Flocks moving some distance or migrating fly in V formation, usually with one arm of the V much longer than the other, and sometimes in trailing lines; each bird maintains a regular distance from its neighbour and an old bird always acts as leader. On shorter flights the formation is often much more irregular but the birds maintain their even spacing.

Voice. — A loud, deep, sonorous *aahng-ung-ung* is uttered on the wing.

Habits and Food. — Those of the sub-family.

Status and Distribution. — The Grey Lag Goose is a Palæarctic species, including the British Isles in its breeding range. It is a winter visitor to Burma from November to early March and is plentiful on the big jheels near the Irrawaddy and Chindwin rivers; there seem to be no records south of Central Burma.

[Note: — The Handbook of British Birds retains the Eastern form, *A. a. rubrirostris*, as a recognisable race but mentions that its status is somewhat obscure and its distribution uncertain. Birds visiting Burma presumably belong to this form, which breeds in Siberia.]

THE WHITE-FRONTED GOOSE

Anser albifrons albifrons (2253).

Identification. — In general appearance similar to the Grey Lag Goose, but smaller (length 26-30 inches) and darker in colour; adults are easily distinguished by a prominent white patch at the base of the bill and black barring on the breast; both these features are lacking in young birds, but as they are usually with adults their recognition is simplified. In flight the fore-wing is not noticeably paler than the rest. The note is higher pitched and more laughing in quality than that of the Grey Lag Goose, and is uttered in quicker time; it possesses a curious metallic ring, a strangely haunting sound: *kow-yow* or *kow-lyow*.

Status and Distribution. — A Northern Holarctic species. It is a winter visitor to the British Isles and a rare visitor to Northern India and China; its occurrence in Burma rests on the two records given in the F.B.I., one from the Chindwin and one from Fort Stedman. It seems likely to occur regularly as a straggler, and is no doubt often mistaken for a Grey Lag Goose.

MIDDENDORF'S BEAN GOOSE

Anser fabalis middendorfi (2257).

Identification. — Length 28-35 inches. It is a dark brownish-grey in colour, much darker and more sooty in appearance than the Grey Lag Goose and less heavily built. Head and neck not darker than the back but usually distinctly contrasted with the paler chest. The fore-wing is as dark as the rest. Legs orange or orange-yellow; bill orange-yellow and black. It is the least vocal of the grey Geese, and the note is very gruff and usually disyllabic, slightly reminiscent of the bleating of sheep.

Status and Distribution. — A Northern Palæarctic species, visiting the British Isles in winter. An example of Middendorf's race was shot on Christmas eve 1901 near Myitkyina, and there is no other record for India or Burma.

[Note: — Very like the above, and only to be distinguished by an expert, is the race breeding in North-east Siberia, *A. f. serrirostris,* which is a possible visitor to Burma.

Reported occurrences in India of the PINK-FOOTED GOOSE, *A. f. brachyrhynchus (2255),* must be accepted with reserve; the nearest record given in the Handbook of British Birds is an accidental occurrence in Southern Russia. SUSHKIN'S GOOSE, *A. neglectus (2256),* has a slender pink bill and pink feet and may be a fairly frequent individual variation of the Bean Goose or localized in a breeding area not yet discovered; in other words it is uncertain whether it is a race of the Bean Goose or merely a variety. It is said to occur in Assam not uncommonly and should be looked for in Burma.]

[Note: —THE LESSER WHITE-FRONTED GOOSE, *A. erythropus (2254),* is a Northern Palæarctic species and a very rare vagrant to the British Isles; it has never been recorded from Burma but it is a rare visitor to India and has been obtained as far east as Assam, so that it may occasionally straggle into this country. Length 21-26 inches. By no means merely a small edition of the White-fronted Goose, adults appearing quite distinct by reason of the considerably greater extent of the white front, which reaches onto the top of the head between the eyes, shorter and smaller bill with the "teeth" concealed when the bill is closed, and a swollen lemon-yellow ring round the eye. In the White-fronted Goose the white front rarely if ever extends beyond the level of the front of the eye and the eyelids are brownish, not swollen.]

THE BAR-HEADED GOOSE

Anser indicus (2258).

Local Names. — Burmese: *Taw-ngan* (တောငန်း)

Identification. — PLATE XXIX, Fig. 6, Page 468. Length 30 inches. The nail at the tip of the upper mandible is black. Young birds have the crown dark brown and no black bars on the head. Except when taking very short flights they fly high with measured wing-beats in a wide V formation or else in long lines.

Voice. — A deep sonorous note uttered by several birds in unison is usually referred to as "gaggling".

Habits and Food. — Though sometimes seen on lakes and jheels it is a typical riverain species, large flocks of 20 to 100 birds gathering to spend the hours of rest and daylight on the sandbanks of the great rivers, and feeding by night in the cultivation that extends about their banks. There is a well-marked morning and evening flight from and to their feeding-grounds, and where the birds are not much disturbed they start feeding early in the evening and also continue after dawn. They are wary and difficult to approach.

Status and Distribution. — The Bar-headed Goose breeds on the salt lakes of Ladakh and Tibet in May and June, and in winter moves south to India and Burma, arriving in October and leaving in March. It is common on the Irrawaddy in Central Burma and has been recorded from North-East Burma; it extends down to Prome, 17 having been shot near there in a day, and there is a record of some having been seen at Pa-an on the Salween (near Moulmein). This bird's range south of Mandalay needs to be carefully recorded. It must also occur on the Upper Chindwin.

[Note: — THE RED-BREASTED GOOSE, *Branta ruficollis (2259),* has not been recorded from Burma, but has been seen in Assam; it breeds in the Northern Palæarctic Region and is a very rare vagrant to the British Isles.

Length 22 inches. The striking and curious colour-pattern of black, white and chestnut-red is unmistakable, and is quite unlike that of the grey Geese. The call is a double staccato screech.]

The remaining Ducks with which we have to deal are divisible into surface-feeders (*Anatinæ*), diving Ducks (*Aythyinæ*), and saw-bills (*Merginæ*).

Sub-family ANATINÆ.

SURFACE-FEEDERS

The Shelducks approach Geese in various ways (flight, carriage, largely terrestrial habits, similarity of sexes in plumage, the male assisting in the care of the young) and are thus marked off from the other surface-feeders; these are relatively slender-built birds and get most of their food in shallow water, securing it from the surface or from mud either with a quick dabbling motion of the mandibles (by which the water is strained through the bill and solid particles retained) or, where the water is slightly deeper, by "up-ending" with the head and front part of the body submerged and the tail in the air, maintaining the position by paddling with the feet. Young birds dive fairly freely, but adults only more or less exceptionally or if wounded. Though often resting on the water most species come freely to the shore and walk with ease, carrying the body nearly horizontal, and feeding to a varying extent on land; like Storks they are fond of resting on one leg. They rise easily and directly off the water, not pattering over the surface like the diving Ducks, and fly with considerably less rapid wing-beats; they do not glide in ordinary flight but when preparing to pitch they descend in a long slanting glide, finally braking and dropping to the water with the neck craned forward but the body hanging down so that they strike the surface feet first. All Ducks rise and pitch into the wind whenever possible.

There is generally a conspicuously coloured and often metallic patch on the wing, known as the speculum, usually duller in the female than the male, and this is frequently helpful in identification. About mid-summer the male assumes his eclipse plumage in which he looks like the female, except that he retains his characteristic wing-plumage; this is replaced by the full plumage, which is assumed between September and December by most species. The female's eclipse, which is assumed some weeks later when the young are well grown, scarcely differs from the plumage it replaces and can be ignored for field purposes. The hind toe is either not lobed or very narrowly lobed, a useful distinction from the diving Ducks and saw-bills.

THE LESSER or COMMON WHISTLING TEAL

Dendrocygna javanica (2260).

Local Names. — Burmese: *Sit-sali* (စိပ်စဲ့)

Identification. — PLATE XXIX, Fig. 5, Page 468. Length 17 inches. A heavy dark brown Duck with rounded wings. The crown is brown, and the upper-parts slate with chestnut bars; the chestnut upper tail-coverts distinguish it from the Large Whistling Teal, in

which they are creamy-white. Bill dark grey and black, eyelids bright yellow, eyes dark brown, legs and feet dark grey. The flight is not very fast, though the wings are beaten very rapidly with great effort.

Voice. — A regular sibilant whistle, not very clear and by no means harsh or shrill, is uttered constantly on the wing, especially when first rising off the water. There is also a low chuckling call, almost a quack.

Habits and Food. — This Duck avoids rivers and open weedless stretches of water, preferring overgrown swamps, backwaters, and jheels with plenty of vegetation round the edge. Trees also are essential and are used for roosting and breeding purposes. It is usually found in pairs or small flocks, is a strong and fast swimmer, and dives well. The food consists of small freshwater snails chiefly, but vegetable matter is also eaten. It feeds in shallow water with the head and neck outstretched and lying flat on the surface, but when standing on dry land it has a very upright carriage.

Nest and Eggs. — The breeding season is from June to September. The nest is built in a tree, either in a deserted nest of a Kite or Crow, or in a natural hollow. It is usually not more than 20 feet from the ground, and some nests are built actually on the ground or close to it in masses of dense herbage. The eggs, 8 to 10 in number, are smooth and fine in texture, rather chalky without gloss, and ivory-white when fresh but soon becoming stained. They average 1·85 by 1·50 inches.

Status and Distribution. — This species is widely distributed in the Oriental Region. It is found in most parts of Burma, but is much persecuted by every villager with a gun and is less common than it used to be. It is much more in evidence in the rains than at other times and many birds may be summer visitors to breed, but a few certainly winter on the more secluded jheels.

THE LARGE WHISTLING TEAL

Dendrocygna fulva (2261).

Local Names. — Burmese: *Sit-sali* (စဉ်စိုး)

Identification. — PLATE XXIX, Fig. 8, Page 468. Length 20 inches. An ungainly Duck, owing to its large coarse head and bill and very large feet. The general colour is chestnut, the upper-parts black with chestnut bars, the wings black, and a black streak down the back of the neck. The cream-coloured upper tail-coverts distinguish it from the Lesser Whistling Teal. Bill grey and black, feet pale grey. The flight is stronger and faster than that of the Lesser Whistling Teal.

Voice. — On the wing it utters a sibilant whistle, shriller than that of the Lesser Whistling Teal and consisting of a double note and not a single one.

Habits and Food. — Similar to those of the preceding species, except that it is a shyer bird and does not frequent village ponds and ditches.

Nest and Eggs. — The breeding season is from June to September. The nest resembles that of the preceding species, and the eggs, 6 to 8 in number, are pure pearly-white and slightly glossy when fresh. They average 2·23 by 1·69 inches.

Status and Distribution. — This species has a remarkable distribution in India, Burma, Ceylon, Africa, Central and South America. In Burma it is a common resident in Central Burma and the Irrawaddy-Sittang plain, and is also found in the Southern Shan States.

THE SHELDUCK

Tadorna tadorna (2262).

Identification. — Length 24 inches. A large Duck with Goose-like poses and carriage, mainly white in colour with a boldly contrasted pattern of black and chestnut, while at close quarters the bright red bill and pink feet are also conspicuous. Head and neck black with a metallic green lustre, and traces of a chestnut band round the breast. The drake has a knob at the base of the bill. The flight is slow for a Duck, with relatively slow wing-beats, more like that of a Goose. It walks well with ease and sometimes runs. In general a rather silent bird; a harsh chattering *ak-ak-ak* may be heard from a flock feeding at night.

Status and Distribution. — A Palæarctic species, including the British Isles in its breeding range. It is an occasional straggler to Burma, and not being edible there are few definite records, but it has occurred in Arakan, at Posagon (Upper Chindwin), in the Myitkyina district, and at Kyettagaung (Katha district).

THE BRAHMINY DUCK or RUDDY SHELDUCK

Casarca ferruginea (2263).

Local Names. — Burmese: *Hintha* (ဟင်္သာ)

Identification. — PLATE XXIX, Fig. 7, Page 468. Length 25 inches. Black primaries and a white patch on the wing, nearly concealed when at rest, are conspicuous in flight. The female has no black collar. Young birds are like the female but duller and have the back vermiculated with brown and pale rufous and the tail narrowly barred and tipped with rufous. The flight is strong and fast with relatively slow wing-beats.

Voice. — A loud melodious *ah-onk*, with variants, is uttered freely. The voices of the male and female are distinguishable, the former having more "o" sound and the latter more "a" sound.

Habits and Food. — Banks of clean sand are what the Brahminy requires, resembling in this respect the Bar-headed Goose. It has not been seen on the mud-flats of the coast and it seems to visit jheels only on passage. It often arrives in parties, which break up into pairs as soon as the winter quarters have been chosen. The birds spend most of their time on the sandy margins of the water where they walk about with ease, though on the infrequent occasions when they enter the water they swim well, with head erect, the front half of the body low, and the stern held high. During the daytime they generally rest, sitting and standing about together, and at night they feed, often separating to do so. It is the wariest of the whole Duck tribe when persecuted, but can be surprisingly tame if protected. It is in the main a vegetable feeder.

Status and Distribution. — A Southern Palæarctic species, reaching the British Isles as a rare vagrant. It is a winter visitor to Burma and in the cold weather is the commonest Duck in Central Burma on the Chindwin and Irrawaddy rivers and also occurs on the larger rivers of Arakan and Southern Burma; it is occasionally seen on inland lakes on passage and pairs or small flocks regularly visit the Maymyo lake for a few days in October or early November. It is said to be the first of the migratory Ducks to arrive and the last to depart, probably staying till late in March.

THE MALLARD

Anas platyrhyncha platyrhyncha (2264).

Local Names. — Burmese: *Be-gaung-sein* (ဘဲဂေါင်းစိန်း)

Identification. — PLATE XXIX, Fig. 9, Page 468. Length 23 inches. Differs from all our Ducks in that the four middle tail-feathers of the drake are curled upwards. The general colour of the drake is grey, the effect being produced by a fine pencilling of dark brown and white; there is a white ring round the neck. The violet-purple speculum, bordered by white on both sides, is present on the wings of both sexes and when visible at once identifies the mottled brown and buff female. The flight is swift with a characteristic action, in which the wings are not depressed much below the level of the body; the strokes, though less rapid than in many species, produce a whistling sound. Birds do not adopt any marked formation in flight, but on migration they fall into orderly wedge-shaped flocks or long wavering slanting lines that continually change.

Voice. — The loud coarse *quark* is peculiar to the female. The drake's note is much more subdued, but higher-pitched, a rather grating *quek* or *quek-ek-ek.*

Habits and Food. — The Mallard is found in pairs or small parties on lakes, jheels, and backwaters surrounded by cultivation. It is a typical surface-feeder in habits, though it will occasionally dive for food in 2-3 feet of water. It rises straight off the water when flushed and can hover after a fashion when uncertain whether to pitch or not. It walks easily with a less pronounced waddle than the domestic duck and the carriage is nearly horizontal instead of markedly upright. Flocks have a regular flight to and from their feeding-grounds at dusk and dawn.

Status and Distribution. — A Holarctic species, including the British Isles in its breeding range; the nearest breeding stations to Burma are in Tibet and Kashmir. It is probably a regular winter visitor to Northern Burma in small numbers, and has been obtained in recent years in a number of places in the Upper Chindwin, North-East Burma, Central Burma, and Mongmit State (Northern Shan States). Owing to its shyness it is the first species to leave a jheel when the sound of shooting is heard, and does not return till all is quiet once more; sportsmen seldom stop to examine the Duck on a jheel before commencing their fusillade, and this probably accounts for the scarcity of records of this and one or two other shy species.

THE BURMESE GREY DUCK

Anas pœcilorhyncha haringtoni (2267).

Allied Forms.—

THE COMMON GREY DUCK, *A. p. pœcilorhyncha (2265).*
THE EASTERN GREY DUCK, *A. p. zonorhyncha (2266).*

Local Names. — Spotbill. Burmese: *Wun-be* (ဝန်းဘဲ)

Identification. — PLATE XXIX, Fig. 10, Page 468. Length 24 inches. Key to the races:

A. A broad white band behind the speculum, which is green.
  a. A red spot on each side of the base of the bill — Common Grey Duck.
  b. No red spots on bill — Burmese „ „
B. No white band behind the speculum, which is blue — Eastern „ „

The long white bar on the closed wing and the very dark tail and lower back are conspicuous features. Feet bright red to orange. It rises slowly and with a lot of fuss, but once on the wing it is strong and fast, its large size making it a deceptive bird to shoot.

Voice. — The ordinary note is a *quark* similar to that of the Mallard.

Habits and Food. — This Duck is usually found in small parties of 5 to 10 birds, which avoid large open waters and prefer the weedy parts of jheels, with plenty of cover, or straggling bays and inlets well screened by trees. In such places they often lie very close and do not rise till nearly trodden on. They tend to keep to themselves, though they will associate with Mallard. It is a typical surface-feeder in habits, and it does some damage to paddy grown on the edge of jheels, trampling down a great deal more than it eats; water insects, frogs, worms, etc., are also included in its diet.

Nest and Eggs. — The breeding season is during the rains and at times the bird seems to be double-brooded. The nest is well concealed in herbage on the ground on a small island or bund at the edge of a stream or pond, or even in grass some distance from water. It is a compact well-made structure of grasses, rushes, and weeds, lined with the down of the parent bird. The eggs, 8 to 10 (occasionally up to 14) in number, are typical Duck's eggs, pale buffy-drab in colour with a slight gloss when fresh, and average 2·15 by 1·70 inches.

Status and Distribution. — This species is found almost throughout India, Burma, Ceylon, Siam, Cochin China, China, and Eastern Siberia. The status of the different races in Burma is obscure and more specimens and information are badly needed. So far as we know at present the typical race has been recorded from Arakan and the Upper Chindwin (correctly ?); the Eastern race has been recorded from the Myitkyina district and the Southern Shan States; and the Burmese race is the common form, and probably resident more or less throughout Burma, though the only breeding record seems to be from the Southern Shan States. South of Mandalay it is scarce but in Northern and Central Burma it is widely spread, though less common than many of the other resident and migratory

Ducks, and nearly every jheel that contains Duck in quantity will hold a few birds of this species.

THE CRESTED or FALCATED TEAL

Anas falcata (2268).

Identification. — The male in full plumage shows remarkable peculiarities; it has a bushy, silky, mane-like crest, and long sabre-shaped feathers overlying the primaries; tail obscured by the tail-coverts; head bronze and green; throat and fore-neck white with a dark green collar; rest of body appears grey, being finely pencilled with black and white; wings pale grey with a dark green speculum; bill black and feet grey. The female is mottled dark and light brown and closely resembles the female Gadwall, from which it can be distinguished by the black wing-bar, entirely black bill, and 14 instead of 16 tail-feathers. In flight this Duck closely resembles the Common Teal, making the same "swish swish" with its wings, but its loud piercing whistle is distinctive; whilst swimming about it utters a note very like the chuckling of a drake Mallard.

Status and Distribution. — Breeds in Eastern Siberia and migrates in winter to China, Japan and the Indo-Chinese countries, straggling to Burma and India. It has only been recorded from Arakan, North-East Burma and Central Burma, but is probably much overlooked.

THE GADWALL

Anas strepera (2269).

Local Names. — None recorded.

Identification. — PLATE XXX, Fig. 2, Page 480. Length 20 inches. A large rather dull-coloured Duck, at a distance looking fairly uniform grey-brown with black above and below the tail. The speculum is black and white, the white often concealed at rest but showing as a conspicuous bar in flight. The female is mottled dark and light brown with a white belly ; the speculum is like that of the male, but the chestnut patch in front of it is much smaller. The legs and feet are like those of the male, but the bill is orange at the sides. For distinctions from a female Falcated Teal see under that species. In flight the wings look more pointed than a Mallard's and the strokes are rather more rapid, resembling the flight of a Wigeon, and produce a low whistling sound.

Voice. — The note of the female is a *quark*, less loud and coarse than that of the Mallard duck ; the ordinary note of the male has been described as a chuckling croak.

Habits and Food. — The Gadwall is found wherever other Ducks congregate, but in Burma it favours chiefly rivers and those jheels that have plenty of bushes and *kaing* grass round their edges. It is usually seen in flocks of 10-30 individuals, and though not particularly shy it is a fine sporting bird, rising quickly and cleanly from the water. Its habits are typical of the surface-feeders, and it eats all sorts of snails, molluscs, and aquatic insects, and also grazes on young crops and plants.

Status and Distribution. — A Holarctic species, including the British Isles in its breeding range. It is a regular winter visitor to Burma in small numbers and may form about 5 per cent of the bag of Duck on one of the Irrawaddy or Chindwin jheels. It is much

commoner in the north than in the south, and a record from the Ataran river in North Tenasserim is the only one south of Prome.

THE WIGEON

Anas penelope (2270).

Local Names. — None recorded.

Identification. — PLATE XXX, Fig. 1, Page 480. Length 19 inches. The plate shows the adult male, an unmistakable bird but rarely seen in Burma. The female is mottled dark and light brown, and can be distinguished from other surface-feeders by the small short bill, more red in the plumage, and pointed tail. Young males resemble the female, but have the crown and upper-parts duskier, the flanks richer in colour, and the characteristic wing pattern with white shoulders. A broad white patch shows on the fore-wing in flight, and the white bellies of both sexes are also conspicuous ; the flight is rapid but not as swift as that of Teal or Garganey, and the rather long narrow wings are more depressed below the body at the down-stroke than in the case of the Mallard. The birds rise straight off the water and twist and swerve to some extent but not as much as Teal.

Voice. — The call of the male is a distinctive, loud, musical whistle *whee-oo*, uttered with the bill open. The female utters a purring growl.

Habits and Food. — In wet seasons the water overflows the edges of the jheels onto land in which no water weeds grow, and the Wigeon, being a shallow water or bottom feeder, is unable to obtain the right kind of food and therefore tends to be more abundant in dry seasons. A flock generally flies in line formation, the line nearly always irregular and altering much in shape as the birds fly. It makes a peculiar rustling noise in flight, very different from the noise made by other Ducks. It is not by preference a nocturnal feeder, but becomes one if harried on its feeding-grounds, and like Mallard and Pintail it is one of the shier Ducks. It has the usual habits of a surface-feeder, walks with ease and runs well, but is less addicted to "up-ending".

Status and Distribution. — A Northern Palæarctic species, including the British Isles in its breeding range. It is a winter visitor to Burma, arriving in November and leaving again in March. It is not particularly common in Burma, though easily overlooked, and has not been recorded south of Insein.

THE COMMON TEAL

Anas crecca crecca (2271).

Local Names. — None recorded.

Identification. — PLATE XXX, Fig. 3, Page 480. Length 15 inches. Except for the Cotton Teal this is the smallest of our Ducks. At long range the male appears greyish with a dark head, a yellow-buff patch on either side of the black under tail-coverts, and a whitish

PLATE XXX

		See Page No
1.	**WIGEON** (adult male, summer) *Anas penelope*	480
2.	**GADWALL** (adult male, summer) *Anas strepera*	479
3.	**COMMON TEAL** (adult male, summer) *Anas crecca crecca*	480
4.	**PINTAIL** (adult male, summer) *Anas acuta acuta*	482
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6.	**SHOVELLER** (adult male, summer) *Spatula clypeata*	483
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ONE FOOT

300 mm.

1934.

band along the side of the wing. The abdomen is white. The speculum is half metallic green, half black. The female is mottled dark brown and whitish, but has a speculum like the male, only not quite so bright and with no buff ; by it she can be distinguished from the very similar female Garganey Teal, as well as by her narrower bill, which does not show a fringe. The young male resembles the female. In flight the female shows two narrow but distinct white wing-bars and the male shows a very broad and prominent anterior bar but only a very faint posterior one. The birds shoot upwards when flushed, frequently wheeling and twisting in almost wader-like fashion, and the flight is very swift and strong ; they usually fly low.

Voice. — The note of the male is a low far-sounding musical *krit, krit,* that of the female a short sharp *quack* seldom used except when alarmed. It also utters a conversational chuckle on the water.

Habits and Food. — The Teal is one of the most abundant of the wild-fowl that congregate on the lakes and jheels in the cold weather; it is also found in any type of water or marshy ground, and even on the muddy village pond or roadside ditch ; its numbers vary with the accomodation, from single birds and pairs to flocks many hundred strong, though 30 or 40 birds are perhaps the usual number. They associate with other species of Duck on the water and when disturbed often fly off with them. They are typical surface-feeders ; they feed mainly at night, though often by day also, and may be flushed from the thick cover on the edge of a swamp where they are resting in the shade. "The second barrel at Teal" is reputed to be the most difficult shot to bring off consistently at any game-bird, owing to their habit of rising at a very steep angle, and with great rapidity, when fired at.

Status and Distribution. — A Holarctic species, including the British Isles in its breeding range. In the cold weather it is well distributed throughout Burma and though outnumbered by the Garganey Teal it contributes a large share to any bag of Duck.

[Note.—THE BAIKAL TEAL, *Anas formosa (2272),* breeds in Siberia, Japan, and Northern China; it is a very rare visitor to India and has never been recorded from Burma, but is worth looking for, there being two records from as near as Manipur. Length 16 inches. The adult male has green and creamy head markings; the female and young male resemble the Common Teal, but can be distinguished by larger size and by the markings on the wings; the speculum shows first a cinnamon band, then a bronze-green one, then a black, and finally a white one. The voice is also very distinctive, a loud clucking like the syllable *mok* rapidly repeated.]

THE ANDAMAN TEAL

Anas albogulare (2273).

Identification. — Length 17 inches. Sexes almost alike. Distinguished from Common Teal by larger size and very dark plumage, which is almost chocolate in colour; throat, fore-neck and a ring round the eye white; a white patch in front of the speculum, which is velvet-black with a longitudinal bronze-green streak in the middle.

Status and Distribution. — Breeds in the Andamans and Cocos Islands and has once been obtained near Bassein; stragglers are likely to visit the Mergui coast and Archipelago.

THE PINTAIL

Anas acuta acuta (2274).

Local Names. — Burmese: *Be-yit* (ဘဲရစ်)

Identification. — PLATE XXX, Fig. 4, Page 480. Length 22 inches, the long tail-feathers of the adult drake 4 inches extra. A slender graceful Duck with a long neck and slender pointed tail. At long range it looks a mainly grey bird with dark head and neck and a white band extending down the side of the neck to join the white breast. The back of the neck is black. The female is much like the Mallard duck, but the combination of more delicate form, slender neck, and pointed tail (not elongated like the drake's) with a grey as opposed to a dark olive bill readily separate her at a reasonable range. She is perhaps more likely to be confused with the female Gadwall but the absence of white on the wing and of orange on the bill should prevent this. The immature male resembles the female. They rise from the water with some difficulty, but the flight is very swift with quick wing-beats, which produce a low hissing sound; wing-action more like Wigeon than Mallard. Both sexes show a light hinder border to the wing in flight.

Voice. — Usually a silent bird, but the female sometimes uses a low *quack*.

Habits and Food. — The Pintail is found in flocks, seldom totalling less than 20 birds and often several hundred. As by day they keep to fairly open water well in the middle of the jheel, where a light growth of weeds and lilies gives them a measure of concealment without obstructing their view, and as they are shy and suspicious by nature, they are difficult to approach; they swim well, sitting lightly on the water, and with their long necks and pointed tail attain an unmistakable grace and beauty of carriage; they are typical surface-feeders and are sometimes seen feeding on irrigated or flooded land in the early mornings; for they feed mostly at night, flighting from the safety of the waters where they spend the day to secluded creeks and channels.

Status and Distribution. — A Holarctic species, including the British Isles in its breeding range. It is a winter visitor to Burma from October to mid-February, and is probably one of the commonest of the larger migratory Ducks. It is found throughout the country but is commoner in Northern Burma and on the Chindwin than elsewhere, and it has not been recorded south of Moulmein.

THE GARGANEY or BLUE-WINGED TEAL

Anas querquedula (2275).

Local Names. — None recorded.

Identification. — PLATE XXX, Fig. 5, Page 480. Length 16 inches. The outstanding feature of the male in full plumage at any distance is the broad white band extending from eye to nape; the pale blue-grey fore-wing, conspicuous in flight, at once distinguishes it from the Common Teal, even in immature plumage. The speculum is metallic

green, bordered with white in front and behind. The female is mottled dark brown and whitish and closely resembles the female Common Teal, but she has only a very obscure speculum, which at once separates her on the wing; on the water she can only be distinguished at close range, by the pure white instead of speckled brownish throat, whitish spot at base of bill, and more pronounced white eyebrow. The young male has the speculum of the adult but otherwise resembles the female. The flight is rapid but generally without the sudden turns and downward plunges of the Common Teal, and always when Garganey are flying overhead a pattering, whistling swish of wings is heard, intensified almost to a roar as they drop down from a height of perhaps 300 feet to the surface of the water.

Voice. — The note of the female is a *quack* like the female Teal's but is seldom uttered.

Habits and Food. — The Garganey is found in flocks of 50-100 birds and frequents almost any kind of water ; it is partial to wide stretches of jheel that are well covered over their greater extent with weeds and yet have patches of clear water dotted here and there over the surface. In habits they are typical surface-feeders ; they feed mostly at night and during the day keep almost entirely to the more open sheets of water, where they float about in the centre in dense closely packed masses that are very characteristic of Garganey; even in flight they do not straggle much. They feed largely on vegetable matter, rice being a favourite article of diet.

Status and Distribution. — A Palæarctic species, including the British Isles in its breeding range. It is distributed throughout Burma from mid-September to early April, and is the most numerous of the migratory Ducks that visit Burma and also one of the earliest to arrive; in a bag of Duck shot on any of the big jheels in Central Burma it nearly always outnumbers any other species. At Maymyo during October and November parties of Garganey regularly arrive daily on the open waters of the lake at about 8 a.m., spend the day there, and depart again about an hour before dusk in the direction of Mandalay. In Yunnan it has been recorded as high as 5,500 feet.

THE SHOVELLER

Spatula clypeata (2276).

Local Names. — None recorded.

Identification. — PLATE XXX, Fig. 6, Page 480. Length 20 inches. The outstanding character on the water or in flight is the enormous spatulate bill. Adult drakes are changing from eclipse to full plumage in November and December. The female is mottled dark and light brown, with a general tawny hue ; the wing has a grey or grey-brown shoulder and the speculum is a duller green than the male's. The immature male has the brilliant wing colouring of the adult but otherwise resembles a dark and red version of the female. It is active in flight with rapid wing-beats but the flight is less swift than a Mallard's. It rises almost as abruptly as a Teal with a loud rattle of wings and will twist and take " headers " like that species, though it

is by no means so agile. The flight is like that of Wigeon and Gadwall, and the noise made by the wings is said to be distinctive.

Voice. — Rather a silent bird. The flight call of the male is a low guttural *took, took;* the female at times uses a creaking *quack.*

Habits and Food. — The Shoveller is found singly or in pairs or in small parties, and is never so abundant as the other Ducks that collect in large flocks. The bill is developed for sieving mud and muddy water for minute living organisms and aquatic seeds, and for this reason it is found in the shallows round the margins of the more dirty jheels and may even be seen on some filthy village pond, feeding quite tamely on all sorts of garbage. It is easily approached when on the water and rises heavily and awkwardly, taking some time to get under way. It is a poor swimmer and diver.

Status and Distribution. — A Holarctic species, including the British Isles in its breeding range. It is a winter visitor to Burma, arriving at the end of October and leaving in early March ; during the cold weather it is widely distributed throughout the country as far south as Moulmein, but it is not one of the commoner Ducks, and like many other species it is rare south of Mandalay.

[Note: —THE MARBLED TEAL, *Marmaronetta angustirostris (2277),* has not been recorded from Burma but it extends from the Mediterranean countries eastwards to North-west India and straggles as far as Assam, and is worth looking for. It is remarkable for the curiously mottled grey and brown plumage of both sexes, and for the absence of a speculum. There is a thick but rather short crest.]

Sub-family AYTHYINÆ.

DIVING DUCKS

The broadly lobed hind toe separates this sub-family from all the preceding ones. The diving Ducks are typically shorter-bodied, more stocky birds than the surface-feeders, with the legs set far back ; this causes them to walk clumsily with an upright carriage, and except for breeding purposes they do not come much to land. As a rule they like open water unobstructed by surface weeds and water plants, except round the edges. They swim surprisingly fast and to escape from a pursuing boat they often prefer swimming to flight. With the exception of the Goldeneye they rise from the water with more or less effort, pattering along the surface before getting under way, and they alight more awkwardly. The wings are broad and tend to narrow more abruptly to a point than in surface-feeders, and in flight the wing-action is more rapid, the thicker neck often more noticeable, and the feet stick out beyond the tail. The eclipse tends to be less marked and there is not generally a distinct speculum, though white patches and bars on the wings are frequent. They habitually dive for their food and "up-end" only rarely or not at all.

THE RED-CRESTED POCHARD

Netta rufina (2278).

Local Names. — None recorded.

Identification. — Length 22 inches. The adult male is distinctive, with a rich chestnut head, and a soft bushy crest of yellow-buff that

makes the head look large. The bill is crimson. Neck, breast, upper tail-coverts and under-parts glossy black ; back mouse-brown with a white mark across the shoulders; flanks white; a broad white wing-patch, extending nearly the whole length of the expanded wing ; bill crimson; feet orange-red with black webs. The female is the only more or less uniform brown duck with a pale cheek; the wings are coloured as in the male with a similar but duller white patch ; bill black, reddish towards the tip; legs dull yellow. The immature male resembles the female, but is darker with some indications of a crest. Like other diving Ducks it rises with some difficulty, pattering along the surface for some yards and not springing cleanly from the water like the surface-feeders; once under way the flight is strong and swift with rapidly moving wings producing a whistling sound.

Voice. — The note of the female, seldom uttered, is a hoarse grating *kur-r-r*. Other notes recorded are a deep *kwoi* and a sharp whistle.

Habits and Food. — The Red-crested Pochard keeps mainly to open water and is usually considered shy and wary ; it is most often seen in flocks, and only when the country is not well suited to their needs do they split up into pairs and small parties. It is able to dive deep and remain under water for half a minute, but it often feeds in the shallows by merely reaching down with the neck or "up-ending" like the surface-feeders. It feeds both by day and by night, but mainly in the early morning and evening ; the food consists of the aquatic plants that trail several feet under the surface in fairly deep water; but it is also known to feed on young crops on dry land, where it is more at home than the other diving Ducks, and walks with greater ease and less of a roll.

Status and Distribution. — A Southern Palæarctic species and a rare vagrant to the British Isles. It reaches Burma in the latter part of October and leaves again in March ; so far it has only been recorded from Northern and Central Burma and the Southern Shan States but is probably a regular visitor in small numbers. It has once been seen on the Maymyo lake.

THE COMMON POCHARD

Aythya ferina ferina (2279).

Local Names. — None recorded.

Identification. — Length 18 inches. A squat heavily-built Duck. The male has conspicuously tri-coloured plumage, the head being rich chestnut, the breast, rump and stern black, and the body pale clear grey, whiter below, this colour being produced by a fine pencilling of black on a white ground. Eye bright red. The female is dull brown with a hoary whitish appearance about the base of the bill, cheeks and throat, a dark grey body, the pencilling less marked on a darker ground, and replaced by dark and light mottling below; the tail-coverts are not black. Eye brown. Immature males are much like females. In flight the absence of any white on the wing distinguishes it from the White-eyed Pochard and the Tufted Duck. When rising from the water the Common Pochard is slow and awkward, but once on the

wing it is a straight and strong flier with quick beats of the short wings, which make a peculiar rustling sound. The flocks travel in a mass and not in formation, and mount high into the air. They sometimes perform very abrupt headlong descents down to water.

Voice. — The note is a harsh croak *kurr-kurr*.

Habits and Food. — Like the other diving Ducks the Common Pochard is met with in flocks on the larger jheels, where it keeps out in the open water free from surface vegetation. It spends much of the day resting in a typical attitude with the body low and very much down by the stern, and the head and neck drawn in on the body. The mode of diving varies, probably with the depth of the water, and is at times a distinct jump and at other times more of a gentle submergence. It usually stays under water about half a minute. It prefers shallow water as a rule, about 3 feet in depth, and will occasionally "up-end" like a surface-feeder. It feeds mainly at night and where liable to disturbance it will flight in the evening to smaller waters, returning at dawn. It is not much at home on land, though for short distances it walks comparatively well for a diving Duck.

Status and Distribution. — A Palæarctic species, including the British Isles in its breeding range. It is a rare though probably regular winter visitor to Northern Burma, Central Burma, and the Shan States.

THE WHITE-EYED POCHARD or FERRUGINOUS DUCK

Aythya nyroca nyroca (2280).

Allied Form.—

THE EASTERN WHITE-EYED POCHARD or BAER'S DUCK
A. n. bæri (2281).

Local Names. — None recorded.

Identification. — PLATE XXX, Fig. 8, Page 480. Length 16 inches. The white eye of the male contrasting with the reddish-brown head is distinctive. The female is much duller and darker in colour, has not the white belly so clearly defined from the breast, and has grey eyes, but is otherwise similar. The adult male of the Eastern race has the head and neck black glossed with green and is easily recognised, but females and young males are difficult to distinguish from the typical race in the field ; they have some blackish on the sides of the head and neck, and the female is easily separated by wing measurement (193-215 mm. as against 176-185 mm.). On the water the conspicuous white under tail-coverts distinguish both sexes from the female Tufted Duck. The white wing-mark is often hidden on the swimming bird, but in flight or when the wings are flapped this mark shows as a broad roughly crescentic white band on the flight-feathers and is very conspicuous.

Voice. — The harsh call resembles that of the Common Pochard and is expressed by the syllables *kek-kek-kek-* on *koor-kirr-kirr*.

Habits and Food. — The White-eye may be found in any type of water, fresh or salt, either in the hills or plains or along the sea coast;

by preference however it is a bird of the more secluded and weedy jheels, where the shores are overgrown with herbage and occasional patches of open water are surrounded by water-lilies and rushes ; in such places it is abundant in small flocks but the individuals scatter amongst the cover to rest and rise only two or three at a time. Although retiring in habits it is neither shy nor difficult to approach, and in fact is rather a stupid bird for a Duck. It is an expert swimmer and diver, and to escape from danger it often prefers diving to flight; for this reason a bird dropped wounded into the weedy water that it frequents is seldom brought to bag. It prefers shallow water 3-4 feet deep for feeding purposes, though it will occasionally "upend" or merely reach down for food in the shallows. The food is very varied, consisting of vegetable matter and aquatic seeds, of insects and their larvae, small fish and especially molluscs.

Status and Distribution. — A Southern Palæarctic species, and a rare vagrant to the British Isles. The typical race is a common winter visitor to Arakan and Northern Burma; the Eastern race appears to be more irregular but has been recorded from Arakan, the Upper Chindwin, Bhamo, Central Burma, Southern Burma, and the Northern Shan States.

THE SCAUP DUCK

Aythya marila marila (2282).

Identification. — Length 19 inches. The adult male has a deep black-green head, black breast, rump and stern; back coarsely pencilled black and white; flanks and belly white. The broad white band round the base of the bill distinguishes the dark brown female and is always broader and more sharply defined than in female or immature Tufted Duck; general colour pattern as in male, with the black replaced by brown. The immature male is similar to the female, with less white on the bill and isolated immature birds, whether male or female, are very difficult to separate from Tufted Duck. Almost silent in winter but the female has a deep harsh *karr-karr-karr*. Flight and gait as in Common Pochard. The Scaup can feed in deeper water than most diving Ducks, 4-18 feet being the normal depth.

Status and Distribution. — A Northern Holarctic species; it has bred in the British Isles. It is a rare winter visitor to India, and the only Burma record is of one shot on the Katcho jheel, Myitkyina district, on the 10th November, 1935.

THE TUFTED DUCK

Aythya fuligula fuligula (2283).

Local Names. — None recorded.

Identification. — PLATE XXX, Fig. 7, Page 480. Length 17 inches. The crest hanging from the nape is not always obvious at a distance unless blown clear of the head by the wind. In flight both sexes show a broad white wing-bar, and the general appearance is black with a white belly. The female and young male are very dark brown, the former showing some whitish on the sides above the water-line in winter, and there is usually a little whitish at the base of the bill. The crest is much shorter than in the adult drake but usually perceptible, and helps to distinguish them from immature Scaup. Eye yellow, richer and more golden in old drakes. Flight and gait very much as in Common Pochard. It rises with less splash-

ing and noise than most of the other diving Ducks and once on the wing it flies at a great pace, nearly equalling the Pintail and excelling most other Ducks.

Voice. — The note of the female is the usual harsh growling *kur-r-r, kur-r-r* common to the females of most diving Ducks.

Habits and Food. — Similar to those of the Common Pochard. This Duck is essentially one that requires open water, and prefers wide expanses with a considerable depth in the centre, though more or less overgrown with weeds and rushes round the shore. Flocks break up into pairs and small parties, which scatter over the jheel. They are shy and wily birds, and the best time to make a bag of them is in the early dawn when they are changing their feeding-grounds; in the mist that shrouds the jheel in the cold weather mornings they will be flying all round the shooter's head and pitching near his stand if he is well placed. Its diet is almost entirely animal, consisting of aquatic insects and molluscs of all kinds, and for this reason the flesh is rather rank and less suited for the table than that of the vegetarian Ducks.

Status and Distribution. — A Palæarctic species, including the British Isles in its breeding range. It is a winter visitor to Burma, arriving in October, and is common in Northern and Central Burma, rare in Southern Burma, and has also been recorded from the Shan States. Apart from the various species of Teal it is the Duck most commonly seen during the course of a day's shoot on the Irrawaddy or Chindwin. A party sometimes winters on the Maymyo lake.

THE GOLDENEYE

Bucephala clangula clangula (2284).

Identification. — Length 18 inches, the female considerably smaller. The male is mostly white, with dark glossy green head and a white patch at base of bill; back edge of wing and primaries black; wing-coverts white with black edges; tail black. Bill black, eye yellow, feet orange with black webs. The female is a chocolate-headed mottled grey bird with the wing-patch showing as a white mark on the side; under-parts white except for some grey on the upper breast; no white on face; bill yellowish at tip. Young males are browner with under-parts mottled. The neck looks very short in flight, and the short bill and peaked crown give a triangular outline to the head; the wings appear black with a conspicuous broad white patch on the basal half extending nearly to the front edge of the wing. Generally a silent bird, though the female has a loud hoarse note like other diving Ducks.

It rises more easily and directly from the water than other diving Ducks, and the wing-beats are especially rapid, producing a characteristic loud "singing" or "ringing" sound. It is a restless bird and spends much time on the wing. When swimming actively the head is advanced in a characteristic way, but the ordinary position is low on the water with the head well sunk. It seldom comes to land, is usually seen in small parties or singly, and rarely associates with other water-fowl. In India it seems to frequent chiefly swiftly running clear-water rivers and streams.

Status and Distribution. — A Holarctic species, and a visitor to the British Isles. It is a rare winter visitor to India and has only once been obtained in Burma, at Myingyan (Central Burma) in 1900.

[Note: — THE LONG-TAILED DUCK, *Clangula hyemalis* (Not in F.B.I.), is a Northern Holarctic species, which has not been recorded from Burma

but there are 4 recent records from India including 1 from Assam. Length 17 inches, long central tail-feathers of the male 5 inches extra. The mainly white head, white flanks and belly of adults of both sexes, with the drake's bold pattern of dark brown and white and his long pointed tail are distinctive; rather small delicate head, short bill and steep forehead are equally characteristic. Both sexes have the wing uniform blackish without bars. The call of the male is a loud resonant polysyllabic note, difficult to convey in words.]

Sub-family MERGINÆ.

SAW-BILLS

These also are diving Ducks, but a very distinct group recognised by their slender tapering bills and the more or less distinct crested or mane-like development of the feathers at the back of the head; they resemble the members of the previous sub-family in having a broad lobe on the hind toe. The outline in flight is characteristic, with the head and slender neck held stiffly in a straight line with the body, giving an elongated appearance in contrast to other Ducks, which fly with the head bent slightly downwards. They dive for their food and are primarily fish-eaters. They are more graceful, lively birds than the typical diving Ducks, come to land more, and walk better.

THE SMEW

Mergus albellus (2286).

Identification. — Length 16 inches, female smaller. A much smaller and shorter-billed bird than other saw-bills. The adult drake attracts attention by mainly pure white plumage with black patch on face and black band from behind eye to nape. In flight he shows much more black, the wings being black with a prominent white patch on the coverts, giving a pied appearance. Female and young are quite as characteristic with pure white throat and cheeks contrasting with rufous of rest of head; back, breast and flanks grey; belly white. In flight the white wing-patch is smaller and less sharply defined than in male but still quite conspicuous. Flight rapid and noiseless with very quick wing-beats. If startled it leaps from the water with almost the agility of a Teal. Parties fly in oblique lines or V formation. On land it walks and even runs with ease for short distances, but with markedly upright carriage. A silent bird.

In India it always seems to be found in small flocks on quickly-running freshwater streams, especially where they leave the foothills to enter the plains. It is an expert diver, submerging with almost startling rapidity, though it stays under for a shorter time than the diving Ducks, 15 seconds being about the maximum. It feeds mainly on fish and is generally shy, taking wing very readily.

Status and Distribution. — A Northern Palæarctic species, and a scarce winter visitor to the British Isles. It is a rare visitor to Burma, having been shot once in the Upper Chindwin and seen once near Fort Hertz (Myitkyina district).

THE GOOSANDER

Mergus merganser (2288).

Local Names. — None recorded.

Identification. — Length 26 inches, female smaller. The male is mostly white with a bottle-green head and upper neck, appearing black in the distance; back black; breast and sides white suffused with

pink; rump and tail grey; bill and legs blood-red; no distinct crest. In flight the black and white appearance is striking. The female has the back and flanks ashy-grey; head rich chestnut; a sharply defined white patch on the throat; breast and under-parts white; there is a mane-like crest coming to a peak at the back of the lower neck; a white wing-patch, often concealed by the flank feathers, is prominent in the spread wing. Bill and legs dull red. The immature male more or less resembles the female. It flies close to the water and on rivers often follows every bend of the stream, though at times it will rise high. The sound of the wings is described as a humming whistle. It rises with some difficulty, splashing and flapping along the surface before getting clear.

Voice. — The female has a hoarse guttural *kar-r-r.*

Habits and Food. — The Goosander is a bird of the larger streams and rivers, avoiding those with sluggish dirty water and muddy bottoms. A strong current and rough water do not seem to worry it, and it has been seen even in strong rapids though it usually frequents deep still pools or backwaters; jheels free of vegetation are occasionally visited. In Burma it is nearly always seen in small parties, in which the males outnumber the females by five or six to one, or which sometimes consist almost entirely of adult males. It swims well and is a very skilful diver, moving at a great pace under water; when swimming undisturbed it floats with a third to a half of the body exposed, but when alarmed it submerges till the back is almost awash. On land it walks more readily than the diving Ducks. The diet is almost entirely animal, and the consequent fishy and rank taste makes it an unsuitable bird for the table.

Status and Distributon. — A Holarctic species, including the British Isles in its breeding range. It is a winter visitor to North-East Burma from October to March, and so far has only been recorded from the Myitkyina district, where it is common on the Irrawaddy and its major tributaries. It is likely to occur on the Upper Chindwin. It is doubtful whether the Eastern race, *M. m. orientalis (2288)*, is separable from the typical race, *M. m. merganser (2287)*, so that the race to which Burmese birds should be assigned must be regarded as uncertain for the present.

[Note: — THE RED-BREASTED MERGANSER, *Mergus serrator (2289)*, has not been recorded from Burma, but it occurs in China and a specimen was obtained in the Calcutta bazaar in 1889; it may straggle into Burma occasionally. Length 23 inches. Resembles the Goosander but is a smaller, slimmer-necked bird; the male in adult plumage is at once distinguished by the chestnut breast, noticeable as a dark band even when too far off to see; colours, much less white in the plumage, and a noticeable crest. The female is less distinct but at reasonable range is recognised by brownish-grey instead of clear blue-grey back, and by dingy white throat-patch merging into the crown, which itself shades off gradually at the neck, whereas in the Goosander the chestnut of the head is sharply demarcated at the neck. Crest, though smaller than in the drake, stands out quite prominently instead of hanging down the back of the neck in more mane-like fashion as in the Goosander. Habits, etc., much like those of the Goosander, though it is normally more a bird of the sea coast.]

Order XII PYGOPODES.

Family PODICEPIDÆ

GREBES

This family is distributed over Europe, Asia and America. The Grebes are specially adapted for an aquatic life and are adept at diving; the young are hatched covered with down and able to swim at once. The sexes are alike.

THE GREAT CRESTED GREBE

Podiceps cristatus cristatus (2290).

Local Names. — None recorded.

Identification. — PLATE XXX, Fig. 9, Page 480. Length 18 inches. The plate shows the breeding plumage. A long-necked bird at once distinguished by the ear-tufts and ruff, and by the very small wings; under-parts pure silky white, with some white on the wings. In winter the colours are duller and the ear-tufts and ruff are incompletely developed, the ruff being merely indicated by rufous and blackish shading on the sides of the head. First-winter birds have inconspicuous ear-tufts and the sides of the head pure white or merely tinged dusky. It has a rather humpbacked appearance in flight, with the feet extended behind; the wing-beats are rapid, giving a laboured effect, but the flight is direct and strong when necessary, as when migrating or moving from one piece of water to another.

Voice. — The note is a harsh *krek-krek*. Many and varied breeding-notes have been described.

Habits and Food. — The Great Crested Grebe prefers wide stretches of water in jheels and rivers, and keeps to open water, where it spends its time diving for fish. When rising it patters over the water for some distance before getting clear, but when approached it is disinclined to take wing and prefers to dive and retreat to open water at a safe distance. It swims with the body low in the water and the slender neck erect, but when at rest the head is sunk on the shoulders and the bill is often buried in the feathers at one side of the neck.

At diving it is even more expert than the diving Ducks, swimming further under water and staying down longer. On the rare occasions that it resorts to dry land it pushes itself along on its breast, the legs being placed so far back that it is unable to walk in the normal way. In addition to fish it eats frogs, water insects, and molluscs, and also swallows a number of its own feathers, possibly as an aid to digestion.

Status and Distribution. — A Palæarctic and Australasian species, including the British Isles in its breeding range and extending to Northern Africa. It breeds in Tibet and Kashmir and even Assam, but to Burma it is only a winter visitor in small numbers; it has been recorded from North-East Burma, Central Burma (including the Maymyo lake), and the Southern Shan States. It is common on the big jheels above Mandalay in the cold weather, 40-50 birds having been counted on one jheel at Christmas time. Signs of breeding in Burma should be watched for.

THE INDIAN LITTLE GREBE or DABCHICK

Podiceps ruficollis capensis (2292).

Local Names. — Burmese: *Ye-wun-be* (ရေဝန်းဘဲ), *Ta-si-hmoke* (တစ်းမုတ်)

Identification. — PLATE XXX, Fig. 10, Page 480. Length 9 inches. The smallest of the true water-birds of Burma, swimming low in the water and disappearing under it at the least provocation. In breeding plumage there is a bright yellow patch in front of the eye, which contrasts with the chestnut head and is very noticeable; breast, flanks and under tail-coverts dark brown mixed with white; abdomen silky white; bill black with a white tip, compressed and sharply pointed. In winter plumage the crown and hind-neck are brown, the chin white, and the chestnut of the neck is replaced by rusty-red. It rises from the water with some difficulty owing to the comparatively small size of its wings, but once in the air it travels fast. On settling it strikes the water with the breast, which is well cushioned with fat and feathers, instead of thrusting its feet forward as a brake after the fashion of Ducks and Geese.

Voice. — It has a curious tittering note, a shrill rippling whinny audible for some distance, and the alarm-note is a sharp *tuit, tuit.*

Habits and Food. — The Little Grebe is found on lakes and the deeper jheels, and except when travelling it spends its whole life in the water swimming like a Cormorant very low in the beam and ready to dive at the least sign of danger; if alarmed it may remain in the shelter of vegetation for some time with only the head showing above the surface of the water. It is clumsy and slow in its gait and is rarely seen on dry land. Much of its food in the way of small fish is captured under water, for it dives well and can swim far when submerged, though it also feeds on the surface on vegetable matter, small molluscs and water-insects. The wing-feathers in autumn are shed simultaneously as in the Ducks, so that for a short period the bird is unable to fly.

Nest and Eggs. — The breeding season is during the rains. The nest is a mass of water-weed, based on a tuft of grass or aquatic plants but more or less floating in the water as a rule. The eggs, 3 to 7 in number, are moderately long ovals in shape, fairly close and chalky in texture with little or no gloss, and unmarked white when fresh, but rapidly become discoloured to a dark earthy-brown. Before leaving the nest the parent bird covers the eggs with a bunch of weeds,

and the combined heat of the sun and of the decaying vegetation is largely responsible for the incubation. The young leave the nest as soon as hatched and swim instinctively, keeping up all the time a low monotonous chirrup, and they are remarkable for their striped coloration.

Status and Distribution. — The Little Grebe has a very wide distribution in Europe, Asia, Africa, and Australia, and is a common resident in the British Isles. It is resident throughout Burma in suitable localities.

A

SYSTEMATIC HAND LIST

OF THE

BIRDS OF BURMA

Reference: —

"F. B. I. No." refers to the bird's number in the Fauna of British India — Birds — Second Edition.

Under "Distribution": —

Column numbers correspond with the Distribution Area numbers shown on the Map at the end of this book.

"R" denotes that the bird is a resident.
"M" denotes that the bird is a migrant.
"U" denotes uncertainty as to whether the bird is a resident or migrant.

Where the letters "R" "M" or "U" occur in italics they denote that the bird has only been recorded from that part of the Distribution Area noted in the Remarks column.

F. B. I. No.	Scientific Name	English Name
	Order I PASSERIFORMES	
	Family CORVIDÆ	
(8)	**Corvus** macrorhynchus macrorhynchus	*Jungle Crow*
(13)	„ splendens insolens	*Burmese House* „
(17)	**Pica** pica sericea	*Chinese Magpie*
(19)	**Urocissa** erythrorhyncha erythrorhyncha	*Chinese Red-billed Blue* „
(21)	„ „ magnirostris	*Burmese* „ „ „
(22)	„ flavirostris subsp.	*Yellow-billed* „ „
(24)	**Cissa** chinensis chinensis	*Green* „
(28)	**Dendrocitta** vagabunda sclateri	*Chin Hills Treepie*
(29)	„ „ kinneari	*Burmese* „
(30)	„ „ saturatior	*Tenasserim* „
(32)	„ formosæ himalayensis	*Himalayan* „
(33)	„ „ assimilis	*Burmese Hill* „
(34)	„ frontalis	*Black-browed* „
(36)	**Crypsirhina** temia subsp.	*Black Racket-tailed Magpie*
(37)	„ cucullata	*Hooded* „ „
(38)	**Glenargus** leucopterus	*White-winged Jay*
(40)	**Garrulus** leucotis leucotis	*Burmese* „
(41)	„ „ oatesi	*Sharpe's* „
(45)	„ bispecularis haringtoni	*Rippon's* „
(45a)	„ „ sinensis	*Chinese* „
(46a)	**Nucifraga** caryocatactes yunnanensis	*Yunnan Nutcracker*
	Family PARIDÆ	
(51)	**Parus** major nipalensis	*Indian Great Tit*
(57)	„ „ commixtus	*Burmese* „ „
(59a)	„ monticolus yunnanensis	*Yunnan Green-backed* „
(62a)	„ palustris hypermelas	*Chin Hills Marsh* „
(64)	„ ater æmodius	*Himalayan Coal* „
(67)	„ rufonuchalis beavani	*Sikkim Black* „
(72)	**Sylviparus** modestus saturatior	*Chinese Yellow-browed* „
(73)	**Machlolophus** spilonotus spilonotus	*Northern Black-spotted Yellow* „
(74)	„ „ **subviridis**	*Burmese* „ „ „
(78)	**Ægithaliscus** concinnus manipurensis	*Hume's Red-headed* „
(79)	„ „ pulchellus	*Shan* „ „
(80)	„ „ concinnus	*Chinese* „ „
(81)	„ bonvaloti bonvaloti	*Chinese Black-headed* „
(82)	„ „ sharpei	*Mt. Victoria* „ „
(87)	**Melanochlora** sultanea sultanea	*Indian Sultan* „
(88)	„ „ flavocristata	*Malay* „ „

Reference:—

In the Remarks column:—
"C" denotes that the bird is common.
"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION												ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma				Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
					Arakan Yomas	Pegu Yomas	Plains	Karen Hills							
1	2	3	4	5	6				7	8	9	10			
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 6000′	C	(8)
R	R	R	R	R	R	R	R	R	R	R	R	R	„ „ 5000′	C	(13)
..	..	..	R	R	..	..	..	..	R	R	..	..	Above 2500′	Mogok hills	(17)
..	..	..	R		..	..	..	..	R	R	..	..	„ „	Extreme east	(19)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 6000′	C	(21)
..	R	..	R	..	..	..	..	..	..	..	..	..	Above „	.. ..	(22)
R	R	R	R	..	R	R	..	R	R	R	R	R	Up to „	L	(24)
R	R	R	R	..	R	..	..	..	..	..	..	..	„ „ „	Races and distribution uncertain	(28) (29) (30)
..	..	..	R	R	R	R	R	R	R	R	R	R	„ „ „		
..	..	..	..	..	..	..	..	..	..	..	..	R	..		
..	R	R	R	R	..	..	..	..	R	R	..	..	Up to 6000′	Races and distribution uncertain	(32) (33)
R	..	..	..	..	R	..	..	..	..	R	R	R	„ „ „		
..	..	..	R	..	..	..	..	..	..	..	..	..	„ „ 3500′	.. ..	(34)
..	..	..	..	..	..	R	R	R	..	..	R	R	Below 3000′	L	(36)
..	..	..	..	R	..	U	U	..	..	..	..	..	„ „	C in Dry Zone	(37)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	South from Tavoy	(38)
..	..	..	R	R	..	R	..	..	R	R	R	R	Up to 5000′	L	(40)
..	R	R	..	..	..	..	..	..	..	..	..	..	..	.. ..	(41)
..	R	..	..	..	..	..	..	..	..	..	..	..	Above 3000′	.. ..	(45)
..	..	..	R	..	..	..	..	..	..	..	..	..	..	Adung valley	(45a)
..	..	..	R	..	..	..	..	..	..	..	..	..	..	„ „	(46a)
R	R	R	R	R	R	..	R	..	..	..	..	..	Below 3000′	L	(51)
..	..	..	R	..	..	..	..	..	R	R	R	R	Up to 6000′	L	(57)
..	R	..	R	..	..	..	..	..	..	..	..	..	„ „ 8000′	.. ..	(59a)
..	R	..	..	..	..	..	..	..	..	..	..	..	..	Mt. Victoria	(62a)
..	..	..	R	..	..	..	..	..	..	..	..	..	..	Adung valley	(64)
..	..	..	R	..	..	..	..	..	..	..	..	..	..	„ „	(67)
..	R	..	R	..	..	..	..	..	..	..	..	..	Above 6000′	.. ..	(72)
..	R	..	R	..	..	..	..	..	R	..	..	..	„ 4500′	.. ..	(73)
..	..	..	..	..	..	..	..	R	..	R	R	R	„ 3000′	North	(74)
..	R	..	..	..	..	..	..	..	..	..	..	..	..	Mt. Victoria	(78)
..	..	..	..	..	..	..	..	..	..	R	R	..	Above 3000′	.. ..	(79)
..	..	..	R	..	..	..	..	..	..	..	..	..	„ 5000′	.. ..	(80)
..	..	..	R	..	..	..	..	..	..	..	..	..	6000′	Adung valley	(81)
..	R	..	..	..	..	..	..	..	..	..	..	..	Above 5000′	Mt. Victoria	(82)
R	..	..	R	R	R	R	..	R	R	R	R	..	Up to 6000′	L	(87)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(88)
1	2	3	4	5	6				7	8	9	10			

Reference: —

"F. B. I. No." refers to the bird's number in the Fauna of British India — Birds — Second Edition.

Under "Distribution": —

Column numbers correspond with the Distribution Area numbers shown on the Map at the end of this book.

"R" denotes that the bird is a resident.
"M" denotes that the bird is a migrant.
"U" denotes uncertainty as to whether the bird is a resident or migrant.

Where the letters "R" "M" or "U" occur in italics they denote that the bird has only been recorded from that part of the Distribution Area noted in the Remarks column.

F. B. I. No.	Scientific Name	English Name
	Order I PASSERIFORMES — (Contd.)	
	Family PARADOXORNITHIDÆ	
(89)	**Conostoma** æmodium	*Great Parrotbill*
(91)	**Paradoxornis** guttaticollis	*Austen's* „
(92)	**Suthora** unicolor canaster	*Brown Suthora*
(94)	„ poliotis poliotis	*Blyth's* „
(96)	„ „ feæ	*Salvadori's* „
(97)	„ „ ripponi	*Rippon's* „
(98)	„ gularis craddocki	*Bingham's* „
(99)	„ brunnea brunnea	*Anderson's* „
(100)	„ fulvifrons fulvifrons	*Fulvous-fronted* „
(102)	„ ruficeps atrosuperciliaris	*Black-browed* „
(103)	**Neosuthora** davidiana thompsoni	*Thompson's* „
(105)	**Psittiparus** ruficeps bakeri	*Baker's Red-headed Parrotbill*
(106)	„ gularis gularis	*Grey-headed* „
	Family SITTIDÆ	
(108)	**Sitta** himalayensis	*White-tailed Nuthatch*
(109)	„ victoriæ	*Chin Hills* „
(111)	„ castanea cinnamoventris	*Cinnamon-bellied* „
(112)	„ „ neglecta	*Burmese* „
(113)	„ europæa nagænsis	*Austen's* „
(113a)	„ „ nebulosa	*Yunnan* „
(113b)	„ „ delacouri	*Kengtung* „
(115)	„ magna	*Giant* „
(118)	„ formosa	*Beautiful* „
(119)	„ frontalis corallina	*Velvet-fronted* „
	Family TIMALIIDÆ	
	Sub-family TIMALIINÆ	
(120)	**Dryonastes** ruficollis	*Rufous-necked Laughing-Thrush*
(121)	„ nuchalis	*Ogle's* „ „
(122)	„ chinensis propinquus	*Black-throated* „ „
(125)	„ cærulatus kaurensis	*Kachin Hills* „ „
(126)	„ sannio	*White-browed* „ „
(127)	„ galbanus	*Austen's* „ „
(128)	**Garrulax** leucolophus hardwickii	*Himalayan White-crested* „ „
(129)	„ „ belangeri	*Burmese* „ „ „
(130)	„ „ diardi	*Siamese* „ „ „

Reference:—

In the Remarks column:—
"C" denotes that the bird is common.
"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION													ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
					Southern Burma										
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Arakan Yomas	Pegu Yomas	Plains	Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
..	..	..	R	..	..	..	..	..	..	..	..	..	..	.. ..	(89)
..	R	..	R	..	..	..	..	..	R	R	R	..	Above 3000'	.. ..	(91)
..	..	..	*R*	..	..	..	..	..	..	..	..	..	7000'	Lungrebum	(92)
..	..	..	R	..	..	..	..	..	..	..	..	..	2000'-7000'	.. ..	(94)
..	..	..	..	..	..	..	..	R	..	..	R	..	..	.. ..	(96)
..	R	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	(97)
..	..	..	..	..	..	..	..	..	..	*R*	..	..	..	Kengtung	(98)
..	..	..	R	*R*	..	..	..	..	R	..	..	..	Above 5000'	Mogok hills	(99)
..	..	..	R	..	..	..	..	..	..	..	..	..	..	.. ..	(100)
..	..	..	R	..	..	..	..	R	..	..	..	..	Up to 7000'	.. ..	(102)
..	..	..	..	..	..	..	..	..	..	R	..	..	Above 2000'	.. ..	(103)
R	..	R	R	..	..	..	..	..	..	..	R	R	2000'-5000'	L C	(105)
..	R	..	R	..	..	..	..	..	..	R	R	..	"	.. ..	(106)
..	R	..	R	..	..	..	..	..	..	R	..	..	Above 5000'	.. ..	(108)
..	*R*	..	..	..	..	..	..	..	..	..	..	..	" "	Mt. Victoria	(109)
..	R	..	R	..	..	..	..	..	..	..	..	..	" 3000'	.. ..	(111)
..	..	..	..	R	R	R	R	R	R	R	R	R	Up to 5000'	.. ..	(112)
..	R	..	..	..	..	..	..	..	..	..	..	..	Above "	.. ..	(113)
..	..	..	R	..	..	..	..	..	..	R	..	..	" "	.. ..	(113a)
..	..	..	..	..	..	..	..	..	..	*R*	..	..	" "	Kengtung	(113b)
..	..	..	..	..	..	..	..	..	R	R	R	..	" 4000'	L	(115)
..	..	..	R	..	R	..	..	..	..	*R*	..	..	" "	Kengtung	(118)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 6000'	C	(119)
..	..	R	R	..	..	..	..	..	..	..	..	..	Below 3000'	C	(120)
..	..	R	R	..	..	..	..	..	..	..	..	..	" "	L	(121)
..	..	..	..	U	..	..	U	R	R	R	R	R	" "	L	(122)
..	..	..	R	..	..	..	..	..	..	..	..	..	Above 5000'	.. ..	(125)
..	..	..	R	*R*	..	..	..	..	R	R	..	..	2000'-5500'	Mogok hills & Maymyo	(126)
..	R	..	..	..	..	..	..	..	..	..	..	..	" "	.. ..	(127)
R	R	R	R	..	R	..	..	..	R	..	..	..	Up to 4500'	.. ..	(128)
..	..	..	..	R	..	R	R	R	R	R	R	R	Below 3000'	.. ..	(129)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	" "	South	(130)
1	2	3	4	5	6				7	8	9	10			

Reference: —

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Under "Distribution": —

Column numbers correspond with the Distribution Area numbers shown on the Map at the end of this book.

"R" denotes that the bird is a resident.
"M" denotes that the bird is a migrant.
"U" denotes uncertainty as to whether the bird is a resident or migrant.

Where the letters "R" "M" or "U" occur in italics they denote that the bird has only been recorded from that part of the Distribution Area noted in the Remarks column.

F. B. I. No.	Scientific Name	English Name		
	Order I PASSERIFORMES — (Contd.)			
	Family TIMALIIDÆ — (*Contd.*)			
	Sub-family TIMALIINÆ — (Contd.)			
(132)	**Garrulax** pectoralis pectoralis	*Indian Black-gorgeted*	*Laughing-Thrush*	
(133)	„ „ meridionalis	*Burmese* „	„	„
(134)	„ moniliger moniliger	- *Indian Necklaced*	„	„
(135)	„ „ fuscata	- *Burmese* „	„	„
(136)	„ gularis gularis -	- *McClelland's*	„	„
(139)	„ strepitans -	- - *Tickell's*	„	„
(140)	„ ocellata ocellata	- *White-spotted*	„	„
(141)	„ cineracea cineracea	- - *Ashy*	„	„
(142)	„ „ styani	- - *Styan's*	„	„
(143a)	„ rufogularis subsp.	- *Rufous-chinned*	„	„
(147)	„ austeni victoriæ	- - *Chin Hills*	„	„
(164)	„ squamatus -	- *Blue-winged*	„	„
(178a)	„ striata cranbrooki	*Cranbrook's Striated*	„	„
(179)	„ merulinus merulinus	- *Spotted-breasted*	„	„
(149)	**Trochalopteron** erythrocephalum erythrolæma	*Hume's Red-headed*	„	„
(152)	„ erythrocephalum forresti -	*Forrest's* „	„	„
(154)	„ erythrocephalum melanostigma	*Blyth's* „	„	„
(155)	„ erythrocephalum ramsayi	*Karenni* „	„	„
(157)	„ phœniceum bakeri -	*Assam Crimson-winged*	„	„
(158)	„ ripponi -	*Burmese* „	„	„
(159)	„ milnei sharpei -	*Burmese Red-tailed*	„	„
(160a)	„ subunicolor griseata	*Plain-coloured*	„	„
(161a)	„ affine oustaleti -	- *Black-faced*	„	„
(170)	„ virgatum -	- *Manipur Streaked*	„	„
(180)	**Babax** lanceolatus lanceolatus	- - - -	*Chinese*	*Babax*
(181)	„ „ woodi -	- - -	*Mt. Victoria*	„
(191)	**Argya** earlii -	- - - -	*Striated*	*Babbler*
(194)	„ gularis -	- - -	*White-throated*	„
(201)	**Pomatorhinus** schisticeps mearsi	*Grant's Slaty-headed*	*Scimitar*	„
(203)	„ „ nuchalis	*Tweeddale's* „	„	„
(204)	„ olivaceus olivaceus	- *Tenasserim*	„	„
(205)	„ „ ripponi -	*Harington's Shan*	„	„
(211)	„ ferruginosus phayrei	*Phayre's Coral-billed*	„	„
(212)	„ „ albigularis	*Blyth's* „	„	„

Reference:—

In the Remarks column:—
"C" denotes that the bird is common.
"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION												ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Arakan Yomas	Southern Burma: Pegu Yomas	Southern Burma: Plains	Southern Burma: Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
R	R	R	..	R	R	*R*	..	R	..	..	..	..	Up to 4000′	North	(132)
..	..	..	..	..	..	*R*	..	R	..	R	R	R	,, ,,	South	(133)
R	R	..	..	R	R	*R*	..	R	R	..	..	..	,, ,,	North	(134)
..	..	..	..	..	..	*R*	..	R	..	R	R	R	,, ,,	South	(135)
..	?	R	R	..	..	..	..	..	..	..	..	..	,, ,,	.. ..	(136)
..	..	..	..	..	..	..	..	..	..	..	..	R	Above ,,	.. ..	(139)
..	..	..	R	..	..	..	..	..	..	..	..	..	,, ,,	.. ..	(140)
..	R	..	..	..	..	..	..	..	..	..	..	..	,, ,,	.. ..	(141)
..	..	..	..	..	..	..	..	..	*R*	..	..	..	,, ,,	Malipon	(142)
..	..	R	R	..	..	..	..	..	..	..	..	..	Above 3000′	.. ..	(143a)
..	*R*	..	..	..	..	..	..	..	..	..	..	..	,, 6000′	Mt. Victoria	(147)
..	R	..	R	*R*	..	..	..	..	R	R	..	..	,, 3000′	Mogok hills	(164)
..	..	..	R	..	..	..	..	..	..	..	..	..	,, 4000′	.. ..	(178a)
..	R	R	R	..	..	..	..	..	..	..	..	..	,, 3000′	.. ..	(179)
R	R	..	..	..	R	..	..	..	..	..	..	..	,, 3000′	.. ..	(149)
..	..	..	R	..	..	..	..	..	..	..	..	..	,, 5000′	.. ..	(152)
..	..	..	..	..	..	..	..	..	..	R	..	*R*	,, ,,	North	(154)
..	..	..	..	..	..	..	..	R	..	R	R	..	,, ,,	.. ..	(155)
..	R	R	R	..	..	..	..	..	..	..	..	..	,, 3000′	.. ..	(157)
..	..	..	R	R	..	..	..	..	R	R	R	..	,, 4000′	.. ..	(158)
..	..	..	R	..	..	..	..	..	R	R	..	..	,, ,,	.. ..	(159)
..	..	..	R	..	..	..	..	..	..	..	..	..	,, 6000′	.. ..	(160a)
..	..	..	R	..	..	..	..	..	..	..	..	..	,, ,,	.. ..	(161a)
..	R	..	..	..	..	..	..	..	..	..	..	..	,, 3000′	.. ..	(170)
..	..	..	R	*R*	..	..	..	..	R	..	..	..	,, 5000′	Mogok hills	(180)
..	R	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	(181)
R	..	..	*R*	R	..	..	R	..	..	..	..	..	Plains	Round Bhamo	(191)
..	..	..	..	R	..	..	U	..	..	..	..	..	,,	Dry Zone	(194)
R	R	R	..	R	R	..	..	..	..	..	..	..	..	.. ..	(201)
..	..	..	..	R	..	R	..	R	..	R	R	R	..	C	(203)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South	(204)
..	..	..	?	R	..	..	..	..	R	R	..	..	2500′-5000′	C	(205)
R	R	..	..	..	..	..	..	..	..	..	..	..	Above 3000′	.. ..	(211)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(212)
1	2	3	4	5	6				7	8	9	10			

Reference: —

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Under "Distribution": —

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"R" denotes that the bird is a resident.
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F. B. I. No.	Scientific Name	English Name

Order I PASSERIFORMES — (Contd.)

Family TIMALIIDÆ — (Contd.)

Sub-family TIMALIINÆ — (Contd.)

(213)	**Pomatorhinus** ferruginosus mariæ	*Walden's Coral-billed Scimitar Babbler*
(213a)	" " stanfordi	*Stanford's* " "
(215)	" ruficollis bakeri	*Baker's Rufous-necked* " "
(215a)	" " similis	*Yunnan* " " "
(216)	" ochraceiceps ochraceiceps	*Lloyd's* " "
(217)	" " austeni	*Hume's* " "
(218)	" " stenorhynchus	*Austen's* " "
(221)	" macclellandi macclellandi	*McClelland's* " "
(222)	" " odicus	*David's* " "
(223)	" erythrogenys imberbis	*Salvadori's* " "
(224)	" hypoleucus hypoleucus	*Arakan* " "
(225)	" " tickelli	*Tickell's* " "
(226)	**Xiphiramphus** superciliaris	*Slender-billed* " "
(227)	**Timalia** pileata bengalensis	*Bengal Red-capped* "
(228)	" " intermedia	*Burmese* " "
(232)	**Gampsorhynchus** rufulus rufulus	*White-headed Shrike-* "
(233)	" " torquatus	*Ring-necked* " "
(234)	**Chrysomma** sinensis sinensis	*Indian Yellow-eyed* "
(234a)	" " minuta	*Mt. Victoria* " "
(237)	**Pyctorhis** altirostris altirostris	*Jerdon's* "
(238)	" " griseigularis	*Hume's* "
(241)	**Pellorneum** subochraceum	*Malay Spotted* "
(243)	" ruficeps pectoralis	*Mandelli's* " "
(245)	" " minor	*Sharpe's* " "
(247)	" albiventre albiventre	*Assam* "
(248)	" " cinnamomeum	*Rippon's* "
(251)	" nigricapitatum	*Black-capped* "
(252)	**Drymocataphus** tickelli tickelli	*Tickell's* "
(253)	" " assamensis	*Austen's* "
(253a)	" " ochraceus	*Chinese* "
(253b)	" " grisescens	*Arakan* "
(254)	**Gypsophila** crispifrons	*Lime-rock* "
(255)	**Napothera** brevicaudata brevicaudata	*Short-tailed Wren-* "
(256)	" " striata	*Streaked* " "
(257)	" " venningi	*Venning's* " "
(259)	" roberti guttaticollis	*Grant's* " "
(260)	" epilepidota davisoni	*Davison's* " "
(261)	" " bakeri	*Baker's* " "

Reference:—

In the Remarks column:—
"C" denotes that the bird is common.
"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION													ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Arakan Yomas	Southern Burma: Pegu Yomas	Southern Burma: Plains	Southern Burma: Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
..	..	..	..	..	..	..	..	R	R	R	R	..	..	.. ..	(213)
..	..	..	R	..	..	..	..	..	..	..	..	..	Above 3000'	.. ..	(213a)
..	R	..	..	..	..	..	..	..	..	..	..	..	2000'-6000'	.. ..	(215)
..	..	..	R	..	..	..	..	R	..	R	R	R	Above 4000'	.. ..	(215a)
..	..	..	..	..	..	..	..	..	..	..	..	..	" 2500'	.. ..	(216)
..	..	..	R	..	..	..	..	..	..	..	..	..	" 4000'	.. ..	(217)
..	..	R	R	R	..	..	..	..	..	..	..	..	" "	Pino-taung (Katha dist.)	(218)
..	R	..	..	..	..	..	..	..	..	..	..	..	2500'-6000'	.. ..	(221)
..	..	..	R	..	..	..	..	..	..	..	..	..	Above 4000'	C	(222)
..	..	..	..	R	..	..	..	R	R	R	R	R	" 3000'	Mogok hills	(223)
R	R	R	R	..	R	..	..	..	..	..	..	R	Up to 4000'	.. ..	(224)
..	..	..	R	..	..	..	..	..	..	..	..	..	" "	.. ..	(225)
..	..	..	..	..	..	..	..	..	..	..	..	..	Above 6000'	.. ..	(226)
..	..	R	..	..	..	..	..	..	..	..	..	..	..	.. ..	(227)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 3500'	C	(228)
R	R	..	..	..	R	..	..	..	..	..	..	..	" 4000'	L	(232)
..	..	R	R	R	..	..	..	R	..	..	..	R	" "	.. ..	(233)
R	..	..	..	..	R	R	R	R	R	R	R	R	" 6000'	L	(234)
..	R	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	(234a)
..	..	..	..	..	..	..	R	..	..	..	..	..	Plains	.. ..	(237)
..	..	..	R	..	..	..	..	..	..	..	..	..	..	Bhamo	(238)
..	..	..	..	..	..	R	..	R	..	R	R	R	Up to 5000'	C	(241)
..	..	R	R	R	..	..	..	..	R	..	..	..	" "	C	(243)
R	R	R	..	R	..	..	..	..	..	..	..	..	" "	C	(245)
..	..	..	R	..	..	..	..	R	R	R	R	..	..	.. ..	(247)
..	..	..	..	..	..	R	..	R	R	R	R	R	3000'-6000'	.. ..	(248)
..	..	..	..	..	..	..	..	..	..	..	..	..	..	Extreme South	(251)
..	..	..	..	..	..	..	..	..	..	..	..	..	Up to 7000'	L	(252)
..	..	R	..	..	..	..	..	..	..	..	..	..	..	.. ..	(253)
..	..	..	R	..	..	..	..	..	..	..	..	..	..	.. ..	(253a)
..	..	..	..	..	R	..	..	..	..	..	..	..	..	.. ..	(253b)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(254)
..	..	..	..	..	..	..	..	..	..	..	..	R	Above 5000'	Mt. Mulayit	(255)
..	..	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	(256)
?	R	..	..	..	R	..	..	..	R	R	R	..	Up to 6000'	.. ..	(257)
..	..	..	R	..	..	..	..	..	..	..	..	..	..	.. ..	(259)
..	..	R	..	..	..	..	..	..	..	..	..	R	..	.. ..	(260)
..	..	..	..	..	..	..	..	..	..	R	R	..	Over 4000'	.. ..	(261)
..	..	..	..	..	..	..	..	..	..	..	..	..			
1	2	3	4	5	6				7	8	9	10			

Reference: —

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Under "Distribution": —

Column numbers correspond with the Distribution Area numbers shown on the Map at the end of this book.

"R" denotes that the bird is a resident.
"M" denotes that the bird is a migrant.
"U" denotes uncertainty as to whether the bird is a resident or migrant.

Where the letters "R" "M" or "U" occur in italics they denote that the bird has only been recorded from that part of the Distribution Area noted in the Remarks column.

F. B. I. No.	Scientific Name	English Name
	Order I PASSERIFORMES — (Contd.)	
	Family TIMALIIDÆ — (Contd.)	
	Sub-family TIMALIINÆ — (Contd.)	
(263)	**Malacornis** magna magna	*Red-headed Tree Babbler*
(264)	„ magnirostre	*Brown-headed* „ „
(265)	**Erythrocichla** bicolor	*Ferruginous* „
(266)	**Æthostoma** rostratum	*Blyth's* „
(267)	**Malacocincla** abbotti abbotti	*Abbott's* „
(269)	**Thringorhina** guttata guttata	*Tickell's Spotted* „
(269a)	„ „ diluta	*Bhamo* „ „
(271)	**Stachyris** nigriceps coltarti	*Assam Black-throated* „
(272)	„ „ davisoni	*Malay* „ „
(272a)	„ „ subsp.	*Arakan* „ „
(273)	„ chrysæa chrysæa	*Nepal Golden-headed* „
(274)	„ „ binghami	*Chin Hills* „ „
(275)	„ „ assimilis	*Burmese* „ „
(276)	„ „ chrysops	*Malay* „ „
(277)	**Stachyridopsis** ruficeps ruficeps	*The Red-headed* „
(278)	„ „ bhamoensis	*Bhamo* „ „
(279)	„ rufifrons rufifrons	*Hume's Red-fronted* „
(279a)	„ „ pallescens	*Arakan* „ „
(282)	**Cyanoderma** erythropterum erythropterum	*Red-winged* „
(283a)	**Mixornis** rubricapilla ticehursti	*Mt. Victoria Yellow-breasted* „
(284)	„ „ sulphurea	*Gyldenstolpe's* „ „ „
(285)	„ „ pileata	*Malay* „ „ „
(286)	**Alcippe** nepalensis nepalensis	*Nepal* „
(286a)	„ „ stanfordi	*Stanford's* „
(287)	„ fratercula fratercula	*Shan States* „
(288a)	„ poiocephala fusca	*Burmese Quaker* „
(290)	„ „ phayrei	*Arakan* „ „
(291)	„ „ davisoni	*Tenasserim* „ „
(293)	„ „ karenni	*Karenni* „ „
(297)	**Schœniparus** dubius dubius	*Tenasserim Til-* „
(298)	„ „ mandellii	*Assam* „ „
(299)	„ „ intermedius	*Rippon's* „ „
(300)	„ rufigularis	*Red-throated* „ „
(301)	**Pseudominla** cinerea	*Dusky Green* „ „
(302)	„ castaneiceps castaneiceps	*Chestnut-headed* „ „
(306)	**Fulvetta** vinipectus ripponi	*Chin Hills Fulvetta*
(306a)	„ „ bieti	*Oustalet's* „
(307a)	„ manipurensis yunnanensis	*Yunnan* „
(309)	**Lioparus** chrysotis forresti	*Yunnan Golden-breasted* „

Reference:—

In the Remarks column:—
"C" denotes that the bird is common.
"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION													ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
					Southern Burma										
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Arakan Yomas	Pegu Yomas	Plains	Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
												R	..	South	(263)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	Extreme south	(264)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	" "	(265)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	" "	(266)
R	..	..	..	..	..	R	R	..	..	..	..	R	Below 3000'	L outside Tenasserim	(267)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(269)
..	..	..	R	..	..	..	..	..	..	..	..	..	..	Bhamo	(269a)
..	..	..	R	..	..	R	..	..	R	..	..	..	Below 3000'	] Distribution of the	(271)
..	..	R	..	..	..	..	..	R	..	R	R	R	..	races uncertain	(272)
..	..	..	..	..	R	..	..	..	..	..	..	..	..	]	(272a)
..	..	R	R	..	..	..	..	..	..	..	..	..	Above 3000'	.. ..	(273)
..	R	..	..	..	..	..	..	..	..	..	..	..	" "	.. ..	(274)
..	..	..	..	..	..	..	..	R	..	R	R	R	" "	.. ..	(275)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(276)
..	R	..	..	..	..	..	..	..	..	..	..	..	..	Mt. Victoria	(277)
..	..	..	R	..	..	..	..	..	..	R	..	..	Above 3000'	.. ..	(278)
..	..	..	..	R	..	R	..	R	R	R	R	R	Up to 6000'	Pino-taung (Katha dist.)	(279)
R	..	..	..	..	?	..	..	..	..	..	..	..	" "	.. ..	(279a)
..	..	..	..	..	..	..	..	..	..	..	..	R	" "	Extreme south	(282)
..	R	..	..	..	..	..	..	..	..	..	..	..	..	] Distribution of the	(283a)
R	..	R	R	R	R	R	R	R	R	R	R	R	Up to 5000'	- races uncertain	(284)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	] South	(285)
..	..	?	R	..	..	..	..	..	..	..	..	..	1500'-7000'	.. ..	(286)
R	R	..	..	..	R	..	..	..	..	..	..	..	..	.. ..	(286a)
..	..	..	R	R	..	..	..	R	R	R	R	R	Below 3000'	C	(287)
..	..	R	R	R	..	..	..	R	R	R	..	..	..	C	(288a)
R	R	..	..	..	R	..	..	..	..	..	..	..	..	.. ..	(290)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(291)
..	..	..	..	..	..	..	..	..	..	..	R	..	..	.. ..	(293)
..	..	..	..	..	..	..	..	R	..	..	R	R	3000'-6000'	C	(297)
..	R	..	..	..	..	..	..	..	..	..	..	..	" "	.. ..	(298)
..	..	?	R	R	..	..	..	..	R	R	..	..	" "	.. ..	(299)
..	..	..	R	..	..	..	..	..	..	..	..	..	Below 3000'	C	(300)
..	..	..	R	..	..	..	..	..	..	..	..	..	Above 3000'	.. ..	(301)
..	R	R	R	..	..	..	..	R	R	R	R	R	" "	L C	(302)
..	R	..	..	..	..	..	..	..	..	..	..	..	" 6000'	.. ..	(306)
..	..	..	R	..	..	..	..	..	..	..	..	..	" "	.. ..	(306a)
..	..	..	R	..	..	..	..	..	..	..	..	..	" "	.. ..	(307a)
..	..	..	R	..	..	..	..	..	..	..	..	..	" "	.. ..	(309)
1	2	3	4	5	6				7	8	9	10			

Reference: —

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Under "Distribution": —

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F. B. I. No.	Scientific Name	English Name
	Order I PASSERIFORMES — (Contd.)	
	Family TIMALIIDÆ — (Contd.)	
	Sub-family SIBIINÆ	
(310)	**Heterophasia** picaoides cana	*Long-tailed Sibia*
(313)	**Leioptila** gracilis gracilis	*Assam Grey* „
(313a)	„ „ dorsalis	*Mt. Victoria* „ „
(314)	„ melanoleuca melanoleuca	*Tickell's* „
(316)	„ „ castanoptera	*Fea's* „
(317)	„ annectans annectans	*Blyth's* „
(318)	„ „ saturata	*Walden's* „
(319)	„ „ davisoni	*Davison's* „
(320a)	„ pulchella cæruleotincta	*Beautiful* „
(323)	**Actinodura** egertoni ripponi	*Rippon's Barwing*
(324)	„ ramsayi ramsayi	*Ramsay's* „
(325)	„ „ radcliffei	*Ruby Mines* „
(326a)	„ nipalensis saturatior	*Yunnan Hoary* „
(326b)	„ „ wardi	*Adung Valley* „
(328)	„ „ poliotis	*Chin Hills* „
(330)	**Staphidia** castaneiceps castaneiceps	*Chestnut-headed Staphidia*
(331)	„ „ striata	*Tickell's* „
(332)	„ „ rufigenis	*Hume's* „
(333a)	**Siva** strigula yunnanensis	*Yunnan Siva*
(334)	„ „ castaneicauda	*Hume's* „
(334a)	„ „ victoriæ	*Mt. Victoria* „
(335)	„ cyanouroptera cyanouroptera	*Hodgson's Blue-winged* „
(336)	„ „ wingatei	*Yunnan* „ „
(337)	„ „ sordida	*Dull* „ „
(338)	„ „ oatesi	*Oates's* „ „
(340)	**Yuhina** gularis yangpiensis	*Sharpe's Yuhina*
(340a)	„ „ griseotincta	*Adung Valley* „
(341)	„ diademata	*Rippon's* „
(343)	„ nigrimentum nigrimentum	*Nepal Black-chinned* „
(343a)	„ „ intermedia	*Yunnan* „ „ „
(347)	**Ixulus** flavicollis rouxi	*Chestnut-naped Ixulus*
(348)	„ humilis humilis	*Davison's* „
(349)	„ „ clarkii	*Oates's* „
(350)	**Herpornis** xantholeuca xantholeuca	*White-bellied Herpornis*
	Sub-family LEIOTRICHINÆ	
(351)	**Leiothrix** lutea callipyga	*Indian Red-billed Leiothrix*
(352)	„ „ yunnanensis	*Yunnan* „ „

Reference:—

In the Remarks column:—
"C" denotes that the bird is common.
"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION												ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Arakan Yomas	Southern Burma: Pegu Yomas	Southern Burma: Plains	Southern Burma: Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
..	R	..	R	..	..	..	..	R	R	R	R	R	Above 3000′	L	(310)
..	?	..	R	..	..	..	..	..	..	..	..	..	„ 4000′	.. ..	(313)
..	R	..	..	..	..	..	..	..	..	..	..	..	„ „	Mt. Victoria	(313a)
..	..	..	..	R	..	..	..	..	R	R	?	R	„ „	Mogok hills	(314)
..	..	..	..	..	..	..	..	..	R	R	R	..	„ „	West of the Salween	(316)
..	..	..	..	..	..	..	..	..	R	..	..	..	„ „	.. ..	(317)
R	R	R	R	..	..	..	..	..	R	R	R	..	„ „	West of the Salween	(318)
..	..	..	..	..	..	..	..	..	..	..	..	R	„ „	Mt. Mulayit	(319)
..	..	..	R	..	..	..	..	..	..	..	..	..	„ „	.. ..	(320a)
..	..	..	R	..	?	..	..	..	R	..	..	..	2000′-6000′	C	(323)
R	R	R	R	..	..	..	..	R	..	R	R	..	„ „	L C	(324)
..	..	..	..	R	..	..	..	..	..	..	..	..	..	1 Record (Mogok)	(325)
..	..	..	R	..	..	..	..	..	..	..	..	..	Above 6000′	.. ..	(326a)
..	..	..	R	..	..	..	..	..	..	..	..	..	..	Adung valley	(326b)
..	R	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	(328)
R	R	..	..	..	R	..	..	R	..	..	R	R	2000′-5000′	.. ..	(330)
..	..	..	..	..	..	..	..	..	..	..	..	..	„ „	.. ..	(331)
..	..	..	R	..	..	..	..	..	..	R	..	..	..	.. ..	(332)
..	..	..	R	..	..	..	..	..	..	..	..	..	Above 6000′	.. ..	(333a)
..	..	..	..	..	..	..	..	..	..	..	R	R	„ 4000′	]-Distribution of the races uncertain	(334)
..	R	R	R	..	..	..	..	..	R	R	..	..	„ „		(334a)
..	R	..	..	..	..	..	..	..	..	..	..	..	„ 3000′	.. ..	(335)
..	..	..	R	..	..	..	..	..	R	R	..	..	„ 2000′	.. ..	(336)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	Mt. Mulayit	(337)
..	..	..	..	..	..	..	..	..	..	R	R	..	„ 3500′	.. ..	(338)
..	R	?	R	..	?	..	..	..	R	..	..	..	„ 5000′	.. ..	(340)
..	..	..	R	..	..	..	..	..	..	..	..	..	..	Adung valley	(340a)
..	..	..	R	..	..	..	..	..	..	..	..	..	4500′-7000′	.. ..	(341)
?	?	..	..	..	..	..	..	..	..	..	..	..	..	No specimens traceable	(343)
..	..	..	R	..	..	..	..	..	..	..	..	..	..	.. ..	(343a)
..	R	?	R	R	..	..	..	..	..	..	..	..	Above 3500′	Mogok hills	(347)
..	..	..	..	..	..	..	..	..	..	..	..	R	„ „	Mt. Mulayit	(348)
..	..	..	..	..	..	..	..	..	..	R	R	..	„ „	.. ..	(349)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 6000′	L	(350)
?	?	..	..	..	..	..	..	..	..	..	..	..	Above 3000′	No specimens traceable	(351)
..	..	..	R	..	..	..	..	..	..	..	..	..	„ „	.. ..	(352)
1	2	3	4	5	6				7	8	9	10			

Reference: —

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Under "Distribution": —

Column numbers correspond with the Distribution Area numbers shown on the Map at the end of this book.

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F. B. I. No.	Scientific Name	English Name
	Order I PASSERIFORMES — (Contd.)	
	Family TIMALIIDÆ — (Contd.)	
	Sub-family LEIOTRICHINÆ — (Contd.)	
(353)	**Cutia** nipalensis nipalensis	*Nepal Cutia*
(354)	**Pteruthius** erythropterus erythropterus	*Red-winged Shrike-Babbler*
(355)	" " æralatus	*Tickell's* " "
(355a)	" " yunnanensis	*Burmese* " "
(356)	" melanotis	*Chestnut-throated* " "
(357)	" ænobarbus intermedius	*Hume's* " "
(358)	" xanthochloris hybrida	*Green* " "
(360)	**Hilarocichla** rufiventer	*Rufous-bellied* " "
(361)	**Æthorhynchus** lafresnayi	*Great Iora*
(362)	**Ægithina** tiphia tiphia	*Common* "
(365)	" viridissima	*Green* "
(367)	**Myzornis** pyrrhoura	*Fire-tailed Myzornis*
(368)	**Chloropsis** aurifrons aurifrons	*The Gold-fronted Chloropsis*
(370)	" " inornata	*Siamese* " "
(371)	" hardwickii malayana	*Orange-bellied* "
(372)	" cochinchinensis cochinchinensis	*Burmese* "
(373)	" sonnerati zosterops	*Malachite-shouldered* "
(375)	" cyanopogon	*Blue-whiskered* "
(376)	**Mesia** argentauris argentauris	*Silver-eared Mesia*
(377)	**Minla** ignotincta ignotincta	*Red-tailed Minla*
	Family PYCNONOTIDÆ.	
(379)	**Criniger** gutturalis ochraceus	*Malay White-throated Bulbul*
(380)	" flaveolus flaveolus	*Indian* " "
(381)	" " burmanicus	*Burmese* " "
(382)	" tephrogenys griseiceps	*Hume's* " "
(383)	" " henrici	*Yunnan* " "
(383a)	" " robinsoni	*Tenasserim* " "
(384)	**Tricholestes** criniger criniger	*Hairy-backed* "
(385)	**Alophoixus** phæocephalus	*Crestless White-throated* "
(386)	**Microscelis** psaroides psaroides	*Himalayan Black* "
(387)	" " nigrescens	*Assam* " "
(388)	" " concolor	*Burmese* " "
(388a)	" perniger	*Yunnan* " "
(389a)	" leucocephalus	*White-headed* " "
(390)	**Cerasophila** thompsoni	*Bingham's White-headed* "
(391)	**Ixos** flavala flavala	*Himalayan Brown-eared* "
(392)	" " davisoni	*Davison's* " "

Reference:—

In the Remarks column:—
"C" denotes that the bird is common.
"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION											ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
					Southern Burma								
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Arakan Yomas	Pegu Yomas	Plains	Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
..	R	?	R	..	..	..	..	..	..	..	R	..	Above 5000'	.. ..	(353)
..	R	R	..	..	..	..	..	..	..	..	..	..	" 4000'	.. ..	(354)
..	..	..	..	..	..	..	..	R	R	R	R	R	" "	C	(355)
..	..	?	R	..	..	..	..	..	..	..	..	..	" "	.. ..	(355a)
..	R	?	R	..	..	..	..	..	R	R	R	R	" "	.. ..	(356)
..	..	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	(357)
..	R	..	R	..	..	..	..	..	..	..	..	..	..	.. ..	(358)
..	R	..	..	..	..	..	..	..	..	..	..	..	..	Mt. Victoria	(360)
..	R	..	..	..	..	..	..	..	..	..	..	R	Below 3000'	.. ..	(361)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 4000'	C	(362)
R	R	..	..	..	..	..	..	..	..	..	..	R	..	South from Mergui	(365)
..	..	..	R	..	..	..	..	..	..	..	..	..	Above 8000'	.. ..	(367)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 4000'	C	(368)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(370)
R	R	R	R	R	R	R	..	..	R	R	R	R	6000'	L	(371)
R	R	R	R	R	R	..	R	R	R	R	R	R	" 4000'	L	(372)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	South from Ye	(373)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	Extreme south	(375)
..	..	..	R	..	..	..	..	..	R	R	R	R	3000'-6000'	.. ..	(376)
..	R	..	R	..	..	..	..	..	R	..	R	..	Above 5000'	.. ..	(377)
..	..	..	..	..	..	..	..	..	..	..	..	R	Below 3000'	South from Ye	(379)
..	..	..	..	..	..	..	..	..	..	..	..	..	" "	.. ..	(380)
R	R	?	R	R	..	..	..	..	..	R	R	R	..	.. ..	(381)
..	..	..	..	..	R	..	..	R	..	..	..	..	..	.. ..	(382)
..	..	..	..	..	..	R	..	..	..	R	..	..	..	Kengtung	(383)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	North	(383a)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	South	(384)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	South from Mergui	(385)
..	U	..	..	..	..	..	..	..	..	..	..	..	..	Mt. Victoria	(386)
R	R	..	..	R	R	..	..	R	R	R	R	R	2000'-7000'	.. ..	(387)
..	..	..	..	..	..	..	..	..	..	..	..	..	" "	C	(388)
..	..	..	U	..	..	..	..	..	..	?	..	..	1500'-4000'	.. ..	(388a)
..	..	..	U	..	..	..	..	..	..	..	..	..	..	.. ..	(389a)
..	..	..	..	R	..	..	..	..	R	R	R	R	Above 4000'	Mogok hills	(390)
R	R	R	R	R	R	..	..	..	R	R	..	..	3000'-6000'	.. ..	(391)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	South	(392)
1	2	3	4	5	6				7	8	9	10			

Reference:—

"F. B. I. No." refers to the bird's number in the Fauna of British India—Birds—Second Edition.

Under "Distribution":—

Column numbers correspond with the Distribution Area numbers shown on the Map at the end of this book.

"R" denotes that the bird is a resident.
"M" denotes that the bird is a migrant.
"U" denotes uncertainty as to whether the bird is a resident or migrant.

Where the letters "R" "M" or "U" occur in italics they denote that the bird has only been recorded from that part of the Distribution Area noted in the Remarks column.

F. B. I. No.	Scientific Name	English Name
	Order I PASSERIFORMES — (Contd.)	
	Family PYCNONOTIDÆ — (Contd.)	
(393)	**Ixos** flavala hildebrandi	*Hildebrand's Brown-eared Bulbul*
(394)	„ macclellandi macclellandi	*Rufous-bellied* „
(395)	„ „ tickelli	*Tickell's* „
(396)	„ „ binghami	*Harteri's Shan* „
(396a)	„ „ similis	*Yunnan* „
(397)	**Alcurus** striatus	*Striated Green* „
(400)	**Molpastes** cafer burmanicus	*Burmese Red-vented* „
(401)	„ „ nigripileus	*Tenasserim* „ „
(402a)	„ chrysorrhoides klossi	*Siamese* „ „
(408)	**Xanthixus** flavescens flavescens	*Blyth's* „
(409)	„ „ vividus	*Mulayit* „
(410)	**Elathea** jocosa jocosa	*Bengal Red-whiskered* „
(412)	„ „ peguensis	*Burmese* „ „
(413)	„ flaviventris flaviventris	*Black-crested Yellow* „
(414)	„ „ minor	*Kloss's Black-headed Yellow* „
(415)	**Euptilosus** eutilota	*Crested Brown* „
(416)	**Spizixus** canifrons canifrons	*Finch-billed* „
(417)	**Hemitarsus** zeylonicus	*Yellow-crowned* „
(418)	**Iole** malaccensis malaccensis	*Streaked* „
(420)	„ virescens virescens	*The Olive* „
(421)	„ „ cinnamomeoventris	*Tenasserim* „ „
(422)	„ „ propinqua	*Siamese* „ „
(424)	**Squamatornis** webberi	*Webber's* „
(425)	**Pycnonotus** goiavier analis	*Yellow-vented* „
(426)	„ xanthorrous	*Anderson's* „ „
(427)	„ finlaysoni finlaysoni	*Finlayson's Stripe-throated* „
(428)	„ „ davisoni	*Davison's* „ „
(432)	„ cyaniventris	*Blue-bellied* „
(434)	„ plumosus plumosus	*Large Olive* „
(435)	„ „ robinsoni	*Robinson's* „ „
(436)	„ blanfordi blanfordi	*Blanford's* „ „
(437)	„ simplex simplex	*Moore's* „ „
(438)	„ erythropthalmus erythropthalmus	*Small* „ „
(439)	**Microtarsus** atriceps	*Black-headed* „
	Family CERTHIIDÆ.	
(447)	**Certhia** himalayana ripponi	*Chin Hills Treecreeper*
(449)	„ familiaris khamensis	*Tibetan* „
(452)	„ discolor manipurensis	*Hume's* „
(454)	„ „ shanensis	*Karenni* „

Reference:—
In the Remarks column:—
"C" denotes that the bird is common.
"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION											ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Arakan Yomas	Southern Burma: Pegu Yomas	Southern Burma: Plains	Southern Burma: Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
								R		R	R	R	..	North	(393)
	R	?		R	R			R	?	R	R	R	3000'-7000'	Arakan race uncertain	(394)
				R	R					R			" "	.. ..	(395)
										R			..	Mogok hills	(396)
	R	R		R									..	.. ..	(396a)
	R	R		R	R	R	R	R	R	R	?	R	4000'-8000'	.. ..	(397)
									R				..	C Distribution of	(400)
	R							R		R	?	R	Up to 6000'	these forms un-	(401)
		?		R					R	R			3000'-7000'	North certain	(402a)
	R				R	R	R				R	R	..	.. ..	(408)
		R		R				R	R	R			Up to 7000'	C	(409)
	R	R		R	R	R	R	R			R	R	" "	C Race Distribu-	(410)
	R	R							R	R			" "	C tion uncertain	(412)
											R	R	..	L C	(413)
												R	..	.. ..	(414)
	?	R		R		?							3500'-7000'	Extreme south	(415)
									R	R			Below 3000'	.. ..	(416)
													..	South	(417)
	R	R			R		R						Below 3000'	South from Mergui	(418)
								R					..	North	(420)
		R			R			R	R	R	R	R	Up to 4000'	.. ..	(421)
													..	.. ..	(422)
				R									..	.. ..	(424)
									R	R	R	R	2000'-6000'	South from Tavoy	(425)
	R	?						R					Below 3000'	C	(426)
													..	.. ..	(427)
													..	.. ..	(428)
													..	South	(432)
													..	South	(434)
		R	R		R			R	R	R	R	R	Up to 4000'	Round Tavoy	(435)
													..	.. ..	(436)
													..	South from Mergui	(437)
	R						R	R	R		R	R	Below 3000'	L " " "	(438)
															(439)
													..	.. ..	(447)
	..	R		R						R			..	I record (Gokteik)	(449)
		R											Above 5000'	.. ..	(452)
				R						R	R	R	..	.. ..	(454)
1	2	3	4	5	6				7	8	9	10			

Reference:—

"F. B. I. No." refers to the bird's number in the Fauna of British India—Birds—Second Edition.

Under "Distribution":—

Column numbers correspond with the Distribution Area numbers shown on the Map at the end of this book.

"R" denotes that the bird is a resident.

"M" denotes that the bird is a migrant.

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Where the letters "R" "M" or "U" occur in italics they denote that the bird has only been recorded from that part of the Distribution Area noted in the Remarks column.

No. F. B. I.	Scientific Name	English Name	
	Order I PASSERIFORMES — (Contd.)		
	Family TROGLODYTIDÆ		
(459)	**Troglodytes** troglodytes talifuensis	*Yunnan*	*Wren*
(462)	**Elachura** formosa	*Spotted*	"
(467)	**Spelæornis** longicaudatus kauriensis	*Harington's Long-tailed*	"
(468)	" " reptatus	*Bingham's* "	"
(469)	" chocolatinus oatesi	*Rippon's* "	"
(471)	**Pnoepyga** albiventris albiventris	*Scaly-breasted*	"
(472)	" pusilla pusilla	*Brown*	"
(474)	**Sphenocichla** roberti	*Robert's Wedge-billed*	"
(475)	**Tesia** cyaniventer cyaniventer	*Slaty-bellied*	"
(476)	" castaneocoronata castaneocoronata	*Chestnut-headed*	"
	Family CINCLIDÆ		
(478)	**Cinclus** cinclus leucogaster	*White-bellied*	*Dipper*
(480)	" pallasii dorjei	*Formosan Brown*	"
	Family TURDIDÆ		
(483)	**Larvivora** cyane	*Siberian*	*Blue Chat*
(484)	" brunnea	*Indian*	"
	Sub-family BRACHYPTERYGINÆ		
(488)	**Brachypteryx** cruralis	*White-browed*	*Shortwing*
(489)	" leucophrys nipalensis	*Nepal*	"
(491)	**Hodgsonius** phœnicuroides phœnicuroides	*Hodgson's*	"
(491a)	" " ichangensis	*Yunnan*	"
	Sub-family SAXICOLINÆ		
(492)	**Saxicola** caprata caprata	*Burmese*	*Stonechat*
(496a)	" torquata yunnanensis	*Yunnan*	*Bush Chat*
(497)	" " stejnegeri	*Japanese*	"
(498)	" " leucura	*White-tailed*	"
(501)	**Rhodophila** melanoleuca	*Jerdon's*	"
(502)	" ferrea ferrea	*Western Dark Grey*	"
	Sub-family HENICURINÆ		
(518)	**Henicurus** maculatus guttatus	*Eastern Spotted*	*Forktail*
(519)	" schistaceus	*Slaty-backed*	"
(520)	" immaculatus	*Black-backed*	"
(521)	" leschenaulti indicus	*Leschenault's Indian*	"
(523)	**Hydrocichla** frontalis	*White-crowned*	"
(524)	" ruficapilla	*Chestnut-backed*	"
(525)	**Microcichla** scouleri scouleri	*Little*	"

Reference:—

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"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION												ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
					Southern Burma									
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Arakan Yomas	Pegu Yomas	Plains	Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
..	..	..	R	..	..	..	..	..	..	..	..	..	..	Adung valley	(459)
..	..	..	R	..	..	..	..	..	..	..	..	..	..	.. ..	(462)
..	R	..	R	..	..	..	..	..	..	..	..	..	Above 5000'	.. ..	(467)
..	..	..	..	..	..	..	..	..	..	R	..	..	" "	Kengtung	(468)
..	..	..	..	..	..	..	..	..	..	..	..	..	" "	.. ..	(469)
..	R	..	..	..	..	..	..	..	..	..	R	..	3500'-7000'	.. ..	(471)
..	R	..	R	..	..	..	..	..	R	R	R	R	..	.. ..	(472)
..	R	R	R	..	..	..	..	..	..	..	..	..	..	.. ..	(474)
..	..	..	R	..	..	..	..	..	..	..	..	..	..	.. ..	(475)
..	R	R	R	..	R	..	..	..	R	R	R	..	Above 2000'	.. ..	(476)
..	R	R	R	..	..	..	..	..	..	R	R	..	..	.. ..	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	(478)
..	..	..	U	..	..	..	..	..	..	..	..	..	..	.. ..	(480)
..	R	..	R	..	..	..	..	..	R	R	..	..	Up to 4000'	.. ..	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	(483)
..	M	..	..	..	..	M	..	M	..	M	..	M	" 5000'	C in Tenasserim	(484)
..	R	..	..	..	..	..	..	..	..	..	..	..	" "	.. ..	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	(488)
..	R	R	R	..	..	..	..	..	..	R	R	..	Above 1000'	L	(489)
?	R	R	R	..	..	..	..	..	..	R	R	R	3000'-6000'	"	(491)
..	R	..	..	..	..	..	..	..	..	..	..	..	Above 6000'	Mt. Victoria	(491a)
..	..	..	R	..	..	..	..	..	..	R	..	..	" 3000'	.. ..	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	(492)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 5000'	L in Tenasserim	
..	..	..	M	..	..	..	..	..	M	..	..	..	..	Papun (1 record, race uncertain)	(496a)
..	..	..	..	..	..	..	..	..	..	..	..	..	Up to 4000'	C	(497)
M	M	M	M	M	M	M	M	M	M	M	M	M	Below 3000'	L	(498)
..	..	..	R	..	..	..	..	R	..	R	R	R	..	L	(501)
R	R	R	R	M	R	M	M	M	R	R	R	R	Up to 6000'	VM below 3000', L C	(502)
..	..	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	(518)
R	R	R	R	..	..	..	..	..	R	R	..	..	Above 2000'	L C	(519)
?	R	?	R	..	?	..	..	..	R	R	R	R	Up to 5000'	C	(520)
R	R	R	R	R	R	R	R	R	R	R	R	R	Below 2500'	L C	(521)
..	R	..	..	..	..	..	..	..	..	..	..	R	Above 1000'	South	(523)
..	..	..	..	..	..	..	..	..	..	..	..	..	Below 3000'		(524)
..	..	..	..	..	..	..	..	..	..	..	..	..	..	"	
..	..	R	R	..	..	..	..	..	..	..	..	..	Above 1000'	VM in foothills	(525)
1	2	3	4	5	6				7	8	9	10			

Reference: —

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Under "Distribution": —

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F. B. I. No.	Scientific Name	English Name
	Order I PASSERIFORMES — (Contd.)	
	Family TURDIDÆ — (Contd.)	
	Sub-family PHŒNICURINÆ	
(526)	**Phœnicurus** frontalis	*Blue-fronted Redstart*
(528)	„ auroreus	*Daurian* „
(530)	„ hodgsoni	*Hodgson's* „
(532)	„ ochrurus rufiventris	*Eastern Indian Black* „
(534)	**Chaimarrhornis** leucocephala	*White-capped* „
(535)	**Rhyacornis** fuliginosa fuliginosa	*Plumbeous* „
(538)	**Luscinia** svecica robusta	*Chinese Red-spotted Bluethroat*
(540a)	„ obscura	*Kansu Nightingale*
(541a)	**Grandala** cœlicolor florentes	*Chinese Grandala*
(542)	**Calliope** calliope	*Common Rubythroat*
(545)	„ pectoralis tschebaiewi	*Tibetan* „
(546)	**Tarsiger** chrysæus chrysæus	*Golden Bush Robin*
(549)	**Ianthia** cyanura rufilata	*Red-flanked* „ „
(554)	**Myiomela** leucura	*White-tailed Blue Robin*
(558)	**Copsychus** saularis saularis	*Indian Magpie-Robin*
(559)	„ „ amœnus	*Malay* „
(562)	**Kittacincla** malabarica malabarica	*Malay Shama*
(563)	„ „ indica	*Indian* „
	Sub-family TURDINÆ	
(570)	**Turdus** merula albocinctus	*White-collared Blackbird*
(571)	„ boulboul	*Grey-winged* „
(572)	„ rubrocanus rubrocanus	*Grey-headed Thrush*
(573)	„ „ gouldii	*Gould's* „ „
(574)	„ eunomus	*Dusky* „
(577)	„ ruficollis ruficollis	*Red-throated* „
(578)	„ „ atrogularis	*Black-throated* „
(580)	„ dissimilis	*Black-breasted* „
(581)	„ obscurus obscurus	*Dark* „
(583)	„ feæ	*Fea's* „
(585)	**Geocichla** sibirica sibirica	*Siberian Ground Thrush*
(586)	„ „ davisoni	*Davison's* „ „
(587)	„ citrina citrina	*Orange-headed* „ „
(589)	„ „ innotata	*Malay* „ „ „
(595)	**Oreocincla** dauma dauma	*Small-billed Mountain Thrush*
(598)	„ „ aurea	*White's* „ „
(599a)	„ dixoni	*Long-tailed* „ „
(603)	**Zoothera** monticola	*Large Brown* „
(604)	„ marginata	*Lesser* „ „

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"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION												ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Arakan Yomas	Southern Burma: Pegu Yomas	Southern Burma: Plains	Southern Burma: Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
..	?	..	R	..	..	..	..	..	R	..	..	..	Above 2000'	VM below 6000'	(526)
..	M	M	M	*M*	..	..	*M*	..	M	M	..	..	..	Thayetmyo, Mt. Popa	(528)
..	..	..	M	..	..	..	..	..	..	..	..	..	..	.. ..	(530)
..	M	..	M	M	..	..	..	..	M	M	..	..	..	.. ..	(532)
U	U	U	R	M	M	..	..	U	U	U	U	..	Up to 14000'	VM below 4000' L C	(534)
U	..	U	R	..	U	..	..	..	U	U	U	U	Above 4000'	L	(535)
M	M	M	M	M	M	..	M	M	M	M	U	M	Below 3000'	.. ..	(538)
..	..	..	*M*	..	..	..	..	..	..	..	..	..	..	Bhamo dist. (1 record)	(540a)
..	..	..	*U*	..	..	..	..	..	..	..	..	..	6000'	Adung valley	(541a)
M	M	M	M	M	M	M	M	M	M	M	M	M	Up to 4000'	.. ..	(542)
..	..	..	*R*	..	..	..	..	..	..	..	..	..	12000'	Adung valley	(545)
..	..	..	R	..	..	..	..	..	..	U	..	..	Above 4000'	.. ..	(546)
..	R	R	R	..	..	..	..	..	R	R	..	..	Up to 9000'	VM below 6000'?	(549)
..	R	..	R	..	R	..	..	R	R	R	R	R	„ 6000'	VM in the foothills. L	(554)
R	R	R	R	R	R	R	R	R	R	R	R	R	„ „	C	(558)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South	(559)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	..	(562)
R	R	R	R	R	R	R	R	R	R	R	R	R	Below 3000'	L "C	(563)
..	..	*U*	..	..	..	..	..	..	..	..	..	..	..	Hukawng valley (1 record)	(570)
..	..	..	U	..	U	..	..	..	..	U	..	..	Above 2000'	3 records	(571)
..	*M*	..	..	..	..	..	..	..	..	..	..	..	..	Mt. Victoria	(572)
..	..	M	..	..	..	..	..	..	M	..	..	..	..	.. ..	(573)
..	..	..	M	..	..	..	M	..	..	..	..	..	..	.. ..	(574)
..	..	..	M	..	..	..	..	..	M	M	..	..	Up to 6000'	.. ..	(577)
..	..	..	M	*M*	..	..	..	..	?	?	..	..	„ „	Lower Chindwin	(578)
..	R	U	R	..	..	..	..	..	R	R	..	..	„ 8000'	L C	(580)
?	M	M	M	*M*	?	M	..	M	M	M	M	M	„ 7000'	Mt. Popa	(581)
..	U	..	..	..	..	..	..	..	U	U	M	U	Above 4000'	Irregular visitor?	(583)
..	..	..	..	*M*	..	..	..	..	..	..	M	M	..	Maymyo	(585)
..	..	..	..	..	..	..	..	..	..	..	M	M	..	.. ..	(586)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 4000'	.. ..	(587)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South	(589)
M	R	U	U	..	R	M	M	..	..	R	R	..	Up to 6000'	.. ..	(595)
..	..	..	M	..	..	..	..	..	M	M	?	..	..	.. ..	(598)
..	..	U	R	..	..	..	..	..	U	U	U	..	Up to 12000'	L	(599a)
..	R	..	R	..	..	..	..	..	..	..	..	..	..	.. ..	(603)
R	R	R	R	..	R	..	..	..	..	R	R	R	..	L	(604)
1	2	3	4	5	6				7	8	9	10			

Reference:—

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Under "Distribution":—

Column numbers correspond with the Distribution Area numbers shown on the Map at the end of this book.

"R" denotes that the bird is a resident.

"M" denotes that the bird is a migrant.

"U" denotes uncertainty as to whether the bird is a resident or migrant.

Where the letters "R" "M" or "U" occur in italics they denote that the bird has only been recorded from that part of the Distribution Area noted in the Remarks column.

F. B. I. No.	Scientific Name	English Name
	Order I PASSERIFORMES — (Contd.)	
	Family TURDIDÆ — (Contd.)	
	Sub-family TURDINÆ — (Contd.)	
(605)	**Monticola** rufiventris	*Chestnut-bellied Rock Thrush*
(608)	„ solitaria pandoo	*Indian Blue* „ „
(609)	„ „ affinis	*Burmese* „ „ „
(610)	„ „ philippensis	*Japanese* „ „ „
(611)	„ gularis gularis	*Swinhoe's* „ „
(614)	**Myiophoneus** cœruleus temminckii	*Himalayan Whistling* „
(615)	„ „ eugenei	*Burmese* „ „
(617)	**Cochoa** purpurea	*Purple* „
(618)	„ viridis	*Green* „
	Family PRUNELLIDÆ	
(623)	**Prunella** collaris ripponi	*Rippon's Hedgesparrow*
(625)	„ immaculata	*Maroon-backed* „ „
(628)	„ strophiata strophiata	*Rufous-breasted* „ „
	Family MUSCICAPIDÆ	
(632)	**Hemichelidon** sibirica fuliginosa	*Nepal Sooty Flycatcher*
(633)	„ „ gulmergi	*Kashmir* „ „
(634)	„ „ rothschildi	*Yunnan* „ „
(635)	„ ferruginea	*Ferruginous* „
(636)	**Siphia** strophiata strophiata	*Orange-gorgeted* „
(639)	„ parva albicilla	*Eastern Red-breasted* „
(641)	**Muscicapula** concreta cyanea	*White-tailed Blue* „
(642)	„ hodgsoni	*Rusty-breasted* „ „
(643)	„ hyperythra hyperythra	*Rufous-* „ „ „
(644)	„ „ malayana	*Malay* „ „ „ „
(646)	„ tricolor cerviniventris	*Eastern Slaty-blue* „
(648)	„ superciliaris astigma	*Little Blue-and-White* „
(649)	„ melanoleuca melanoleuca	*Indian Little Pied* „
(651)	„ sapphira	*Sapphire-headed* „
(652)	„ vivida oatesi	*Rufous-bellied Blue* „
(654)	„ hainana	*Grant's* „ „
(655)	„ unicolor unicolor	*The Pale* „ „
(656)	„ „ harterti	*Blyth's* „ „ „
(657)	„ rubeculoides rubeculoides	*Blue-throated* „ „
(659)	„ „ dialilæma	*Salvadori's* „ „
(659a)	„ „ glaucicomans	*Yunnan* „ „
(658)	„ banyumas cœrulifrons	*Southern* „ „
(658a)	„ „ whitei	*Bhamo* „ „
(663)	„ „ magnirostris	*Large-billed* „ „
(664)	**Muscicapella** hodgsoni	*Pigmy* „ „

Reference:—

In the Remarks column:—
"C" denotes that the bird is common.
"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION														ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
					Southern Burma											
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Arakan Yomas	Pegu Yomas	Plains	Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim				
1	2	3	4	5	6				7	8	9	10				
..	R	..	R	..	..	..	..	..	..	R	R	..		3000'-8000'	L	(605)
M	M	M	M	M	M	M	M	M	M	M	M	M		Up to 6000'	] Distribution of the races uncertain	(608)
														" "		(609)
..	..	..	..	..	..	..	..	..	..	..	..	M		..	One record	(610)
..	M	..	..	M	..	..	..	..	M	?	..	..		..	.. ..	(611)
R	R	R	R	..	R	..	..	R	R	R	..	..		Up to 9000'	C	(614)
..	..	..	R	..	R	R	..	R	R	R	R	R		" "	C	(615)
..	..	..	R	..	..	..	..	R	R	R	..	R		..	.. ..	(617)
..	..	..	..	..	..	..	..	R	..	..	R	..		..	.. ..	(618)
..	..	..	R	..	..	..	..	..	..	..	..	..		Above 6000'	.. ..	(623)
..	..	..	R	..	..	..	..	..	..	..	..	..		" "	.. ..	(625)
..	..	..	R	..	..	..	..	..	..	..	..	..		" "	.. ..	(628)
..	U	..	..	U	..	M	M	U	U	U	U	U		" 3000'	L Mt. Popa	(632)
..	..	..	..	..	M	..	..	..	..	..	..	..		..	.. ..	(633)
..	..	..	R	..	..	..	..	..	..	..	..	..		3000'-12000'	.. ..	(634)
..	U	..	U	..	..	..	M	U	..	U	U	U		Above 4000'	L	(635)
..	M	..	M	..	..	..	..	M	M	M	..	M		" 3000'	L	(636)
M	M	M	M	M	M	M	M	M	M	M	M	M		Up to 4000'	C	(639)
..	..	R	..	..	..	..	..	..	..	..	..	R		Above "	.. ..	(641)
..	R	R	R	..	..	..	..	R	R	R	R	R		" 3000'	L C	(642)
..	R	R	R	..	..	..	..	..	R	R	R	..		" 2000'	L	(643)
..	..	..	..	..	..	..	..	..	..	..	..	R		..	South	(644)
..	R	..	R	..	..	..	..	..	R	R	R	..		..	.. ..	(646)
..	..	..	..	U	..	..	..	..	..	U	U	..		..	.. ..	(648)
U	U	..	U	..	U	..	M	U	U	U	U	U		Above 3000'	L C	(649)
..	..	..	U	..	..	..	..	..	U	U	U	..		" "	L	(651)
..	U	..	..	U	..	..	..	..	..	U	U	U		" "	L	(652)
..	..	..	..	..	..	U	..	..	..	U	U	U		..	East side	(654)
..	U	U	U	..	..	..	..	..	..	U	U	U		..	L	(655)
..	..	..	..	..	..	..	..	..	..	..	..	..		..	.. ..	(656)
M	M	M	..	M	M	M	..	M	M	M	M	?		Above 3000'	C	(657)
R	R	R	R	..	R	R	..	R	R	R	R	R		" "	C	(659)
..	..	..	M	..	..	..	..	..	..	..	..	U		..	.. ..	(659a)
..	..	..	..	..	..	..	..	..	..	..	..	U		..	.. ..	(658)
..	..	..	R	U	..	..	..	..	U	U	..	U		Above 3000'	Mt. Popa	(658a)
..	..	..	..	..	..	..	..	..	..	U	..	U		..	.. ..	(663)
..	U	..	U	..	..	..	..	..	..	?	..	..		Above 3000'	.. ..	(664)
1	2	3	4	5	6				7	8	9	10				

Reference:—

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Under "Distribution":—

Column numbers correspond with the Distribution Area numbers shown on the Map at the end of this book.

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"M" denotes that the bird is a migrant.
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Where the letters "R" "M" or "U" occur in italics they denote that the bird has only been recorded from that part of the Distribution Area noted in the Remarks column.

F. B. I. No.	Scientific Name	English Name

Order I PASSERIFORMES — (Contd.)

Family MUSCICAPIDÆ — (Contd.)

(665)	**Eumyias** thalassina thalassina	*Verditer Flycatcher*
(666)	„ „ thalassoides	*Malay* „ „
(670)	**Anthipes** moniliger submoniliger	*Hume's White-gorgeted* „
(671)	„ „ leucops	*Sharpe's* „ „
(671a)	„ „ gularis	*Arakan* „ „
(672)	**Olcyornis** olivaceus olivaceus	*Hume's* „
(673)	„ „ poliogenys	*Brook's* „
(674)	**Alseonax** latirostris latirostris	*Sumatran Brown* „
(677)	„ muttui muttui	*Ruddy-brown* „
(679)	**Culicicapa** ceylonensis calochrysea	*Burmese Grey-headed* „
(681)	„ „ meridionalis	*Malay* „ „
(682)	**Niltava** grandis grandis	*The Large Niltava*
(683)	„ „ decipiens	*Malay* „ „
(684)	„ sundara sundara	*Indian Rufous-bellied* „
(685)	„ macgrigoriae	*Small* „
(686)	**Drymophila** velata	*Maroon-breasted Flycatcher*
(687)	„ pyrrhoptera	*Chestnut-winged* „
(688a)	**Tchitrea** paradisi saturatior	*Burmese Paradise* „
(693)	**Hypothymis** azurea styani	*Northern Indian Black-naped* „
(698)	„ „ forrestia	*Mergui Islands* „ „
(699)	**Chelidorhynx** hypoxanthum	*Yellow-bellied* „
(701)	**Rhipidura** aureola burmanica	*Burmese White-browed Fantail* „
(703)	„ albicollis albicollis	*White-throated* „ „
(704)	„ javanica javanica	*Javan* „ „

Family LANIIDÆ

(711)	**Lanius** colluroides colluroides	*Burmese Shrike*
(712a)	„ nasutus tricolor	*Burmese Black-headed* „
(713)	„ „ longicaudatus	*Siamese* „ „ „
(716a)	„ nipalensis	*Grey-backed* „
(719)	„ cristatus cristatus	*Brown* „
(720)	„ „ lucionensis	*Philippine* „
(723)	„ tigrinus	*Thick-billed* „
(724)	**Hemipus** picatus picatus	*Black-backed Pied* „
(725)	„ „ capitalis	*Brown-* „ „ „
(726)	„ hirundinaceus	*Malay* „ „
(727)	**Tephrodornis** gularis pelvica	*Nepal Wood* „
(729)	„ pondiceriana pondiceriana	*Common* „ „
(732)	**Platylophus** galericulatus ardesiacus	*Tenasserim Jay-* „

Reference:—

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"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION													ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Arakan Yomas	Southern Burma: Pegu Yomas	Southern Burma: Plains	Southern Burma: Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
U	U	U	U	M	M	M	M	U	U	U	U	..	Above 3000′	L	(665)
..	..	..	..	..	..	..	..	..	..	..	..	U	..	.. ..	(666)
R	R	..	..	..	..	..	..	R	R	R	R	..	Up to 4000′	.. ..	(670)
R	R	..	..	..	R	..	..	..	..	..	..	..	Above 3000′	.. ..	(671)
..	..	..	R	..	..	..	..	..	..	..	..	R	„ „	.. ..	(671a)
R	..	..	..	..	..	..	..	..	..	..	..	..	..	Myitkyina; race uncertain	(672)
U	U	..	..	U	..	..	U	U	..	..	..	U	..		(673)
..	..	..	U	U	..	..	..	..	..	U	..	..	Above 4000′	.. ..	(674)
R	R	R	R	U	U	U	U	R	R	R	R	..	Up to 6000′	.. ..	(677)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	C	(679)
..	R	R	R	..	..	..	..	..	..	R	R	R	Above 3000′	.. ..	(681)
..	..	..	..	..	..	..	..	..	..	..	..	R	„ „	L C	(682)
..	..	..	..	..	..	..	..	..	..	..	..	R	„ „	.. ..	(683)
R	R	R	R	..	..	..	..	..	..	R	R	R	„ „	VM down to 1000′	(684)
..	?	..	R	..	..	..	..	..	R	R	R	R	„ „	VM down to 1000′. L	(685)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(686)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	South	(687)
U	U	..	R	R	U	U	U	U	U	U	U	U	Up to 6500′	3 different races?	(688a)
R	R	R	R	R	R	R	R	R	R	R	R	R	„ 4000′	C	(693)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	Mergui Archipelago	(698)
..	R	R	R	..	..	..	..	..	..	R	R	..	Above 5000′	VM down to 1000′. LC	(699)
..	..	..	R	R	..	..	..	..	R	U	U	U	Up to 3500′	C in the Dry Zone	(701)
R	R	R	R	U	U	U	U	R	R	R	U	R	„ 6000′	L C	(703)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(704)
U	R	R	R	R	U	U	U	U	R	R	U	U	Up to 6000′	North	(711)
U	U	..	R	R	U	U	U	U	U	U	U	U	3000′-6000′	VM down to sea level. L	(712a)
..	..	..	..	..	..	..	..	..	..	..	..	U	..	South	(713)
M	..	..	M	..	M	..	..	M	M	M	..	..	Up to 4000′	L C	(716a)
M	M	M	M	M	M	M	M	M	M	M	M	M	Below 3000′	C	(719)
..	M	..	..	..	..	M	M	M	..	M	M	M	..	.. ..	(720)
..	..	..	..	..	..	..	..	..	..	..	..	U	..	South	(723)
R	R	..	..	..	R	R	R	R	R	R	R	R	Up to 5000′	.. ..	(724)
..	R	R	R	R	..	..	..	..	R	?	..	..	..	.. ..	(725)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	South from Mergui	(726)
R	R	R	R	R	R	R	..	R	R	R	R	R	Up to 7000′	.. ..	(727)
R	R	R	R	R	R	R	R	R	R	R	R	R	„ 4000′	L	(729)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	South	(732)
1	2	3	4	5	6				7	8	9	10			

Reference:—

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F. B. I. No.	Scientific Name	English Name

Order I PASSERIFORMES — (Contd.)

Family PERICROCOTIDÆ

(734)	**Pericrocotus** speciosus elegans	*Burmese Scarlet Minivet*
(735)	" " flammifer	*Davison's* " "
(739)	" brevirostris affinis	*Assam Short-billed* "
(740)	" " neglectus	*Hume's* " "
(741)	" igneus	*Fiery* "
(742)	" solaris solaris	*Yellow-throated* "
(744)	" roseus roseus	*Rosy* "
(751)	" " devaricatus	*Ashy* "
(752)	" " cantonensis	*Swinhoe's* "
(746)	" cinnamomeus vividus	*Burmese Small* "
(750)	" erythropygia albifrons	*Jerdon's* "
(753)	**Lalage** melaschistos melaschistos	*Dark Grey Cuckoo-Shrike*
(754)	" " melanoptera	*Pale* " "
(755)	" fimbriata neglecta	*Small* "
(761)	**Graucalus** macei siamensis	*Siamese Large* "

Family ARTAMIDÆ

(763)	**Artamus** fuscus	*Ashy Swallow-Shrike*

Family DICRURIDÆ

(765)	**Dicrurus** annectens	*Crow-billed Drongo*
(769)	" macrocercus cathœcus	*Chinese Black* "
(771)	" longicaudatus intermedius	*South Burmese Dark Ashy* "
(772)	" leucophæus mohouti	*Burmese Pale* " "
(773)	" " hopwoodi	*Assam* " " "
(779)	" leucogenys leucogenys	*White-cheeked* "
(780)	**Chaptia** ænea ænea	*Northern Bronzed* "
(781)	" " malayensis	*Southern* " "
(782)	**Chibia** hottentotta hottentotta	*Hair-crested* "
(786)	**Bhringa** remifer tectirostris	*Indian Lesser Racket-tailed* "
(787)	**Dissemurus** paradiseus paradiseus	*Siamese Large* " "
(788)	" " rangoonensis	*Burmese* " " "
(789)	" " grandis	*Assam* " " "

Family SYLVIIDÆ

(795)	**Acrocephalus** arundinaceus brunnescens	*Indian Great Reed Warbler*
(796)	" " amyæ	*Mrs. Stevens's* " "
(797)	" " orientalis	*Eastern Great* " "
(798)	" bistrigiceps	*Schrenck's* " "
(799)	" dumetorum	*Blyth's* " "

Reference:—

In the Remarks column:—
"C" denotes that the bird is common.
"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION													ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
					Southern Burma										
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Arakan Yomas	Pegu Yomas	Plains	Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 6500′	C	(734)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South	(735)
..	R	R	R	R	..	..	..	R	R	R	R	..	Above 3000′	C	(739)
R	..	..	..	..	R	..	..	R	..	..	R	R	..	.. ..	(740)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South	(741)
..	R	R	R	..	..	..	M	R	R	R	R	R	Above 3000′	VM to plains	(742)
U	U	U	U	U	U	U	U	U	U	U	U	U	Up to 6000′	L	(744)
..	..	..	..	..	..	..	*M*	..	..	..	..	..	„ 5000′	Pegu (1 record)	(751)
..	..	..	..	..	..	..	M	..	..	..	..	M	..	.. ..	(752)
U	U	U	U	U	U	U	U	U	U	U	U	U	..	L C	(746)
..	..	..	..	..	R	..	..	..	..	..	..	..	..	C in Dry Zone	(750)
..	..	R	R	..	..	..	..	..	..	..	..	..	Up to 4000′	] Distribution of the	(753)
R	R	..	..	R	R	R	..	R	R	R	R	R	..	] races uncertain	(754)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South from Mergui	(755)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 6000′	.. ..	(761)
R	R	R	R	R	R	R	R	R	R	R	R	*R*	„ „	North	(763)
..	..	..	..	..	..	..	U	U	..	..	..	U	Below 3000′	.. ..	(765)
..	..	..	R	R	U	U	U	U	U	U	U	U	Up to 4000′	C. A local migrant	(769)
..	..	..	..	..	..	..	R	..	..	..	..	R	..	.. ..	(771)
R	..	..	..	R	R	..	R	R	R	R	R	..	Up to 4000′	C	(772)
..	R	R	R	..	..	..	..	..	..	..	..	..	„ 8000′	.. ..	(773)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South from Mergui	(779)
R	R	R	R	R	R	R	..	R	R	R	R	R	Up to 6000′	L C	(780)
..	..	..	..	..	..	..	..	..	..	..	..	?	..	.. ..	(781)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 6000′	C	(782)
R	R	R	R	R	R	R	..	R	R	R	R	R	„ „	L C	(786)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(787)
R	R	..	..	R	R	R	..	R	..	R	R	..	Up to 3000′	L C	(788)
..	R	R	R	..	..	..	..	..	R	..	..	..	..	.. ..	(789)
..	..	..	..	U	..	..	U	..	U	U	..	..	..	] Distribution	(795)
..	..	..	..	U	..	..	U	..	U	U	..	..	..	] uncertain	(796)
..	..	..	..	..	..	..	M	..	..	..	..	M	..	.. ..	(797)
..	..	..	..	..	..	..	M	..	..	..	..	M	..	.. ..	(798)
M	..	..	..	..	..	..	M	..	..	..	M	..	..	.. ..	(799)
1	2	3	4	5	6				7	8	9	10			

Reference:—

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F. B. I. No.	Scientific Name	English Name
	Order I PASSERIFORMES — (Contd.)	
	Family SYLVIIDÆ — (Contd.)	
(800)	Acrocephalus agricola agricola	*The Paddy Field Warbler*
(803)	„ „ stevensi	*Plains* „ „
(805)	Locustella certhiola	*Pallas's Grasshopper* „
(806)	„ lanceolata	*Lanceolated* „
(809)	Tribura taczanowskia	*Chinese Bush* „
(810)	„ thoracica thoracica	*Spotted* „ „
(811)	„ luteoventris	*Brown* „ „
(814)	Orthotomus sutorius patia	*Burmese Tailorbird*
(815)	„ „ longicaudus	*Chinese* „
(816)	„ „ maculicollis	*Siamese* „
(817)	„ atrogularis atrogularis	*Black-necked* „
(818)	„ „ nitidus	*Burmese* „
(819)	„ ruficeps	*Red-headed* „
(820)	„ sepium cineraceus	*Ashy* „
(823)	Cisticola exilis tytleri	*Yellow-headed Fantail Warbler*
(824)	„ „ equicaudata	*Siamese Golden-headed* „ „
(825)	„ juncidis cursitans	*Indian Streaked* „ „
(825a)	„ „ malayana	*Malay* „ „
(827)	Franklinia gracilis	*Franklin's Wren-* „
(828)	„ rufescens rufescens	*Beavan's* „ „
(835)	Graminicola bengalensis striata	*Siamese Large Grass* „
(836)	Megalurus palustris	*Striated Marsh* „
(839)	Phragmaticola aedon	*Thick-billed* „
(852)	Phylloscopus affinis	*Tickell's Willow* „
(852a)	„ subaffinis	*Grant's* „ „
(860)	„ fuscatus fuscatus	*Dusky* „ „
(862)	„ armandii armandii	*Milne-Edwards's* „ „
(862a)	„ „ perplexus	*Yunnan* „ „
(851)	„ schwarzi	*Radde's* „ „
(864)	„ pulcher pulcher	*Nepal Orange-barred* „ „
(871)	„ inornatus inornatus	*The Yellow-browed* „ „
(871a)	„ „ mandellii	*Szechwan* „ „
(866)	„ proregulus chloronotus	*Pallas's Himalayan* „ „
(863)	„ maculipennis maculipennis	*Grey-faced* „ „
(872)	„ borealis borealis	*Eversmann's* „ „
(878)	„ magnirostris	*Large-billed* „ „
(880)	„ trochiloides trochiloides	*Dull Green* „ „
(880a)	„ „ obscuratus	*Kansu* „ „
(876)	„ „ plumbeitarsus	*Middendorff's* „ „

Reference:—

In the Remarks column:—
"C" denotes that the bird is common.
"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION												ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Arakan Yomas	Southern Burma: Pegu Yomas	Southern Burma: Plains	Southern Burma: Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
..	..	..	*M*	..	..	..	..	..	..	..	..	..	..	Bhamo (1 record)	(800)
..	..	..	..	..	..	..	U	U	U	..	U	*U*	..	North	(803)
..	..	..	?	M	..	..	M	..	M	M	..	..	..	L C	(805)
..	..	..	?	..	..	..	M	..	M	M	..	M	..	.. ..	(806)
..	..	..	..	..	..	..	M	..	..	..	..	..	..	.. ..	(809)
..	..	M	R	..	..	..	..	..	..	..	..	..	Up to 12000'	VM to foothills	(810)
..	R	..	R	..	..	..	..	..	..	..	..	..	Above 5000'	„ „ „	(811)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to „	C	(814)
..	..	..	..	..	..	..	..	..	*R*	..	..	..	..	East side	(815)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(816)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South	(817)
..	..	..	R	..	..	R	R	R	R	R	R	R	Up to 5000'	L C	(818)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	Extreme south	(819)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South	(820)
R	..	R	R	..	..	..	..	..	..	..	..	..	..	.. ..	(823)
..	..	..	..	..	..	..	R	..	..	..	..	..	..	.. ..	(824)
R	R	R	R	R	..	..	..	..	R	R	R	..	Up to 4000'	C	(825)
..	..	..	..	..	..	..	R	..	..	..	..	R	..	C	(825a)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 5000'	C	(827)
R	R	R	R	R	R	R	R	R	R	R	R	R	„ „	C	(828)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(835)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 4000'	L C	(836)
M	M	M	M	M	M	M	M	M	M	M	M	M	„ „	C	(839)
M	M	M	M	M	..	..	M	..	M	M	..	..	..	.. ..	(852)
..	..	..	M	..	..	..	..	..	..	..	..	..	..	.. ..	(852a)
M	M	M	M	M	M	M	M	M	M	M	M	M	Up to 4000'	.. ..	(860)
..	..	..	..	..	..	..	..	..	..	..	..	..	..	] Some specimens	(862)
..	U	..	R	..	..	M	..	..	..	U	..	..	Up to 10000'	] nearer (862)	(862a)
..	M	..	..	..	..	..	M	M	..	..	..	*M*	„ 4600'	North	(851)
..	U	U	R	..	..	..	..	..	U	U	U	*U*	„ 12000'	North	(864)
M	M	M	M	M	M	M	M	M	M	M	M	M	„ 8000'	.. ..	(871)
..	M	..	..	..	..	M	..	..	..	..	..	M	Above 4000'	3 records only	(871a)
?	U	..	U	..	..	..	..	U	..	U	..	..	„ 5000'	.. ..	(866)
..	U	..	U	..	..	..	..	..	..	..	U	..	„ 7000'	VM down to 2,500'	(863)
..	..	..	..	..	..	..	..	..	..	..	..	M	..	.. ..	(872)
?	..	..	R	..	..	..	M	M	..	..	..	?	Above 6000'	.. ..	(878)
M	M	M	M	M	M	M	M	M	M	M	M	*M*	..	] South to "Assoon"	(880)
..	..	..	..	..	..	..	..	..	..	..	..	..	..	] - Some specimens nearest (880a)	(880a)
M	..	..	M	M	M	M	M	M	M	M	M	*M*	Up to 4000'	South to Mergui	(876)
1	2	3	4	5	6				7	8	9	10			

Reference: —

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Under "Distribution": —

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F. B. I. No.	Scientific Name	English Name
	Order I PASSERIFORMES — (Contd.)	
	Family SYLVIIDÆ — (Contd.)	
(879)	**Phylloscopus** tenellipes - - -	*Pale-legged Willow Warbler*
(882)	„ coronatus coronatus	*Temminck's Crowned* „ „
(883)	„ reguloides reguloides -	*Blyth's* „ „
(884)	„ „ assamensis -	*Baker's* „ „
(886)	„ „ claudiæ	*La Touche's Yunnan* „ „
(885)	„ davisoni davisoni	*Tenasserim White-tailed* „ „
(895)	„ cantator - -	*Black-browed* „ „
(887)	**Muscitrea** grisola grisola - -	*Grey Flycatcher-* „
(888)	**Seicercus** affinis - - - -	*Allied* „ „
(890)	„ burkii tephrocephalus -	*Anderson's* „ „
(890a)	„ „ pectoralis -	*Chin Hills* „ „
(891)	„ xanthoschistus xanthoschistus	*Grey-headed* „ „
(893)	„ poliogenys - -	*Grey-cheeked* „ „
(894)	„ castaneoceps castaneoceps	*Chestnut-headed* „ „
(897)	**Abroscopus** superciliaris superciliaris	*Yellow-bellied* „ „
(898)	„ „ schwaneri	*Bornean* „ „
(900)	„ schisticeps ripponi	*Sharpe's Black-faced* „ „
(901)	„ „ flavimentalis	*Chin Hills* „ „ „
(902)	„ albogularis albogularis	*White-throated* „ „
(904)	**Tickellia** hodgsoni - -	*Broad-billed* „ „
(906)	**Neornis** flavolivaceus flavolivaceus	- - *The Aberrant* „
(907)	„ „ intricatus -	- - *Shan* „ „
(910)	**Homochlamys** fortipes - -	- *Strong-footed Bush* „
(913)	„ pallidipes pallidipes	- *Blanford's* „ „
(917)	**Horeites** brunnifrons brunnifrons	- *Rufous-capped* „ „
(919)	„ „ umbraticus	*Yunnan* „ „ „
(921)	**Urophlexis** squameiceps - -	- *Swinhoe's Reed* „
(922)	**Phyllergates** cucullatus coronatus	- - *Golden-headed* „
(925)	**Suya** crinigera assamica - -	- *Assam Brown Hill* „
(926)	„ „ yunnanensis -	- *Yunnan* „ „ „
(927)	„ „ cooki - -	*Harington's* „ „ „
(929)	„ atrogularis khasiana -	- - *Austen's* „ „
(930)	„ superciliaris superciliaris -	- *Anderson's* „ „
(933)	**Prinia** flaviventris flaviventris	- *Yellow-bellied Wren-* „
(943)	„ inornata blanfordi -	- *Tenasserim* „ „
	Family IRENIDÆ	
(950)	**Irena** puella sikkimensis -	- - *The Fairy Bluebird*
(951)	„ „ malayensis -	- *Malay* „ „

Reference:—

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"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION												ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
					Southern Burma									
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Arakan Yomas	Pegu Yomas	Plains	Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
..	..	..	..	..	..	..	M	M	..	..	..	M	..	.. ..	(879)
..	..	..	..	..	..	..	*M*	..	..	..	..	M	..	Pegu (1 record)	(882)
..	..	..	M	..	..	..	..	..	U	..	..	M	..	2 records only	(883)
..	R	..	R	..	..	..	M	..	..	..	R	*U*	..	North	(884)
..	..	..	..	..	..	M	..	M	..	M	M	*M*	..	"	(886)
..	..	..	R	..	..	..	..	R	R	R	R	*R*	Above 3500'	"	(885)
..	..	..	R	R	..	M	..	R	R	..	..	..	3000'-8000'	VM down to sea level	(895)
U	..	..	..	..	..	..	U	..	..	..	..	R	..	Ramree Island	(887)
..	..	*M*	..	..	..	..	..	..	..	..	..	..	..	Uyu valley (1 record)	(888)
..	R	R	R	..	..	..	U	U	U	U	U	U	..	L C	(890)
?	R	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	(890a)
?	R	..	R	..	R	..	..	..	..	..	..	..	3000'-6000'	VM	(891)
..	..	..	R	..	..	..	..	..	..	..	..	..	Above 4000'	.. ..	(893)
..	R	..	R	..	..	..	..	..	..	R	..	..	" 3000'	.. ..	(894)
R	R	R	R	M	M	M	M	R	R	R	R	R	Up to 4000'	L C	(897)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(898)
..	..	..	R	..	..	..	..	..	R	R	..	..	..	.. ..	(900)
..	R	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	(901)
..	R	..	R	..	..	..	..	..	..	..	..	..	Up to 4000'	.. ..	(902)
..	R	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	(904)
..	R	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	(906)
..	..	..	R	..	..	..	..	..	R	R	..	..	4500'-7000'	.. ..	(907)
..	..	..	U	..	..	..	..	..	..	..	U	..	3000'-7000'	.. ..	(910)
..	..	..	..	R	..	..	..	..	U	U	U	U	" "	.. ..	(913)
..	R	..	..	..	..	..	..	..	..	..	..	..	Above 6000'	.. ..	(917)
..	..	..	R	..	..	..	..	..	..	..	..	..	..	.. ..	(919)
..	M	..	..	M	..	M	..	..	..	M	..	M	" "	L	(921)
..	R	..	R	..	..	U	..	R	..	..	R	R	Up to 9000'	L C	(922)
..	R	..	..	R	..	..	..	..	..	..	..	..	..	L C	(925)
..	..	..	..	..	..	..	..	..	*R*	*R*	..	..	..	East side	(926)
..	..	..	..	R	..	..	..	..	R	R	..	..	Up to 4500'	C in Dry Zone	(927)
..	R	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	(929)
..	..	..	R	..	..	..	..	R	..	R	R	R	Above 3000'	C	(930)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 4000'	L C	(933)
R	R	R	R	R	R	R	R	R	R	R	R	R	" "	C	(943)
R	R	R	R	R	R	R	R	R	R	R	R	R	Below 3000'	L	(950)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South	(951)
1	2	3	4	5	6				7	8	9	10			

Reference:—

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F. B. I. No.	Scientific Name	English Name
	Order I PASSERIFORMES — (Contd.)	
	Family ORIOLIDÆ	
(954)	**Oriolus** chinensis diffusus	*Indian Black-naped Oriole*
(955)	„ „ tenuirostris	*Burmese* „ „
(958)	„ xanthornus xanthornus	*Indian Black-headed* „
(960)	„ xanthonotus xanthonotus	*Malay* „ „
(961)	„ trailii trailii	*Maroon* „
	Family GRACULIDÆ	
(962)	**Gracula** religiosa religiosa	*Southern Grackle*
(964)	„ „ intermedia	*Indian* „
(967)	**Lamprocorax** panayensis strigatus	*The Glossy Stare*
(969)	„ „ affinis	*Hodgson's* „ „
(970)	**Saroglossa** spiloptera spiloptera	*Spotted-winged* „
	Family STURNIDÆ	
(976)	**Sturnus** vulgaris poltaratzskii	*Finsch's Starling*
(980)	**Spodiopsar** cineraceus	*Grey* „
(981)	**Sturnia** buffoniana	*Chinese Myna*
(987)	„ malabarica nemoricola	*White-winged* „
(988)	**Agropsar** sturninus	*Daurian* „
(989)	**Ampeliceps** coronatus	*Gold-crested* „
(992)	**Gracupica** nigricollis	*Black-necked* „
(993)	„ burmanica	*Jerdon's* „
(994)	„ leucocephala leucocephala	*Hume's* „
(996)	**Acridotheres** tristis tristis	*Common* „
(999)	**Æthiopsar** griseus fuscus	*Indian Jungle* „
(1001)	„ „ grandis	*Siamese* „ „
(1001a)	„ cristatellus cristatellus	*Chinese* „ „
(1003)	„ albocinctus	*Collared* „
(1004)	**Sturnopastor** contra contra	*Indian Pied* „
(1006)	„ „ superciliaris	*Burmese* „ „
(1007)	„ „ floweri	*Siamese* „ „
	Family PLOCEIDÆ	
	Sub-family PLOCEINÆ	
(1008)	**Ploceus** philippinus	*The Baya Weaverbird*
(1010)	„ infortunatus burmanicus	*Eastern* „ „
(1011)	„ „ infortunatus	*Malay* „ „
(1013)	„ manyar flaviceps	*Madras Streaked* „
(1015)	„ „ peguensis	*Burmese Striated* „
(1016)	**Ploceella** chrysæa	*Golden* „

Reference:—

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"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION											ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
					Southern Burma								
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Arakan Yomas	Pegu Yomas	Plains	Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
M	..	..	..	*M*	..	..	M	..	..	..	..	M	..	Mandalay	(954)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 5000'	L	(955)
R	R	R	R	R	R	R	R	R	R	R	R	R	„ „	C	(958)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	Extreme south	(960)
R	R	R	R	R	R	..	..	R	R	R	R	R	Above 3000'	L	(961)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South	(962)
R	R	R	R	R	R	R	R	R	R	R	R	R	Above 3000'	North L	(964)
?	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(967)
?	..	..	..	..	..	..	..	..	..	..	..	U	Up to 4000'	.. ..	(969)
..	..	..	M	..	..	..	M	M	..	M	..	..	..	.. ..	(970)
..	..	..	*M*	..	..	..	..	..	..	..	..	..	..	Fort Hertz (1 record)	(976)
..	M	..	M	..	..	..	..	..	..	..	..	..	..	.. ..	(980)
..	..	..	..	..	..	..	*M*	..	..	..	..	..	..	Pegu	(981)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 4000'	L C	(987)
..	..	..	..	..	..	..	*M*	..	..	..	..	M	„ „	Pegu (1 record)	(988)
..	..	..	..	U	..	..	U	..	..	..	..	R	„ „	Mogok foothills	(989)
..	..	..	R	R	..	..	..	..	R	R	..	R	„ „	L C	(992)
R	R	R	R	R	R	R	R	R	R	R	R	..	Up to 6000'	L C	(993)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(994)
R	R	R	R	R	R	R	R	R	R	R	R	*R*	Up to 5000'	North C	(996)
R	R	..	..	R	..	..	R	..	..	..	R	R	„ „	C	(999)
..	R	R	R	..	..	..	..	R	R	R	R	*R*	„ „	In hills C	(1001)
..	..	..	..	..	..	..	..	..	*R*	..	..	..	..	North Hsenwi (Malipa)	(1001a)
..	R	..	R	R	..	..	..	..	R	R	..	..	..	.. ..	(1003)
R	..	..	..	..	..	..	..	..	..	..	..	..	..	Akyab	(1004)
R	R	R	R	R	R	R	R	R	R	R	R	R	Below 3000'	C	(1006)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	Extreme south	(1007)
?	..	..	..	..	..	..	*R*	..	..	..	..	..	..	Prome (1 record)	(1008)
R	R	R	R	R	R	..	R	..	R	R	R	R	Up to 4000'	C	(1010)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	Extreme south	(1011)
U	..	..	..	..	U	..	U	..	..	..	..	..	..	Race uncertain	(1013)
R	R	R	R	R	..	..	R	..	R	R	R	R	Below 3000'	L C	(1015)
..	..	..	..	R	..	..	R	..	..	..	..	*R*	„ „	North L	(1016)
1	2	3	4	5	6				7	8	9	10			

Reference:—

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Under "Distribution":—

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F. B. I. No.	Scientific Name	English Name
	Order I PASSERIFORMES — (Contd.)	
	Family PLOCEIDÆ — (Contd.)	
	Sub-family ESTRILDINÆ	
(1019)	**Munia** atricapilla atricapilla	*Malay Chestnut-bellied Munia*
(1024)	**Uroloncha** striata acuticauda	*Hodgson's* „
(1027)	„ leucogastra leucogastra	*White-bellied* „
(1031)	„ punctulata lineoventer	*Indian Spotted* „
(1034)	**Erythrura** prasina prasina	*Malay Long-tailed* „
(1037)	**Amandava** amandava flavidiventris	*Burmese Red* „
	Family FRINGILLIDÆ	
	Sub-family COCCOTHRAUSTINÆ	
(1040)	**Perissospiza** icterioides affinis	*Allied Grosbeak*
(1041)	„ carnipes carnipes	*White-winged* „
(1042)	**Mycerobas** melanoxanthus	*Spotted-winged* „
	Sub-family FRINGILLINÆ	
(1045)	**Pyrrhula** erythaca erythaca	*Beavan's Bullfinch*
(1048)	„ nipalensis victoriæ	*Mt. Victoria* „
(1048a)	„ „ ricketti	*Rickett's* „
(1049)	**Pyrrhoplectes** epauletta	*Gold-headed Black Finch*
(1050)	**Loxia** curvirostra himalayana	*Himalayan Crossbill*
(1051)	**Hæmatospiza** sipahi	*Scarlet Finch*
(1052)	**Propyrrhula** subhimachala subhimachala	*Red-headed Rose Finch*
(1064)	**Carpodacus** edwardsii saturatus	*Nepal Large* „ „
(1065)	„ verreauxii	*Sharpe's* „ „
(1066)	„ vinaceus vinaceus	*Vinaceous* „ „
(1067)	„ erythrinus erythrinus	*Common* „ „
(1069)	„ „ roseatus	*Hodgson's* „ „
(1077)	**Procarduelis** nipalensis	*Yunnan Dark* „ „
(1089a)	**Hypacanthis** spinoides heinrichi	*Mt. Victoria Green* „
(1090)	„ „ ambiguus	*Yunnan* „ „
(1091)	**Spinus** tibetanus	*Tibetan Siskin*
(1096)	**Passer** domesticus indicus	*Indian House Sparrow*
(1102)	„ montanus malaccensis	*Malay Tree* „
(1105)	„ rutilans cinnamomeus	*Cinnamon* „ „
(1107)	„ „ intensior	*Yunnan* „ „ „
(1108)	„ flaveolus	*Pegu House* „
(1115)	**Fringillauda** nemoricola nemoricola	*Hodgson's Mountain Finch*

Reference:—

In the Remarks column:—
"C" denotes that the bird is common.
"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION												ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
					Southern Burma									
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Arakan Yomas	Pegu Yomas	Plains	Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 4000′	C	(1019)
R	R	R	R	R	R	R	R	R	R	R	R	R	" "	C	(1024)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	.. ..	South from Tavoy	(1027)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 5000′	C	(1031)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South	(1034)
R	R	R	R	R	..	..	R	..	R	R	R	R	Up to 5000′	L	(1037)
..	..	..	*R*	..	..	..	..	..	..	..	..	..	12,000′	Adung valley	(1040)
..	..	..	*R*	..	..	..	..	..	..	..	..	..	"	" "	(1041)
..	R	..	R	..	..	..	..	..	R	R	..	..	Above 6000′	VM down to 1000′	(1042)
..	..	..	*R*	..	..	..	..	..	..	..	..	..	12,000′	Adung valley	(1045)
..	R	..	..	..	..	..	..	..	..	..	..	..	Above 5000′	.. ..	(1048)
..	..	..	*R*	..	..	..	..	..	..	..	..	..	6000′	Adung valley	(1048a)
..	..	..	R	..	..	..	..	..	..	..	..	..	..	.. ..	(1049)
..	..	..	R	..	..	..	..	..	..	..	..	..	..	.. ..	(1050)
..	*R*	..	R	..	..	..	..	..	..	..	..	..	..	Mt. Victoria	(1051)
..	..	..	R	..	..	..	..	..	..	..	..	..	Above 6000′	.. ..	(1052)
..	..	..	R	..	..	..	..	..	..	..	..	..	..	.. ..	(1064)
..	..	..	R	..	..	..	..	..	..	..	..	..	..	.. ..	(1065)
..	..	..	R	..	..	..	..	..	*U*	..	..	..	Above 5000′	East	(1066)
..	..	..	M	..	..	..	..	..	..	..	..	..	..	.. ..	(1067)
U	U	..	U	..	..	..	..	M	U	U	M	M	Above 3000′	.. ..	(1069)
..	..	..	..	..	..	..	..	..	U	..	..	..	8000′	One record	(1077)
..	*R*	..	..	..	..	..	..	..	..	..	..	..	..	Mt. Victoria	(1089a)
..	..	..	R	..	..	..	..	..	R	R	R	..	Above 4000′	.. ..	(1090)
..	..	..	M	..	..	..	..	..	..	..	..	..	..	.. ..	(1091)
R	R	R	R	R	..	..	R	..	R	R	R	*R*	Below 3000′	North L C	(1096)
R	R	R	R	R	..	..	R	..	R	R	R	R	Up to 6000′	C	(1102)
..	R	..	..	..	..	..	..	..	..	..	..	..	" 7500′	.. ..	(1105)
..	..	..	R	..	..	..	..	..	R	R	R	..	" "	.. ..	(1107)
R	R	..	..	R	..	..	R	..	R	R	R	..	Up to 4000′	L C	(1108)
..	..	..	*R*	..	..	..	..	..	..	..	..	..	6000′	Adung valley	(1115)
1	2	3	4	5	6				7	8	9	10			

Reference:—

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Under "Distribution":—

Column numbers correspond with the Distribution Area numbers shown on the Map at the end of this book.

"R" denotes that the bird is a resident.
"M" denotes that the bird is a migrant.
"U" denotes uncertainty as to whether the bird is a resident or migrant.

Where the letters "R" "M" or "U" occur in italics they denote that the bird has only been recorded from that part of the Distribution Area noted in the Remarks column.

F. B. I. No.	Scientific Name	English Name
	Order I PASSERIFORMES — (Contd.)	
	Family FRINGILLIDÆ — (Contd.)	
	Sub-family EMBERIZINÆ	
(1120)	**Emberiza** fucata fucata	*The Grey-headed* Bunting
(1121)	„ „ arcuata	*Indian* „ „
(1122)	„ pusilla	*Little* „
(1128)	„ sodlenskii yunnanensis	*Yunnan Meadow* „
(1131)	„ aureola	*Yellow-breasted* „
(1132)	„ spodocephala sordida	*Black-faced* „
(1135)	„ rutila	*Chestnut* „
(?)	„ tristrami	*?* „
(?)	„ elegans	*?* „
(1139)	**Melophus** lathami subcristata	*Crested* „
	Family HIRUNDINIDÆ	
(1142)	**Martula** dasypus cashmeriensis	*Kashmir House Martin*
(1143)	„ urbica whiteleyi	*Siberian* „ „
(1144)	„ nepalensis	*Hodgson's* „ „
(1147)	**Riparia** riparia ijimæ	*Eastern Sand* „
(1148)	„ paludicola chinensis	*Indian* „ „
(1150a)	„ concolor sintaungensis	*Dusky Crag* „
(1153)	**Hirundo** rustica gutturalis	*Eastern Swallow*
(1154)	„ „ tytleri	*Tytler's* „
(1155)	„ javanica javanica	*Javan House* „
(1157)	„ smithii filifera	*Indian Wire-tailed* „
(1160)	„ daurica striolata	*Chinese Striated* „
(1161)	„ „ japonica	*Hodgson's* „ „
	Family MOTACILLIDÆ	
(1166)	**Motacilla** alba dukhunensis	*Indian White Wagtail*
(1168)	„ „ personata	*Masked* „
(1169)	„ „ baicalensis	*Swinhoe's* „
(1170)	„ „ ocularis	*Streak-eyed* „
(1171)	„ „ alboides	*Hodgson's Pied* „
(1173)	„ „ leucopsis	*White-faced* „
(1174)	„ cinerea melanope	*Eastern Grey* „
(1176a)	„ flava simillima	*Kamchatkan Grey-headed* „
(1176b)	„ „ macronyx	*East Siberian* „ „
(1177)	„ „ taivana	*Chinese Green* „
(1181)	„ citreola citreola	*The Yellow-headed* „
(1182)	„ „ calcarata	*Hodgson's* „ „

Reference:—

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"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION													ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F.B.I. No.
					Southern Burma										
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Arakan Yomas	Pegu Yomas	Plains	Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
M	M	M	M	M	M	M	M	M	M	M	M	*M*	Below 3000'	North L C	(1120)
..	M	..	M	..	..	..	..	..	..	..	..	..	..	.. ..	(1121)
M	M	..	M	M	M	..	M	..	M	M	..	*M*	Up to 6000'	North	(1122)
..	..	..	..	..	..	..	..	..	*M*	..	..	..	..	Lashio (1 record)	(1128)
M	M	M	M	M	M	M	M	M	M	M	M	M	Up to 4500'	L C	(1131)
..	M	..	M	..	..	..	..	..	..	..	..	..	..	.. ..	(1132)
M	M	M	..	M	M	M	M	M	M	M	M	M	Up to 6000'	.. ..	(1135)
..	..	..	U	..	..	..	..	..	..	..	..	..	..	.. ..	(?)
..	..	..	U	..	..	..	..	..	..	..	..	..	..	.. ..	(?)
R	R	R	R	R	R	U	U	R	R	R	R	R	..	L	(1139)
..	..	..	*M*	..	M	..	..	..	..	..	..	..	..	Myitkyina town	(1142)
..	..	..	M	M	..	M	..	M	..	M	M	M	..	.. ..	(1143)
?	..	U	U	..	..	..	..	..	..	..	..	..	..	.. ..	(1144)
..	..	..	..	M	..	..	..	M	..	..	..	*M*	..	Salween	(1147)
R	R	R	R	R	R	R	R	R	R	R	R	R	Below 3000'	Local migrant	(1148)
..	..	..	..	..	..	..	..	..	?	*U*	..	?	..	Mt. Byingye	(1150a)
M	M	M	M	M	M	M	M	M	M	M	M	M	..	C	(1153)
M	..	..	M	M	..	..	M	..	M	..	M	..	..	.. ..	(1154)
?	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1155)
..	?	?	R	R	..	..	R	R	R	R	R	R	..	L	(1157)
..	..	..	..	..	..	..	..	..	R	R	R	..	..	.. ..	(1160)
M	..	..	..	*M*	..	..	M	M	..	..	M	..	..	Mogok	(1161)
..	..	..	..	..	..	..	*M*	..	..	..	..	*M*	..	Pegu North	(1166)
..	..	..	*M*	..	..	..	..	..	..	..	..	..	..	Tamu (1 record)	(1168)
..	..	..	M	..	..	..	..	M	M	M	M	..	..	Myitkyina	(1169)
..	..	..	M	..	..	..	M	..	..	..	..	..	..	.. ..	(1170)
..	..	..	U	..	..	..	..	..	..	..	..	*M*	..	Kamauli (Salween)	(1171)
M	M	M	M	M	M	M	M	M	M	M	M	M	Up to 5000'	North C	(1173)
M	M	M	M	M	M	M	M	M	M	M	M	M	Below 3000'	C	(1174)
M	..	..	M	M	..	..	M	..	..	..	..	..	..	.. ..	(1176a)
..	..	..	M	M	..	..	M	..	..	..	..	..	..	.. ..	(1176b)
..	..	..	..	..	..	..	..	..	..	..	..	..	..	One record, locality uncertain	(1177)
M	M	M	M	M	M	M	M	M	M	M	M	M	Below 3000'	L C	(1181)
..	..	..	M	..	..	..	..	*M*	..	..	..	..	" "	Papun	(1182)
1	2	3	4	5	6				7	8	9	10			

Reference:—

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F. B. I. No.	Scientific Name	English Name
	Order I PASSERIFORMES — (Contd.)	
	Family MOTACILLIDÆ — (Contd.)	
(1183)	**Dendronanthus** indicus	*Forest Wagtail*
(1186)	**Anthus** hodgsoni hodgsoni	*Indian Tree Pipit*
(1188)	„ „ berezowskii	*Kansu* „ „
(1191)	„ similis jerdoni	*Brown Rock* „
(1193)	„ richardi richardi	*Richard's* „
(1194)	„ „ godlewskii	*Blyth's* „
(1195)	„ rufulus rufulus	*Indian* „
(1196)	„ „ malayensis	*Malay* „
(1199)	„ cervinus	*Red-throated* „
(1200)	„ roseatus	*Hodgson's* „
	Family ALAUDIDÆ	
(1213)	**Alauda** arvensis japonica	*Japanese Skylark*
(1213a)	„ „ pekinensis	*Pekin* „
(1215)	„ gulgula gulgula	*Indian Small* „
(1217a)	„ „ weigoldi	*Szechwan* „ „
(1218)	„ „ herberti	*Siamese* „ „
(1222)	**Calandrella** brachydactyla dukhunensis	*Rufous Short-toed Lark*
(?)	„ rufescens subsp.	*? Sand* „
(1225)	„ raytal raytal	*Ganges* „ „
(1230)	**Mirafra** javanica williamsoni	*Siamese Singing Bush* „
(1232)	„ assamica marionæ	*Siamese* „ „
(1234)	„ „ microptera	*Burmese* „ „
	Family ZOSTEROPIDÆ	
(1247)	**Zosterops** palpebrosa palpebrosa	*Indian White-Eye*
(1252)	„ simplex	*Pegu* „
(1253)	„ siamensis	*Siamese* „
(1254)	„ aureiventris aureiventris	*Hume's* „
(?)	„ erythropleura	*Chinese* „
	Family CHALCOPARIIDÆ	
(1257)	**Chalcoparia** singalensis singalensis	*Malay Rubycheek*
(1257a)	„ „ assamensis	*Assam* „

Reference:—

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"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION													ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Arakan Yomas	Southern Burma: Pegu Yomas	Southern Burma: Plains	Southern Burma: Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
U	U	U	U	M	U	M	M	U	U	U	U	U	Up to 5000'	L	(1183)
M	M	M	M	M	M	M	M	M	M	M	M	M	„ 6000'	C	(1186)
..	U	..	U	..	..	..	..	..	..	..	..	..	..	.. ..	(1188)
..	..	..	..	M	..	..	..	..	M	M	..	..	Up to 5000'	.. ..	(1191)
M	M	M	M	M	M	M	M	M	M	M	M	M	..	] Distribution of	(1193)
M	M	M	M	M	M	M	M	M	M	M	M	M	..	races uncertain	(1194)
R	R	R	R	R	R	R	R	R	R	R	R	..	Up to 4000'	.. ..	(1195)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1196)
M	..	..	..	..	..	..	M	..	..	..	..	M	..	.. ..	(1199)
?	..	..	M	..	..	..	..	..	M	..	..	..	..	.. ..	(1200)
..	..	..	..	..	..	..	..	..	M	M	..	..	..	.. ..	(1213)
..	..	..	..	..	..	..	..	..	M	..	..	..	..	.. ..	(1213a)
R	R	R	R	R	R	R	R	R	R	R	R	R	Below 3000'	C	(1215)
..	R	..	..	..	..	..	..	..	..	..	..	..	„ „	Mt. Victoria	(1217a)
..	..	..	..	..	..	..	..	..	..	..	..	R	„ „	South-east	(1218)
..	..	..	M	..	..	..	M	..	..	..	..	..	„ „	Myitkyina, Pegu	(1222)
..	..	..	U	..	..	..	..	..	..	..	..	..	..	.. ..	(?)
..	..	..	..	R	..	..	R	..	..	..	..	..	..	Big rivers	(1225)
..	..	..	..	U	..	..	..	..	..	..	..	..	..	Shwebo (1 record)	(1230)
?	..	..	..	..	..	..	..	..	..	..	..	U	..	"Kyauk Phyon" (1 record)	(1232)
..	..	..	..	R	..	..	..	..	R	..	..	..	Below 3000'	C	(1234)
R	R	R	R	..	R	..	R	..	R	R	R	..	Up to 5000'	L C	(1247)
..	..	..	..	..	..	U	..	..	U	U	..	U	..	Pegu, North	(1252)
..	..	..	..	U	..	..	U	..	..	..	U	U	Up to 6000'	.. ..	(1253)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1254)
..	..	..	..	..	..	..	..	M	..	M	M	..	..	Kengtung	(?)
..	..	..	..	R	..	R	R	..	..	..	..	R	Below 3000'	] L Distribution of	(1257)
R	..	R	..	R	R	..	..	..	..	..	..	..	„ „	races uncertain	(1257a)
1	2	3	4	5	6				7	8	9	10			

Reference:—

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F. B. I. No.	Scientific Name	English Name

Order I PASSERIFORMES — (Contd.)

Family NECTARINIIDÆ

Sub-family NECTARINIINÆ

(1259)	**Chalcostetha** chalcostetha	*Maklot's Sunbird*
(1260)	**Æthopyga** siparaja cara	*Tenasserim Yellow-backed* „
(1262)	„ „ seheriæ	*Indian* „ „
(1267)	„ ignicauda flavescens	*Rippon's Fire-tailed* „
(1268)	„ „ exultans	*Yunnan* „ „
(1269)	„ gouldiæ gouldiæ	*Mrs. Gould's* „
(1270)	„ „ isolata	*Manipur Yellow-backed* „
(1271)	„ „ dabryi	*Dabry's* „
(1272)	„ saturata saturata	*Black-breasted* „
(1273)	„ sanguinipectus sanguinipectus	*Walden's Yellow-backed* „
(1274)	„ nipalensis nipalensis	*Nepal* „ „
(1276)	„ „ victoriæ	*Rippon's* „ „
(1276a)	„ „ karenensis	*Nattaung* „ „
(1279)	**Cinnyris** asiatica intermedia	*Burmese Purple* „
(1281)	„ brasiliana	*Van Hasselt's* „
(1282)	„ pectoralis pectoralis	*Malay Yellow-breasted* „
(1284)	„ flammaxillaris flammaxillaris	*Burmese* „ „
(1288)	**Anthreptes** hypogrammica lisettæ	*Banded* „
(1289)	„ malaccensis malaccensis	*Brown-throated* „
(1290)	„ rhodolæma	*Rufous-throated* „
(1291)	„ simplex frontalis	*Plain-coloured* „

Sub-family ARACHNOTHERINÆ

(1292)	**Arachnothera** chrysogenys intensiflava	*Tenasserim Yellow-eared Spiderhunter*
(1293)	„ magna magna	*Indian Streaked* „
(1294)	„ „ aurata	*Pegu* „ „
(1295)	„ affinis modesta	*Grey-breasted* „
(1296)	„ longirostra longirostra	*Little* „

Family DICÆIDÆ

(1297)	**Dicæum** cruentatum cruentatum	*Indian Scarlet-backed Flowerpecker*
(1298)	„ „ ignitum	*Burmese* „ „
(1299)	„ „ siamensis	*Siamese* „ „
(1300)	„ trigonostigma rubropygium	*Tenasserim Orange-bellied* „

Reference:—

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"C" denotes that the bird is common.
"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION													ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Arakan Yomas	Southern Burma: Pegu Yomas	Southern Burma: Plains	Southern Burma: Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
..	..	..	..	..	..	..	..	..	..	..	..	R	Below 3000′	South	(1259)
..	..	..	..	..	..	R	..	..	..	..	..	R	..	] Distribution of	(1260)
..	R	R	R	..	..	..	..	..	R	R	..	..	..	] races uncertain	(1262)
..	R	..	..	..	..	..	..	..	..	..	..	..	..	Mt. Victoria	(1267)
..	..	..	R	..	..	..	..	..	..	..	..	..	Above 4000′	.. ..	(1268)
..	R	..	..	..	..	..	..	..	..	..	..	..	..	Mt. Victoria	(1269)
..	R	..	..	..	..	..	..	..	..	..	..	..	..	Mt. Victoria	(1270)
..	..	..	R	..	..	..	..	R	R	R	R	R	Above 4000′	Mt. Mulayit	(1271)
..	R	R	R	..	..	..	..	..	R	R	..	..	Up to 5000′	L C	(1272)
..	..	..	..	..	..	..	..	R	..	R	R	R	Above 3000′	North L C	(1273)
..	..	..	R	..	..	..	..	..	R	R	..	..	" "	L C	(1274)
..	R	..	..	..	..	..	..	..	..	..	..	..	" "	Mt. Victoria	(1276)
..	..	..	..	..	..	..	..	..	..	..	R	..	" "	Nattaung	(1276a)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 4000′	North	(1279)
R	..	..	..	..	..	R	R	..	..	..	..	R	Below 3000′	C in Tenasserim	(1281)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1282)
R	..	..	..	R	..	R	R	..	?	?	..	R	Below 3000′	South, Mandalay	(1284)
?	..	R	R	R	..	..	..	..	..	..	..	R	..	Bhamo	(1288)
R	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1289)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1290)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	South from Tavoy	(1291)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	South from Mergui	(1292)
R	R	R	..	..	..	..	..	..	R	R	R	R	Up to 6000′	C	(1293)
..	..	..	..	..	..	R	R	..	..	..	?	..	..	C	(1294)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1295)
R	R	R	R	R	R	R	R	R	R	R	R	R	Below 3000′	L	(1296)
..	R	..	..	..	..	..	..	..	..	..	..	..	..	Mt. Victoria	(1297)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 4000′	C	(1298)
..	..	..	..	..	..	..	..	..	..	R	..	R	..	.. ..	(1299)
?	..	..	..	..	..	..	R	R	..	..	..	R	..	Pegu (1 record)	(1300)
1	2	3	4	5	6				7	8	9	10			

Reference:—

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Under "Distribution":—

Column numbers correspond with the Distribution Area numbers shown on the Map at the end of this book.

"R" denotes that the bird is a resident.
"M" denotes that the bird is a migrant.
"U" denotes uncertainty as to whether the bird is a resident or migrant.

Where the letters "R" "M" or "U" occur in italics they denote that the bird has only been recorded from that part of the Distribution Area noted in the Remarks column.

F. B. I. No.	Scientific Name	English Name	
	Order I PASSERIFORMES — (Contd.)		
	Family DICÆIDÆ — (Contd.)		
(1302)	**Dicæum** chrysorrheum chrysochlore	*Burmese Yellow-vented*	*Flowerpecker*
(1303)	„ ignipectus ignipectus	*Fire-breasted*	„
(1306)	„ concolor olivaceum	*Plain-coloured*	„
(1308)	„ erythrorhynchum erythrorhynchum	*Tickell's*	„
(1312)	**Piprisoma** modestum modestum	*Hume's*	„
(1313)	**Anaimos** ignicapillus	*Crimson-breasted*	„
(1314)	„ maculatus maculatus	*Yellow-throated*	„
	Family PITTIDÆ		
(1316)	**Anthocincla** phayrei	*Phayre's*	*Pitta*
(1317)	**Pitta** nepalensis	*Blue-naped*	„
(1318)	„ oatesi	*Fulvous*	„
(1319)	„ cœrulea cœrulea	*Giant*	„
(1320)	„ cyanea cyanea	*Blue*	„
(1321)	„ moluccensis	*Lesser Blue-winged*	„
(1322)	„ megarhyncha	*Large-billed* „	„
(1324)	„ granatina coccinea	*Malay Scarlet*	„
(1325)	„ cucullata cucullata	*Green-breasted*	„
(1327)	„ gurneyi	*Gurney's*	„
	Family EURYLAIMIDÆ		
(1328)	**Eurylaimus** javanicus javanicus	*Horsfield's*	*Broadbill*
(1329)	„ ochromalus	*Black-and-Yellow*	„
(1330)	**Corydon** corydon corydon	*Dusky*	„
(1331)	**Cymbirhynchus** macrorhynchus macrorhynchus	*The Black-and-Red*	„
(1332)	„ macrorhynchus affinis	*Arakan* „	„
(1333)	**Serilophus** lunatus lunatus	*Gould's*	„
(1334)	„ rubropygius	*Hodgson's*	„
(1335)	**Psarisomus** dalhousiæ	*Long-tailed*	„
(1336)	**Calyptomena** viridis	*Green*	„

Reference:—

In the Remarks column:—
"C" denotes that the bird is common.
"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION												ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
					Southern Burma									
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Arakan Yomas	Pegu Yomas	Plains	Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
R	R	R	R	..	..	R	..	R	R	R	..	R	Up to 4000′	L	(1302)
..	R	R	R	..	..	..	..	R	R	R	R	R	Above 2000′	L C	(1303)
R	..	..	*R*	*R*	..	..	..	..	R	R	R	R	Up to 4000′	Bhamo, Maymyo	(1306)
U	..	..	..	..	..	..	..	..	U	U	..	U	..	No specimens traceable	(1308)
..	..	..	..	*R*	..	R	*R*	..	R	R	..	R	Up to 4000′	Maymyo, Pegu	(1312)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South	(1313)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South from Mergui	(1314)
..	..	..	..	*R*	..	..	..	R	R	R	R	R	Up to 6000′	Maymyo foothills (1)	(1316)
R	R	R	R	..	R	..	..	..	..	..	..	..	„ „	.. ..	(1317)
..	..	..	..	..	..	*R*	*R*	R	..	R	R	R	Below 3000′	East side, Rangoon	(1318)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South	(1319)
R	?	..	..	..	R	*R*	..	..	..	R	..	R	Below 3000′	L East	(1320)
R	..	..	..	..	..	R	..	R	..	R	..	R	„ „	L	(1321)
?	..	..	..	..	..	..	*R*	..	..	..	..	R	..	"Pahpoon"	(1322)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1324)
R	R	..	R	R	..	R	..	R	R	R	..	R	Below 3000′	.. ..	(1325)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South	(1327)
..	..	..	..	..	..	..	..	R	..	..	..	R	Below 3000′	.. ..	(1328)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1329)
..	..	..	..	..	..	..	..	R	..	..	..	R	Below 3000′	.. ..	(1330)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1331)
R	..	..	..	..	R	..	R	..	..	..	..	..	Below 3000′	.. ..	(1332)
..	?	..	R	..	..	R	..	..	R	R	R	R	Up to 4000′	.. ..	(1333)
R	R	R	*R*	*R*	..	..	..	..	..	..	..	..	„ „	West of Irrawaddy	(1334)
R	R	R	R	..	R	R	..	R	R	R	R	R	„ 5000′	L C	(1335)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1336)
1	2	3	4	5	6				7	8	9	10			

Reference:—

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Under "Distribution":—

Column numbers correspond with the Distribution Area numbers shown on the Map at the end of this book.

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"M" denotes that the bird is a migrant.
"U" denotes uncertainty as to whether the bird is a resident or migrant.

Where the letters "R" "M" or "U" occur in italics they denote that the bird has only been recorded from that part of the Distribution Area noted in the Remarks column.

F. B. I. No.	Scientific Name	English Name	
	Order II CORACIIFORMES		
	Sub-order PICI		
	Family PICIDÆ		
	Sub-family PICINÆ		
(1339)	**Picus** xanthopygæus	*Little Scaly-bellied Woodpecker*	
(1341)	„ viridanus viridanus	*Burmese* „	„
(1342)	„ vittatus eisenhoferi	*Siamese* „	„
(1344)	„ canus gyldenstolpei	*Assam Black-naped Green*	„
(1345)	„ „ hessei	*Burmese* „ „	„
(1346)	„ chlorolophus chlorolophus	*Himalayan Small Yellow-naped*	„
(1348)	„ „ chlorophoides	*Burmese* „ „	„
(1351)	„ puniceus observandus	*Malay Crimson-winged Green*	„
(1352)	„ erythropygius nigrigenis	*Red-rumped* „	„
(1353)	**Chrysophlegma** flavinucha flavinucha	*Large Yellow-naped*	„
(1354)	„ mentalis humii	*Chequered-throated*	„
(1355)	**Callolophus** miniatus malaccensis	*Banded Red*	„
(1356)	**Gecinulus** grantia grantia	*The Pale-headed*	„
(1357)	„ „ viridis	*Southern* „ „	„
(1358)	**Hypopicus** Lyperythrus sikkimensis	*Eastern Rufous-bellied*	„
(1362a)	**Dryobates** cabanisi cadwaladeri	*Kengtung Red-crowned Pied*	„
(1364)	„ darjellensis	*Darjeeling* „	„
(1367a)	„ cathparius tenebrosus	*Yunnan Red-breasted* „	„
(1368)	„ macei macei	*Fulvous-breasted* „	„
(1369)	„ „ atratus	*Stripe-breasted* „	„
(1372)	„ analis longipennis	*Siamese* „	„
(1375)	„ mahrattensis aurocristatus	*Northern Yellow-fronted* „	„
(1378)	„ nanus obscurus	*Yunnan Pigmy*	„
(1379)	„ „ canicapillus	*Burmese* „	„
(1383)	**Blythipicus** pyrrhotis pyrrhotis	*Red-eared Bay*	„
(1384)	„ rubiginosus	*Malay* „	„
(1385)	**Miglyptes** tukki grammithorax	*Fulvous-rumped Barred*	„
(1386)	„ „ tukki	*Buff-necked* „	„
(1387)	„ jugularis	*Black-and-buff*	„
(1388)	**Micropternus** brachyurus williamsoni	*Siamese Rufous*	„

DISTRIBUTION												ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Arakan Yomas	Southern Burma: Pegu Yomas	Southern Burma: Plains	Southern Burma: Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
?	R	R	..	R	R	R	..	..	..	..	..	..	Up to 5000′	North of Prome-Toungoo	(1339)
R	..	..	..	R	R	R	..	R	..	..	R	R	„ „	.. ..	(1341)
..	..	..	..	..	..	..	..	..	..	..	..	U	..	Kawkareik (2 rec.)	(1342)
R	R	R	R	R	R	R	..	R	R	R	R	R	Up to 5000′	Most Burmese specimens are intermediate between the two races. C	(1344)
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	(1345)
..	..	R	..	..	..	..	..	..	..	..	..	..	Up to 5000′	.. ..	(1346)
R	R	..	R	R	R	R	..	R	R	R	R	R	„ „	A poorly defined race	(1348)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	South	(1351)
..	..	..	..	R	..	R	..	R	R	R	R	R	Up to 3000′	Maymyo, Toungoo district	(1352)
R	R	R	R	R	R	R	..	R	R	R	R	R	„ 5000′	North of Moulmein	(1353)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	South from Mergui	(1354)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	„ „ Tavoy	(1355)
R	R	R	R	R	..	..	..	..	..	..	..	..	Up to 3000′	.. ..	(1356)
..	..	..	..	..	?	R	..	R	R	R	R	R	„ „	.. ..	(1357)
..	R	?	R	R	..	..	..	R	..	R	..	..	Above 2500′	Maymyo, "Toungoo"	(1358)
..	..	..	R	..	..	..	..	..	R	R	..	..	„ 5000′	.. ..	(1362a)
..	R	..	R	..	..	..	..	R	..	..	..	..	..	"Toungoo"	(1364)
..	..	..	R	R	..	..	..	..	R	R	..	..	Above 4000′	Mogok hills	(1367a)
R	..	R	R	R	..	..	..	..	?	..	..	..	Up to 4000′	Maymyo	(1368)
..	R	..	..	..	R	..	..	R	..	R	R	R	3000′-6000′	.. ..	(1369)
R	R	..	..	R	R	R	..	R	R	R	R	R	Up to 3000′	.. ..	(1372)
..	..	..	..	R	..	R	..	..	..	..	..	..	„ „	North of Prome-Toungoo	(1375)
..	..	..	R	..	..	..	..	..	..	R	..	..	Above 4000′	.. ..	(1378)
R	R	R	R	R	R	R	..	R	R	R	R	R	Up to 5000′	C	(1379)
?	?	R	R	..	..	R	..	R	R	R	R	R	„ 9000′	.. ..	(1383)
..	..	..	..	..	..	..	..	..	..	..	..	R	Below 3000′	South from Mergui	(1384)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	„ „ „	(1385)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	Extreme south	(1386)
R	..	..	..	..	?	R	..	..	..	R	R	R	Below 3000′	South-east side	(1387)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	South from Tavoy	(1388)
1	2	3	4	5	6				7	8	9	10			

Reference:—

In the Remarks column:—

"C" denotes that the bird is common.

"L" denotes that the bird is local.

"LC" denotes that the bird is locally common.

"VM" denotes that the bird is a vertical migrant.

Reference:—

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F. B. I. No.	Scientific Name	English Name
	Order II CORACIIFORMES — (Contd.)	
	Sub-order PICI — (Contd.)	
	Family PICIDÆ — (Contd.)	
	Sub-family PICINÆ — (Contd.)	
(1389)	**Micropternus** brachyurus phaioceps	*Northern Rufous Woodpecker*
(1399)	**Dinopium** javanensis intermedia	*Burmese Golden-backed Three-toed* „
(1401)	„ shorii	*Himalayan* „ „ „
(1402)	**Chloropicoides** rafflesi peninsularis	*Malay* „ „ „
(1404)	**Chrysocolaptes** guttacristatus guttacristatus	*Tickell's Golden-backed* „
(1408)	**Hemicercus** concretus sordidus	*Grey-and-buff* „
(1409)	„ canente canente	*Heart-spotted* „
(1411)	**Mulleripicus** pulverulentus harterti	*Indian Great Slaty* „
(1412)	**Macropicus** javensis javensis	*Malay Great Black* „
(1413)	„ „ crawfurdi	*Burmese* „ „ „
	Sub-family VIVIINÆ	
(1416)	**Vivia** innominata innominata	*Himalayan Speckled Piculet*
(1417)	„ „ malayorum	*Malay* „ „
(1419)	**Sasia** ochracea ochracea	*Indian Rufous* „
(1420)	„ „ querulivox	*Cachar* „ „
(1421)	„ „ reichenowi	*Burmese* „ „
(1422)	„ abnormis	*Temminck's* „ „
	Sub-family JYNGINÆ	
(1423a)	**Jynx** torquilla intermedia	*? Wryneck*
	Family CAPITONIDÆ	
(1425)	**Calorhamphus** fuliginosus hayi	*Brown Barbet*
(1426)	**Megalaima** virens virens	*Chinese Great* „
(1428)	„ „ magnifica	*Assam* „ „
(1432)	**Thereiceryx** lineatus hodgsoni	*Assam Lineated* „
(1435)	**Chotorhea** mystacophanes mystacophanes	*Gaudy* „
(1436)	**Cyanops** asiatica asiatica	*The Blue-throated* „
(1437)	„ „ davisoni	*Davison's* „ „
(1439)	„ incognita	*Hume's* „ „
(1441)	„ duvauceli cyanotis	*Indian Blue-eared* „
(1442)	„ „ stuarti	*Tenasserim* „ „
(1444)	„ franklinii franklinii	*The Golden-throated* „
(1445)	„ „ ramsayi	*Ramsay's* „ „
(1446)	**Xantholæma** hæmacephala indica	*Burmese Crimson-breasted* „

Reference:—

In the Remarks column:—
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"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION													ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
					Southern Burma										
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Arakan Yomas	Pegu Yomas	Plains	Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
R	R	R	R	R	R	R	..	R	R	R	R	*R*	Up to 4000′	South to Tavoy	(1389)
R	R	..	*R*	R	R	R	..	R	R	R	R	R	" "	Bhamo dist.	(1399)
R	R	R	*R*	R	?	R	..	..	..	..	..	..	..	Bhamo hills	(1401)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1402)
R	R	R	R	R	R	R	..	R	R	R	R	R	Up to 5000′	C	(1404)
..	..	..	..	..	..	..	..	..	..	..	..	*U*	..	Extreme south	(1408)
R	..	..	..	..	*R*	*R*	..	R	..	*R*	R	R	Below 3000′	South of Lat. 20° N.	(1409)
R	R	R	R	R	R	R	..	R	R	R	R	R	" "	L	(1411)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South from Mergui	(1412)
R	R	R	R	R	R	R	..	R	R	R	R	*R*	..	South to Mergui L	(1413)
..	R	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	(1416)
..	..	..	R	R	..	..	..	R	R	R	R	R	Up to 6000′	.. ..	(1417)
..	..	..	R	..	..	..	..	..	..	..	..	..	..		(1419)
..	R	R	..	..	..	..	..	..	..	..	..	..	..	] Races need investi-	(1420)
R	..	..	..	R	..	R	R	R	R	R	R	R	Up to 6000′	] gation	(1421)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	One record near Ye	(1422)
..	M	?	M	M	..	M	..	..	M	M	M	..	Up to 4000′	.. ..	(1423a)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	Extreme south	(1425)
..	..	..	R	R	..	..	..	R	R	R	R	R	3000′-6000′	.. ..	(1426)
R	R	R	..	..	R	..	..	..	..	..	..	..	..	.. ..	(1428)
R	R	R	R	R	R	R	..	R	R	R	R	R	Below 3000′	C	(1432)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South from Tavoy	(1435)
..	R	R	..	R	..	*R*	..	R	R	R	R	..	Up to 4000′	South to Toungoo C	(1436)
..	..	..	..	..	..	*R*	..	..	..	..	R	R	..	South from Toungoo	(1437)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1439)
?	R	R	..	R	..	*R*	..	R	R	..	..	..	Below 3000′	East side only?	(1441)
..	..	?	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1442)
..	R	?	R	*R*	..	..	..	..	R	R	..	..	..	Mogok hills	(1444)
..	..	..	..	..	..	..	..	R	..	R	R	R	3000′-6000′	.. ..	(1445)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 4000′	C	(1446)
1	2	3	4	5	9				7	8	9	10			

Reference:—

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Under "Distribution":—

Column numbers correspond with the Distribution Area numbers shown on the Map at the end of this book.

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F. B. I. No.	Scientific Name	English Name
	Order II CORACIIFORMES — (Contd.)	
	Sub-order CUCULI	
	Family CUCULIDÆ	
	Sub-family CUCULINÆ	
(1453)	**Cuculus** canorus bakeri	*Khasia Hills Cuckoo*
(1454)	„ optatus	*Himalayan* „
(1455)	„ poliocephalus poliocephalus	*Small* „
(1456)	„ micropterus micropterus	*Indian* „
(1457)	**Hierococcyx** sparveroides	*Large Hawk-* „
(1459)	„ fugax fugax	*Javan* „ „
(1460)	„ „ nisicolor	*Hodgson's* „ „
(1461)	„ nanus	*Small* „ „
(1462)	**Cacomantis** merulinus passerinus	*Indian Plaintive* „
(1463)	„ „ querulus	*Burmese* „ „
(1464)	„ sonneratii sonneratii	*Indian Banded Bay* „
(1465)	„ „ venustus	*Malay* „ „ „
(1467)	**Chalcites** xanthorhynchus	*Violet* „
(1468)	„ maculatus maculatus	*Emerald* „
(1469)	**Surniculus** lugubris brachyurus	*Malay Drongo-* „
(1470)	„ „ dicruroides	*Indian* „ „
(1472)	**Clamator** jacobinus jacobinus	*Pied Crested* „
(1474)	„ coromandus	*Red-winged* „ „
	Sub-family EUDYNAMINAE	
(1476)	**Eudynamis** scolopaceus malayanus	*Malay Koel*
	Sub-family PHŒNICOPHAINÆ	
(1477)	**Zanclostomus** javanicus	*Lesser Red-billed Malkoha*
(1479)	**Rhopodytes** tristis saliens	*Himalayan Large Green-billed* „
(1480)	„ „ longicaudatus	*Malay* „ „ „
(1481)	„ diardi	*Diard's* „ „
(1482)	„ sumatranus	*Rufous-bellied* „
(1483)	**Rhamphococcyx** erythrognathus	*Chestnut-breasted* „
(1485)	**Rhinortha** chlorophæa chlorophæa	*Raffles's Green-billed* „
(1491)	**Centropus** sinensis intermedia	*Hume's Crow-Pheasant*
(1495)	„ bengalensis bengalensis	*Lesser* „
	Sub-order PSITTACI	
	Family PSITTACIDÆ	
(1498)	**Psittacula** eupatria avensis	*Burmese Large Parrakeet*
(1501)	„ krameri borealis	*Eastern Rose-ringed* „

Reference:—

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"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION													ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
					Southern Burma										
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Arakan Yomas	Pegu Yomas	Plains	Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
..	R	?	R	R	..	..	*U*	?	R	R	R	R	Up to 6000′	.. ..	(1453)
..	?	..	?	*U*	..	..	..	..	..	..	..	..	..	Maymyo (1 record)	(1454)
..	R	..	R	*U*	..	..	..	..	..	..	..	..	Above 4000′	Maymyo	(1455)
R	R	R	R	R	R	R	..	R	R	R	R	R	Up to 6000′	C	(1456)
R	R	R	R	R	R	R	..	R	R	R	R	*R*	„ „	South to Amherst C	(1457)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South from Tavoy	(1459)
..	?	..	..	..	..	..	R	R	..	R	..	*R*	..	North	(1460)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1461)
..	..	R	R	..	..	..	..	..	..	..	..	..	Up to 9000′	] Distribution	(1462)
R	R	..	..	R	R	R	..	R	R	R	R	R	„ 4000′	] uncertain C	(1463)
..	..	R	R	R	..	..	*R*	..	..	R	..	..	..	Thayetmyo	(1464)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	Central	(1465)
..	..	..	..	..	R	R	..	..	..	..	R	*R*	Up to 5000′	South to Amherst	(1467)
R	R	R	R	R	R	R	..	R	R	R	R	R	„ „	.. ..	(1468)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	.. ..	(1469)
R	R	R	R	R	R	R	..	R	R	R	R	R	Up to 4000′	.. ..	(1470)
..	..	..	..	U	..	*U*	*U*	..	..	..	..	..	..	North of Tharawaddy L C	(1472)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 5000′	.. ..	(1474)
R	..	..	R	R	..	..	R	..	..	..	R	R	Up to 4000′	C	(1476)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South from Tavoy	(1477)
..	R	R	R	..	..	..	..	..	R	R	..	..	..	.. ..	(1479)
?	..	..	..	R	R	R	..	R	..	..	R	R	Up to 5000′	C	(1480)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South from Mergui	(1481)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	„ „ „	(1482)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	„ „ Ye	(1483)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	„ „ „	(1485)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 5000′	C	(1491)
R	R	R	R	R	R	R	R	R	R	R	R	R	„ „	L C	(1495)
R	R	R	R	R	R	R	R	R	R	R	R	*R*	Below 3000′	South to Amherst L C	(1498)
..	R	..	..	R	..	..	R	R	R	R	?	..	„ „	L	(1501)
1	2	3	4	5	6				7	8	9	10			

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F. B. I. No.	Scientific Name	English Name
	Order II CORACIIFORMES — (Contd.)	
	Sub-order PSITTACIDÆ — (Contd.)	
	Family PSITTACIDÆ — (Contd.)	
(1503)	**Psittacula** cyanocephala rosea	*Eastern Blossom-headed Parrakeet*
(1505)	„ himalayana finschii	*Burmese Slaty-headed* „
(1508)	„ alexandri fasciata	*Indian Red-breasted* „
(1512)	**Psittinus** cyanurus macropterus	*Malay Little Parrot*
(1513)	**Coryllis** vernalis vernalis	*Indian Lorikeet*
	Sub-order CORACII	
	Family CORACIIDÆ	
(1519)	**Coracias** benghalensis affinis	*Burmese Roller*
(1520)	**Eurystomus** orientalis orientalis	*Broad-billed* „
	Family MEROPIDÆ	
(1524)	**Merops** orientalis birmanus	*Burmese Green Bee-Eater*
(1526)	„ superciliosus philippinus	*Blue-tailed* „
(1528)	„ leschenaulti leschenaulti	*Chestnut-headed* „
(1529)	**Alcemerops** athertoni	*Blue-bearded* „
(1530)	„ amictus	*Red-bearded* „
	Family ALCEDINIDÆ	
(1531)	**Ceryle** rudis leucomelanura	*Indian Pied Kingfisher*
(1532)	„ lugubris guttulata	*Himalayan* „ „
(1533)	**Alcedo** atthis bengalensis	*Common Indian* „
(1536–40)	„ meninting subsp.	*Blue-eared* „
(1542)	„ hercules	*Blyth's* „
(1543)	„ euryzona	*Broad-zoned* „
(1544)	**Ceyx** erythaca erythaca	*Indian Three-toed* „
(1546)	**Ramphalcyon** amauroptera	*Brown-winged* „
(1549)	„ capensis burmanica	*Burmese Stork-billed* „
(1551)	**Halcyon** smyrnensis subsp.	*White-breasted* „
(1554)	„ pileata	*Black-capped* „
(1555)	**Entomothera** coromanda coromanda	*Indian Ruddy* „
(1557)	**Sauropatis** chloris armstrongi	*White-collared* „
(1561)	**Caridagrus** concretus	*Sumatran* „
(1562)	**Lacedo** pulchellus amabilis	*Pegu Banded* „

Reference:—

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"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION													ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Arakan Yomas	Southern Burma: Pegu Yomas	Southern Burma: Plains	Southern Burma: Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2		3	4	5	6				7	8	9	10			
R	R	..	..	R	R	?	R	R	R	R	R	R		L	(1503)
R	R	R	R	R	R	R	..	R	R	R	R	*R*	Up" to 4000'	South to Mt. Mulayit L. C	(1505)
R	R	R	R	R	R	R	..	R	R	R	R	R	" 4000'	C	(1508)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	Below 3000'	South from Tavoy	(1512)
..	..	?	..	R	?	R	*R*	..	..	R	..	R	" "	Henzada dist. L	(1513)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 5000'	Not in deep forest C	(1519)
R	R	R	R	R	R	R	..	R	R	R	R	R	" "	Not in open country L C	(1520)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 4000'	All local migrants whose movements are little known	(1524)
R	R	R	R	R	R	R	R	R	R	R	R	R	" "		(1526)
R	R	R	R	R	R	R	..	R	R	R	R	R	" "		(1528)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 5000'		(1529)
..	..	..	..	..	..	..	..	..	..	..	..	R	" "		(1530)
R	R	R	R	R	R	..	R	..	R	R	R	*R*	Below 3000'	South to Amherst LC	(1531)
R	R	R	R	R	R	..	..	R	R	R	R	*R*	" "	" L	(1532)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 4000'	C	(1533)
..	..	..	R	R	..	R	..	..	..	..	..	R	" "	L	(1536–40)
..	?	..	R	..	R	..	..	..	..	..	..	..	" "	2 records	(1542)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1543)
R	..	..	R	R	R	R	..	..	..	..	..	R	..	.. ..	(1544)
R	..	..	..	..	..	..	*R*	..	..	..	..	*R*	..	Coast and tidal creeks	(1546)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 4000'	C	(1549)
R	R	R	R	R	R	R	R	R	R	R	R	R	" "	C	(1551)
R	..	R	..	R	..	..	R	..	R	R	..	R	Below 3000'	Tidal creeks and large rivers	(1554)
..	..	..	..	*R*	..	..	R	R	..	R	R	R	Up to 6000'	Lower Chindwin L	(1555)
R	..	..	..	..	..	..	*R*	..	..	..	..	*R*	..	Coast and tidal creeks	(1557)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	Extreme south	(1561)
..	..	..	..	..	..	*R*	..	R	..	..	R	R	Below 3000'	South-east side	(1562)
1	2	3	4	5	6				7	8	9	10			

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F. B. I. No.	Scientific Name	English Name
	Order II CORACIIFORMES — (Contd.)	
	Sub-order CORACII — (Contd.)	
	Family BUCEROTIDÆ	
(1563)	**Dichoceros** bicornis bicornis	*Great Hornbill*
(1566)	**Hydrocissa** malabarica leucogaster	*Burmese Pied* „
(1567)	**Rhyticeros** undulatus	*Malay Wreathed* „
(1568)	„ subruficollis	*Blyth's* „ „
(1570)	**Aceros** nepalensis	*Rufous-necked* „
(1571)	**Anorrhinus** galeritus	*Bushy-crested* „
(1572)	**Ptilolæmus** tickelli tickelli	*Tickell's* „
(1574)	**Berenicornis** comatus	*Long-crested* „
(1578)	**Rhinoplax** vigil	*Helmeted* „
	Family UPUPIDÆ	
(1580)	**Upupa** epops saturata	*Tibetan Hoopoe*
(1581)	„ „ orientalis	*Indian* „
(1583)	„ „ longirostris	*Burmese* „
	Sub-order TROGONES	
	Family TROGONIDÆ	
(1586)	**Harpactes** erythrocephalus erythrocephalus	*Red-headed Trogon*
(1587)	„ duvauceli	*Red-rumped* „
(1588)	„ oreskios uniformis	*Robinson's Yellow-breasted* „
(1588a)	„ wardi	*Ward's* „
	Sub-order CYPSELI	
	Family APODIDÆ	
	Sub-family APODINÆ	
(1593)	**Apus** pacificus pacificus	*Large White-rumped Swift*
(1594)	„ „ cooki	*Burmese* „ „
(1599)	„ affinis subfurcatus	*Malay House* „
(1602)	**Cypsiurus** parvus infumatus	*Eastern Palm* „
	Sub-family CHÆTURINÆ	
(1605)	**Chætura** gigantea indica	*Brown-throated Spinetail*
(1607)	**Rhaphidura** leucopygialis	*Grey-rumped Black* „
(1609)	**Collocalia** brevirostris brevirostris	*Himalayan Swiftlet*
(1609a)	„ „ inopina	*Yunnan* „
(1610)	„ innominata	*Hume's* „
(1612)	„ germani inexpectata	*Andaman Grey-rumped* „
(1613)	„ „ germani	*Oustalet's* „ „
(1615)	„ linchi elachyptera	*Oberholser's* „

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DISTRIBUTION												ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Arakan Yomas	Southern Burma: Pegu Yomas	Southern Burma: Plains	Southern Burma: Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
R	R	R	R	R	R	R	..	R	R	R	R	R	Up to 4000′	.. ..	(1563)
R	R	R	R	R	R	R	..	R	R	R	R	R	„ „	C	(1566)
R	R	?	R	..	..	*R*	..	..	..	..	..	R	„ 3000′	East side	(1567)
R	..	R	R	..	..	*R*	..	R	..	..	R	R	„ „	„	(1568)
..	R	..	R	*R*	..	..	..	..	R	R	R	*R*	Above 2000′	Pinotaung, North	(1570)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South from Tavoy	(1571)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	Thaungyin valley	(1572)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South from Tavoy	(1574)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	Extreme south	(1578)
..	..	..	..	..	..	..	*M*	..	..	..	..	..	..	Prome (1 record) — Probably occur elsewhere	(1580)
..	U	..	..	..	..	..	*U*	..	..	..	..	..	..	Thayetmyo	(1581)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 4000′	Local migrant C	(1583)
R	R	R	R	R	R	R	..	R	R	R	R	*R*	Up to 6000′	South to Mt. Mulayit	(1586)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South from Tavoy	(1587)
R	..	..	..	..	..	R	..	R	..	..	..	R	Below 3000′	.. ..	(1588)
..	..	..	*R*	..	..	..	..	..	..	..	..	..	..	Seingkhu valley	(1588a)
..	..	..	M	..	..	..	M	..	..	..	..	..	..	Elsewhere race uncertain	(1593)
..	..	..	..	..	..	..	..	..	R	R	..	U	..		(1594)
..	..	..	R	R	..	..	*R*	..	R	R	..	R	Up to 4000′	Rangoon L C	(1599)
R	R	R	R	R	R	R	R	R	R	R	R	R	„ 5000′	C	(1602)
?	U	U	U	U	U	U	U	U	U	U	U	U	..	.. ..	(1605)
..	..	..	U	..	..	..	..	..	..	..	..	*R*	..	Extreme south	(1607)
..	..	..	U	..	..	..	..	..	..	..	..	..	..	.. ..	(1609)
..	..	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	(1609a)
..	..	..	..	..	..	..	..	..	..	..	..	*U*	..	South from Mergui	(1610)
..	..	..	..	..	..	..	..	..	..	..	..	*M*	..	1 record	(1612)
..	..	..	..	..	..	..	*R*	..	..	..	..	R	..	West coast islands at Bassein	(1613)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1615)
1	2	3	4	5	6				7	8	9	10			

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F. B. I. No.	Scientific Name	English Name
	Order II CORACIIFORMES — (Contd.)	
	Sub-order CYPSELI — (Contd.)	
	Family APODIDÆ — (Contd.)	
	Sub-family HEMIPROCNINÆ	
(1616)	**Hemiprocne** coronata - - - -	*Indian Crested Swift*
(1617)	„ longipennis harterti - -	*Malay* „ „
(1618)	„ comata comata - - -	*Tufted Tree* „
	Sub-order CAPRIMULGI	
	Family CAPRIMULGIDÆ	
(1621a)	**Caprimulgus** macrourus ambiguus -	*Burmese Long-tailed Nightjar*
(1623)	„ „ albonotatus -	*Indian* „ „
(1625a)	„ indicus hazaræ - -	*Himalayan Jungle* „
(1629)	„ monticolus monticolus - -	*Franklin's* „
(1630)	„ asiaticus - - -	*Common Indian* „
(1631)	**Lyncornis** macrotis cerviniceps	*Burmese Great Eared* „
	Sub-order PODARGI	
	Family PODARGIDÆ	
(1633)	**Batrachostomus** hodgsoni hodgsoni -	*Hodgson's Frogmouth*
(1633a)	„ „ indochinæ -	*Indo-Chinese* „
(1634)	„ javensis continentalis -	*Blyth's* „
	Sub-order STRIGES	
	Family STRIGIDÆ	
	Sub-family TYTONINÆ	
(1636)	**Tyto** alba subsp. - - - - -	*Barn Owl*
(1638)	„ longimembris - - - - -	*Grass* „
	Sub-family PHODILINÆ	
(1639)	**Phodilus** badius badius - - - - -	*Bay* „
	Sub-family STRIGINÆ	
(1643)	**Asio** flammeus flammeus - - -	*Short-eared* „
(1645)	**Strix** aluco nivicola - - -	*Himalayan Tawny* „
(1647–8)	„ indranee subsp. - - - -	*Brown Wood* „
(1650)	„ orientalis orientalis - - -	*Malay* „ „

DISTRIBUTION													ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Arakan Yomas	Southern Burma: Pegu Yomas	Southern Burma: Plains	Southern Burma: Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 4000′	North L	(1616)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	South from Tavoy	(1617)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	„ Mergui	(1618)
R	?	?	R	R	R	R	..	R	R	R	R	R	Up to 4000′	C	(1621a)
..	U	U	..	..	..	..	U	..	..	..	..	..	..	Prome	(1623)
..	R	..	R	..	..	..	..	..	..	..	R	..	Up to 8000′	L	(1625a)
..	..	R	R	R	..	..	R	..	..	..	..	R	Plains	North L	(1629)
R	R	R	R	R	R	R	R	R	R	R	R	R	Below 3000′	C	(1630)
R	R	R	R	R	R	R	..	R	R	R	R	R	Up to 4000′	L C	(1631)
..	R	..	..	..	..	..	..	..	..	..	..	..	Above 2500′	.. ..	(1633)
..	..	..	..	..	..	..	..	..	..	R	R	..	„ 4000′	.. ..	(1633a)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	Thaungyin valley (1 record)	(1634)
..	..	..	..	R	..	..	R	..	..	..	..	..	Up to 4000′	.. ..	(1636)
..	..	..	..	..	..	..	R	..	..	R	..	..	..	.. ..	(1638)
R	..	..	R	..	..	..	R	R	R	R	R	R	..	Thayetmyo	(1639)
..	..	..	M	M	..	..	M	..	..	..	..	..	Plains	.. ..	(1643)
..	R	..	..	..	..	..	..	..	..	R	..	..	..	.. ..	(1645)
..	R	..	..	R	..	..	..	R	R	R	R	R	Up to 6000′	.. .. ..	(1647–8)
..	..	..	..	..	..	..	R	..	..	..	..	R	..	South from Pegu	(1650)
1	2	3	4	5	6				7	8	9	10			

Reference:—

In the Remarks column:—

"C" denotes that the bird is common.
"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

Reference:—

"F. B. I. No." refers to the bird's number in the Fauna of British India—Birds—Second Edition.

Under "Distribution":—

Column numbers correspond with the Distribution Area numbers shown on the Map at the end of this book.

"R" denotes that the bird is a resident.
"M" denotes that the bird is a migrant.
"U" denotes uncertainty as to whether the bird is a resident or migrant.

Where the letters "R" "M" or "U" occur in italics they denote that the bird has only been recorded from that part of the Distribution Area noted in the Remarks column.

F. B. I. No.	Scientific Name	English Name
	Order II CORACIIFORMES — (Contd.)	
	Sub-order STRIGES — (Contd.)	
	Family STRIGIDÆ — (Contd.)	
	Sub-family STRIGINÆ — (Contd.)	
(1654)	**Ketupa** zeylonensis leschenaulti	*Bengal Brown Fish Owl*
(1654a)	„ „ orientalis	*Chinese* „ „ „
(1656)	„ ketupu aargaardi	*Malay* „ „
(1657)	„ flavipes	*Tawny* „ „
(1660)	**Bubo** bengalensis	*Rock Eagle-* „
(1662)	„ coromandus klossi	*Siamese Dusky* „ „
(1663)	**Huhua** nipalensis	*Forest* „ „
(1664)	„ sumatrana sumatrana	*Malay* „ „
(1671)	**Otus** bakkamœna lettia	*Burmese Collared Scops* „
(1672)	„ spilocephalus latouchii	*Eastern Spotted* „ „
(1675)	„ sagittatus	*Large Malay* „ „
(1681)	„ sunia modestus	*Burmese* „ „
(1682)	„ „ malayanus	*Malay* „ „
(1685)	**Athene** brama pulchra	*Burmese Spotted Owlet*
(1690)	**Glaucidium** cuculoides rufescens	*Burmese Barred* „
(1691)	„ „ brugeli	*Siamese* „ „
(1692)	„ „ fulvescens	*Tenasserim* „ „
(1696–7)	„ brodei subsp.	*Collared Pigmy* „
(1699)	**Ninox** scutulata burmanica	*Burmese Brown Hawk-Owl*
	Order III ACCIPITRES	
	Family PANDIONIDÆ	
(1704)	**Pandion** haliætus haliætus	*The Osprey*
	Family AEGYPIIDÆ	
(1705)	**Ægypius** monachus	*Cinereous Vulture*
(1706)	**Sarcogyps** calvus	*Black or King* „
(1711)	**Gyps** indicus nudiceps	*Northern Long-billed* „
(1713)	**Pseudogyps** bengalensis	*Indian White-backed* „
	Family FALCONIDÆ	
(1718)	**Falco** peregrinus calidus	*Eastern Peregrine Falcon*
(1719)	„ „ peregrinator	*Shahin* „
(1721)	„ jugger	*Laggar* „
(1727)	„ subbuteo streichi	*Chinese Hobby*
(1728)	„ severus severus	*Burmese* „
(1740)	„ tinnunculus tinnunculus	*European Kestrel*
(1741)	„ „ interstinctus	*Himalayan* „

Reference:—

In the Remarks column:—
"C" denotes that the bird is common.
"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION													ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Arakan Yomas	Southern Burma: Pegu Yomas	Southern Burma: Plains	Southern Burma: Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
R	R	?	R	R	R	R	R	R	R	R	R	R	..	.. ..	(1654)
..	..	R	..	..	..	..	..	..	..	..	..	..	..	.. ..	(1654a)
R	..	..	..	..	..	..	R	..	..	..	..	R	..	.. ..	(1656)
..	..	R	..	..	..	..	..	..	..	..	..	..	..	.. ..	(1657)
U	..	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	(1660)
R	..	..	..	R	..	..	..	..	..	..	..	?	..	.. ..	(1662)
..	..	..	..	..	..	R	..	..	..	R	..	R	..	.. ..	(1663)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	Extreme south	(1664)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 4000'	C	(1671)
..	..	..	R	..	..	..	..	..	..	..	R	..	..	.. ..	(1672)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1675)
R	R	R	..	R	R	R	..	R	R	R	R	R	Below 3000'	C	(1681)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1682)
..	..	R	..	R	..	R	*R*	..	R	..	..	..	Up to 4000'	South to Henzada C	(1685)
R	R	R	R	R	R	R	R	R	R	R	..	..	„ „	C	(1690)
..	..	..	..	..	..	..	..	..	..	..	R	..	..	.. ..	(1691)
..	..	R	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1692)
..	..	R	R	R	R	R	..	R	R	R	R	R	Up to 6000'	C	(1696–7)
R	R	R	R	R	R	R	R	R	R	R	R	R	„ 4000'	C	(1699)
M	..	M	M	M	..	..	M	..	M	M	..	M	..	.. ..	(1704)
..	..	..	M	..	..	..	..	..	M	..	..	..	..	.. ..	(1705)
R	?	R	R	R	..	..	R	..	R	R	..	R	..	C	(1706)
R	..	..	..	R	..	..	R	..	..	R	..	R	..	C	(1711)
R	R	R	R	R	..	..	R	..	R	R	R	R	..	C	(1713)
M	..	..	M	M	..	..	M	..	M	M	..	M	..	.. ..	(1718)
..	..	..	..	R	..	..	U	..	..	R	..	..	..	.. ..	(1719)
..	..	..	..	..	..	..	..	..	..	R	..	..	..	.. ..	(1721)
..	..	..	U	..	..	..	..	..	U	U	..	..	..	.. ..	(1727)
R	R	..	R	..	..	..	..	..	..	R	..	R	..	.. ..	(1728)
..	..	..	M	M	..	..	M	..	M	..	..	..	..	.. ..	(1740)
U	..	U	..	U	..	..	U	..	U	U	U	U	..	.. ..	(1741)
1	2	3	4	5	6				7	8	9	10			

Reference:—

"F. B. I. No." refers to the bird's number in the Fauna of British India—Birds—Second Edition.

Under "Distribution":—

Column numbers correspond with the Distribution Area numbers shown on the Map at the end of this book.

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"M" denotes that the bird is a migrant.
"U" denotes uncertainty as to whether the bird is a resident or migrant.

Where the letters "R" "M" or "U" occur in italics they denote that the bird has only been recorded from that part of the Distribution Area noted in the Remarks column.

F. B. I. No.	Scientific Name	English Name
	Order III ACCIPITRES—(Contd.)	
	Family FALCONIDÆ—(Contd.)	
(1745)	**Falco** naumanni pekinensis	*Chinese Lesser Kestrel*
(1733)	**Microhierax** fringillarius	*Black-legged Falconet*
(1735)	„ cœrulescens burmanicus	*Burmese Red-legged* „
(1737)	**Neohierax** insignis insignis	*Fielden's Hawk*
(1738)	„ „ cinereiceps	*Tenasserim* „
(1739)	**Erythropus** amurensis	*Eastern Red-legged Falcon*
(1748)	**Aquila** nipalensis nipalensis	*Eastern Steppe Eagle*
(1750)	„ clanga	*Greater Spotted* „
(1751)	„ pomarina hastata	*Indian Lesser* „ „
(1752)	**Hieraëtus** fasciatus fasciatus	*Bonelli's* „
(1753)	„ pennatus	*Booted* „
(1754)	**Lophotriorchis** kieneri	*Rufous-bellied Hawk-* „
(1755)	**Ictinaëtus** malayensis perniger	*Indian Black* „
(1756)	**Nisaëtus** cirrhatus cirrhatus	*Indian Crested Hawk-* „
(1758)	„ „ limnaëtus	*Changeable* „ „
(1763)	„ alboniger	*Blyth's* „ „
(1767)	**Hæmatornis** cheela burmanicus	*Burmese Crested Serpent* „
(1774)	**Butastur** teesa	*White-eyed Buzzard-* „
(1775)	„ liventer	*Rufous-winged* „ „
(1776)	„ indicus	*Grey-faced* „ „
(1778)	**Haliaëtus** leucogaster	*White-bellied Sea* „
(1779)	„ leucoryphus	*Pallas's Fishing* „
(1780)	**Icthyophaga** icthyaëtus icthyaëtus	*Large Grey-headed* „ „
(1782)	„ nana nana	*Malay* „ „ „
(1783)	„ „ plumbea	*Himalayan* „ „ „
(1784)	**Haliastur** indus indus	*Common Brahminy Kite*
(1785)	„ „ intermedius	*Malay* „ „
(1787)	**Milvus** migrans govinda	*Common Pariah* „
(1788)	„ „ lineatus	*Large Indian* „
(1789)	**Elanus** cœruleus vociferus	*Black-winged* „
(1790)	**Circus** macrourus	*Pallid Harrier*
(1792)	„ cyaneus cyaneus	*Common Hen-* „
(1793)	„ melanoleucus	*Pied* „
(1794)	„ æruginosus æruginosus	*Common Marsh* „
(1795)	„ spilonotus	*Eastern* „ „
(1796)	**Buteo** rufinus rufinus	*Long-legged Buzzard*
(1799)	„ burmanicus	*Japanese Desert* „
(1801)	**Accipiter** gentilis schvedowi	*Eastern Goshawk*
(1805)	„ badius poliopsis	*Burmese Shikra*

Reference:—

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"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION												ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Arakan Yomas	Southern Burma: Pegu Yomas	Southern Burma: Plains	Southern Burma: Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
..	..	..	M	..	..	..	M	..	..	..	..	..	..	Passage migrant	(1745)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South	(1733)
R	R	R	R	R	R	R	R	R	R	R	R	R	..	North	(1735)
..	..	..	..	R	..	..	..	..	..	..	..	R	..	.. ..	(1737)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1738)
..	..	M	..	M	..	..	*M*	..	M	M	..	..	..	Thayetmyo	(1739)
..	..	..	..	..	..	..	M	..	..	M	..	M	..	.. ..	(1748)
M	..	..	..	..	..	..	M	..	..	M	..	M	..	.. ..	(1750)
M	..	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	(1751)
..	..	..	..	U	..	..	..	..	..	U	..	..	..	.. ..	(1752)
..	..	..	..	..	..	..	*U*	..	..	U	..	U	..	Thayetmyo	(1753)
..	..	..	..	..	..	U	..	U	..	..	..	..	..	2 records only	(1754)
..	U	..	U	..	..	..	..	..	..	..	..	U	..	.. ..	(1755)
..	..	..	U	..	..	..	..	..	..	..	..	..	..	.. ..	(1756)
R	R	R	R	R	R	R	..	R	R	R	R	R	Up to 7000′	L	(1758)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South from Mergui	(1763)
R	R	R	R	R	R	R	..	R	R	R	R	R	Up to 7000′	C	(1767)
R	R	R	..	R	..	..	R	..	..	..	..	*R*	..	South to Amherst	(1774)
R	R	R	R	R	R	R	R	R	R	R	R	R	..	.. ..	(1775)
..	..	..	..	..	..	..	..	..	..	..	..	M	..	.. ..	(1776)
R	..	..	..	..	..	..	*R*	..	..	..	..	*R*	..	Coast	(1778)
R	..	..	R	R	..	..	R	..	..	..	..	R	Plains	Rivers and jheels	(1779)
R	..	..	..	R	..	..	R	..	..	R	..	R	„	„	(1780)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1782)
..	..	R	..	..	..	..	R	..	..	R	..	..	..	.. ..	(1783)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 4000′	C	(1784)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	Extreme south	(1785)
R	..	..	R	R	..	..	R	..	R	R	..	R	Up to 4000′	Migrates after breeding	(1787)
M	..	..	M	M	..	..	M	..	M	M	..	M	..	Migrates before breeding	(1788)
U	..	..	U	U	..	..	U	..	..	U	..	*U*	Plains	North	(1789)
M	..	..	..	..	..	..	M	..	..	M	..	..	„	.. ..	(1790)
..	..	..	*M*	..	..	..	..	..	..	..	..	..	„	Myitkyina (1 record)	(1792)
M	..	M	M	M	..	..	M	..	M	M	M	M	„	A few breed before migrating	(1793)
M	..	M	M	M	..	..	M	..	M	M	M	M	..	.. ..	(1794)
..	..	..	..	?	..	..	..	..	..	M	..	*M*	..	Mogok; Moulmein	(1795)
..	..	..	*M*	..	..	..	..	..	..	..	..	..	..	Fort Hertz (1 record)	(1796)
..	..	..	..	M	..	..	*M*	?	..	..	..	M	..	Thayetmyo	(1799)
..	..	..	M	..	..	..	..	..	..	..	..	..	..	2 Records	(1801)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 5000′	C	(1805)
1	2	3	4	5	6				7	8	9	10			

Reference: —

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Under "Distribution": —

Column numbers correspond with the Distribution Area numbers shown on the Map at the end of this book.

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Where the letters "R" "M" or "U" occur in italics they denote that the bird has only been recorded from that part of the Distribution Area noted in the Remarks column.

F. B. I. No.	Scientific Name	English Name
	Order III ACCIPITRES — (Contd.)	
	Family FALCONIDÆ — (Contd.)	
(1808)	**Accipiter** soloensis	*Horsfield's Goshawk*
(1809)	„ trivirgatus trivirgatus	*The Crested* „
(1810)	„ „ indicus	*Northern* „ „
(1811)	„ nisus nisosimilis	*Asiatic Sparrow-Hawk*
(1812)	„ „ melanoschistus	*Indian* „
(1814)	„ virgatus affinis	*Northern Besra* „
(1817)	„ gularis nisoides	*Indo-Chinese* „
(1818–9)	**Perris** ptilorhynchus subsp.	*Crested Honey Buzzard*
(1820)	„ apivorus orientalis	*Siberian* „ „
(1821)	**Machæramphus** alcinus	*Slender-billed Pern*
(1823)	**Baza** leuphotes burmana	*Burmese Black-crested Baza*
(1824)	„ jerdoni jerdoni	*Blyth's* „
	Order IV COLUMBÆ	
	Family COLUMBIDÆ	
	Sub-family TRERONINÆ	
(1827)	**Crocopus** phœnicopterus viridifrons	*Burmese Green Pigeon*
(1830)	**Dendrophasa** pompadora phayrei	*Ashy-headed* „ „
(1833)	„ fulvicollis fulvicollis	*Cinnamon-headed* „ „
(1836)	„ bicincta prætermissa	*Siamese Orange-breasted* „ „
(1837)	„ vernans griseicapilla	*Malay Pink-necked* „ „
(1838)	**Treron** curvirostra nipalensis	*Thick-billed* „ „
(1839)	**Butreron** capellei	*Large* „ „
(1840)	**Sphenocercus** apicauda apicauda	*Pin-tailed* „ „
(1841)	„ sphenurus sphenurus	*Wedge-tailed* „ „
	Sub-family DUCULINÆ	
(1842)	**Ducula** badia badia	*Malay Imperial* „
(1844)	„ „ griseicapilla	*Grey-headed* „ „
(1846)	**Muscadivora** ænea ænea	*Malay Green* „ „
(1847)	„ „ sylvatica	*Indian* „ „ „
(1850)	**Myristicivora** bicolor bicolor	*Pied* „ „
	Sub-family PHABINÆ	
(1852)	**Chalcophaps** indica indica	*Indian Emerald Dove*

Reference:—

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"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION												ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Arakan Yomas	Southern Burma: Pegu Yomas	Southern Burma: Plains	Southern Burma: Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South	(1808)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1809)
..	R	R	R	R	..	R	..	..	R	R	R	R	..	.. ..	(1810)
..	..	..	..	M	..	..	..	..	..	..	..	..	..	.. ..	(1811)
..	..	..	U	U	..	..	U	..	..	U	..	..	..	.. ..	(1812)
R	R	..	R	R	R	..	*R*	..	..	..	..	..	..	Thayetmyo	(1814)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South	(1817)
U	..	U	U	..	..	U	U	..	..	..	..	U	..	Distribution uncertain	(1818–9)
..	..	..	..	..	..	..	..	..	..	..	..	..	..	.. .. ..	(1820)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South	(1821)
R	R	R	R	R	R	R	..	R	R	R	R	R	..	L	(1823)
..	..	..	..	..	..	..	*U*	..	..	..	..	R	..	Near Yamethin (1)	(1824)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 5000′	C	(1827)
R	R	R	R	R	R	R	R	R	R	R	R	R	„ 3000′	L C	(1830)
..	..	..	..	..	..	..	..	..	..	..	..	U	..	.. ..	(1833)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 3000′	L C	(1836)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South from Mergui	(1837)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 3000′	C	(1838)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South	(1839)
R	R	R	R	R	?	..	..	R	?	?	R	R	Up to 6000′	L	(1840)
R	R	?	R	R	R	R	..	R	R	R	R	R	3000′-7000′	L	(1841)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1842)
R	R	..	R	*R*	..	..	..	R	R	R	R	R	1000′-7000′	Mogok hills L	(1844)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South from Tavoy	(1846)
R	R	R	R	R	R	R	..	R	R	R	R	*R*	..	North of Tavoy C	(1847)
U	..	..	..	..	..	..	..	..	..	..	..	U	Coast	Sandoway	(1850)
R	R	R	R	*R*	R	R	..	R	R	R	R	R	Up to 5000′	Not Dry Zone C	(1852)
1	2	3	4	5	6				7	8	9	10			

Reference: —

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Under "Distribution": —

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"R" denotes that the bird is a resident.
"M" denotes that the bird is a migrant.
"U" denotes uncertainty as to whether the bird is a resident or migrant

Where the letters "R" "M" or "U" occur in italics they denote that the bird has only been recorded from that part of the Distribution Area noted in the Remarks column.

F. B. I. No.	Scientific Name	English Name
	Order IV COLUMBÆ — (Contd.)	
	Family COLUMBIDÆ — (Contd.)	
	Sub-family COLUMBINÆ	
(1859)	**Columba** leuconota gradaria	*Tibetan Snow Pigeon*
(1864)	„ pulchricollis	*Ashy Wood* „
(1865)	**Alsocomus** puniceus	*Purple* „ „
(1867)	**Dendrotreron** hodgsonii	*Speckled* „ „
(1870)	**Streptopelia** orientalis orientalis	*Common Rufous Turtle Dove*
(1872)	„ „ agricola	*Indian* „ „ „
(1874)	„ chinensis tigrina	*Burmese Spotted* „
(1875)	„ „ forresti	*Yunnan* „ „
(1880)	„ decaocto xanthocycla	*Burmese Ring* „
(1882)	**Œnopopelia** tranquebarica humilis	*Burmese Red Turtle* „
(1884)	**Macropygia** unchall tusalia	*Bar-tailed Cuckoo-* „
(1886)	„ ruficeps assimilis	*Burmese Little* „ „
	Sub-family GEOPELIINÆ	
(1887)	**Geopelia** striata striata	*Barred Ground* „
	Order V GALLINÆ	
	Sub-order ALECTOROPODES	
	Family PHASIANIDÆ	
	Sub-family PAVONINÆ	
(1898)	**Pavo** muticus spiciferus	*Burmese Peafowl*
	Sub-family ARGUSIANINÆ	
(1899)	**Argusianus** argus	*Argus Pheasant*
(1900)	**Polyplectron** bicalcaratum bicalcaratum	*Burmese Peacock-* „
(1901)	„ „ bakeri	*Bhutan* „ „
(1902)	„ malaccensis	*Malay* „ „
	Sub-family PHASIANINÆ	
(1904)	**Gallus** gallus subsp.	*Burmese Junglefowl*
(1907)	**Syrmaticus** humiæ humiæ	*Mrs. Hume's Pheasant*
(1908)	„ „ burmanicus	*Burmese Barred-back* „
(1909)	**Phasianus** elegans	*Stone's* „
(1915)	**Chrysolophus** amherstiæ	*Amherst* „
(1916)	**Lophura** rufa	*Vieillot's Fire-back* „

Reference:—

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"C" denotes that the bird is common.
"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION												ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Arakan Yomas	Southern Burma: Pegu Yomas	Southern Burma: Plains	Southern Burma: Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
..	..	..	*U*	..	..	..	..	..	..	..	..	..	Above 13000′	Adung valley	(1859)
..	..	R	..	..	..	..	..	..	R	R	..	..	„ 5000′	.. ..	(1864)
R	..	..	..	R	..	R	..	..	R	R	R	R	Below 4000′	L	(1865)
..	R	..	R	*R*	..	..	..	..	R	R	..	..	Above 5000′	Mogok hills	(1867)
..	..	..	R	..	..	..	..	..	..	..	..	..	..	Distribution of the two races uncertain C	(1870)
R	R	R	R	R	R	R	R	R	R	R	R	R	Up to 5000′	C	(1872)
R	R	R	R	R	R	R	R	R	R	R	R	R	„ 4000′	C	(1874)
..	..	..	U	..	..	..	..	..	..	..	..	..	Above 5000′	.. ..	(1875)
..	..	R	*U*	R	..	..	..	..	..	..	..	..	Plains	Near Bhamo C in Dry Zone	(1880)
R	R	R	R	R	..	..	R	..	R	R	..	R	„	C	(1882)
..	R	R	R	..	..	..	..	R	R	R	R	*R*	Above 3000′	North	(1884)
..	..	..	..	..	..	..	..	R	..	..	R	R	„ „	.. ..	(1886)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	Extreme south	(1887)
R	R	R	R	R	R	R	..	R	R	R	R	R	Below 3000′	.. ..	(1898)
R	..	..	..	..	..	..	..	..	..	..	..	*R*	..	Extreme south	(1899)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1900)
R	R	..	R	R	..	..	..	R	..	..	..	..	Up to 6000′	.. ..	(1901)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	...	South from Tavoy	(1902)
R	R	R	R	R	R	R	..	R	R	R	R	R	Up to 5000′	C	(1904)
..	R	R	?	*R*	..	..	..	..	..	..	..	..	Above 4000′	West side	(1907)
..	..	..	..	*R*	..	..	..	..	..	R	R	..	„ „	East side	(1908)
..	..	..	R	..	..	..	..	..	..	..	..	..	„ „	.. ..	(1909)
..	..	..	R	..	..	..	..	..	*R*	..	..	..	„ 6000′	East side	(1915)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South from Tenasserim town	(1916)
1	2	3	4	5	6				7	8	9	10			

Reference:—

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Under "Distribution":—

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F. B. I. No.	Scientific Name	English Name
	Order V GALLINÆ — (Contd.)	
	Sub-order ALECTOROPODES — (Contd.)	
	Family PHASIANIDÆ — (Contd.)	
	Sub-family PHASIANINÆ — (Contd.)	
(1921–2)	**Gennæus** lathami	*Black-breasted Kalij Pheasant*
(1923–5)	„ lineatus	*Burmese Silver* „
(1926)	„ nycthemerus subsp.	*Yunnan* „ „
(1929)	**Lophophorus** sclateri	*Sclater's Monal* „
	Sub-family PERDICINÆ	
(1933)	**Tragopan** blythii blythii	*Grey-bellied Tragopan*
(1935)	„ temminckii	*Temminck's* „
(1937)	**Ithaginis** cruentus kuseri	*Yunnan Blood Pheasant*
(1945)	**Bambusicola** fytchii fytchii	*Yunnan Bamboo Partridge*
(1946)	„ „ hopkinsoni	*Assam* „ „
(1947)	**Rollulus** roulroul	*Green Wood Quail*
(1948)	**Excalfactoria** chinensis chinensis	*Blue-breasted* „
(1950)	**Coturnix** coturnix coturnix	*Common or Grey* „
(1951)	„ „ japonica	*Japanese* „ „
(1952)	„ coromandelica	*Black-breasted or Rain* „
(1959–61)	**Arborophila** torqueola subsp.	*Common Hill Partridge*
(1963)	„ rufogularis intermedia	*Arakan* „ „
(1964)	„ „ tickelli	*Tenasserim Rufous-throated* „ „
(1965)	**Arborophila** atrogularis	*White-cheeked* „ „
(1967)	„ brunneopectus brunneopectus	*Brown-breasted* „ „
(1968)	**Tropicoperdix** chlorophus chlorophus	*Green-legged* „ „
(1970)	**Caloperdix** oculea oculea	*Ferruginous Wood* „
(1971)	**Rhizothera** longirostris longirostris	*Long-billed* „ „
(1981)	**Francolinus** pintadeanus phayrei	*Phayre's Burmese Francolin*
(1987)	**Perdix** hodgsoniæ sifanica	*Kansu Partridge*
	Order VI HEMIPODII	
	Family TURNICIDÆ	
(1997)	**Turnix** suscitator subsp.	*Bustard- Quail*
(2003)	„ dussumieri	*Little Button* „
(2004)	„ tanki blanfordi	*Burmese* „ „

Reference:—

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"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION											ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Arakan Yomas	Southern Burma: Pegu Yomas	Southern Burma: Plains	Southern Burma: Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
R	R	..	R	R	..	..	..	..	..	..	..	..	..	..	(1921–2)
R	..	..	..	..	R	R	..	R	R	R	R	R	Up to 5000'	C	(1923–5)
..	..	..	R	*R*	..	..	..	..	R	R	..	..	..	Mogok hills	(1926)
..	..	..	R	..	..	..	..	..	..	..	..	..	Snow-line	.. ..	(1929)
..	R	R	R	..	..	..	..	..	..	..	..	..	6000'-9000'	.. ..	(1933)
..	..	..	R	..	..	..	..	..	..	..	..	..	7000'-10000'	.. ..	(1935)
..	..	..	R	..	..	..	..	..	..	..	..	..	Above 8000'	.. ..	(1937)
..	..	..	R	..	..	..	..	..	R	R	..	..	1000'-7000'	.. ..	(1945)
..	R	..	..	..	..	..	..	..	..	..	..	..	Up to 5000'	.. ..	(1946)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1947)
R	..	..	R	R	..	..	R	..	..	..	..	..	Up to 4000'	.. ..	(1948)
U	..	U	U	U	..	..	U	..	..	U	U	U	„ „	Distribution of races uncertain	(1950)
..	..	..	..	..	..	..	..	..	..	..	..	..	„ „		(1951)
R	..	R	*R*	R	..	..	R	..	R	R	..	..	„ 5000'	Bhamo C in Dry Zone	(1952)
..	R	?	R	..	..	..	..	..	..	..	..	..	..	.. .. ..	(1959–61)
R	R	..	R	..	R	..	..	..	..	..	..	..	3000'-6000'	.. ..	(1963)
..	..	..	..	..	..	..	..	..	R	R	R	R	3000'-8000'	.. ..	(1964)
R	R	R	R	..	..	..	..	..	R	..	..	..	Up to 5000'	.. ..	(1965)
..	..	..	..	..	..	*R*	..	R	R	R	R	R	„ 4000'	East side	(1967)
..	..	R	R	R	..	*R*	..	..	..	..	..	R	„ 5000'	„	(1968)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(1970)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	South from Tavoy	(1971)
R	R	?	R	R	R	R	R	R	R	R	R	..	Up to 5000'	.. ..	(1981)
..	..	..	R	..	..	..	..	..	..	..	..	..	Snow-line	.. ..	(1987)
R	R	R	R	R	..	..	R	..	R	R	R	R	..	.. ..	(1997)
..	..	..	..	..	..	..	R	..	R	R	..	..	Up to 3000'	.. ..	(2003)
R	..	..	..	R	?	R	R	R	R	R	R	R	„ 7000'	.. ..	(2004)
1	2	3	4	5	6				7	8	9	10			

Reference:—

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Under "Distribution":—

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F. B. I. No.	Scientific Name	English Name
	Order VII GRALLÆ	
	Sub-order FULICARIÆ	
	Family RALLIDÆ	
(2006)	**Rallus** aquaticus indicus	*Indian Water Rail*
(2008)	„ striata gularis	*Indian Blue-breasted Banded* „
(2011)	**Porzana** porzana	*Spotted Crake*
(2013)	„ pusilla pusilla	*Eastern Baillon's* „
(2014)	**Rallina** superciliaris superciliaris	*The Banded* „
(2015)	„ fasciata	*Malay* „ „
(2017)	**Amaurornis** fuscus fuscus	*The Ruddy* „
(2019)	„ „ bakeri	*Northern* „ „
(2020)	„ „ erythrothorax	*Chinese* „ „
(2022)	„ phœnicurus chinensis	*Chinese White-breasted Waterhen*
(2025)	„ bicolor	*Elwes's Crake*
(2026)	**Gallinula** chlorophus indicus	*Indian Moorhen*
(2027)	**Gallicrex** cinerea	*Kora or Watercock*
(2028)	**Porphyrio** poliocephalus poliocephalus	*Indian Purple Moorhen*
(2029)	**Fulica** atra atra	*The Coot*
	Family HELIORNITHIDÆ	
(2030)	**Heliopais** personata	*Masked Finfoot*
	Sub-order JACANÆ	
	Family JACANIDÆ	
(2031)	**Metopidius** indicus	*Bronze-winged Jacana*
(2032)	**Hydrophasianus** chirurgus	*Pheasant-tailed* „
	Sub-order ROSTRATULÆ	
	Family ROSTRATULIDÆ	
(2033)	**Rostratula** benghalensis benghalensis	*Painted Snipe*
	Sub-order GRUES	
	Family GRUIDÆ	
(2034)	**Grus** grus lilfordi	*Eastern Common Crane*
(2039)	**Antigone** antigone sharpei	*Burmese Sarus* „
	Sub-order OTIDES	
	Family OTIDIDÆ	
(2041)	**Otis** tarda dybowskii	*Eastern Great Bustard*

Reference:—

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"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION												ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Arakan Yomas	Southern Burma: Pegu Yomas	Southern Burma: Plains	Southern Burma: Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
M	..	..	M	..	..	..	..	..	..	M	..	..	..	Inle Lake	(2006)
R	..	..	R	R	..	..	R	..	R	R	..	R	..	LC	(2008)
M	..	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	(2011)
M	..	..	..	M	..	..	M	..	M	M	..	M	..	.. ..	(2013)
..	..	..	..	..	..	..	M	..	..	M	..	..	..	2 Records	(2014)
..	..	..	..	U	..	..	U	..	..	..	U	U	..	Mt. Popa	(2015)
..	..	..	..	..	..	..	..	..	..	..	..	R	..	.. ..	(2017)
..	..	..	R	R	..	..	R	..	R	R	..	..	..	.. ..	(2019)
..	..	..	..	..	..	..	..	..	U	U	..	..	..	.. ..	(2020)
R	..	..	R	R	..	..	R	..	R	R	R	R	..	C	(2022)
..	U	..	..	..	..	..	..	..	?	?	U	..	..	.. ..	(2025)
R	..	..	U	R	..	..	R	..	R	R	..	R	..	Jheels LC	(2026)
R	..	..	R	R	..	..	R	..	R	R	..	..	..	Summer visitor?	(2027)
R	..	..	R	R	..	..	R	..	?	?	..	R	..	Jheels L	(2028)
U	..	..	U	U	..	..	U	U	U	U	..	U	..	Jheels	(2029)
R	..	..	..	R	..	..	R	..	..	..	R	R	..	L	(2030)
R	..	R	R	R	..	..		..	R	R	..	R	..	Jheels C	(2031)
R	..	..	R	R	..	..	R	R	R	R	..	R	..	Jheels	(2032)
R	..	..	R	R	..	..	R	..	R	R	..	R	..	.. ..	(2033)
..	..	..	M	..	..	..	..	..	M	M	..	..	..	.. ..	(2034)
R	R	..	R	R	..	..	R	R	..	R	R	R	..	.. ..	(2039)
..	..	..	M	..	..	..	..	..	..	..	..	..	..	Fort Hertz (1 record)	(2041)
1	2	3	4	5	6				7	8	9	10			

Reference:—

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F. B. I. No.	Scientific Name	English Name
	Order VIII CHARADRIIFORMES	
	Sub-order OTI-LIMICOLÆ	
	Family ŒDICNEMIDÆ	
(2047)	**Burhinus** œdicnemus indicus	*Indian Stone Plover*
(2049)	**Esacus** recurvirostris	*Great* „
(2050)	**Orthoramphus** magnirostris magnirostris	*Australian* „
	Sub-order LARO-LIMICOLÆ	
	Family GLAREOLIDÆ	
(2055)	**Glareola** maldivarum maldivarum	*Large Indian Pratincole*
(2056)	„ lactea	*Small* „ „
	Family STERCORARIIDÆ	
(2059)	**Stercorarius** pomarinus pomarinus	*Pomatorhine Skua*
	Family LARIDÆ	
(2060)	**Larus** icthyætus	*Great Black-headed Gull*
(2062)	„ brunnicephalus	*Brown-* „ „
	Family STERNIDÆ	
(2067–9)	**Chlidonias** hybrida subsp.	*Whiskered Tern*
(2070)	„ leucoptera leucoptera	*White-winged Black* „
(2071)	**Hydroprogne** caspia caspia	*Caspian* „
(2072)	**Gelochelidon** nilotica nilotica	*The Gull-billed* „
(2073)	„ „ affinis	*Javan* „ „
(2077–8)	**Sterna** bergii subsp.	*Large Crested* „
(2079)	„ bengalensis bengalensis	*Indian Lesser* „ „
(2080)	„ aurantia	*Indian River* „
(2081)	„ melanogaster	*Black-bellied* „
(2086)	„ dougalli korustes	*Eastern Rosy* „
(2088)	„ albifrons sinensis	*River Ternlet or Little* „
(2092)	„ sumatrana sumatrana	*Black-naped* „
(2093–5)	„ anætheta subsp.	*Brown-winged* „
(2096)	„ fuscata subsp.	*Sooty* „
	Family RHYNCOPIDÆ	
(2100)	**Rhyncops** albicollis	*Indian Skimmer*

Reference:—

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"C" denotes that the bird is common.
"L" denotes that the bird is local.
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"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION												ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Arakan Yomas	Southern Burma: Pegu Yomas	Southern Burma: Plains	Southern Burma: Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
R	..	..	..	R	..	..	R	..	..	..	..	R	..	.. ..	(2047)
R	..	R	R	R	..	..	R	..	..	..	..	R	..	Coast and rivers	(2049)
..	..	..	..	..	..	..	..	..	..	..	..	*R*	..	Mergui Archipelago	(2050)
R	..	R	R	R	..	..	R	..	R	R	..	R	..	Rivers and plains	(2055)
R	..	R	R	R	..	..	R	..	R	R	..	R	..	" jheels	(2056)
..	..	..	..	..	..	..	..	..	..	..	..	*M*	..	Moulmein (1 record)	(2059)
M	..	..	M	M	..	..	M	..	M	M	..	M	..	Coast and rivers	(2060)
M	..	..	M	M	..	..	M	..	M	M	..	M	..	"	(2062)
U	..	..	..	U	..	..	U	..	U	U	..	U	..	Jheels and coast	(2067–9)
..	..	..	..	..	..	..	M	..	..	M	..	..	.. ..		(2070)
..	..	..	..	..	..	..	M	..	..	..	..	..	.. ..		(2071)
M	..	..	..	M	..	..	M	..	M	M	..	..	..	Coast (inland on passage)	(2072)
..	..	..	..	..	..	..	..	..	..	..	..	U	..	.. ..	(2073)
R	..	..	..	..	..	..	U	..	..	..	..	R	..	Coast	(2077–8)
M	..	..	..	..	..	..	..	..	..	..	..	M	..	"	(2079)
R	..	..	R	R	..	..	R	..	R	R	..	R	..	Rivers and coast	(2080)
R	..	..	R	R	..	..	R	..	R	R	..	R	..	" " jheels	(2081)
..	..	..	..	..	..	..	*U*	..	..	..	..	U	..	Bassein estuary	(2086)
..	..	..	..	R	..	..	R	..	..	..	..	R	..	Coast, rivers, jheels	(2088)
..	..	..	..	..	..	..	*U*	..	..	..	..	U	..	Coast, Bassein estuary	(2092)
..	..	..	..	..	..	..	..	..	..	..	..	*M*	..	Coast, Mergui	(2093–5)
..	..	..	..	..	..	..	*M*	..	..	..	..	..	..	Pegu Canal (1 record)	(2096)
..	..	R	R	R	..	..	R	..	R	?	..	..	..	Rivers and coast	(2100)
1	2	3	4	5	6				7	8	9	10			

Reference: —

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Under "Distribution": —

Column numbers correspond with the Distribution Area numbers shown on the Map at the end of this book.

"R" denotes that the bird is a resident.
"M" denotes that the bird is a migrant.
"U" denotes uncertainty as to whether the bird is a resident or migrant

Where the letters "R" "M" or "U" occur in italics they denote that the bird has only been recorded from that part of the Distribution Area noted in the Remarks column.

F. B. I. No.	Scientific Name	English Name
	Order VIII CHARADRIIFORMES — (Contd.)	
	Sub-order LIMICOLÆ	
	Family CHARADRIIDÆ	
	Sub-family PRE-CHARADRIINÆ	
(2101)	**Arenaria** interpres interpres	*The Turnstone*
(2102)	**Squatarola** squatarola	*Grey Plover*
(2106)	**Leucopolius** alexandrinus alexandrinus	*The Kentish* „
(2106a)	„ „ cantianus	*?* „ „
(2108)	„ „ dealbatus	*Chinese* „ „
(2110–1)	**Hæmatopus** ostralegus subsp.	*The Oystercatcher*
	Sub-family CHARADRIINÆ	
(2113)	**Charadrius** dubius dubius	*Chinese Little Ringed Plover*
(2115)	„ „ jerdoni	*Jerdon's* „ „
(2116)	„ placidus	*Long-billed* „ „
(2117)	„ mongolus atrifrons	*Pamirs Lesser Sand* „
(2118)	„ leschenaultii leschenaultii	*Large* „ „
(2120)	**Pluvialis** dominica fulva	*Asiatic Golden* „
	Sub-family VANELLINÆ	
(2121)	**Vanellus** vanellus	*Lapwing, Peewit or Green* „
(2124)	**Hoplopterus** duvaucelii	*Spur-winged* „
(2127)	**Lobivanellus** indicus atronuchalis	*Burmese Red-wattled Lapwing*
(2129)	**Microsarcops** cinereus	*Grey-headed* „
(2130)	**Himantopus** himantopus himantopus	*Black-winged Stilt*
(2131)	**Recurvirostra** avosetta	*The Avocet*
(2132)	**Ibidorhyncha** struthersii	*The Ibisbill*
	Family SCOLOPACIDÆ	
	Sub-family TRINGINÆ	
(2134)	**Numenius** arquata orientalis	*Eastern Curlew*
(2136)	„ phæopus variegatus	*Eastern Whimbrel*
(2138)	**Limosa** limosa melanuroides	*Eastern Black-tailed Godwit*
(2140)	**Limnodromus** taczanowskius	*Snipe-billed* „
(2142)	**Xenus** cinerea	*Terek Sandpiper*
(2145)	**Actitis** hypoleucos	*Common* „

Reference:—

In the Remarks column:—
"C" denotes that the bird is common.
"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION												ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
					Southern Burma									
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Arakan Yomas	Pegu Yomas	Plains	Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
M	..	..	..	..	..	..	M	..	..	..	..	..	..	Coast	(2101)
M	..	..	..	M	..	..	M	..	..	..	..	M	..	„ (inland on passage)	(2102)
M	..	..	..	M	..	..	M	..	..	..	..	M	..	„	(2106)
..	..	..	M	..	..	..	..	..	..	..	..	..	..	.. ..	(2106a)
..	..	..	..	..	..	..	..	..	..	..	..	M	..	.. ..	(2108)
M	..	..	..	..	..	..	M	..	..	..	..	..	..	Coast, Bassein	(2110–1)
M	..	..	M	M	..	..	M	..	M	M	..	M	..	.. ..	(2113)
R	..	..	R	R	..	..	R	..	R	R	..	R	..	.. ..	(2115)
..	..	..	M	..	..	..	..	..	..	..	..	..	..	.. ..	(2116)
M	..	..	..	..	..	..	M	..	..	..	..	M	..	Coast (inland on passage)	(2117)
M	..	..	..	..	..	..	M	..	..	..	..	M	..	„	(2118)
M	..	M	M	M	..	..	M	..	M	M	..	M	..	„	(2120)
..	..	M	M	M	..	..	..	..	..	..	..	..	..	.. ..	(2121)
R	..	R	R	R	..	..	R	..	R	R	..	R	Up to 3500'	.. ..	(2124)
R	..	R	R	R	..	..	R	..	R	R	R	R	„ „	.. ..	(2127)
M	..	M	M	M	..	..	M	..	M	..	..	M	..	.. ..	(2129)
U	..	U	U	R	..	..	U	..	U	U	..	U	..	.. ..	(2130)
..	..	M	M	M	..	..	..	..	..	..	..	..	..	Irrawaddy and Chindwin	(2131)
..	..	..	M	..	..	..	..	..	..	..	..	..	..	Rivers	(2132)
M	..	..	M	..	..	..	M	..	..	M	..	M	..	Coast (inland on passage)	(2134)
M	..	..	M	..	..	..	M	..	..	M	..	M	..	„	(2136)
..	..	..	..	M	..	..	M	..	..	..	..	..	..	Rivers and tidal creeks	(2138)
..	..	..	..	..	..	..	M	..	..	..	..	..	..	Pegu and Rangoon	(2140)
M	..	..	..	..	..	..	M	..	..	..	..	M	..	Tidal creeks	(2142)
M	..	..	M	M	..	..	M	..	M	M	..	M	..	.. ..	(2145)
1	2	3	4	5	6				7	8	9	10			

Reference:—

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Under "Distribution":—

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"M" denotes that the bird is a migrant.
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Where the letters "R" "M" or "U" occur in italics they denote that the bird has only been recorded from that part of the Distribution Area noted in the Remarks column.

F. B. I. No.	Scientific Name	English Name
	Order VIII CHARADRIIFORMES — (Contd.)	
	Sub-order LIMICOLÆ — (Contd.)	
	Family SCOLOPACIDÆ — (Contd.)	
	Sub-family TRINGINÆ — (Contd.)	
(2143)	**Tringa** ochropus	*Green Sandpiper*
(2144)	„ stagnatilis	*Wood* „
(2146)	„ glareola	*Marsh* „
(2147)	„ totanus eurhinus	*Tibetan Redshank*
(2148)	„ „ terrignotæ	*Central Asian* „
(2149)	„ erythropus	*Spotted or Dusky* „
(2150)	„ nebularia	*The Greenshank*
(2151)	„ guttifer	*Armstrong's Sandpiper*
(2152)	**Philomachus** pugnax	*The Ruff and Reeve*
	Sub-family CALIDRIDINÆ	
(2153)	**Crocethia** alba	*The Sanderling*
(2154)	**Eurynorhynchus** pygmæus	*Spoon-bill Stint*
(2155)	**Calidris** minuta	*The Little* „
(2156)	„ ruficollis	*Eastern* „ „
(2157)	„ subminuta	*Long-toed* „
(2158)	„ temminckii	*Temminck's* „
(2159)	„ acuminata	*Siberian Pectoral Sandpiper*
(2160)	„ testacea	*Curlew-Stint or Pigmy* „
(2162)	„ tenuirostris	*Eastern Knot*
(2162a)	„ canutus canutus	*The* „
(2164)	**Limicola** falcinellus sibirica	*Eastern Broad-billed Sandpiper*
	Sub-family SCOLOPACINÆ	
(2167)	**Scolopax** rusticola	*The Woodcock*
(2168)	**Capella** nemoricola	*Wood Snipe*
(2169)	„ solitaria	*Eastern Solitary* „
(2170)	„ gallinago gallinago	*Common or Fantail* „
(2173)	„ stenura	*Pintail* „
(2174)	„ megala	*Swinhoe's* „
(2175)	**Lymnocryptes** minimus	*Jack* „
	Order IX STEGANOPODES	
	Family PELECANIDÆ	
(2177)	**Pelecanus** onocrotalus roseus	*Eastern White or Rosy Pelican*
(2179)	„ philippensis	*Spotted-billed* „

Reference:—

In the Remarks column:—
"C" denotes that the bird is common.
"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION													ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Arakan Yomas	Southern Burma: Pegu Yomas	Southern Burma: Plains	Southern Burma: Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
M	..	M	M	M	..	M	M	..	M	M	..	M	..	..	(2143)
M	..	..	M	M	..	..	M	..	M	M	..	M	..	..	(2144)
M	..	M	M	M	..	..	M	..	M	M	..	M	..	..	(2146)
M	..	..	M	M	..	..	M	..	M	M	..	M	..	..	(2147)
M	..	..	M	M	..	..	M	..	M	M	..	M	..	..	(2148)
M	..	..	..	M	..	..	M	..	..	..	..	M	..	..	(2149)
M	..	M	M	M	..	..	M	..	M	M	..	M	..	..	(2150)
..	..	..	..	..	..	..	*M*	..	..	..	..	*M*	..	Elephant Point and Amherst	(2151)
U	..	..	?	..	..	..	U	..	..	..	..	..	..	.. ..	(2152)
..	..	..	..	*M*	..	..	*M*	..	..	..	..	..	..	Myingyan, Elephant point	(2153)
M	..	..	..	..	..	..	M	..	..	..	..	M	..	Tidal creeks	(2154)
M	..	..	?	M	..	..	M	..	..	..	..	M	..	„ rivers, jheels	(2155)
M	..	..	?	..	..	..	M	..	..	..	..	M	..	„ creeks	(2156)
M	..	..	..	M	..	..	M	..	..	..	..	M	..	Coast, Snipe grounds	(2157)
M	..	..	M	M	..	..	M	..	M	M	..	M	..	.. ..	(2158)
..	..	..	..	..	..	..	*M*	..	..	..	..	..	..	Rangoon (2 records)	(2159)
M	..	..	..	..	..	..	M	..	..	..	..	M	..	Tidal creeks	(2160)
M	..	..	..	..	..	..	M	..	..	..	..	M	..	3 records	(2162)
..	..	..	..	..	..	..	*M*	..	..	..	..	..	..	Kamaklok (1 record)	(2162a)
M	..	..	..	..	..	..	M	..	..	..	..	M	..	Tidal creeks	(2164)
M	..	M	M	M	M	M	M	M	M	M	M	M	Up to 8000'	.. ..	(2167)
..	M	?	M	M	..	..	M	..	M	M	..	M	..	.. ..	(2168)
..	M	..	..	M	..	..	..	..	..	M	..	..	..	3 Records	(2169)
M	..	M	M	M	..	..	M	..	M	M	..	M	..	.. ..	(2170)
M	..	M	M	M	..	..	M	..	M	M	..	M	..	.. ..	(2173)
..	..	..	M	..	..	..	..	..	..	..	..	..	..	Tharrawaddy (1) ?	(2174)
M	..	..	M	M	..	..	M	..	..	M	..	..	..	.. ..	(2175)
..	..	..	..	..	..	..	M	..	..	..	..	..	..	.. ..	(2177)
..	..	U	U	M	..	..	R	..	..	..	..	R	..	.. ..	(2179)
1	2	3	4	5	6				7	8	9	10			

Reference:—

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F. B. I. No.	Scientific Name	English Name
	Order IX. STEGANOPODES — (Contd.)	
	Family PHALACROCORACIDÆ	
	Sub-family PHALACROCORACINÆ	
(2180)	**Phalacrocorax** carbo sinensis	*Indian Large Cormorant*
(2181)	„ fuscicollis	*Indian Shag*
(2182)	„ niger	*Little Cormorant*
	Sub-family ANHINGINÆ	
(2183)	**Anhinga** melanogaster	*Indian Darter or Snakebird*
	Order X HERODIONES	
	Sub-order PLATALEÆ	
	Family PLATALEIDÆ	
(2202)	**Platalea** leucorodia major	*Indian Spoonbill*
	Family IBIDIDÆ	
(2203)	**Threskiornis** melanocephalus	*White Ibis*
(2205)	**Pseudibis** papillosus davisoni	*Davison's Black* „
(2206)	**Plegadis** falcinellus falcinellus	*Glossy* „
	Sub-order CICONIÆ	
	Family CICONIIDÆ	
(2209)	**Ciconia** nigra	*Black Stork*
(2210)	**Dissoura** episcopa episcopa	*White-necked* „
(2211)	**Xenorhynchus** asiaticus asiaticus	*Black-necked* „
(2212)	**Leptoptilos** dubius	*The Adjutant*
(2213)	„ javanicus	*Smaller* „
(2214)	**Ibis** leucocephalus leucocephalus	*Painted Stork*
(2215)	**Anastomus** oscitans	*The Openbill*
	Sub-order ARDEÆ	
	Family ARDEIDÆ	
(2216)	**Ardea** purpurea manillensis	*Eastern Purple Heron*
(2218)	„ cinerea rectirostris	*Eastern Grey* „
(2219)	„ sumatrana sumatrana	*Dusky Grey* „
(2220)	„ imperialis	*Great White-bellied* „

Reference:—

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"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION													ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
					Southern Burma										
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Arakan Yomas	Pegu Yomas	Plains	Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
U	U	U	U	U	U	U	U	U	U	U	U	U	Up to 6000'	.. ..	(2180)
..	..	..	..	..	..	..	R	..	..	..	..	R	..	Tidal waters only?	(2181)
R	R	R	R	R	R	R	R	R	R	R	R	R	..	.. ..	(2182)
R	R	R	R	R	R	R	R	R	R	R	R	R	..	.. ..	(2183)
U	..	..	..	..	..	..	*U*	..	..	..	..	..	..	Minbu	(2202)
U	..	..	..	U	..	..	U	..	..	U	..	U	..	.. ..	(2203)
U	..	..	..	U	..	..	U	..	..	..	..	U	..	.. ..	(2205)
R	..	..	..	R	..	..	*U*	..	R	R	..	..	..	Thayetmyo	(2206)
..	..	..	M	M	..	..	..	..	M	..	..	..	..	.. ..	(2209)
R	..	..	R	R	..	U	R	..	R	R	..	R	..	.. ..	(2210)
R	..	..	R	R	..	..	R	..	R	R	..	R	..	.. ..	(2211)
U	..	..	U	U	..	..	R	..	U	U	..	R	..	.. ..	(2212)
U	..	..	U	U	..	..	R	..	..	..	..	R	..	.. ..	(2213)
R	..	..	..	R	..	..	R	..	R	R	..	R	..	.. ..	(2214)
R	..	..	R	R	..	..	R	..	R	..	..	R	..	Rivers and lakes	(2215)
R	..	..	R	R	..	..	R	..	R	R	..	R	..	Jheels	(2216)
R	..	R	R	R	..	..	R	..	R	R	..	R	..	.. ..	(2218)
R	..	..	..	..	..	..	..	..	..	..	..	*R*	..	Coast	(2219)
R	U	..	U	U	..	U	..	..	..	..	..	..	..	Rivers and jheels	(2220)
1	2	3	4	5	6				7	8	9	10			

Reference:—

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Under "Distribution":—

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"U" denotes uncertainty as to whether the bird is a resident or migrant.

Where the letters "R" "M" or "U" occur in italics they denote that the bird has only been recorded from that part of the Distribution Area noted in the Remarks column.

F. B. I. No.	Scientific Name	English Name
	Order X HERODIONES	
	Sub-order ARDEÆ — (Contd.)	
	Family ARDEIDÆ — (Contd.)	
(2223)	**Egretta** alba modesta	*Eastern Large Egret*
(2224)	„ intermedia intermedia	*Indian Smaller* „
(2225)	„ garzetta garzetta	*Little* „
(2227)	**Demiegretta** sacra sacra	*Eastern Reef Heron*
(2226)	**Ardeola** ibis coromandus	*Cattle Egret*
(2229)	„ grayii	*Indan Pond Heron*
(2230)	„ bacchus	*Chinese* „ „
(2231)	**Butorides** striatus actophilus	*Indian Little Green* „
(2233)	**Nycticorax** nycticorax nycticorax	*Night* „
(2234)	**Gorsakius** melanolophus melanolophus	*Malay Bittern*
(2237)	**Ixobrychus** sinensis sinensis	*Yellow* „
(2238)	„ cinnamomeus	*Chestnut* „
(2238a)	„ eurythmus	*Shrenk's* „
(2239)	**Dupetor** flavicollis flavicollis	*Black* „
(2240)	**Botaurus** stellaris stellaris	*The* „
	Order XI ANSERES	
	Family ANATIDÆ	
	Sub-family PLECTROPTERINÆ	
(2247)	**Sarkidiornis** melanotus	*Nukhta or Comb Duck*
(2248)	**Asarcornis** scutulatus	*White-winged Wood* „
(2249)	**Rhodonessa** caryophyllacea	*Pink-headed* „
	Sub-family CHENONETTINÆ	
(2250)	**Nettapus** coromandelianus	*The Cotton Teal*
(2251)	**Aix** galericulata	*Mandarin Duck*
	Sub-family ANSERINÆ	
(2252)	**Anser** anser subsp.	*Grey Lag Goose*
(2253)	„ albifrons albifrons	*White-fronted* „
(2257)	„ fabalis middendorfi	*Middendorf's Bean* „
(2258)	„ indicus	*Bar-headed* „

Reference:—

In the Remarks column:—
"C" denotes that the bird is common.
"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION												ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
					Southern Burma									
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Arakan Yomas	Pegu Yomas	Plains	Karen Hills	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
R	..	..	R	R	..	..	R	..	R	R	..	R	..	.. ..	(2223)
..	..	..	U	..	..	..	U	..	..	..	..	..	..	.. ..	(2224)
R	..	R	R	R	..	..	R	..	R	R	..	R	..	.. ..	(2225)
R	..	..	R	R	..	..	R	..	R	R	..	R	..	.. ..	(2227)
R	..	..	..	..	..	..	..	..	..	..	..	*R*	..	Coast	(2226)
R	..	R	R	R	..	..	R	..	R	R	R	R	..	.. ..	(2229)
..	..	..	R	R	..	..	..	..	..	R	..	R	..	.. ..	(2230)
R	..	R	R	R	..	R	R	..	R	R	R	R	..	.. ..	(2231)
R	..	..	R	R	..	..	R	..	R	R	..	R	..	.. ..	(2233)
U	..	..	..	..	..	..	..	..	..	U	U	U	..	.. ..	(2234)
..	..	..	..	R	..	..	R	..	..	..	..	R	..	.. ..	(2237)
..	..	R	R	R	..	..	R	..	..	..	..	R	..	.. ..	(2238)
..	..	..	..	..	..	..	..	..	..	..	..	*M*	..	Amherst (1 record)	(2238a)
..	..	R	R	R	..	..	R	..	R	R	R	R	..	.. ..	(2239)
..	..	..	M	..	..	..	M	..	..	..	..	..	..	.. ..	(2240)
R	..	R	R	R	..	..	R	..	R	R	..	R	..	.. ..	(2247)
R	..	R	R	R	R	R	..	..	..	..	..	R	..	.. ..	(2248)
M	..	?	M	M	..	..	..	..	..	..	..	..	..	(4 records)	(2249)
R	..	R	R	R	..	..	R	..	R	R	..	R	..	.. ..	(2250)
..	*M*	..	..	..	..	..	..	..	..	..	..	..	..	Gangaw (1 record)	(2251)
..	..	M	M	M	..	..	..	..	..	..	..	..	..	.. ..	(2252)
..	..	*M*	..	..	..	..	..	..	..	*M*	..	..	..	2 records	(2253)
..	..	..	*M*	..	..	..	..	..	..	..	..	..	..	Myitkyina (1 record)	(2257)
..	..	M	M	M	..	..	..	..	..	..	..	*M*	..	Pa-an (Moulmein)	(2258)
1	2	3	4	5	6				7	8	9	10			

Reference:—

"F. B. I. No." refers to the bird's number in the Fauna of British India—Birds—Second Edition.

Under "Distribution":—

Column numbers correspond with the Distribution Area numbers shown on the Map at the end of this book.

"R" denotes that the bird is a resident.
"M" denotes that the bird is a migrant.
"U" denotes uncertainty as to whether the bird is a resident or migrant.

Where the letters "R" "M" or "U" occur in italics they denote that the bird has only been recorded from that part of the Distribution Area noted in the Remarks column.

F. B. I. No.	Scientific Name	English Name
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	Family ANATIDÆ — (Contd.)	
	Sub-family ANATINÆ	
(2260)	**Dendrocygna** javanica	*Lesser or Common Whistling Teal*
(2261)	„ fulva	*Large* „ „
(2262)	**Tadorna** tadorna	*The Shelduck*
(2263)	**Casarca** ferruginea	*Brahminy Duck or Ruddy* „
(2264)	**Anas** platyrhyncha platyrhyncha	*The Mallard*
(2265)	„ pœcilorhyncha pœcilorhyncha	*Common Grey Duck*
(2266)	„ „ zonorhyncha	*Eastern* „ „
(2267)	„ „ haringtoni	*Burmese* „ „
(2268)	„ falcata	*Crested or Falcated Teal*
(2269)	„ strepera	*The Gadwall*
(2270)	„ penelope	*The Wigeon*
(2271)	„ crecca crecca	*Common Teal*
(2273)	„ albogularе	*Andaman* „
(2274)	„ acuta acuta	*The Pintail*
(2275)	„ querquedula	*Garganey or Blue-winged Teal*
(2276)	**Spatula** clypeata	*The Shoveller*
	Sub-family AYTHYINÆ	
(2278)	**Netta** rufina	*Red-crested Pochard*
(2279)	**Aythya** ferina ferina	*Common* „
(2280)	„ nyroca nyroca	*The White-eyed* „
(2281)	„ „ baeri	*Eastern* „ „
(2282)	„ marila marila	*The Scaup Duck*
(2283)	„ fuligula fuligula	*Tufted* „
(2284)	**Bucephala** clangula clangula	*The Goldeneye*
	Sub-family MERGINÆ	
(2286)	**Mergus** albellus	*The Smew*
(2288)	„ merganser	*The Goosander*
	Order XII PYGOPODES	
	Family PODICEPIDÆ	
(2290)	**Podiceps** cristatus cristatus	*Great Crested Grebe*
(2292)	„ ruficollis capensis	*Indian Little* „

Reference:—

In the Remarks column:—
"C" denotes that the bird is common.
"L" denotes that the bird is local.
"LC" denotes that the bird is locally common.
"VM" denotes that the bird is a vertical migrant.

DISTRIBUTION												ELEVATION at which the bird is normally found	REMARKS [Including isolated records of the bird's occurrence.]	F. B. I. No.
Arakan	Chin Hills	Upper Chindwin	North-East Burma	Central Burma	Southern Burma: Karen Hills	Southern Burma: Plains	Southern Burma: Pegu Yomas	Southern Burma: Arakan Yomas	Nn. Shan States	Sn. Shan States	Karenni	Tenasserim			
1	2	3	4	5	6				7	8	9	10			
R	..	R	R	R	..	..	R	..	R	R	..	R	..	..	(2260)
..	..	..	..	R	..	..	R	..	..	R	..	..	..	..	(2261)
M	..	M	M	..	..	..	..	..	M	..	..	..	..	..	(2262)
M	..	?	M	M	..	..	M	..	M	M	..	..	..	..	(2263)
..	..	M	M	M	..	..	..	..	M	..	..	..	..	..	(2264)
U	..	U	..	..	..	..	..	..	..	..	..	..	..	..	(2265)
..	..	..	M	..	..	..	..	..	..	M	..	..	..	..	(2266)
U	..	U	..	U	..	..	U	..	..	R	..	U	..	..	(2267)
M	..	M	M	M	..	..	..	..	..	..	..	..	..	..	(2268)
M	..	M	M	M	..	..	M	..	M	M	..	M	..	..	(2269)
M	..	M	M	M	..	..	M	..	M	M	..	..	..	..	(2270)
M	..	M	M	M	..	..	M	..	M	M	M	M	..	..	(2271)
..	..	..	..	..	..	..	*M*	..	..	..	..	..	..	Bassein (1 record)	(2273)
M	..	M	M	M	..	..	M	..	M	M	..	M	..	..	(2274)
M	..	M	M	M	..	..	M	..	M	M	..	M	..	..	(2275)
..	..	..	M	M	..	..	M	..	M	M	..	M	..	..	(2276)
..	..	M	M	M	..	..	..	..	..	M	..	..	..	..	(2278)
..	..	M	M	M	..	..	..	..	M	M	..	..	..	..	(2279)
M	..	M	M	M	..	..	..	..	..	..	..	..	..	..	(2280)
M	..	M	*M*	M	..	..	M	..	M	..	..	..	..	Bhamo	(2281)
..	..	..	*M*	..	..	..	..	..	..	..	..	..	..	Katcho (1 record)	(2282)
..	..	M	M	M	..	..	M	..	M	M	..	..	..	..	(2283)
..	..	..	..	*M*	..	..	..	..	..	..	..	..	..	Myingyan (1 record)	(2284)
..	..	M	*M*	..	..	..	..	..	..	..	..	..	..	Fort Hertz	(2286)
..	..	..	M	..	..	..	..	..	..	..	..	..	..	..	(2288)
..	..	..	M	M	..	..	..	..	..	M	..	..	..	..	(2290)
R	..	R	R	R	..	..	R	R	R	R	..	R	..	..	(2292)
1	2	3	4	5	6				7	8	9	10			

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OF

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