

Ninety-two Plates (92).
24th March/50
Ninety Two Plates
13th Decr/51
XLVII.A 35

THE

BIRDS OF AUSTRALIA.

BY

JOHN GOULD, F.R.S.,

F.L.S., F.Z.S., M.E.S., F.ETHN.S., F.R.GEOG.S., M. RAY S., HON. MEMB. OF THE ROYAL ACADEMY OF SCIENCES OF TURIN,
OF THE ROY. ZOOL. SOC. OF IRELAND, OF THE PENZANCE NAT. HIST. SOC., OF THE WORCESTER
NAT. HIST. SOC., OF THE NORTHUMBERLAND, DURHAM AND NEWCASTLE NAT.
HIST. SOC., OF THE NAT. HIST. SOC. OF DARMSTADT AND OF THE
TASMANIAN SOCIETY OF VAN DIEMEN'S LAND, ETC.

IN SEVEN VOLUMES.

VOL. V.

BOOK NO. 555

LONDON:

PRINTED BY RICHARD AND JOHN E. TAYLOR, RED LION COURT, FLEET STREET.

PUBLISHED BY THE AUTHOR, 20, BROAD STREET, GOLDEN SQUARE.

1848.

598.2994
GOU
v.5

LIST OF PLATES.

VOLUME V.

Cacatua galerita	Crested Cockatoo 1
——— Leadbeaterii	Leadbeater's Cockatoo 2
——— sanguinea, *Gould*	Blood-stained Cockatoo 3
——— Eos	Rose-breasted Cockatoo 4
Licmetis nasicus	Long-billed Cockatoo 5
Nestor productus, *Gould*	Philip Island Parrot 6
Calyptorhynchus Banksii	Banksian Cockatoo 7
——— macrorhynchus, *Gould*	Great-billed Black Cockatoo . . . 8
——— naso, *Gould*	Western Black Cockatoo 9
——— Leachii	Leach's Cockatoo 10
——— funereus	Funereal Cockatoo 11
——— xanthonotus, *Gould*	Yellow-eared Black Cockatoo . . . 12
——— Baudinii, *Vig.*	Baudin's Cockatoo 13
Callocephalon galeatum	Gang-gang Cockatoo 14
Polytelis Barrabandii	Barraband's Parrakeet 15
——— melanura	Black-tailed Parrakeet 16
Aprosmictus scapulatus	King Lory 17
——— erythropterus	Red-winged Lory 18
Platycercus semitorquatus	Yellow-collared Parrakeet 19
——— Bauerii	Bauer's Parrakeet 20
——— Barnardii, *Vig. & Horsf.*	Barnard's Parrakeet 21
——— Adelaidiæ, *Gould*	Adelaide Parrakeet 22
——— Pennantii	Pennant's Parrakeet 23
——— flaviventris	Yellow-bellied Parrakeet 24
——— flaveolus, *Gould*	Yellow-rumped Parrakeet 25
——— palliceps, *Vig.*	Pale-headed Parrakeet 26
——— eximius	Rose-hill Parrakeet 27
——— splendidus, *Gould*	Splendid Parrakeet 28
——— icterotis	The Earl of Derby's Parrakeet . . . 29
——— ignitus, *Lead.*	Fiery Parrakeet 30
——— Brownii	Brown's Parrakeet 31
——— pileatus, *Vig.*	Red-capped Parrakeet 32
Psephotus hæmatogaster, *Gould*	Crimson-bellied Parrakeet 33
——— pulcherrimus, *Gould*	Beautiful Parrakeet 34
——— multicolor	Many-coloured Parrakeet 35
——— hæmatonotus, *Gould*	Red-backed Parrakeet 36
Euphema chrysostoma	Blue-banded Grass-Parrakeet . . . 37
——— elegans, *Gould*	Elegant Grass-Parrakeet 38
——— aurantia, *Gould*	Orange-bellied Grass-Parrakeet . . . 39
——— petrophila, *Gould*	Rock Grass-Parrakeet 40
——— pulchella	Chestnut-shouldered Grass-Parrakeet . 41
——— splendida, *Gould*	Splendid Grass-Parrakeet 42
——— Bourkii	Bourke's Grass-Parrakeet 43
Melopsittacus undulatus	Warbling Grass-Parrakeet 44
Nymphicus Novæ Hollandiæ	Cockatoo Parrakeet 45
Pezoporus formosus	Ground Parrakeet 46
Lathamus discolor	Swift Lorikeet 47
Trichoglossus Swainsonii, *Jard. & Selby*	Swainson's Lorikeet 48
——— rubritorquis, *Vig. & Horsf.*	Red-collared Lorikeet 49

Trichoglossus chlorolepidotus	Scaly-breasted Lorikeet 50
——— versicolor, *Vig.*	Varied Lorikeet 51
——— concinnus	Musky Lorikeet 52
——— porphyrocephalus, *Diet.*	Porphyry-crowned Lorikeet . . . 53
——— pusillus	Little Lorikeet 54
Ptilinopus Swainsonii, *Gould*	Swainson's Fruit Pigeon 55
——— Ewingii, *Gould*	Ewing's Fruit Pigeon 56
——— superbus	Superb Fruit Pigeon 57
Carpophaga magnifica	Magnificent Fruit Pigeon . . . 58
——— leucomela	White-headed Fruit Pigeon . . . 59
——— luctuosa	Torres Strait Fruit Pigeon . . . 60
Lopholaimus Antarcticus	Top-Knot Pigeon 61
Chalcophaps chrysochlora	Little Green Pigeon 62
Leucosarcia picata	Wonga-wonga Pigeon 63
Peristera* chalcoptera	Bronze-winged Pigeon 64
——— elegans	Brush Bronze-winged Pigeon . . . 65
——— histrionica, *Gould*	Harlequin Bronze-wing 66
Geophaps scripta	Partridge Bronze-wing 67
——— Smithii	Smith's Partridge Bronze-wing . . 68
——— plumifera, *Gould*	Plumed Partridge Bronze-wing . . 69
Ocyphaps Lophotes	Crested Pigeon 70
Petrophassa albipennis, *Gould*	White-quilled Rock Dove . . . 71
Geopelia humeralis	Barred-shouldered Ground Dove . . 72
——— tranquilla, *Gould*	Peaceful Ground Dove 73
——— cuneata	Graceful Ground Dove 74
Macropygia Phasianella	Pheasant-tailed Pigeon 75
Gnathodon strigirostris, *Jard.*	Gnathodon 76
Talegalla Lathamii	Wattled Talegalla 77
Leipoa ocellata, *Gould*	Ocellated Leipoa 78
Megapodius Tumulus, *Gould*	Mound-raising Megapode . . . 79
Pedionomus torquatus, *Gould*	Collared Plain Wanderer 80
Hemipodius† melanogaster, *Gould*	Black-breasted Hemipode . . . 81
——— varius	Varied Hemipode 82
——— scintillans, *Gould*	Sparkling Hemipode 83
——— melanotus, *Gould*	Black-backed Hemipode 84
——— castanotus, *Gould*	Chestnut-backed Hemipode . . . 85
——— pyrrhothorax, *Gould*	Red-chested Hemipode 86
——— velox, *Gould*	Swift-flying Hemipode 87
Coturnix pectoralis, *Gould*	Pectoral Quail 88
Synoicus Australis	Australian Partridge 89
——— Diemenensis, *Gould*	Van Diemen's Land Partridge . . . 90
——— sordidus, *Gould*	Sombre Partridge 91
——— ? Chinensis	Chinese Quail 92

* *Phaps* being the generic appellation generally adopted, *Peristera*, under which term the birds of this form have been published, must sink into a synonym.

† *Turnix* for the like reason must be substituted for *Hemipodius*, the term employed.



CACATUA GALERITA: Vieill

ZOOLOGICAL SOCIETY
Museum
Letters
No. 422
4-11-06

CACATUA GALERITA, *Vieill.*

Crested Cockatoo.

The Crested Cockatoo, White's Journ., pl. in p. 237.
Psittacus galeritus, Lath. Ind. Orn., vol. i. p. 109; and Gen. Syn. Supp., vol. ii. p. 92.—Kuhl, Consp. Psitt. in Nov. Act., vol. x. p. 87.
Great Sulphur-crested Cockatoo, Shaw, Gen. Zool., vol. viii. p. 479.
Crested Cockatoo, Lath. Gen. Hist., vol. ii. p. 205.
Cacatua galerita, Vieill. 2nde Edit. du Nouv. Dict. d'Hist. Nat., tom. xvii. p. 11; and Ency. Méth. Orn., Part III. p. 1414.—Wagl. Mon. Psitt. in Abhand., p. 695.
Plyctolophus galeritus, Vig. and Horsf. in Linn. Trans., vol. xv. p. 268.—Vig. in Lear's Ill. Psitt. pl. 3.—Steph. Cont. of Shaw's Gen. Zool., vol. xiv. p. 108.
Cacatua chrysolophus, Less. Traité d'Orn., p. 182.
Car'away and *Cur'riang*, Aborigines of New South Wales.
Mangarape, Papuans of New Guinea.

If we regard the White Cockatoo of Van Diemen's Land, that of the continent of Australia, and that of New Guinea as mere varieties of each other, this species has a more extensive range than most other birds. It is an inhabitant of all the Australian colonies, both on the southern and northern coasts, but has not yet been observed on the western.

On a close examination of specimens from the three countries above mentioned, a decided difference is observable in the structure of the bill, but of too trivial a character, in my opinion, to warrant their being considered as distinct; in fact, it would seem to be merely a modification of the organ for the peculiar kind of food afforded by the respective countries. The Van Diemen's Land bird is the largest in every respect, and has the bill, particularly the upper mandible, less abruptly curved, exhibiting a tendency to the form of that organ in the genus *Licmetis*: the bill of the New Guinea bird is much rounder, and is, in fact, fitted to perform a totally different office from that of the White Cockatoo of Van Diemen's Land, which I have ascertained, by dissection, subsists principally on the small bulbs of the terrestrial *Orchidaceæ*, for procuring which its lengthened upper mandible is admirably adapted; while it is more than probable that no food of this kind is to be obtained by the New Guinea bird, the structure of whose bill indicates that hard seeds, nuts, &c. constitute the principal part of its diet. The crops and stomachs of those killed in Van Diemen's Land were very muscular, and contained seeds, grain, native bread (a species of fungus), small tuberous and bulbous roots, and, in most instances, large stones.

As may be readily imagined, this bird is not upon favourable terms with the agriculturist, upon whose fields of newly-sown grain and ripening maize it commits the greatest devastation; it is consequently hunted and shot down wherever it is found, a circumstance which tends much to lessen its numbers; it is still, however, very numerous, moving about in flocks varying from a hundred to a thousand in number, and evinces a decided preference to the open plains and cleared lands, rather than to the dense brushes near the coast. Except when feeding, or reposing on the trees after a repast, the presence of a flock, if not seen, is certain to be indicated by their horrid screaming notes, the discordance of which may be slightly conceived by those who have heard the peculiarly loud, piercing, grating scream of the bird in captivity, always remembering the immense increase of the din occasioned by the large number of birds emitting their disagreeable notes at the same moment; still I ever considered this annoyance amply compensated for by their sprightly actions and the life their snowy forms imparted to the dense and never-varying green of the Australian forest; a feeling participated in by Sir Thomas Mitchell, who says that "amidst the umbrageous foliage, forming dense masses of shade, the white Cockatoos sported like spirits of light."

The situations chosen by this bird for the purpose of nidification vary with the nature of the locality it inhabits; the eggs are usually deposited in the holes of trees, but they are also placed in fissures in the rocks wherever they may present a convenient site: the crevices of the white cliffs bordering the Murray, in South Australia, are annually resorted to for this purpose by thousands of this bird, and are said to be completely honeycombed by them. The eggs are two in number, of a pure white, rather pointed at the smaller end, one inch and seven lines long by one inch two and a half lines broad.

All the plumage white, with the exception of the elongated occipital crest, which is deep sulphur-yellow, and the ear-coverts, centre of the under surface of the wing, and the basal portion of the inner webs of the tail-feathers, which are pale sulphur-yellow; irides and bill black; orbits white; feet greyish brown.

The figures are somewhat smaller than the natural size.



CACATUA LEADBEATERI: *Vigt*

Hallmandel Imp.

Gould and Hart del et lith

CACATUA LEADBEATERI, *Wagl.*

Leadbeater's Cockatoo.

Plyctolophus Leadbeateri, Vig. in Proc. of Comm. of Sci. and Corr. of Zool. Soc., Part I. p. 61; Lear's Ill. Psitt. pl. 5; and in Phil. Mag. 1831, p. 55.—Gould in Syn. of Birds of Australia, Part IV.—Mitch. Australian Expeditions, vol. ii. p. 47.

Cacatua Leadbeateri, Wagl. Mon. Psitt. in Abhand., p. 692.

Jak-kul-yak-kul, Aborigines of the mountain districts of Western Australia.

Pink Cockatoo, Colonists of Swan River.

This beautiful species of Cockatoo enjoys a wide range over the southern portions of the Australian continent; it never approaches very near the sea, but evinces a decided preference for the belts of lofty gums and scrubs clothing the sides of the rivers of the interior of the country; it annually visits the Toodyay district of Western Australia; and, as I ascertained, it annually breeds at Gawler in South Australia. On reading the works of Sturt and Mitchell, I find that both those travellers met with it in the course of their explorations, particularly on the banks of the rivers Darling and Murray; in fact, most of the interior districts between New South Wales and Adelaide are inhabited by it: future research alone will determine the extent of its range to the northward; as yet no specimen has been received either from the north or north-west coasts.

It must be admitted that this species is at once the most beautiful and elegant of the genus yet discovered, and it will consequently ever be most highly prized for the cage and the aviary; two examples, now in the possession of the Earl of Derby, appear to bear confinement equally as well as any of their congeners; in their disposition they are not so sprightly and animated, but at the same time they are much less noisy, a circumstance which tends to enhance rather than decrease our partiality for them.

Few birds tend more to enliven the monotonous hues of the Australian forests than this beautiful species, whose "pink-coloured wings and glowing crest," says Sir T. Mitchell, "might have embellished the air of a more voluptuous region."

Its note is more plaintive than that of *C. galerita*, and does not partake of the harsh grating sound peculiar to that species.

General plumage white; forehead, front and sides of the neck, centre of the under surface of the wing, middle of the abdomen, and the basal portion of the inner webs of the tail-feathers tinged with rose-colour, becoming of a rich salmon-colour under the wing; feathers of the occipital crest crimson at the base, with a yellow spot in the centre and white at the tip; bill light horn-colour; feet dark brown.

The sexes are nearly equal in size; but the female has the yellow spots in the centre of the crest more conspicuous and better defined than her mate, whose crest, although larger, is not so diversified in colour as that of his mate; on the other hand, the salmon tint of the under surface is much more intense in the male than in the female.

The Plate represents the two sexes about the natural size.



CACATUA SANGUINEA: *Gould*

CACATUA SANGUINEA, *Gould.*

Blood-stained Cockatoo.

Cacatua sanguinea, Gould in Proc. of Zool. Soc., Part X. p. 138.

The circumstance of this species never having been characterized until I described it in the "Proceedings of the Zoological Society," above quoted, may doubtless be attributed to its being solely an inhabitant of the north and north-west coasts of Australia, portions of the country where few collections have been formed. With the exception of a specimen brought home by Captain Chambers, R.N., and another in the collection of Mr. Bankier, my own specimens are all that I have ever seen; the whole of these were collected at Port Essington.

The Blood-stained Cockatoo inhabits swamps and wet grassy meadows, and is often to be seen in company with its near ally the *Cacatua galerita*, but I am informed it is even more shy and difficult of approach than that bird. It is doubtless attracted to the swampy districts by the various species of Orchidaceous plants that grow in such localities, upon the roots of which at some seasons it mainly subsists.

But little difference occurs either in the size or the colouring of the sexes, and I have young birds, which, although a third less in size, closely assimilate in every respect to the adult, so much so that an examination of the bill, which during immaturity is soft and yielding to the touch, is necessary to distinguish them.

I have never yet observed this species in collections from New Guinea; but I think it more than likely that its range may extend to that island, the fauna of which is at present so imperfectly known to us.

All the plumage white; base of the feathers of the lores and sides of the face stained with patches of blood-red; base of the inner webs of the primaries, secondaries and tail-feathers fine sulphur-yellow; bill yellowish white; feet mealy brown.

The figures are those of a male and a female about the natural size.

CACATUA EOS.

Rose-breasted Cockatoo.

Psittacus Eos, Kuhl. Nova Acta, tom. x. p. 88.—Temm. Pl. Col., 81.
Cacatua rosea, Vieill. Gal. des Ois., tom. ii. p. 5. pl. 25.—Ib. Ency. Méth. Orn., Part iii. p. 1414.—Less. Traité d'Orn., p. 183.
Plyctolophus Eos, Vig. and Horsf. in Linn. Trans., vol. xv. p. 269.
Rose-coloured Cockatoo, Lath. Gen. Hist., vol. ii. p. 207.
Cacatua roseicapilla, Wagl. Mon. Psitt. in Abhand., pp. 504, 691.
——— *Eos*, Less. Man. d'Orn., tom. ii. p. 143.
The Rose Cockatoo, Sturt's Travels in Australia, vol. ii. pl. in p. 79.

This beautiful Cockatoo is abundantly dispersed over a great part of the interior of Australia; both Oxley and Sturt speak of it as inhabiting the country to the north-west of the Blue Mountain range of hills; in fact, few travellers have visited the interior without having had their attention attracted by its appearance; and I saw it in great numbers on the plains bordering the river Namoi, particularly under the Nundewar range of Sir Thomas Mitchell; I possess specimens also from the north coast, procured by the Officers of the Beagle. A difference however, which may hereafter prove to be specific, exists between the birds from New South Wales and those of the north coast. Those from the latter locality are the largest in size, and have the bare skin round the eye more extended; the rosy colour of the breast and the grey colouring of the back are darker than in the specimens I killed on the Namoi.

The Rose-breasted Cockatoo possesses considerable power of wing, and like the house-pigeon of this country, frequently passes in flocks over the plains with a long sweeping flight, the group at one minute displaying their beautiful silvery grey backs to the gaze of the spectator, and at the next by a simultaneous change of position bringing their rich rosy breasts into view, the effect of which is so beautiful to behold, that it is a source of regret to me that my readers cannot participate in the pleasure I have derived from the sight. I was informed by the natives of the Namoi that the bird had so recently arrived in the district, that until within the last two years it had never been seen; they supposed it to have migrated from the north or interior of the country. During the years 1839 and 1840 it bred in considerable numbers in the boles of the large *Eucalypti* skirting the Nundewar range before alluded to, and afforded an abundant supply of young ones for the draymen and stock-keepers to transport to Sydney, where they are sold for a considerable sum to be shipped to England; and as they are very hardy, and bear cold and confinement extremely well, and are perfectly contented in a cage, we have, perhaps, more of them living in England at the present time than of any other species of the genus. I have seen it as tame in Australia as the ordinary denizens of the farm-yard, enjoying perfect liberty, and coming round the door to receive food in company with the pigeons and poultry, amongst which it mingled on terms of intimate friendship.

In a letter received from my friend Captain Sturt, he says, "The Rose-breasted Cockatoo is a bird of the low country entirely and limited in the extent of its habitat, never being found in any great number on the banks of the Darling, or rising higher than 600 feet above the level of the sea. It feeds on *Salsolæ*, and occupies those vast plains which lie immediately to the westward of the Blue Mountains. It has a peculiar flight, and the whole flock turning together show the rose-colour of the under surface with pretty effect." I have not yet seen specimens of this bird from any part of the Swan River colony, neither did I observe it in any part of South Australia that I visited; the eastern and northern portions of Australia are evidently those most frequented by it.

The eggs, which are white, are generally three in number, about an inch and a half long by an inch and an eighth broad.

The young at first are covered with long, fine downy feathers, which at an early age give place to the colours which characterize the plumage of the adult.

The sexes do not differ in colouring and scarcely in size, but individuals differ considerably in the depth of the tint of the under surface, some being much deeper than others, and in the extent of the bare space round the eye.

Crown of the head pale rosy white; all the upper surface grey, deepening into brown at the extremity of the wings and tail, and becoming nearly white on the rump and upper tail-coverts; sides of the neck, all the under surface from below the eyes and the under surface of the shoulder rich deep rosy red; thighs and under tail-coverts grey; irides rich deep rosy red; orbits brick-red; bill white; feet mealy dark brown.

The figures are of the natural size.



LICMETIS NASUTUS.

J. Gould and H.C. Richter del. et lith.

Hullmandel & Walton Imp.

LICMETIS NASICUS.

Long-billed Cockatoo.

Psittacus nasicus, Temm. in Linn. Trans., vol. xiii. p. 115.—Ib. Pl. Col , 331.
Long-nosed Cockatoo, Lath. Gen. Hist., vol. ii. p. 205.
Licmetis tenuirostris, Wagl. Mon. Psitt. in Abhand., vol. i. pp. 505 and 695.—G. R. Gray, List of Gen. of Birds, 2nd edit. p. 69.
Psittacus tenuirostris, Kuhl in Nov. Acta, tom. x. p. 88.
Cacatua nasica, Less. Traité d'Orn., p. 183.
Plyctolophus tenuirostris, Steph. Cont. of Shaw's Gen. Zool., vol. xiv. p. 108.
The Red-vented Cockatoo, Brown's Ill., p. 10. pl. 5.

As I regard the Long-billed White Cockatoos from Western Australia and New South Wales as distinct, the habitat of the present species, so far as is yet known, is confined to the districts of Port Philip and South Australia, where it inhabits the interior rather than the neighbourhood of the coast. Like the common *Cacatua galerita*, it assembles in large flocks and spends much of its time on the ground, where it grubs up the roots of Orchids and other bulbous plants upon which it mainly subsists, and hence the necessity for its singularly-formed bill. It not unfrequently makes inroads to the newly-sown fields of corn, where it is the most destructive bird imaginable. It passes over the ground in a succession of hops, much more quickly than the *Cacatua galerita*; its powers of flight also exceed those of that bird, not perhaps in duration, but in the rapidity with which it passes through the air. I noticed this particularly when a flock passed me in the interior of South Australia. I have seen many individuals of this species in captivity, both in New South Wales and in this country; and although they appear to bear confinement equally as well as the other members of the family, they seemed more dull and morose, and of a very irritable temper.

The eggs, which are white, two in number, and about the size of those of the *Cacatua galerita*, are usually deposited on a layer of rotten wood at the bottom of holes in the larger gum-trees.

The sexes are alike in colour and size.

The general plumage white, washed with pale brimstone-yellow on the under surface of the wing, and with bright brimstone-yellow on the under surface of the tail; line across the forehead and lores scarlet; the feathers of the head, neck and breast are also scarlet at the base, showing through the white, particularly on the breast; irides light brown; bill white; naked skin round the eye greenish blue; legs and feet dull olive-grey.

The two figures in the accompanying Plate are rather less than the natural size.



NESTOR PRODUCTUS. (Gould)

NESTOR PRODUCTUS, *Gould.*

Phillip Island Parrot.

Wilson's Parrakeet, Lath. Gen. Hist., vol. ii. p. 170.?
Long-billed Parrakeet, Ib., p. 171.?
Plyctolophus productus, Gould in Proc. of Zool. Soc., Part IV. 1836, p. 19.
Nestor productus, Gould, Syn. of the Birds of Australia, Part I.

I HAVE considerable pleasure in being enabled to add a second and so beautiful a species as the present to the genus *Nestor* of Wagler. Like its near ally, the *N. hypopolius*, which, so far as is yet known, is only found in New Zealand, the *N. productus* has a very limited habitat, the entire race, as I am credibly informed, being confined to Phillip Island, whose whole circumference is not more than five miles in extent; so strictly in fact is it confined to this isolated spot, that many persons who have resided in Norfolk Island for years, have assured me its occurrence there is never known, although the distance from one island to the other is not more than three or four miles. I regret to state, that, in consequence of the settlement of Norfolk Island, the native haunts of this fine bird have been so intruded upon, and such a war of extermination been carried on against it, that if such be not the case already, the time is not far distant when the species will be completely extirpated, and, like the Dodo, its skin and bones become the only mementos of its existence.

Had I been able to visit Norfolk and Phillip Islands, I should certainly have made every inquiry into the native habits and economy of this very singular form among the Parrots, the nature of its food, mode of procuring it, &c.; and I would now urge the necessity of these investigations upon those who may be favourably situated for making them. Like all the other members of the extensive family of *Psittacidæ*, it bears captivity remarkably well, readily becoming contented, cheerful, and an amusing companion. During my stay at Sydney, I had an opportunity of seeing a living example in the possession of Major Anderson, and was much interested with many of its actions, which were so different from those of every other member of its family, that I felt convinced they were equally different and curious in a state of nature. This bird was not confined to a cage, but permitted to range over the house, along the floors of which it passed, not with the awkward waddling gait of a Parrot, but in a succession of leaps, precisely after the manner of the *Corvidæ*. Mrs. Anderson, to whom I am indebted for the little I could learn respecting it, informed me that it is found among the rocks and upon the loftiest trees of the island, that it is so tame as to be readily taken alive with a noose, and that it feeds upon the blossoms of the white-wood tree, or white *Hibiscus*, sucking the honey of the flowers: the mention of this latter circumstance induced me to examine the tongue of the bird, which presented a very peculiar structure, not, like that of the true honey-feeding Parrakeets (the *Trichoglossi*), furnished with a brush-like termination, but with a narrow horny scoop on the under side, which, together with the extremity of the tongue, resembled the end of a finger with the nail beneath instead of above: this peculiarity in the structure of the organ is doubtless indicative of a corresponding peculiarity in the nature of the food upon which the bird subsists. I may mention that Sir J. P. Millbank, Bart., informed me that a living example of this species in his possession evinced a strong partiality to the leaves of the common lettuce and other soft vegetables, and that it was also very fond of the juice of fruits, of cream and butter.

Mrs. Anderson told me that it lays four eggs in the hollow part of a tree, but beyond this I was unable to ascertain anything respecting its nidification.

Its voice is a hoarse, quacking, inharmonious noise, sometimes resembling the barking of a dog.

It would appear from the numerous specimens I have examined that the sexes scarcely differ from each other in colour; the young, on the contrary, have but little of the rich yellow and red markings of the breast, that part being olive-brown like the back.

The general colour of the upper surface brown; head and back of the neck tinged with grey, the feathers of these parts as well as of the back margined with a deeper tint; rump, belly, and under tail-coverts deep red; cheeks, throat, and chest yellow, the former tinged with red; shoulders on their inner surface yellow tinged with rufous olive; tail-feathers banded at the base with orange-yellow and brown; the inner webs of the quill-feathers at the base and beneath, with dusky red and brown; irides very dark brown; bill brown; nostrils, bare skin round the eye, and feet dark olive-brown.

Our Plate represents an old and a nearly adult bird, exhibiting traces of the immature plumage on the chest, of the natural size.



CALYPTORHYNCHUS BANKSII.

CALYPTORHYNCHUS BANKSII.

Banksian Cockatoo.

Psittacus Banksii, Lath. Ind. Orn., vol. i. p. 107.—Ib. Gen. Syn., p. 63. p. 109.—Parkinson's Voy., p. 144.—Cook's Voy., vol. ii. p. 18.—Shaw, Gen. Zool., vol. viii. p. 476.—Lath. Gen. Hist., vol. ii. p. 199. pl. 27 (female).

Psittacus magnificus, Shaw, Nat Misc., pl. 50.

Calyptorhynchus Banksii, Vig. and Horsf. in Linn. Trans., vol. xv. p. 271.

———— *stellatus*, Wagl. Mon. Psitt. in Abhand., tom. i. p. 683. pl. 27 (a very young bird).—Selby in Nat. Lib. Orn., vol. vi. Parrots, p. 134.

I HAVE abundant reasons for stating that every portion of Australia yet visited by Europeans is inhabited by members of the genus *Calyptorhynchus*, and that at least six species are now known, each of which has its own peculiar limits, beyond which it seldom or never passes. The present species, which is one of those with which we first became acquainted, and to which, as will be seen above, several specific appellations have been given, is a native of New South Wales, out of which colony I have never known it to occur, its range appearing to be limited by Moreton Bay on the east and Port Philip on the south. It is not unfrequently seen in the immediate neighbourhood of Sydney and other large towns, and it alike frequents the brushes and the more open wooded parts of the colony, where it feeds on the seeds of the *Banksiæ* and *Casuarinæ*, changing its diet however, as occasion may offer, to caterpillars, particularly those that infest the wattles and other low trees. The facility with which it procures these large grubs is no less remarkable than the structure of the bird's bill, which is admirably adapted for scooping out the wood of both the larger and smaller branches, and by this means obtaining possession of the hidden treasure.

The Banksian Cockatoo is a suspicious and shy bird, and it requires a considerable degree of caution to approach it within gun-shot; there are times however, particularly when it is feeding, when this may be more readily accomplished. It never assembles in large flocks like the White Cockatoo, but moves about either in pairs or in small companies of from four to eight in number. Its flight is heavy, and the wings are moved with a flapping, laboured motion; it seldom mounts high in the air, for although its flight is somewhat protracted, and journeys of several miles are performed, it rarely rises higher than is sufficient to surmount the tops of the lofty *Eucalypti*, a tribe of trees it often frequents, and in the larger kinds of which it almost invariably breeds, depositing its two or three white eggs in some inaccessible hole, spout or dead limb, the only nest being the rotten wood at the bottom, or the chips made by the bird in forming an excavation.

The female and young birds of both sexes differ very considerably from the old male in the marking of their plumage, and hence has arisen no end of confusion and the various names assigned to this bird; the above list of synonyms has been worked out with considerable care, and will I believe be found correct.

It is with feelings of great pleasure that I find that the term *Banksii*, having the priority, the name of the illustrious Banks, will ever be retained as the distinctive appellation of this noble and ornamental bird; and I would that it were in my power to write as many pages respecting its habits and economy as I have lines; but this task must devolve upon some future historian of the productions of a country teeming with the highest interest, and who will doubtless find occupation in investigating the minute details of that respecting which I am only able to give a general outline.

The male has the entire plumage glossy greenish black, with a broad band of rich deep vermilion across the middle of all but the two central tail-feathers, and the external web of the outer feather on each side; feet mealy brown; bill in young specimens greyish white, in old specimens black.

The female has the general plumage glossy greenish black, each feather of the head, sides of the neck and wing-coverts pale yellow; under surface crossed by narrow irregular bars of pale yellow, becoming fainter on the abdomen; under tail-coverts crossed by narrow freckled bars of yellowish red; tail banded with red, passing into sulphur-yellow on the inner margins of the feathers, and interrupted by numerous narrow irregular bars and freckles of black.

The Plate represents the male and female about two-thirds of the natural size.



CALYPTORHYNCHUS MACRORHYNCHUS. Gould.

Hullmandel & Walton Imp.

CALYPTORHYNCHUS MACRORHYNCHUS, *Gould.*

Great-billed Black Cockatoo.

Calyptorhynchus macrorhynchus, Gould in Proc. of Zool. Soc., Part X. p. 138.
Lăr-a-wuk, Natives of Taratong.

All the examples of this species that have come under my notice have been collected at Port Essington, where it is usually seen in small troops of from four to six in number. It has many characters in common with the Black Cockatoos of the south coast, but no species of the genus yet discovered has the bill so largely developed, which development is doubtless requisite to enable it to procure some peculiar kind of food at present unknown to us; it assimilates to the *C. Cookii* of New South Wales in the lengthened form of its crest, but differs in having much shorter wings, and in the mandibles being fully one-third larger. The females of the two species also vary considerably in the colouring of the bands across the tail-feathers, which in the *C. Cookii* is pure scarlet, while the same part of the female of the present bird is mingled yellow and scarlet. It differs from the *C. naso* of Western Australia in having a larger bill than that species, and in the much greater length of the crest; a similar difference is also observable in the colouring of the tail-feathers of the females that has been already pointed out with regard to *C. Cookii*.

It is a very powerful species, and its habits and economy are so similar to the other members of the genus that a description of them would be superfluous.

The male has the whole of the plumage glossy bluish black; lateral tail-feathers, except the external web of the outer one, crossed by a broad band of fine scarlet; bill horn-colour; irides blackish brown; feet mealy blackish brown.

The female has the general plumage as in the male, but with the crest-feathers, those on the sides of the face and neck, and the wing-coverts spotted with light yellow; each feather of the under surface, but particularly the chest, crossed by several semicircular fasciæ of yellowish buff; lateral tail-feathers crossed on the under surface by numerous irregular bands of dull yellow, which are broad and freckled with black at the base of the tail, and become narrower and more irregular as they approach the tip; on the upper surface of the tail these bands are bright yellow at the base of the feathers, and gradually change into pale scarlet as they approach the tip; irides blackish brown.

The Plate represents the two sexes about two-thirds of the natural size.



CALYPTORHYNCHUS NASO: *Gould*

J. Gould & H.C. Richter del et lith.

Hullmandel & Walton Imp.

CALYPTORHYNCHUS NASO, *Gould.*

Western Black Cockatoo.

Calyptorhynchus naso, Gould in Proc. of Zool. Soc., Part IV. p. 106.
Kar-rak, Aborigines of the mountain and lowland, and
Keer-jan-dee of the Aborigines of the northern districts of Western Australia.
Red-tailed Black Cockatoo of the Colonists.

The characters by which this species is distinguished from the *Calyptorhynchus macrorhynchus*, are a smaller bill and a shorter and more rounded crest; the same characters, which I know to be constant, also distinguish it from the *C. Banksii*. The bill is inclined to be gibbose, like that of *C. Leachii*, to which species it also offers a further alliance in its shorter contour, rounded crest, and short tail.

The extent of range enjoyed by the *Calyptorhynchus naso* I have not been able to ascertain; its great stronghold appears to be the colony of Swan River, where it inhabits all parts of the country. As might be expected, its habits and economy closely resemble those of the other members of the genus. Except in the breeding-season, when it pairs, it may often be observed in companies of from six to fifteen in number.

It breeds in the holes of trees, making no nest, but merely collecting the soft dead wood on which to deposit its eggs, which are generally placed in trees so difficult of access that even the natives dislike to climb them. The eggs are four or five in number; the four given to Mr. Gilbert by the son of the colonial chaplain were taken by a native from a hole in a very high white gum-tree, in the last week of October; they are white, one inch and eight lines long by one inch and four lines broad.

It flies slowly and heavily, and while on the wing utters a very harsh and grating cry, resembling the native name.

The stomach is membranous and capacious, and the food of those examined contained seeds of the *Eucalypti*, *Banksiæ*, &c.

The sexes, which differ considerably in colour, may be thus described:—

The male has the entire plumage glossy greenish black; lateral tail-feathers, except the external web of the outer one, crossed by a broad band of fine scarlet; irides dark blackish brown; bill bluish lead-colour, becoming much paler on the under side of the lower mandible; feet brownish black, with a leaden tinge.

The female has the upper surface similar to, but not so rich as, that of the male, and has an irregularly shaped spot of yellowish white near the tip of each of the feathers of the head, crest, cheeks and wing-coverts; the under surface brownish black, crossed by numerous narrow irregular bars of dull sulphur-yellow; the under tail-coverts crossed by several irregular bars of mingled yellow and dull scarlet; the lateral tail-feathers dull scarlet, fading into yellow on the base of the inner webs, and crossed by numerous irregular bars of black, which are narrow at the base of the feathers and gradually increase in breadth towards the tip.

The Plate represents the two sexes about two-thirds of the natural size.



CALYPTORHYNCHUS LEACHII.

J. Gould. and H. C. Richter del. et lith.

Hullmandel & Walton Imp.

CALYPTORHYNCHUS LEACHII.

Leach's Cockatoo.

Psittacus Banksii, Lath. Ind. Orn., vol. i. p. 107. variety β.
Banksian Cockatoo, Lath. Gen. Syn. Supp., vol. ii. p. 91 A.—White's Journ., pl. in p. 139.—Phil. Bot. Bay, pl. in p. 267.—Lath. Gen. Hist., vol. ii. p. 200 A.
Psittacus Cookii, Temm. in Linn. Trans., vol. xiii. p. 111.
——— *Solandri*, Temm. in Linn. Trans., vol. xiii. p. 113.
Solander's Cockatoo, Lath. Gen. Hist., vol. ii. p. 201.
Cook's Cockatoo, Lath. Gen. Hist., vol. ii. p. 201.
Psittacus Leachii, Kuhl, Consp. Psitt. in Nov. Acta, vol. x. p. 91. pl. 3.
——— *Temminckii*, Kuhl, Consp. Psitt. in Nov. Acta, vol. x. p. 89.
Calyptorhynchus Cookii, Vig. and Horsf. in Linn. Trans., vol. xv. p. 272.
——— *Solandri*, Vig. and Horsf. in Linn. Trans., vol. xv. p. 274.
——— *Leachii*, Wagl. Mon. Psitt. in Abhand., vol. i. p. 683.
——— *Temminckii*, Wagl. Mon. Psitt. in Abhand., vol. i. p. 684.
——— *stellatus*, Selb. in Nat. Lib. Orn., vol. vi. Parrots, p. 134. pl. 15.
Carat, Aborigines of New South Wales.

The *Calyptorhynchus Leachii* is the least species of the genus yet discovered, and independently of its smaller size, it may be distinguished from its congeners by the more swollen and gibbose form of its bill. Its native habitat is New South Wales and South Australia. I obtained specimens of it on the Lower Namoi, more than three hundred miles in the interior; and the cedar brushes of the Liverpool range, Mr. Charles Throsby's park at Bong-bong, and the sides of the creeks of the Upper Hunter, were also among the places in which I killed it. So invariably did I find it among the *Casuarinæ*, that those trees appeared to be as essential to its existence as the *Banksiæ* are to that of some species of Honey-eater. The crops of those I killed were invariably filled with the seeds of the trees in question. Its disposition is less shy and distrusting than those of the *Calyptorhynchi Banksii* and *funereus*, but little stratagem being required to get within gun-shot; when one is killed or wounded, the rest of the flock either fly around or perch on the neighbouring trees, and every one may be procured. It has the feeble, whining call of the other members of the genus. Its flight is laboured and heavy; but when it is necessary for it to pass to a distant part of the country, it mounts high in the air and sustains a flight of many miles.

It is not unusual to find individuals of this species with yellow feathers on the cheeks and other parts of the head; this variation I am unable to account for; it is evidently subject to no law, as it frequently happens that six or eight may be seen together without one of them exhibiting this mark, while on the contrary a like number may be encountered with two or three of them thus distinguished. To this circumstance, and to the variation in the colouring of the tail-feathers of the two sexes, may be attributed the voluminous list of synonyms pertaining to this species.

Why living examples of the members of this genus have not as yet reached Europe, is not easily to be accounted for. I found no difficulty in keeping a winged bird alive for a short time, and I doubt not that were the attempt made, it might be easily introduced to our aviaries; the real cause probably is the extreme difficulty of procuring young individuals, the breeding-place selected by the bird being holes in the highest trees situated in the most remote parts of the forests, where none but the Aborigines are likely to discover or able to procure them.

There is no doubt that Mr. Caley is right in the opinion expressed in his notes that this is the *Carat* of the natives; and he adds that it lays two eggs in the holes of the trees; "does not cut off the branches of trees like the *Cal. funereus*, but cuts off *May-rybor-ro* and *Mun-mow* (the fruit of two species of *Persoonia*), without however eating them, before they are ripe, to the great injury and vexation of the natives."

The adult male may at all times be distinguished from the female by the broad band of scarlet on the tail. The females and males during the first year have this part banded with black, as shown in the accompanying Plate.

The old male has the entire plumage glossy greenish black, washed with brown on the head and neck, with a broad band of deep vermilion across the middle of all but the two centre tail-feathers, and the external web of the outer feather on each side; irides very dark brown; orbits mealy black in some, in others pinky; bill dark horn-colour; feet mealy black.

The females and young males differ in having the head and neck browner than in the adult male, and in having the scarlet band on the tail crossed by narrow bands of greenish black.

The figures are nearly the size of life.



CALYPTORHYNCHUS FUNEREUS.

Gould and R. Fisher del. et lith.

Hullmandel & Walton Imp.

17 Plates
7th Dec? 1847

CALYPTORHYNCHUS FUNEREUS.

Funereal Cockatoo.

Psittacus funereus, Shaw, Nat. Misc., pl. 186.—Kuhl, Consp. Psitt. in Nova Acta, etc., vol. x. p. 89.—Lath. Ind. Orn. Suppl., vol. i. p. xxii.
Funereal Cockatoo, Lath. Gen. Hist., vol. ii. p. 202.
Banksian Cockatoo, Lath. Gen. Syn. Suppl., vol. i. p. 91. C.—Shaw, Gen. Zool., vol. viii. p. 477.
Calyptorhynchus funereus, Vig. and Horsf. in Linn. Trans., vol. xv. p. 271.
Plyctolophus funeralis, Swains. Class. of Birds, vol. ii. p. 302.
Wy-la, Aborigines of the Upper Hunter in New South Wales.

Although not the most powerful in its mandibles, the present bird is the largest species of the genus to which it belongs, its large wings and expansive tail being unequalled by those of any other member of the great family of *Psittacidæ* yet discovered. The true habitat of the *Calyptorhynchus funereus* is New South Wales, or that portion of the Australian continent forming its south-eastern division. Among other places, I observed it in the neighbourhood of Sydney, at Bong-bong, on Mosquito Island near the mouth of the River Hunter, and on the Liverpool range; and it may be said to be universally distributed over this part of the continent. The thick brushes clothing the mountain sides and bordering the coast-line, the trees of the plains and the more open country are equally frequented by it; at the same time it is nowhere very numerous, but is usually met with associated in small companies of from four to eight in number, except during the breeding season, when it is only to be seen in pairs. Its food is much varied; sometimes the great belts of Banksias are visited, and the seed-covers torn open for the sake of their contents; while at others it searches with avidity for the larvæ of the large caterpillars which are deposited in the wattles and gums. Its flight, as might be expected, is very heavy, flapping and laboured, but it sometimes dives about between the trees in a most rapid and extraordinary manner.

When busily engaged in scooping off the bark in search of its insect food, it may be approached very closely; and if one be shot, the remainder of the company will fly round for a short distance and perch on the neighbouring trees, until the whole are brought down, if you are desirous of so doing.

Its note is very singular,—a kind of whining call, which it is impossible to describe, but which somewhat resembles the syllables *Wy-la*, whence the native name.

The eggs, which are white and two in number, about one inch and five-eighths long by one inch and three-eighths broad, are deposited on the rotten wood in the hollow branch of a large gum.

Caley mentions that this bird has a habit of cutting off the smaller branches of the apple-trees (*Angophoræ*), apparently from no other than a mischievous motive.

The sexes are very nearly alike, and may be thus described:—

The general plumage brownish black, glossed with green, particularly on the head; feathers of the body, both above and beneath, narrowly margined with brown; ear-coverts dull wax-yellow; all but the two central tail-feathers crossed in the centre by a broad band, equal to half their length, of brimstone-yellow, thickly freckled with irregular zigzag markings of brownish black; the external web of the outer primary on each side, and the margin of the external web of the other banded feathers, brownish black; bill black in some and white in others, the latter being probably young birds; eyes blackish brown; feet mealy blackish brown; orbits in some black, in others pinkish red, and in others whitish.

The figure is about two-thirds of the natural size.



CALYTORHYNCHUS XANTHONOTUS: *Gould.*

J Gould and H C Richter del et lith

Hullmandel

CALYPTORHYNCHUS XANTHONOTUS, *Gould.*

Yellow-eared Black Cockatoo.

Calyptorhynchus xanthonotus, Gould in Proc. of Zool. Soc., Part V. p. 151 ; and in Syn. Birds of Australia, Part IV.

The great stronghold of this species is Van Diemen's Land, but I have also seen specimens from Flinders' Island and South Australia, in all of which countries it is the representative of the *Calyptorhynchus funereus* of New South Wales. It is very plentifully dispersed over all parts of Van Diemen's Land, where it evinces a preference for the thickly wooded and mountainous districts ; and is always to be observed in the gulleys under Mount Wellington, particularly in the neighbourhood of New Town. In fine weather it takes a higher range, but descends to the lower part of the country on the approach of rain, when it becomes excessively noisy, and utters as it flies a very peculiar whining cry. Its flight, from the enormous size of its wings, appears to be heavy and laborious, and while performing this action it presents a very remarkable appearance, its short neck, rounded head, and long wings and tail giving it a very singular contour. It is generally to be observed in companies of from four to ten in number, but occasionally in pairs only. I found it very shy and difficult of approach, which may perhaps be attributed to its being wantonly shot wherever it may be met with.

Its principal food is a large kind of caterpillar, which it obtains from the wattle- and gum-trees, and in procuring which it displays the greatest activity and perseverance, scooping off the bark and cutting through the thickest branch until it arrives at the object of its search ; it is in fact surprising to see what enormous excavations it makes in the larger branches, and how expertly it cuts across the smaller ones : besides these large caterpillars, it also feeds upon the larvæ of several kinds of coleopterous insects, and occasionally, but not generally, on the seeds of the Banksias and berries ; chrysalides were also found in the stomachs of some that were dissected.

I found it exceedingly difficult to obtain any particulars respecting the nidification of this bird, in consequence of its resorting for the performance of this duty to the most retired and inaccessible parts of the forests. Lieut. Breton, R.N., having informed me that a pair were breeding in a tree on the estate of Mr. Wettenhall, I requested him to use his influence with that gentleman to have their eggs procured for me, and on the 2nd of February 1839, I received a note from him in which he says :—

" In compliance with your request, I wrote to Mr. Wettenhall upon the subject of the Black Cockatoo's nest, and he forthwith directed his shepherd to fell the tree in which the bird had established itself. It was situated in a gulley or bottom, and was about four feet and a half in diameter. The hole was from ninety to one hundred feet from the ground, two feet in depth, and made quite smooth, the heart of the tree being decayed. There was no appearance whatever of a nest. The tree was broken in pieces by the fall, and the contents of the hole or nest destroyed ; the fragments, however, were sought for with the greatest care, and all that could be found are sent you. It may perhaps be as well to state, that both while the tree was being felled and for a short time afterwards, a Hawk kept attacking the Cockatoo, which flew in circles round the tree before it fell, uttering its loudest and most mournful notes, and at times turning upon the Hawk, until at length it flew off."

The eggs are white, from two to four in number, and one inch and eight lines long by one inch and four lines broad.

The bird varies considerably in size and weight, some specimens weighing as much as one pound and ten ounces, while others weighed no more than one pound and three ounces.

The sexes, which differ but little from each other, may be thus described :—

Crown of the head, cheeks, throat, upper and under surface brownish black ; feathers of the breast obscurely tipped with dull olive ; ear-coverts yellow ; two centre tail-feathers deep blackish brown, the remainder black at the base and tips, the central portion being in some specimens uniform light lemon-yellow, and in others the same colour blotched with spots and markings of brown ; bill in some specimens white, in others blackish brown ; feet greyish brown ; orbits in some black, in others pink ; irides nearly black.

I believe the birds with white bills to be immature.

The figures are about two-thirds of the natural size.



CALYPTORHYNCHUS BAUDINII: *Vig*

J. Gould. and R. C. Bartlett del. et lith.

Hullmandel & Walton. Imp.

17 Plates 7th Dec.r 1847

CALYPTORHYNCHUS BAUDINII, *Vig.*

Baudin's Cockatoo.

Calyptorhynchus Baudinii, Vig. in Lear's Ill. Psitt., pl. 6.
Oo-lăak of the Aborigines of the lowland, and
Ngol-yĕ-nuk of the Aborigines of the mountain districts of Western Australia.
White-tailed Black Cockatoo of the Colonists.

This species, which is a native of Western Australia, is distinguished from all the other known members of the group by its smaller size and by the white markings of its tail-feathers. It belongs to that section of the Black Cockatoos in which a similarity of marking characterizes both sexes, such as *Calyptorhynchus funereus* and *C. xanthonotus*. Like the other members of the genus it frequents the large forests of *Eucalypti* and the belts of *Banksiæ*, upon the seeds of which it mainly subsists; occasionally it seeks its food on the ground, when insects, fallen seeds, &c. are equally partaken of; the larvæ of moths and other insects are also extracted by it from the trunks and limbs of such trees as are infested by them.

Its flight is heavy and apparently laboured: when on the wing it frequently utters a note very similar to its aboriginal name; at other times when perched on the trees it utters a harsh croaking sound, which is kept up all the time the bird is feeding.

It breeds in the holes of the highest white gum-trees, often in the most dense and retired part of the forest. The eggs are generally two in number, of a pure white; their average length being one inch and three-quarters by one inch and three-eighths in breadth. The breeding-season extends over the months of October, November and December.

Up to the time of writing this account I have never seen specimens from any other part of Australia than the colony of Swan River, over the whole of which it seems to be equally distributed.

The entire plumage is blackish brown, glossed with green, especially on the forehead; all the feathers narrowly tipped with dull white; ear-coverts creamy white; all but the two central tail-feathers crossed by a broad band, equal to half their length, of cream-white; the external web of the outer primary and the margin of the external web of the other banded feathers blackish brown; the shafts black; irides blackish brown; bill lead-colour; in some specimens the upper mandible is blackish brown; legs and feet dull yellowish grey, tinged with olive.

The figure represents a male about three-fourths of the natural size.



CEPHALOPS GALEATUS.

CALLOCEPHALON GALEATUM.

Gang-gang Cockatoo.

Psittacus galeatus, Lath. Ind. Orn., Supp. p. xxiii.—Kuhl, Consp. Psitt. in Nova Acta, tom. x. p. 88.
Red-crowned Parrot, Lath. Gen. Syn., Supp. vol. ii. p. 369. pl. 140.—Shaw, Gen. Zool., vol. viii. p. 523.—Lath. Gen. Hist., vol. ii. p. 218. pl. xxviii.
Calyptorhynchus galeatus, Vig. and Horsf. in Linn. Trans., vol. xv. p. 274.—Less. Man. d'Orn , tom. ii. p. 144.
Corydon galeatus, Wagl. Mon. Psitt. in Abhand., vol. i. pp. 504 and 690.
Plyctolophus galeatus, Swains. Class. of Birds, vol. ii. p. 302.
Banksianus galeatus, Less. Traité d'Orn., p. 181.
Callocephalon Australe, Less.
Callocephalon galeatum, G. R. Gray, List of Gen. of Birds, 2nd edit., p. 68.
Cacatua galeata, Vieill. Nouv. Dict. d'Hist. Nat., tom. xvii. p. 12.—Ency. Méth., tom. iii. p. 1414.
Psittacus phœnicocephalus, Mus. de Paris.
Gang-gang Cockatoo, Colonists of New South Wales.

The only information I can give respecting this fine species is that it is a native of the forests bordering the south coast of Australia, some of the larger islands in Bass's Straits, and the northern parts of Van Diemen's Land, and that it frequents the most lofty trees and feeds on the seeds of the various *Eucalypti*. A few instances have occurred of its being brought to England alive, where it has borne captivity quite as well as the other members of the great family to which it belongs; thus affording sufficient evidence that the Black Cockatoos (*Calyptorhynchi*) would thrive equally well were the experiment made, the form and habits of the two birds being very similar.

The paucity of the account here given will I trust be a sufficient hint to those who may be favourably situated for observing the habits of this species, that by transmitting their observations either to myself or to any scientific journal, they would be promoting the cause of science, and adding to the stock of human knowledge.

The sexes are readily distinguished by the marked difference in their plumage; both are crested, but the crest of the male is a rich scarlet, while that of the female is grey.

The male has the forehead, crest and cheeks fine scarlet, the remainder of the plumage dark slate-grey; all the feathers, with the exception of the primaries, secondaries and tail, narrowly margined with greyish white—decided and distinct on the upper, but much fainter on the under surface; irides blackish brown; bill light horn-colour; feet mealy black.

The general plumage of the female is dark slate-colour, the feathers of the back of the neck and back slightly margined with pale grey, the remainder of the upper surface crossed with irregular bars of greyish white; the wings have also a sulphurous hue, as if powdered with sulphur; the feathers of the under surface are margined with sulphur-yellow and dull red, changing into dull yellow on the under tail-coverts.

The Plate represents a male and a female of the natural size.

CALLOCEPHALON GALEATUM.

Gang-gang Cockatoo.

Psittacus galeatus, Lath. Ind. Orn., Supp. p. xxiii.—Kuhl, Consp. Psitt. in Nova Acta, tom. x. p. 88.
Red-crowned Parrot, Lath. Gen. Syn., Supp. vol. ii. p. 369. pl. 140.—Shaw, Gen. Zool., vol. viii. p. 523.—Lath. Gen. Hist., vol. ii. p. 218. pl. xxviii.
Calyptorhynchus galeatus, Vig. and Horsf. in Linn. Trans., vol. xv. p. 274.—Less. Man. d'Orn , tom. ii. p. 144.
Corydon galeatus, Wagl. Mon. Psitt. in Abhand., vol. i. pp. 504 and 690.
Plyctolophus galeatus, Swains. Class. of Birds, vol. ii. p. 302.
Banksianus galeatus, Less. Traité d'Orn., p. 181.
Callocephalon Australe, Less.
Callocephalon galeatum, G. R. Gray, List of Gen. of Birds, 2nd edit., p. 68.
Cacatua galeata, Vieill. Nouv. Dict. d'Hist. Nat., tom. xvii. p. 12.—Ency. Méth., tom. iii. p. 1414.
Psittacus phœnicocephalus, Mus. de Paris.
Gang-gang Cockatoo, Colonists of New South Wales.

The only information I can give respecting this fine species is that it is a native of the forests bordering the south coast of Australia, some of the larger islands in Bass's Straits, and the northern parts of Van Diemen's Land, and that it frequents the most lofty trees and feeds on the seeds of the various *Eucalypti*. A few instances have occurred of its being brought to England alive, where it has borne captivity quite as well as the other members of the great family to which it belongs; thus affording sufficient evidence that the Black Cockatoos (*Calyptorhynchi*) would thrive equally well were the experiment made, the form and habits of the two birds being very similar.

The paucity of the account here given will I trust be a sufficient hint to those who may be favourably situated for observing the habits of this species, that by transmitting their observations either to myself or to any scientific journal, they would be promoting the cause of science, and adding to the stock of human knowledge.

The sexes are readily distinguished by the marked difference in their plumage; both are crested, but the crest of the male is a rich scarlet, while that of the female is grey.

The male has the forehead, crest and cheeks fine scarlet, the remainder of the plumage dark slate-grey; all the feathers, with the exception of the primaries, secondaries and tail, narrowly margined with greyish white—decided and distinct on the upper, but much fainter on the under surface; irides blackish brown; bill light horn-colour; feet mealy black.

The general plumage of the female is dark slate-colour, the feathers of the back of the neck and back slightly margined with pale grey, the remainder of the upper surface crossed with irregular bars of greyish white; the wings have also a sulphurous hue, as if powdered with sulphur; the feathers of the under surface are margined with sulphur-yellow and dull red, changing into dull yellow on the under tail-coverts.

The Plate represents a male and a female of the natural size.





POLYTELIS MELANURA.

POLYTELIS MELANURA.

Black-tailed Parrakeet.

Palæornis melanura, Vig. in Lear's Ill. Psitt., pl. 28, male.
——— *anthopeplus*, Vig. in Ib., pl. 29, female.
Polytelis melanura, Gould in Syn. Birds of Australia, Part IV.
Wouk-un-ga, Aborigines of the mountain districts of Western Australia.
Jul-ŭ-up, Aborigines of King George's Sound.
Mountain Parrot, Colonists of Western Australia.

So little is known of the habits and economy of this beautiful Parrakeet, which has hitherto only been found on the southern portion of the continent of Australia, that the present paper must necessarily be brief. It is strictly an inhabitant of the interior, over which it doubtless ranges widely. Captain Sturt found it on the banks of the Murray, and has given a figure of it in the narrative of his journeys into the interior; His Excellency Governor Grey procured it in the dense scrub to the north-west of Adelaide, and Mr. Gilbert encountered it in the white-gum forests of the Swan River settlement. The extent of its range northward must be left for future researches to determine. Captain Sturt at page 188 of his second volume says, "I believe I have already mentioned that shortly after we first entered the Murray, flocks of a new Paroquet passed over our heads, apparently emigrating to the N.W. They always kept too high to be fired at, but on our return, hereabouts, we succeeded in killing one. It made a good addition to our scanty stock of subjects of natural history." I believe I am indebted to the kindness and liberality of Captain Sturt for the identical specimen alluded to, a very fine one having been presented to me by him when I visited South Australia.

While flying it utters a loud harsh scream, which is changed into a chattering discordant tone upon alighting on the branches.

Mr. Gilbert remarks, that in Western Australia, except during the breeding-season, it is always to be met with in small families of from nine to twelve in number, feeding on seeds, buds of flowers and honey gathered from the white-gum-tree. Its flight, as indicated by its form, is rapid in the extreme. On reference to the synonyms given above, it will be seen that the late Mr. Vigors characterized the female as a distinct species from the male. Both sexes are beautifully figured in Mr. Lear's "Illustrations of the Psittacidæ," on reference to which and to the accompanying Plate, it will be seen that they differ very considerably in colour, the rich jonquil-yellow of the male giving place to dull yellowish green in the opposite sex, whence doubtless arose Mr. Vigors's error.

The male has the head, neck, shoulders, rump, and all the under surface beautiful jonquil-yellow; upper part of the back and scapularies olive; primaries and tail deep blue; several of the greater wing-coverts dull scarlet, forming a conspicuous mark on the centre of the wing; irides bright red; bill scarlet; feet ash-grey.

The female has the head, sides of the face, back of the neck, upper part of the back and scapulars dull olive-green; throat, all the under surface, rump and wing-coverts yellowish green, the latter passing into deep green on the centre of the shoulder; primaries, some of the secondaries, and the spurious wing deep blue-black, margined externally with yellowish green; the remainder of the secondaries and a few of the greater coverts deep red; two centre tail-feathers deep green, the remainder green at the base, passing into black on the inner webs; the five lateral feathers on each side margined on their inner webs and tipped with rosy red, which is broadest and most conspicuous on the two outer feathers; bill scarlet; feet ash-grey.

The Plate represents the two sexes of the natural size.



APROSMICTUS SCAPULATUS.

J. Gould and H.C. Richter del.

C. Hollyer del. Imp.

APROSMICTUS SCAPULATUS.

King Lory.

Psittacus scapulatus, Bechst.; Kuhl, Nova Acta, p. 56.—Shaw, Gen. Zool., vol. viii. p. 407. pl. 55.
Psittacus Tabuensis, var. β, Lath. Ind. Orn., p. 88.
La Grande Perruche à collier et croupion bleu, Le Vaill. Hist. des Perr., pls. 55 and 56.
Tabuan Parrot, White's Journ., pl. in p. 168 male, in p. 169 female.—Phill. Bot. Bay, pl. in p. 153.—Lath. Gen. Syn. Supp., vol. ii. p. 81.
Platycercus scapulatus, Vig. and Horsf. in Linn. Trans., vol. xv. p. 284.—Wagl. Mon. Psitt. in Abhand., tom. i. pp. 492 and 537.—Steph. Cont. of Shaw's Gen. Zool., vol. xiv. p. 122.
Psittacus cyanopygius, Vieill., 2nde Edit. du Nouv. Dict. d'Hist. Nat., tom. xxv. p. 339.—Ibid. Gal. des Ois. Supp., pls. of male and female.
Scarlet and Green Parrot, Lath. Gen. Hist., vol. ii. p. 116.
Platycercus scapularis, Swains. Zool. Ill., 2nd Ser. pl. 26.—Less. Traité d'Orn., p. 207.
Aprosmictus scapulatus, Gould in Proc. of Zool. Soc., August 9, 1842.
Wellat, Aborigines of New South Wales.

This very showy and noble species appears to be extremely local in its habitat; if I remember rightly, I have not seen it from any other portion of Australia than New South Wales, in which country it appears to be almost exclusively confined to the brushes, particularly such as are low and humid, and where the large *Casuarinæ* grow in the greatest profusion. All the brushes stretching along the southern and eastern coast appear to be equally favoured with its presence, as it there finds a plentiful supply of food, consisting of seeds, fruits and berries. At the period when the Indian corn is becoming ripe it leaves its umbrageous abode and sallies forth in vast flocks, which commit great devastation on the ripening grain. It is rather a dull and inactive species compared with the members of the restricted genus *Platycercus*; it flies much more heavily, and is very different in its disposition, for although it soon becomes habituated to confinement, it is less easily tamed and much less confiding and familiar; the great beauty of the male, however, somewhat compensates for this unpleasant trait, and consequently it is highly prized as a cage-bird.

I was never so fortunate as to find the nest of this species, neither could I gather any information respecting this part of the bird's economy; and I am inclined to look with suspicion on the account given by Mr. Caley, as recorded in the Linnean Transactions, which in my opinion must have reference to the eggs of some other bird.

When fully adult the sexes differ very considerably in the colouring of the plumage, as will be seen by the following descriptions.

The male has the head, neck and all the under surface scarlet; back and wings green, the inner webs of the primaries and secondaries being black; along the scapularies a broad line of pale verdigris-green; a line bounding the scarlet at the back of the neck, the rump and upper tail-coverts rich deep blue; tail black; pupil large and black; irides narrow and yellow; bill scarlet; legs mealy brown.

The female has the head and all the upper surface green; throat and chest green tinged with red; abdomen and under tail-coverts scarlet; rump dull blue; two centre tail-feathers green; the remainder green, passing into bluish black; and with a rose-coloured spot at the extremity on the under surface.

The young male for the first two years resembles the female, which is doubtless the cause why so few birds are seen in the bright red dress, compared with those having a green head and chest.

The Plate represents the two sexes of the natural size.



APROSMICTUS ERYTHROPTERUS.

J. Gould and H. C. Richter del.

C. Hullmandel Lithr.

APROSMICTUS ERYTHROPTERUS.

Red-winged Lory.

Psittacus erythropterus, Gmel. Syst., vol. i. p. 343.—Kuhl, Nova Acta, vol. x. p. 53.—Quoy et Gaim. Zool. de la Voy. autour du Monde, pl. 27.—Lath. Ind. Orn., vol. i. p. 126.
Psittacus melanotus, Shaw, Nat. Misc., pl. 653.—Ib. Gen. Zool., vol. viii. p. 467.
Crimson-winged Parrot, Lath. Gen. Syn., vol. i. p. 299; and Supp. p. 60.—Ib. Gen. Hist., vol. ii. p. 253.
Platycercus erythropterus, Vig. and Horsf. in Linn. Trans., vol. xv. p. 284.—Less. Traité d'Orn., p. 208.—Wagl. Mon. Psitt. in Abhand., tom. i. pp. 492 and 536.—Steph. Cont. of Shaw's Gen. Zool., vol. xiv. p. 123.
Aprosmictus erythropterus, Gould in Proc. of Zool. Soc., August 9, 1842.

This beautiful Lory is very widely distributed over the greater portion of the continent of Australia, and its range also extends to New Guinea and Timor; I must not, however, fail to remark, that specimens from the latter countries, as well as those from Port Essington, are smaller in all their admeasurements than those from the southern and eastern portions of Australia; no difference whatever exists in the markings or colouring of the individuals from all these various localities, I am therefore induced to consider them as so many races of the same bird, rather than as distinct species.

In Australia, the Red-winged Lory, so far as my observation has enabled me to judge, is as exclusively an inhabitant of the interior of the country as its near ally the King Lory is a denizen of the thick brushes which extend along the coast, both, as is always the case, being beautifully adapted to the character of country they are respectively destined to inhabit. The extensive belts of *Acacia pendula* which stretch over and diversify the arid plains of the great Australian basin, are tenanted with thousands of this bird, besides numerous other species, roaming about either in small companies of six or eight, or in flocks of a much greater number. It is beyond the power of my pen to describe or give a just idea of the extreme beauty of the appearance of the Red-winged Lory when seen among the silvery branches of the Acacia, particularly when the flocks comprise a large number of adult males, the gorgeous scarlet of whose shoulders offers so striking a contrast to the surrounding objects. It is rather thinly dispersed among the trees skirting the rivers which intersect the Liverpool Plains, but from thence towards the interior it increases in number, and probably extends over the whole of the interior, for it is as abundant at Port Essington on the north coast as it is on the southern: I have also received it from South Australia and the north-west coast, but not as yet from Swan River. In its actions and disposition it has much of the character of the King Lory, being morose and indocile: as it is naturally shy and wary, it is much more difficult of approach than the generality of the Parrots; and although the contrary is sometimes the case, it seldom becomes tame or familiar in captivity.

Its powers of flight are fully adequate and in every way adapted to the extensive plains it is destined to inhabit, enabling it readily to pass, frequently at a great height in the air, from one part of the plain to another. Its flight is, however, performed with a motion of the wings totally different from that of any other member of the great family of *Psittacidæ* I have seen, and has frequently reminded me of the heavy flapping manner of the Pewit, except that the flapping motion was even slower and more laboured, like that of the Terns. It has a loud screeching piercing cry, which it frequently utters during flight.

Its food consists of berries, the fruits of a species of *Loranthus*, and the pollen of flowers, to which is added a species of scaly bug-like insect, which infests the branches of its favourite trees; in all probability small caterpillars also form a part, as I have found them in the crops of several of the *Platycerci*.

It breeds in the holes of the large Eucalypti growing on the banks of rivers; the eggs, which are white, being four or five in number, about an inch and an eighth long by seven-eighths broad.

The sexes, as will be seen in the accompanying Plate, differ very considerably in the colouring of their plumage; the young males during the first two years cannot be distinguished from the female, except by dissection.

The male has the head and back of the neck verditer green; throat, all the under surface, edge of the shoulder and upper tail-coverts bright yellowish green; back black; rump lazuline blue; wing-coverts deep rich crimson-red; scapularies dark green, tipped with black; primaries black at the base, with the external webs and the apical portion of the inner webs deep green; secondaries black, edged with deep green, and one or two with a tinge of red at the tip; tail green above, passing into yellow at the tip, the extreme end fringed with pink; under surface of the tail black, tipped with yellow and pink as above; irides reddish orange in some, scarlet in others; bill rich orange-scarlet; feet olive-brown.

The female has the head and upper surface dull green; under surface dull yellowish green; a few of the wing-coverts crimson-red, forming a stripe down the wing; rump pale verditer blue; tail-feathers more largely tipped with pink than in the male; irides olive-brown; bill light horn-colour.

The Plate represents the two sexes of the natural size.



PLATYCERCUS SEMITORQUATUS.

PLATYCERCUS SEMITORQUATUS, *Quoy and Gaim.*

Yellow-collared Parrakeet.

Psittacus semitorquatus, Quoy and Gaim.
Dow-arn, Aborigines of the lowland districts of Western Australia.
Dum-ul-uk, Aborigines of the mountain districts of Western Australia.
Twenty-eight Parrakeet, Colonists of Swan River.

This very noble species of *Platycercus* is abundantly dispersed over the greater portion of Western Australia, where it inhabits almost every variety of situation, sometimes searching for food upon the ground like the rest of its congeners, and at others on the trees; its chief food being either grass-seeds or the hard stoned fruits and seeds peculiar to the trees of the country in which it lives. It is equally as abundant at King George's Sound as it is at Swan River; I have not been so fortunate as to obtain any precise information as to the extent of its range over the continent, the only parts of the country from which I have received specimens being the two localities mentioned above.

This fine bird, like the rest of the true *Platycerci*, is entirely destitute of the *os furcatum*; hence, like them, its powers of flight are very limited; on the other hand it runs quickly over the surface of the ground, as may be seen by all who have observed the bird in a cage, to which it is often consigned and sent to this country as an ornament for the aviary, which it graces, both by its large size and the richly contrasted colouring of its plumage. While on the wing its motion is tolerably rapid, and it often utters a note, which from its resemblance to those words has procured for it the appellation of "twenty-eight" Parrakeet from the colonists; the last word or note being sometimes repeated five or six times in succession.

It begins breeding in the latter part of September or beginning of October, making no nest, but depositing its eggs in a hole in either a gum- or mahogany-tree, on the soft black dust collected at the bottom; they are from seven to nine in number and of a pure white.

The sexes may be distinguished by the much smaller size of the female, and by her markings being much less distinct.

Forehead crossed by a narrow band of crimson; head blackish brown, passing into blue on the cheeks; back of the neck encircled by a band of bright yellow; back and upper surface generally deep grass-green, passing into pale green on the shoulders; primaries and spurious wing blackish brown, the external webs of each feather deep blue; two centre tail-feathers deep grass-green, the next on each side the same passing into blue and ending in bluish white at the tip; the lateral feathers green at the base passing into blue, which gradually fades into bluish white at the tip; chest green; under surface light green; irides dark brown; bill light horn-colour, becoming of a lead-colour on the front of the upper mandible; legs and feet dark brown.

The Plate represents the birds of the natural size.



PLATYCERCUS BAUERII: *Fig.1 Herrf*

J. Gould and H.C. Richter del. et lith.

Hullmandel Imp.

PLATYCERCUS BAUERI, *Vig. and Horsf.*

Bauer's Parrakeet.

Psittacus Baueri, Temm. in Linn. Trans., vol. xiii. p. 118.—Donovan's Nat. Repos., pl. 64.
Psittacus cyanomelus, Kuhl. Consp. Psitt. in Nov. Act., vol. x. p. 53.
Bauer's Parrot, Lath. Gen. Hist., vol. ii. p. 120.
Platycercus Baueri, Vig. and Horsf. in Linn. Trans., vol. xv. p. 283.—Lear's Ill. Psitt. pl. 17.—Steph. Cont. of Shaw's Gen. Zool., vol. xiv. p. 121.
Platycercus zonarius, Wagl. Mon. Psitt. in Abhand., p. 538.
Psittacus zonarius, Shaw's Nat. Misc., pl. 657.—Kuhl, Consp. Psitt. in Nov. Act., tom. i.
Psittacus viridis, Shaw's Gen. Zool., vol. viii. p. 465.
Nanodes? zonarius, Steph. Cont. of Shaw's Gen. Zool., vol. xiv. p. 119.

The Bauer's Parrakeet, although nearly allied to the *Platycercus semitorquatus*, possesses several characters by which it may be distinguished from that species; in the first place it is much less in size, and in the next it has a brighter and more contrasted style of plumage, the green of the under surface of which is relieved by a gorgeous band of bright yellow across the abdomen; the rich band of scarlet which ornaments the front of the *P. semitorquatus*, is also wanting in the present bird, or if not entirely, the slightest indication of it and that only in the finest old males is to be seen. The only portion of Australia from which I have received specimens of this bird, is Port Lincoln, a harbour visited by Flinders, and where the original specimen in the Linnean Society's Collection was obtained. In habits and disposition it doubtless closely assimilates to the *P. semitorquatus*, but on these points no information has yet been obtained. The sexes present a similar contrast in the lesser size and less brilliant style of colouring of the female. I need scarcely add that this species was named by M. Temminck in honour of the late Mr. Ferdinand Bauer, who formed one of the expedition under the command of Captain Flinders, and whose researches as a naturalist are too well known to need any further commendation from me. I am indebted to my much-valued friend J. B. Harvey, Esq., formerly of Teignmouth, but now resident at Port Lincoln, for the specimens from which my figures were taken, as also for examples of many other valuable species.

Head and upper part of the neck black, the cheek-feathers tipped with deep blue; at the back of the neck a broad crescent of bright yellow; chest, back and wings dark green, passing into verditer green on the outer webs of the wing-coverts; rump and upper tail-coverts grass-green; two centre tail-feathers deep green, the next on each side deep green, tipped with bluish white, the remainder deep green at the base, passing into bluish white, the blue on the outer margins of the feathers being of lazuline hue; centre of the abdomen deep gamboge-yellow; remainder of the under surface yellowish grass-green; primaries, secondaries and spurious wing-coverts black, with the base of their external webs rich deep blue; bill horn-colour; feet dark brown.

The Plate represents the two sexes about the natural size.



PLATYCERCUS BARNARDI: *Vig & Horsf*

J. Hollmandel lith.

Gould and H.C. Richter del et lith.

20

PLATYCERCUS BARNARDI, *Vig. and Horsf.*

Barnard's Parrakeet.

Barnard's Parrot, Lath. Gen. Hist., vol. ii. p. 121.
Platycercus Barnardi, Vig. and Horsf. in Linn. Trans., vol. xv. p. 283.—Lear's Ill. Psitt., pl. 18.—Bourj. de St. Hil. Supp. Le Vaill. Hist. des Parr., pl. 32.—Wagl. Mon. Psitt. in Abhand., p. 528.

The *Platycercus Barnardi* is one of the most beautiful of the genus inhabiting Australia; the accompanying Plate, whereon I have endeavoured to portray it as faithfully as possible, will give some idea of the brilliancy of its appearance: but to see it in perfection and to observe its rich plumage in all its glory, the native country of the bird must be visited, its forests penetrated, its brooks and streamlets traced; for it is principally growing on the banks of the latter, either among the "high-flooded gums," or the larger shrub-like trees along the edges of the streams, that this beautiful species is seen, the brilliant hues of its expanded wings and tail appearing like a meteor as it passes from tree to tree amidst the dark glades of the forest.

The range of Barnard's Parrakeet extends throughout the great basin of the interior from South Australia to New South Wales, but it seldom appears within the boundary of the latter colony; I never met with it nearer than the Liverpool Plains, from whence northwards towards the interior its numbers increased, and it doubtless inhabits the banks of the Darling and all other rivers of the interior which embogue into Lake Alexandrina, and in confirmation of this opinion I may state that I found it to be equally as abundant in the Great Murray scrub of South Australia as on the banks of the Namoi. It is generally met with in small companies of from five to ten in number, sometimes on the ground among the tall grasses, at others among the high trees, particularly the *Eucalypti*.

The sexes differ so little in colour that it is difficult to distinguish them, the males are, however, at all times the largest and finest in plumage.

I did not succeed in obtaining the eggs of this species, although it was breeding in all the large trees of the different parts of the country I visited; but I succeeded in procuring some fine living specimens of the bird, a pair of which I brought to England, and which were I believe the first that had been introduced. As cage-birds they are equally as domesticable and familiar as the other *Platycerci*, and are very ornamental and attractive; my ever-valued friend the Earl of Derby did me the honour to accept these interesting birds, and one if not both of them still continue to grace his Lordship's magnificent aviary at Knowsley.

Forehead red; crown, cheeks, chest, abdomen, central portion of wing, and rump verditer green; occiput crossed by a band of brown, succeeded by a crescent-shaped mark of yellow; back bluish grey; centre of the abdomen crossed by a broad crescent of orange; primaries and spurious wing black; the external margin of each feather, and the tip of the shoulder rich deep blue; two central tail-feathers deep green, passing into deep blue at the tip; the lateral feathers deep blue at the base, gradually fading into bluish white at the tip; bill horn-colour; feet brown.

The Plate represents the two sexes about the natural size.



PLATYCERCUS PALLICEPS. *Vig*

J. & E. Gould del et lith.

Hullmandel Imp.

PLATYCERCUS PALLICEPS, *Vig.*

Pale-headed Parrakeet.

Platycercus palliceps, Vig. in Lear's Ill. Psitt., pl. 19.
Moreton Bay Rose-hill, Colonists of New South Wales.

This elegant species of *Platycercus*, which, up to the present time, has been more frequently seen alive in a state of captivity than preserved in our zoological collections, is a native of the eastern coast of Australia, and is tolerably numerous at Moreton Bay, where all the specimens I have seen were procured. It is known in Sydney by the name of Moreton Bay Rose-hill, an appellation bestowed on it from its near alliance to the *Platycercus eximius*. The specific name of *palliceps* has been applied to this species from the light colouring of the head, which amounts, in some specimens, to a total absence of colour: this however, I think, may be attributed to the effects of exposure to light, since, in recently moulted birds, there is always a delicate tinge of yellow pervading the crown; the delicate blue on the cheeks also appears to be affected by the same cause, though not to so great an extent.

It bears confinement remarkably well, and is very docile and familiar, which, added to its very elegant plumage, renders it a general favourite.

Crown of the head and cheeks either wholly white or pale gamboge-yellow; in some specimens also there is a fine line of scarlet crossing the forehead, and the lower part of the cheeks is deep blue; feathers of the nape, back and scapularies black, broadly margined with gamboge-yellow; rump in some instances greenish blue, in others this part is strongly tinged with gamboge-yellow; primaries and secondaries blackish brown, with the base of their external webs deep blue; greater and lesser wing-coverts, and the shoulders, both above and below, beautiful blue; that part of the wing nearest the body black; all the under surface verditer-blue, with the exception of the under tail-coverts, which are scarlet; two middle tail-feathers greenish blue; the basal half of the remainder being blackish-brown on their internal webs, rich deep blue on their outer webs, and the terminal half delicate pale blue, passing into white at the tip; bill horn-colour; irides blackish brown; feet dark mealy brown.

The sexes differ in no respect in outward appearance, with the exception of a slight superiority of size in the male.

The Plate represents a male and a female of the natural size.



PLATYCERCUS EXIMIUS.

J. Gould & H.C. Richter del. et lith.

Hullmandel & Walton Imp.

PLATYCERCUS EXIMIUS, *Vig. and Horsf.*

Rose-hill Parrakeet.

Psittacus eximius, Shaw, Nat. Misc., pl. 96.—Ib. Zool. of New Holl., t. 1.—Kuhl, Consp. Psitt. in Nov. Act. &c., vol. x. p. 54. No. 87.—Lath. Ind. Orn. Suppl., p. xxi.
Perruche omnicolore, Le Vaill., Hist. Nat. des Perr., p. 29. pl. 28.
Nonpareil Parrot, Lath. Gen. Hist., vol. ii. p. 138. No. 41.—Id. Gen. Syn. Suppl., p. 85.—Shaw, Zool., vol. viii. p. 411. pls. 57, 58.
Platycercus eximius, Vig. and Horsf. in Linn. Trans., vol. xv. p. 281.—Wagl. Mon. Psitt. in Abhand. &c., p. 530.
Lori-Perruche de la Mer du Sud, Sonn. Edit. de Buff.
Psittacus capitatus, Shaw, Zool., vol. viii. p. 466.
Rose-hill Parrakeet, Colonists of New South Wales.

The present beautiful bird ranks among the earliest of the natural productions of Australia that were sent to Europe, but no information having hitherto been published respecting its habits and economy, few persons are aware that it is exclusively confined to New South Wales and Tasmania, its occurrence even in South Australia being utterly unknown: in the more distant colonies of Swan River and Port Essington it certainly does not occur; but in each of those colonies it is represented by a nearly allied species, whose habits and general economy are as similar as possible. Although one of the commonest birds of New South Wales and Van Diemen's Land, it is very local, a river frequently constituting the boundary of its habitat, over which it so rarely passes, that I never, during my stay in the country, saw the bird on the south side of the Derwent; while in the forests on the opposite shore, not more than a quarter or half a mile distant, it was very numerous. I believe it is never seen in the forests clothing the borders of D'Entrecasteaux' Channel on the south, or of the River Tamar on the north of the island, those districts being inhabited by the *Platycercus flaviventris*, whose greater size and olive-green plumage are in beautiful accordance with those vast, and as yet unexplored forests of evergreen *Eucalypti*. More delicate in its structure, and far more brilliant in its plumage, the *Platycercus eximius* resorts to the open parts of the country, such as undulating grassy hills and plains bordered and studded here and there with large trees or belts of low acacias or banksias, among the branches of which, particularly those of the acacias, this beautiful bird may be seen in small companies, the rich scarlet and yellow of their breasts vieing with the lovely blossoms of the trees; in a word, districts of a sandy nature, small plains, open spots among the hills, and thinly timbered country where grass abounds, constitute the peculiar and natural habitat of this bird: hence it is not found to the north of the Derwent, where the country is of a different character; but it is numerous throughout the centre of the island between Hobart Town and Launceston, where small companies may constantly be seen resorting to the public roads, like the Sparrow in England, and upon being disturbed by the passer-by they merely fly off to the nearest tree, or to the rails of the wayside fences. Scenes like these fill the mind with sensations of no ordinary description, and excite the greatest astonishment in those who have recently arrived in the country; the novelty, however, as I have observed in numerous instances, soon wears away, and a caged lark, linnet or blackbird from the land of their birth would be highly cherished and valued, while the beautiful productions of the island would be passed by unheeded, except to deal out destruction among them, with no sparing hand, for some slight injury they may have inflicted upon the rising corn. The above remarks refer more particularly to Van Diemen's Land, but apply with equal force to New South Wales, where the bird inhabits all situations similar in character to those above referred to. It breeds in great abundance in Van Diemen's Land and New South Wales; it is found in great numbers in the district of the Upper Hunter, and was formerly very numerous at Paramatta, particularly in the neighbourhood of Rose Hill, whence its name. It lays from seven to ten beautiful white eggs in

the hollow of a gum-tree during October and the three following months; they are one inch and an eighth long by seven-eighths of an inch broad.

Its natural food consists of seeds of various kinds, particularly those of different grasses, and occasionally of insects and caterpillars.

Its flight is short and undulating, and is rarely extended to a greater distance than a quarter of a mile, as the bird frequently alights on a leafless branch, always flying a little below it and rising again just before it settles.

Its note is a somewhat pleasing whistling sound, which is very frequently uttered.

The sexes are alike in plumage, and the young assume the bright colouring from the nest; the birds of the year, although they may have attained their full size, are not so brilliant as the adult, and may always be distinguished by the bill and nostrils being of a delicate gamboge-yellow.

Specimens from Van Diemen's Land are rather larger in size, and have the markings of the upper surface of a greener yellow, and altogether less brilliant than those from New South Wales: I possess a specimen killed on Mosquito Island, at the mouth of the Hunter, which is more brilliant than any other I have yet seen.

Crown of the head, back of the neck, chest, and under tail-coverts scarlet; cheeks white; feathers of the back black, margined all round with rich yellow; rump, upper tail-coverts, and lower part of the belly pale green; centre of the belly yellow; shoulders and middle of the wing rich blue; external edges of the primaries blue, the remainder of these feathers dark brown; two middle tail feathers green, passing into bluish green at the tip, the remainder of the tail-feathers dark blue at the base, passing into light blue, and tipped with white; bill horn-colour; feet brown; irides blackish brown.

The figures are of the natural size.



PLATYCERCUS SPLENDIDUS: *Gould*

J Gould and H C Richter del et lith

Hullmandel & Walton Imp

PLATYCERCUS SPLENDIDUS, *Gould.*

Splendid Parrakeet.

Platycercus splendidus, Gould in Proc. of Zool. Soc., Part XIII. p. 105.

That the gradual investigation of the interior of Australia will lead to the discovery of many new and interesting objects, is proved by the recent acquisition of the lovely species here represented, which was killed by Mr. Gilbert in the newly-located district to the northward of the Darling Downs in New South Wales. In beauty it even exceeds the Rose-Hill Parrakeet, and is consequently one of the finest species of the genus yet discovered. It differs from that bird in having the centre of the breast only of a rich scarlet, the sides being gamboge-yellow; in the lower part of the abdomen and the upper tail-coverts being verditer instead of grass-green, and in the feathers of the back being broadly margined with rich gamboge instead of greenish yellow. In the youthful state it very much resembles the *P. palliceps*, from which however it differs in having the head yellow instead of pale yellowish white, and the breast yellow instead of pale blue; the breast also has indications of the rich scarlet of maturity, of which no trace is at any time perceptible in the *P. palliceps*.

Head, sides of the neck and centre of the breast scarlet; cheeks white, faintly tinged with blue; feathers of the back and scapularies black, broadly margined with gamboge-yellow; lower part of the back and upper tail-coverts pale green; on the shoulder a patch of black; wing-coverts pale blue; primaries black with the exception of the basal portion of the external web, which is rich deep blue; two central tail-feathers dark green at the base, passing into deep blue on the apical half of the external web and tipped with black; the next on each side is black on the internal web, green at the base of the external web, blue for the remainder of its length, and slightly tipped with white; the remainder of the tail-feathers are deep blue at the base of the external, and black at the base of the internal web, the remaining portion of both webs being pale delicate blue, passing into white at the tip; sides of the breast and the abdomen bright gamboge-yellow; vent pale green in some, in others pale bluish green; under tail-coverts scarlet; irides dark brown; bill horn-colour; feet mealy brown.

The figures are of the natural size, one representing the plumage of youth, the other that of maturity.



PLATYCERCUS H'TEROTIS

PLATYCERCUS ICTEROTIS, *Wagl.*

The Earl of Derby's Parrakeet.

Psittacus icterotis, Temm. in Linn. Trans., vol. xiii. p. 120.—Kuhl, Consp. Psitt. in Nova Acta, etc., p. 54. no. 86.
Platycercus Stanleyii, Vig. in Zool. Journ. 1830, p. 274.
——— *icterotis*, Wagl. Mon. Psitt. in Abhand. etc., p. 530.—Gould in Syn. Birds of Australia.
Platycercus icterodes, Bourj. St. Hil. Supp. to Le Vaill. Hist. Nat. des Perr., pl. 30.
Goŏtd-un-goŏtd-un, Aborigines of the lowland, and
Moŏ-a-duk, Aborigines of the mountain districts of Western Australia.
Rose-hill of the Colonists.

This beautiful little Parrakeet was first made known to science by M. Temminck, who described it under the name of *Psittacus icterotis*; which fact could not have been known to the late Mr. Vigors when he named it *Platycercus Stanleyii*, as a tribute of respect to the present Earl of Derby, at that time Lord Stanley; a tribute so merited, that I cannot but regret the necessity of depriving the bird of this distinctive appellation, and of restoring to it that of *icterotis*, as bound by justice to the first describer. But in still associating his Lordship's name with this species, in the form of an English appellation, I feel I shall have the acquiescence of all ornithologists.

From the little that is known of the history of this species it would appear that its range is very limited, the colony of Swan River in Western Australia being the only locality in which it has as yet been seen in a state of nature; there, however, it is one of the most common birds of the country, and, except in the breeding-season, may always be seen in large flocks, which approach so near to the houses of the settlers as frequently to visit their gardens and ploughed lands. It generally feeds on the ground, on the seeds of various kinds of grasses and the scattered grain of the farmer; but not unfrequently attacks and deals destruction among the ripe fruits of his garden, especially if they be left unprotected.

If my readers wish to form an idea of the scenery of Australia, they must imagine a country the climate of which is second to no other, clothed with flowering trees and shrubs of the greatest beauty, and enlivened with flocks of hundreds of the attractive bird figured on the accompanying Plate, and numerous other members of the genus of equal beauty, together with the fire-breasted Robins, the lovely *Maluri*, with their resplendent metallic plumage, and many more of the feathered tribes conspicuous for the brilliancy of their hues and the elegance of their forms: they will then have some slight conception of the enchanting scene which it presents.

Like most other members of the genus, the *Platycercus icterotis* offers no difference in the colouring of the sexes of the same age. They do not acquire the adult plumage until the second year; during the first year they are green, which colour gradually gives place to the fine colouring of maturity.

Its flight is of short duration, and consists of a series of rather rapid undulating sweeps.

Its note is a feeble, piping kind of whistle, which is occasionally so much varied and lengthened as almost to assume the character of a song.

The eggs, which are six or seven in number and of a white colour, are eleven lines long and nine and a half lines broad; they are deposited in the holes of large trees without any nest.

Crown of the head and back of the neck, chest and all the under surface scarlet; cheeks and thighs yellow; feathers of the back black, bordered with green, yellow, and in some instances scarlet; rump and upper tail-coverts yellowish green; shoulders and outer edges of the primaries blue, the inner webs and tips of the latter blackish brown; two middle tail-feathers green; the remaining feathers light blue tipped with white, with the basal portion of a darker blue tinged with green; bill light horn-colour; feet and legs dull ashy brown; irides blackish brown.

The young birds of both sexes are nearly of a uniform green, becoming parti-coloured as they advance in age; the scarlet of the crown and abdomen, and the yellow of the cheeks gradually taking the place of the green colouring of youth.

It is questionable whether the female, like the female of *P. eximius*, ever attains the fine plumage of the male.

The Plate represents the two sexes of the natural size.



PLATYCERCUS IGNITUS: *Leadb.*

J. Gould and H.C. Richter del. et lith.

Hullmandel & Walton imp.

PLATYCERCUS IGNITUS, *Leadb.*

Fiery Parrakeet.

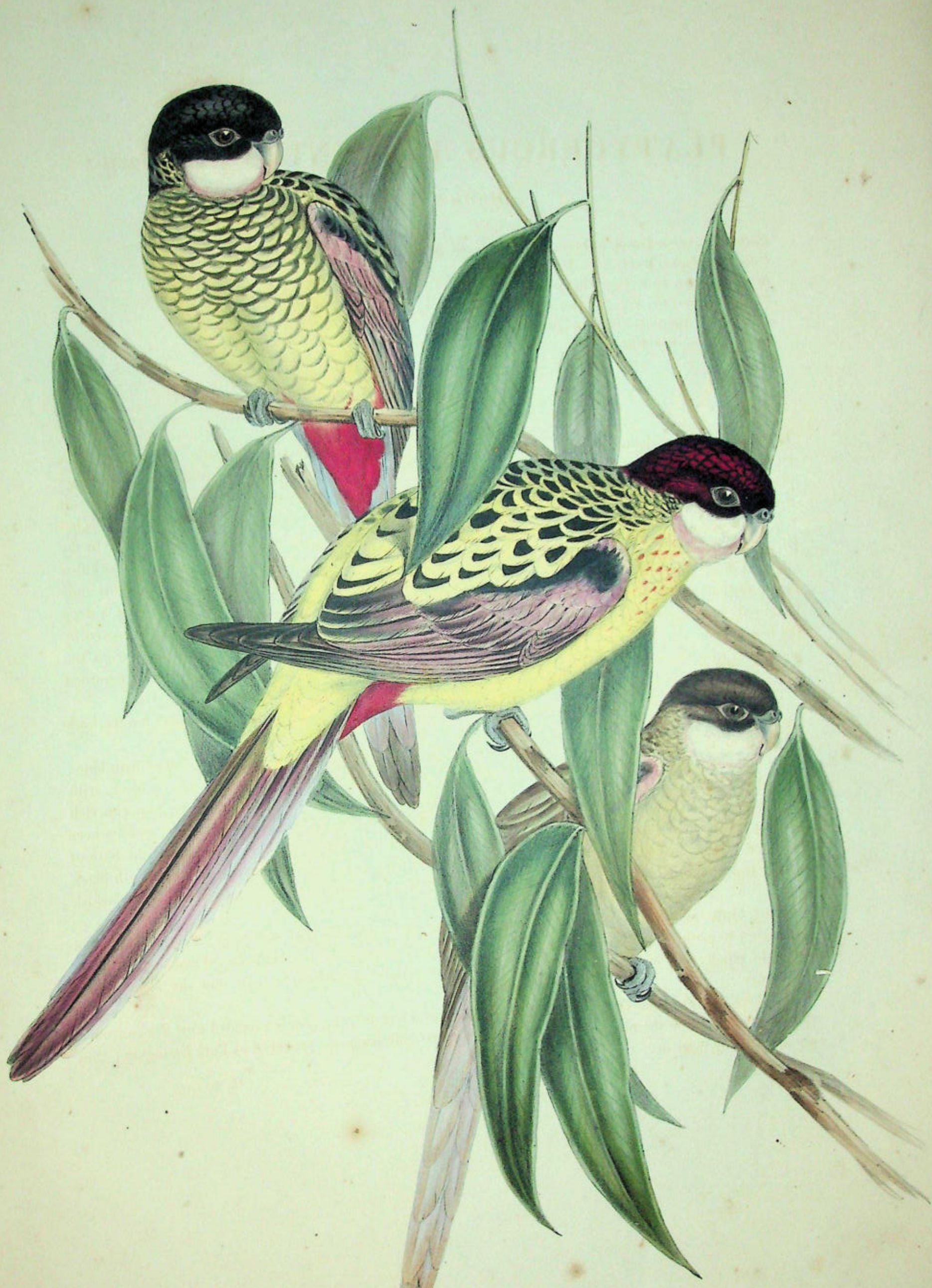
Platycercus ignitus, Leadb. in Proc. of Zool. Soc., Part V. p. 8.

In the year 1837 Mr. John Leadbeater received from the district of Moreton Bay a beautiful Parrakeet, of which the accompanying Plate is a representation. This specimen, the only one I have seen, is the most singular and anomalous bird that has ever come under my notice; for while on the one hand it exhibits many features which would lead one to believe it to be merely a diseased variety of some other species, on the other there is sufficient decision in some of its markings to warrant the opinion that it is distinct; I allude particularly to the decided mark of white at the base of the primaries and secondaries, and to the white mark on the under-coverts of the wing: it is true that in the youthful state of most of the other *Platycerci* the same parts have a faint mark of white, but it is thrown off as the bird approaches maturity, and is never so distinct as in the specimen here figured. As I have mentioned above, only one specimen has yet been seen; future research will doubtless lead to the discovery of others, until when its specific value must remain a matter of uncertainty. It is most nearly allied to the *Platycerci eximius* and *splendidus*.

The example from which my figures were taken adorns the Museum of the Zoological Society of London, to which it was presented by Mr. John Leadbeater.

Crown of the head, ear-coverts, rump, breast and under surface of the body scarlet; cheeks white; feathers of the back black in the centre, and margined with intermingled scarlet and yellow; middle of the wing deep blue; primaries and secondaries white at the base, forming a very broad and decided band, and brown at the tip; tertiaries green; four middle tail-feathers washed with scarlet, the remainder white at the base, and then blue, gradually fading into white at the tip; bill yellowish horn-colour; feet dark brown.

The figures represent the bird in two positions of the natural size.



PLATYCERCUS BROWNII: *Vig.& Horsf.*

J. Gould. and H.C. Richter del. & lith.

PLATYCERCUS BROWNII, *Vig. and Horsf.*

Brown's Parrakeet.

Psittacus Brownii, Temm. in Linn. Trans., vol. xiii. p. 119.
Psittacus venustus, Kuhl, Nov. Acta, vol. x. p. 52.
Brown's Parrot, Lath. Gen. Hist., vol. ii. p. 139.
Platycercus Brownii, Vig. and Horsf. in Linn. Trans., vol. xv. p. 282.—Lear's Ill. Psitt., pl. 20.
Moŏn-dark? Aborigines of Port Essington.
Smutty Parrot, Residents at ditto.

This is a very abundant species on the northern and north-western coast of Australia, inhabiting grassy meadow-like land and the edges of swamps, mostly feeding on the ground upon the seeds of grasses and other plants, sometimes single or in pairs, but more frequently in families of from ten to twenty in number. It frequently utters a rapid succession of double notes resembling '*trin-se trin-se*.' Its flight is low, somewhat rapid and zigzag, seldom farther prolonged than from tree to tree. Specimens of this bird given me by my friends Captain Grey and Mr. Bynoe from the north-west coast differ somewhat in plumage from those killed on the Cobourg Peninsula, the concentric bands on the breast are much finer, the extreme margins only of the feathers being black; I have one specimen also with the whole of the crown of the head of a deep blood-red, and others with more or less of this colour. That this kind of plumage is unusual is proved by the fact of numerous specimens from Port Essington not exhibiting it, and had I not seen others from the north-west with black crowns (with the exception of the band across the forehead), I should have regarded as specific what I now look upon as a mere local variety, or possibly a very old bird.

This beautiful species has been named after Dr. Robert Brown, as a just tribute of respect for the high reputation he has attained as a scientific botanist.

Crown of the head, lores and ear-coverts deep black; cheeks snow-white, bounded below with blue; breast and rump pale yellow, each feather slightly fringed with black; feathers of the back deep black, with a broad margin of pale yellow; wing-coverts, outer webs of the secondaries and base of the primaries rich blue, inner webs of the primaries and secondaries deep black; under tail-coverts scarlet; centre tail-feathers green at the base, passing into blue on the margins and at the tip; lateral feathers deep blue at the base of the outer webs, brown at the base of the inner webs, and then pale blue terminating in white, with black shafts; irides blackish brown; bill light horn-colour, passing into blue at the base; legs and feet blackish brown.

Young birds are similar in colour, but have all the markings dull and indistinct; as the individual approaches to maturity the breast becomes ornamented with a number of crescent-shaped markings of black and pale yellow, and as the bird advances in age the yellow increases in extent and the black nearly disappears.

The three figures in the Plate represent two males and a female; the crimson-headed bird drawn from a specimen collected on the north-west coast, and the other male from one procured at Port Essington; they are all of the natural size.



PLATYCERCUS PILEATUS, *Vig.*

Red-capped Parrakeet.

Platycercus pileatus, Vig. in Zool. Journ., vol. v. p. 274.—Lear's Ill. Psitt., pls. 21 and 22.—Wagl. Mon. Psitt. in Abhand., pp. 491 and 528.
Psittacus purpureocephalus, Quoy et Gaim. Voy. de l'Astrolabe, pl. 22.
Djăr-rail-bŭr-tang, Aborigines of the lowland districts of Western Australia.
Blue Parrot of the Colonists.

The *Platycercus pileatus* differs so much in the colouring of its plumage from every other species of the great family of Parrots, as to render it one of the most remarkable yet discovered; in the form and structure of its bill there is also a remarkable deviation from the true *Platycerci*, and it will probably be hereafter found that this modification of its form is adapted to some especial purpose, in which case this bird might with propriety constitute the type of a separate genus; in the absence, however, of all information respecting its habits and economy, I prefer retaining it in the genus in which it was placed by Mr. Vigors, its first describer.

The Red-capped Parrakeet is an inhabitant of Western Australia, where it is rather numerously dispersed over the country from King George's Sound to the northern limits of the colony. It is usually seen in small families feeding on the ground, but upon what particular kind of food it subsists has not been ascertained. The breeding-season extends over the months of October, November and December. The hollow dead branch of a gum- or mahogany-tree is the place usually chosen by the female for the reception of her eggs, which are milk-white and from seven to nine in number, about an inch and an eighth long by seven-eighths of an inch broad. The young during the first year of their existence are of nearly uniform green; at the same time, the hues which characterize the adult are perceptible at almost any age.

The females are never so finely marked as the males, neither are they so large or so gracefully formed.

The flight of this species, although swift, is not of long duration, nor is it characterized by those undulating sweeps common to the other members of the genus *Platycercus*.

Its voice is a sharp clucking note, several times repeated, in which respect it also offers a marked difference from the other *Platycerci*.

Forehead, crown and nape deep maroon red; cheeks yellowish green, becoming more yellow on the sides of the neck; back, scapularies and greater wing-coverts deep green; rump jonquil-yellow; edge of the shoulder, spurious wing and base of the outer webs of the primaries rich deep blue; remainder of the primaries and the secondaries deep black; breast and abdomen blue; vent and under tail-coverts scarlet; two centre tail-feathers yellowish green, deepening into black at the tip and crossed by indistinct bars of a darker tint; lateral feathers green at their base, passing into black on their inner webs, and into pale blue on the outer, both webs becoming blue towards the extremity of the feather, and fading into white at the tip; irides dark brown; bill horn-colour; legs and feet dull brown.

The Plate represents an adult male and female of the natural size.



PSEPHOTUS HAEMATOGASTER. Gould.

PSEPHOTUS HÆMATOGASTER, *Gould.*

Crimson-bellied Parrakeet.

Platycercus hæmatogaster, Gould in Proc. of Zool. Soc., Part V. p. 89.

This species of Parrakeet is an inhabitant of the interior of New South Wales, where it frequents the borders of the rivers Namoi and Darling; in all probability its range extends far to the northward; but, so far as is yet known, it has never been found in Southern or Western Australia; I met with it in tolerable abundance in the neighbourhood of the Lower Namoi, where it appeared to give a decided preference to those parts of the plains which were of a loose mouldy character, and with which the colour of its back so closely assimilates as to be scarcely distinguished from it. Like the other members of the family, it is mostly observed in small flocks, and occasionally in pairs, feeding upon the seeds of the various grasses abounding on the plains. It is only when the bird after a short flight alights on the branches, that the splendid scarlet of the belly, relieved by the yellow of the sides, is seen to advantage; when thus seen, however, it is a truly beautiful object, and is scarcely excelled by any other species of the group.

I did not ascertain any particulars respecting its nidification, but we may easily suppose that it breeds in the districts above mentioned, as I met with it there in the height of the summer.

The male has the forehead and face ultramarine blue; crown of the head, upper surface, sides of the neck and the chest greyish olive-brown, washed with yellow on the rump and upper tail-coverts; lesser wing-coverts mingled verditer-green and blue; greater coverts rich reddish chestnut; basal half of the external webs of the primaries and secondaries, and edge of the wing rich indigo-blue; under surface of the shoulder light indigo-blue; inner webs and tips of the primaries dark brown; apical half of the external web of the primaries fringed with grey; two centre tail-feathers light olive-green, passing into deep blue at the tip; the remainder deep blue at the base, largely tipped with white, the blue gradually blending with the white on the external web; upper part of the abdomen and flanks primrose-yellow; centre of the abdomen and under tail-coverts crimson-red; irides dark brown; nostrils and feet mealy brown; bill horn-colour.

The female differs in being smaller, and in being much less brilliant in all her markings.

The figures represent the two sexes the size of life.



PSEPHOTUS PULCHERRIMUS? *Gould.*

Hullmandel & Walton imp.

Gould cum H.C. Richter del. et lith.

19 Plates

7th Dec. 1847

PSEPHOTUS PULCHERRIMUS, *Gould.*

Beautiful Parrakeet.

Platycercus pulcherrimus, Gould in Ann. and Mag. of Nat. Hist., vol. xv. p. 114.

The graceful form of this new Parrakeet, combined with the extreme brilliancy of its plumage, render it one of the most lovely of the *Psittacidæ* yet discovered; and in whatever light we regard it, whether as a beautiful ornament to our cabinets, or a desirable addition to our aviaries, it is still an object of no ordinary interest.

I regret to say that little is at present known respecting it, further than that it is one of the novelties that has rewarded Mr. Gilbert's researches in New South Wales; the upland grassy plains of the east coast of Australia being the locality in which it was first discovered, and which is in fact the only part of the country wherein it has as yet been found. The specimens procured were shot on the Darling Downs, where it was observed in small families feeding on the seeds of grasses and other plants growing on the plains; the stomachs of those examined were fully distended with grass seeds exclusively.

The sexes, like the generality of the *Psittacidæ*, are much alike; but the female, although similarly marked, is much less brilliant and somewhat smaller than her mate.

Band across the forehead half an inch in breadth, scarlet, fading around the eyes, lores and cheeks into pale lemon-yellow, which again gradually blends with the green of the under surface; crown of the head and nape blackish brown; sides of the neck to the shoulders verdigris-green with yellowish reflexions; back greyish brown; rump and upper tail-coverts verditer-blue, the longer coverts with a band of black at their extreme tip; primaries and secondaries black edged with bluish green; shoulders with a spot of rich vermilion; under wing-coverts and edges of the pinions verditer-blue; two middle tail-feathers olive-brown at the base, gradually passing into greenish blue at the tip with olive reflexions; the three outer feathers on each side with a narrow zigzag band of black at about half their length from the base, then greenish blue to the tip, the inner webs fading into white near the extremity; throat and chest yellowish emerald-green, each feather tipped with verditer-blue; middle of the breast and the sides verditer-blue; abdomen and under tail-coverts scarlet; irides dark brown; bill horn-colour, becoming blackish grey at the base; legs and feet yellowish brown.

The figures are of the natural size.



PSEPHOTUS MULTICOLOR.

J. Gould and H.C. Richter del et lith

Hullmandel & Walton Imp

PSEPHOTUS MULTICOLOR.

Many-coloured Parrakeet.

Psittacus multicolor, Temm. in Linn. Trans., vol. xiii. p. 119.—Kuhl, Consp. Psitt. in Nova Acta, vol. x. p. 55.
Varied Parrot, Lath. Gen. Hist., vol. ii. p. 182.
Platycercus multicolor, Vig. and Horsf. in Linn. Trans., vol. xv. p. 283.—Wagl. Mon. Psitt. in Abhand., vol. i. p. 528.

This species is strictly an inhabitant of the interior of Australia, being found on the banks of the Lachlan, Murray and Darling, and according to the label attached to the specimen in the Sydney Museum, the neighbourhood of the Pink Hills. It is a true *Psephotus* and is closely allied to *P. hæmatonotus*, but differs from that and every other species of the genus in the patches or bands of colour which ornament the head, wings and rump; it is a species I did not meet with myself, and of which no information has been given by those travellers who have visited its native wilds; consequently nothing whatever is known of its habits and economy; it is still a rare bird, and to be found in few collections.

Much variation is found to exist in the colouring of this bird; some individuals having the band across the wing-coverts bright yellow, while in others the same part is tinged with red.

The adult male has the forehead and shoulders sulphur-yellow; under tail-coverts citron-yellow; rump crossed by three distinct bands of yellowish green, dark green, and reddish chestnut; occiput reddish chestnut; base of the primaries, secondaries and spurious wing, and the under wing-coverts rich deep blue; lower part of the abdomen and thighs scarlet; middle tail-feathers blue; the outer ones bluish green, passing into very pale blue at their tips; all the tail-feathers, except the four middle ones, crossed by a band of black near the base; remainder of the plumage deep grass-green; bill horny brown; legs wood-brown.

The female is attired in a similar style of colours, but is much less brilliant, has the throat and breast yellowish brown, and only an indication of the bands on the occiput and wing-coverts.

The Plate represents the two sexes of the natural size.



PSEPHOTUS HAEMATONOTUS.

PSEPHOTUS HÆMATONOTUS, *Gould.*

Red-backed Parrakeet.

Platycercus hæmatonotus, Gould in Proc. of Zool. Soc., Part V. p. 151; and in Syn. Birds of Australia, Part IV.

This species inhabits the interior of the south-eastern division of the Australian continent; it is abundantly dispersed over the Liverpool Plains, and all the open country to the northward as far as it has yet been explored; it also inhabits similar tracts of country in South Australia; on the plains around Adelaide it is seldom seen, but as the traveller advances towards the interior every succeeding mile brings him in contact with it in greater numbers. It is more frequently seen on the ground than among the trees; and it evidently gives a decided preference to open grassy valleys and the naked crowns of hills, than to the wide and almost boundless plain. During winter it associates in flocks, varying from twenty to a hundred in number, which trip nimbly over the ground in search of the seeds of grasses and other plants, with which the crops of many that were shot were found to be distended. In the early morning, and not unfrequently in other parts of the day, I have often seen hundreds perched together on some leafless limb of a *Eucalyptus*, sitting in close order along the whole length of the branch, until hunger prompted them to descend to the feeding-ground, or the approach of a hawk or other enemy caused them to disperse. Their movements on the ground are characterized by much grace and activity, and although assembled in one great mass running over the ground like Plovers, they are generally mated in pairs,—a fact easily ascertained by the difference in the colouring of the sexes; the rich red mark on the rump of the male appearing, as the bright sun shines upon it, like a spot of fire.

In the manner of its flocking and the situations it frequents, this bird is directly intermediate between the members of the genera *Euphema* and *Platycercus*; the same remark holds good also with respect to its form and structure; this fact, however, I have pointed out in the observations on the genus, and it is therefore unnecessary to repeat the details here.

This bird has a pleasing whistling note, almost approaching to a song, which is poured forth both while perching on the branches of the trees and while flying over the plains. On the approach of the breeding-season it retires into the forest and separates into pairs; the eggs, which are white and five or six in number, eleven lines long by eight and a half lines broad, are deposited without any nest in the spouts and hollows of the gum-trees.

Crown of the head, back of the neck, cheeks and chest emerald-green, which is lightest on the forehead and cheeks; back brownish green; rump scarlet; tip and under surface of the shoulder, spurious wing, and the outer edge of the basal half of the primaries rich ultramarine blue; the blue of the shoulder above passing into sulphur-yellow, and forming a conspicuous spot of the latter colour in the centre of the shoulder; greater and lesser wing-coverts and secondaries bluish green; upper tail-coverts and two centre tail-feathers green, passing into blue towards the tip, which is blackish brown; the remainder of the tail-feathers green at the base, gradually passing into delicate greyish white on the inner webs and the tips; centre of the abdomen yellow; thighs dull bluish green; under tail-coverts greyish white; bill horn-colour; feet brown; irides pale brown.

The young male of the year differs from the adult in having those parts delicate greenish grey which in the latter are emerald-green; in being destitute of the red colouring of the rump, and of the yellow on the centre of the abdomen; and in having the bases of the secondaries and some of the primaries white.

The Plate represents a male and female of the natural size.



EUPHEMA CHRYSOSTOMA: *Wagl*

J. & E. Gould del.

Edwards imp.

EUPHEMA CHRYSOSTOMA, *Wagl.*

Blue-Banded Grass-Parrakeet.

Psittacus chrysostomus, Kuhl, Consp. in Psitt. in Nova Acta, vol. x. p. 58, pl. 1.
Psittacus venustus, Temm. in Linn. Trans., vol. xiii. p. 121.
Blue-banded Parrakeet, Lath. Gen. Hist., vol. ii. p. 188.
Nanodes venustus, Vig. and Horsf. in Linn. Trans., vol. xv. p. 274.—Selby, Nat. Lib. Parrots, p. 172, pl. 27.—Steph. Cont. of Shaw's Zool., vol. xiv. p. 118, pl. 15.—Swains. Class of Birds, vol. ii. p. 305.—Gould, Syn. Birds of Australia, Part II.
Euphema chrysostoma, Wagl. Mon. P[illegible] in Abhand., vol. i. pp. 492, 544, and 707.

This bird is a summer resident in Van Diemen's Land, arriving in September and departing again in February and March. During its sojourn it takes up its abode in such open and thinly-timbered localities as are favourable for the growth of various kinds of grasses, upon the seeds of which it almost solely subsists. Among the places in which I observed it to be most abundant were Bruni Island, Sandy Bay immediately adjoining Hobart Town, New Norfolk, Spring Hill in the interior, the banks of the Tamar, and on Flinder's Island in Bass's Straits. At Spring Hill, in the month of January, it was more numerous and congregated in larger flocks than in any other locality I had visited, flights being constantly passing backwards and forwards from the hills to the margins of some cultivated lands from which the corn had recently been carried, the borders of which not having been disturbed were clothed with abundance of grasses in full seed. A great number of those seen here and at Flinder's Island were young birds which were doubtless congregating previous to their autumnal migration; the direction they take, or the country they proceed to, is still a matter of uncertainty: in all probability they pass directly northwards to some part of the Australian continent, but I was unable to satisfy myself on this point, or to obtain any decided information respecting them, and I never even saw the species on the main land.

The Blue-banded Grass-Parrakeet is one of the most beautiful and interesting of the *Psittacidæ*; for whether perched on the small dead branches of a low bush, which it often is, or resting upon the stronger grasses, as represented in the Plate, there is grace and elegance in all its actions. It runs over the ground and threads its way among the grasses with the greatest facility, and is usually so intent upon gathering the seeds, as to admit of your walking close up to a flock before it will rise; the whole will then get up simultaneously, uttering at the same time a feeble cry and settling again at a short distance, or flying off to some thickly-foliaged tree, where it sits for a time and then descends again to the ground.

Its flight is remarkably quick, and is performed in a manner somewhat resembling that of the Snipe; while on the wing the deep blue colouring of the shoulder forms a conspicuous contrast to the yellow and green of the body.

The breeding-season is at its height in October and November; the eggs, as I have been informed, being usually deposited in the holes of the *Eucalypti*, but occasionally in the hollow trunks of the fallen trees: they vary from five to seven in number, and are perfectly white.

The sexes present no observable difference; but the young, like those of the *Platycerci*, have the bill and nostrils of a delicate yellow, the band on the forehead less conspicuous, and the plumage, although with the same tints as in the adult, much less brilliant in its colouring.

Like nearly all the other members of the family, it is capable of perfect domestication, and a more elegant or beautiful pet can scarcely be conceived; and that it would thrive in this country is certain, as I had a living example in my possession a few years since which was remarkably healthy and active.

A conspicuous band of deep indigo-blue across the forehead, bordered above by a narrow edging of light metallic blue; lores, and a stripe behind the eye, rich yellow; crown of the head, back, rump, upper tail-coverts, throat, chest and flanks brownish olive-green; shoulders and wing-coverts deep blue; primaries black, the outer edges of the first three or four slightly tinged with bluish green; centre of the abdomen and under tail-coverts yellow; four middle tail-feathers greenish blue; the basal portions of the remainder beautiful blue on their outer edges, and largely tipped with fine yellow; irides, bill and feet brown.

The figures are of the natural size.

EUPHEMA CHRYSOSTOMA, *Wagl.*

Blue-Banded Grass-Parrakeet.

Psittacus chrysostomus, Kuhl, Consp. in Psitt. in Nova Acta, vol. x. p. 58, pl. 1.
Psittacus venustus, Temm. in Linn. Trans., vol. xiii. p. 121.
Blue-banded Parrakeet, Lath. Gen. Hist., vol. ii. p. 188.
Nanodes venustus, Vig. and Horsf. in Linn. Trans., vol. xv. p. 274.—Selby, Nat. Lib. Parrots, p. 172, pl. 27.—Steph. Cont. of Shaw's Zool., vol. xiv. p. 118, pl. 15.—Swains. Class of Birds, vol. ii. p. 305.—Gould, Syn. Birds of Australia, Part II.
Euphema chrysostoma, Wagl. Mon. Psitt. in Abhand., vol. i. pp. 492, 544, and 707.

This bird is a summer resident in Van Diemen's Land, arriving in September and departing again in February and March. During its sojourn it takes up its abode in such open and thinly-timbered localities as are favourable for the growth of various kinds of grasses, upon the seeds of which it almost solely subsists. Among the places in which I observed it to be most abundant were Bruni Island, Sandy Bay immediately adjoining Hobart Town, New Norfolk, Spring Hill in the interior, the banks of the Tamar, and on Flinder's Island in Bass's Straits. At Spring Hill, in the month of January, it was more numerous and congregated in larger flocks than in any other locality I had visited, flights being constantly passing backwards and forwards from the hills to the margins of some cultivated lands from which the corn had recently been carried, the borders of which not having been disturbed were clothed with abundance of grasses in full seed. A great number of those seen here and at Flinder's Island were young birds which were doubtless congregating previous to their autumnal migration; the direction they take, or the country they proceed to, is still a matter of uncertainty: in all probability they pass directly northwards to some part of the Australian continent, but I was unable to satisfy myself on this point, or to obtain any decided information respecting them, and I never even saw the species on the main land.

The Blue-banded Grass-Parrakeet is one of the most beautiful and interesting of the *Psittacidæ*; for whether perched on the small dead branches of a low bush, which it often is, or resting upon the stronger grasses, as represented in the Plate, there is grace and elegance in all its actions. It runs over the ground and threads its way among the grasses with the greatest facility, and is usually so intent upon gathering the seeds, as to admit of your walking close up to a flock before it will rise; the whole will then get up simultaneously, uttering at the same time a feeble cry and settling again at a short distance, or flying off to some thickly-foliaged tree, where it sits for a time and then descends again to the ground.

Its flight is remarkably quick, and is performed in a manner somewhat resembling that of the Snipe; while on the wing the deep blue colouring of the shoulder forms a conspicuous contrast to the yellow and green of the body.

The breeding-season is at its height in October and November; the eggs, as I have been informed, being usually deposited in the holes of the *Eucalypti*, but occasionally in the hollow trunks of the fallen trees: they vary from five to seven in number, and are perfectly white.

The sexes present no observable difference; but the young, like those of the *Platycerci*, have the bill and nostrils of a delicate yellow, the band on the forehead less conspicuous, and the plumage, although with the same tints as in the adult, much less brilliant in its colouring.

Like nearly all the other members of the family, it is capable of perfect domestication, and a more elegant or beautiful pet can scarcely be conceived; and that it would thrive in this country is certain, as I had a living example in my possession a few years since which was remarkably healthy and active.

A conspicuous band of deep indigo-blue across the forehead, bordered above by a narrow edging of light metallic blue; lores, and a stripe behind the eye, rich yellow; crown of the head, back, rump, upper tail-coverts, throat, chest and flanks brownish olive-green; shoulders and wing-coverts deep blue; primaries black, the outer edges of the first three or four slightly tinged with bluish green; centre of the abdomen and under tail-coverts yellow; four middle tail-feathers greenish blue; the basal portions of the remainder beautiful blue on their outer edges, and largely tipped with fine yellow; irides, bill and feet brown.

The figures are of the natural size.



PLATYCERCUS ADELAIDIÆ: *Gould*

J. & E. Gould del. et lith.

C. Hullmandel Imp.

PLATYCERCUS ADELAIDIÆ, *Gould.*

Adelaide Parrakeet.

Platycercus Adelaidiæ, Gould in Proc. of Zool. Soc., Part VIII. p. 163.
Pheasant Parrot, Colonists of South Australia.

This beautiful *Platycercus* is a native of South Australia, and from the circumstance of my having procured some of my finest specimens in the very streets of that embryo city, I have been induced to give it the specific name of *Adelaidiæ*. In all probability the bird may in a few years be looked for in vain in the suburbs of this rapidly increasing settlement, as it is too large a species and possesses too many attractions to remain unmolested; indeed it is even now much persecuted and destroyed by the newly-arrived emigrants, who kill it either for mere sport or for the table; for, like the other *Platycerci*, all of which feed on grass-seeds, it is excellent eating.

The *Platycercus Adelaidiæ* at first caused me considerable perplexity from its close similarity in some stages of its plumage to the *P. Pennantii*; as in that species the plumage of the young for the first season is wholly green, which colouring gradually gives place to red on the head, rump, and upper surface, the scapularies and back feathers being margined with the same hue, a character of plumage which soon disappears and gives place to dull yellow on the flanks and olive-yellow on the upper surface, the scapularies and back feathers in the mature dress being edged with yellowish buff and violet. It was only by killing at least a hundred examples in all their various stages of plumage, from the nestling to the adult, that I was enabled to determine the fact of its being a new and distinct species. In all its dimensions it is less than the Pennantian.

I found the present species plentiful on the banks of the river Torrens, throughout its whole course, as well as over all the low grassy hills between that river and the Murray. It was in winter that I visited this portion of Australia, when I found the adults associated in small groups of from six to twenty in number. While near the coast between Holdfast Bay and the Port of Adelaide, the young in the green dress were assembled in flocks of hundreds; they were generally on the ground in search of grass-seeds, and when so occupied would admit of a near approach: when flushed they merely flew up to the branches of the nearest tree: it is impossible to conceive anything more beautiful than the rising of a flock of adults, spreading out their beautiful broad blue tails and wings, which glittering in the sun presented a really magnificent spectacle.

The note is a loud, piping whistle.

The fully adult male has the crown of the head, lores, sides of the neck, breast and centre of the abdomen scarlet, passing into dull yellow on the flanks; cheeks and wing-coverts light lazuline blue; primaries deep blue, passing into black at the extremity; back of the neck dull yellow; back black, each feather margined with yellowish buff, some of the marginations tinged with blue, others with scarlet; rump and upper tail-coverts dull greenish yellow, the latter sometimes tinged with scarlet; two centre tail-feathers greenish blue; the remainder deep blue at the base, gradually becoming lighter until almost white at the tip; irides brown; bill horn-colour; feet greyish brown.

The figures are those of an adult and an immature bird, in course of change from the green plumage to that adult dress of the natural size.



EUPHEMA BOURKII.

EUPHEMA BOURKII.

Bourke's Grass-Parrakeet.

Nanodes Bourkii, Mitch. Australian Expeditions, vol. i. p. xviii.

For a knowledge of this new species of Grass-Parrakeet, the scientific world is indebted to Major Sir T. L. Mitchell, who discovered it on the banks of the River Bogan, during one of his expeditions into the interior of New South Wales. It is particularly interesting, as exhibiting, in the crescentic form of the markings on the back, an approach to the style of colouring observable in the single species of the genus *Melopsittacus* (*M. undulatus*); at the same time, in its structure it so closely assimilates to the form of the genus *Euphema*, that I have been induced to place it in that group.

It must be regarded as a bird of the greatest rarity, since I did not meet with it during my own expedition, nor could I gain any information whatever respecting it; it is therefore another of those Australian birds to which I would direct the attention of the travellers who may hereafter visit the interior, of which it will doubtless prove to be a denizen. The two examples obtained by Sir T. L. Mitchell are deposited in the Museum at Sydney, and from them the accompanying figures were taken.

Band across the forehead, shoulders above and beneath, secondaries and base of the primaries deep blue; flanks and under tail-coverts turquoise-blue; all the upper surface dark olive-brown, the feathers of the wings edged with greyish white; centre of the abdomen salmon-red; cheeks and remainder of the under surface brown, strongly tinged with salmon-red; six middle tail-feathers deep brown, the external webs tinged with blue; the three outer ones on each side brown at the base, with their external webs blue and the tips white; bill dark horn-colour; legs brown.

The figures are of the natural size.



MELOPSITTACUS. UNDULATUS.

MELOPSITTACUS UNDULATUS.

Warbling Grass-Parrakeet.

Psittacus undulatus, Shaw, Nat. Misc., pl. 673.—Kuhl, Consp. Psitt. in Nova Acta, &c., vol. x. p. 49.
Undulated Parrot, Lath. Gen. Hist., vol. ii. p. 179, pl. xxvi.
Undulated Parrakeet, *Psittacus undulatus*, Shaw, Gen. Zool., vol. viii. p. 469.
Nanodes undulatus, Vig. and Horsf. in Linn. Trans., vol. xv. p. 277.—Steph. Cont. of Shaw's Gen. Zool., vol. xiv. p. 119.—Lear's Ill. Psitt., pl. 13.—Selby, Nat. Lib., Parrots, p. 181, pl. 19.
Euphema undulata, Wagl. Mon. Psitt. in Abhand., &c., pp. 493, 545, and 707.
Canary Parrot, Colonists.
Betcherrygah, Natives of Liverpool Plains.

Among the numerous members of the family of Parrots inhabiting Australia, this lovely little bird is pre eminent both for beauty of plumage and elegance of form, which, together with its extreme cheerfulness of disposition and sprightliness of manner, render it an especial favourite with all who have had an opportunity of seeing it alive. This animated disposition is as conspicuous in confinement as in its native wilds; a pair now before me are in exuberant health after having braved the severities of a passage to this country by way of Cape Horn in the midst of winter.

The first notice of this species was published by Dr. Shaw in his "Naturalist's Miscellany," and until lately, a single specimen, forming part of the collection of the Linnean Society, was the only one known; more recently, however, numbers have been added to our museums, and the bird is now far from being scarce. In all probability it is generally dispersed over the central parts of Australia; but is so exclusively an inhabitant of the vast inland plains, or, if I may so call it, basin of the interior, that it is rarely seen between the mountain-ranges and the coast. In the whole southern portion of the continent it is strictly migratory, appearing in large flocks in spring, when the grass-seeds are plentiful, and retiring again after the breeding-season is over to more northern latitudes. My friend Captain Sturt, in one of his letters, dated at Adelaide, South Australia, informs me, that "The Scolloped Parrakeets," the name given to these birds in that part of the country, "are found in vast flocks in the interior, and make their appearance here about October, following each other in flights like Starlings, in company with the little Crested Parrot (*Nymphicus Novæ-Hollandiæ*), holding a due north and south course. The flight of both is very rapid, and although an interval of half an hour may elapse, they all wend their way in the same direction. Whence come they?"

On arriving at Brezi, to the north of Liverpool Plains, in the beginning of December, I found myself surrounded by numbers, breeding in all the hollow spouts of the large *Eucalypti* bordering the Mokai; and on crossing the plains between that river and the Peel, in the direction of the Turi Mountain, I saw them in flocks of many hundreds feeding upon the grass-seeds that were there abundant. So numerous were they, that I determined to encamp on the spot, in order to observe their habits and procure specimens. The nature of their food and the excessive heat of these plains compels them frequently to seek the water; hence my camp, which was pitched near some small pools, was constantly surrounded by large numbers, arriving in flocks varying from twenty to a hundred or more. The hours at which they were most numerous were early in the morning, and some time before dusk in the evening. Before going down to drink, they alight on the neighbouring trees, settling together in clusters, sometimes on the dead branches, and at others on the drooping boughs of the *Eucalypti*. Their flight is remarkably straight and rapid, and is generally accompanied by a screeching noise. During the heat of the day, when sitting motionless among the leaves of the gum-trees, they so closely assimilate in colour, particularly on the breast, that they are with difficulty detected.

It is known that migratory birds after a time forsake the districts they have been accustomed to frequent, and resort to others where they had scarcely ever before been seen: in confirmation of this view, I may state, that the natives had never before observed this species in the districts where I found it so abundant; while on the lower Namoi, where formerly they had been very numerous, there was this year scarcely one to be found.

The breeding-season is at its height in December, and by the end of the month the young are generally capable of providing for themselves; they then assemble in vast flights, preparatory to their great migratory movement. The eggs are three or four in number, pure white, nine lines long by seven lines in diameter, and are deposited in the holes and spouts of the gum-trees without any nest.

The beauty and interesting nature of this little bird naturally made me anxious to bring home living examples; I accordingly captured about twenty fully fledged birds, and kept them alive for some time; but the difficulties necessarily attendant upon travelling in a new country rendering it impracticable to afford them the attention they required, I regret to say the whole were lost. My brother-in-law, Mr. Charles Coxen, who resides on the Peel, having succeeded in rearing several, kindly presented me with four, two of which,

as before mentioned, have reached England in perfect health. As cage-birds they are as interesting as can possibly be imagined; for, independently of their highly ornamental appearance, they differ from all the other members of their family that I am acquainted with, in having a most animated and pleasing song; besides which, they are constantly billing, cooing, and feeding each other, and assuming every possible variety of graceful position. Their inward warbling song, which cannot be described, is unceasingly poured forth from morn to night, and is even continued throughout the night if they are placed in a room with lights, and where an animated conversation is carried on.

In a state of nature they feed exclusively upon grass-seeds, with which their crops are always found crammed: in confinement they thrive equally well upon canary-seed.

The sexes are precisely alike in the colouring and marking of their plumage, and gain their full livery in about eight months, or at the second moult from the time of leaving the breeding-place.

The young are distinguished from the adults by the crown of the head, which is yellow in the adult, being crossed by numerous fine bars of brown, by the absence of the deep blue spots on the throat, and by the irides being brownish grey.

The adults have the forehead and crown straw yellow; the remainder of the head, ear-coverts, nape, upper part of the back, scapularies and wing-coverts pale greenish yellow, each feather having a crescent-shaped mark of blackish brown near the extremity, these marks being numerous and minute on the head and neck; wings brown; the outer webs of the feathers deep green, margined with greenish yellow; face and throat yellow, ornamented on each cheek with a patch of rich blue, below which are three circular drops or spots of bluish black; rump, upper tail-coverts, and all the under surface bright green; two centre tail-feathers blue; the remaining tail-feathers green, crossed in the middle by an oblique band of yellow; irides straw white; nostrils bright blue in some, greenish blue and brown in others; legs pale bluish lead colour.

The figures represent an old and a young bird of the natural size.



NYMPHICUS NOVÆ-HOLLANDIÆ, (Wagl.)

Printed by C. Hullmandel.

Drawn on Stone by J. E. Cook, from a Drawing by Miss F. Knox.

NYMPHICUS NOVÆ-HOLLANDIÆ, *Wagl.*

Cockatoo Parrakeet.

Psittacus Novæ-Hollandiæ, Lath., Ind. Orn., vol. i. p. 102.—Gmel. Linn., vol. i. p. 323.
Crested Parrakeet, Lath. Gen. Syn., vol. i. p. 250.—Ib. Gen. Hist., vol. ii. p. 174, No. 88.—Shaw, Zool., vol. viii. p. 452.
Palæornis Novæ-Hollandiæ, Lear, Ill. Psitt. Pl. 27.
Nymphicus Novæ-Hollandiæ, Wagl., Mon. Psitt. in Abhand. &c., pp. 490 and 522.—Selb., Nat. Lib., vol. vi. Parrots, p. 186, Pl. 30.—G. R. Gray, List of Gen. of Birds, 2nd Edit., p. 66.
Leptolophus auricomis, Swains. Zool. Ill. 2nd Ser. Pl. 112.—Ib. Class. of Birds, vol. ii. p. 305.
Calopsitta Guy, Less., Ill. Zool. vol. iii. 2nd sp., Pl. 112., female.

The interior portion of the vast continent of Australia may be said to possess a Fauna almost peculiar to itself, but of which our present knowledge is extremely limited. New forms therefore of great interest may be expected when the difficulties which the explorer has to encounter in his journey towards the centre shall be overcome. The beautiful and elegant bird forming the subject of the present Plate is one of its denizens; I have it is true seen it cross the great mountain ranges and breed on the flats between them and the sea; still this is an unusual occurrence, and the few there found compared to the thousands observed on the plains stretching from the interior side of the mountains, proves that they have as it were overstepped their natural boundary. Its range is extended over the whole of the southern portion of Australia, and being strictly a migratory bird, it makes a simultaneous movement southward to within one hundred miles of the coast in September, arriving in the York district near Swan River in Western Australia precisely at the same time that it appears on the Liverpool Plains in the eastern portion of the country. After breeding and rearing a numerous progeny, the whole again retire northwards in February and March, but to what degree of latitude towards the tropics they wend their way I have not been able satisfactorily to ascertain. I have never received it from Port Essington, or any other part in the same latitude, which, however, is no proof that it does not visit that part of the continent, since it is merely the country near the coast that has yet been traversed; in all probability it will be found at a little distance in the interior, wherever there are situations suitable to its habits, but doubtless at opposite periods to those in which it occurs in New South Wales. It would appear to be more numerous in the eastern division of Australia than in the western. During the summer of 1839 it was breeding in all the apple-tree (*Angophora*) flats on the Upper Hunter, as well as on all similar districts on the Peel, and other rivers which flow northwards. After the breeding-season is over it congregates in immense flocks before taking its departure. I have seen the ground quite covered by them while engaged in procuring food, and it was not an unusual circumstance to see hundreds together on the dead branches of the gum-trees in the neighbourhood of water, a plentiful supply of which would appear to be essential to its existence; hence we may reasonably suppose that the interior of the country is not so sterile and inhospitable as is ordinarily imagined, and that it yet may be made available for the uses of man. The Harlequin Bronzewing and the Warbling Grass Parrakeet are also denizens of that part of the country, and equally unable to exist without water.

The flight of the Cockatoo Parrakeet is even and easy, and is capable of being long protracted. When roused from the ground it flies up into the nearest tree, almost invariably selecting a dead branch, upon which it frequently perches lengthwise. It is by no means a shy bird, so that any number may be shot: from the circumstance of its being excellent eating many are annually killed for the purposes of the table. Its form admirably adapts it for terrestrial progression, hence it is enabled readily to procure the seeds of the various grasses, upon which it almost solely subsists.

As a cage-bird this species is particularly interesting, becoming readily domesticated, playful and amusing. The accompanying Plate is from a beautiful drawing made by Mr. Lear, from two living birds in the possession of the Countess of Mountcharles.

Considerable difference exists in the plumage of the sexes, the tail-feathers of the male being entirely destitute of the transverse bars which adorn those of the other sex.

It breeds in the holes of gum and other trees growing on the flats and in the neighbourhood of water. The eggs are white, five or six in number, one inch long by three quarters of an inch broad.

The male has the forehead, crest and cheeks lemon yellow; ear-coverts rich reddish orange; back of the neck, two centre tail-feathers, and the external margins of the primaries brownish grey; back, shoulders, all the under surface and outer tail-feathers greyish chocolate brown, the shoulders and flanks being the darkest; a white mark extends from the shoulders lengthwise down the centre of the wing; irides dark brown; bill bluish lead-colour, lighter on the under side of the lower mandible; legs and feet bluish grey.

The female differs from the male in the colour of the face and crest being of a dull olive yellow, the latter becoming still darker at its extremity; in having the throat greyish brown, and the back lighter than in the male; the lower part of the abdomen, upper tail-coverts, yellow; four middle tail-feathers grey, the remainder yellow, the whole transversely and irregularly barred with lines of brown, with the exception of the outer web of the outer feather on each side, which is pure yellow.

The Plate represents a male and a female of the natural size.

PEZOPORUS FORSTERI.

PEZOPORUS FORMOSUS, *Ill.*

Ground Parrakeet.

Psittacus formosus, Lath. Ind. Orn., vol. i. p. 103.—Kuhl, Consp. Psitt. in Nova Acta, vol. x. p. 45.
——— *terrestris*, Shaw, Mus. Lev., p. 217. pl. 53.—Ib. Zool. of New Holl., pl. 3.—Ib. Nat. Misc., pl. 228.
Perruche ingambé, Le Vaill. Hist. Nat. des Perr., tom. i. p. 66. pl. 32.
Black-spotted Parrakeet of Van Diemen's Land, D'Entrecast. Voy., vol. ii. p. 47. pl. x.
Ground Parrot, Lath. Gen. Syn., Supp., vol. ii. p. 26.—Shaw's Gen. Zool., vol. viii. p. 454. pl. 66.—Lath. Gen. Hist., vol. ii. p. 137.
Pezoporus formosus, Ill. Prod., p. 201.—Vig. and Horsf. in Linn. Trans., vol. xv. p. 285.—Wagl. Mon. Psitt. in Abhand., pp. 490 and 520.—Swains. Class. of Birds, vol. ii. p. 305.—G. R. Gray, Gen. of Birds, 2nd Edit., p. 66.
——— *rufifrons*, Bourj. de St. Hil. Supp. to Le Vaill. Hist. Nat. des Perr., pl. 9.
Boŏ-rum-dŭr-dee, Aborigines northward of Perth in Western Australia.
Djăr-doon-gŭr-ree, Aborigines around Perth.
Djul-bat-la, Aborigines southward of Perth.
Ky-lŏr-ing, Aborigines of King George's Sound.
Goolingnang, Aborigines near Sydney, New South Wales.
Swamp Parrakeet, Colonists of Van Diemen's Land.
Ground Parrakeet, Colonists of New South Wales and Western Australia.

The Ground Parrakeet is diffused over the whole of the southern portions of Australia, including Van Diemen's Land, wherever localities exist suitable to its habits, and so far as I could learn, it is everywhere a stationary species. It has never been observed in the northern latitudes of the continent, but our knowledge of the productions of those parts of Australia is so very imperfect, that I cannot positively affirm that it does not exist there. Unlike some of the African members of its family, which are inelegant in form and slow and ungraceful in their actions, the *Pezoporus formosus* is as active and graceful as can well be imagined; and although in its colouring it cannot vie with some of its more gaudily attired brethren, it possesses a style of plumage and diversity of markings far from unpleasing. Having very frequently encountered it in a state of nature, I am enabled to state that in its actions it differs from every other known species of its race, as it also does in its habits and economy, which I shall now attempt to describe. Whether the power of perching is entirely denied to it or not I am uncertain, but I never saw it fly into a tree, nor could I ever force it to take shelter on the branches. It usually frequents either sandy sterile districts covered with tufts of rank grass and herbage, or low swampy flats abounding with rushes and the other kinds of vegetation peculiar to such situations. It is generally observed either singly or in pairs, but from its very recluse habits and great powers of running it is seldom or ever seen until it is flushed, and then only for a short time, as it soon pitches again and runs off to a place of seclusion, often under the covert of the Grass-tree (*Xanthorrhœa*), which abounds in the districts it frequents. A striking analogy in the foregoing habits to those of the Gallinaceæ and some of the Grallatores,—Snipes, &c., is very apparent; and a still further analogy to those tribes of birds is exhibited in the manner of its crouching on the approach of danger and in the strong scent it emits, which has many times caused my dogs to road it, and point as dead as they would have done had game been before them; consequently, when shooting over swampy land in Australia, the sportsman is never certain whether a parrakeet or a snipe will rise to the point of his dog. It flies near the ground with great rapidity, frequently making several zigzag turns in the short distance of a hundred yards, beyond which it seldom passes without again pitching to the ground. Its flesh is excellent, being much more delicate in flavour than that of the snipe, and equalling, if not surpassing, that of the quail. Its white eggs, the number of which I could not ascertain, are deposited on the bare ground. I possess examples of the young of all ages, from the egg to maturity, some killed in Van Diemen's Land, and others from various parts of Australia; I also procured both adults and young on Flinders' Island, where I found them breeding on the grassy plains which cover the greater portion of that island. The young assume the colouring of the adult at a very early age, but the sexes offer no external difference by which they can be distinguished.

Plumage of the whole of the upper surface dark grass-green, each feather crossed by irregular bands of black and yellow; feathers of the crown and nape with a broad streak of black down the centre; forehead scarlet; neck and breast pale yellowish green, passing into bright greenish yellow on the abdomen and under tail-coverts, crossed by numerous irregular waved blackish bands; primaries and spurious wings green on their outer webs and dark brown on the inner, each of the latter with a triangular spot of pale yellow near the base; four centre tail-feathers green, crossed by numerous narrow bars of yellow; lateral tail-feathers yellow, crossed by numerous bars of deep green; irides black with a fine ring of light grey; feet and legs bluish flesh-colour.

The figures are of the natural size.



LATHAM'S DISTOLOR.

LATHAMUS DISCOLOR.

Swift Lorikeet.

Red-shouldered Paroquet, Psittacus discolor, Shaw, in White's Voy., pl. in p. 263.
Red-shouldered Parrakeet, Phill. Bot. Bay, pl. in p. 269.—Lath. Gen. Syn. Supp., ii. p. 90.
Psittacus discolor, Lath. Ind. Orn. Supp., p. xxi.—Swains. Zool. Ill., 1st Ser., pl. 62.—Lath. Gen. Hist., vol. ii. p. 176.—Shaw's Zool., vol. viii. p. 466.
Psittacus humeralis, Kuhl, Consp. Psitt. in Nova Acta, vol. x. p. 47.
Psittacus Australis, Ibid., p. 48.—Vieill. Nouv. Dict. d'Hist. Nat., tom. xxv. p. 342.—Ibid, Ency. Méth., 3ième Part. p. 1384.
Perruche Banks. Le Vaill. Hist. des Perr., p. 104, pl. 50.
Nanodes discolor, Vig. and Horsf. in Linn. Trans., vol. xv. p. 276.—Swains. Class. of Birds, vol. ii. p. 305.—Steph. Cont. of Shaw's Zool., vol. xiv. p. 118.
Euphema discolor, Wagl. Mon. Psitt. in Abhand., vol. i. pp. 492 and 545.—G. R. Gray, List of Gen. of Birds, p. 52.
Psittacus Banksianus, Vieill. Nouv. Dict. d'Hist. Nat., tom. xxv. p. 342.—Ibid, Ency. Méth., 3ième Part. p. 1383.
Lathamus rubrifrons, Less. Traité d'Orn., p. 205.
La Perruche Latham, Le Vaill. Hist. des Perr., p. 123, pl. 62, young.
Psittacus discolor, Kuhl, Consp. Psitt. in Nova Acta, vol. x. p. 48, young.
Swift Parrakeet, Colonists of Van Diemen's Land.

No one of the Australian birds will be more deeply imprinted upon my memory than the Swift Lorikeet, associated as it is with many of the most pleasing recollections connected with my visit to that part of the world. The accompanying drawing was one of many made by Mrs. Gould in Van Diemen's Land, during a long residence in the house of the Governor, Sir John Franklin, who, together with his amiable lady, took the greatest interest in our pursuits, and rendered us every possible assistance their kind hearts and excellent dispositions could suggest.

Much confusion has hitherto existed both as regards the generic appellation and the division of the *Psittacidæ* to which this elegant Lorikeet should be referred; but as I have endeavoured to clear up these points in my observations upon the genus, it is needless to repeat them here. It is a migratory species, passing the summer and breeding-season only in the more southern parts of the Australian continent and Van Diemen's Land, and retiring northward for the remainder of the year. During September and the four following months, it is not only abundant in all the gum-forests of Van Diemen's Land, but is very common in the shrubberies and gardens at Hobart Town, small flights being constantly seen passing up and down the streets, and flying in various directions over the houses. They approach close to the windows, and are even frequently to be seen on the gum-trees bordering the streets, and within a few feet of the heads of the passing inhabitants, being so intent upon gathering the honey from the fresh-blown flowers which daily expand, as almost entirely to disregard the presence of the spectator. The tree to which they are so eagerly attracted, and a branch of which is figured in the accompanying Plate, is the *Eucalyptus gibbosus*, young or cultivated specimens of which appear to have finer blossoms than those in their native forests. It is certainly the finest of the genus I have ever seen, and when its pendent branches are covered with thick clusters of pale yellow blossoms, presents a most beautiful appearance; these blossoms are so charged with saccharine matter, that the birds soon fill themselves with honey, even to their very throats: several of those I shot, upon being held up by the feet, discharged from their mouths a stream of this liquid to the amount of a dessert-spoonful or more, as clear as water. Small flocks of from four to twenty in number are also frequently to be seen passing over the town, chasing each other with the quickness of thought, and uttering at the same time a shrill screaming noise, like the Swift of Europe, whence in all probability has arisen its colonial name. Sometimes these flights appear to be taken for the sake of exercise or in the mere playfulness of disposition, while at others the birds are passing from one garden to another, or proceeding from the town to the forests at the foot of Mount Wellington, or *vice versâ*. Their plumage so closely assimilates in colour to the leaves of the trees they frequent, and they moreover creep so quietly yet actively from branch to branch, clinging in every possible position, that were it not for their movements and the trembling of the leaves, it would be difficult to perceive them without a minute examination of the tree upon which they have alighted. I found them breeding about midway between Hobart Town and Brown's River, but was not fortunate enough to obtain their eggs, in consequence of the situations selected for their reception being holes in the loftiest and most inaccessible trees; they are said to be two in number, and the circumstance of my having found a fully-developed hard.

shelled egg in the ovarium of a female I dissected on the sixth of October, enables me to state that, like those of the other members of the family, they are perfectly white.

The only part of New South Wales in which I have observed them was on the fine estate of Yarrundi, in the district of the Upper Hunter, belonging to S. Coxen, Esq., who informed me that they periodically pass through his estate during the months of February and March.

In its actions and manners it is closely allied to the true *Trichoglossi*, but differs from them in some few particulars, which are more perceptible in captivity than in a state of nature; it has neither the musky smell nor the jumping motions of *Trichoglossus concinnus*, and is much more cleanly in its habits than that species.

Though in its style of colouring and in its more lengthened and slender tail it is beautifully intermediate between the Grass Parrakeets and the *Trichoglossi*, still I have never observed it to alight upon the ground, or elsewhere than among the branches, and it undoubtedly must be placed with the latter group.

The sexes are very similar in colour, but the female may always be distinguished from her mate by being much smaller in size and less brilliant in all her markings. The young at an early age assume the plumage of the adult, after which they undergo no change.

Face scarlet, with a spot of yellow at the gape; crown of the head deep blue; all the upper and under surface green, the latter being somewhat the lightest; shoulders, under wing- and under tail-coverts scarlet; secondaries and wing-coverts bluish green; primaries deep blackish blue, finely margined with yellow; tail deep blue, tinged with red, passing into black at the extremity; irides rich hazel-yellow; feet flesh-brown; bill horn-colour.

The figures are of the natural size.

TRICHOGLOSSUS SWAINSONII Jard & Selb.

TRICHOGLOSSUS SWAINSONII, *Jard. and Selb.*

Swainson's Lorikeet.

Perruche de Moluques, Buff. Pl. Enl. 743.
Blue-bellied Parrakeet, Brown, Ill. of Zool., pl. 7.
Blue-bellied Parrot, White's Voy., pl. in p. 140.—Phill. Bot. Bay., pl. in p. 152.—Shaw, Gen. Zool., vol. viii. p. 413. pl. 59.
Le Perruche à tête bleue, male, Le Vaill. Hist. des Perr., tom. i. pl. 24.
Trichoglossus hæmatodus, Vig. and Horsf. in Linn. Trans., vol. xv. p. 289.
——— *multicolor*, Wagl. Mon. Psitt. in Abhand., tom. i. p. 553.
——— *Swainsonii*, Jard. and Selb. Ill. Orn., vol. iii. pl. 112.—Selb. Nat. Lib. Orn., vol. vi. Parrots, p. 153. pl. 20.—Swain. Zool. Ill. 2nd Ser., vol. ii. pl. 92.—Ib. Class. of Birds, vol. ii. p. 304.
Warrin, Aborigines of New South Wales.

This beautiful Lorikeet, so familiar to every ornithologist, has been for many years confounded with two other nearly allied species, and hence has arisen an almost inexplicable mass of confusion respecting them; their true synonymies have, however, been most ably worked out by Mr. Swainson in a paper sent by him to Sir William Jardine and Mr. Selby for insertion in their "Illustrations of Ornithology," wherein those gentlemen, fully satisfied of the justness of Mr. Swainson's observations, took an opportunity of naming this species *Swainsonii*, a tribute to the talents of that naturalist in which I most cordially participate.

The present bird, so far as is yet known, is almost exclusively an inhabitant of the south-eastern portion of the Australian continent lying between South Australia and Moreton Bay, at least I have never heard of its existence in any part westward of the former or northward of the latter. It also occurs in Van Diemen's Land, but its visits to that island do not appear to be either regular or frequent.

The flowers of the various species of *Eucalypti* furnish this bird with an abundant supply of food, and so exclusively is it confined to the forests composed of those trees, that I do not recollect to have met with it in any other. It also evinces a preference for those that are covered with newly expanded blossoms, which afford them the greatest supply of nectarine juice and pollen, upon which they principally subsist. However graphically it might be described, I scarcely believe it possible to convey an idea of the appearance of a forest of flowering gums tenanted by several species of *Trichoglossi*, *Meliphagi*, &c.; three or four species being frequently seen on the same tree, and often simultaneously attacking the pendent blossoms of the same branch. The incessant din produced by their thousand voices, and the screaming notes they emit, when a flock of either species simultaneously leave the trees for some other part of the forest, baffles all description, and must be seen and heard to be fully comprehended. So intent are the *Trichoglossi* for some time after sunrise upon extracting their honey-food, that they are not easily alarmed or made to quit the trees upon which they are feeding. The report of a gun discharged immediately beneath them has no other effect than to elicit an extra scream, or cause them to move to a neighbouring branch, where they again recommence feeding with all the avidity possible, creeping among the leaves and clinging beneath the branches in every variety of position. During one of my morning rambles in the brushes of the Hunter I came suddenly upon an immense *Eucalyptus*, which was at least two hundred feet high. The blossoms of this noble tree had attracted hundreds of birds, both Parrots and Honey-suckers; and from a single branch I killed the four species of *Trichoglossi* inhabiting the district, viz. *T. Swainsonii*, *chlorolepidotus*, *concinnus* and *pusillus*. I mention this fact in proof of the perfect harmony existing between these species while feeding; a night's rest, however, and the taming effect of hunger, doubtless contributed much to this harmonious feeling, as I observed that at other periods of the day they were not so friendly.

Although the *T. Swainsonii* is so numerous in New South Wales, I did not succeed in procuring its eggs; the natives informed me that they are two in number, and that they are deposited in the holes of the largest *Eucalypti*, the period of incubation being from September to January.

Head, sides of the face and throat blue, with a lighter stripe down the centre of each feather; across the occiput a narrow band of greenish yellow; all the upper surface green, blotched at the base of the neck with scarlet and yellow; wings dark green on their outer webs; their inner webs black, crossed by a broad oblique band of bright yellow; tail green above, passing into blue on the tips of the two central feathers; under surface of the tail greenish yellow; chest crossed by a broad band, the centre of which is rich scarlet, with a few of the feathers fringed with deep blue, and the sides being rich orange-yellow margined with scarlet; under surface of the shoulder and sides of the chest deep blood-red; abdomen rich deep blue, blotched on each side with scarlet and yellow; under tail-coverts rich yellow, with an oblong patch of green at the extremity of each feather; bill blood-red, with the extreme tip yellow; nostrils and bare space round the eye brownish black; irides reddish orange, with a narrow ring of dark brown next the pupil; feet olive.

The sexes resemble each other so closely both in size and colouring that they cannot be distinguished with certainty.

The figures are those of a male and a female of the natural size.



TRICHOGLOSSUS RUBRITORQUIS, *Vig. and Horsf.*

Red-collared Lorikeet.

Trichoglossus rubritorquis, Vig. and Horsf. in Linn. Trans., vol. xv. p. 291.—Lear's Ill. Psitt., pl. 34.—Wagl. Mon. Psitt. in Abhand., tom. i. p. 552.

This lovely *Trichoglossus* inhabits the northern coasts of Australia, and is as beautiful a representative of its near ally, the *T. Swainsonii* of the south coast, as can well be imagined. In their habits and economy also the two birds so closely approximate that a description of one will serve for both. Independently of the richer blue of the head, the red nuchal collar and dull blackish olive mark on the abdomen are marks by which it may readily be distinguished. The Red-collared Lorikeet is by far the most beautiful bird of the two, and indeed in the splendour of its colouring is second to no member of its group.

The specimens from which my figures were taken were procured at Port Essington. Mr. Gilbert remarks, that "this species is abundant in all parts of the Cobourg Peninsula and the adjacent islands; and is an especial favourite with the natives, who carefully preserve the heads of all they kill for the purpose of ornamenting their persons, by slinging them to the arm a little above the elbow. It is generally seen in large flocks, feeding on the summits of the loftiest trees. Its flight is rapid in the extreme. Like the other *Trichoglossi*, its food consists of honey and the buds of flowers."

Of its nidification nothing is yet known.

The sexes present little difference in appearance, and may be thus described:—

Head and cheeks resplendent blue; throat and abdomen deep olive-green; chest crossed by a broad band of orange-red; a narrow band of the same colour across the occiput, below which band is a broader one of deep blue, the basal portion of the feathers being red; back, wings, tail and under tail-coverts grass-green; basal half of the inner webs of the primaries yellow; irides red, with a narrow ring of yellowish round the pupil; bill vermilion; tarsi silken green in front; inside of the feet and back of the tarsi ash-grey.

The Plate represents a male and a female of the natural size.



TRICHOGLOSSUS CHLOROLEPIDOTUS: *Jard & Selb.*

C. Hullmandel lith.

Ward and H. Childs del. et lith.

TRICHOGLOSSUS CHLOROLEPIDOTUS, *Jard. and Selb.*

Scaly-breasted Lorikeet.

Psittacus chlorolepidotus, Kuhl, Consp. Psitt. in Nov. Act., vol. x. p. 48.
Trichoglossus Matoni, Vig. and Horsf. in Linn. Trans., vol. xv. p. 292.
Trichoglossus chlorolepidotus, Jard. and Selb. Ill. Orn., vol. iii. pl. 110.—Wagl. Mon. Psitt. in Abhand., p. 550.

The present Lorikeet is one of the four species of this genus inhabiting New South Wales, which portion of Australia may be regarded as its stronghold, for I have never even seen a skin from any of the other colonies; hence, like many other species, it is very local, confined as it were to certain limits, and those of small extent. To give any detailed account of its habits and mode of life would be merely repeating what I have said respecting the *Trichoglossus Swainsonii*, with which it frequently associates and even feeds on the same branch; it is, however, not so numerous as that species, nor so generally distributed over the face of the country. The brushes near the coast, studded here and there with enormous gums, towering high above every other tree by which they are surrounded, are the localities especially resorted to by it: in the interior of the country, on the contrary, where the *Trichoglossus Swainsonii* is equally as numerous as in the neighbourhood of the coast, I never observed it.

Its sole food is honey, gathered from the cups of the newly expanded blossoms of the *Eucalypti*, upon which it feeds to such an excess, that on suspending a fresh-shot specimen by the toes a large teaspoonful, at least, of liquid honey will flow from the mouth; hence, when we know this to be the natural food of the principal members of the group, how can it be expected that they can exist in captivity upon the hard seeds or farinaceous food so generally given as a substitute? A proper attention to the diet of these birds, by supplying them with food of a saccharine character, would doubtless be attended with the best results, and enable us to keep them as denizens of our cages and aviaries, as well as the other members of the family; and when it is considered that they are among the most elegant and beautiful of their tribe, I trust those who may have an opportunity will be induced to make a trial.

The Scaly-breasted Lorikeet breeds in all the large *Eucalypti* near Maitland on the Hunter, but I regret to say I did not procure its eggs, or any information respecting its nidification.

The sexes are so closely alike as not to be outwardly distinguished.

All the upper surface, wings and tail rich grass-green; a few feathers at the back of the neck and all the feathers of the under surface bright yellow, margined at the tip with a crescent of grass-green, giving the whole a fasciated appearance; under surface of the shoulder and base of the primaries and secondaries rich scarlet; bill beautiful blood-red, inclining to orange at the tip; cere and orbits olive; irides in some specimens scarlet with a circle of buff round the pupil, in others buffy yellow.

The figures are of the natural size.

TRICHOGLOSSUS VERSICOLOR: Vig

TRICHOGLOSSUS VERSICOLOR, *Vig.*

Varied Lorikeet.

Trichoglossus versicolor, Vig. in Lear's Ill. Psitt., pl. 36.—Selb. in Nat. Lib. Orn., vol. vi. Parrots, p. 157, pl. 21.
We-ro-ole, Aborigines of Port Essington.

There is no other species of the genus *Trichoglossus* yet discovered with which the present could be confounded; it is at once rendered conspicuously distinct from all its allies by the narrow stripe of yellow down the centre of the feathers of the upper and under surface; it will not therefore be necessary to enter into a minute description of its size and colour, particularly as the figures in the accompanying Plate are of the size of life, and as near the appearance of nature as it is possible to pourtray them.

The northern coast is the only part of Australia in which this elegant little Lorikeet has yet been discovered: it is particularly abundant at Port Essington, where its suctorial mode of feeding leads it, like the other members of the genus, to frequent the flowery *Eucalypti*. Mr. Gilbert says, "This bird congregates at times in immense flocks; when a flock is on the wing their movements are so regular and simultaneous that they might easily be mistaken for a cloud passing rapidly along, were it not for the utterance of their usual piercing scream, which is frequently so loud as to be almost deafening. They feed on the topmost branches of the *Eucalypti* and *Melaleucæ*. I observed them to be extremely abundant during the month of August on all the small islands in Van Diemen's Gulf.

"The stomach is membranous and extremely diminutive in size. The food consists of honey and minute portions of the blossoms of their favourite trees."

Could this species be transmitted to Europe, and a kind of food suitable to it be discovered, it would form one of the most delightful cage-pets that has ever been introduced.

The male has the lores and crown of the head rich deep red; round the neck a collar of deep cærulean blue; back brownish green; wings green; rump and upper tail-coverts light yellowish green; across the chest a broad band of purplish red; under surface of the shoulder, abdomen, flanks and under tail-coverts light yellowish green; all the feathers of the upper surface with a narrow stripe of yellowish green; the stripes being more yellow at the occiput, almost form a band; ear-coverts yellow; all the feathers of the under surface with a narrow line of bright yellow down the centre; on each side of the abdomen and down the inside of the thighs stained with patches of purplish red; primaries black, margined externally with deep green, with a fine line of yellowish green on the extreme edge of the feathers; tail deep green, all but the two middle feathers greenish yellow on their internal webs; irides bright reddish yellow, with a very narrow ring of dark red next the pupil; bill scarlet; cere and naked space round the eyes greenish white; tarsi and feet light ash-grey.

The female resembles her mate, but is much less brilliant in all her markings.

The figures are those of a male and a female of the natural size.



TRICHOGLOSSUS CONCINNUS: *Vig. & Horsf.*

J. Gould and H.C. Richter del. et lith.

C. Hullmandel Imp.

TRICHOGLOSSUS CONCINNUS, *Vig. and Horsf.*

Musky Parrakeet.

Psittacus Australis, Lath. Ind. Orn., vol. i. p. 104.
Psittacus concinnus, Shaw, Nat. Misc., pl. 87.—Kuhl, Nova Acta, tom. x. p. 46.
Perruche à bandeau rouge, Le Vaill. Perr., tom. i. p. 99. pl. 48.
Pacific Paroquet, Phill. Bot. Bay, pl. in p. 155.
Pacific Parrot, Lath. Gen. Syn., vol. ii. p. 87.
Pacific Parrakeet, *Psittacus pacificus*, Shaw, Gen. Zool., vol. viii. p. 419.
Crimson-fronted Parrakeet, Lath. Gen. Hist., vol. ii. p. 181.
Psittacus rubrifrons, Bechst. Uebers der Vog., Lath. s. 84. no 99.
Trichoglossus concinnus, Vig. and Horsf. in Linn. Trans., vol. xv. p. 292.—Jard. and Selb. Ill. Orn., vol. i. pl. 34.
Lathamus concinnus, Less. Traité d'Orn., p. 206.
Trichoglossus Australis, Wagl. Mon. Psitt. in Abhand., tom. i. pp. 493 and 549.
Psittacus velatus, Vieill. Nouv. Dict. d'Hist. Nat., tom. xxv. p. 373.—Ib. Ency. Meth. Orn., Part III. p. 1405.
Coolich, Aborigines of New South Wales.
Musk Parrakeet, Colonists.

This species of *Trichoglossus* inhabits Van Diemen's Land, New South Wales and South Australia, and is very generally distributed over all parts of those countries. I have never heard of its inhabiting either the western or northern portions of Australia, whence I infer that its habitat is restricted to the south and south-eastern divisions of the continent. Like every other species of the genus, the present bird is always to be found upon the *Eucalypti*, whose blossoms afford it a never-failing supply of honey, one or other of the numerous species of that tribe of trees being in flower at all seasons of the year. It is stationary in New South Wales, but I am not certain that it is so in the more southern country of Van Diemen's Land, where it is known by the name of the Musk Parrakeet, from the peculiar odour of the bird.

It is a noisy species, and with its screeching note keeps up a perpetual din around the trees in which it is located. During its search for honey it creeps among the leaves and smaller branches in the most extraordinary manner, hanging and clinging about them in every possible variety of position. It generally associates in flocks, and is so excessively tame that it is very difficult to drive it from the trees, or even from any particular branch. Although usually associated in flocks it appears to be mated in pairs, which at all times keep together during flight, and settle side by side when the heat of the sun prompts them to shelter themselves under the shade of the more redundantly leaved branches.

The eggs, which are dirty white and two in number, are of a rounded form, one inch in length and seven-eighths of an inch in breadth. Those I obtained were taken from a hole in a large *Eucalyptus* growing on the Liverpool range.

The sexes present no difference in colour, and the young assume the plumage of the adult at a very early age.

Forehead and ear-coverts deep crimson-red; at the upper part of the back a broad patch of light chestnut-brown; the remainder of the plumage grass-green; on the flanks a spot of orange; primaries and secondaries black, broadly margined on the external webs with grass-green; base of all but the inner webs of the lateral tail-feathers deep red at the base, passing into yellow and tipped with grass-green; bill blackish brown, passing into reddish orange at the tip; cere and orbits olive-brown; irides buff, surrounded by a narrow circle of yellow.

I was not aware, until after the impressions of the present plate had been printed, that Dr. Latham had applied the specific term of *Australis* to this bird long before that of *concinnus* was conferred upon it by Shaw; a fact, however, with which the accurate Wagler was acquainted, and which he has recorded in his valuable Monograph of the *Psittacidæ* above quoted; the correct appellation of the species is therefore *Trichoglossus Australis*, Wagler.

The figures are of the natural size.



TRICHOGLOSSUS PORPHYROCEPHALUS. *Vig*

J & E Gould del

TRICHOGLOSSUS PORPHYROCEPHALUS, *Diet.*

Porphyry-crowned Lorikeet.

Psittacus purpurea, Diet., Phil. Mag. 1832, vol. xi. p. 387.
Psittacus purpureus, Wagl. Mon. Psitt. in Abhand., vol. x. p. 747.
Trichoglossus porphyrocephalus, Diet., Trans. Linn. Soc., vol. xvii. p. 553.
Psittacula Florentis, Bourj. de St. Hil., Supp. Le Vaill. Hist. des Perr., pl. 84.
Kow-ar, Aborigines of Western Australia.

This handsome little Lorikeet was first brought before the notice of the scientific world by Mr. Dietrichsen at the Meeting of the Linnean Society, held on the 20th of March 1832; some confusion, however, exists as to the name then proposed for it. In a report of the Meeting published in the "Philosophical Magazine" for the same year it is called *Psittacus purpurea*; but in the seventeenth volume of the "Linnean Transactions" it is correctly placed in the genus *Trichoglossus*, with the far more appropriate specific appellation of *porphyrocephalus*, which I therefore retain.

Although the Porphyry-crowned Lorikeet has been thus long described, it is still very rarely to be seen in collections, a fact which may be accounted for by the circumstance of its being an inhabitant of those parts of Australia with which we have hitherto had little intercourse.

It is not found in New South Wales, and I do not recollect ever having seen it in collections from any of the eastern parts. It is abundant in South Australia, is equally numerous in the white-gum forests of Swan River, and in all probability is dispersed over the whole of the intermediate country. It is the only species of the genus I have seen from Western Australia, a circumstance which cannot be accounted for, since the face of the country is covered with trees of a similar character.

Most of the specimens I collected were shot during the months of June and July in the neighbourhood of Adelaide, and some of them in the town itself. It appears to arrive in this district at the flowering season of the *Eucalypti*, in company with *Trichoglossus Swainsonii*, *concinnus* and *pusillus*, all of which may frequently be seen on the same tree at one time: the incessant clamour kept up by multitudes of these birds baffles description; the notes of the larger species are, however, distinguishable by their superiority in harshness and loudness; they feed together in perfect amity, and it is not unusual to see two or three species on the same branch. They are all so remarkably tame, that any number of shots may be fired amongst them without causing the slightest alarm to any but those that are actually wounded. Although strictly gregarious, they appear to be always mated in pairs, which accompany each other in their various movements among the branches. The whole of one species frequently leave the tree simultaneously, rushing off with amazing quickness in search of other trees laden with newly-expanded flowers, among which they dash and commence feeding with the utmost eagerness, clinging and creeping among the branches in every possible attitude. As this tribe of birds depends solely for its subsistence upon the flowers of the gum-trees, their presence in any locality would be vainly sought for at any season when those trees are not in blossom

The sexes are precisely alike in size and in the colour of their plumage.

Forehead, lores and ear-coverts yellow, intermingled with scarlet; crown of the head deep purple; back of the head and neck yellowish green; wing-coverts and rump grass-green; shoulder light blue; under surface of the wing crimson; primaries blackish brown, margined externally with deep green, the extreme edge being greenish yellow; tail green above, golden beneath; throat and under surface greenish grey, passing into golden green on the flanks and under tail-coverts; bill black; irides in some dark brown, in others light reddish brown, with a narrow ring of orange round the pupil; feet bluish flesh-colour.

The figures are of the natural size.



TRICHOGLOSSUS PUSILLUS: *Vig. & Horsf*

TRICHOGLOSSUS PUSILLUS, *Vig. and Horsf.*

Little Parrakeet.

Psittacus pusillus, Lath. Ind. Orn., vol. i. p. 106.—Shaw, Gen. Zool., vol. viii. p. 471.—Kuhl, Nova Acta, tom. x. p. 47.
Perruche à face rouge, Le Vaill. Perr., tom. i. p. 124. pl. 62.
Small Parrakeet, Lath. Gen. Syn., vol. ii. p. 88.
Small Paroquet, *Psittacus pusillus*, Shaw in White's Journ., pl. in p. 262.
Small Parrot, Lath. Gen. Hist., vol. ii. p. 194.
Trichoglossus pusillus, Vig. and Horsf. in Linn. Trans., vol. xv. p. 293.—Wagl. Mon. Psitt. in Abhand., tom. i. pp. 493 and 548.
Lathamus pusillus, Less. Traité d'Orn., p. 206.
Jerryang, Aborigines of New South Wales.

This familiar species, the least of the Australian *Psittacidæ* yet discovered, enjoys a range of habitat precisely similar to that of the *Trichoglossus concinnus*, being dispersed over the whole of New South Wales, South Australia and Van Diemen's Land; it is, however, more sparingly diffused over the latter country. I found it tolerably abundant and killed several specimens on Maria Island, near the entrance of Storm Bay. On the continent of Australia it is not only to be found in the same districts and at the same seasons of the year as *T. concinnus*, but it is more frequently observed in company with that species than alone; flocks of each often occupying the same tree, and even the same branch, all busily engaged in extracting their nectarine food. Like its near ally, the present bird creeps about under and among the leaves with the greatest facility, and like the other members of the group, appears to be always associated in pairs. As might be expected from the structure of its wing, which is admirably adapted for rapid progression, it flies through the air with arrow-like swiftness.

I succeeded in finding the breeding-places of this species, and on the 11th of October 1839, procured four eggs from a hole in a small branch of a lofty *Eucalyptus*, growing on the flats at Yarrundi on the Upper Hunter. The eggs were white and of an oval form, nine lines and a half long by seven lines and a half broad.

In Western Australia this species is represented by the *Trichoglossus porphyrocephalus*, and on the north coast by the *T. versicolor*. It would appear to inosculate with its western ally in South Australia, both being equally numerous there, around, and even upon the trees within the city of Adelaide.

The sexes are similar in plumage and differ but little in size; the female is, however, rather more diminutive than her mate.

Face deep red; back of the neck brown; all the remainder of the plumage grass-green; primaries, secondaries and greater coverts black, margined externally with grass-green; two centre tail-feathers and outer webs of the remainder grass-green; the inner webs of the lateral feathers fine red at the base, passing into greenish yellow towards the tip; bill black; cere and orbits dark olive-brown; irides orange, surrounded by a narrow line of yellow.

The figures are of the natural size.



PTILINOPUS SWAINSONII *Gould.*

Hullmandel imp.

Gould and H. Richter del.

PTILINOPUS SWAINSONII, *Gould.*

Swainson's Fruit Pigeon.

Ptilinopus purpuratus, var. *Regina*, Swains. Zool. Journ., vol. i. p. 474?
Columba purpurata, Jard. and Selb. Ill. Orn., vol. ii. pl. 70.
Ptilinopus Swainsonii, Gould in Proc. of Zool. Soc., February 8, 1842.

Considerable confusion has existed respecting the very beautiful birds constituting the genus *Ptilinopus*, as to whether they are so many species or merely varieties, and I quite agree with Messrs. Jardine and Selby when they say in their 'Illustrations' above quoted, "We strongly suspect that more than one species is involved among these different varieties, which some one in possession of them may hereafter be enabled to determine; and their varied geographical distribution tends considerably to strengthen this opinion." There are in fact several species of this beautiful form so closely allied that at a casual glance they would be considered as identical, but on a careful comparison their specific differences will be clearly perceived. At least two of them are natives of Australia, the remainder being distributed over the Indian and Polynesian Islands. The present bird has by many authors been considered either as identical with or as a mere variety of the *Columba purpurata*, Auct., but if compared with that species it will be found to possess characters sufficiently different to warrant its being characterized as distinct; I have therefore named it after Mr. Swainson, the author of the genus to which it belongs, as a slight testimony of the respect I entertain for the talents of one who has done so much towards the advancement of ornithology, at once the most interesting and popular branch of the science of natural history.

The specimens from which my figures were taken are from the brushes of the River Clarence, situated between the Hunter and Moreton Bay; in the last-mentioned district it is tolerably abundant, the dense and luxuriant brushes affording it a congenial habitat and breeding-place. I have received both the young and the adults from this locality, but as I have never myself seen them in a state of nature, I am unable to give any account of their habits or economy. The sexes are so nearly alike in colouring that dissection alone can distinguish them with certainty.

Forehead and crown deep crimson-red, surrounded except in front with a narrow ring of light yellow; back of the neck greyish green; all the upper surface bright green tinged with yellow, the green becoming deep blue towards the extremities of the tertiaries, which are broadly margined with yellow; primaries slaty grey on their inner webs and green on the outer, very slightly margined with yellow; tail-feathers deep green, largely tipped with rich yellow; throat greenish grey, stained with yellow on the chin in some specimens and greyish white in others; breast dull green, each feather forked at the end and with a triangular silvery-grey spot at each extremity; flanks and abdomen green, with a large patch of orange-red in the centre of the latter; under tail-coverts orange-yellow; thighs green; irides reddish orange; bill greenish black and horn-colour at tip; feet olive bro n.

The figures are of the natural size.



PLATYCERCUS PENNANTII.

J. Gould del. et lith. H.C. Richter del. et lith.

Hullmandel & Walton Imp.

PLATYCERCUS PENNANTII.

Pennant's Parrakeet.

Psittacus Pennantii, Lath. Ind. Orn., vol. i. p. 90.
——— *gloriosus*, Shaw, Nat. Misc., pl. 53.
——— *splendidus*, Shaw, Mus., Lev. pl. 7. p. 27.
Perruche à large queue, Le Vaill. Hist. Nat. des Perr., pls. 78, 79.
Pennantian Parrot, Lath. Gen. Syn. Supp., vol. i. p. 61; vol. ii. p. 83.—Phill. Bot. Bay, pl. in p. 154.—White's Journ., pl. in pp. 174, 175.—Shaw, Gen. Zool., vol. viii. p. 410. pl. 56.—Lath. Gen. Hist., vol. ii. p. 131.
Psittacus elegans, Gmel. Syst. Nat., vol. i. p. 318.—Kuhl, Consp. Psitt. in Nova Acta, vol. x. p. 55.
Platycercus Pennantii, Vig. and Horsf. in Linn. Trans., vol. xv. p. 280.—Wagl. Mon. Psitt. in Abhand. p. 535. pl. 17.—Selb. in Nat. Lib. Orn., vol. vi. Parrots, p. 173. pl. 25.—Less. Traité d'Orn., p. 208.—Less. Man. d'Orn., tom. ii. p. 146.—G. R. Gray, List of Gen. of Birds, 2nd edit. p. 66.
Dulang and *Julang*, Aborigines of New South Wales.

This beautiful bird is very generally dispersed over New South Wales, where it inhabits grassy hills and brushes, particularly those of the Liverpool range and all similar districts. Its food consists of berries and the seeds of various grasses, to obtain which it descends in small companies to the bases of the hills and to the open glades; I have often flushed it from such situations, and when six or eight rose together with outspread tails of beautiful pale blue, offering a decided contrast to the rich scarlet livery of the body, I could never fail to pause and admire the splendour of their appearance, of which no description can give an adequate idea; the *Platycerci* must, in fact, be seen in their native wilds before their beautiful appearance can be appreciated, or the interesting nature of their habits at all understood. Although I have stated that New South Wales is the true habitat of this bird, I must not fail to record that individuals have come under my notice which had been killed in Norfolk Island; I am led to believe, however, that the bird must have been taken thither from New South Wales, and that a sufficient number had either escaped or been let loose to establish a breed. The habitats of the various *Platycerci* are generally very restricted; it is not probable therefore that the range of this species extends to an island several hundred miles distant from the main land; how far it may range along the south coast, or to the eastward and northward of New South Wales, I have never satisfactorily ascertained; I have seen it from Kangaroo Island, but I never met with it in the belts of the Murray, or in any of the forests round Adelaide, its place in that part of the country being supplied by the *Platycercus Adelaidiæ*.

As I have said, the food of this species principally consists of berries and grass-seeds, but insects appear occasionally to form a part of its diet, as I found the crop of one specimen filled with small caterpillars; it was, however, a solitary occurrence.

Like the other members of the genus, the *Platycercus Pennantii* runs rapidly over the ground, but its flight is neither rapid nor enduring. In disposition it is tame and destitute of distrust, and as a pet for the aviary or a cage, few birds can exceed it in interest or beauty; consequently it is one of the commonest of the living parrakeets sent from Australia to this country.

It breeds in the holes of the large gum-trees, generally selecting those on the hill-sides within the brushes; and of such situations, the cedar brushes of the Liverpool range appear to be a favourite locality. The months of September, October and November constitute the breeding season. It makes no nest, but deposits its eggs, which are white, about an inch and two lines long, eleven and a half lines broad, and from four to seven in number, on the rotten wood at the bottom of the hole.

The colouring of the sexes when fully adult is alike, but much variation exists between youth and maturity; during the first autumn the young birds are clothed in a plumage of a nearly uniform green; to this succeeds a parti-coloured livery of scarlet, blue and green, which colouring is continually changing until the full plumage of maturity is assumed; and hence has arisen no little confusion respecting this species in the writings of the older ornithologists, and it is not to be wondered at that its synonyms are so numerous.

The adult male has the head, neck, all the under surface, the rump and upper tail-coverts rich deep crimson-red; the feathers of the back and scapularies black, broadly margined with rich crimson-red; the cheeks and shoulders cœrulean blue; the greater wing-coverts pale blue; the primaries and secondaries black, with the basal half of their external webs margined with deep blue; the two centre tail-feathers green, passing into blue on their margins and at the tip; the remainder black on the inner webs for three-fourths of their length; deep blue for nearly the same length on their outer webs, and largely tipped on both webs with pale blue, which becomes still paler to the tips of the feathers; bill horn-colour; irides very dark brown; feet blackish brown.

The young vary so much, that to give an accurate description is almost impossible; one now before me has the crown of the head, sides of the neck, centre of the breast, abdomen, rump, upper and under tail-coverts deep crimson-red; the upper surface and a broad band across the breast deep grass-green; the cheeks, wings and tail similar to those parts in the adult, but much less brilliant.

The Plate represents an adult and an immature bird of the natural size.



PLATYCERCUS FLAVIVENTRIS.

J. Gould and H.C. Richter del. et lith.

Hullmandel & Walton Imp.

PLATYCERCUS FLAVIVENTRIS.

Yellow-bellied Parrakeet.

Psittacus flaviventris, Temm. in Linn. Trans., vol. xiii. pp. 116–118.
——— *Brownii*, Kuhl, Nova Acta, etc., vol. x. p. 56. no. 90.
Perruche à large queue, Le Vaill. Hist. Nat. des Perr., pl. 80.
Van Diemen's Parrot?, Lath. Gen. Hist., vol. ii. p. 130. no. 33.
Platycercus flaviventris, Vig. and Horsf. in Linn. Trans., vol. xv. p. 281.—Gould in Syn. Birds of Australia, Part II.
Sulphur-headed Parrot?, Lath. Gen. Hist., vol. ii. p. 133. no. 35.
New Caledonian Parrot?, Lath. Ib., vol. ii. p. 173. no. 86.
Psittacus Caledonicus?, Lath. Ind. Orn., vol. i. p. 102.—Gmel. Linn., vol. i. p. 328.
Caledonian Parrot?, Lath. Gen. Syn., vol. i. p. 248.
Green Parrot, Colonists of Van Diemen's Land.

There appears to be so much confusion respecting this bird that I have thought it best to adopt M. Temminck's name of *flaviventris*, although I have little doubt that the *Psittacus Caledonicus* of Latham, as well as most of the other synonyms given above, refer to the same bird.

It is dispersed over all parts of Van Diemen's Land and the islands in Bass's Straits; but is not confined to particular localities like the *Platycercus eximius*, with which it sometimes associates. It keeps in small companies, which appear to be the brood of a single pair, and frequents every variety of situation, from the low-crowned hills and gulleys in the depths of the forest to the open cleared lands and gardens of the settlers. It runs over the ground with great facility, and when observed in small flocks searching for seeds among the tall grass of the open parts, few birds are seen to greater advantage.

Independently of grass-seeds, the flowers of the *Eucalypti*, insects and their larvæ constitute a considerable portion of the food of this bird, and it may be often seen very busily engaged about the branches loaded with flowers in the depths of the forest far away from any cleared lands.

Its powers of flight are very considerable, and it readily passes from one district to another whenever a scarcity of food or any other cause prompts it so to do; the passage being performed in a succession of wide undulating sweeps; hence it not unfrequently happens that large flights leave the forest with a shrill whistling call, and descend to the newly ripened corn of the settlers, and there commit such serious havoc as to call down the vengeance of the farmer on the whole race.

Most of my readers are doubtless aware that Parrots are frequently eaten by man, but few of them are, perhaps, prepared to hear that many species of the family constitute at certain seasons a staple portion of the food of the settlers: soon after the establishment of the colonies of Van Diemen's Land, pies made of the bird here represented were commonly eaten at every table, and even at the present time are not of unfrequent occurrence. It was not long after my arrival in the country before I tested the goodness of the flesh of this bird as a viand, and I found it so excellent that I partook of it whenever an opportunity for my so doing presented itself. It is delicate, tender, and well-flavoured; but, like that of all other birds, is not so good at some seasons as at others, and very old birds are of course not equal to those of one year old. If we take into consideration the kind of food upon which it subsists, the extreme delicacy and fineness of its skin, and its comparatively inactive mode of life, we might naturally conclude that its flesh would be such as I have described it to be; and although this observation applies more or less to all the species of the genera *Platycercus* and *Euphema*, I consider the present bird to be in this respect pre-eminent.

Like other species of the genus, it bears confinement well; and although it is not so frequently met with in the cage or the aviary as some of its more gaily attired brethren, it must not be attributed to any inaptitude for domestication on the part of the bird.

The sexes during the first year are not to be distinguished from each other, but when fully adult, the female is smaller in size and less brilliantly coloured than her mate.

Holes in the large gum-trees afford a natural breeding-place. The eggs, which are laid in September and the three following months, are pure white, and six or eight in number, one inch and two lines long by eleven and a half lines broad. When the young are first hatched they are covered with long, white down, and present an appearance not very dissimilar to a round ball of white cotton-wool.

I found this species very abundant on the banks of the Tamar, and in one instance I saw hundreds congregated at a barn-door among the straw of some recently-thrashed corn, precisely after the manner of the Sparrow and Pigeon in England.

Forehead crimson; crown of the head and back of the neck pale yellow, each feather very slightly margined with brown; space under the eye dull crimson; cheeks blue; back and shoulders dark olive-black, each feather edged with green; middle of the wings blue; the basal half of the primaries blue on their external edges, the remainder blackish brown; rump and two middle tail-feathers green, the remainder of the tail-feathers dark blue at the base, lighter towards the tip; under surface of the body yellow; bill flesh-colour; feet greyish brown.

The adults of both sexes are very similar, but a considerable difference exists in birds of different ages, the young of the year being greenish olive with a slight tinge of blue on the cheeks, wings, and outer tail-feathers, and a faint indication of the red mark on the forehead. As they advance in age they gradually assume the plumage of the adult, which is not fully accomplished until the second or third year.

The Plate represents fully adult sexes of the natural size.



PLATYCERCUS FLAVEOLUS, *Gould*

C. Hullmandel Imp.

PLATYCERCUS FLAVEOLUS, *Gould.*

Yellow-rumped Parrakeet.

Platycercus flaveolus, Gould in Proc. of Zool. Soc., Part V. p. 26.

I HAVE no other information to communicate respecting this beautiful *Platycercus*, than that it is an inhabitant of New South Wales, and is abundant on the banks of the rivers Lachlan and Darling. The bird was first sent to this country by Captain Sturt some years since, when he presented a beautiful example with several other rare birds to the Zoological Society of London. Since that period Major Sir Thomas L. Mitchell has introduced several other specimens to England, and I am indebted to this gentleman for the only one in my cabinet. I also saw in the Museum at Sydney several specimens of this little-known bird, which had been collected by Sir Thomas during his expeditions to the Darling, &c. In all the specimens here mentioned little or no variation in their plumage is observable—a circumstance, which induces me to suspect, that, like the Rose-hill Parrakeet, the young are clothed in a similar character of plumage to the adults, or if not, that they gain the full colouring at a very early age: the sexes offer no external differences.

Forehead crimson; cheeks light blue; crown of the head, back of the neck, back, rump, upper tail-coverts, and all the under surface pale yellow, the feathers of the back being black in the centre and pale yellow on their outer edges; middle of the wing pale blue; spurious wing and the outer web of the basal portion of the primaries deep violet-blue, the remainder of the primaries dark brown; two central tail-feathers tinted with green at the base, passing into blue towards the tip; the remaining feathers have the basal portion of their outer webs deep blue, passing into very pale blue towards their tips; the inner webs brown for a greater or less portion of their length, the extreme tips of all being white; bill light horn-colour; feet dark brown.

The Plate represents a male of the natural size.

HEMIPODIUS MELANOTUS. *Gould.*



HEMIPODIUS MELANOTUS, *Gould.*

Black-backed Hemipode.

Hemipodius melanotus, Gould in Proc. of Zool. Soc., Part V. p. 8 ; and in Syn. Birds of Australia, Part II.
Turnix melanotus, Gould in Gray's Trav. App., vol. ii. p. 419, note.

Several years have now elapsed since I described this species from a specimen received from Moreton Bay ; since then I have obtained other examples from the eastern and northern parts of Australia. It was procured in the latter locality by Mr. Bynoe, and to that gentleman I am indebted for the two fine specimens figured in the accompanying Plate.

In structure, and particularly in the feeble form of its bill, the *Hemipodius melanotus* bears a close alliance to the *Hemipodius varius* ; and these slender-billed species form a small section which might with propriety be separated from the stout-billed birds, such as *H. velox* and *H. castaneothorax*.

The female of this species is a larger bird than the male, in which respect only do the sexes differ in outward appearance.

The total want of information respecting the habits and economy of this bird compels me to conclude my account of it with the following description of its colouring only :—

Crown of the head black, each feather fringed with brown at the tip ; space between the bill and the eye, stripe over the eye and cheeks, light yellowish brown, the feathers of the latter slightly tipped with black ; back of the neck rich chestnut-red ; scapularies deep chestnut-red, with a large transverse black mark in the centre of each feather, and a longitudinal stripe of fawn-yellow on their outer edges ; rump and upper tail-coverts black, each feather freckled with fine markings of brown, with indistinct spots of buff on the external edges of the upper tail-coverts ; greater and lesser wing-coverts buff-yellow, each feather having a spot of black in the centre ; primaries brown ; throat whitish ; front of the neck and chest deep buff ; sides of the neck and flanks light buff, with an oblong spot of black transversely disposed in the centre of each feather ; centre of the abdomen and under tail-coverts buffy white ; bill and feet brown.

The figures are of the natural size.



GEOPHAPS SCRIPTA.

Partridge Bronze-wing.

Columba scripta, Temm. Pl. Col. 187; and in Linn. Trans., vol. xiii. p. 127.—Steph. Cont. of Shaw's Gen. Zool., vol. xiv. p. 284.

Geophaps scripta, Gould in Proc. of Zool. Soc., February 8, 1842.—G. R. Gray, Appendix to Gen. of Birds, p. 12.

This Pigeon has more than ordinary claims to the attention both of the ornithologist and the epicure, since to the first it is of interest as being a typical example of a minor group of the *Columbidæ*, whose habits and economy are very peculiar, and to the second as a most delicate viand for the table. It is, unquestionably, the best bird I ate while in Australia; and, in my opinion, it is second to none in any other part of the world: the quality of its flesh is so superior to that of the Common Bronze-wing, that the latter cannot for a moment be put in comparison with it; for, as in the Wonga-wonga Pigeon, another most excellent bird for the table, both the upper and under pectoral muscles are white, juicy and delicately flavoured, while in the Common Bronze-wing the upper muscle is brown. It is to be regretted that a bird possessing such high qualifications as an article of food should be so exclusively a denizen of the plains of the interior that it is available to few except inland travellers. It is equally interesting to the sportsman, no other bird not strictly gallinaceous offering so close a resemblance to the members of the genus *Perdix* (Partridges) in many of its habits and manners as does the Partridge Bronze-wing; and I conceive that in no instance is the theory of the analogical relationship of one group to another more strikingly borne out than in the close resemblance of the members of this group to those of the genus *Perdix*.

When on the ground it has so much the carriage and actions of a Partridge that it might readily be mistaken for one. I sometimes observed it in pairs, but more frequently in small coveys of from four to six in number, which, when approached, instead of seeking safety by flight, ran off with exceeding rapidity in an opposite direction, and crouched down either on the bare plain or among any scanty herbage that appeared to offer the least shelter. It is withal so excessively tame, that it is not unfrequently killed by the bullock-drivers with their whips, while passing along the roads with their teams. The colouring of the bird assimilates so closely to that of the ground or the herbage, that when crouched down for shelter it is not easily to be seen, and they will often lie until it is all but trodden upon. It rises with extreme rapidity, making a loud burring noise with the wings and generally spinning off, not, as might be supposed, to another part of the plain, but to the horizontal branch of a large tree, on which it immediately squats down quite flat, in the same line with the branch, from which it is not easily distinguished or driven off. The shortness of its wings gives it much the appearance of a Partridge during flight, and it also assimilates in the arrow-like direction of its course to the nearest tree, terminating with a skimming motion of the wings before alighting.

The nearest point to the colony of New South Wales in which I met with this bird was the Liverpool Plains, from whence to as far as I proceeded on the Lower Namoi its numbers appeared to increase. I have also heard from other travellers that it is equally abundant on all the plains and banks of the rivers between New South Wales and the Murray in South Australia; but I have never yet observed it in collections either from the northern or western portions of the continent.

The eggs are two in number, and are deposited on the bare ground without any nest. The young both run and fly strongly when they are only as large as a quail, as I satisfactorily ascertained by killing one which rose before me; but at what bird I had fired I had not the slightest conception until I picked it up.

In speaking of this bird as an inhabitant of the plains, I must not fail to mention that it was far more abundant on such as were intersected by rivers and water-holes; in fact, a good supply of water seemed to be essential to its existence. Its chief food is the seeds of various grasses and other small plants, to which are added at some seasons insects and berries.

Head, all the upper surface and chest light brown, the extremities of the wing-coverts and the edges of the primaries being much paler; the outer webs of several of the greater coverts with a speculum of greenish purple obscured, barred with a darker tint; chin and throat, a broad stripe from the lower mandible to beneath the eye, another stripe from the posterior angle of the eye down the side of the neck, and a spot on the side of the neck snow-white, the interspaces being jet-black, the latter colour surrounding the eye, and also forming a crescent across the lower part of the throat; abdomen grey; flanks white; all but the two centre tail-feathers greyish brown at the base and largely tipped with black; bill black; irides black; naked skin surrounding the eye bluish lead-colour; the corners immediately before and behind the eye mealy vinous red; feet and frontal scales dark purplish vinous red.

The figures are of the natural size.

GEOFFROYS SCHLEGEL.



GEOPHAPS SMITHII.

Smith's Partridge Bronze-wing.

Columba Smithii, Jard. and Selb. Ill. Orn., vol. iii. pl. 104.
Mân-ga, Aborigines of the Cobourg Peninsula.
Partridge Pigeon, Residents of Port Essington.

In structure this species is in every respect a true *Geophaps*, and the accompanying notes by Mr. Gilbert show that it as closely assimilates in its habits and economy to the type of the genus as it well can. It appears to be abundant on the north coast of Australia, which is the only part of the country from which I have yet received it.

"This bird," says Mr. Gilbert, "which at Port Essington is termed the Partridge, from its habits much resembling those of that bird, exhibits a departure in several of its essential characters from the typical Pigeons. In its general habits, flight, voice, mode of incubation, and the character of its newly hatched young, it differs considerably from all its congeners. It is rather abundant in all parts of the Peninsula, is mostly seen in small families and always on the ground, unless when disturbed or alarmed; it then usually flies into the nearest tree, generally choosing the largest part of a horizontal branch to perch upon. When it rises from the ground its flight is accompanied with a louder flapping or burring noise than I have observed in any other Pigeon.

"Its note is a coo, so rolled out that it greatly resembles the note of the Quail, and which, like that bird, it scarcely ever utters but when on the ground, where it frequently remains stationary, allowing itself to be almost trod upon before rising. Its favourite haunts are meadows covered with short grass near water, or the edges of newly burnt brush. It would seem that this species migrates occasionally from one part of the country to another; for during the months of September and October not a single individual was to be seen, while at the time of my arrival and for a month after they were so abundant that it was a common and daily occurrence for persons to leave the settlement for an hour or two and return with several brace; in the latter part of November they again appeared, but were not so numerous as before; and in the January and February following they were rarely to be met with, and then mostly in pairs inhabiting the long grasses clothing the moister parts of the meadows.

"This bird incubates from August to October, making no nest, but merely smoothing down a small part of a clump of grass and forming a slight hollow, in which it deposits two eggs, which are greenish white, one inch and a quarter long by seven-eighths of an inch in breadth. The young bird on emerging from the egg is clothed with down like the young of the Quail."

Eyes surrounded with a large naked space of a bright reddish orange colour; head and all the upper surface olive-brown; throat white, the tips of the last feathers grey, forming a surrounding margin of that colour; on the cheeks a large brownish grey spot, nearly insulated by the large space of the eyes being surrounded by a narrow band of white, the feathers of which are tipped with black; chest reddish brown; on the centre of the breast a few of the feathers are clear grey, margined at the tip with black; breast and abdomen purplish olive-brown; flanks white; lower part of the abdomen and vent buff; primaries and secondaries dark brown, margined with pale brown; the outer webs of the three or four last secondaries, and one or two greater coverts for two-thirds of their length from the base rich purple with greenish wavy reflexions; two centre tail-feathers olive-brown, the remainder deep slate-grey at base and black at the extremity; under tail-coverts dark brown margined with light brown; irides of three colours, first a narrow ring of red next the pupil, then a broader ring of pure white, and lastly a narrow one of grey; bill blackish grey; legs and feet bluish grey; back of the tarsi and inner side of the feet yellowish grey.

The figures are those of a male and female of the natural size.

GEOPHAPS PLUMIFERA. Gould.



GEOPHAPS PLUMIFERA, *Gould.*

Plumed Partridge Bronze-wing.

Geophaps plumifera, Gould in Proc. of Zool. Soc., February 8, 1842.

This rare and highly interesting species of Pigeon was sent me by my friend B. Bynoe, Esq., who procured it on the north-west coast of Australia. The notes accompanying the bird informed me that "it inhabits the country between Cape Hotham and the island of Depuch; the specimen sent is from the isolated water reaches about 150 miles up the Victoria River. It congregates on the ground and rises like a Quail, plunging immediately afterwards in the thick long grass."

In its structure and markings it closely assimilates to the other members of the genus *Geophaps*; but widely differs from them in its diminutive size, and in the possession of a long and graceful crest springing from the occiput, a character which exists in several of the *Gallinacea*, and is familiar to every one in the pretty Pewit or Lapwing (*Vanellus cristatus*) of the British Islands.

Lores and orbits naked, and of a yellowish red; head furnished with a lengthened occipital crest, which with the crown, sides of the neck and chest, and under part of the wing, are light ferruginous; chin black; throat banded alternately with white and black, the latter colour extending to the ear-coverts; on the chest two semilunar marks of white, which meeting form a point in the centre; middle of the abdomen light buff; under tail-coverts brown, with lighter edges; back of the neck, back, rump and upper tail-coverts rufous brown; wings light ferruginous, with the basal half of the feathers silvery grey, the two colours separated by a transverse band of black; primaries rufous brown; secondaries brown, with a large patch of bronze-purple towards their tips; tail black; bill black; feet reddish brown.

The figures are of the natural size.



DOYPHAPS LOPHOTES.

J. Gould and H.C. Richter del. et lith.

C. Rollandel. Imp.

OCYPHAPS LOPHOTES.

Crested Pigeon.

Columba Lophotes, Temm. Pl. Col. 142.—Wagl. Syst. Av. Columba, sp. 103.—Steph. Cont. of Shaw's Gen. Zool., vol. xiv. p. 289. pl. 34.
The Crested Pigeon of the Marshes, Sturt's two Exp. to the interior of Southern Australia, vol. i. pl. in p. 24.
Turtur? Lophotes, Selby, Nat. Lib. Orn., vol. v. Pigeons, p. 174. pl. 18.

The chasteness of its colouring, the extreme elegance of its form, and the graceful crest which flows backwards from its occiput, all tend to render this Pigeon one of the most lovely of its tribe inhabiting Australia, and in fact I consider it is not surpassed in beauty by any other from any part of the world. It is to be regretted, that owing to its being exclusively an inhabitant of the plains of the interior, it can never become an object of general observation; but, like the *Peristera histrionica* and *Geophaps scripta*, it can only be seen by those of our enterprising countrymen whose love of exploring new countries prompts them to leave for a time the haunts of civilized man to wander among the wilds of the distant interior, a portion of the country never to be regarded as solitary or uninteresting by those who look with admiration upon the wonderful works of their Creator: the fauna of the interior of Australia has in fact, as I have frequently had occasion to remark in the course of the present work, features peculiarly its own, and its members are eminently interesting both for their novelty and for the beauty and elegance of their form.

As might be supposed, this bird has attracted the notice of all our travellers who have journeyed across the colonial line of demarcation; Captain Sturt mentions it as being numerous on the plains of Wellington valley, and in the neighbourhood of the Morumbidgee. It would seem to affect marshy situations in preference to others, for Captain Sturt observes that he took its appearance to be a sure sign of his approach to a country more than ordinarily subject to overflow; since, on the Macquarie and the Darling, those birds were only found to inhabit the regions of marshes, or spaces covered by the *Acacia pendula* or the *Polygonum junceum*. The locality nearest the coast line that I know it to inhabit, is the country near the great bend of the river Murray in South Australia, where it is tolerably abundant; it abounds on the plains at the back of Moreton Bay on the banks of the river Namoi, and is occasionally, but very rarely, seen on the Liverpool Plains. It frequently assembles in very large flocks, and when it visits the lagoons or river-sides for water, during the dry seasons, generally selects a single tree, or even a particular branch, on which to congregate; very great numbers perching side by side, and all descending simultaneously to drink: so closely are they packed while thus engaged, that I have heard of dozens of them being killed by the single discharge of a gun.

Its powers of flight are so rapid as to be unequalled by those of any member of the group to which it belongs; an impetus being acquired by a few quick flaps of the wings, it goes skimming off apparently without any further movement of the pinions. Upon alighting on a branch it elevates its tail and throws back its head, so as to bring them nearly together, at the same time erecting its crest and showing itself off to the utmost advantage.

I met with the nest of this species in a low tree, on the great plain near Gundermein on the Lower Namoi, on the twenty-third of December 1839; like that of the other species of Pigeon, it was a slight structure of small twigs, and contained two white eggs, which were one inch and a quarter long and nearly an inch broad, upon which the female was then sitting.

The sexes are alike in plumage.

Head, face, throat, breast and abdomen grey; lengthened occipital plumes black; back of the neck, back, rump, flanks, upper and under tail-coverts light olive-brown; the upper tail-coverts tipped with white; sides of the neck washed with pinky salmon-colour; feathers covering the insertion of the wing deep buff, each crossed near the tip with a line of deep black, giving this part of the plumage a barred appearance; greater wing-coverts shining bronzy green, margined with white; primaries brown, becoming of a deeper tint as they approach the body; the third, fourth and fifth finely margined on the apical half of their external web with brownish white, the remainder with a narrow line of white bounding the extremities of both webs; secondaries brown on their inner webs, bronzy purple on their outer webs at the base, and brown at the extremity, broadly margined with white; two centre tail-feathers brown, the remainder blackish brown, glossed with green on their outer webs, and tipped with white; irides buffy orange; orbits naked, wrinkled, and of a pink-red; nostrils and base of the bill olive-black; tip black; legs and feet pink-red.

The figures are of the natural size.



PETROPHASSA ALBIPENNIS; *Gould.*

J. Gould and H.C. Richter del. et lith.

C. Hullmandel imp.

PETROPHASSA ALBIPENNIS, *Gould.*

White-quilled Rock Dove.

Petrophassa albipennis, Gould in Proc. of Zool. Soc., Part VIII. p. 173.

This highly singular species of Pigeon is an inhabitant of the most rugged, rocky and sterile districts of the north-west coast of Australia. The specimens in my possession were sent me by the Officers of the Beagle, but, I regret to say, were unaccompanied by any particulars respecting their history. The form of the wing would lead us to imagine that in many parts of its economy this species much resembles those of the members of the genus *Geophaps*; but on these points nothing can be ascertained with certainty, until the productions of those remote parts of Australia have been carefully investigated, a period which, from the inhospitable character of the country, I fear is far distant.

Crown of the head and neck greyish brown, margined with sandy brown; all the upper surface, chest and tail rufous brown, the centre of each feather inclining to grey; lores black; abdomen and under tail-coverts chocolate brown; throat clothed with small feathers white at the tip, black at the base; primaries dark brown at their tips, the basal half pure white; bill and irides blackish brown; feet reddish brown.

The Plate represents a male and a female of the natural size.



EUPHEMIA ELEGANS: *Gould.*

J. & E. Gould del.

C. Hullmandel lith.

EUPHEMA ELEGANS, *Gould.*

Elegant Grass-Parrakeet.

Nanodes elegans, Gould, in Proc. of Zool. Soc., Part V. 1837, p. 25.—Ib. Syn. Birds of Australia, Part II.
Gool-ye-der-ung, Aborigines of the lowlands of Western Australia.
Ground Parrakeet, of the Colonists.

Although closely resembling in size and form the Blue-banded Grass-Parrakeet, this species differs in several minor particulars. The green colouring of its plumage is of a more golden hue; the blue frontal band extends behind the eye, while in the former it reaches no farther than the front: the difference in the colouring of the wings of the two species is also strongly marked, that part in the one being wholly blue, while in the other all the shoulders and portions near the scapularies are green.

As far as I could learn, the present species is never seen in Van Diemen's Land, while the Blue-banded is a constant summer visitant to that island; neither is it a common bird in New South Wales, its visits to that country being quite accidental. I found it abundant in South Australia, even in the depth of winter, and I have since received its eggs from the same country, as well as from King George's Sound and Swan River; we may therefore reasonably suppose it ranges over all the intermediate country, and that it is there a permanent resident.

It appears to prefer the barren and sandy belts bordering the coast, but occasionally resorts to the more distant interior. Flocks were constantly rising before me while traversing the salt-marshes, which stretch along the coast from Holdfast Bay to the Port of Adelaide; they were feeding upon the seeds of grasses and various other plants, which were there abundant: in the middle of the day, or when disturbed, they retreat to the thick *Banksias* that grow on the sandy ridges in the immediate neighbourhood, and in such numbers, that I have seen those trees literally covered with them, intermingled with the orange-breasted species (*E. aurantia*), which, however, was far less numerous. When they rise, they spread out and display their beautiful yellow tail-feathers to the greatest advantage.

The following account of this species, as observed in Western Australia, has been sent me by Mr. John Gilbert:

"It inhabits every variety of situation, but particularly where there is an abundance of grass, the seeds of which are its favourite food: it may be generally observed in small families until the hottest part of the year, when the courses being dried up, water only remains in small pools; these birds then congregate in almost incredible numbers morning and evening. At Kojenuh, where there are several pools, and no other water for many miles round, I saw these birds in myriads; but although I shot a great many, they were nearly all young birds. Its flight is rapid and even, and frequently at considerable altitudes. The breeding season is in September and October; the eggs being from four to seven in number," of a pure white, eleven lines long, by eight and a half lines broad.

A bar of deep indigo-blue across the forehead, bordered above by a narrow edging of light metallic blue, which is continued over the eye; lores rich yellow; head, cheeks, scapularies, back and upper shoulders greenish blue; secondaries deep blue, edged with lighter; primaries black, the first three or four edged externally with greenish blue; tail-coverts golden olive-green; throat and chest greenish yellow, passing into bright yellow on the abdomen and under tail-coverts; the centre of the abdomen tinged with orange; two middle tail-feathers greenish blue, the remainder blue at the base, and largely tipped with yellow; irides very dark brown; bill dark brown, lighter on the under side; legs and feet dull brown.

The Plate represents a male and a female of the natural size, on a branch of the *Pittosporum*.



EUPHEMA AURANTIA: *Gould*

J. & E. Gould del.

C. Hullmandel Imp.

EUPHEMA AURANTIA, *Gould.*

Orange-bellied Grass-Parrakeet.

Euphema aurantia, Gould, in Proc. of Zool. Soc., Nov. 10, 1840.

Although the present bird is not so elegant in form, nor graced with so brilliant a frontal band as several others of the group, it has received an ample compensation in the rich orange mark that adorns the under surface, a character by which it may be distinguished from every other known species. Like the *Euphema chrysostoma*, it is a summer visitant to Van Diemen's Land, and they may sometimes be found associating together; still I have obtained specimens in localities where I believe the other is never seen. I observed it sparingly dispersed in the neighbourhood of Hobart Town and New Norfolk, but found it in far greater abundance on the Actæon Islands, at the entrance of D'Entrecasteaux Channel. These small islands are covered with grasses and scrub, intermingled with a quantity of a species of Barilla, nearly allied to *Atriplex halimus*; and almost the only land-bird that enlivens these solitary spots, is the present beautiful Parrakeet: I frequently flushed small flocks of them from among the grass, when they almost immediately alighted on the barilla bushes around me, their sparkling orange bellies forming a striking contrast with the green of the other parts of their plumage and the silvery foliage of the plant upon which they rested. I made many attempts to discover their breeding places, but always unsuccessfully; as however these islands are destitute of large trees, I am induced to believe that they lay their eggs in holes on the ground, or among the stones on the shore. When I thoroughly disturbed them they flew off to the neighbouring islands, or to the main land, uttering a singular snapping note, very unlike that of their associates, the *Euphema chrysostoma*. On visiting South Australia in winter, I there found it equally abundant on the flat, marshy grounds bordering the coast, especially between the Port of Adelaide and Holdfast Bay. Specimens collected in winter and summer, and in localities distant from each other, present no difference whatever in their plumage.

It may be a casual visitor to New South Wales and Swan River, but I have not yet seen it in any collections from those parts of Australia.

Frontal band blue, margined before and behind with a very faint line of greenish blue; crown of the head and all the upper surface deep grass-green; shoulders, many of the secondaries, and outer edges of the primaries deep indigo-blue; lores, cheeks and breast yellowish green, passing into greenish yellow on the abdomen and under tail-coverts, the centre of the abdomen being ornamented with a large spot of rich orange; two centre tail-feathers green; the next on each side blackish brown on the inner, and green on the outer webs; the remainder blackish brown on their inner and green on their outer webs, and largely tipped with bright yellow; irides very dark brown; bill dark brown, becoming lighter on the under side; legs and feet dull brown.

The female possesses the orange spot in common with the male, although, in her case, it is neither so extensive nor so brilliant.

The figures represent a male and a female, on a branch of the Barilla plant, of the natural size.



KITTIEMIA PETROPHILA: *Gould.*

J. Gould and H.C. Richter del. et lith.

C. Hullmandel Imp.

EUPHEMA PETROPHILA, *Gould.*

Rock Grass-Parrakeet.

Euphema petrophila, Gould in Proc. of Zool. Soc., Part VIII. p. 148.
Rock Parrakeet, Colonists of Swan River.

Independently of the difference in the colouring of the face of this species, it differs also from all the other members of the genus in its habits; for although, like them, it obtains its food on the ground, feeding on the seeds of the various grasses that grow over nearly the whole surface of Australia, it is far more partial to rocky situations than to trees. I have received specimens of this bird from Port Lincoln in South Australia, but its great strong-hold appears to be the western coast, where it occurs in great numbers on Rottnest and other islands near Swan River: "Here," says Mr. Gilbert, "it breeds in the holes of the most precipitous cliffs, choosing in preference those facing the water and most difficult of access; and hence it required no slight degree of exertion to procure examples of the eggs, which, according to the testimony of the natives, are white and seven or eight in number.

"Its flight is extremely rapid, and at times it mounts to a great height in the air."

The sexes are nearly alike in colour and may be thus described:—

Frontal band deep indigo-blue, bounded before and behind with a very narrow line of dull verditer-blue; lores and circle surrounding the eye dull verditer-blue; all the upper surface yellowish olive-green; under surface the same, but lighter, and passing into yellow, tinged with orange on the lower part of the abdomen; under surface of the shoulder indigo-blue; a few of the wing-coverts greenish blue; primaries brownish black on their inner webs, and deep indigo-blue on the outer; two centre tail-feathers bluish green; the remainder of the feathers brown at the base on the inner webs, green at the base on the outer webs, and largely tipped with bright yellow; irides very dark brown; upper mandible dark reddish brown; sides of the under mandible light yellow, the tip bluish grey; legs and feet dark brownish grey.

The figures are those of a male and a female of the natural size.



EUPHEMA PULCHELLA. Vieyl.

J. Gould and H.C. Richter del. et lith.

J. Hollins imp.

EUPHEMA PULCHELLA, *Wagler.*

Chestnut-shouldered Grass-Parrakeet.

Psittacus pulchellus, Shaw, Nat. Misc., pl. 96.—Ib. Gen. Zool., vol. viii. p. 470.—Linn. Trans., vol. xiii. p. 122.—Swains. Zool. Ill. Birds, 1st Ser. pl. 73.—Lath. Ind. Orn. Supp., p. 21.—Kuhl, Nova Acta, vol. x. p. 50.

Turcosine Parrakeet, Lath. Gen. Syn. Supp., vol. ii. p. 89.—Ib. Gen. Hist., vol. ii. p. 185.

La Perruche Edwards, Le Vaill. Hist. des Perr., p. 68, female.

Psittacus chrysogaster, Lath. Ind. Orn., vol. i. p. 97.

Orange-bellied Parrot, Lath. Gen. Syn. Supp., p. 62.—Ib. Gen. Hist., vol. ii. p. 186.

Orange-bellied Parrakeet, Shaw, Gen. Zool., vol. viii. p. 468.

Psittacus Edwardsii, Bechst. in Lath. Uebers. der Vog., p. 74.

Nanodes pulchellus, Vig. and Horsf. in Linn. Trans., vol. xv. p. 277.—Steph. Cont. of Shaw's Gen. Zool., vol. xiv. p. 118.

Lathamus azureus, Less. Traité d'Orn., p. 205.

Euphema pulchella, Wagl. Mon. Psitt. in Abhand., pp. 493 and 542.

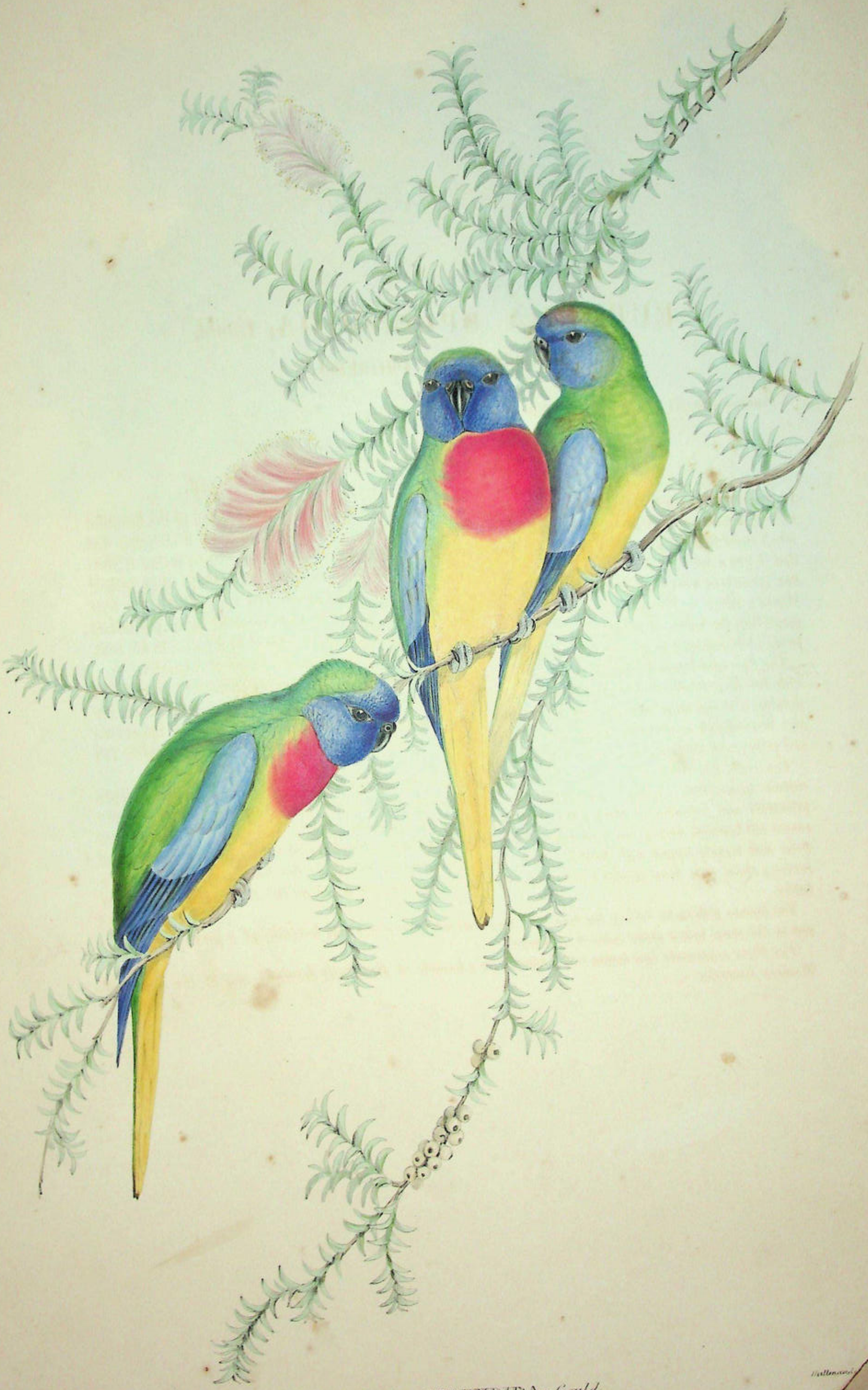
All those who have traversed the "bush" in New South Wales will recognize in this lovely species an old favourite; during my own rambles my attention was constantly attracted by its beautiful outspread tail and wings as it rose before me. Its sole food being the seeds of grasses and of the smaller annuals, it spends much of its time on the ground, and appears to evince a greater partiality for stony ridges than for the rich alluvial flats, which is probably owing to the former producing a greater supply of its favourite food. When flushed it flies off to a short distance between the trees, perches on some dead branch for a time, and if impelled by hunger, returns to the ground almost immediately. I have never seen this species congregated in large flocks like the *Euphema chrysostoma* and *E. elegans*; but have either met with it in pairs, or in small companies of six or eight in number.

I did not succeed in finding a nest of this species, although I doubt not that during my visit to the district of the Upper Hunter it was breeding everywhere around me; but Mr. Caley states, on the authority of the natives, that it lays eight white eggs in the hole of a tree without any nest but the decayed wood.

The sexes differ so little in colour, that dissection must be resorted to to distinguish them.

Forehead, stripe over the eye, cheeks, shoulders, and lesser wing-coverts rich metallic greenish blue; crown of the head, back of the neck, upper surface and flanks bright olive-green; a bright spot of chestnut-red at the insertion of the wings; primaries and secondaries deep blue on their outer webs, and blackish brown on the inner; chest, centre of the abdomen, and under tail-coverts rich yellow; four middle tail-feathers green, the remainder green at the base and largely tipped with yellow; bill and feet dark brown.

The Plate represents the two sexes of the natural size, on one of the grasses of the Upper Hunter.



EUPHEMA SPLENDIDA: *Gould.*

J. Gould and H.C. Richter del. et lith.

EUPHEMA SPLENDIDA, *Gould.*

Splendid Grass Parrakeet.

Euphema splendida, Gould in Proc. of Zool. Soc., Part VIII. p. 147.

It is a source of much regret to me, that I am unable to give more than a very slight notice of the beautiful bird that forms the subject of the present Plate. The single specimen from which my description was taken came into my possession in 1840, unfortunately without any other information accompanying it than that it was a native of Swan River; from that period no other example occurred until 1845, when several fine specimens were transmitted to me by the late Mr. Johnson Drummond, who had killed them near Moore's River in Western Australia, and from whom I should doubtless have received some particulars respecting the habits of this lovely species, had he not been treacherously murdered by a native in his company, while engaged in seeking for materials for this and my other works on the Fauna of Australia.

The Splendid Grass Parrakeet is in every respect a true *Euphema*, and has many characters in common with the *E. pulchella*, but differs from that species in the entire absence of the chestnut mark on the shoulders, in the more intense blue of the face, and in the gorgeously rich scarlet colouring of the chest; and is rendered remarkably conspicuous by the brilliant display of the three primitive colours—blue, red and yellow—on its face, breast and abdomen.

The male has the face and ear-coverts deep indigo-blue, becoming paler on the latter; all the upper surface grass-green; upper wing-coverts beautiful lazuline blue; under wing-coverts deep indigo-blue; primaries and secondaries black; the first three or four primaries slightly margined with green; two centre tail-feathers dark green; the remaining tail-feathers black on the internal webs, green on the external webs and largely tipped with bright yellow, which increases in extent as the feathers recede from the centre; chest rich deep scarlet; under surface yellow, passing into green on the sides of the chest and flanks.

The female differs in having the face and wing-coverts, both above and beneath, of a pale lazuline blue, and in the chest being green instead of scarlet.

The Plate represents two males and a female on a branch of *Beaufortia decussata*, one of the plants of Western Australia.

HEMIPODIUS SEXTILLARIS: Gould.

Tringa sexfilaris Temm. Pl. Col. 444.

Hodgson & Walton Imp.



HEMIPODIUS SCINTILLANS, *Gould.*

Sparkling Hemipode.

Hemipodius scintillans, Gould in Proc. of Zool. Soc., Part XIII. p. 62.

This very beautiful species of Hemipode is an inhabitant of the Houtman's Abrolhos, a group of islands so called lying off the western coast of Australia, and is tolerably abundant on two of them named East and West Wallaby Islands, where it is principally met with among the limestone crags.

In its general appearance and the style of its markings it much resembles the *Hemipodius varius*, but on comparison will be found to be but little more than half the size of that species; independently of which, the colouring is much lighter, more varied and sparkling, the white margins of the back-feathers more numerous and conspicuous, and the markings of the throat and breast of a crescentic instead of an elongated form.

Nothing whatever is known of its habits and economy, but they doubtless closely resemble those of the other species of the genus.

The whole of the upper surface is light chestnut-red, each feather crossed by broad bars of brownish black and margined with grey, within which are two narrow lines of black and white; wing-coverts and tertiaries light chestnut-red, crossed by irregular zigzag bars of black, the interspaces of the outer margins greyish white; chin and sides of the face white, with a narrow crescent-shaped mark of brown at the tip of each feather; sides of the chest chestnut, each feather tipped with white, within which is an indistinct mark of deep black; chest and under surface pale buffy white, the feathers of the chest with a row of dark grey spots on each margin, giving that part a speckled appearance; primaries brown, narrowly edged with white; irides reddish yellow; bill greenish grey, darkest on the culmen and becoming ashy grey beneath; legs and feet orange-yellow.

The figures are of the natural size.



HEMIPODIUS VARIUS.

Varied Hemipode.

Perdix varia, Lath. Ind. Orn. Supp., p. lxiii.
New Holland Partridge, Lath. Gen. Syn. Supp., vol. ii. p. 283.
Varied Quail, Lath. Gen. Hist., vol. viii. p. 344. no. 88.
Hemipodius varius, Temm. Pl. Col., 454. f. 1.—Gould in Syn. Birds of Australia, Part II.
Turnix varius, Vieill. 2nd Edit. du Nouv. Dict. d'Hist. Nat., tom. xxxiv.—Ib. Ency. Méth., part i. p. 331.—List of Birds in Brit. Mus. Coll., part iii. p. 41.
Moŏ-ro-lum, Aborigines of the lowland districts of Western Australia.
Painted Quail, Colonists of Van Diemen's Land and Swan River.

Among the game birds of Australia the Varied Hemipode plays a rather prominent part, for although its flesh is not so good for the table as that of the little partridge and quail, *Synoicus Australis* and *Coturnix pectoralis*, it is a bird which is not to be despised when the game-bag is emptied at the end of a day's sport, as it forms a not unacceptable variety to its contents. Although it does not actually associate with either of the birds mentioned above, it is often found in the same districts, and all three species may be procured in the course of a morning's walk in any part of the colonies of New South Wales and Van Diemen's Land. The natural habits of the *Hemipodius varius* lead it to frequent sterile stony ridges, interspersed with scrubby trees and moderately thick grass; the quail, on the other hand, tenants the open plains and fields of corn; the little partridge loves to dwell in swampy lands, where the herbage is rank and green; and these particulars relative to the habits of the three birds in question being known to the colonists who have paid any attention to sporting, it is easy for them, by varying their ground, to procure either of the species they desire to obtain.

The Varied Hemipode is very common in all parts of Van Diemen's Land suitable to its habits, hills of moderate elevation and of a dry stony character being the localities preferred; it is also numerous on the sandy and sterile islands in Bass's Straits; on the continent of Australia, it is abundant in New South Wales and South Australia: specimens from Western Australia, which at first sight appear to be identical with the bird here figured, are found to be smaller in size and to differ in their markings, and they will probably prove to be a distinct species. Van Diemen's Land specimens, having an average weight of five ounces each, are rather larger than those of New South Wales; no difference however occurs in their markings; I therefore consider them to be mere local varieties and not distinct species: no specimen has yet come under my notice from the north coast, and the range of the species doubtless does not extend to within several degrees of that latitude.

It runs remarkably quick, and when flushed flies low, its pointed wings giving it much the appearance of a snipe or sandpiper. When running or walking over the ground the neck is stretched out and the head carried very high, which together with the rounded contour of the back give it a very grotesque appearance. The breeding-season commences in August or September and terminates in January, during which period at least two broods are reared. The eggs are invariably four in number, and are either deposited on the bare ground or in a slightly constructed nest of grasses, placed in some slight hollow, not unfrequently under the lee of a stone or at the foot of a tuft of grass; they are very similar in form to those of the Sandpipers, being more pointed than those of other gallinaceous birds; they are of a very pale buff, very minutely and thickly spotted and freckled with reddish brown, chestnut and purplish grey, one inch and a quarter long by one inch broad.

It has rather a loud plaintive note, which is often repeated.

One very remarkable feature connected with this bird, and indeed with all the species of the genus, is the large size of the female when compared with that of her mate; so great, in fact, is the difference, that the figures in the accompanying Plate scarcely make it sufficiently apparent; no difference however exists in their colour and markings.

The young run as soon as they are hatched, and their appearance then assimilates so closely to that of the young partridges and quails that they can scarcely be distinguished. The pretty downy coat with which they are then covered soon gives place to feathers, whose markings and colours resemble, but are less brilliant than those of the adult.

The food of this species consists of insects, grain and berries; of the former many kinds are eaten, but

HEMIPODIUS MELANOGASTER: *Gould.*

Published 1 March 1849 by John Gould, 26 Charles St Soho Square.

HEMIPODIUS MELANOGASTER, *Gould.*

Black-breasted Hemipode.

Hemipodius melanogaster, Gould in Proc. of Zool. Soc., Part V. p. 7.

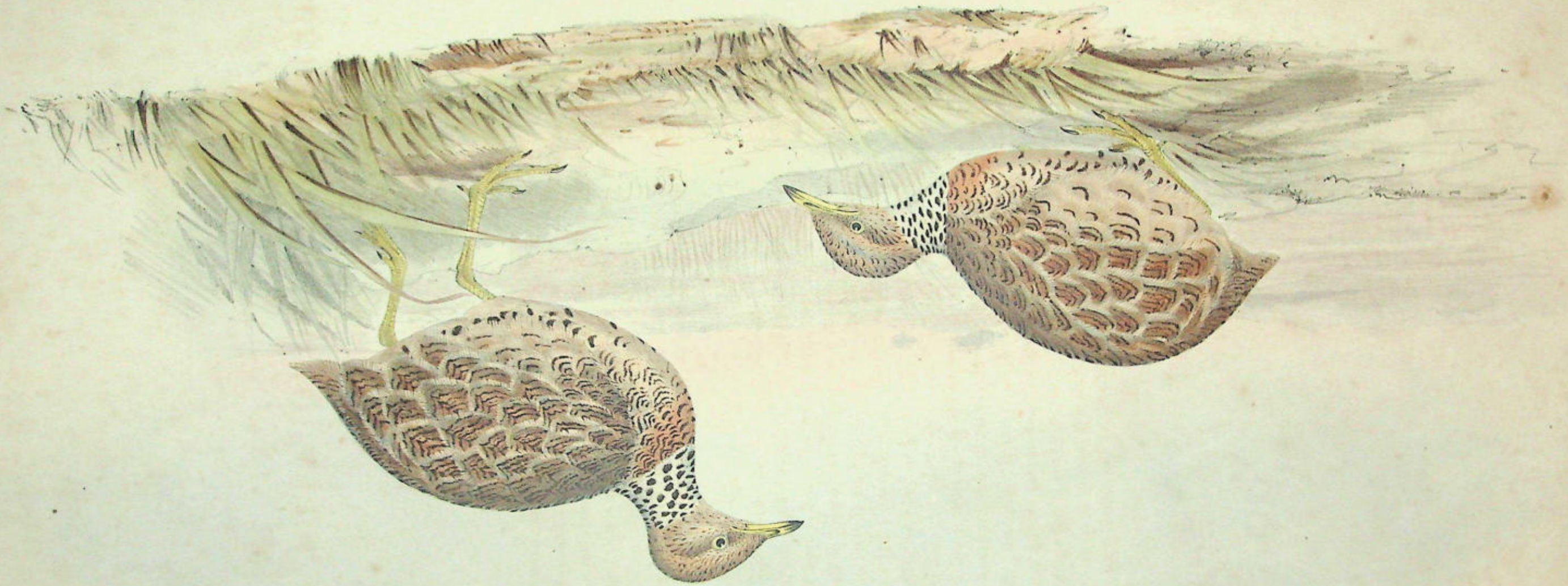
Australia may be said to constitute the great nursery of the Hemipodes; for no other country is inhabited by so many species, and certainly there is not a finer one in existence than the subject of the present Plate. Future research will doubtless furnish others, and in all probability the interior, at present a terra incognita, will not be wanting in species of a form peculiarly adapted to inhabit the sterile kind of country of which it is supposed to consist.

I regret that, never having seen this species in a state of nature, I am unable to render any account of its habits and economy. It is a native of the eastern portion of Australia; specimens in my own collection, and in those of the Zoological Society and King's College, London, were all procured at Moreton Bay. Judging from analogy, I presume that the sexes present little or no difference in their markings; until we are enabled to resort to dissection, we cannot with certainty ascertain whether the same disparity in the size of the sexes occurs in this species as in the other members of the genus; in all probability the female will be found to exceed the male.

Crown of the head, ear-coverts, throat and centre of the abdomen black; over each eye extends a line of feathers having each a small white spot at the tip; this line extends to the nape, which part is also thickly spotted with white on a black and chestnut-coloured ground; feathers on the sides of the chest and flanks black, having a large crescent-shaped marking of white near the tip; mantle and upper part of the back rich chestnut brown, each feather having a spot of white and a stripe of black on each side, and barred with black at or near the tip; shoulders, greater and lesser wing-coverts rufous brown, each feather having a white spot surrounded with a black line; primaries dark brown; thighs and upper and under tail-coverts brown, freckled and crossed with black; bill light brown; feet flesh-colour.

The Plate represents the bird of the natural size.

PEDIONOMUS TORQUATUS: *Gould*



PEDIONOMUS TORQUATUS, *Gould.*

Collared Plain Wanderer.

Pedionomus torquatus, Gould, in Proc. of Zool. Soc., September 8, 1840.

The structure of this singular little bird is admirably adapted for inhabiting those extensive and arid plains which characterize many of the central portions of Australia; and we may reasonably suppose, that whenever its vast interior shall be explored, other species of this new form will be discovered. The bird forming the subject of the present Plate was received from Mr. Strange, who merely stated that he killed it on the plains, near Adelaide. I also learn from Captain Grey, that Mr. Hack, of Adelaide, had a dog which was constantly in the habit of catching a small quail-like bird while hunting over those plains, and which is doubtless identical with the present, as a second species I obtained on Gawler Plains was caught in a similar way by one of my dogs.

Its lengthened and bustard-like legs are admirably suited for running, while its short round and concave wings are as little adapted for extensive flight; the general contour of this little Wanderer in fact suggests the idea of a diminutive Bustard; and were its legs not furnished with a hind toe, it would range very near to that group. It has also several characters in common with *Hemipodius*, and a bird from Africa, figured by Mr. Swainson in his "Zoological Illustrations" under the name of *Hemipodius nivosus*, but which in his more recently published "Classification of Birds" he has placed in the genus *Ortygis* of Illiger.

I regret to say I am unable to give any account of its habits and economy; but I trust that my friend Captain Sturt, who is resident near the locality it inhabits, and whose ardent love of Natural History will induce him to pay every attention to the subject, may be able to collect the requisite information on these interesting points, in which case his observations will be included in the present work.

Crown of the head reddish brown, speckled with black; sides of the head and the neck light buff, speckled with black; neck surrounded by a broad band of white, thickly spotted with black; all the upper surface reddish brown, each feather having several transverse crescent-shaped marks in the centre, and margined with buff; tail buff, crossed by numerous narrow brown bars; centre of the breast rufous, the remainder of the under surface buff; the feathers on the breast marked in a similar manner to those on the upper surface, and the flanks with large irregular spots of black; irides straw-yellow; bill yellow, passing into black at the point; feet greenish yellow.

The figures are of the natural size.



LEUCOSTICTE OCELLATA. Gould

LEIPOA OCELLATA, *Gould.*

Ocellated Leipoa.

Leipoa ocellata, Gould, in Proc. of Zool. Soc., October 13, 1840.
Ngow, Aborigines of the lowland; *Ngöw-oo*, of the mountain districts of Western Australia.
Native Pheasant, Colonists of Western Australia.

This beautiful bird is among the most interesting of the novelties which the little-explored regions of Australia have lately unfolded to us; since, by its discovery, and a knowledge of its habits, we are enabled to assign to its proper family (the *Megapodinæ*) the singular species figured under the name of *Talegalla Lathami*.

The Ocellated Leipoa appears to be more peculiarly suited for a plain and open country than for the tangled brush; and it is most curious to observe how beautifully the means employed by Nature for the reproduction of the species is adapted to the situations it is destined to inhabit. A sketch of its economy, as far as it has yet been ascertained, has been sent me by Mr. John Gilbert, and is here given in his own words:

"The following account of the habits, manners, and nidification of this bird have been detailed to me by G. Moore, Esq., Advocate-General, Mr. Armstrong, the aboriginal interpreter, and some of the more intelligent natives of Western Australia. Mr. Moore saw a great many of them about sixty miles north of Perth; but its most favorite country appears to be the barren sandy plains of the interior, 100 miles north and east of York. It is a ground bird, never taking to a tree except when closely hunted; when pursued it will frequently run its head into a bush, and is then easily taken. In its actions and manners it is very like the domestic fowl. Its food generally consists of seeds and berries. It has a mournful note, very like that of a pigeon, but with a more inward tone. The eggs are deposited in a mound of sand, the formation of which is the work of both sexes: the natives say they scratch up the sand for many yards around, forming a mound of about three feet in height; the inside being constructed of alternate layers of dried leaves, grasses, &c., among which the eggs are deposited to the number of twelve and upwards, and covered up by the birds as laid; or, as the natives express it, 'the countenances of the eggs are never visible.' The bird never sits upon the eggs; but when she has laid her number the whole are covered up, after which the mound of sand resembles an ant's nest. The eggs are hatched by the heat of the sun's rays, the vegetable lining of the hillock retaining sufficient warmth during the night: the eggs are deposited in layers, no two eggs being suffered to lie without a division. They are about the size of a fowl's egg, and are white, very slightly tinged with red. The natives are exceedingly fond of them, and rob the mounds two or three times in a season; they judge of the probable number of eggs in the heap by the quantity of feathers lying around. If these are abundant, they know the hillock is full, when they immediately open it and take the whole; upon which the bird will again commence laying, to be robbed a second time, and will frequently lay a third time. Upon questioning one of the men attached to Mr. Moore's expedition, he gave me a similar account of its habits and mode of incubating; adding, that in all the mounds they opened they found ants almost as numerous as in an ant-hill, and that in many instances that part of the mound surrounding the lower portion of the eggs had become so hard, they were obliged to chip round them with a chisel to get them out: the insides of the mounds were always hot."

Captain Grey, of the 83rd Regiment, who has just returned from his expedition to the north-west coast, has also furnished me with the following information respecting its range, &c.: "The farthest point north," says this gentleman, "at which I have seen the breeding-places of this bird, is Gantheaume Bay. The natives of King George's Sound say the same, or a nearly allied species, exists in that neighbourhood. I have never fallen in with its nests but in one description of country, viz. where the soil was dry and sandy, and so thickly wooded with a species of dwarf *Leptospermum*, that if you stray from the native paths, it is almost impossible to force your way through. In these close scrubby woods small open glades occasionally occur, and here the Ngŏw-oo constructs its nest, a large heap of sand, dead grass and boughs, at least nine feet in diameter, and three feet in height: I have seen them even larger than this. Upon one occasion only I saw eggs in these nests; they were placed some distance from each other, and buried in the earth. I am not sure of the number, but the account given by the natives led me to believe that at times large numbers are found."

The Ocellated Leipoa is altogether a more slender and elegantly formed bird than the Wattled Talegalla, and moreover differs from that bird in having the head and neck thickly clothed with feathers, and in being adorned with a beautifully variegated style of colouring.

Head and crest blackish brown; neck and shoulders dark ash grey; the fore part of the former, from the chin to the breast, marked by a series of lanceolate feathers, which are black with a white stripe down the centre; back and wings conspicuously marked with three distinct bands of greyish white, brown and black near the tip of each feather, the marks assuming an ocellate form, particularly on the tips of the secondaries; primaries brown, their outer webs marked with zigzag lines of darker brown; rump and upper tail-coverts brownish grey, the feathers of the latter transversely marked with two or three zigzag lines near their tip; all the under surface light buff, the tips of the flank feathers barred with black; tail blackish brown, broadly tipped with buff; bill black; feet blackish brown.

The figures are about two-thirds of the natural size.



MEGAPODIUS TUMULUS, *Gould.*

Mound-raising Megapode.

Megapodius tumulus, Gould in Proc. of Zool. Soc., February 8, 1842.
Oooregoorgā, Aborigines of the Cobourg Peninsula.
Jungle-fowl, Colonists of Port Essington.

The discovery of a species of *Megapodius* in Australia, as soon as the northern portions of the country should be subjected to a careful investigation, is no more than might have been expected, considering that New Guinea and the adjacent islands are the great nursery of this extraordinary tribe of birds.

When the *Megapodius Tumulus* first came under my observation I conceived it to be the *M. rubripes* of M. Temminck, and it was not until I had examined specimens of that species in the Museums of Paris and Leyden that I was satisfied of its being distinct. Its much greater size and more than proportionately powerful legs are among the specific differences which will be observable by those who may feel disposed to institute a comparison. Interesting as this bird must be to every naturalist, to myself it is peculiarly so, since the valuable notes on its habits and economy which happily I am enabled to give fully confirm all that I had previously asserted respecting the extraordinary mode of incubation of the *Talegalla*, verifying the opinion I have before expressed, that *Megapodius*, *Talegalla* and *Leipoa* are most nearly allied genera forming part of a great family of birds, whose range will be found to extend from the Philippines through the islands of the Indian Archipelago to Australia.

The *Megapodius Tumulus* is rather numerously spread over the whole of the Cobourg Peninsula on the north coast of the Australian continent, where the British settlement of Port Essington is now established; future research will doubtless require us to assign to it a much wider range, probably over the whole extent of the north coast.

The following account of its habits is taken from Mr. Gilbert's notes; and, novel and extraordinary as my description of those of *Talegalla* and *Leipoa* may have been considered, this will be read with even greater interest.

"On my arrival at Port Essington my attention was attracted to numerous immense mounds of earth, which were pointed out to me by some of the residents as the tumuli of the aborigines; on the other hand I was assured by the natives that they were formed by the Jungle-fowl for the purpose of incubating its eggs: their statement appeared so extraordinary, and so much at variance with the general habits of birds, that no one in the settlement believed them, or took sufficient interest in the matter to examine the mounds, and thus to verify or refute their accounts; another circumstance which induced a doubt of their veracity, was the great size of the eggs brought in by the natives as those of this bird. Aware that the eggs of *Leipoa* were hatched in a similar manner, my attention was immediately arrested by these accounts, and I at once determined to ascertain all I possibly could respecting so singular a feature in the bird's economy; and having procured the assistance of a very intelligent native, who undertook to guide me to the different places resorted to by the bird, I proceeded on the sixteenth of November to Knocker's Bay, a part of Port Essington Harbour comparatively but little known, and where I had been informed a number of these birds were always to be seen. I landed beside a thicket, and had not proceeded far from the shore ere I came to a mound of sand and shells, with a slight mixture of black soil, the base resting on a sandy beach, only a few feet above high water mark; it was enveloped in the large yellow-blossomed *Hibiscus*, was of a conical form, twenty feet in circumference at the base, and about five feet in height. On pointing it out to the native and asking him what it was, he replied, 'Oooregoorgā Rambal,' Jungle-fowls' house or nest. I then scrambled up the sides of it, and to my extreme delight found a young bird in a hole about two feet deep; it was lying on a few dry withered leaves, and appeared to be only a few days old. So far I was satisfied that these mounds had some connexion with the bird's mode of incubation; but I was still sceptical as to the probability of these young birds ascending from so great a depth as the natives represented, and my suspicions were confirmed by my being unable to induce the native, in this instance, to search for the eggs, his excuse being that 'he knew it would be of no use, as he saw no traces of the old birds having recently been there.' I took the utmost care of the young bird, intending to rear it if possible; I therefore obtained a moderately sized box, and placed in it a large portion of sand. As it fed rather freely on bruised Indian corn I was in full hopes of succeeding, but it proved of so wild and intractable a disposition that it would not reconcile itself to such close confinement, and effected its escape on the third day. During the period it remained in captivity it was incessantly occupied in scratching up the sand into heaps, and the rapidity with which it threw the sand from one end of the box to the other was quite surprising for so young and small a bird, its size not being larger than that of a small quail. At night it was so restless that I was constantly kept awake by the noise it made in its endeavours to escape. In scratching up the sand it only used one foot, and having grasped a handful as it were, the sand was thrown behind it, with but little apparent exertion, and without shifting its standing position on the other leg; this habit seemed to be the result of an innate restless disposition and a desire to use its powerful feet, and to have but little connexion with its feeding; for although Indian corn was mixed with the sand, I never detected the bird in picking any of it up while thus employed.

"I continued to receive the eggs without having an opportunity of seeing them taken from the mound until the sixth of February, when on again visiting Knocker's Bay I had the gratification of seeing two taken from a depth of six feet, in one of the largest mounds I had then seen. In this instance the holes ran down in an oblique direction from the centre towards the outer slope of the hillock, so that although the eggs were six feet deep from the summit, they were only two or three feet from the side. The birds are said to lay but a single egg in each hole, and after the egg is deposited the earth is immediately thrown down lightly until the hole is filled up; the upper part of the mound is then smoothed and rounded over. It is easily known when a Jungle-fowl has been recently excavating, from the distinct impressions of its feet on the top and sides of the mound, and the earth being so lightly thrown over, that with a slender stick the direction of the hole is readily detected, the ease or difficulty of thrusting the stick down indicating the length of time that may have elapsed since the bird's operations. Thus far it is easy enough; but to reach the eggs requires no little exertion and perseverance. The natives dig them up with their hands alone, and only make sufficient room

to admit their bodies, and to throw out the earth between their legs; by grubbing with their fingers alone they are enabled to follow the direction of the hole with greater certainty, which will sometimes, at a depth of several feet, turn off abruptly at right angles, its direct course being obstructed by a clump of wood or some other impediment. Their patience is, however, often put to severe trials. In the present instance the native dug down six times in succession to a depth of at least six or seven feet without finding an egg, and at the last attempt came up in such a state of exhaustion that he refused to try again; but my interest was now too much excited to relinquish the opportunity of verifying the native's statements, and by the offer of an additional reward I induced him to try again: this seventh trial proved successful, and my gratification was complete, when the native with equal pride and satisfaction held up an egg, and after two or three more attempts produced a second; thus proving how cautious Europeans should be of disregarding the narratives of these poor children of nature, because they happen to sound extraordinary or different from anything with which they were previously acquainted.

"I revisited Knocker's Bay on the tenth of February, and having with some difficulty penetrated into a dense thicket of cane-like creeping plants, I suddenly found myself beside a mound of gigantic proportions. It was fifteen feet in height and sixty in circumference at the base, the upper part being about a third less, and was entirely composed of the richest description of light vegetable mould; on the top were very recent marks of the bird's feet. The native and myself immediately set to work, and after an hour's extreme labour, rendered the more fatiguing from the excessive heat, and the tormenting attacks of myriads of mosquitoes and sand-flies, I succeeded in obtaining an egg from a depth of about five feet; it was in a perpendicular position, with the earth surrounding and very lightly touching it on all sides, and without any other material to impart warmth, which in fact did not appear necessary, the mound being quite warm to the hands. The holes in this mound commenced at the outer edge of the summit, and ran down obliquely towards the centre; their direction therefore is not uniform. Like the majority of the mounds I have seen, this was so enveloped in thickly foliaged trees as to preclude the possibility of the sun's rays reaching any part of it.

"The mounds differ very much in their composition, form and situation: most of those that are placed near the water's edge were formed of sand and shells without a vestige of any other material, but in some of them I met with a portion of soil and decaying wood; when constructed of this loose material they are very irregular in outline, and often resemble a bank thrown up by a constant heavy surf. One remarkable specimen of this description, situated on the southern side of Knocker's Bay, has the appearance of a bank, from twenty-five to thirty feet in length, with an average height of five feet; another even more singular is situated at the head of the harbour, and is composed entirely of pebbly iron-stone, resembling a confused heap of sifted gravel; into this I dug to the depth of two or three feet without finding any change of character; it may have been conical originally, but is now without any regularity, and is very extensive, covering a space of at least a hundred and fifty feet in circumference. These remarkable specimens would, however, seem to be exceptions, as by far the greater number are entirely formed of light black vegetable soil, are of a conical form, and are situated in the densest thickets. Occasionally the mounds are met with in barren, rocky and sandy situations, where not a particle of soil similar to that of which they are composed occurs for miles around: how the soil is produced in such situations appears unaccountable; it has been said that the parent birds bring it from a great distance; but as we have seen that they readily adapt themselves to the difference of situation, this is scarcely probable: I conceive that they collect the dead leaves and other vegetable matter that may be at hand, and which decomposing forms this particular description of soil. The mounds are doubtless the work of many years, and of many birds in succession; some of them are evidently very ancient, trees being often seen growing from their sides; in one instance I found a tree growing from the middle of a mound which was a foot in diameter. I endeavoured to glean from the natives how the young effect their escape; but on this point they do not agree; some asserting that they find their way unaided; others on the contrary affirmed that the old birds, knowing when the young are ready to emerge from their confinement, scratch down and release them.

"The natives say that only a single pair of birds are ever found at one mound at a time, and such, judging from my own observation, I believe to be the case; they also affirm that the eggs are deposited at night, at intervals of several days, and this I also believe to be correct, as four eggs taken on the same day, and from the same mound, contained young in different stages of development; and the fact that they are always placed perpendicularly is established by the concurring testimony of all the different tribes of natives I have questioned on the subject.

"The Jungle-fowl is almost exclusively confined to the dense thickets immediately adjacent to the sea-beach; it appears never to go far inland, except along the banks of creeks. It is always met with in pairs or quite solitary, and feeds on the ground, its food consisting of roots, which its powerful claws enable it to scratch up with the utmost facility, and also of seeds, berries and insects, particularly the larger species of coleoptera.

"It is at all times a very difficult bird to procure; for although the rustling noise produced by its stiff pinions when flying may be frequently heard, the bird itself is seldom to be seen. Its flight is heavy and unsustained in the extreme; when first disturbed it invariably flies to a tree, and on alighting stretches out its head and neck in a straight line with its body, remaining in this position as stationary and motionless as the branch upon which it is perched; if, however, it becomes fairly alarmed, it takes a horizontal but laborious flight for about a hundred yards, with its legs hanging down as if broken. I did not myself detect any note or cry; but from the natives' description and imitation of it, it much resembles the clucking of the domestic fowl, ending with a scream like that of the peacock.

"I observed that the birds continued to lay from the latter part of August to March, when I left that part of the country; and, according to the testimony of the natives, there is only an interval of about four or five months, the driest and hottest part of the year, between their seasons of incubation. The composition of the mound appears to influence the colouring of a thin epidermis with which the eggs are covered, and which readily chips off, showing the true shell to be white; those deposited in the black soil are always of a dark reddish brown, while those from the sandy hillocks near the beach are of a dirty yellowish white; they differ a good deal in size, but in form they all assimilate, both ends being equal; they are three inches and five lines long by two inches and three lines broad."

Head and crest very deep cinnamon-brown; back of the neck and all the under surface very dark gray; back and wings cinnamon-brown; upper and under tail-coverts dark chestnut-brown; tail blackish brown; irides generally dark brown, but in some specimens light reddish brown; bill reddish brown, with yellow edges; tarsi and feet bright orange, the scales on the front of the tarsi from the fourth downwards, and the scales of the toes dark reddish brown,

The figure is about one-fifth less than the natural size.



TALEGALLA LATHAMI.

Wattled Talegalla.

New Holland Vulture, Lath. Gen. Hist., vol. i. p. 32.
Genus Alectura, Ibid, vol. x. p. 455.
Alectura Lathami, Gray, Zool. Misc., No. I. p. 3. Jard. and Selby, Ill. Orn., vol. iii. pl. cxl.
New Holland Vulture, Swains. Class of Birds, vol. i. p. 383.
Catheturus Australis, Ibid, vol. ii. p. 206.
Meleagris Lindesayii, Jameson, Mem. Wern. Nat. Hist. Soc., vol. vii. p. 473.
Brush Turkey of the Colonists; *Wee-lah*, Aborigines of the Namoi.

It has often been asserted that Australia abounds in anomalies, and in no instance is the truth of this proposition more fully exemplified than in the history of the very singular bird here represented, respecting the situation of which, in the natural system, much diversity of opinion has hitherto prevailed. It was consequently one of the birds which demanded my utmost attention during my late expedition, and I trust that the following details will assist in clearing up this long-disputed point.

The bird in question was originally described and figured by the late Dr. Latham in the first volume of his "General History of Birds," under the name of *New Holland Vulture*; but subsequently he conceived himself in error in classing it with the *Vulturidæ*, and at the end of the tenth volume of the same work placed it among the *Gallinaceæ*, with the generic appellation of *Alectura*: the species was afterwards dedicated to this venerable ornithologist by Mr. John Edward Gray, in his "Zoological Miscellany."

The generic and specific terms, *Catheturus Australis*, were subsequently applied to it by Mr. Swainson, who in both volumes of his "Classification of Birds" replaces it among the *Vulturidæ*, in order, apparently, to establish his own views respecting this family, of which he considers it the rasorial type, and details at some length why he entertains this opinion.

"The New Holland Vulture," says Mr. Swainson, "is so like a rasorial bird, that some authors have hesitated (not having seen a specimen) as to what order it really belonged. So completely, indeed, has nature disguised this rare and extraordinary vulture in the semblance of that type which it is to represent in its own family, that it has even been classed by one writer with the *Menura*; and it must be confessed, that if clear conceptions of the difference between analogy and affinity are not entertained, such a classification has some plausible reasons to recommend it. The feet, in fact, of the two birds are formed nearly on the same principle, but then so are those of *Orthonyx*, a little scansorial bird not much bigger than a Robin. All three genera, in short, are remarkable for their large disproportionate feet, long and slightly curved claws, and the equality of length, or nearly so, of the outer and the middle toe. Nor is this the only peculiarity of the New Holland Vulture; for, unlike all others of its family, it possesses eighteen feathers in its tail. An examination of the bill, which is decidedly raptorial, joined with many other considerations, shows that all these are but analogical relations to the *Rasores*, while the real affinities of the bird are in the circle of the *Vulturidæ*, of which it forms the rasorial type. A perfect specimen of this very rare vulture, now before us," continues this author, "enables us to speak of its structure from personal examination."

The term *Alectura* having been previously employed for a group of Flycatchers, and the present bird possessing all the characters of M. Lesson's genus *Talegalla*, which was published prior to Mr. Swainson's *Catheturus*, I feel that I ought to adopt that appellation.

How far its range may extend over Australia is not yet satisfactorily ascertained; it is known to inhabit various parts of New South Wales, from Cape Howe on the south to Moreton Bay on the north; but the assaults of the cedar-cutters and others who so frequently hunt through the brushes of Illawarra and Maitland, having nearly extirpated it from those localities, it is now most plentiful in the dense and little-trodden brushes of the Manning and Clarence. I was at first led to believe that the country between the mountain-ranges and the coast constituted its sole habitat; but I was agreeably surprised to find it also an inhabitant of the scrubby gullies and sides of the lower hills that branch off from the great range into the interior. I procured specimens on the Brezi range to the north of Liverpool Plains, and ascertained that it was abundant in all the hills on either side of the Namoi.

It is a gregarious bird, generally moving about in small companies, much after the manner of the *Gallinaceæ*, and, like some species of that tribe, is very shy and distrustful. When disturbed it readily eludes pursuit by the facility with which it runs through the tangled brush. If hard pressed, or when rushed upon by its great enemy the native dog, the whole company spring upon the lowermost bough of some neighbouring tree, and by a succession of leaps from branch to branch ascend to the top, and either perch there or fly off to another part of the brush. They are also in the habit of resorting to the branches of trees as a shelter from the mid-day sun, a peculiarity that greatly tends to their destruction, as the sportsman is not only enabled to take a certain aim, but, like the Ruffed Grouse of America, they will even allow a succession of shots to be fired until they are all brought down. Unless some measures be adopted for their preservation, this circumstance must lead to an early extinction of the race; an event much to be regretted, since, independently of its being an interesting bird for the aviary, its flesh is extremely delicate, tender, and juicy.

The most remarkable circumstances connected with the economy of this bird, are the facts of its not hatching its eggs by incubation: the means resorted to for effecting this object, although in some degree assimilating to the practice of the Ostrich, is yet upon a totally different principle. The Wattled Talegalla collects together an immense heap of decaying vegetable matter as a depositary for the eggs, and trusts to the heat engendered by the process of decomposition for the development of the young. The heap employed for this purpose is collected by the birds during several weeks previous to the period of laying;

it varies in size from two to four cart-loads, and is of a perfectly pyramidal form. The construction of the mound is not the work of one pair of birds, but is effected by the united labours of several; the same site appears to me, from the great size and the entire decomposition of the lower part, to be resorted to for several years in succession, the birds adding a fresh supply of materials on each occasion previous to laying.

The mode in which the materials composing these mounds are accumulated is equally singular,—the bird never using its bill, but always grasping a quantity in its foot, throwing it backwards to one common centre, and thus clearing the surface of the ground for a considerable distance so completely, that scarcely a leaf or a blade of grass is left. The heap being accumulated, and time allowed for a sufficient heat to be engendered, the eggs are deposited, not side by side, as is ordinarily the case, but planted at the distance of nine or twelve inches from each other, and buried at nearly an arm's depth, perfectly upright, with the large end upwards; they are covered up as they are laid, and allowed to remain until hatched. I have been credibly informed both by natives and settlers living near their haunts, that it is not an unusual event to obtain nearly a bushel of eggs at one time from a single heap; and as they are delicious eating, they are eagerly sought after. Some of the natives state that the females are constantly in the neighbourhood of the heap about the time the young are likely to be hatched, and frequently uncover and cover them up again, apparently for the purpose of assisting those that may have appeared; while others have informed me that the eggs are merely deposited, and the young allowed to force their way unassisted. In all probability, as Nature has adopted this mode of reproduction, she has also furnished the tender birds with the power of sustaining themselves from the earliest period; and the great size of the egg would equally lead to this conclusion, since in so large a space it is reasonable to suppose that the bird would be much more developed than is usually found in eggs of smaller dimensions. In further confirmation of this point, I may add, that in searching for eggs in one of the mounds I discovered the remains of a young bird, apparently just excluded from the shell, and which was clothed with feathers, not with down, as is usually the case: it is to be hoped that those who are resident in Australia, in situations favourable for investigating the subject, will direct their attention to the further elucidation of these interesting points. The upright position of the eggs tends to strengthen the opinion that they are never disturbed after being deposited, as it is well known that the eggs of birds which are placed horizontally, are frequently turned during incubation. Although, unfortunately, I was almost too late for the breeding season, I nevertheless saw several of the heaps, both in the interior and at Illawarra; in every instance they were placed in the most retired and shady glens, and on the slope of a hill, the part above the nest being scratched clean, while all below remained untouched, as if the birds had found it more easy to convey the materials down than to throw them up. In one instance only was I fortunate enough to find a perfect egg, although the shells of many from which the young had been excluded were placed in the manner I have described. At Illawarra they were rather deposited in the light vegetable mould than among the leaves which formed a considerable heap above them. The eggs are perfectly white, of a long oval form, three inches and three-quarters long by two inches and a half in diameter: a fine egg of this bird was subsequently presented to me by J. H. Plunkett, Esq., Attorney-General, New South Wales.

While stalking about the wood they frequently utter a rather loud clucking noise; and in various parts of the brush I observed depressions in the earth, which the natives informed me were made by the birds in dusting themselves.

The stomach is extremely muscular, and the crop of one dissected was filled with seeds, berries, and a few insects.

I have already alluded to its capability for domestication; and I have the gratification of adding, that a living specimen was in the possession of Mr. Alexander MacLeay for several years, during which it was mostly at large, and usually associated with the fowls in the poultry-yard. On my arrival at Sydney this venerable gentleman took me into his garden and showed me the bird, which, as if in its native woods, had for two successive years collected an immense mass of materials similar to those above described. The borders, lawn and shrubbery over which it was allowed to range presented an appearance as if regularly swept, from the bird having scratched to one common centre everything that lay upon the surface; the mound in this case was about three feet and a half high, and ten feet over. On placing my arm in it I found the heat to be about 90° or 95° Fahr. The bird itself was strutting about with a proud and majestic air, sometimes parading round the heap, at others perching on the top, and displaying its brilliantly coloured neck and wattle to the greatest advantage; this wattle it has the power of expanding and contracting at will; at one moment it is scarcely visible, while at another it is extremely prominent.

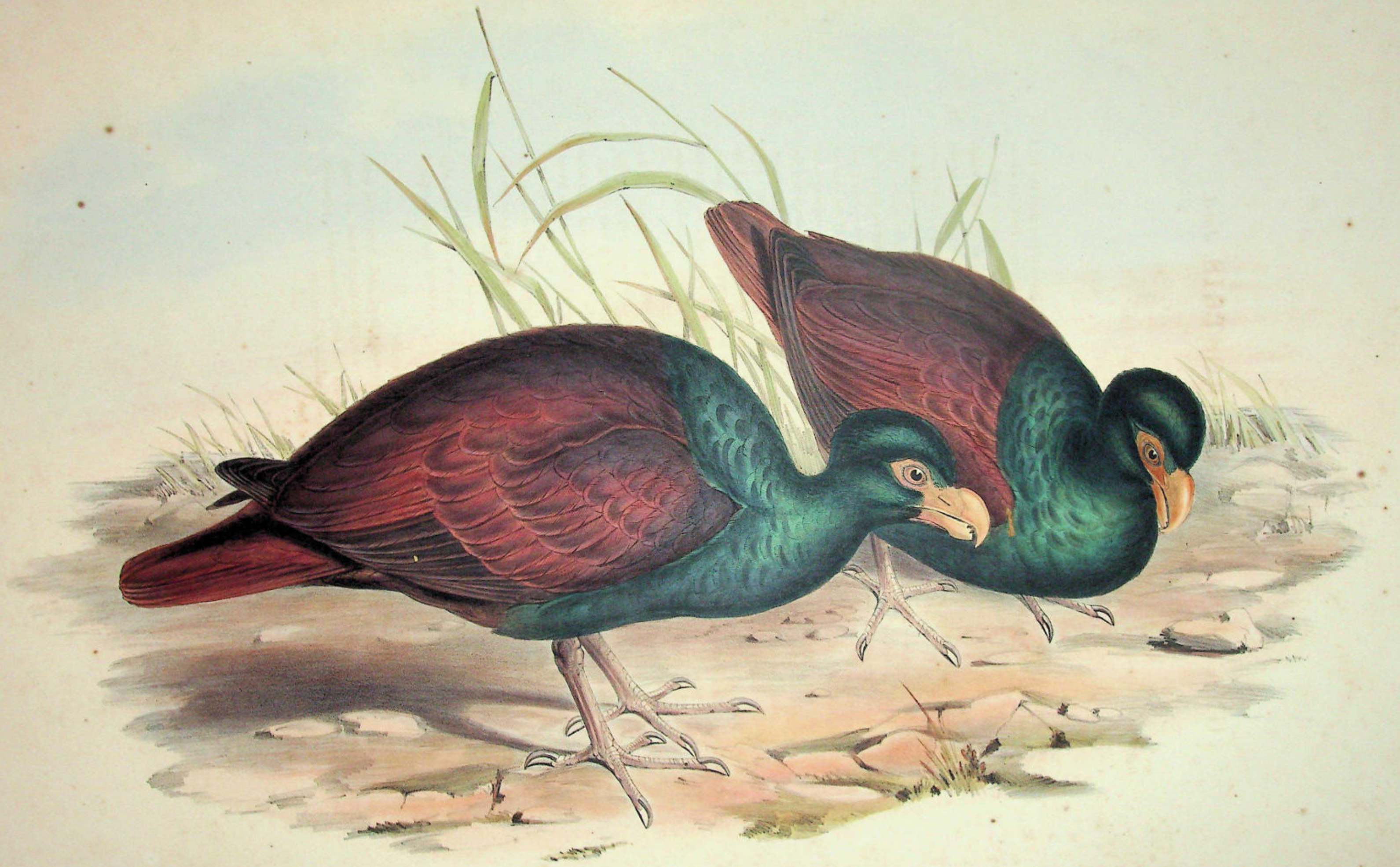
Before I left New South Wales Mr. MacLeay's bird had met with an untimely end by falling into a tank or water-butt, occasioned, it was conjectured, by seeing the reflection of its own image in the water, and rushing forward to meet a supposed antagonist. On dissection this individual was found to be a male, thereby proving that the sexes are equally employed in forming the mound for the reception of the eggs.

After all the facts that have been stated, I trust it will be evident that its natural situation is among the *Rasores*, and that it forms one of a great family of birds peculiar to Australia and the Indian islands, of which *Megapodius* forms a part; and in confirmation of this view I may add, that the sternum has the two deep emarginations so truly characteristic of the *Gallinaceæ*; at all events, it is in no way allied to the *Vulturidæ*, and is nearly as far removed from *Menura*.

The adults have the whole of the upper surface, wings and tail blackish brown; the feathers of the under surface blackish brown at the base, becoming silvery grey at the tip; skin of the head and neck deep pink red, thinly sprinkled with short hair-like blackish brown feathers; wattle bright yellow, tinged with red where it unites with the red of the neck; bill black; irides and feet brown.

The female, which is about a fourth less than the male in size, is so closely the same in colour as to render a separate description unnecessary. She also possesses the wattle, but not to so great an extent.

The figure is about two-thirds the size of life.



GNATHODON STRIGIROSTRIS: *Jard.*

J. Gould. and H.C. Richter del. et lith.

Hullmandel & Walton Imp.

GNATHODON STRIGIROSTRIS, *Jard.*

Gnathodon.

Gnathodon strigirostris, Jard. in Ann. and Mag. of Nat. Hist., vol. xvi. p. 175. pl. ix.

The researches of modern zoologists have not perhaps brought to light a more curious object than the bird here represented, a single specimen of which is in the collection of Sir William Jardine, Bart., to whose kindness and liberality I am indebted for permission to include a drawing of it in the present work. I regret to say that no intelligence whatever could be obtained as to its habits, or the precise locality of which it is a native; it was purchased by Lady Harvey at a sale in Edinburgh, where the other objects sold at the same time were all Australian, and mostly peculiar to the south-eastern coast of that country; hence I have been induced to include a figure of it in the present work for which I feel that no apology is required, as the Plate cannot fail to be viewed with interest by all ornithologists, and will probably induce residents in the country to investigate the history of so remarkable a species. While we know so little as we do respecting it, every ornithologist must form his own opinion as to the place it should occupy in the natural system; and these opinions will doubtless be very various; the contour of the bill, the form and position of the nostrils are different from those of any other species with which we are acquainted, and although pertaining to so much smaller a bird strongly remind one of the celebrated Dodo; the form of the body and wings and the structure of the feathers differ but slightly from those of the *Columbidæ*, to which family it is, in my opinion, most nearly allied; for although at a first glance its strongly hooked upper and deeply notched under mandible would seem to indicate a sanguinary disposition, and that its food consists of animal substances, I am inclined to believe that it is frugivorous or granivorous, and that the remarkably formed bill is expressly adapted to denude palm-nuts or other strongly coated seeds of their hard outer covering; the maxillæ are very wide, and the nakedness of the throat would indicate that the gullet is capable of sufficient dilatation to admit of the passage of articles of food of considerable size.

The probably unique specimen from which my figure is taken is very perfect, with the exception of the scales of the front of the tarsi, which are unfortunately wanting; I am consequently left in doubt as to whether the legs as far as the knees, if not the upper part of the tarsi, have or have not been clothed with feathers.

The first description of this species was published by Sir William Jardine in the 'Annals and Magazine of Natural History,' above referred to, wherein he states that "we are indebted to Lady Harvey, whose extensive collection of natural history in Edinburgh is always open when science can be promoted, for a specimen of this remarkable bird;" and adds, "we are aware of no existing description, though there is one allusion made to a bird which may eventually turn out to be this. In Mr. Strickland's Report on the Recent Progress and Present State of Ornithology, read before the British Association at York, it is stated, 'The recent American voyage of discovery will extend our knowledge of Polynesian zoology, and its researches will be made known by Mr. Titian Peale, who is said to have discovered among other rarities a new bird allied to the Dodo, which he proposes to name *Didunculus*;' and we believe '*strigirostris*' has been applied specifically."

The structure of the wing indicates that its powers of flight are considerable.

Lores and a small patch on each side of the throat bare and apparently red; head, neck, breast and belly glossy greenish black; feathers of the upper part of the back black, with a crescent-shaped mark of glossy green at the tip of each feather; back, wings, tail and under tail-coverts rich deep chestnut-red; primaries and secondaries greyish black; bill orange; tarsi and feet apparently reddish flesh-colour.

The figures represent the bird in two positions of the natural size.



MACROPYGIA PHASIANELLA.

J. Gould and H.C. Richter del. et lith.

C. Hullmandel. Impr.

MACROPYGIA PHASIANELLA.

Pheasant-tailed Pigeon.

Columba Phasianella, Temm. Pl. Col. 100.

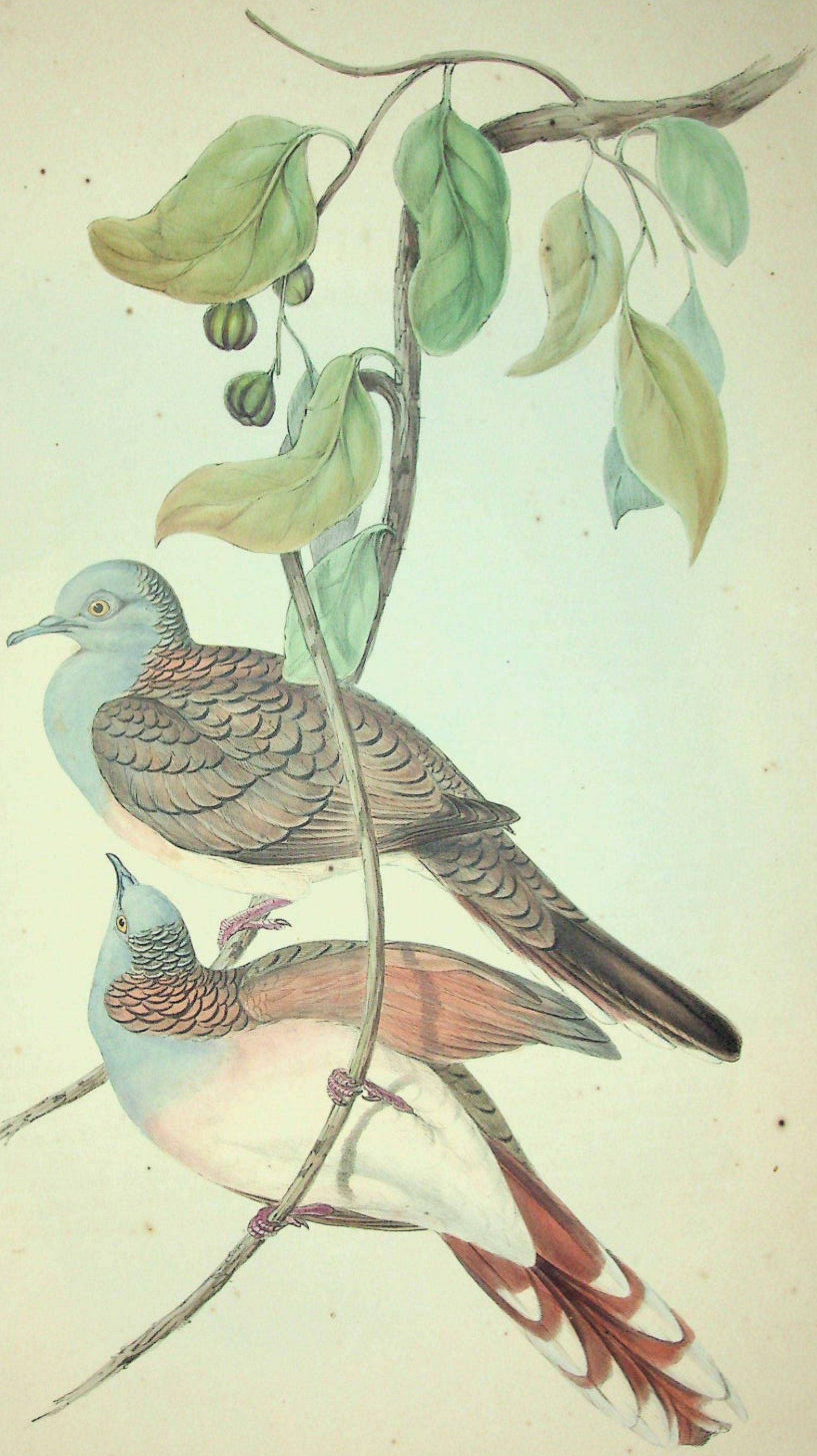
From what I could personally observe during my residence in New South Wales, the Pheasant-tailed Pigeon resorts entirely to the brushes, as in no instance did I ever meet with it in the open parts of the country. From Illawarra to Moreton Bay it is a common and stationary species. It is a fine showy bird in a state of nature, and exhibits itself to great advantage when it rises from the ground to the trees, with its large and long tail spread to its greatest extent. While traversing the brushes I have frequently come upon this bird quite unawares, when busily engaged searching on the ground for fallen seeds and berries. Rarely were more than four or five collected together at one time, and most frequently it occurred singly or in pairs. Up to the present time, our knowledge of the extent of habitat enjoyed by this bird is very limited; I have never myself seen it in any collections but those made in New South Wales; other nearly allied species are found in Java and Amboina, and doubtless there are many others yet to be discovered, since from the recluse habits of the birds forming the present genus, they may be very easily overlooked. As its lengthened tarsi would lead us to imagine, it spends much of its time on the ground, while its broad and voluminous tail equally indicates that this organ is displayed to the greatest advantage amongst the branches, and in both instances such is really the case; when flushed from the ground in the depths of the forest it merely flies to the branch of some low shrub-like tree, and there remains with little appearance of fear.

The sexes are precisely similar in colour and nearly so in size; dissection, in fact, is necessary to distinguish them.

Its note is loud, mournful and monotonous.

General plumage rich rusty brown, becoming of a dark brown on the wings; wing-coverts margined with rusty brown; ear-coverts crossed by narrow bars of black; sides and back of the neck glossed with bronzy purple; lateral tail-feathers crossed near the tip by a broad band of black, beyond which the brown colour is paler than at the base; bill dark olive-brown, mealy at the base; irides blue, with an outer circle of scarlet; orbits mealy bluish lilac; feet pink-red.

The figure is of the natural size.



GEOPELIA HUMERALIS.

GEOPELIA HUMERALIS.

Barred-shouldered Ground-Dove.

Columba humeralis, Temm. Pl. Col. 191.
Mangrove Pigeon, resident at Port Essington.

There are reasons for believing that the *Geopelia humeralis* inhabits the whole of the vast interior of Australia as well as the neighbourhood of the coasts of its northern and eastern portions. In New South Wales it is sparingly dispersed over the Liverpool Plains, where some of the specimens I possess were obtained, while others were procured at Port Essington. As the structure of its legs would indicate, it passes much of its time on the ground, feeding on the seeds of various kinds of grasses and leguminous plants. Not only is it one of the most elegant of the Dove tribe inhabiting Australia, but it is also one of the most tame and docile, if I may judge from the few I observed on the heated plains of New South Wales: their confidence was such that they sometimes perched within two yards of the spot where I was sitting; extreme thirst and a scanty supply of water may, however, have rendered them more tame and bold than they otherwise would have been.

Mr. Gilbert states that at Port Essington "this Pigeon is extremely abundant, inhabiting thickets, swampy grounds, and the banks of running streams. It mostly feeds on the seeds of various kinds of grasses, but when the country becomes burnt it finds an abundant supply of berries in the thickets. It may often be seen among the mangroves in flocks of several hundreds, and hence its colonial name of Mangrove Pigeon. It was equally numerous during the whole period of my stay in that part of the country. Any number of specimens may be readily procured, for when disturbed the bird merely flits from branch to branch, or if in an open part of the country to the nearest tree. I did not on any occasion observe it take anything approaching a sustained flight. Its most common note is a rather loud *coo-coo*, occasionally uttered at long intervals; during the pairing-season the note becomes of a softer tone, and is more rapidly repeated, and its actions very much resemble those of the Domestic Pigeon of Europe. It breeds in August, and makes a very slight nest of slender twigs, loosely and carelessly laid across each other on two or three of the lower leaves of the *Pandanus*, the upper leaves of which afford it a shelter from the rays of the sun, and from the rain; the eggs are two in number of a delicate fleshy-white."

The sexes are alike in colouring.

Forehead, cheeks, sides of the neck and breast delicate grey; occiput, back, wing-coverts, rump and upper tail-coverts silky brown; back of the neck rufous, every feather of the upper surface bounded at the extremity with a narrow band of black, giving the whole a squamated or scaled appearance; under surface of the shoulder and the inner webs, except their tips, of the primaries and secondaries fine rust-red; outer webs and tips of the inner webs of the primaries and secondaries brown; two centre tail-feathers dark grey, the remainder reddish brown at the base, gradually increasing in intensity towards their tips, those next the centre ones washed with grey on their outer webs, and all but the centre ones largely tipped with white; centre of the abdomen white; the remainder of the under surface washed with vinous; irides ochre-yellow; bill and nostrils delicate mealy light blue; naked skin round the eye mealy purple; legs and feet pink red.

The Plate represents a male and female of the natural size.



GEOPELIA TRANQUILLA: *Gould.*

J. Gould and H.C. Richter del et lith.

Hullmandel & Walton Imp.

17 Plates 27th augst 1847

GEOPELIA TRANQUILLA, *Gould.*

Peaceful Dove.

Geopelia placida, Gould in Proc. of Zool. Soc., Part XII. p. 56.

The interior of the country northward from New South Wales is inhabited by considerable numbers of this pretty little Dove, but it has not yet been met with either in Southern or Western Australia. It was very abundant on the Namoi, particularly on the lower part of that river; and that its range will extend over a large part of the interior, is more than probable.

A bird precisely similar in markings, but of a smaller size, is very abundant at Port Essington, and the two birds may prove to be mere varieties of each other; at the same time, as so great a variation in size rarely if ever occurs in a state of nature, I have for the present considered it to be a distinct species, and assigned to it the name of *Geopelia placida*; it is nearly one-third less than the bird here represented, but as there is not the slightest difference in the markings, it will not be necessary for me to give a figure of it.

The bird found in the neighbourhood of the Lower Namoi was chiefly observed on the ground, feeding on the seeds of the various kinds of plants that grow under the shelter of the thinly-timbered forests bordering the plains. It was frequently seen in flocks, and was equally as tame as the *Geopelia cuneata*.

The Port Essington bird is abundantly and equally distributed over all parts of the peninsula and the neighbouring islands; its favourite haunts being moist meadows or the grassy banks of small streams, and grass-seeds its principal food. It is usually met with in flocks of from twenty to fifty in number, which when disturbed generally fly off to the nearest tree; on alighting they jerk the tail very erect, and utter their slowly-repeated and monotonous double note; at other times they coo very faintly, after the manner of the other members of the family.

It is said to make a slight nest in a hollow among the grass near the ground, and to lay two eggs.

The only observable difference between the sexes is the smaller size of the female.

Face and throat grey; occiput, back and wings ashy brown, each feather with a band of deep velvety black at the extremity; spurious wings and primaries dark brown; under surface of the shoulders chestnut; chest, sides and back of the neck grey, crossed by numerous narrow bands of black; abdomen and flanks vinous; four central tail-feathers ashy brown, the remainder black largely tipped with white; irides light ash-grey; bill and orbits bright greyish blue, becoming much paler before and behind the eye; frontal scales of the tarsi and feet dark greenish grey; remainder of the legs and feet reddish flesh-colour.

The Plate represents the two sexes of the natural size.



GEOPELIA CUNEATA.

J. Gould and H.C. Richter del et lith.

Hullmandel & Walton Imp.

17 Plate 5th Apr. 1849

GEOPELIA CUNEATA.

Graceful Ground-Dove.

Columba cuneata, Lath. Ind. Orn., Supp., p. 61.—Wagl. Syst. Av., sp. 107.
——— *Macquarie*, Quoy et Gaim. Voy. de l'Uranie, Ois., t. 31.—Ib. Knip et Prevost, Hist. Nat. des Pig., t. 41.
——— *spiloptera*, Vig. in Zool. Journ., vol. v. p. 275.
Geopelia cuneata, List of Brit. Mus. Coll., Part III. p. 11.
Men-na-brun-ka, Aborigines of the mountain districts of Western Australia.
Turtle Dove, Colonists of Swan River.

The beautiful little Dove here represented is at once remarkable for the elegance of its contour, the chaste and quiet colouring of its plumage, and for its tame and gentle disposition, all of which combine to render it a general favourite with the Australians; and it is a matter of surprise to me that it has not long ere this been a denizen of their aviaries and sent alive to England, few birds being likely to bear confinement more contentedly.

I have specimens collected in every one of the Australian colonies, even that of Port Essington; I encountered it myself on the flat and fertile districts of the Upper Hunter in New South Wales, and James Macarthur, Esq., informed me that it is sometimes seen on his estate at Camden; at the same time, as it is rarely met with on the seaside of the mountain ranges, but occurs in considerable numbers on the plains of the interior, so far as they have yet been explored, it must be regarded as an inhabitant of the central portion of the country, over the whole of which vast space it is doubtless numerously dispersed.

Its natural food being the seeds of grasses and leguminous plants, it is observed more frequently on the ground than among the trees; I sometimes met with it in small flocks, but more often in pairs or singly. It runs over the ground with a short bobbing motion of the tail, and while feeding is so remarkably tame as almost to admit of its being taken by the hand, and if forced to take wing it merely flies to the nearest trees, and there remains motionless among the branches until it again descends to the ground. I not unfrequently observed it close to the open doors of the huts of the stock-keepers of the interior, who, from its being so constantly before them, regard it with little interest.

The nest is a frail but beautiful structure, formed of the stalks of a few flowering grasses, crossed and interwoven after the manner of the other pigeons. One sent me from Western Australia is "composed," says Mr. Gilbert, "of a small species of knotted everlasting-like plant (*Compositæ*), and was placed on the overhanging grasses of the *Xanthorrhœa*; but the bird usually constructs a very loosely formed nest in the fork of a tree. During my first visit to this part of the country only two situations were known as places of resort for this species, and I did not meet with more than five or six examples; since that period it has become extremely abundant, and now a pair or two may occasionally be seen about most of the settlers' houses on the Avon, becoming apparently very tame and familiarized to man. It utters a rather singular note, which at times very much resembles the distant crowing of a cock. The term *Men-na-brun-ka* is applied to it by the natives from a traditionary idea that the bird originally introduced the *Men-na*, a kind of gum which exudes from a species of *Acacia*, and which is one of the favourite articles of food of the natives."

The eggs are white and two in number, eleven-sixteenths of an inch long by seven-sixteenths broad.

The sexes, although bearing a general resemblance to each other, may be readily distinguished by the smaller size of the female, by the browner hue of her wing-feathers, and by the spotting of her upper surface not being so numerous or so regular as in the male.

The male has the head, neck and breast delicate grey, passing into white on the abdomen and under tail-coverts; back and scapularies cinnamon-brown; wing-coverts dark grey; each feather of the wing-coverts and scapularies with two spots, one on the edge of either web near the tip, of white encircled with black; spurious wing and primaries brown, the latter rufous on their inner webs for two-thirds of their length; four centre tail-feathers grey, deepening into black at the extremity and with black shafts; the remainder greyish black at the base, and pure white for the remainder of their length; irides in some instances bright red, and the naked skin round the eyes light scarlet; in others the irides and naked skin round the eyes are pale greenish yellow; bill dark olive-brown; feet reddish flesh-colour in some instances, in others yellowish.

The female differs in having the back of the head, neck and upper surface browner, and the spots on the wings larger than the male.

The Plate represents the two sexes of the natural size.



PTILINOPUS SWINGII: *Gould*

Gould and H. Richter del. *Hollanwarth imp.*

PTILINOPUS EWINGII, *Gould.*

Ewing's Fruit Pigeon.

Ptilinopus Ewingii, Gould in Proc. of Zool. Soc., February 8, 1842.

This lovely species, which is a native of the Cobourg Peninsula, and doubtless ranges over the northern coast of Australia generally, differs from the preceding, *Ptilinopus Swainsonii*, in being much smaller in all its admeasurements, in the colour of the crown being rose-pink instead of crimson-red; in the breast being pale greenish grey instead of dull green; in having the centre of the abdomen rich orange instead of lilac; and also in having the tail-feathers tipped with greenish yellow instead of clear rich yellow. The specimens from which my figures are taken were fully adult, and were submitted to dissection in order to ascertain the sexes; consequently I am fully convinced, that, although the present and preceding species are very nearly allied, they are specifically distinct.

In naming the second Australian species of this beautiful form after the Rev. Thomas J. Ewing, at present residing in Van Diemen's Land, I am actuated by a desire to pay a just compliment to one who is perhaps more thoroughly versed in the productions of writers on the interesting science of ornithology than most other persons, and, although so far removed from the seats of knowledge, continues to prosecute his studies with the utmost ardour; I feel assured therefore, that, however objectionable the naming of species after individuals may be under ordinary circumstances, it will not in this instance be deemed an inappropriate mode of evincing my sense of the many admirable qualities of a highly esteemed friend.

Forehead and crown of the head rose-pink, bordered with a narrow line of yellow, except in front; back of the head and neck greenish grey; all the upper surface bright green, passing into deep blue on the tertiaries; primaries, secondaries and tertiaries slightly margined with yellow; tail largely tipped with yellow, tinged with green, particularly on the two centre feathers; chin pale yellow; sides of the neck greenish grey; chest pale greenish grey, each feather forked at the end and tipped with grey; below the chest an indistinct band of sulphur-yellow; flanks and lower part of the abdomen green; centre of the abdomen rich orange, in the middle of which is a lunar-shaped mark of lilac; under tail-coverts orange; thighs and tarsi green; irides orange; feet olive.

The figures are of the natural size.



PTILINOPUS SUPERBUS.

J. Gould and H. C. Richter del. et lith.

C. Hullmandel imp.

PTILINOPUS SUPERBUS.

Superb Fruit-Pigeon.

Colombe poukiobou, Columba superba, Temm. Les. Pig., fol. 2nd fam., p. 75. pl. 33.—Ibid. Pig. et Gall., 8vo. tom. i. pp. 277, 474.

This lovely species was originally figured and described in the splendid work on the Pigeons by Madame Knip and my friend M. Temminck as an inhabitant of one of the islands of the Pacific Ocean; and it affords me much pleasure to be enabled to include a representation of it among my illustrations of the Fauna of Australia, specimens having been procured by Mr. Bynoe on Booby Island, which lies off the north coast. In all probability it enjoys an extensive range over the islands of New Guinea as well as over all parts of Northern Australia, wherever suitable situations occur. The specimens procured by Mr. Bynoe were fortunately male and female: the latter sex exhibits in its plumage traces of immaturity; but whether the rich colouring of the crown of the head is at all times absent is a point yet to be ascertained, a knowledge of which would greatly tend to clear up the confusion which reigns throughout this gorgeously-coloured group of Pigeons.

The male has the crown of the head of a very deep rich purple; sides of the head and occiput olive-green; sides and back of the neck bright rufous; shoulders very dark bluish black; all the upper surface and wings deep yellowish green, tinged with rufous; the scapularies and tertiaries with a spot of deep green near the extremity; primaries and secondaries black, slightly margined externally near the tip with pale yellow; tail grey at the base, to which succeeds a broad band of black, glossed particularly on the central feathers with green; beyond this the tips are white, all but the outer ones washed with green; chin white; breast grey, below which a band of black; abdomen and under tail-coverts white, the latter with a stripe of olive down the centre; band crossing the flanks and another crossing the thighs olive-green; feet orange; bill dark horn-colour.

The female has the crown of the head and all the upper surface yellowish green, with a small spot of deep blue near the tips of the scapularies; primaries and secondaries black, slightly edged with yellow; at the occiput a large patch of deep green; chin grey; centre of breast greenish grey; flanks green; centre of abdomen straw-yellow.

The figures are those of the two sexes on a plant of the north coast.



CARPOPHAGA MAGNIFICA.

17 Plates 27th. augst 1847

CARPOPHAGA MAGNIFICA.

Magnificent Fruit Pigeon.

Columba magnifica, Temm. in Linn. Trans., vol. xiii. p. 125.—Ib. Pl. Col. 163.—Wagl. Syst. Av. Columba, sp. 26.
—Less. Traité d'Orn., p. 469.
Carpophaga magnifica, Selby in Nat. Lib. Orn., vol. v. Pigeons, p. 115.—List of Birds in Brit. Mus. Coll., Part III. p. 5.

This splendid bird, the finest of the Pigeons yet discovered in Australia, is abundant in all the brushes on the south-east portion of that country, but is less numerous in the Illawarra district than in the neighbourhood of the rivers Namoi, Macquarrie, Clarence and MacLeay; how far its range may extend from thence to the northward has yet to be ascertained; I did not observe it in any of the brushes clothing the ranges of the interior. Its chief food is the wild fig and the nut-like fruit of the large palms. It is rather a shy bird, and from its quiet habits is not easily discovered, unless it betrays its presence by the hoarse, loud and monotonous note, which is frequently uttered by the male during the season of love. This note is so extraordinary, and so unlike that of any other bird, that it causes the utmost surprise and wonderment as to what it can proceed from, in the minds of those persons who hear it for the first time.

I regret that the few opportunities I had for studying this fine bird in a state of nature were insufficient for me to obtain any particulars respecting its habits and economy; it appears never to descend to the ground, but to be constantly engaged among the branches in procuring its food; its broad hand-like feet enabling it to cling to the outermost and even the smaller boughs with ease; and hence the utility of these singularly constructed feet, which are common to all the Fruit Pigeons, is readily perceptible.

The sexes present no external difference by which the male can be distinguished from the female; dissection must, in fact, be resorted to, to discriminate the one from the other with certainty, although the smaller-sized individuals may generally be regarded as females.

Head and neck pale grey; all the upper surface and wings rich golden green; the greater coverts and the tertiaries with a patch of light yellow near the base of the outer webs, forming an irregular oblique band across the wing; primaries green; under surface of the wing brown, passing into cinnamon-brown at the base of the feathers; tail rich deep bronzy green; line down the centre of the throat, and the whole of the breast and abdomen rich deep purple; under surface of the shoulder, the thighs and vent deep gamboge-yellow; under tail-coverts greenish grey, washed with gamboge-yellow.

The Plate represents an adult male somewhat less than the natural size.



CARPOPHAGA LEUCOMELA.

J.Gould and H.C.Richter del. et lith.

C.Hullmandel Imp.

CARPOPHAGA LEUCOMELA.

White-headed Fruit Pigeon.

Columba leucomela, Temm. in Trans. Linn. Soc., vol. xiii. p. 126.—Ib. Pl. Col., 186.
Columba leucomelana, Wagl. Syst. Av., pars i. Columba, sp. 56.
Columba Norfolciensis, Lath. Ind. Orn. Supp., p. lx.?
Norfolk Pigeon, Lath. Gen. Syn. Supp., vol. ii. Add. p. 374?—Ib. Gen. Hist., vol. viii. p. 30?

This fine species of Pigeon is an inhabitant of those vast primæval forests of New South Wales to which the colonists have applied the name of Brushes. I found it very numerous on Mosquito and the other low islands near the mouth of the river Hunter, as well as in the cedar brushes of the Liverpool range; I believe that it breeds in both those districts; and that it never quits these luxuriant forests is the more probable, as a plentiful supply of fruits and berries is furnished by the various species of trees at every season of the year; the wild fig, the palm-nut and the grape, constitute a considerable portion of its food. I have frequently observed it sweeping over the forests in flocks of from ten to fifty in number, and often seen it also in pairs. It feeds on the wild fig, whose slender branches are borne down by its weight, particularly when it clings to the extreme end of the spray to obtain the best and ripest fruit; in this mode of clinging and in many of its actions it far more resembles the larger Honey-eaters and Parrots than the Pigeons; an examination moreover of the structure of the foot of a typical *Carpophaga* will show that it deviates from that of the true Pigeons, and that it is beautifully adapted for the duties it is intended to perform. I have never seen this bird on the ground, not even to procure water, and the form of its foot is as little adapted for terrestrial progression, as it is admirably constructed for use among the smaller branches of the trees.

The powers of flight of this species are very great, its voluminous wing enabling it to pass from one part of the forest to another, or to a new district in a comparatively short space of time; hence flocks may frequently be observed passing over the tops of the trees, forsaking a locality they have exhausted of its supplies and in search of another where food is more abundant.

The nest of this species, like that of the other Columbidæ, is a slight flat structure formed of small sticks and twigs; the eggs are frequently only one, and never more than two in number, of a pure white.

The sexes may be distinguished by the smaller size of the female, and by her colours being less strongly contrasted than those of her mate, the yellowish white of the head and breast blending into the darker colouring of the other parts.

The male has the head, neck and breast white, washed with buff, particularly on the crown; all the upper surface, wings and tail greyish black; all the feathers of the back, rump and lesser wing-coverts bordered with bronzy-purple in some, and greenish purple in others; flanks slate-colour; abdomen dingy-buff; bill for two-thirds from the base beautiful pink-red, covered with a mealy substance; tip of the bill yellowish white tinged with lilac; irides large and of a rich yellowish hazel in some specimens, reddish orange in others; naked skin of the orbits mealy pink-red; feet buff, with the scales pink-red and the nails white.

The figures are of the natural size, and represent the bird feeding on one of the fruits of the brushes called wild cherry by the colonists.



CARPOPHAGA LUCTUOSA.

J. Gould and H.C. Richter del. et lith.

C. Hullmandel Impr.

CARPOPHAGA LUCTUOSA.

Torres Strait Fruit Pigeon.

Columba luctuosa, Temm. Pl. Col., 247.—Wagl. Syst. Av. Columba, sp. 23.
Mō-koit, Aborigines of Port Essington.

This bird is commonly known by the name of the Torres Strait Pigeon, from its being so abundant there that few voyagers pass the straits during its breeding-season without encountering it. It arrives in the Cobourg Peninsula at the beginning of November and departs again in April or May. Like every other true *Carpophaga* it is strictly arboreal, living among the branches of the highest trees and feeding upon various fruits and berries. Mr. Gilbert's notes respecting it are as follows :—"This bird may generally be seen in great numbers wherever the wild nutmeg is to be found, and so exclusively does it confine itself to the trees in search of food, that during the whole time I was in the country I never saw one rise from the ground, nor did I meet with any person in the settlement who had. It flies very rapidly, and generally mounts up to so great a height as to be beyond the range of a gun. The only time at which I could succeed in procuring specimens was the evening, when it resorts to the mangroves on the small islands lying off the shore, or to the dense thickets a short distance inland; at this time it may be seen arriving in small flocks of from ten to fifteen to roost for the night. Its note, like that of the other pigeons, is a *coo*, but at times, particularly when it has paired, it is much louder and deeper than that of any other species I ever heard.

"It pairs and commences breeding immediately after its arrival in November, and I have obtained eggs as late as the middle of January. The nest is formed of a few sticks laid across one another in opposite directions, and is so slight a structure that the eggs may usually be seen through the interstices from beneath, and it is so flat that it appears wonderful how the eggs are retained upon it when the branch is waving about in the wind; it is usually built on the horizontal branch of a mangrove, and it would seem that it prefers for this purpose a branch overhanging water. That it never lays more than one egg appears to me without a doubt, for upon visiting Table Head River on the eastern side of the harbour of Port Essington I found no less than twenty nests, all of which contained either a single egg or a single young bird."

The whole of the plumage buffy white, with the exception of the primaries, secondaries and greater wing-coverts, which are greyish black, and the tips of the tail-feathers, which are black, the black becoming of less extent as the feathers recede from the centre of the tail, until the outer feather is only slightly tipped; this feather is also broadly margined with black on the outer web for three-fourths of its length from the base; the under tail-coverts also have an irregular band of black near the tip of each feather; irides dark brown; bill dark greenish grey, except the tip, which is light yellow.

The figure is of the natural size.



LOPHOLAIMUS ANTARCTICUS: *G R Gray*

LOPHOLAIMUS ANTARCTICUS, *G. R. Gray.*

Top-knot Pigeon.

Columba antarctica, Shaw, Zool. of New Holl., pl. 5.
Columba dilopha, Temm. in Linn. Trans., vol. xiii. p. 124, and Pl. Col. 162.—Shaw, Gen. Zool., vol. xiv. p. 279.
—Wagl. Syst. Av., sp. 11.
Lophorhynchus dilophus, Swains. Class. of Birds, vol. ii. p. 348.
———— *antarcticus*, G. R. Gray, List of Gen. of Birds, 1st Edit., p. 58.
Lopholaimus antarcticus, G. R. Gray, MSS.
Top-knot Pigeon of the Colonists of New South Wales.

Although the specific term of *antarcticus* is not an appropriate appellation for this noble Pigeon, still it cannot, I think, with strict propriety be sunk into a synonym, since it was first applied to it in a work intended exclusively to illustrate the zoology of New Holland, as will be seen on reference to the synonyms above quoted. I feel assured that my excellent and scientific friend M. Temminck was either unacquainted with the publication alluded to, or that the circumstance of its having been previously described and figured had escaped his memory, when he characterized this bird in the thirteenth volume of the "Linnean Transactions," and subsequently figured it in his "Planches Coloriées," under the name of *Columba dilopha*.

I have not yet seen specimens of this Pigeon from the northern or western coast, and it appears to be exclusively confined to the rich and luxuriant districts of the southern and eastern portions of Australia; being particularly abundant in the brushes of Illawarra, the Hunter, the Clarence, &c., where the trees furnish it at all seasons with a plentiful supply of food. So entirely arboreal are its habits, that I never once saw it descend to the ground, or even to the low shrub-like trees. It is strictly gregarious, often traversing the forests in flocks of many hundreds in search of those trees most laden with its favourite fruit; upon discovering which the entire flock alight simultaneously with a rushing noise, clinging to and bearing down the smaller twigs and branches with their weight, for grasping which their broad, hand-like feet seem peculiarly fitted. It is a bird of very powerful flight, and usually flies at a considerable elevation in flocks closely packed together.

Among other substances found in the stomachs of those specimens I dissected, were the wild-fig and the large round berries of the cabbage-palm; and in all probability it also feeds upon other fruits of a still larger size, as its bill and throat are capable of being dilated to such an extent as to admit of a substance as large as a walnut being swallowed entire.

Its flesh is not so good as that of the other members of its family inhabiting Australia, being coarse and dry-eating.

I had no opportunity of observing its nidification, neither could I obtain any information on the subject.

The sexes are alike in plumage, and may be thus described:—

Crest over the nostrils, sides of the head, neck, breast, and under surface silvery grey, the feathers of the neck and breast being hackled, and admitting the darker colouring of their bases to be perceived through the interstices; elongated crest at the occiput rust-red; from the eye to the occiput beneath the crest a line of black, which, meeting behind, is continued for a short distance down the back of the neck; all the upper surface dark slate-grey; primaries, secondaries, and edge of the wing black; tail light grey at the base, black for the remainder of its length, crossed by an irregular band of buffy grey about an inch from the extremity; irides fiery orange, surrounded by a lash of pink-red, and seated in a bare mealy space of the same colour, but hardly so bright; bill bright rose-red, inclining to lilac at the tip; fleshy part covering the nostrils and at the base of the lower mandible, greenish lead-colour in the male, and lead-colour in the female; feet purplish red; back of the tarsi and sole of the feet greyish brown.

The figure is of the natural size.



CHALCOPHAPS CHRYSOCHLORA.

CHALCOPHAPS CHRYSOCHLORA.

Little Green Pigeon.

Tourterelle de Java, Buff. Pl. Enl. 177?
Columba Javanica, Auctorum?
Colombe Turvert, Temm. Pig., fol. 2nd fam. pl. 26. p. 62.—Ib. Pig. et Gall., tom. ii. pp. 252 and 468.
Columba chrysochlora, Wagl. Syst. Av. Columba, sp. 79.

There are, in my opinion, several closely allied species of this form, distributed over Australia and the islands of Java, Sumatra, &c., whose specific characters have never been accurately defined; I am inclined to consider the Javanese bird as distinct from that here figured, and the bird inhabiting the northern coast of Australia, of which I have only seen one or two examples, as distinct from both. The principal difference that I have yet observed in the two species inhabiting Australia, is that the one from the north coast has the bill of much greater length than that from New South Wales; a more minute comparison, however, is necessary to ascertain if they be identical or not.

The Little Green Pigeon is sparingly dispersed in all the brushes of New South Wales, both those clothing the mountain ranges as well as those near the coast; how far it may proceed northwards has not yet been ascertained. The brushy districts are the localities peculiarly adapted to it, and these I believe it never leaves for the more open parts of the country; hence it is but little known to, and seldom seen by, the colonists, a circumstance the more to be regretted, as the beauty and brilliancy of its plumage and the neatness of its form render it one of the most pleasing objects to behold that occur in the Australian forests. When flushed, it flies very quickly through the scrub, but to no great distance, and readily eludes pursuit by pitching suddenly to the ground, and remaining so quiet that it can rarely be discovered.

I never met with its nest, nor could I obtain, either from the natives or settlers, any particulars respecting its nidification.

Its chief food during one season of the year is the seeds of the stiff wiry grass figured in the Plate, which was gathered at Illawarra.

The sexes differ considerably in colour, and the female is somewhat smaller than her mate.

The male has the crown of the head, face and all the under surface deep vinaceous; nape and back of the neck dark grey; edge of the shoulder snow-white; centre of the back, wing-coverts and outer webs of the tertiaries shining greenish copper-colour; rump and upper tail-coverts slaty-black, crossed by three indistinct bands of grey; primaries and secondaries brown, largely margined with ferruginous on the base of their inner webs; tail black, except the two outer feathers on each side, which are light grey, crossed by a broad band of black near the tip; under tail-coverts black; apical half of the bill blood-red, basal half plum-colour; feet dull reddish plum-colour; orbits dark grey; eyelash lilac-red; irides lilaceous lead-colour.

The female has the head and neck dark cinnamon-brown, approaching to chocolate; the wing-coverts much more green than in the male; face and all the under surface cinnamon-brown, with merely a wash on the breast of the vinaceous tint; upper tail-coverts brown; four centre tail-feathers brown; the two next on each side chestnut-brown, and the outer one on each side grey; all but the four middle ones crossed near the tip with a broad band of black; and the soft parts similar, but less brilliant than in the male.

The figures in the accompanying Plate were taken from specimens killed in New South Wales, and are of the natural size.



LEUCOSARCIA PICATA.

C. Hullmandel Imp.

LEUCOSARCIA PICATA.

Wonga-wonga.

Columba picata, Lath. Ind. Orn. Supp., p. lix.—Wagl. Syst. Av. Columba, sp. 42.
Columba armillaris, Colombe grivelée, Temm. Pig. et Gall., fol. 2nd fam. pl. 6. p. 13.—Ib. Pig. et Gall., tom. i. pp. 97 and 447.—Shaw, Gen. Zool., vol. xi. p. 15.
Pied Pigeon, Lath. Gen. Syn. Supp., vol. ii. p. 268.—Ib. Gen. Hist., vol. viii. p. 47.
Columba Jamiesonii, Quoy et Gaim. Voy. Partie Zoolog., p. 123.
Columba melanoleuca, Lath. Ind. Orn. Supp., p. lix.—Wagl. Syst. Av. Columbæ non visæ, sp. 8.
Colombe Goadgang, Temm. Pig., fol. p. 118.—Ib. Pig. et Gall., tom. i. pp. 369 and 447.
White-faced Pigeon, Lath. Gen. Syn. Supp., vol. ii. p. 268.—Ib. Gen. Hist., vol. viii. p. 46.
Wonga-wonga, Aborigines of New South Wales.
White-fleshed and *Wonga-wonga Pigeon*, Colonists of New South Wales.

The Pigeon forming the subject of the present memoir must always be an object of more than ordinary interest, since, independently of its attractive plumage, it is a great delicacy for the table; its large size and the whiteness of its flesh rendering it in this respect second to no other member of its family, the only one that at all approximates to it being the *Geophaps scripta*. It is to be regretted that a bird possessing so many qualifications as the present species should not be generally dispersed over the country, but such is not the case. To look for it on the plains or in any of the open hilly parts would be useless; no other districts than the brushes which stretch along the line of coast of New South Wales, or those clothing the sides of the hills of the interior being favoured with its presence. The same kind of situations that are suited to the Brush Turkey (*Talegalla Lathami*), the Menura and the Satin Bower-bird are equally adapted to those of the Wonga-wonga; its distribution, therefore, over Australia mainly depends upon whether the surface of the country be or be not clothed with that rich character of vegetation common to the south-eastern portion of the continent. As the length of its tarsi would lead one to expect, the Wonga-wonga spends most of its time on the ground, where it feeds upon the seeds and stones of the fallen fruits of the towering trees under whose shade it dwells, seldom exposing itself to the rays of the sun, or seeking the open parts of the forest. While traversing these arborean solitudes, one is frequently startled by the sudden rising of the Wonga-wonga, the noise of whose wings is quite equal to, and not very different from, that made by a Pheasant. Its flight is not of long duration, this power being merely employed to remove it to a sufficient distance to avoid detection by again descending to the ground, or mounting to the branch of a neighbouring tree. I had frequent opportunities of personally observing it at Illawarra, on the low islands at the mouth of the river Hunter, and in the cedar brushes of the Liverpool range. During my encampment in each of these parts, it was always secured whenever an opportunity occurred, for the purpose of eating, the addition of bread-sauce rendering it no ordinary fare.

Of the nidification of this valuable bird I could gain no precise information. It is a species that bears confinement well, and with an ordinary degree of attention, may doubtless be rendered domesticated and useful.

The sexes present no external difference in the markings of their plumage, but the female is somewhat inferior to her mate in size.

Lores black; forehead and chin white; all the upper surface, wings and tail deep slate-grey; primaries brown; the three lateral tail-feathers on each side tipped with white; sides of the head light grey, gradually passing into the greyish black of the breast, which latter colour is interrupted on each side by a broad line of white which passes obliquely down, and meets on the centre of the breast near the lower margin of the greyish black; feathers of the abdomen and flanks white, the latter with a triangular black spot near the extremity of each feather; under tail-coverts dark brown, largely tipped with buff, particularly on the inner webs; irides very dark brown, surrounded by a narrow pink-red lash; tip of the bill purplish black; base of the bill and the fleshy operculum covering the nostrils pink-red; legs and feet bright pink-red.

The Plate represents the male and female of the natural size.

PTEROPTERA CHALCOPTERA.



PERISTERA CHALCOPTERA, *Swains.*

Bronze-winged Pigeon.

Columba chalcoptera, Lath. Ind. Orn., vol. ii. p. 604.—Wagl. Syst. Av. Columba, sp. 57.
Colombe lumachelle, Temm. Pig., fol. 2nde fam. pl. 8. p. 17.—Ib. Pig. et Gall., tom. ii. pp. 103 and 448.
La Tourterelle aux ailes dorées, Sonn. edit. de Buff., tom. vii. p. 309.
Bronze-winged Pigeon, Lath. Gen. Syn. Supp., vol. ii. p. 266.—Phill. Bot. Bay, pl. in p. 162.—White's Journ., pl. in p. 146.—Shaw, Lev. Mus., p. 227. pl. 55.—Lath. Gen. Hist., vol. viii. p. 31.—Steph. Cont. of Shaw's Gen. Zool., vol. xi. p. 17, and vol. xiv. p. 280.
Peristera chalcoptera, Swains. Class. of Birds, vol. ii. p. 349.
Phaps chalcoptera, Selby, Nat. Lib. Orn., vol. v. Pigeons, p. 195. pl. 21.—G. R. Gray, List of Gen. of Birds, 2nd edit. p. 75.
Oŏ-da, Aborigines of Western Australia.
Ar-a-waŕ-ra-wa, Aborigines of Port Essington.
Bronze Pigeon, Colonists of Swan River.

The Bronze-winged Pigeon is so generally distributed over all parts of Australia, that, without a single exception, the colonists of every settlement have found the surrounding country inhabited by this fine bird. Specimens from Port Essington, Swan River, Van Diemen's Land and New South Wales differ so little from each other, either in their size or markings, that they must all be regarded as one and the same species, the slight differences that do occur being too trivial to be considered as other than mere local variations.

It is a plump, heavy bird, weighing when in good condition fully a pound; and its pectoral muscles being deep and fleshy, it constitutes a most excellent viand and is constantly eaten by every class of persons, being equally acceptable at the table of the Governor and at that of the inmate of a log-hut in the interior of the country. Its amazing powers of flight enable it to pass in an incredibly short space of time over a great expanse of country, and just before sunset it may be observed swiftly winging its way over the plains or down the gullies to its drinking-place. During the long drought of 1839—40, when I was encamped at the northern extremity of the Brezi range, I had daily opportunities of observing the arrival of this bird to drink; the only water for miles, as I was assured by the natives, being that in the immediate vicinity of my tent, and that was merely the scanty supply left in a few small natural basins in the rocks, which had been filled by the rains of many months before. This peculiar situation afforded me an excellent opportunity for observing not only the Bronze-wing, but every other bird inhabiting the neighbourhood: few if any of the true insectivorous or fissirostral birds came to the water-holes; but, on the other hand, those species that live upon grain and seeds, particularly the Parrots and Honey-eaters (*Trichoglossi* and *Meliphagi*), were continually rushing down to the edges of the pools, utterly regardless of my presence, their thirst for water quite overcoming their sense of danger; seldom, if ever, however, did the Bronze-wing make its appearance during the heat of the day, but at sundown, on the contrary, it arrived with arrow-like swiftness, either singly or in pairs. It did not descend at once to the edge of the pool, but dashed down to the ground at about ten yards' distance, remained quiet for a short time, then walked leisurely to the water, and after taking libations deep and frequent, winged its way to its roosting-place for the night: with a knowledge, therefore, of the habits of this bird, the weary traveller may always perceive when he is in the vicinity of water; and however arid the appearance of the country may be, if he observes the Bronze-wing wending its way from all quarters to a given point, he may be certain to procure a supply of food and water. When rain has fallen in abundance, and the rivers and lagoons are filled not only to the brim, but the water has spread over the surface of the surrounding country, the case is materially altered; then the Bronze-wing and many other birds are not so easily procured, the abundant supply of the element so requisite to their existence rendering it no longer necessary that they should brave every danger in procuring it.

It has been supposed that a partial migration of this species takes place from time to time, a circumstance which I think is very probable, as its numbers are sometimes suddenly increased. After the breeding season is over, both the adults and young resort to the stubble fields of the settlers in such abundance, that although more than one can rarely be procured at a shot, from twenty to thirty brace may be killed in a day; and at this season it is in better condition than at any other. Although, as I have before stated, the Bronze-wing is an excellent article of food, it must yield the palm in this respect to the Wonga-wonga Pigeon (*Leucosarcia picata*) and the Partridge Bronze-wing (*Geophaps scripta*), whose flesh is white and more delicate in flavour, while the internal pectoral muscle only of the present bird is of that colour.

The Bronze-wing feeds entirely upon the ground, where it finds the various kinds of leguminous seeds that



PERISTERA ELEGANS.

J. Gould. del. et lith.

C. Hullmandel. imp.

PERISTERA ELEGANS.

Brush Bronze-winged Pigeon.

Columba elegans, Colombe Labrador, Temm. Pig., fol. 2d. fam. pl. 22. p. 56.—Temm. Pig. et Gall., tom. ii. pp. 240 and 466.—Wagl. Syst. Av. Columba, sp. 58.—Shaw, Gen. Zool., vol. xi. p. 43.
Opaline Pigeon, Lath. Gen. Hist., vol. viii. p. 33.
Columba Lawsonii, Sieber, Isis No. 67.
Oô-da, Aborigines of Western Australia.
Little Bronze Pigeon, Colonists of Swan River.

This species is neither so plentiful nor so widely distributed as the Common Bronze-wing (*Peristera chalcoptera*); it is, however, tolerably abundant in Van Diemen's Land, the islands in Bass's Straits, and the whole of the southern portion of the Australian continent, from Swan River on the west to Moreton Bay on the east. In Van Diemen's Land it is very numerous, all along the north coast from Circular Head to the north-eastern corner of the island. Its habits and economy are somewhat peculiar: I have never seen it perch on the branches of a tree, nor have I heard of any one who has; neither is it an inhabitant of the open plains, but affects the most scrubby localities, giving preference to such as are low and swampy. When flushed it rises very quickly with a loud burring noise similar to that made by the rising of a partridge, which bird it also much resembles in its carriage and contour when on the ground. The shortness of its wings and tail, and the extreme depth of its pectoral muscle, render its appearance more plump and round than that of the generality of Pigeons. It is a very difficult bird to shoot, from its inhabiting the most dense parts of the scrub, from which it is not easily driven. It flies but little, rarely for a greater distance than to cross a gully or top a ridge before it again abruptly descends into the scrub.

Its food consists of seeds and berries of various kinds, particularly in Van Diemen's Land of a plant there called Boobyaller.

I believe it never migrates, but merely removes from one locality to another, as food may be more or less abundant.

Its note is more lengthened than that of the Common Bronze-wing, and is also a more low and mournful strain, and is more often repeated towards the close of the evening than at any other time. As an article of food it is by no means to be despised, being, I should say, even preferable to the Common Bronze-wing, to which species it offers a nearer alliance in colour than in form. On a comparison of the structure of the two birds they will be found to differ materially, the wings of the present species being shorter, and the comprising a smaller number of feathers than that of the other.

The sexes differ so little in the colouring of their plumage that dissection is requisite to distinguish them.

In Western Australia it has been observed to breed sometimes on the ground and at others among the grass, or in a fork of the *Xanthorrhœa* or grass-tree; the nest being formed of a few small sticks, and the eggs as usual being white and two in number, fifteen lines long by eleven lines broad.

Forehead light chestnut; lores black; crown of the head and nape dark grey; a broad line of rich deep chestnut commences at the posterior part of the eye and unites at the occiput; on the throat a small gorget-shaped mark of reddish chestnut; all the upper surface rich deep lustrous chestnut, becoming gradually paler on the rump and upper tail-coverts; primaries dark brown with pale edges, and broadly margined on the base of their external webs with ferruginous; a few of the wing-coverts with an oblong spot of rich lustrous coppery bronze on the outer web near the base, the outline of which towards the extremity of the feather is sharply defined and bounded by a line of whitish grey; others of the coverts are similarly ornamented with a spot of golden-green, and others with deep bluish green, bounded by a more conspicuous line of white; four central tail-feathers brown; the remainder grey at the base and tipped with brown, the two colours separated by a broad band of dull black, which band is continued, but is much less apparent upon the central feathers; sides of the neck and all the under surface grey, which becomes paler on the abdomen and under tail-coverts; irides very dark brown; feet bright pink-red.

The figures represent the two sexes of the natural size.



PERISTERA HISTRIONICA: *Gould.*

J. & E. Gould del.et

C. Hullmandel lith.

PERISTERA HISTRIONICA, *Gould.*

Harlequin Bronzewing.

Peristera histrionica, Gould, in Proc. of Zool. Soc., September 8, 1840.

I first met with this new and beautiful pigeon on the 2nd of December, 1839, while encamped on the banks of the Mokai, a river which rises in the Liverpool range, and falls into the Namoi.

I was strolling beside the stream at sunrise, when one of these birds rose from the water's edge, flew to the distance of forty yards, and again alighted on the ground, where it assumed much of the air and actions of a Sand Grouse (*Pterocles*). A fortnight after this I descended the Namoi, about one hundred and fifty miles, and while traversing the extensive plains, studded here and there with patches of trees that skirt the Nundawar range, I was suddenly, but agreeably startled by an immense flock of these birds rising before me, and again alighting on the ground at a short distance; finding they would not admit of near approach, I secreted myself, and desired my aboriginal companion Natty to go round and turn the flock towards me: the whole simultaneously rose as before with a loud burring noise, so closely packed, that had they not passed me at a considerable angle, many must have fallen to my shot; as it was I succeeded in obtaining four, two of which were males. Alarmed at so unusual a sound in these solitudes as the discharge of a gun, the remainder winged their way rapidly out of sight. About a week afterwards, while returning from hunting the kangaroo on a distant part of the same plain, we approached a small group of Myalls (*Acacia pendula*), and Natty suddenly called out, "Look massa;" in an instant the air before us seemed literally filled with a dense mass of these birds, which had suddenly rose from under the trees at his exclamation; we had scarcely time to raise our guns before they were seventy or eighty yards off; our united discharge, however, brought down eight additional specimens, all of which being merely winged and fluttering about, attracted the attention of our kangaroo dogs, and it was with the greatest difficulty they could be prevented from tearing them to pieces; in the midst of the scramble, a kite, with the utmost audacity, came to the attack, and would doubtless, in spite of our presence, have carried off his share, had not the contents of my second barrel stopped his career. This was the last time I met with the Harlequin Bronzewing. I took every opportunity of making inquiries respecting it of the natives of the interior, and of the stockmen at the out stations, both of whom assured me they had never observed it before the present season. If this assertion be correct, and there seems to be no reason for doubting it, whence has this fine bird made its appearance? Had it always been common in those parts of the country, its size and its beauty must have attracted the attention of the various travellers who have, from time to time, traversed the interior. May we not reasonably suppose that it had migrated from the central regions of this vast continent, which has yet much in store for future discovery? The great length of wing which this bird possesses, admirably adapts it for inhabiting such a country as the far interior is generally imagined to be, since by this means it may readily pass with great ease, and in a short time, over a vast extent of country; this great power of flight is also a highly necessary qualification to enable it to traverse the great distances it is probably often necessitated to do in search of water.

On dissecting the specimens obtained, I found their crops half filled with small hard seeds, which they procured from the open plains, but of what kinds I was unable to determine.

Forehead, stripe from behind the eye, forming a circle round the ear-coverts, and a crescent-shaped mark across the throat snow-white; the remainder of the head, throat and ear-coverts jet-black; all the upper surface, wing-coverts, flanks and two centre tail-feathers deep cinnamon-brown; edge of the shoulder dull white; spurious wing bluish gray, slightly margined with white; primaries brownish gray, margined on their outer web with rufous at the base, largely marked with the same on the inner web, forming a conspicuous patch on the under surface of the wing, and with an oval spot of white at the tip of each feather; secondaries crossed by a beautiful deep crimson bronze on the outer webs near the tip; lateral tail-feathers bluish gray at the base, passing into black toward the extremity, which is white; breast and centre of the abdomen bluish gray; under tail-coverts light buff; nostrils and bill black; bare skin surrounding the eye purplish black; irides dark brown; frontal scales of the legs and feet lilac-red; hind part flesh-red.

The female has only a faint indication of the markings which adorn the male, and is altogether much less brilliant in her appearance.

The figures are those of a male and female of the natural size.



HEMIPODIUS CASTANOTUS: *Gould.*

J. Gould and H.C. Richter del et lith.

C. Bellmond lith.

HEMIPODIUS CASTANOTUS, *Gould.*

Chestnut-backed Hemipode.

Hemipodius castanotus, Gould in Proc. of Zool. Soc., Part VII. p. 145.
Wiñ-do-loom, Aborigines of Port Essington.
Thick-billed Quail, Colonists.

The Chestnut-backed Hemipode inhabits the northern and north-western portions of Australia; specimens from the latter have been forwarded to me by Mr. Bynoe and by Mr. Dring of H.M.S. Beagle; Mr. Gilbert also found it at Port Essington, and his notes respecting it I here transcribe:—

"This is a tolerably abundant species, and inhabits the sides of stony hills in coveys of from fifteen to thirty in number; which, when disturbed, seldom rise together, but run along the ground, and it is only upon being very closely pursued that they will take wing, and then they merely fly to a short distance: while running on the ground their heads are thrown up as high as their necks will permit, and their bodies being carried very erect, a waddling motion is given to their gait, which is very ludicrous. The stomachs of those dissected were very muscular, and contained seeds and a large proportion of pebbles."

Head, neck and chest olive-grey, the feathers of the head and neck spotted with fawn-white at the tip, and those of the chest having a spatulate mark of the same colour down the centre; centre of the abdomen and the under tail-coverts pale buff; a narrow stripe over each eye, back, shoulders and tail rich chestnut; the feathers on the back and shoulders spotted with white, the white spots bounded anteriorly with black; primaries brown, edged with buff; irides gamboge-yellow; bill light ash-grey; naked skin round the eye smoke-grey; tarsi and feet king's-yellow.

The Plate represents the two sexes of the natural size.



HEMIPODIUS PYRROTHORAX. *Gould*

H. C. Gould del. *C. Hullmandel Imp.*

HEMIPODIUS PYRRHOTHORAX, *Gould.*

Red-chested Hemipode.

Hemipodius pyrrhothorax, Gould, in Proc. of Zool. Soc., November 10, 1840.

Little as is known of the Swift-flying Hemipode, even less information has been obtained respecting the history of the present species, which, although assimilating in some of its characters to the former, differs from it in the marking of the face and neck, and the rufous colouring of the fore part of the throat and chest: it is also somewhat more slender and elegant in its proportions. It first came under my notice while traversing the flats near Aberdeen, on the Upper Hunter, when my dog pointing at what I conceived to be a specimen of the preceding species, a female of the present bird arose before me, and I at once saw, from the rufous colouring of the breast, that it differed from any I had previously seen: my shot was a successful one, and it was with no small delight that I picked up the beautiful bird, from which the accompanying drawing of the female was taken. I diligently sought for others, but was not fortunate enough to meet with a second living specimen. For the little male which enables me to complete my Plate, I am indebted to Mr. Charles Coxen, who had killed it some years before in the neighbourhood of the Liverpool Plains, but who could give me no further information respecting it: he had never seen the female. Of its habits and nidification, of course nothing is therefore known: when the distant interior is explored, its true habitat will doubtless be discovered, but until then its history must remain buried in obscurity.

Crown of the head dark brown, with a line of buff down the centre; feathers surrounding the eye, ear-coverts and sides of the neck extremely small, white edged with black; back and rump dark brown, transversely rayed with bars and freckles of black and buff; wings paler, edged with buff, within which is a line of black running in the same direction; primaries brown, margined with buff; throat, chest, flanks and under tail-coverts sandy red, passing into white on the centre of the abdomen; bill horn-colour; irides straw-yellow; feet yellowish white.

The male has a similar character of markings on the upper surface, but the colouring of the throat and flanks is much paler.

The Plate represents a male and a female of the natural size.



HEMIPODIUS VELOX: *Gould*

HEMIPODIUS VELOX, *Gould.*

Swift-flying Hemipode.

Hemipodius velox, Gould, in Proc. of Zool. Soc., Nov. 10, 1840.
Kar-a-dong, Aborigines of the mountain districts of Western Australia.
Little Quail, of the Colonists.

I found this new and interesting species of *Hemipodius* abundant in various parts of New South Wales, but whether it has always visited those localities, or has only recently made its appearance there, I cannot say. Mr. Stephen Coxen, on whose estate it was plentiful, and who, it is well known, has for some years paid considerable attention to the Ornithology of Australia, could give me no information respecting it, and it would appear to have escaped the notice of collectors generally, for I have never seen a specimen in any collection either public or private. I clearly ascertained that it is strictly migratory, by finding it abundant in those places in summer which I had previously visited in winter, when no appearance of one was to be seen.

The season of more than usual luxuriance that followed the long and distressing drought of 1838—39, bringing in its train a number of rare and interesting species, was highly advantageous to the objects of my expedition. It was to this season of plenty, when the whole face of the country was covered with the richest vegetation, that I am inclined to attribute the appearance of vast numbers of this species over the district of the whole Upper Hunter, particularly in the flats of Segenho, Invermein, and Yarrundi. It appeared to give preference to the low stony ridges which border and intersect these flats, and which are thinly covered with grasses of various kinds, for it was in such situations I generally found it, though on some occasions I started it from among the rank herbage clothing the alluvial soil of the bottoms. It lies so close as to be nearly trodden upon before it will rise, and when flushed it flies off with such extreme rapidity, as, combined with its small size and the intervention of trees, to render it a most difficult shot to the sportsman. On rising it flies to the distance of one or two hundred yards within two or three feet of the surface, and then suddenly pitches to the ground. As might be expected, it lies well to a pointer, and it was by this means that I found many which I could not otherwise have started.

One of the most singular circumstances connected with the history of this and the following species, is the great difference in the size of the sexes, the males being but little more than half the size of their mates. Pleased as I was at making acquaintance with this little bird, I was still more gratified at finding its nest and eggs. Natty and Jemmy, two intelligent and faithful natives, of the Yarrundi tribe, and who always accompanied me, also caught several of the young which had not left the nest many days.

In addition to the districts above named, I observed it, although rarely, in the interior of the country north of the Liverpool Plains. Before I left Sydney a single specimen was sent me from South Australia, and in my recently arrived collection from Swan River I found both the bird and its eggs; these circumstances proving that it possesses a range of longitude extending from one side of the continent to the other, and in all probability it inhabits a great portion of the northern interior. In Western Australia it is stated to inhabit clear open spots of grass, and may occasionally be met with in the thick scrub, but its most favourite retreat is the grassy valleys of the interior adjacent to water.

It breeds in September and October. The nest is slightly constructed of grasses placed in a shallow depression of the ground under the shelter of a small tuft of grass: the eggs are four in number, of a dirty white, very thickly blotched all over with markings of chestnut, eleven lines and a half long by nine lines broad: the eggs from Western Australia are much lighter in colour, and have the chestnut blotchings much more minute.

The stomach is extremely muscular, and the food consists of grasshoppers and other insects, seeds, etc.

Head, ear-coverts, and all the upper surface chestnut-red; the crown of the head in some specimens has a longitudinal mark of buff down the centre; the feathers of the back, rump, scapularies, and sides of the chest margined with buff, within which is a narrow line of black running in the same direction; the feathers of the lower part of the back are also crossed by several narrow irregular bands of black; primaries light brown, margined with buff on their internal edges; throat, chest, and flanks sandy buff, passing into white on the abdomen; bill horn-colour; irides straw-white; legs and feet yellowish white.

The above is the description of a female: the male has the feathers on the sides of the chest conspicuously margined with buff.

The Plate represents a male and female of the natural size.



COTURNIX PECTORALIS: *Gould*

J. Gould and H.C. Richter del et lith.

Hullmandel & Walton Imp.

COTURNIX PECTORALIS, *Gould.*

Pectoral Quail.

Coturnix pectoralis, Gould in Proc. of Zool. Soc., Part V. p. 8; and in Syn. Birds of Australia, Part II.—List of Birds in Brit. Mus. Coll., Part III. p. 40.
Stubble Quail of the Colonists of Van Diemen's Land.

In Van Diemen's Land, South Australia and New South Wales, the present species is very abundant; I have also received specimens from Western Australia and a single example from the north coast, from both of which localities the specimens are smaller, and have a more buffy tint pervading the under surface; I am not, however, prepared to affirm that they are specifically distinct from the bird here figured, although I am disposed to regard them as such. Open grassy plains, extensive grass flats, and those parts of the country under cultivation, are situations favourable to the habits of the bird; in its economy and mode of life, in fact, it so closely resembles the Quail of Europe (*Coturnix communis*), that a description of one is equally descriptive of the other. In South Australia it may be found on all the extensive plains to the north of Adelaide; I sometimes flushed a single bird without finding another in the neighbourhood, while at others I met with it in pairs or in small parties of from four to six in number. Although occasionally found in the immediate neighbourhood, it affects totally different situations from those frequented by the *Synoïcus Australis*, which goes in coveys, and which differs but little in its habits from the Common Partridge (*Perdix cinerea*). Its powers of flight are considerable, and when flushed, it wings its way with arrow-like swiftness to a distant part of the plain; it lies well to a pointer, and has from the first settlement of the colony always afforded considerable amusement to the sportsman. I need scarcely say that it is an excellent bird for the table, equalling as it does in this respect its European representative. During my rambles in the districts frequented by this Quail, I frequently found its nest and eggs, which bear a strong resemblance to those of our own Quail; much variation, however, exists in their colouring, some being largely blotched all over with brown on a straw-white ground, while from this to a finely peppered marking every variety occurred; the number of eggs in each nest varied from eleven to fourteen. The situations chosen for the nest are also very various; I sometimes found it placed among the thick grass of the luxuriant flats, while at others it was artfully concealed by a tuft of overhanging grass on the open plains, where the temperature was of a much warmer character, and where, from the exposed situation, the sun's rays caused a degree of heat never felt in the humid situations just alluded to. The chief food of this species is grain, seeds and insects, the grain as a matter of course being only procured in cultivated districts; and hence the name of Stubble Quail has been given to it by the colonists of Van Diemen's Land, from the great numbers that visit the fields after the harvest is over.

September and the three following months constitute the breeding-season; but it is somewhat later in Van Diemen's Land than in South Australia and New South Wales.

The average weight of the male is four ounces and a half; the female, which rarely equals her mate in size, may at all times be distinguished by the total absence of the black markings on the chest, and by the throat being white instead of buff.

The male has the lores, ear-coverts and throat buff; crown of the head and back of the neck deep brown; over each eye two parallel lines of yellowish white; a similar line down the centre of the head from the forehead to the nape; back of the neck brown, each feather marked down its centre with a lanceolate mark of yellowish white, blotched on each side with black; mantle, back and upper tail-coverts brown, transversely rayed with zigzag markings of black, and striped down the centre with lanceolate markings of yellowish white; wings brown, transversely rayed with zigzag lines of grey and black; primaries and centre of the chest black; sides of the chest brown; abdomen white, each feather marked down its centre with black; flanks rich brown, the centre of each feather white, bounded on either side by a fine line of black; bill black; irides hazel; feet pearly vinous white.

The female differs in being destitute of the black marks on the chest, in the throat being white instead of buff, and in the bill being olive instead of black.

The Plate represents both sexes of the natural size.

J. Gould and H.C. Richter del. et lith.

C. Hullmandel Imp.

SYNOICTIS AUSTRALIS.



SYNOICUS AUSTRALIS.

Australian Partridge.

Perdix Australis, Lath. Ind. Orn. Supp., p. lxii.
Coturnix Australis, Temm. Pig. et Gall. 8vo, tom. iii. pp. 474 and 740.—Shaw, Gen. Zool., vol. xi. p. 373.—Vieill. Gal. des Ois., pl. 215.—Less. Traité d'Orn., p. 508.
New Holland Quail, Lath. Gen. Syn. Supp., vol. ii. p. 283.—Ib. Gen. Hist., vol. viii. p. 306.
Moo-rêete, Aborigines of the lowland districts of Western Australia.
Brown Quail, Colonists of Swan River and Van Diemen's Land.

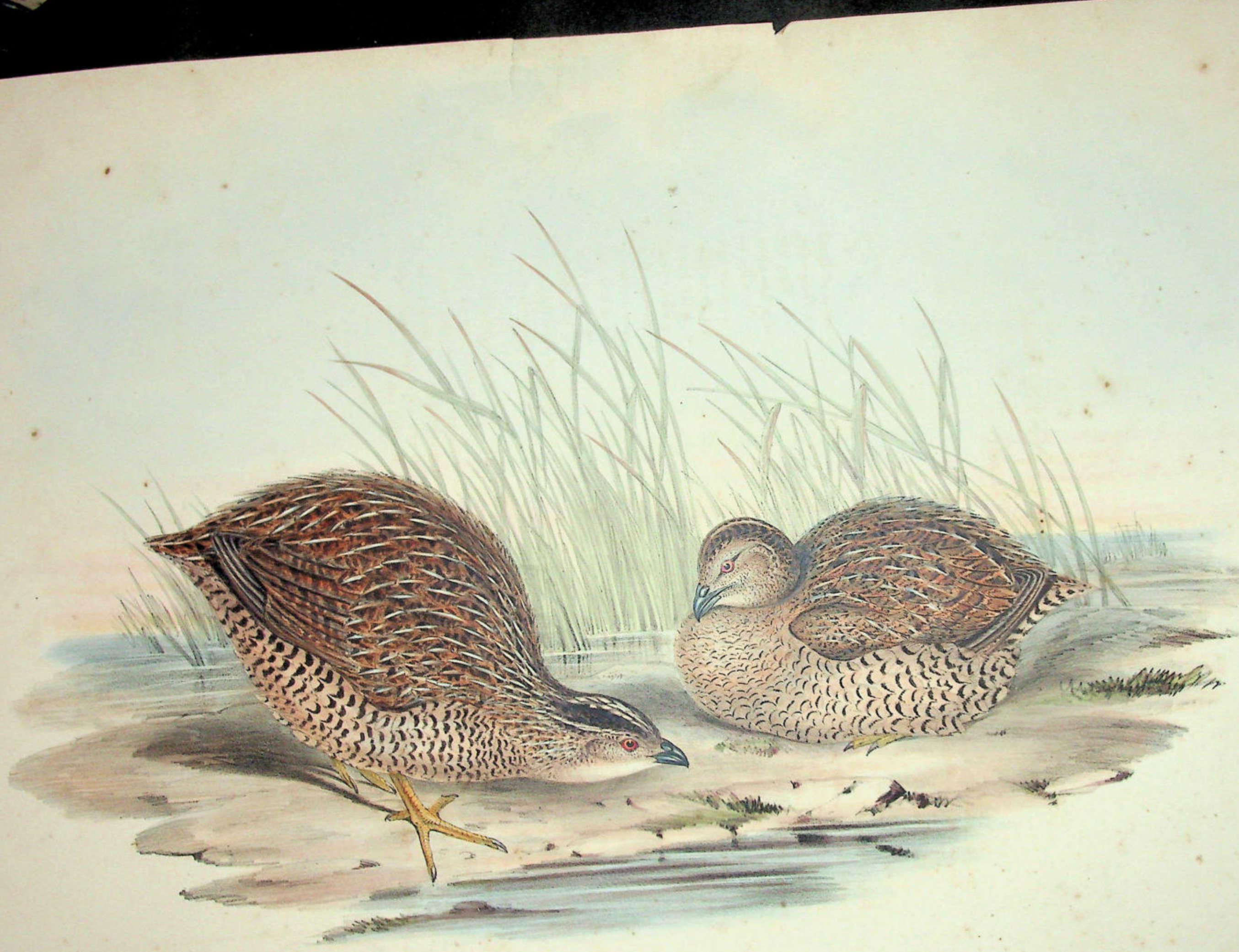
The present species will at all times claim more than ordinary attention from the colonists of Australia, from the circumstance of its being the representative in that country of the Common Partridge of the British Islands, so renowned for the goodness of its flesh, and for the healthy pastime it annually affords during the shooting season to all who are attached to and follow the sports of the field. Although much more diminutive in size, the present species offers in many points of its economy a great similarity to its antipodean ally. I believe that several species of this intermediate form exist in Australia; if, however, my surmise should prove to be incorrect, and it should be found that the Partridges over all parts of the country are merely varieties of each other, then it may be stated that the present species is an inhabitant of every known part of Australia, the north coast even not being without its presence; but if, on the other hand, it should be discovered that they are several distinct species, then the habitat of the present bird will be restricted to New South Wales, South Australia and Van Diemen's Land, over the whole of which countries it is plentifully dispersed; the localities most suited to its habits being thick grassy flats and humid spots overgrown with herbage, by the sides of rivers and water-holes. Its call is very similar to that of the Common Partridge, and like that bird it is found in coveys of from ten to eighteen in number, which simultaneously rise from the ground and pitch again within a hundred yards of the spot whence they rose. It sits so close, that it will often admit of being nearly trodden upon before it will rise. Pointers stand readily to it, and it offers perhaps better sport to the sportsman than any other bird inhabiting Australia. Its weight is about four ounces and three quarters, and its flesh is delicious.

The Australian Partridge breeds on the ground, where it constructs a slight nest of grass and leaves; the eggs, which are of large size, and from ten to eighteen in number, are sometimes uniform bluish white, at others minutely freckled all over with buff.

The sexes differ but little in their colouring, neither do the young birds from the adult, except that the markings are somewhat broader and more distinct.

Forehead, space between the bill and the eye, and the throat greyish white, with a tinge of buff; all the upper surface irregularly marked with beautiful transverse bars of grey, black and chestnut, each feather on the back having a fine stripe down the centre; shoulders greyish brown, the remainder of the wing marked with obscure transverse lines of grey, brown and black; primaries brown, mottled on the external edges with greyish brown; all the under surface buffy grey, each feather having numerous zigzag markings of black, and many of them having a very fine line of white down the centre; bill blue, deepening into black at the tip; irides orange; feet dull yellow.

The figures are of the natural size.



SYNOECUS DIEMENENSIS: *Gould*

Gould and W. Hart del. et lith.

Hullmandel & Walton Imp.

SYNOÏCUS DIEMENENSIS, *Gould.*

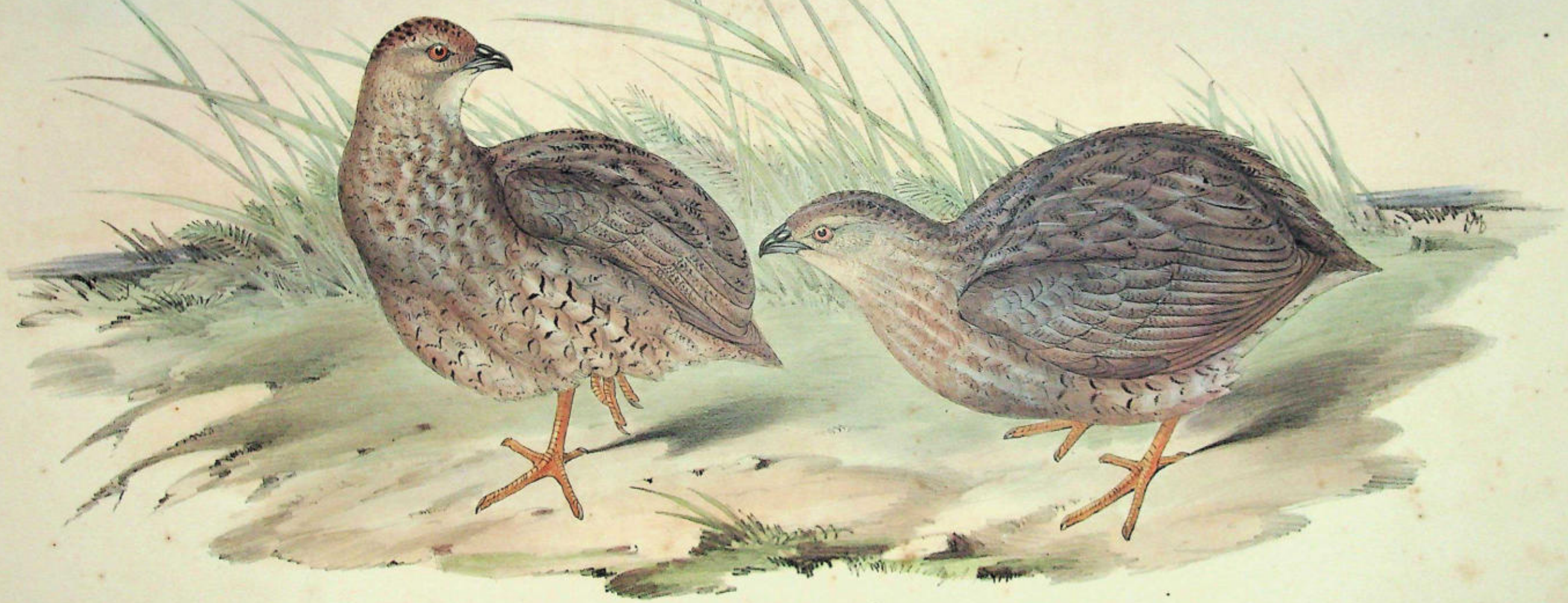
Van Diemen's Land Partridge.

Synoïcus Diemenensis, Gould in Proc. of Zool. Soc., March, 1847.
Greater Brown Quail of the Colonists.

During my visit to Van Diemen's Land I was frequently informed that there were two kinds of Quail besides the stubble and painted Quails, the former of which is a true *Coturnix* and the latter a *Hemipodius*, while the two birds referred to belong to neither of those genera, but to that of *Synoïcus*. They are distinguished as the greater and lesser Brown Quail, and sometimes the name of Partridge was given to the bird here figured, doubtless from its going in coveys and resembling the Common Partridge of Europe in many of its actions: I failed in my endeavours to obtain examples, but I was fortunate enough to procure its nest and eggs, which differed so much from those of the common species as to convince me that they had been laid by a different bird: on a late visit to Paris, I found at the house of M. Verreaux several specimens of the bird itself, which had been sent to him by his brother direct from Van Diemen's Land, and which being placed at my disposal enable me to give figures of both species. It is fully a third larger in size than the *S. Australis*, and has the markings of the upper surface more numerous and varied; the situations it affects appear to be low marshy grounds covered with dense masses of herbage. The eggs I procured were found in the swamps immediately below New Norfolk; they are more green than those of *S. Australis*, are sprinkled all over with minute spots of brown, and are from twelve to eighteen in number, one inch and seven-sixteenths long by one inch and an eighth broad. I feel more than ever convinced, that the birds of the form to which the generic term *Synoïcus* has been applied, constitute many more species than has hitherto been supposed.

Forehead, lores and chin greyish white tinged with buff; crown of the head dark brown, with a line of buff down the centre; all the upper surface irregularly marked with beautiful transverse bars of grey, black and chestnut, each feather with a fine stripe of greyish white down the centre; primaries brown, mottled on their external edges with greyish brown; all the under surface greyish buff, each feather with numerous regular somewhat arrow-shaped marks of black, and many of them with a very fine line of white down the centre; bill blue, deepening into black at the tip; irides orange; feet dull yellow.

The Plate represents the two sexes rather less than the size of life.



SYNDICTUS SORDIDUS.

J. Gould and H.C. Richter del. et lith.

Hullmandel & Walton Imp.

SYNOÏCUS SORDIDUS, *Gould.*

Sombre Partridge.

Synoïcus sordidus, Gould in Proc. of Zool. Soc., Part XV. p. 33.

With the exception of *S. Sinensis*, this species is the least of the genus yet discovered; it moreover differs from them all in the absence of any varied markings, in lieu of which all the feathers of the upper surface have a broad bluish grey stripe down the middle; in this blue colouring it evinces an affinity to the *S. Sinensis*, and in all probability other species intermediate between the two will yet be discovered.

Two specimens are all that have come under my notice; both of which were received from South Australia.

Its habits doubtless resemble those of the other members of the genus, but nothing is at present known respecting them.

General plumage dark brown, minutely freckled with black, each feather of the upper and under surface with a broad stripe of bluish grey down the centre; feathers of the head and back of the neck with a spot of blackish brown at the tip, those down the centre of the head and a few of the back-feathers with white shafts; chin buff; flank-feathers with an arrow-head-shaped mark of black near the tip.

The figures are of the natural size.



SYNOICUS CHINENSIS.

J. Gould and H.C. Richter del et lith.

C. Hullmandel Imp.

SYNOICUS? CHINENSIS.

Chinese Quail.

Perdix Chinensis, Lath. Ind. Orn., vol. ii. p. 652.
Coturnix excalfdoria, Temm. Pig. et Gall., 8vo, tom. iii. pp. 516 and 743.—Shaw, Gen. Zool., vol. xi. p. 371.
Tetrao Chinensis, Linn. Syst. Nat., vol. i. p. 277.—Ib. Gmel. Edit., vol. i. p. 765.—Linn. Trans., vol. xiii. p. 324.
Coturnix Philippensis, Briss. Orn., vol. i. p. 454. sp. 17. tab. 25. fig. 1.—Ib. 8vo, vol. i. p. 71.
Fraise, ou Caille de la Chine, Buff. Hist. Nat. des Ois., tom. ii. p. 478.—Ib. Sonn. Edit., tom. vii. p. 104.—Bonnat. Tab. Ency. Orn., 223. pl. 96. fig. 3.
Chinese Quail, Lath. Gen. Syn., vol. iv. p. 783.—Edw. Glean., pl. 247.—Lath. Gen. Hist., vol. viii. p. 318.
Coturnix Chinensis, Less. Traité d'Orn., p. 509.
Caille des Philippines, Buff. Pl. Enl., 126. fig. 2. female.
Perdix Manillensis, Lath. Ind. Orn., vol. ii. p. 655. female.
Tetrao Manillensis, Gmel. Ed. Linn. Syst. Nat., vol. i. p. 764. female.
La petite Caille de l'Ile de Luçon, Sonn. Voy., p. 54. pl. 24. female.
Petite Caille de Manille, Sonn. Edit. Buff. Ois., tom. vii. p. 142.—Bonnat. Tab. Ency. Orn., p. 221. pl. 97. fig. 4.
Manilla Quail, Lath. Gen. Syn., vol. iv. p. 790.—Ib. Gen. Hist., vol. viii. p. 321. female.
Chaui-chun of the Chinese.
Pike or *Pikan* of the Sumatrans and Javanese.

The rounder form of the wing of this bird prevents me from retaining it with any degree of propriety in the genus *Coturnix*; I have therefore placed it provisionally in that of *Synoicus*, with the members of which section its contour will be found to assimilate.

This is one of the few species of Australian birds that I have not personally seen in a state of nature, which is the more singular as I have received skins from nearly every locality I have ascertained, however, that at some seasons it is very numerous in such low and humid districts as are clothed with dense and luxuriant grasses and other vegetable productions, but beyond this nothing more is known of its history.

The sexes are so different in colour, that, as will be seen by the synonyms given above, they have been regarded and described by some of the older writers as distinct species, the male being adorned with a much gayer attire than almost any other of the smaller *Gallinaceæ*, while the garb of the female resembles that of the Common Quail in its tints and markings.

Latham states that in China it is often seen in flocks of a hundred together, and that as well as the Common Quail it is used to warm the hands in winter, as may be seen in various drawings and paper-hangings from China.

The male has the crown of the head and upper surface brown, irregularly spotted with black, some of the feathers with a narrow stripe of buff down the centre; wings brown, the coverts broadly margined with chestnut-brown; sides of the head, breast and flanks fine grey; throat black; within the black on each side an oblong patch, and on its lower part a crescent-shaped mark of white; abdomen and under tail-coverts deep rich chestnut-red; irides hazel; bill black; feet flesh-brown.

The female has a broad stripe over each eye sandy buff; crown of the head and all the upper surface dark brown, crossed by fine bars of lighter brown, and each feather, particularly those of the back and rump, with a line of buff down the centre; throat and centre of the abdomen buff; breast, sides of the neck, flanks and under tail-coverts sandy buff, crossed by numerous crescentic marks of blackish brown; irides dark brown; bill black; feet flesh-brown.

The figures are of the natural size.

598.299
G04
V.5