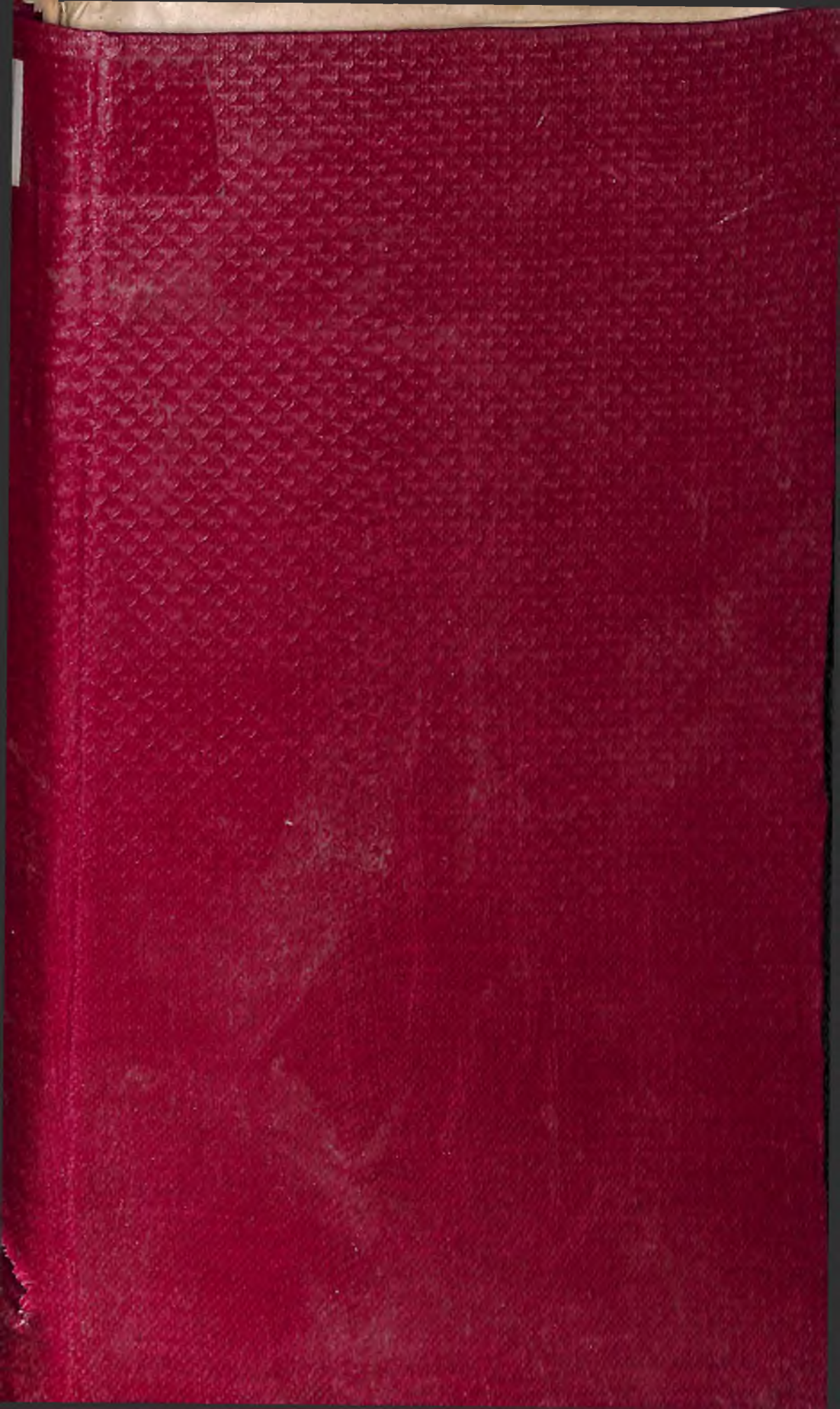




*Presented to the Zoological Gardens
Calcutta.*

A

HISTORY

OF

BRITISH BIRDS.

BY

THE REV. F. O. MORRIS, B. A.,

MEMBER OF THE ASIMOLEAN SOCIETY.

VOL. V.

CONTAINING FIFTY-SEVEN COLOURED ENGRAVINGS.

'De profundis ad Dominum.'

LONDON:

GROOMBRIDGE AND SONS, PATERNOSTER ROW.

M. DCCC. LXL.

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LAND-RAIL.



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HISTORY OF BRITISH BIRDS.

LAND-RAIL.

CORN-CRAKE. DAKER HEN. MEADOW-CRAKE

Crex pratensis,
Rallus crex,
Gallinula crex,
Ortygometra crex,
Porphyrion rufescens,

SELBY. JENYNS.
MONTAGU.
BEWICK.
FLEMING.
BRISSON.



Crex—.....?

Pratensis—Pertaining to meadows.

ONE would think that this bird, so difficult to make get on the wing, and which seems of such feeble powers when it has been at last, evidently against its will, forced to do so, could never sustain, or, at all events, would never voluntarily undertake so lengthened and laborious a flight as that which must be necessary to cross from the continent to this, its temporary island home. But such a thought is contradicted by the fact, and glad are many, no doubt, with myself, that so it is. Every one must recall with pleasure the

"Old Times," when first he heard, and first remarked, as on first hearing he could not fail to do, the curious creaking cry of the Corn-Crake.

This species is a native of all the four quarters of the globe, occurring throughout Europe, even in the highest parts of Sweden and Norway, and in Iceland and the Ferroe Isles; as also in Asia—in Asia Minor. In Africa likewise, and America—in the West Indies; so too in Madeira.

It is more or less common throughout England, especially in the north, Wales, and Ireland; in the last-named particularly so, and in Orkney and Zetland, but in some places in Scotland appears, as also in some parts of Yorkshire, to be less numerous than formerly, though without any apparent cause. In Cornwall it is said to be rather rare, and in Cambridgeshire; in Norfolk only a few stay to breed, the greater numbers that are seen are only passing visitors.

Its favourite haunts are low meadows of mowing grass, clover fields, willow beds, fields of growing corn, and any such like fastnesses as can afford it a secure hiding-place.

They conduct their migration by night, and arrive in England about the last week in April, reaching the northern parts of the kingdom about the beginning of the first week in May, but some have been seen by the end of April. Their arrival in the south seems to be rather later, namely, in the second week in May. Their departure takes place early in October, but one is recorded to have been killed near London, in December, 1834; one near Yarmouth, in Norfolk, in January, 1836; and one in Ireland on the 29th. of March, but whether it was a newly-arrived bird, or one that had stayed through the previous winter, cannot be affirmed.

Instances have occurred of some individuals remaining throughout the winter, but only exceptions to the general rule. Mr. Edward Blyth mentions in the "Magazine of Natural History," volume viii. page 512, one thus met with at Tooting, Surrey, about the middle of December, 1834, and it was at the time in good condition. One was killed in Scotland, in Kircudbrightshire, not far from Dumfries, on the 19th. of February, 1853; it, too, was in fine plumage, and equally good bodily order. One in Oxfordshire, near Henley-on-Thames, on the 4th. of November, 1851. One in Lancashire, at Lytham, near Preston, by C. Nelson, Esq., M.D., on the 10th. of the same month in the following year. One seen in the Cambridge market on the 7th. of November, 1851, but it had the mark of a wound on the wing, which had no doubt prevented it from migrating. On the 2nd. of December, 1851, another was shot near Plymouth, Devonshire, which had not left our shores, though, to all appearance, "sound, wind and limb." In the same year, on the 18th. of February, one had been taken near Bembridge, in the Isle of Wight. In Sussex, one near Rottingdean, on the 27th. of November, 1844. Another was shot near Rye, in the same county, just before Christmas, 1848, and another was seen near the same place the following February. In the winter of 1846-7, during a severe frost, with snow on the ground, a Land-Rail was constantly seen feeding with the fowls in a farm-yard in the parish of Fringford, Oxfordshire. One, January 28th., 1846, in the parish of Shifnal, Salop.

They assemble together in certain places before going away. On their first arrival, they are in poor condition, but soon become in better case. Forty were once seen by a farmer, in the parish of Modbury, Devonshire,

in the month of October, collected together previous to leaving; he shot seventeen, but the next day the others had all disappeared. Individuals have been occasionally taken on ships at sea.

The Land-Rail has a great aversion to being put up, and, being of a shy and timorous nature, skulks and runs about most pertinaciously in its covert, doubling backwards and forwards both rapidly and cleverly, rather than do so. If alarmed unawares into flight, it will suddenly drop after flying a few yards, and take to its legs for security; it is in consequence very rarely seen, in proportion to the comparative abundance in which it unquestionably exists. I remember last year dislodging one close to me, which, though apparently it must have lurked almost under my feet, I could not discover: it is still more difficult to make it rise a second time. If closely followed it will at times take refuge in trees, running without difficulty among the branches, and hiding among the leaves.

The following well-told relation of the circumstance it records, I give as communicated to me by William Robert Shepherd, Esq., of the Dana, Shrewsbury:—
“Rather a singular circumstance occurred to me the other day. Whilst out with my gun on the 13th. instant, at Ludlow, in this county, in going over a grass field, my dog in advance flushed a Corn-Crake, which fled steadily for a short distance, and then dropped among the grass. Being desirous of watching its movements, I hurried towards the spot where it had alighted, when I saw it stealing through the grass with the stealthiness and rapidity of a mouse, ever and anon raising its head to see the extent of the danger. I was thus watching it, when suddenly it stopped and crouched close to the ground. Motioning the dog to stay

behind, I crept cautiously to the spot, and as I drew near to it, was surprised to see no attempt at escape.

Having reached the place, I carefully examined the ground for some distance round, but could find nothing. I was just on the point of giving up the search, thinking that the bird had stolen off without my notice, when my attention was attracted by what appeared to me to be a clod of earth lying on the ground among the grass. I walked to it, and on stooping down, was no less surprised than pleased to find the object of my search, apparently lifeless. I took it up—the head and legs dropped; to all appearances the bird was quite dead. Being well acquainted with the habits of birds, I immediately detected the imposition; so placing the bird upon the ground, I retired to a short distance, under cover of the trunk of a large tree. I had not remained long before I saw the cunning bird gently move; then suddenly starting to its legs, it ran a short distance; then taking wing, soon disappeared over an adjoining hedge. This is a striking instance of that deep cunning and sagacity which characterizes the habits of some birds; as such I have thought it worth recording.”

Mr. Jesse has given a similar account in his “Gleanings in Natural History,” as follows:—“A gentleman had a Corn-Crake brought to him by his dog, to all appearance quite dead. As it lay on the ground, he turned it over with his foot, and was convinced that it was dead. Standing by, however, in silence, he suddenly saw it open an eye; he then took it up—its head fell, its legs hung, and it appeared again quite dead. He then put it in his pocket, and before long he felt it all alive, and struggling to escape. He then took it out; it was as lifeless as before. Having laid

it again upon the ground, and retired to some distance, the bird in about five minutes warily raised its head, looked round, and decamped at full speed."

The late Bishop Stanley, in his "Familiar History of Birds," gives the two following curious accounts of torpidity in this species, the latter quoted from the "Edinburgh Journal," volume viii:—"We have two instances of dormant Corn-Crakes, which are also migratory summer birds. A farmer at Aikerness, in Orkney, about mid-winter, in demolishing a mud wall, there called a hill-dyke, found a Corn-Crake in the midst of it, a bird which is plentiful in summer, but departs, like Swallows, at the close of that season. It was apparently lifeless; but being fresh to the feel and smell, it began to move, and in a few hours was able to walk about, and lived for two days in the kitchen; but, refusing all food, it died. The other occurred at Monaghan, in Ireland, where a gentleman, having directed his labourers, in winter, to remove a large heap of manure, that had remained undisturbed for a great length of time, perceived a hole, which was supposed to have been made by rats; it penetrated to a great depth, but at its termination, instead of rats, three Corn-Crakes were discovered, as if placed there with the greatest care, not a feather being out of its place, and apparently lifeless. The birds, on examination, were however, considered to be in a torpid state, and were placed near a fire in a warm room. In the course of a short time, a tremulous motion was observed in one of their legs, and soon after, a similar motion was noticed in the legs and wings of the whole, which at length extended itself to their whole bodies, and finally the birds were enabled to run and fly about the room."

These statements are fully corroborated by Dr. W.

B. Baikie and Mr. Heddle, who, in their "Natural History of Orkney," mention that several have been seen there in winter; that one was observed at Lopness, in December, 1812, another in Ronsay, in February, 1847; and that upon several occasions, when digging up old turf dykes, Land-Rails have been found in them in a torpid condition. The hen bird has been known to feign lameness, with the view of drawing away an approaching intruder from her nest.

This is an exceedingly good bird for the table, and as such, has come under the protection of the Game Laws. Thirteen couple have been known to have been killed in one day in Devonshire, fifteen couple in one day in Sussex, and seven couple at the same place the following day. Mr. Selby mentions his having shot eight or ten in the course of an hour in a single field. Old Drayton, in the "Polyalbion," quaintly says of the Rayle, that it "seldom comes but upon rich men's spits," and two are said to be a present for a queen; but any very great value must not be put upon such legendary assertions, for we have most of us heard, and doubtless at the time we did hear it, believed, that "four and twenty Blackbirds" made a "dainty dish to set before the king." Certain, however, it is that the bird before us is of very superior quality. It is capable of being kept in confinement.

It flies in a slow manner, with the legs dangling down, and in general but for a short distance, seeking only the nearest sheltering covert. At times it perches upon walls, shewing an awkward capability of climbing, analogous to that exhibited by the Water-Hen. It can run with almost incredible swiftness, and threads its way in an astonishing manner among the grass without any apparent disturbance of it.

The food of the Land-Rail is composed of worms, snails, slugs, insects, grass seeds, and portions of vegetables. Sir William Jardine found a mouse in one.

The well-known note of the Corn-Crake, whence this its name, 'crake, crake; crake, crake,' is begun to be heard when summer is at last fully established, simultaneously in general with the arrival of the bird. The male it is that gives utterance to the dissonant cry, and by imitating it he may be enticed pretty near. It is uttered most frequently from the top of a clod of earth or a stone, but also otherwise at times. It is mostly heard in the evening or the morning, but occasionally also throughout the day, until the hen begins to sit. In like manner it is not unfrequently continued through part of the calm still summer night, "till morning comes again," at least from about eight o'clock in the evening till about twelve or one. A curious ventriloquism is resorted to at pleasure, making the sound at one moment appear close to the listener, and the next a long way off. When the brood are hatched, the stridulous sound is once more taken up, and sometimes the position of the nest is thus led to. A low guttural noise appears also to be expressed, when the bird is alarmed or disturbed.

The nest is placed among long grass or corn, in a furrow or some slight hollow, and is lined with a few of the leaves and stalks of the neighbouring herbage.

The eggs, commonly seven or eight, or ten or even eleven in number, are of a pale reddish brown, or reddish or yellowish white colour, spotted and speckled with grey and reddish brown. They do not vary much, except in the size and greater or less number of the spots. Some are of a red tinted ground colour, with blots of deep red brown and purple; others white,

with a faint tinge of blue, and fancifully streaked and spotted all over. Two broods are wont to be reared in the year, the first being hatched between the beginning or middle of June, or later towards the end.

The young quit the nest when hatched, and in rather less than six weeks are able to fly. The female sits very close, and often suffers in consequence, from the unwitting scythe of the mower. She leads the young about almost as soon as hatched.

Male; weight, about six or seven ounces, but it has been known as much as eight or eight and a half, and, on the first arrival of the bird, as little as five; length, about ten inches, not quite so much; bill, pale brown at the tip, and along the top of the upper mandible, the base pale reddish yellow, and the lower mandible beneath; iris, yellowish brown; over the eye is a greyish ash-coloured streak, blending with the colours on either side, and so going down the neck. The head on the sides, greyish ash-colour; on the crown, neck on the back, and nape, the feathers have dusky shaft streaks, the rest of the centres brown, and the edges yellow tinged with brown, or a tint of olive green; neck on the sides, tinged with greyish ash-colour; chin, yellowish white; throat, white tinted with grey; breast above, pale buff or yellowish brown, tinged with ash grey, with bars of brown and reddish white on the sides, which are reddish orange; below, the breast is nearly white with a tint of red. The feathers of the back are pale yellowish brown, each with a very dark brown central streak, and a slight tinge of olive green.

The axillary feathers are orange brown; greater and lesser wing coverts, rich golden chesnut brown; primaries, dull reddish brown; tertiaries, pale yellowish bay brown, streaked along the centres with very dark brown.

The tail has the feathers dark brown along their centres edged with pale yellowish brown; upper tail coverts, also dark along the centres of the feathers, the edges being pale yellowish bay brown; under tail coverts, pale buff or reddish brown, with bars of darker reddish brown and reddish white. The legs and toes, which are long, are pale dull yellowish, with a tint of reddish brown or grey.

The female is not quite so large. The head on the side has less grey and not so clear. The greater and lesser wing coverts are not so bright in colour.

The young are at first covered with black down.



SPOTTED CRAY

SPOTTED CRAKE.

SPOTTED RAIL. SPOTTED WATER-HEN. SPOTTED
GALLINULE. WATER-CRAKE. WATER-RAIL.

Crex porzana,

Gallinula porzana,

Rallus “

Ortygometra “

SELBY. JENYNS.

BEWICK. FLEMING.

MONTAGU.

STEPHENS.

Crex—.....?

Porzana—.....?

THIS bird extends, in its range, from Russia and the north of Sweden, through the midland districts of Germany and Holland, to the southern parts of Europe—Italy, France, Greece, and Turkey; likewise from thence to Africa; and also extends to Asia, being to be found in Siberia, Asia Minor, Persia, and India.

It is a very local species. In Yorkshire a few have been met with near Burlington, Hebden Bridge, and Halifax; about Doncaster it is more common, and at York, where, in the Foss Islands, it has been known occasionally to breed; near Leeds one, at Calverley. The Rev. R. P. Alington tells me that it is common in a small piece of fen called “The small drains,” in the parish of North Coats, Lincolnshire; but he has never seen it after October. A. Fuller, Esq. also informs me of five shot at Tetney, near Great Grimsby, in 1851. In Norfolk it is not uncommon at Belton, and other places, and breeds about several of the

Broads. One was found dead at Thetford, in October, 1847, which had been killed by flying against the wires of the telegraph. In Surrey, the bird is stated to have been met with near Godalming. In Oxfordshire, one near Henley-on-Thames. In Durham and Cumberland, it is not unfrequently seen, and its appearance has been noted in Devonshire, as also in Dorsetshire, Sussex, Hampshire, and Cambridgeshire, though rather rarely, in which county it has been ascertained to breed, as it probably does in many others: a nest and eggs were taken in the Fens, in 1853, as T. G. Bonney, Esq. has informed me. A few have occasionally been seen near Plymouth; one was obtained in Efford Marsh. In Cornwall, one was seen in the market at Falmouth, in November, 1848; and in October, 1849, one was shot at Swanpool. In Northumberland, Mr. Selby has put up as many as six at a time, but most of them young birds.

In the year 1853, they appear to have been unusually abundant. The Hon. T. L. Powys writes in the "Zoologist," page 4165, that there were six or seven on sale in the Oxford market, and that he saw eight or nine others at Whittlesea, in Cambridgeshire, and heard from a friend that they were abundant in the marshes in Kent; in Suffolk and Cornwall, also in Wales, in Carmarthenshire, and in other parts of the Principality, as recorded by Mr. Dillwyn.

In Scotland it has been noticed in Forfarshire, Dumfriesshire, Edinburghshire, and various other parts.

This bird is stated by the Rev. C. Clouston, to have occurred in Orkney, but neither the date nor the locality are mentioned. It has been observed, though rarely, in Sanday.

In Ireland it occasionally occurs as a straggler in sum-

mer; one was procured at Clay Castle, near Youghall, in the county of Cork, in the month of October, 1843.

It frequents low, flat, and marshy lands, and the sides of pools and rivulets, especially those parts of such as are covered with flags, reeds, and sedges. It is also at times found in woods and forests where swamps occur.

Its migration begins the middle of March, and takes place by night. Montagu has mentioned his having seen one on the 14th. of that month; and Mr. Blyth another, seen by him in the London market in January, 1834, which was said to have been sent up from Kent. It retires after the middle of October.

In its habits it exhibits the same stealthiness that is characteristic of the other species, and delights in hiding itself in the midst of the thickest low cover. It is very easily kept in confinement. It is fine eating, and said to be in much estimation for the table.

It runs fast, with long strides and the body near the ground. It moves with ease on the leaves of water-plants, that float on the surface, and if need be swims with equal readiness. It flies in an unsteady straggling manner, with the legs drooped down, and quite low, but at the season of migration has been observed in the evening to rise high in the air.

The "ways and means" are worms, slugs, aquatic insects, and the seeds of plants.

The nest is put together of the larger and smaller stalks of rushes, reeds, and other water-plants, in marshy places, among beds of reeds, and often at the water's edge, and so arranged as to be capable of floating on the water, being thickly lined with soft grass, and the edges well rounded. Nevertheless, they are at times destroyed by the rising of floods.

The eggs are as many as from seven, eight, nine, or ten, to twelve in number, and even eighteen have been found together, but these doubtless the produce of two birds. They are of a pale reddish white, or yellowish grey ground colour, spotted and speckled with dark reddish brown. The hen sits for three weeks to hatch the eggs. The young quit the nest very soon after being hatched.

Male; weight, about four ounces; length, about nine inches; bill, yellowish olive, the tip brown, the base dull orange, or reddish brown; iris, dark reddish brown, over it is a streak of purple grey, minutely spotted with white. Forehead, purple grey; head on the sides, greyish green, spotted with black; on the crown, dark brownish black, the feathers edged with yellowish brown, and speckled with white; the neck on the back, and the nape, olivaceous brown, the centre of each feather with a dusky spot, the latter also with white edges; the neck on the sides is greyish olive green, each feather barred and spotted on the tip with white, with a narrow border of black. Chin, dark grey, spotted with white; throat, purple grey, minutely spotted with white; breast above, dull greenish grey, spotted with white, on the sides barred with black, white, and olivaceous brown; below grey, or pale buff white, on the sides leaden grey, barred with white; back above, dark olive brown, each feather with a black centre, and longitudinally streaked with white; below, dark olive green, the feathers marked with white lines surrounded by a narrow border of black.

The wings have the axillary feathers dark brown, barred narrowly with white; greater and lesser wing coverts, olivaceous green, tinged with yellowish brown, with a dusky spot on the centre of each feather, and

other white spots surrounded by a line of black. Primaries, very dark dusky brown, tinted with olive green, with the outer web of the first feather white; tertiaries, long, transversely streaked with narrow white lines surrounded by a broad shade of black. Tail, black in the middle of the feathers, their edges brown, and spotted with white; it is rather rounded at the end, the centre feathers being the longest; upper tail coverts, black in the middle, margined with pale greenish olive and brown, and spotted with white; under tail coverts, grey, or pale buff white. Legs and toes, which are long, olive yellow; claws, brown.

The female is like the male. Head on the sides, reddish, spotted with brown.

The young, on their first appearance, are entirely covered with black down; the bill red at the tip and the base, the middle part black; afterwards they have the bill greener, and tinged with dusky, the tip brown; the eye-brows deep grey with numerous white specks; head on the sides, chin, and throat, greyish white, with a few darker specks; the upper parts more greenish with fewer white spots, and more rounded; the breast below, more white, the quills deep brown; the legs greener in colour, and tinged with dusky grey.

LITTLE CRAKE.

OLIVACEOUS CRAKE. LITTLE GALLINULE.
DWARF RAIL.

<i>Crex pusilla</i> ,	SELBY. JENYNS.
<i>Gallinula minuta</i> ,	MONTAGU. BEWICK.
“ <i>Foljambei</i> ,	MONTAGU. BEWICK.
“ <i>pusilla</i> ,	FLEMING.
<i>Zapornia</i> “	GOULD.
<i>Rallus pusillus</i> ,	LATHAM. ,

Crex—..... ?

Pusilla—Small—little.

THIS Crake is not uncommon in the southern parts of Europe, for instance, in Italy, Germany, Turkey, Hungary, and the sunny side of France, and also is obtained in Holland. It has been found also in Asia, namely, in Persia and Japan, according to M. Temminck.

In this country it is a rare species. The first recorded specimen occurred in Yorkshire, May the 6th., 1807, on the “Banks of the Yore,” a locality since made of some celebrity in the “Poet’s Corner” in the “Yorkshire Gazette.” In the same year one, in the autumn, at Adwick, by Manchester. The next year Ashburton, in Devonshire, in the year 1809, and was figured and described by Colonel Montagu. Another was obtained in Norfolk, in May, 1812, and again, another in the same year on the banks of the Thames, near Chelsca. In March, 1826, one, a female, was caught



LITTLE GREBE.

at Barnwell, near Cambridge. In 1834, one was shot near Yarmouth, Norfolk, and another a male, at Heigham, in that county, March 30th., 1847. In October, 1835, one taken on the bank of the Adur, at Beeding, near Shoreham, Sussex. In 1836, another in Yorkshire, near Scarborough; and one many years ago was captured at Cantley, near Doncaster, the seat of John Walbanke Childers, Esq., M. P. One also in Derbyshire, near Derby, received by the Rev. Thomas Gisborne, of Yoxall Lodge. It is said to have occurred at Godalming, in Surrey.

One of these birds was found dead in a plantation, on the banks of the Isla, at Thornton, in the parish of Grange, near Banff, N. B., on the 12th. of March, 1852. This is believed by Mr. Edward, of that place, who has recorded the circumstance in the "Banffshire Journal," to be the first authenticated instance of the species having been met with in Scotland. In the "Zoologist," page 1702, one is mentioned as having been met with near Yarmouth, in March, 1847.

The Little Crake is not only habituated to low grounds and meadows, both marshy and dry, and the sides of rivulets, but also at times occurs in more elevated and cultivated situations.

It is easily kept in confinement, and becomes very sociable.

These birds perch at times on the branches of trees. In moving along the ground, which they do with great velocity, or over the surface of the water-plants, which they tread on so lightly as hardly to seem to make any impression on them, the body is carried in an horizontal manner, the tail generally lowered, but sometimes erected, and the head and neck thrown back. They swim well, and dive, if need be. Their flight is per-

formed close to the earth, and is wavering in its character, and seldom prolonged to any distance. If alarmed, they run for shelter, in preference, for the most part, to seeking safety by flying; they have the capability of immersing themselves beneath the water, keeping only the bill above so as to be able to breathe. Meyer says, "The present species has a very great peculiarity that belongs solely to itself, namely, its curiosity; if a person who is acquainted with the habits of the bird very carefully approaches the spot where an individual is known to be, it may be seen to come to the edge of the swamp and utter its piping call-note, as it were in astonishment at what it sees." It appears not to be shy in its habits.

Its food consists of minute snails and small mollusks, beetles, flies, gnats, grasshoppers, water-spiders, and other insects and their larvæ; the winged kinds it is expert at catching, as they fly.

Nidification commences. at the end of May or beginning of June.

The nest, of considerable size, is placed either in a tuft of rushes or upon the water itself, supported, in the latter case, on the stalks of rushes or other aquatic plants, bent down and intermingled with grass, the adjoining materials of the like kind being drawn in a hood-like manner over it.

The eggs are from seven or eight to ten in number, smooth, without much polish, and of a light olive brown or yellowish or greenish white colour, spotted with darker brown.

The young run out of the nest almost directly after being hatched.

Male; weight, two ounces; length, about seven inches, or from that to seven and three-quarters; bill, long

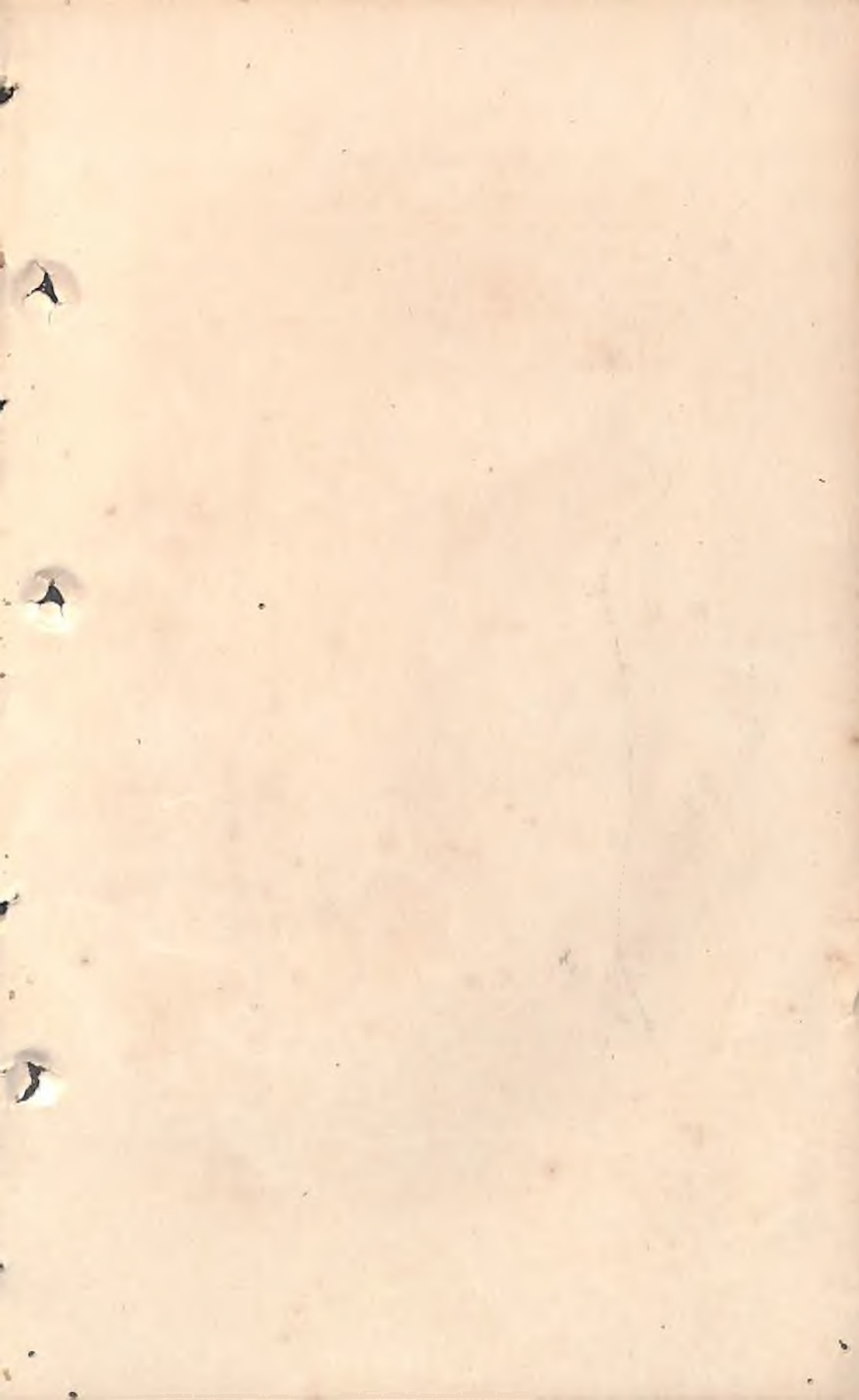
and slender, deep green, pale yellowish red at the base. Iris, crimson red; the head on the sides is of a slate grey colour; on the crown, the neck on the back and nape, dusky brown with a yellow olive tinge; chin, greyish white; throat, slate grey colour, the latter on the sides brown; breast above, pale fawn-colour, below, olive brown spotted with white and slightly barred with paler brown. Back above, deep olive green, black on the middle part, forming a broad streak, the feathers margined with olive brown, the inner margins pale with some white streaks and spots; below, olive brown.

The wings have the first and second quill feathers of nearly equal length, and longer than the first; greater wing coverts, with white tips surrounded by a line of black; lesser wing coverts, plain dull olive green; primaries, dark dusky brown, tinged with dull olive green; tertiaries, dark brownish black on the centres of the feathers, the edges dull greenish olive. Tail, dark dusky olive brown; upper tail coverts, dark dusky brown; under tail coverts, dark slate grey colour, spotted and crossed with white. The legs and toes, which are long, are of a deep olive green colour; they are bare of feathers for not quite half an inch above the knee; the hind toe is considerably produced: claws, horn-colour.

The female has the eyebrows pale grey; head about the eyes, pale ash grey colour; crown, pale brown; neck on the back and sides, pale brown, in front delicate whitish buff-colour; chin, white; throat, greyish white; breast, pale whitish buff-colour, on the sides barred with the colours of Shakespeare's witches—"white, black, and grey;" back on the middle part, nearly black, with some white marks sparsely scattered. Greater and lesser wing coverts, dark on the middle of the feathers, their edges broadly marked with pale brown,

the inner margins lighter in colour than the outer ones; primaries, dusky brown; tertiaries, dark in the middle of the feathers, brown on the edges. Tail, dark brown; upper tail coverts, dark brown also; under tail coverts, barred with grey or yellowish brown and white spots.

The young are at first covered with black down, afterwards they resemble the female.







598.2941
MOR
V. 5



BAILLON'S CRAKE.

Crex Baillonii,
Gallinula Baillonii,
Zapornia "
Ortygometra "

JENYNS.
TEMMINCK.
STEPHENS.
SHAW.

Crex—.....?

Baillonii—Of Baillon.

THE name of this species was assigned to it by Temminck, in honour of M. Baillon, an eminent naturalist of Abbeville, in Picardy.

It is found in different parts of Germany, Italy, Hungary, Greece, Switzerland, and Dalmatia, and is said to breed in some of the northern provinces of "La belle France" along the coast, and to be by no means uncommon in that district. It belongs likewise to the continents of Asia and Africa, and to the islands of the former, having been found, according to M. Temminck, in Japan.

In Cambridgeshire, one of these Crakes was caught at Melbourne, in January, 1823; in Norfolk it has occurred, but is very rare. A specimen was obtained near Deal, Kent, the 19th. of September, 1850, by C. A. Delmar, Esq.; he subsequently procured a second in the same locality, in the latter part of October, 1851.

In Ireland one was taken at Clay Castle, near Youghal, in the county of Cork, on the 30th. of October, 1845.



BAILLON'S C.

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This bird appertains to low and marshy situations by the sides of rivers, ditches, and water-courses.

In this country specimens have been obtained in each of the four quarters of the year, but few have been noticed, owing to the shyness of their habits.

The species soon becomes reconciled to confinement.

It is capable of running with almost inconceivable dexterity among the thickest of the coverts which it frequents. It is raised from these with difficulty, and if compelled to get up, only flies a short distance. It can, however, make more prolonged flights with comparative ease. It swims well, and can dive, if need be for it to do so, keeping, when still, the point of the bill only above the water.

Its food is made up of water-insects and their larvæ, slugs, spiders, and beetles, as also of the seeds and leaves of plants.

The note is reported as an almost indescribable sort of low whistle.

The nest of this Crake is made near the water's edge, in the moist situations which the bird itself frequents, among long grass, flags, or rushes, and is very difficult to find. Its component parts are the stems and leaves of water-plants, sedge, and grasses.

The eggs are seven or eight to ten in number, and of a regular oval form. Their colour is greyish white, spotted with yellowish brown. The hen bird is said, on leaving them, to add to the nest the concealment of the surrounding and overhanging herbage.

Male; length, from five inches and a half to six and a half—Sir William Jardine says that his Scotch specimen measured only four inches in length at the most; bill, dark olive green. Iris, reddish brown; head in front and on the sides, bluish slate-colour; on the

crown, the centres of the feathers being darker, the neck on the back, and nape, yellowish brown; chin and throat, grey; breast, bluish slate-colour, with bars of black and white on the sides; back, yellowish brown, with a tinge of olive green, with round and triangular-shaped white spots, surrounded with black, and some of them with black centres in addition, forming a list extending downwards.

Greater and lesser wing coverts, yellowish brown with a tint of dull green, and varied with white spots and streaks, barred or edged with black; primaries, dusky brown; the outer edge of the first quill feather is white; secondaries, with zigzag white lines bordered with black; tertiaries, yellowish brown with a tinge of dull green, and spotted or streaked irregularly with white, with edgings or bars of black. The tail has the middle feathers dusky brown; under tail coverts, unevenly barred with greyish white and dull black. Legs and toes, pale yellowish or olive green reddish brown.

The female is like the male, but her colouring is paler.

In the young the throat and breast on the middle part are white, with uneven bars of brown. The sides olive with spots of white. The back has fewer of the white spots.

WATER-RAIL.

BILCOCK. BROOK-RUNNER. RUNNER.

Rallus aquaticus,

PENNANT. MONTAGU.

Rallus—.....? *Aquaticus*—Aquatic—belonging to water.

THE Water-Rail is, in Europe, found in Germany, France, Holland, Switzerland, Spain, Italy, and Malta, Iceland and the Ferroe Islands, Norway and Sweden, though but rarely. It has been noticed also in Asia, in Asia Minor and the region of the Caucasus; and, Bewick says, migrates into Africa in winter.

It is not a plentiful species, except in the Fen counties, but yet can by no means be called rare in suitable situations in any part of the kingdom.

This Rail frequents the sides of rivers, streams, water-courses, pools, ditches, and ponds, and any swamps or marshy places in their vicinity, where the strong vegetation gives it shelter.

In Cambridgeshire, the Rev. Leonard Jenyns relates that it occasionally is met with near Bottisham, as it no doubt is in many other parts in that district. In Norfolk it is abundant; it breeds in several parts of the county, and remains throughout the year.

In Yorkshire, it is more or less commonly met with in the neighbourhood of York, Burlington, Sheffield, Leeds, Doncaster, Barnsley, Hebden Bridge, and Halifax, near which place, namely, at Saltershebble, a young bird was



WATER-HAIL

shot. I have seen them at Wansford, in the parish of Nafferton; and in Berkshire, near East Garston. One was shot in the neighbourhood of Blaydon Burn, in the county of Durham, in January, 1854, John William Bell, Esq. informs me, one only having been heard of about there before.

In Sutherlandshire, Mr. St. John says that they are not uncommon in the winter. In Orkney, the "Natural History of Orkney" informs us that it is found all the year. It was formerly abundant about the Loch of Aikerness, but since that was drained, has disappeared in that quarter. It is sometimes seen at Crantit, near Kirkwall, and is not uncommon in Sanday.

In Ireland, it is resident and indigenous.

Some breed here. They have been known to do so near Odiham, in Hampshire; in the county of Norfolk, near Brandon; also at Kingston; and near Melbourne, in Derbyshire; and have been seen in summer in Cambridgeshire, in Guy Fen, near Cambridge; and in fact in various parts of the country.

Individuals have been killed in the winter months of December, January, and February.

It is, at all events partially, a migratory species, and in severe winters the numbers of these birds seem to be increased, perhaps from the north. In May they move. They have, on different occasions, been met with at sea, far from any land. Buffon has recorded one instance, where a flight of them were seen fifty leagues from the shore, some of which were so fatigued that they were taken with the hand. Another alighted on one of the yards of a man-of-war, five hundred miles from any land, in the Atlantic Ocean, and was also captured.

This is a very good bird to eat. It is preserved

without difficulty in confinement, and associates amicably with other birds, but is naturally shy and vigilant, and does not appear to become very tame. One is mentioned by Yarrell as having exhibited a pugnacious disposition. Another, kept by Meyer, would snap its food from a pair of Godwits kept with it. The way in which it had been obtained was singular:—It appeared to have taken refuge in a hen-house, and on the owner putting in her hand to take the eggs, caught hold of it, and so it was drawn out. The Water-Rail seems to suffer from severe weather. If pursued, it will creep into some hole, and allow itself to be taken with the hand.

The Water-Rail flies slow and near the ground, with the legs hanging down, and in an apparently weak manner, as if unable to rise over any height. As it is at first difficult to make it rise, so it drops again as soon as it can, into the nearest hiding-place. It runs with remarkable swiftness in its natural resorts, threading its way among the closest stalks, or wading in shallow water, and can also make its way with readiness over the ice, or along a rail, or on the branch of a tree, as well as over the floating weeds on the top of the water. It dives readily, if desirous to escape from any danger, and exhibits the same flirtation of the tail that other birds of its kind do when walking about.

Its food consists of water-insects, worms, young frogs, slugs, small snails, and insects. One has been known to have devoured a full-grown shrew mouse; and another was found dead by means of a fish of the kind called Miller's Thumb, which *'fancibus hæsit'*.

The nest, which is built of sedge, flags, and grass, is abstrusely concealed among the thickest herbage; fre-

quently in willow beds. Mr. Wolley mentions one which was built upon rushes floating on the water, and another upon a clump close to its margin.

The eggs are covered with small specks of greyish ash-colour and reddish brown, on a dull cream-coloured white ground; some are almost spotless. They are from seven to ten in number.

Male; weight, from four ounces and a half to six ounces; length, from eleven inches to eleven and a half, or nearly twelve; bill, clear reddish orange at the base, fading into dusky at the tip; the red prevails more over, or rather under, the lower mandible than the upper. Iris, red; over it is a streak of bluish slate-colour; head on the sides, bluish slate-colour; on the crown, neck on the back, and nape, dusky yellowish olivaceous brown, the centres of the feathers black in an oval shape; neck on the sides and chin, greyish white; throat and breast, dark bluish slate-colour, the last-named barred on the sides with black, cream-colour, and white, the tips of the feathers reddish brown. Back, dusky yellowish olive brown, the whole centre of each feather nearly velvet black, and the edges margined with brown.

The wings, when closed, do not reach above half the length of the tail—the axillary feathers barred with black and white; of the lesser wing coverts, a few are barred with black and white; primaries, dusky brown; secondaries, dusky brown; tertiaries, dusky olivaceous brown, the centre of each feather black in an oval shape. The tail, of twelve feathers, is dusky, the edges of the feathers olive brown, leaving only a little of the centre black: in flirting up the tail, this species also displays the white underneath. Under tail coverts, dull cream-coloured white, the bases of the feathers black,

the tips reddish brown. Legs and toes, which latter are long, pale reddish brown or greenish, the joints of a bluish tint.

The female resembles the male, but the bill is shorter and paler.

The young have the throat and breast barred with pale brown on the margins of the feathers; the breast also without the white bars on the sides, and paler likewise in colour than in the adult.

Montagu says, "In some there are a few feathers at the elbow of the wing, on the coverts that are barred black and white, and the tail feathers margined with brown; the middle ones wholly olivaceous brown. Others have the feathers on the fore part of the neck margined with white; but the last variety, as mentioned by other authors, we believe is more rare." White varieties have occasionally occurred.



MOOR-HEN

MOOR-HEN.

WATER-HEN. COMMON GALLINULE. MOAT-HEN.
MOOR-COOT. MARSH-HEN.

Gallinula chloropus,
Fulica “

PENNANT. MONTAGU.
BEWICK. FLEMING.

Gallinula—.....? *Chloropus*. *Chloros*—Green.
Pous—A foot.

THIS is a well-known bird throughout the continent of Europe, as in Holland, France, Germany, Spain, and Italy, but is least plentiful in Russia, Denmark, and Sweden. In Asia, it occurs in Siberia, Asia Minor, the countries between the Black Sea and the Caspian Sea, and in Persia. In Africa it is also indigenous, even to the Cape.

In Yorkshire the Moor-Hen is plentiful in most parts, but is said to be less so near Halifax and Hebden Bridge.

In Ireland it is common and indigenous.

In Orkney, while the Loch of Aikerness existed, it was abundant in that vicinity. It is, however, pretty common in various directions. It is found in several parts of Sanday. A few pairs have built their nests for some years in the meadow of Crantit, near Kirkwall.

Its haunts are among rushes, reeds, sedge, osiers, or brushwood of any kind, by the sides of ponds, lakes, moats, streams, and rivers, preferring such of the latter

as are more "slow and still," or those parts of them that are so.

The Moor-Hen, if unmolested, though of a shy nature, soon becomes very familiar and tame, and will feed with domestic poultry, little heeding the approach of man. It is in fact, even in its wild state, so to speak, a "demi-semi" domesticated species. I have seen them on waters where they are not disturbed, heedless of near approach, and tolerant of passers-by on an adjoining public road. The Rev. R. P. Alington has had them come of their own accord into his hall, and pick up crumbs, and on being disturbed, they would quietly run out of the door, stop, turn a wistful glance of regret back, and commence feeding outside.

Pennant mentions a pair which would come to him to feed with poultry when called; and there are some now so tame on the ornamental water in St. James' Park, that they will come close to those who offer them food.

Bishop Stanley writes of the Moor-Hen:—"In the middle of any such little open space she may usually be detected swimming about with a joyous sort of jerking motion, but on the least rustle exciting a suspicion that an enemy is near, gliding silently through the narrow channels, or running with a light tread over the floating leaves, to seek invisible shelter under the roots or hollows of the bank. Not that she always prefers the water, for often in the evening she may be seen wandering in the new shorn grass of a hay-field, easily distinguishable by the white feathers underneath, and a peculiar jerk or flirting of the tail. But with all her shyness, she is, nevertheless, a tame and sociable bird; and if treated with kindness, will shew a marked confidence. We have seen Water-

Hens visiting the lawn of an inclosed garden, and remaining there, notwithstanding the constant intrusion of parlour dogs, peacocks, and tame pheasants; and again, not unfrequent intruders in a barn-yard mixing in a party of poultry.

But at the residence of a clergyman near Cheadle, in Staffordshire, a much more striking instance of familiarity has for some years occurred. Adjacent to the lawn there is a moat, on which a pair of Water-Hens were observed for several seasons, always, however, leaving it in the spring. By being constantly fed they in time became quite tame, and at length were induced to breed there, from the circumstance of a thorn-bush, covered with ivy, having fallen into the water, in which they afterwards continued to build their nest. When the young are a few days old, the old ones bring them up close to the drawing-room window, where they are regularly fed with wheat: and as the lady of the house pays them the greatest attention, they have learned to look up to her as their natural protectress and friend, so much so, that one bird in particular, which was much persecuted by the rest, would, when attacked, fly to her for refuge; and whenever she calls, the whole flock, as tame as barn-door fowls, quit the water and assemble around her, to the number of seventeen. (November, 1833.)

They have also made other friends in the dogs belonging to the family, approaching them without fear, though hurrying off in great alarm on the appearance of any strange dog. The position of the water, together with the familiarity of these birds, have afforded many interesting particulars respecting their habits."

They increase in numbers very rapidly, as will appear only natural from the account to be presently

given of the number of broods produced in the year. The old birds, nevertheless, are very combative among themselves, and extremely tenacious of their territorial rights. If protected they will keep long to the same situation. They are excellent eating.

If they have not oftener been known to come to doors, to forage with fowls, it is only because they have met with discouragement instead of the contrary. In gardens they will do, it must be allowed, considerable damage sometimes both to fruit and vegetables.

These birds have the power of submerging their bodies beneath the water, while only the bill, or little more than the bill, is kept above it. This has been conclusively proved by W. H. Slaney, Esq., of Hatton Hall, Shropshire, in the "Zoologist." They have also been known, when pursued, to dive to the bottom and remain there till almost dead, sooner than be taken. I remember once hooking one accidentally when fly-fishing, as it was swimming from one side of the brook to the other. They take part of their food also below the surface, as is proved by their having been captured by means of baits set for fish—"the thief caught with the mainour." The one just mentioned was, I think, diving at the time. They spend most of their life in the water.

The late Bishop of Norwich records the following very curious instance of apparent reasoning power in one of these birds:—But it is not only in their instinctive attachments and habits that they merit notice. The following anecdote proves that they are gifted with a sense of observation approaching to something very like reasoning faculties:—At a gentleman's house in Staffordshire, the Pheasants are fed out of one of those boxes described in page 308, the lid of which rises with the pressure of the Pheasant standing on the rail

in front of the box. A Water-Hen observing this, went and stood upon the rail as soon as the Pheasant had quitted it; but the weight of the bird being insufficient to raise the lid of the box, so as to enable it to get at the corn, the Water-Hen kept jumping on the rail to give additional impetus to its weight; this partially succeeded, but not to the satisfaction of the sagacious bird. Accordingly it went off, and soon returning with another bird of its own species; the united weight of the two had the desired effect, and the successful pair enjoyed the benefit of their ingenuity. We can vouch for the truth of this singular instance of penetration, on the authority of the owner of the place where it occurred, and who witnessed the fact."

The flight of this species is, for the most part, low as well as slow, with the legs drooping down. During the fine warm nights of summer they may, at times, be heard, that is the male birds, flying about and uttering their note over-head at a considerable height in the air. If disturbed in open water, the Moor-Hen will take to its wings, but if near its nest, or in the proximity of cover, will, if it does not use that mode of escape, resort to diving, and after the latter, especially if pursued by a dog, will seldom rise to the surface again, but remain submerged, the bill only being kept up for the purpose of breathing. For a conclusive essay on this power possessed by various water-birds, I refer my readers as I have already done in a former instance, to a paper by my brother, Beverley R. Morris, Esq., in the "Naturalist," volume i. The Moor-Hen not unfrequently scales trees of the smaller size. I have found one on the top of an ivy-covered thorn bush, some ten or twelve feet from the

ground: such a place, or the head of a lopped oak is a favourite resort. I have frequently observed others going to roost in alder trees, scrambling along the branches at a like height.

They seem, when in such situations during the day-time, to like to keep near the trunk, at least in fir-trees. They are then easily approached quite close, and only quit on being alarmed. If surprised on the land they will either run or fly to the nearest cover or water, or combine the two motions, and then hide in a hole, or under or among the vegetation. They progress beneath the water by the united action of both wings and legs, the expanded membrane of the toes assisting their advance. They are good swimmers, and run expertly also over the water-plants. It is pretty to watch them picking out their steps along a railing, as they may at times be seen to do, and still more so when on the bending boughs of some small tree, which give way beneath their weight, but on which they nevertheless keep their hold and adroitly balance themselves, although their feet are so ill-adapted, from their size, for such performances that they can afford but very little comparative help. It is curious also to see how cleverly they will thread their way out from the middle of a thick bush, without any apparent ruffling of their feathers. When walking, or swimming, they frequently toss up their heads, and have a constant habit of flirting the tail. The former motion is also constantly practised when the bird is feeding on the water, as it pecks first on one side and then on the other in succession. The young, when only a very few days old, begin to forage for themselves. They take to the water instinctively.

The Rev. W. T. Bree, of Allesley Rectory, Warwick-

shire, gives the following account in the "Zoologist," page 2801, of the feigning of death by one of these birds, in a similar manner to that already narrated of the Land-Rail. He says, "Walking by the side of a mill-pond, I started a Water-Hen, which rose out of the sedges close under my feet, and flying not more than about thirty yards, settled in a wide ditch of water, which formed part of the pool tail; on going directly up to the spot, I saw a Water-Hen (the same, I conclude, that I had just before flushed,) lying on the surface of the water, in the middle of the ditch, perfectly motionless, and with its head apparently under water, at least I could perceive no portion of its head or neck. I stood viewing it for some seconds, and took it for a dead bird; but on gently stirring once or twice with a spud I had in my hand, it began to move, and springing up flew into an adjoining osier-bed. Was this bird feigning death as a means of security; or why did it not take shelter among the flags which abounded on either side of the ditch?

A few years ago, I was present at the dragging of a river, when a Water-Hen became entangled in the net and was captured; it retained such fast hold with its long claws among the meshes of the net, that it was with difficulty we could release it, and some slight degree of force perhaps might have been employed in the attempt. After the bird was extricated, and laid upon the bare turf of the meadow, it appeared to be nearly dead, and was unable to stand. Some means were resorted to in way of cherishing, in the hope of restoring animation, but all apparently to no purpose. As life however was not quite extinct, and with a view to give the bird a chance, it was placed among the flags on the margin of the river, when, to

our surprise, it immediately roused itself up, and ran away into closer shelter as brisk as if nothing had happened to it. Are we to suppose that in either or both these instances the Water-Hen feigned death for the sake of defence. In the latter instance it may possibly be urged that the bird had been so terrified, as to have been almost frightened to death; but in the former, no further alarm had been given to the Water-Hen except what was occasioned by my having accidentally intruded upon its haunts."

They feed severally in the morning or the evening, on the water or the land, on water-insects, larvæ, slugs, worms, grasshoppers, grain, small mollusks, seeds, grasses, water-cresses, and other plants, the latter being of especial service in hard weather, when they are frozen out from their other and ordinary sources; but even with this provision they appear weak and languid in very hard winters, whether from the severity of the cold, or the failure of a sufficient amount of their more proper food. H. T. Partridge, Esq., of Hockham Hall, near Thetford, Norfolk, relates the following curious fact in the "Zoologist," page 4255:—"At the beginning of July, the keeper having lost several Pheasants about three weeks old, from a copse, and having set traps in vain for winged and four-footed vermin, determined to keep watch for the aggressor, when, after some time, a Moor-Hen was seen walking about near the copse; the keeper, supposing that it only came to eat the young Pheasants' food, did not shoot it until he saw the Moor-Hen strike a Pheasant, which it killed immediately, and devoured all the young bird except the leg and wing bones. The remains agreed exactly with those of eight found before. Perfect confidence may be placed in the correctness of this

statement." They wander at times into stubble fields, in the neighbourhood of their usual haunts, in search of food, or even venture into the farmer's stack-yard.

The note is a mere cry or sort of chirping call, moderately loud.

The nest, which is large, is strongly put together, though only of rough workmanship, and is commonly found well concealed among reeds, long grass, or the roots of trees, just above the water's edge, on the margin of a stream or by a bank. One has been known as much as three feet above the surface, on the stump of a tree, or even on the lower branches of a fir, or in a thorn bush at that elevation. The Rev. Leonard Jenyns has recorded an instance in which it was constructed among the ivy encircling a large elm, which hung over the water's edge, at the height of at least ten feet from the ground. A writer in the "Magazine of Natural History," mentions another placed in a fir tree twenty feet above the water. He says "there was a reason for it, the rising of the water in the pond frequently flooded the banks of the island, and, as I had before witnessed, had destroyed several broods." One was built upon the branches of a willow overhanging the lake at Castle Howard, at a height of four or five feet above the water.

The nest has been known quite unattached to any fixture, though surrounded by loose sticks, and thus at the mercy of the wind and waves. The birds have been observed both to hatch their eggs after being removed in part of the nest to another place, and also themselves to remove them, when threatened with destruction by the rising of the water, fresh materials being in each case brought together. J. H. Gurney, Esq. and W. R. Fisher, Esq. have recorded an instance

in which they knew the nest of a Moor-Hen placed in a fir plantation at a distance of a quarter of a mile from any water. I have seen one myself placed at some height over the water on a fallen branch of a tree, which formed a natural bridge over a river.

The Rev. J. C. Atkinson, writing in the "Zoologist," page 767, observes of the Moor-Hen, that it, "occasionally at least, builds a second nest, to accommodate a moiety of its young, when they have attained a size too large to permit the original one to contain them all; and when the colony is sent to the second nest, one of the old birds accompanies it. An instance of this habit occurred in the vicinity of my father's residence, when I was last at home. The female Moor-Hen was the architect, and the subsidiary nest she busied herself in constructing was built on a bough overhanging the water. The weight of the structure at last became too great for the bough to bear; it gave way, and the nest was destroyed by its own weight, which caused it to fall to pieces when it lost its horizontal position. The old bird seemed to be much annoyed at the perversity of the bough and nest, or else at her own want of foresight, and pecked among the 'debris' with every symptom of rage. She soon, however, renewed her labours, after having selected a more favourable site, and this time the structure was successfully finished. Another nest in a pond near my father's garden, was, after two or three eggs had been deposited, beautifully lined with last year's oak leaves, regularly arranged with their points directed upwards."

"During the breeding season," says Dr. Stanley, "they are constantly adding materials to their nests, making sad havoc in the flower gardens; for though straw and leaves are their chief ingredients, they seem to have

an eye for beauty, and the old hen has been seen surrounded with a brilliant wreath of scarlet anemones. As in this case, so do they usually build their nests on stumps of trees or convenient bushes, by the side of the water; and artlessly formed, as it is, of a few rushes, one might suppose it would be easily discovered, which would be the case but for the caution adopted by the bird, who, before she quits her eggs, covers them carefully up, for the joint purpose of concealment and warmth.

A person fishing on the banks of the Thames, when passing a willow-bed, heard a slight rustling motion. Suspecting it to proceed from some water bird, he kneeled down and remained perfectly quiet, when the noise ceased. On rising and looking about, he saw a Water-Hen busily employed in collecting dry rushes and flags, and laying them one by one over her eggs, deposited in one of those bare nests close beside her. It was not long before she had completely hidden them; and then looking round with a cautious glance, not aware that her motions were observed, softly and silently glided away amongst the reeds, and disappeared. On a nearer approach, strange to say, the nest was with difficulty found; and no one who had not previously ascertained its existence was thereabouts, could possibly have discovered it.

We have said that they usually build either on a level with, or very little raised above the water, but not invariably so; for, although almost entirely confined to the water, as their abiding as well as feeding-place, they will not only perch on trees when roosting, but even build their nests at a considerable elevation above the ground. An instance of this occurred in Surrey, where the attention of a person who had landed upon

an island in the middle of a large pond, was drawn to a mass of dry rushes, flags, and reeds, strangely heaped together, about twenty feet above the ground in a spruce fir tree. Curiosity induced him to climb up, when, to his surprise, out crept a Water-Hen, which dropped into the pond, and made off towards the shore."

The eggs are usually five, six, seven, or eight in number; nine or ten have, however, been often seen in one nest. They are of a reddish or yellowish white colour, spotted and speckled all over with reddish brown; they vary exceedingly in size. Three broods are commonly reared in the year, sometimes, it has been thought, even four; the first eggs are laid the end of April, or in May, and are, in early seasons or localities, hatched in the latter month, but otherwise the beginning of June. It is a curious fact, first pointed out to me by Mr. Alington, that the youngest brood is carefully and kindly attended to by that which is its elder, as both are at the same time by the parents, but when a third comes, it is to the abandonment of the first.

The late Bishop of Norwich, Dr. Stanley, also mentions this fostership:—"He says, "They have three broods in a season; the first early in April, and they begin to lay again when the first batch is about a fortnight old. They lay eight or nine eggs, and sit about three weeks, the cock alternately with the hen. The nest in the thorn bush is placed usually so high above the surface of the water, that when the young are first hatched, and have quitted it, they cannot climb into it again; but as a substitute, within an hour after they leave the nest, the cock-bird builds a larger and more roomy nest for them with sedges, at the water's edge, which they can enter or retire from at pleasure. For about a month they are fed by the old birds, but

soon become very active in taking flies and water-insects. Immediately on the second hatch coming out, the young ones of the first hatch assist the old ones in feeding and hovering over them, leading them out in detached parties, and making additional nests for them, similar to their own on the brink of the moat.

On the appearance of the third brood, the old ones invariably drive the first away to a neighbouring pond, where they remain until September, when the first hatch is about half-grown.

About this time a fresh party of birds makes its appearance, which, from their tameness, is, no doubt, composed of broods formerly bred there, and in the moat the united families remain until the following spring, when the original pair drive all the rest away, but not without many severe and curious contests frequently in the water, when they throw themselves on their backs, and strike at each other with their feet. When either of the combatants begin to find himself worsted, he dives and does not re-appear, thus eluding his adversary by hiding his whole body under water, and merely exposing his beak for respiration."

Incubation continues three weeks. The young soon leave the nest, still attended by their mother, who leads them to the water, but, for a time, they return to it at night for shelter. The hen takes the young at times under her wings. The mother has been seen to fly down with a young bird in each foot, from the nest built a few feet over the water on the branch of a tree.

The plumage in this species is close and thick-set. Male; weight, from fourteen to sixteen ounces, Bewick says from ten and a half to fifteen, but this may be accounted for by their emaciated condition in very severe

weather; length, one foot one inch to one foot two; bill, greenish yellow, the base bright red, ascending up the forehead, both brightest in the spring; iris, dusky reddish. Head, small, and on the crown, as is the neck on the back and nape, deep blackish purple grey; throat and breast above, dark slate grey; below, margined with dull greyish white; on the sides, streaked with white, and in the spring glossed with a reflection of green; back, very dark blackish brown, with a tinge of olive, brightest in the spring.

The wings have a white edge at the bend; primaries, greyish black. The tail, which is greyish black with a tint of deep green, is rounded at the tip; upper tail coverts, white, with some black feathers; the former colour is visibly shown when the bird, as before mentioned, flirts up its tail. There are sometimes a few white feathers on the thighs. The legs, which are placed rather far backwards, are surrounded above the knee with a red band or garter, and are otherwise, as are the toes, which are very long, the hind one considerably produced as well as the others, pale dull green: the latter are fringed out with scales. Claws, dark brown.

The female is like the male, but is less in size; the red on the bill is deficient. The garter above the knee is also less bright.

The young are, at first, clothed in black hair-like down. In their subsequent plumage the bill is dull green, the base darkest; the patch on the forehead small, and partially covered with feathers; the head on the sides is a mixture of blackish brown and white; the neck on the sides yellowish brown; the throat brownish white; the breast, ash grey, tinged with yellowish brown, paler below, and almost without the longitu-

dinal white streaks; under tail coverts, yellowish; legs and toes, dull green.

One was killed at Branford, near Ipswich, Suffolk, the 16th. of December, 1847, which had the bill greenish yellow at the tip, and red at the base; the iris red; the head greyish black; breast, greyish white, inclining to chesnut on the sides, below black; the back light chesnut; the wing coverts, primaries, and tertiaries, black, edged with chesnut; the tail also black, edged with chesnut; upper tail coverts, light chesnut; under tail coverts, white. Legs and toes, green; all the plumage of the body, with the webs disunited, having the appearance of hair.

The Rev. R. P. Alington has furnished the drawing from which the plate is taken.

COOT.

COMMON COOT. BALD COOT.

Fulica atra,
Fulica aterrima,PENNANT. MONTAGU.
LINNÆUS.*Fulica*—.....?*Atra*—The feminine of *ater*—Black.

THE Coot is widely distributed throughout the continents of Europe, Asia, and Africa; occurring in Sweden, Norway, Denmark, Iceland, the Ferroe Islands, Russia, Spain, Italy, France, Switzerland, Holland, Germany, Siberia, Asia Minor, China, India, and the Islands of Japan and Sunda.

In Yorkshire the species is common in some parts and not so in others. It is nearly extinct about Huddersfield, rather rare near Sheffield, and occasionally seen near Leeds—at Killingbeck and Walton; but that this should be the case with the present, or any other bird in the manufacturing districts, is anything but to be wondered at. About Barnsley, Doncaster, and York, it is somewhat more plentiful; I have seen it on the Driffeld stream. In Cambridgeshire they used to be plentiful in the fens between Ely and Littleport, and so they are still in Norfolk, in the large pieces of water, called Broads, where several thousands have been seen at a time; also in Suffolk, Kent, Essex, Dorset, and Hants: in Cornwall they are not uncommon. They



are said to have been plentiful on Southampton water, in Hampshire, and at the Isle of Sheppy, in Kent.

In Scotland, though a few remain during mild winters, it is, for the most part, a summer visitant, as also in the Orkney Islands; Dr. Baikie and Mr. Heddle remark that this species is found in various parts of Orkney. It was common in Evie, and is still frequent in South Ronaldshay, in Sanday, in Papa Westray, etc. It breeds, and remains throughout the year.

In Ireland also, it is a constant resident.

Its natural resorts are large and small lakes and ponds, and sluggish rivers, where reeds and rushes, the spontaneous growth of the alluvial soil, furnish umbrageous recesses suitable to its desire of privacy; but it also at times visits the low parts of the coast, especially during hard frosts, when the inland waters are frozen up.

It is, to a certain extent, migratory; many remain with us throughout the year, but still more come towards winter from the north, and of these also, the chief number seek the more southern parts of the island. The spring movement takes place in March and April, and the autumnal one in October and November. The birds proceed by night to or rather towards their destination, beginning to move about dusk, and halting by the break of day at any suitable place of repose and refreshment. The flocks preserve no special order in their flight, and their voices may be heard aloft in still weather, at such times indicative of the approaching change of weather.

They are shy, except in the breeding-season, and give instant notice, made use of at the same time by other birds in their neighbourhood, of the approach of any danger. They will live long in confinement, being easily tamed, if a sufficiency of water exists for their

habits. Sir Thomas Browne wrote about two hundred years ago of these birds—"Upon the appearance of a Kite or Buzzard, I have seen them unite from all parts of the shore in great numbers, when, if the Kite stoops near them, they will fling up and spread such a flash of water with their wings, that they will endanger the Kite, and so keep him off again and again in open opposition." Messrs. Shepherd and Whitear, in their "Catalogue of Norfolk and Suffolk Birds," observe that they practise this habit also to defend themselves or their young from the frequent attacks of large and predaceous Gulls. Coots are frequently to be seen in the markets for sale, but they are not considered good birds to eat. They have the same power that the Moor-Hen has of keeping the body sunk beneath the water, while only the bill is kept out to breathe, and even the very young birds not only dive, but practise this mode of hiding themselves when pursued.

The Coot dives with great quickness and ease, rising sometimes as much as a hundred yards from the spot where it had gone down. They are very powerful and strong on the wing, though they seem to dislike getting up, and are at times seen at a considerable height, and make extended migrations. In flight they carry the legs stretched out behind them. If alarmed to get up from the water, they scurry and flap along, the head and neck straight out, and their feet pattering upon the surface, and a large number together make a very considerable noise. They move about on dry land actively and well, and are said to be able to perch on trees, but prefer to keep, which they mostly do, on the other element.

"When the bird is by chance seen to walk on the ground," says Meyer, "its appearance is not very elegant,

owing to the formation and backward position of the legs, and the attitude it necessarily requires to keep its balance, which is by carrying its breast high, back arched, and tail lowered." They are said to make use of their feet as weapons of defence, if attacked at close quarters. They roost at night either on a congeries of rushes in the middle of a piece of water, at a small distance from the land, or ascend some height or mount into a tree, which they do with ease and readiness.

They will readily feed on grass if other food be scarce; grain they devour with avidity. Small fish, aquatic insects, and water-plants form their ordinary supplies; and they also pick the buds, blossoms, and seeds of different plants, and corn, too, when seeking food at night on the land. In the early part of the year, when the plants that have their roots below the water have not as yet reached the surface, these birds, acting on the principle that "if the mountain will not come to Mahomet, Mahomet must go to the mountain," are in the habit of frequently diving to procure them, where they only then can be procured. They remain a considerable time under water in search of food.

The call is only a harsh wild 'crew' or 'kew,' uttered either singly or several times in succession. This is the similitude of it as given by Meyer; but it is rarely indeed that the note of any bird can be properly expressed in the syllabic form. The young keep up a constant noise, unless any one approach, when they instantly become still.

The nest, not unfrequently deferred to be made until May, is a large structure, and though of rough workmanship, very strong in its composition, so as to keep the eggs dry, albeit in such close proximity to water. It is built by the edges of islands in, or by the borders

of lakes, ponds, and rivers, and is generally placed among, and loosely attached to flags and reeds; sometimes on a tuft of rushes, and composed of the former plants: the finer portions are placed inwards. Mr. Hewitson says that they are sometimes accumulated so much as to rise from half a foot to a foot above the water, going down also to a depth of from one foot and a half to two feet; the width is about a foot and a half, and the interior nearly flat, just sufficiently hollowed to retain the eggs. Bewick mentions an instance where the nest of a Coot, built among some rushes in a lake at Belsay, the seat of Sir W. Middleton, in Northumberland, having been dislodged by the wind and driven about, the hen bird still continued to sit on the eggs, and hatched the young as if nothing had happened. Such instances occasionally occur, the nest being either built on a floating mass of sedge or rushes, or composed itself of moveable materials.

Since writing the above, I have observed one placed on the water, as indeed they not unfrequently are, and confined only in its place by the reeds springing up around it. It was only three or four yards from the edge of a small pond, adjoining the high-road between High Catton and Stamford Bridge. The old bird moved a little way from it as I stopped, but did not appear shy, as she doubtless would at another time.

Bishop Stanley writes thus on the subject of this part of the natural history of these birds:—"They, too, build a simple rushy nest, but with this difference, that instead of seeking to raise it above the water, they seem to prefer it floating upon the very surface, where, of course, it is exposed to the double danger of being carried hither and thither according as the wind blows; or if interwoven with reeds or rushes close to the water,

of being covered, should the waters be raised by floods. But the Coot is apparently well aware of these possibilities, and accordingly guards against them, preventing the nests being carried away, by ingeniously fastening the materials of which they are made, to the rushes or osiers near them; but at the same time, these fastenings are of such a nature, as to allow of the nests rising with the water, so that no ordinary flood would expose them to the danger of immersion. The Coot, like the Water-Hen, covers her nest, and, if not so effectually, yet with a most extraordinary rapidity. We have repeatedly watched a Coot quietly sitting on her nest; if the boat approaches, she rises, and immediately begins pecking away right and left, which she continues to do until the enemy is so near that she is compelled to decamp for her own preservation. In this short time, however, she almost always contrives to cover her eggs; and though the nest itself remains a very conspicuous object, a careless observer might pass it as deserted and empty." Quarrels arise among different birds sometimes at the spring of the year, for the choice of a situation.

The eggs are from six or seven, to ten or even fourteen in number, of a light dull yellowish, or greenish pale brown, or stone-colour, spotted with small rust-coloured spots. If the first hatch be taken or destroyed, a second is produced, but in less numbers.

The young almost immediately leave the nest to run about, and after a few days entirely forsake it, unless the weather is unseasonable, in which case, they return to it at night for a week or two, the old birds carefully tending them as long as necessary. The hen covers them with her wings.

The plumage is well adapted to resist water. Male; weight, from a pound and a half to two pounds; length,

one foot three or four inches, or more—up to one foot six—different individuals varying in size; bill, dull white, with a tinge of red in the spring; over its base is a white unfeathered patch, which contrasts beautifully with the sable hue of the rest of the plumage. Iris, red; surrounding the lower part of the eye, is a small semi-circular streak of white; head on the back part of the crown, neck, and nape, deep black, with a tinge of ash-coloured grey; chin, throat, and breast, deep ash grey tinged with bluish. Back, black, with a tinge of ash-coloured grey, the shafts darkest.

The wings have a white line on the bend; underneath, they appear, in some lights, of a silvery grey colour; the shafts of the feathers are darker than the rest; greater and lesser wing coverts, black, with a tinge of ash grey; primaries, nearly black; secondaries, also black, tipped with white, making a narrow line across the wing. The legs, which are placed very far backwards, but appearing still more so than they really are from the way they are bent, have an orange band above the knee; below it, they and the toes are greyish ash-colour, with an olive green tinge about the joints of the former, and the edge of the lobed webs of the latter; they are very long, and the claws sharply hooked. Old birds become blacker in colour.

The female is like the male, but is slightly less in size.

The young, when first hatched, have the head reddish or orange reddish brown, and the rest of the down dingy black. When in full plumage, they are of a paler colour than the old ones, and the patch on the forehead is less in size.

A very curious variety of the Coot was shot, as the Rev. R. P. Alington informs me, at Misson, Nottingham-

shire, near Bawtry, Yorkshire. It is all white, the legs also and the bill, the wings only being the usual colour. Other white varieties have occurred, and some partially white.

GREY PHALAROPE.

<i>Phalaropus lobatus</i> ,	PENNANT. BEWICK.
<i>Phalaropus hyperboreus</i> ,	BEWICK.
<i>Phalaropus platyrhynchus</i> ,	GOULD.
<i>Tringa lobata</i> ,	MONTAGU.

Phalaropus. *Phalara*—Fringes. *Pous*—A foot. *Lobatus*—
With lobes to the feet.

THIS very neat bird occurs, during its migration, in Denmark, Norway, and Sweden, as also in France, Italy, Switzerland, Holland, and Germany: it advances to Greenland. In America it is well-known in the United States, where, as here, it occurs in the spring and autumn, on its way to or from the Arctic regions. In Asia it is plentiful in Siberia, and among the lakes in the neighbourhood of the Caspian Sea.

The Grey Phalarope breeds in some of the Orkney Islands—in North Ronaldshay and Sanday; it was first observed there by Dr. Neill, in the year 1804, who obtained several specimens in Papa Westray; also further north in Iceland, as also occasionally in Norway and Sweden. In America it has been met with at Melville Island and the North Georgian Islands.

In Yorkshire it has occurred occasionally at Scarborough; one at Brignall; one at Rossington, near Doncaster, in the year 1836, in summer plumage; one near Barnsley, in 1835; one taken near York, and another caught by a party of poachers near Bolton-upon-Dearne. In



GREY PHALAROPE.

Norfolk, one or two occur every autumn, in the months of October or November, and again in the spring as they retrace their way; eight or nine were obtained in the winter of 1828; one, out of a flock of four, on a mere near Wretham Hall, by the gamekeeper of W. Birch, Esq.; four near Salthouse, in September, 1847; one near Norwich, the 9th. of November, 1853. In Gloucestershire, one at Mitcheldean, on a pond close to a farm-house, in January, 1847; it had been associating with the Ducks for some days before. In Cornwall, many were observed and procured in various ways and at different places, in the beginning of October, 1846, after a strong gale from the S.S.E. They were in a very poor and enfeebled condition.

In Devonshire one, October 12th., on the River Otter, near Honiton. In Lancashire, one of two which were seen about the same time, on the River Ribble; also two in Worcestershire, the same month, on the River Severn. In Wiltshire, one is mentioned by Montagu as having been killed at Alderton. In Northumberland, one at the Fern Islands, in the autumn of 1820. In Sussex, on Shoreham sands a few have been met with, feeding in company with some Oyster-catchers, by Mr. Thomas Thorncroft, of Brighton. In Kent, one was shot swimming on the Thames, at Swanscombe, in the autumn of 1845, so Mr. M. C. Cooke informs me; Yarrell mentions another shot while swimming on the Thames, near Battersea, in November, 1824; and Meyer two others on the same river—one near Shepperton, in December, 1840, and another December 2nd., 1841.

A few occurred in Lincolnshire in the winter of 1854, the Rev. R. P. Alington relates; one of them was obtained by H. Allenby, Esq., on the 15th. of November, in the parish of Thorsby. In Surrey a few have been met

with near Godalming and Guildford; one at the former place November 30th., 1846; about the same time six more were shot near Woking; three near Bagshot, one of them the 25th. of September, 1845; one near Cars-halton, the middle of November, 1851. In Oxfordshire one some years ago, and five others were seen near Chipping Norton, and three of them obtained, one of them a male, and another a young bird, apparently of the year, in the winter of 1846-7. One near Oxford, in the winter of 1852, of which the Hon. T. L. Powys has written me word. In Cambridgeshire, three in the hard winter of 1819-20. In Berkshire, one at Shinfield, in March, 1794.

In Ireland, four specimens have been procured in different years, all in the autumn. Mr. Thompson has described it as a rare but occasional autumnal visitant.

In Scotland, likewise, others, as on the banks of the Solway, and from the Frith of Forth. One at Fraserburgh, in Aberdeenshire, the 27th. of October, 1853.

It is a migratory species, moving southwards for the winter, and retiring to the north in the spring.

These birds are much addicted to swimming, and have been observed by Sir Edward Parry, to adopt that mode of removal from the approach of danger, in preference to flying away. In their native haunts, far away from common interruption, they are exceedingly tame; and this feature in their character continues to manifest itself in those individuals that occur here, who have not been taught by harsh experience to become wary of too frequent danger. They exhibit a very graceful appearance on the water, and nod the head constantly in their movements. They are said by Audubon to be excellent eating.

They fly fast and well, and run nimbly on the shore.

The species feeds on small crustacea and water-insects, gnats and their larvæ.

The note is likened by Meyer to the word 'pick, pick,' uttered quickly and in a high tone.

The nest of this bird is described as slight, lined with a few grasses, or a mere formation of the natural herbage around, and placed in a hollow on some elevated spot in marshy places, but always in the vicinity of water, either the sea, or some inland lake or river.

The eggs are usually four in number, of a stone-colour, with a tinge of olive, and spots and specks of dark brown. The old birds shew great fondness for their young, and remain with them till they are well able to fly.

The under plumage is thick and close-set. Male; weight, one ounce and a quarter, to one and three-quarters, according to the condition the bird is in at the time; length, eight inches and a quarter; bill, yellow at the base, black at the tip, in winter blackish brown; it is flattened near the point; between it and the eye is a white streak; iris, dark chesnut brown, the eye is surrounded by white; above and behind it is a broad streak of pale dull yellow. Head on the sides, white on the upper part, and below reddish brown, with a tinge of orange going down the sides of the neck; crown, back of the neck, and nape, dusky olive brown, with, in summer, broad rufous orange or yellowish edgings to the feathers. In winter the forehead, crown, with a patch of greyish black, sides of the head, front and sides of the neck, are white; chin and throat, pale dusky greyish black, in winter white; breast, reddish orange brown, in winter white, with a patch of fine grey under the shoulder of the wing fading into the white; on the sides are a few pale dusky grey shaft

streaks. Back, deep dusky brownish black, with broad dull yellowish margins to the feathers; in winter bluish grey, the shafts of the feathers darker and each narrowly edged with pale yellowish white.

The wings expand to the width of one foot three inches; greater wing coverts, dark lead-colour, in winter greyish black, broadly edged with white; lesser wing coverts, lead-colour; in winter greyish black, more narrowly edged with white; primaries, greyish black, the shafts white; secondaries, broadly tipped with white, exhibiting a conspicuous bar across the wing; tertiaries, long and black, in winter broadly edged with white on the outer webs. Tail, greyish black, finely margined with white, it is of a wedge-shaped form; under tail coverts, reddish brown. The legs, which have the bones flattened as in the true swimming birds, are greenish yellow, dull in winter; so are the toes, the front ones are united as far as the first joint. Claws, black; lobes, dusky and yellowish, serrated on the margins.

The female is larger than the male; length, about eight inches and a quarter, or a little over; bill, yellow, dark brown towards the point, in winter black; iris, dark brown; around the eye is a patch of white, in winter dusky black. Head on the crown, and about the base of the bill, white, in the winter there is a black patch at the back; neck, in front and on the sides, reddish chesnut, in winter grey in front; in winter the back is grey; breast, reddish chesnut, in winter white, with a small patch of grey on either side towards the front and middle; back, nearly black, with pale yellowish margins to the feathers, in winter grey.

Greater wing coverts, leaden grey, with broad ends of white, in winter edged with white; lesser wing coverts, leaden grey, with white edges; primaries, nearly

black, secondaries, in winter, margined with white; tertiaries, leaden grey, with orange yellow margins, in winter these edges become white. Tail, nearly black, underneath, it is ash grey; legs and toes, yellow, in winter yellowish brown. Claws, black; lobes, yellow, in winter yellowish brown.

In the young the feathers about the base of the bill are dull yellow, as also are the sides of the head and upper part of the breast; the back, tertiaries, and upper tail coverts, dusky, the feathers with pale buff edges. The legs, grey; the webs of the feet bordered with buff yellow.

In the intermediate stages of plumage between that of the summer and that assumed in the winter, this bird, always pretty, is then particularly so—the red and grey liveries more or less predominating. There are divers varieties partaking more or less of the character of the one or the other, according to the season; ‘quæ nunc præscribere longum.’

RED-NECKED PHALAROPE.

RED-NECKED COOT-FOOT. RED-NECKED LOBE-FOOT.

<i>Phalaropus hyperboreus</i> ,	PENNANT.
“ <i>fulicaria</i> ,	MONTAGU.
<i>Lobipes hyperboreus</i> ,	FLEMING.
“ <i>hyperborea</i> ,	SELBY.

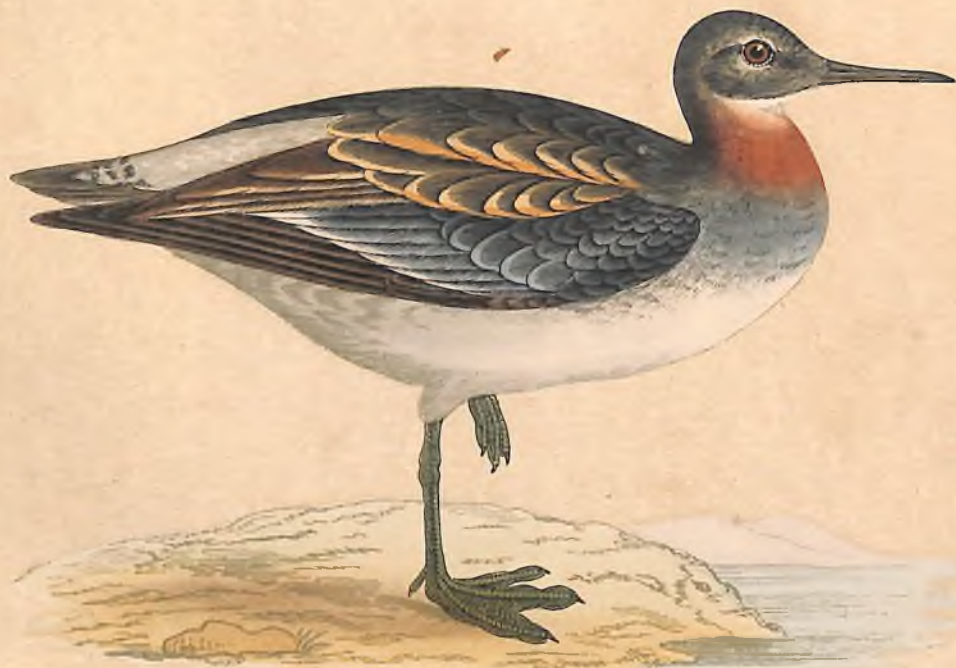
Phalaropus. *Phalara*—Fringes. *Pous*—A foot.
Hyperboreus.—Northern.

THIS kindred species is even yet more elegant than the preceding one.

On the continent of Europe it occurs in France, Holland, Germany, Italy, and Switzerland, Sweden and Norway, and thence visits Russia, Lapland, the Ferroe Islands, Greenland, and Iceland. In Asia it is assigned to Siberia, and the borders of the Caspian Sea. In America it is stated to be well known in the United States, but as least numerously met with in their southern districts. Captain Sabine mentions his finding them at the North Georgian Islands. It advances northwards to the Arctic Regions.

The earliest recorded occurrence of this bird as a British one, was in the island of Stronsay, one of the Orkneys, in the year 1769, as mentioned by Pennant.

In 1803, eight others, six females and two males, were found in Sanday and North Ronaldshay. They



RED-NECKED PHALAROPE.

are said to be more rare there than formerly. In Lincolnshire one was taken near Louth, by the Rev. William Marsden, during the winter of 1849-50; one also near that place the beginning of November, 1849, as the Rev. R. P. Alington wrote me word. In Surrey, it is said, by Mr. Mansell, to have occurred near Godalming. In Oxfordshire, one was found in an exhausted state on Shotover Hill, in the winter of 1834.

In Norfolk one or two occur annually in the autumn, and so also on their return in the spring. One near Yarmouth, at the mouth of the river, on the 4th. of November, 1854, Mr. James Hunt has written me word of. One in the parish of Weybourn; four near Salthouse, in the autumn of 1846. In the county of Northumberland this bird has been obtained—one near Alnwick. In Yorkshire, one was procured at Wilberfoss, near York, on the 22nd. of June, 1854; it was in full summer dress, and was swimming at the time, on a pond near a house in company with some ducks; one near Redcar, November 22nd., 1851; one near Scarborough, in December, 1853. The species occasionally is met with near Burlington, along the coast, in the winter. In Suffolk, two at Benacre, on the 23rd., and one on the 24th. of September, 1853. In Sussex, one was killed on a pond near Lewes, in November, 1849; one, a male, near Old Shoreham, about the second week in September, 1845; and another, a female, near Falmer, on the 20th. of May, 1846; one at Rottingdean, the 4th. of October, 1853, it was at the time swimming on a pond in the middle of the village in company with some ducks. Rennie also mentions his having seen one on the coast.

It breeds, but locally, in the Orkney Islands, Sanday Westray, "*Orcades ambo*," as also in North Ronaldshay, Sandwick, in Pomona, and others. Mr. C. St. John has

also found them, evidently engaged with nests, in the month of June, in Sutherlandshire, near Loch Naver.

Their proper haunts are the sea-coast, and the skirts of any islands or lakes in the intermediate neighbourhood.

They migrate on the approach of autumn, to more southerly districts.

They are exceedingly tame, and allow of a very close advance. In the winter they assemble in large flocks in the countries where they are more at home. "On the approach of danger, the old bird runs among the herbage, spreading her wings, and counterfeiting lameness, for the purpose of deluding the intruder; and, after leading the enemy from her young, she takes wing and flies to a great height, at the same time displaying a peculiar action of the wings; then descending with great velocity, and making, simultaneously, a noise with her wings. On her return to her young she uses a particular cry, for the purpose of gathering them together. As soon as she has collected them, she covers them with her wings, like the domestic hen." M. Faber states that he has seen one of these birds swimming about in pursuit of insects on the surface of one of the boiling springs, which was so hot that he could not bear his hand in it. In the spring of the year the male birds have contests among themselves. Both parents exhibit much attachment to their young, and also to each other.

They swim with the greatest buoyancy and ease, and then present a most graceful appearance, the head drawn backwards over the shoulders. They run on the land in an equally pleasing manner, and are quick and able in flight. They have, at different times, been observed on the open sea many miles from shore. Captain James Ross mentions the occurrence of a small flock of these

birds at a distance of sixty miles from the nearest land.

Their food is composed of small crustacea, worms, sea insects, and small gnats and flies.

These birds are late in laying, only one or two eggs having been found laid by nearly the middle of June. It appears that the male birds assist the females in the task of incubation.

The nest is placed in a hollow on a small hillock, or in a tuft of grass by the edge of the water, and is deep in shape—the material dry grass. Both birds are much attached to each other, as well as to their offspring. Several nests are frequently placed in the same neighbourhood.

The eggs appear to be four in number, and of a dull olive green colour, a good deal blotted with black brown or dusky. The young leave the nest soon after being hatched.

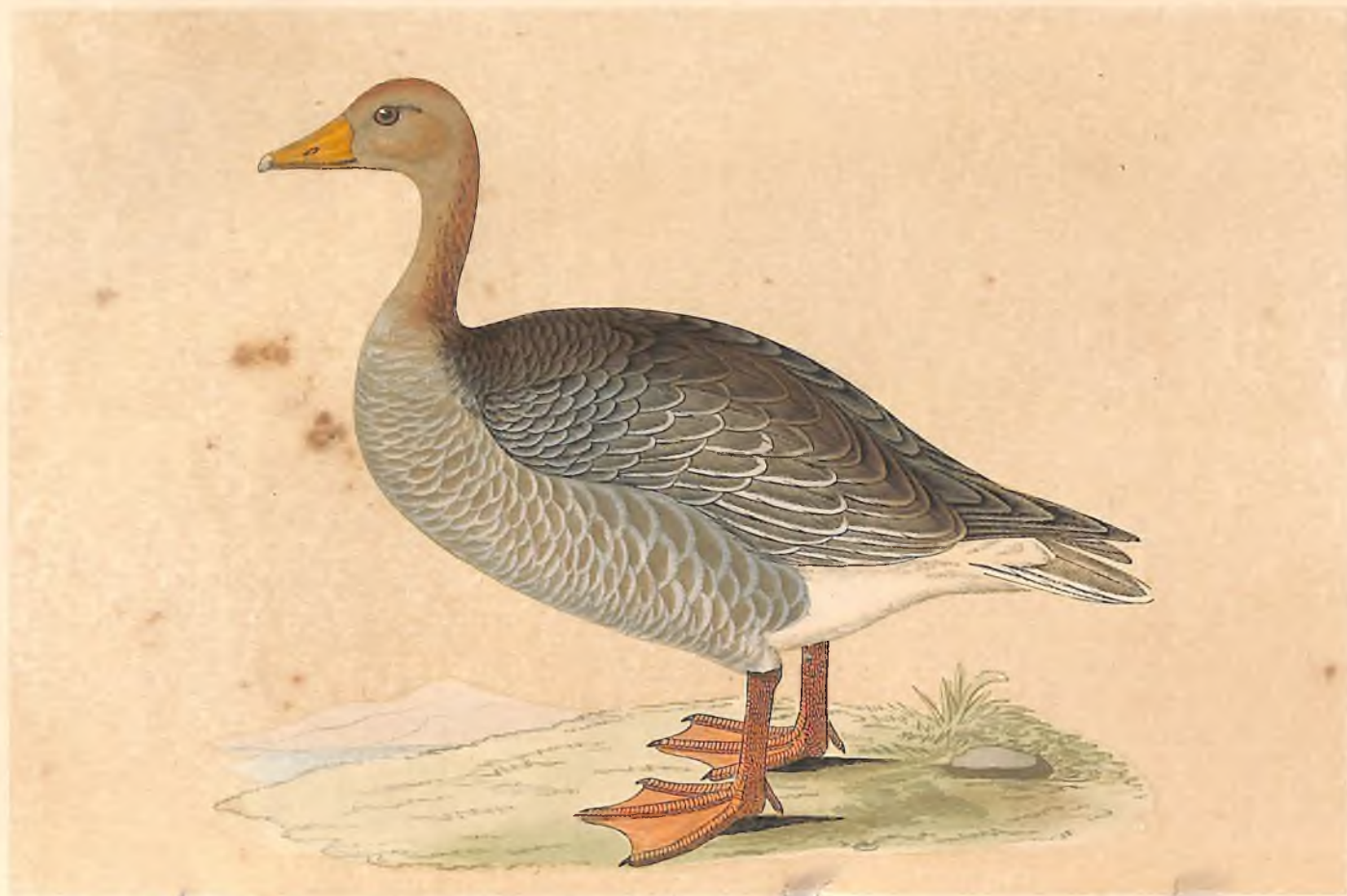
Male; length, about eight inches; bill, black; about its base the feathers are of a lead-colour, of which, a streak goes backwards behind the eye; iris, dark brown. Crown, neck on the back, and nape, dark lead or slate-colour; in winter the forehead is white, tinged with grey; the streak over the eye, the crown, and the nape, are blackish grey; the neck on the sides is fine yellowish red, which in winter wears away into white, with sometimes a tinge of purple; in front dark grey with a white edging; chin, white; throat, fine yellowish red, in winter white, with a slight tinge of pink. Breast, white, with some streaks below on the sides, of pale ash-colour, and in winter with a faint blush of purple red; back, dark or blackish lead-colour, the feathers with a margin of ash grey and brownish yellow.

The wings expand to the width of about one foot two inches; greater wing coverts, dark lead-colour, tipped

with white, forming a distinct bar across the wing in winter; lesser wing coverts, dark lead-colour; primaries, nearly black, or black in winter; secondaries, the same, but not so dark, and with white tips; tertiaries, margined with reddish yellow on the outer web, which in the winter plumage is white; tail, brownish grey, margined with white, the two middle feathers the darkest—nearly black; under tail coverts, white. Legs and toes, dusky greenish grey; claws, black; lobes, dusky greenish, those on the front joint of the toes extend a little beyond the tip of the claw.

The female is larger than the male, and of similar plumage. Mr. Dunn says that her plumage is more brightly coloured than that of the male, the contrary having been asserted by others. Length, about seven inches.

The young, the first year, resemble the male in its winter plumage, the head on the top of the crown, black; the chin, throat, and breast, white; the back, black, with yellowish brown edges to the feathers.



GREY-LAG GOOSE

GREY-LAG GOOSE.

WILD-GOOSE. GREY-LAG WILD-GOOSE.

<i>Anser palustris,</i>	FLEMING. SELBY.
" <i>ferus,</i>	JENYNS.
<i>Anas anser,</i>	PENNANT.
" <i>ferus,</i>	MONTAGU.

Anser—A Goose.*Palustris*—Belonging to marshes.

THE good old-fashioned name of the Grey-lag Goose, shall not by me be set aside for that which more commends itself to modern "ears polite." One who is not ashamed of, but feels it a pride to bear the time-honoured title of Parson, the denomination, in the ancient dialect of the country, of the Person, the principal person of the parish by virtue of his office, must extend, as far as he has it in his power, the protection of print over the vernacular name of the bird of the grey lag, whose grey wing has so long been celebrated in the old poem, which will still last when many a modern one shall have been consigned to oblivion. Since writing the above, I perceive that Sir William Jardine has expressed a similar preference on a like ground.

The Grey-lag Goose breeds in the southern parts of Norway and Sweden, and visits Iceland. It occurs also, but not commonly, in France, Switzerland, and Holland, and is said to be more plentiful in Germany, in Prussia, Pomerania, Saxony, and Silesia.

In Asia, it is reported to be found in Persia, China, and Japan, and along the southern shores of the Caspian Sea, and the Dead Sea. In Africa also it is seen in the northern and north-western parts.

In Yorkshire, one was killed near Doncaster, in the spring of 1843, and others are said by Mr. Allis, to have been known at Walton Hall, and near Barnsley, York, and Sheffield.

It occurs, but not very commonly, in Lincolnshire; so the Rev. R. P. Alington tells me. In Norfolk it is said to have occurred formerly, and to do so still, though rarely. This at least is the account given by Messrs. John Henry Gurney, and William Richard Fisher, but Messrs. C. J. and James Paget say that it is very common. The former statement, I incline to think, is the correct one; one was shot at Breydon Water, near Yarmouth, in April, 1849. Specimens have been, and are obtained, from time to time, in Northumberland, Durham, Norfolk, Cambridgeshire, Devonshire, and Cornwall, near Falmouth, but only occasionally, in the spring and autumn, according to W. P. Cocks, Esq.

In Ireland, one was obtained in Queen's County, in the month of February, 1848. It is but rarely now obtained in that island, though considered to have been formerly more abundant.

In Scotland, as related by Mr. St. John, some still breed in Sutherlandshire, on Loch Maddie, Loch Laigal, Loch Urigil, and other waters. In the Orkney Islands, these Wild-Geese occur every winter, but not in great numbers. They leave in the spring, none having ever been known to stay to breed.

This species is considered to be the origin of the tame birds, and if it be so, as appears to be the case, its diminution in numbers, without apparent cause, con-

temporaneously with the increase of the domesticated birds and their entire establishment, is certainly a very curious fact, and one which may well direct the mind to the over-ruling and all-wise Providence of God. Where, in like manner, is the parent-stock of the dog, the camel, or the horse now to be found?

The localities it inhabits are the borders of lakes, large ponds, inland seas fringed with flags and rushes, desolate fens, and unfrequented swamps, and the sea-shore in cold weather. Meyer writes, "By nature the present species is very shy, and can only be approached by a sportsman by stealth, whereas either a shepherd, ploughman, woman, or child, is very little heeded.

This bird appears sociable among its own species, as a solitary one is hardly ever met with; but it does not easily mix in company with other Geese, and least of all with the Bean Goose. On the wing it is strong, but heavy, although it moves on at a considerable rate in proportion to its bulk. When the bird flies to a short distance only, it does not mount above thirty or forty yards from the ground, but when migrating, or leaving the neighbourhood, it flies at a great height, and when in companies they proceed in a manner well-known to all observers, being headed by one individual, and forming the letter $\lessgtr$. It is remarkable that when a pair of Wild-Geese, during the breeding-season, fly to or from their feeding-ground, the female generally flies before the male." They also proceed at times in a straight line, nearly abreast, the post of leader being relieved from time to time, the foremost then retiring to the rear.

In a letter to me from the Rev. D. Knight, of Earl's Barton, near Northampton, dated February 22nd., 1853, he writes, "Tradition says, that Mr. Richard Cradock,

a miller, who died in 1784, shot twenty-seven Wild-Geese and a sheep at one shot; another account says nineteen geese; another, twelve; but all agree in adding the sheep. The granddaughter now lives at the mill near which the redoubtable shot took place; she also says that the number was nineteen, and an aged yeoman, who gave the highest number, says that he has often heard his father speak of it, and that, at the same time, Mr. Cradock blew a foot off the gun which he used. The gun still hangs up at the mill, it measures seven feet nine inches, and weighs somewhere towards twenty pounds.’

It is universally believed that the Goose lives to a great age, and particular instances are recorded by ornithologists which confirm the fact; some are mentioned which have been kept seventy years; and Willughby notices one which lived eighty years. In the “Morning Chronicle” of April 16th., 1835, there is published a biography of “Tom the Gander,” that had lived thirty-seven years, nine months, and six days. The following anecdotes will be found interesting:—

“Thus much,” says Bishop Stanley, “for the attention due to the Goose for its pecuniary worth; but beyond this, it has qualities, we might almost say, of the mind, of a very singular character; we mean the unaccountable constancy and affection which it has been known to shew, not only to its own species and to other birds and animals, but more particularly to man; and it is not improbable that these qualities, which, as we shall soon shew, were known to the ancients, might have rendered it an object of high esteem, and in some cases sacred; as, for instance, it was to Juno, the queen of their idol gods. In addition to which it has other qualifications, proving the fallacy of the proverbial

libel, 'As silly as a Goose.' Thus its watchfulness at night-time has always been noted; and it certainly is endowed with a strong organ of self-preservation, for, as it has been well observed, you may drive over cat, dog, hen, pig, or even pigeon, but few, if any, can record an instance of driving over a Tame Goose; and as for Wild-Geese, there is no animal, biped or quadruped, so difficult to deceive or approach, their sense of hearing, seeing, and smelling being so exceedingly acute; independent of which they seem to act in so organized and cautious a manner when feeding or roosting, as to defy all danger. Sportsmen could give instances without number of their utmost skill being of no avail in attempting to approach these birds; either a careless step on a piece of gravel, or an eddy of wind, however light, or letting them perceive the smallest portion of their persons, has rendered useless whole hours of manœuvring.

Of its attachment to the human race, Pliny, an ancient Roman writer, gives several instances; one only we select, as closely resembling that with which we shall conclude. A person named Lacydes, a philosopher, had a Goose, which took so strong a fancy to him, that it would never willingly leave him, by day or night. Wherever he went the Goose was his companion; if he went abroad and walked in the public streets, the bird followed him; and in his own house, always forced itself into his presence. The philosopher, struck with this constant and strange attachment, seems to have considered it as in some way connected with religious feelings; and accordingly, when at last it died, he was at the expense of bestowing upon it a magnificent funeral.

Our next instance occurred in Scotland. A Goose,

a year old, formed a similar attachment to a person in Elgin, and would follow him any distance, even through the crowd and bustle of the main street. One day, when going down this street, its master went into a hair-dresser's shop to be shaved, whereupon the bird waited patiently till the operation was finished, and then accompanied him to the house of a friend; after which it proceeded home with him. Change of dress seemed to make no difference in the bird's power of distinguishing its master, for in whatever dress he appeared, the Goose recognised him; and whenever he spoke, it responded by a cry expressive of satisfaction.

Another similar case is on record in Germany. An aged blind woman, who probably might have been in the habit of feeding it, used to be led every Sunday to church by a Gander taking hold of her gown with his bill. When she had seated herself, it retired to graze in the churchyard till she came out again, when it led her home. One day, the clergyman called at her house, and expressing his surprise to her daughter that her mother should venture abroad; she replied, 'Oh, sir! we are not afraid of trusting her out of sight, for the Gander is with her.'

The Bishop continues, "We frankly own that so strange and improbable do the above stories appear, that we should neither have inserted nor paid the slightest attention to them, had we not the following testimony to their credibility, for the accuracy of which we can readily vouch; and deeply do we regret that a better fate did not await so extraordinary a bird, which under more intelligent observers, might have afforded opportunities of ascertaining the extent of so unusual a development of affection.

A farmer in Cheshire possessed a flock of Geese, one

of which, at the end of about three years, without any apparent cause, began to shew a peculiar partiality for its master. It first appeared on the bird's quitting its companions in the barn-yard or pond, and stalking after him. These symptoms became daily stronger, and in a short time wherever the farmer went, whether to the mill, or the blacksmith's shop, or through the bustling streets of a neighbouring manufacturing town, the Goose was at his heels. So perseveringly did it follow his steps that if he wished to go out alone, he was under the necessity of fastening up the bird.

The farmer was in the habit of holding his own plough, and on these occasions, the Goose as regularly passed the day in the ploughing field, walking sedately, not with the usual waddling pace of its fellow-geese, but with a firm step; head elevated, and neck erect, a short way before him in the line of the furrows, frequently turning round and fixing its eyes intently upon him. When the length of one furrow was accomplished, and the plough turned, the Goose, without losing its step, adroitly wheeled about, and thus continued its attendance till the evening, and then followed its master home; and, if permitted, would mount upon his lap as he sat by the fire after dark, shewing the strongest signs of affection, and nestling its head in his bosom, and preening the hair of his head with its beak, as it was wont to do its own feathers. Sometimes the farmer would go out shooting, and no sooner had he shouldered his gun, than his companion was at its post, following him as before, in spite of every obstacle, 'getting over,' to use the man's own words, 'the fences as well as I could myself.' All this, it should be observed, continued not only without any encouragement on the part of the farmer, but even in spite of every

discouragement on his part. How long it would have continued, or to what extent, we lament to add, he effectually precluded the world from knowing; for with an unpardonable inattention to so truly a wonderful case, in addition to an equally unpardonable superstitious fear, he took it into his head that the mysterious affection of the Goose foreboded some evil; and in a moment of alarm, he killed the faithful bird.

We can quote another, shewing that a Goose is occasionally possessed of a keen sense, enabling her to detect imposition, and distinguish her own eggs from others closely resembling them. A Goose belonging to a clergyman in Cheshire, was set, as it is termed, on six or eight eggs; the dairymaid thinking these too few for so large a bird to cover, added an equal number of duck's eggs; the next morning she went as usual to see if all was right, when, to her great surprise, she found the Goose quiet on her nest, but every one of the duck's eggs picked out and lying on the ground. Her mistress directed her to replace them, which was accordingly done, but the next morning, on going again to examine the nest, she found all the duck's eggs as before, moved off, and lying round about the nest, the Goose's eggs remaining under the sitting bird in perfect order. How long she would have persevered in removing them is not known, as, for fear of driving the Goose from her nest, the experiment was not repeated.

When once attached to each other they appear to be very constant; in proof of which, a person having marked five separate Ganders, and five separate Geese, with which they had paired, found that for three successive years when he attended to them, each regularly selected his companion of the former year, and continued faithful to her. Why the Goose has been so generally pointed

out, proverbially, as the most foolish of birds, it is difficult to say, for the foregoing, as well as the following instances, would lead us to believe that they are endowed with a larger, rather than a less portion of sense than other birds.

An old Goose, which had been a fortnight hatching in a farmer's kitchen, was perceived on a sudden to be taken violently ill; she soon after left the nest, and repaired to an outhouse, where there was a young Goose of the first year, which she brought with her into the kitchen. The young one immediately scrambled into the old one's nest, sat, hatched, and afterwards brought up the brood. The old Goose, as soon as the young one had taken her place, sat down by the side of the nest and shortly after died. As the young Goose had never been in the habit of entering the kitchen before, the fact can only be accounted for by supposing that the old one had some way of communicating her thoughts and anxieties, which the young one was perfectly able to understand. We give this anecdote on the authority of a Mr. Bun, who states it to have occurred at Ennis, in July, 1828.

So strong are the affections of these loving birds, that some who have exposed themselves to their vengeance, have occasionally found themselves fearfully worsted. A game cock, near Ashford, in Kent, priding himself no doubt on his prowess, happened, a short time ago, to take offence at a Goose during the time of incubation, and, attacking her with great fury, pecked out one of her eyes, and destroyed several of her eggs. An old Gander seeing the danger to which his mate was exposed, flew to her assistance, and many desperate battles took place; one day in his absence the cock renewed his attack upon the Goose, when the Gander,

hearing the bustle, hurried up and seizing the cock, dragged him into the pond, where he ducked him repeatedly, and finally drowned him.

Another somewhat similar instance occurred at Astbury, near Congleton, in Cheshire. Several Geese were feeding near a barn where some men were thrashing, and a Sparrow near them, when a Hawk suddenly pounced upon the latter, and would have inevitably carried it off had not the Gander flown to its rescue, and with its beak struck the Hawk so violent a blow that it was stunned, and taken up by one of the thrashers. The Goose is, in truth, by no means a cowardly bird, and will often, when excited, defend himself very courageously.

Under particular circumstance a Wild-Goose has indeed been known to throw itself under the protection of man. Thus an officer settled on a farm near the Missouri, in North America, one day observed a large Eagle frequently darting towards the river, and then rising again. On a near approach, he perceived that its object was to take a Wild-Goose, which had alighted on the water, and which was dipping to avoid so powerful an enemy. Its efforts, however, appeared to be in vain, and after diving again and again, and as often rising to get breath, it became nearly exhausted; when suddenly turning, it made for the shore with all speed towards the officer's house, where two men were at work, and, as soon as it had landed, walked leisurely up to them, permitting itself to be taken without attempting to escape. It was completely exhausted, but soon recovered, and within three days seemed quite contented and confident of protection."

In the spring of the year the young males have frequent contests, holding one another by the neck and

beating with their wings till one is obliged to yield; the females are spectators, but not silent ones, keeping up a constant cackling, expressive of encouragement, to continue the fight, or exhortative to peace. Wild-Geese are good to eat when fed on the land. They are very shy and vigilant birds, and can only be approached on open ground by stalking, and that of the most careful kind. Sentinels are always on the look-out, to give immediate notice of the approach of danger, and on the slightest alarm the whole flock take wing. They usually retire at night to the water, but watch is still kept by sentries who take their turns in the office.

They feed on grasses of various kinds, the young blades of corn, water-plants, clover, and other herbage, as also seeds, grain, barley, it is said, and oats, especially, and often do considerable damage among the young crops.

The voice, a clangulous call, is the echo of the harsh cry of the common species. It is very frequently uttered, especially when the bird is flying, or if a companion be met with.

The nest of this Goose is made of grass, rushes, leaves, or dry stalks of plants, under cover of some rushes or osiers, and is well lined with feathers. It is large in size, and is located in a marsh, or by the border of a lake or inland sea. The male keeps guard near it while his partner sits.

The eggs are said to be commonly four or five in number, but to amount also to as many as twelve or fourteen, the former the produce of younger, and the latter of older birds; eight or nine the intermediate quantity. They are of a dull yellowish white, smooth and shining in appearance.

Meyer says, "The female is very careful in covering the eggs with some of the surrounding materials, when-

ever she leaves the nest for a short time; and it may serve as a safe guide to persons who go in search of the eggs, that if they are uncovered, they are forsaken, and are, consequently, not worth leaving in the nest. As soon as the Goose has laid her full number of eggs, she plucks the down off her breast, and disposes it in such a manner among the eggs, that they retain an equal temperature even at the changes of the weather or during the short periods when she leaves the nest, once or twice a day."

"In four weeks the young come forth, and after remaining under the mother the entire first day, are subsequently led to the water, and made to swim to some small islet, where they can hide, and feed on the young blades of corn, grass, and duckweed. The gander redoubles his watchfulness on the increase of his family, and hardly ever leaves the party. On the approach of danger, the parents resort immediately to the shelter of rushes, standing corn, or long grass, attended by the whole brood; but when surprised on open ground, too far from shelter, the young lay themselves flat on the ground in some rut or hollow, and have even been known to be taken up in the hand, and carried away; but if they are near enough to the water, instinct teaches them to resort to that element for protection, where, by diving or swimming to the shelter of some cover, they may elude observation: on such occasions the parents fly round the intruders, uttering their inharmonious cries." Yarrell says that when the hen birds begin to sit, the males leave the fens, and collect in flocks near or on the sea. The male and female are considered to unite for life. They return yearly to the same breeding-places, arriving at them in March.

A wild Grey-Lag gander is recorded to have paired with a tame goose in a farm-yard.

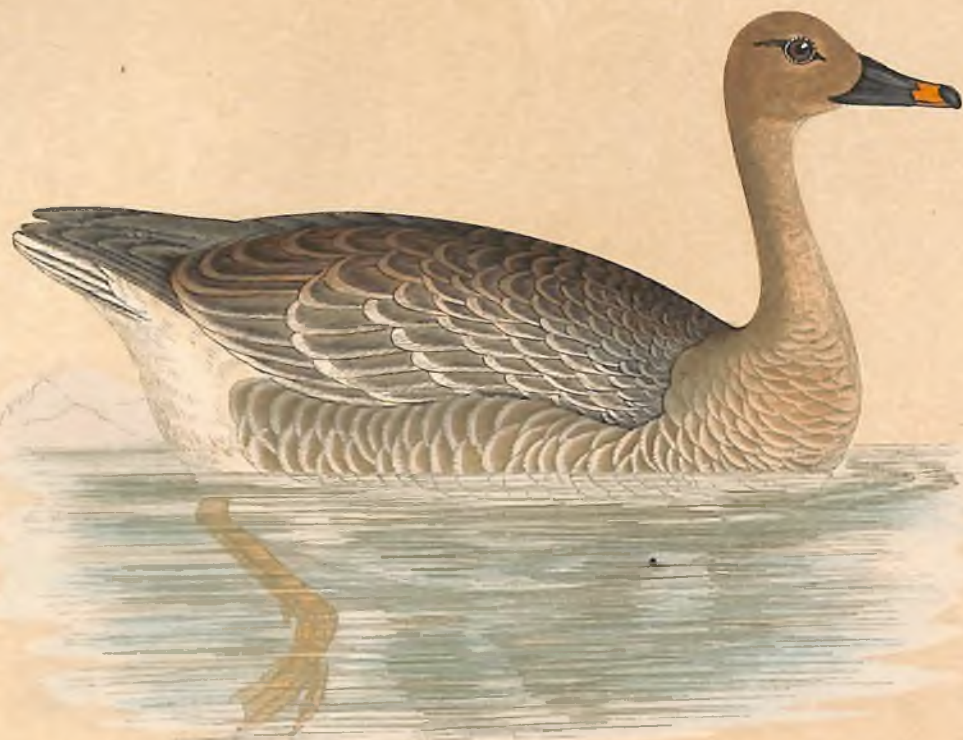
Male; weight, eight or nine pounds; length, two feet eleven inches; bill, large, pale yellowish red with a tint of orange; the tooth at the end greyish white. Iris, greyish brown; the eyelids pale yellowish red with a tinge of orange. Head, crown, neck on the back, and nape, greyish brown, the feathers of the latter disposed in rows or lines, forming a sort of furrows; neck in front, pale greyish white brown; chin, throat, and breast on the upper part, pale greyish brown; the last-named, below, white, and barred on the sides with grey and greyish white. Back on the upper part, greyish brown and barred across, the feathers deeply edged with a paler shade; on the lower part light bluish grey.

The wings have the second quill feather the longest; they reach, when closed, not quite to the end of the tail; there is a hard protuberance at the inner end of the wing. Greater wing coverts, greyish brown; lesser wing coverts, darker leaden greyish brown—both bordered with whitish; of the primaries, the three outer ones are pale grey, the others dark leaden grey; the shafts of all are white, the base greyish white, the ends more or less black; tertiaries, leaden grey, broadly margined with a lighter shade; greater and lesser under wing coverts, white. Tail, leaden grey, the tip white, the outer feathers almost entirely white; upper and under tail coverts, white. Legs and toes, pale greyish yellowish red; claws, black.

The female is smaller than the male, and her plumage is less distinctly marked. Length, two feet six inches.

The young are described as being darker than the old birds.

Pied varieties have occurred—one with the wing perfectly white; another with white feathers along the breast and wing coverts. In the specimen already alluded to, as having been shot near Yarmouth, the lower part of the breast is described by Mr. Fisher, as having had, in some degree, the black markings, a feature in the plumage of the White-fronted Goose.



PEAN GOCER.

BEAN GOOSE.

WILD GOOSE.

Anser ferus,
 " *segetum*,
 " *sylvestris*,
Anas segetum,

FLEMING. SELBY.
 JENYNS. GOULD.
 BRISSON.
 PENNANT. MONTAGU.

Anser—A Goose.

Ferus—Wild—savage.

THE Bean Goose is plentiful in Norway, Sweden, Finland, and Lapland, where, as in the Ferroe Islands, Iceland, Greenland, Nova Zembla, and still higher northern latitudes, it rears its young; it is found abundantly also in France, Germany, and Holland, Spain and Italy: in the former countries it breeds. In Asia, too, in the northern districts.

Its dwelling-places are the borders of inland seas and lakes, rivers and ponds, swamps and ditches, stubble fields and others. In the latter they feed in the daytime, and towards evening repair to the open sands, where they roost during the night after bathing and drinking.

In Yorkshire, these birds frequent the Wolds in immense flocks, and seem to prefer those higher grounds to others that are lower and more marshy. They have been met with also in other places, as at Sheffield, York, and Killingbeck, near Leeds. In Gloucestershire and Worcestershire, this species also occurs by the

River Severn. In Northamptonshire it is a common visitor, as I am informed by the Hon. T. L. Powys; so it also used to be in Cambridgeshire, in the fens, when fens still existed, as recorded by the Rev. Leonard Jenyns. In Norfolk, the species is pretty abundant in autumn, winter, and spring: it also occurs in Lincolnshire.

In Scotland, it breeds in Sutherlandshire, on Loch Shin, Loch Naver, Loch Laigal, and several other of the lakes; as also in the Hebrides, in the Islands of Harris and Lewis; and no doubt in many other parts. A few are said to have nests every year about Tunbiggin Tarn, near Orton, in Westmoreland; others in Cumberland.

The species is also common in Wales and in Ireland, as a winter visitant. In Orkney, it has been observed occasionally during the early part of the winter, but its visits are very uncertain.

In September and October they wend their way southwards.

The Bean Goose has been kept on the ornamental water in St. James' Park, London, and has hatched its young there. It is very readily tamed if the eggs are procured, and young birds thus obtained for early domestication. The like indeed is the case with older birds. One was obtained by Mr. George Johnson, of Melton Ross, Lincolnshire, in 1851, of which, though an old bird and procured with the gun, he wrote me word, "he is at this time so tame that he will eat out of my hand, and come any time at call, and is in every way more domesticated than our common Geese."

They are naturally very shy and watchful, so as only to be approachable by stratagem. The well-known saying, "A Wild Goose chase," like most or all

proverbial expressions, conveys the result of wide-spread experience. These birds are friendly and sociable among themselves. In the tame state they soon come to associate and consort with the common Geese: they are said to attain a great age.

These Wild Geese, when there are only a few together, fly in a straight line one after the other, but when numbers increase its length, it diverges into two in the form of a wedge, some old Gander, the patriarch of the flock, leading the van. When on their migration they keep aloft, but at other times nearer to the ground, especially if the wind be high, or the weather thick and misty. They fly, as has been ascertained, at the rate of from forty to fifty miles an hour.

They arrive at their feeding grounds with great regularity, at the early dawn of the morning, and remain till towards dusk in the evening, when, as before mentioned, they wing their way in long strings to the sea, or the sand banks of estuaries and rivers, their loud gabble calling attention to them overhead as they go. In such places, out of the reach of danger, they rest in security. They do much mischief in clover fields, which crop they seem very much addicted to. Arthur Strickland, Esq. has written of his having known some years ago, in one parish on the Wolds, a person hired to keep them off. They feed also on young growing corn, to which they do like damage, as also on turnips and grass, and subsequently pick up a livelihood in the stubble fields. Their partiality to beans, the newly sown fields of which, and those of peas, they frequent in the early spring, is probably the origin of their name. They are, however, fond of any other kind of grain, oats, rye, and wheat, ripe or unripe, and also pluck the different grasses.

The eggs of this species are of a dull white colour, and from five to seven in number.

The young, till able to fly, hide themselves, if alarmed, in the neighbouring heather or other cover.

In confinement this species has been known to pair with the Tame Goose, the progeny partaking in some respects of the character of both parents. This is a statement of Meyer's.

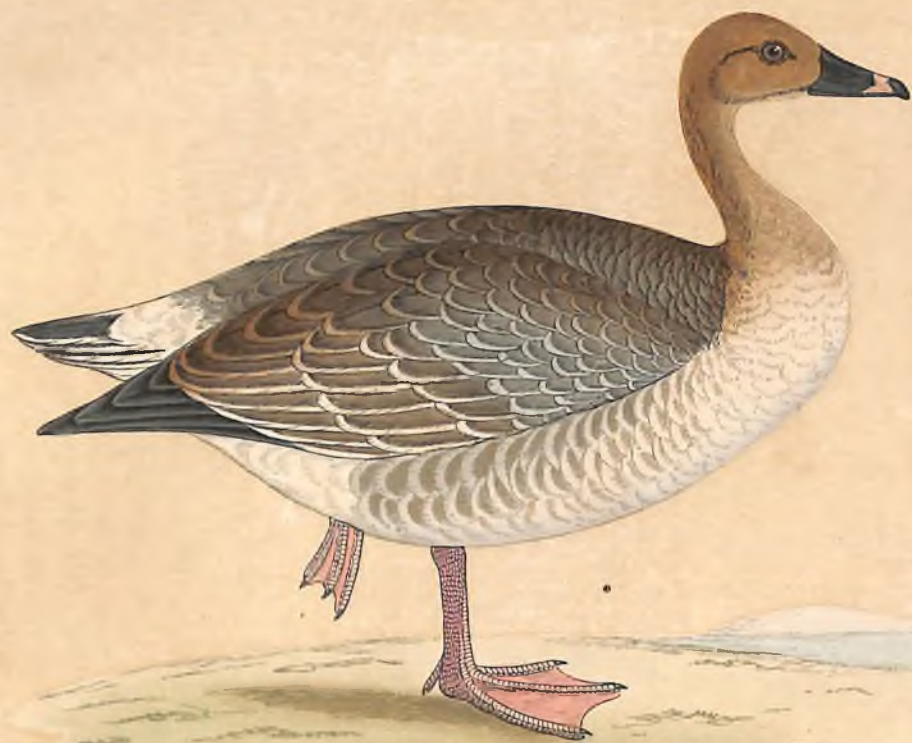
Male; weight, about six pounds; length, two feet eight inches to nearly three feet; the bill, which is rather tapered towards the end, is red or yellowish red, with the exception of the edges, the base, and the tooth, which are black. Iris, dark brown, the eyelids dark grey. Head, crown, neck on the back, and nape, greyish brown, the former colour disposed in lines, giving a furrowed appearance; neck in front, chin, and throat, dull white; breast, dull greyish white, with deeper shades of the same colour across. Back above, brown with a slight tinge of grey, and each feather edged with white or greyish white; on the lower part dark greyish brown.

The wings have the second quill feather the longest; they reach, when closed, beyond the end of the tail. Greater and lesser wing coverts, greyish brown, tipped and edged with white; primaries, greyish black; secondaries and tertiaries, greyish brown, edged and tipped with white. Upper and under tail coverts, white. Legs and toes, orange red; claws, black; webs, orange red. This colour varies in depth according to the age of the bird.

The female is smaller.

The young are of a paler grey.

In some of these birds there are a few white feathers around the base of the bill.



PINK-FOOTED GOOSE.

PINK-FOOTED GOOSE.

Anser brachyrhynchus,
 " *phaenicopus*,

BAILLON.
 BARTLETT.

Anser—A. Goose. *Brachyrhynchus*. *Brachüs*—Short.
Rhynchos—A bill.

IN the year 1833, M. Baillon, the eminent naturalist of Abbeville, described the present as a new species, under the name which he then assigned to it. It appears, however, according to the statement of Meyer, that M. Temminck has asserted that it had been previously observed in Holland, in the winters of 1829 and 1830, as also subsequently in 1838. Mr. Bartlett was the first to notice it in this country, and unaware that it had been before discovered, as noticed above, gave as its specific name that which has hence become a synonym.

These Geese occur in Europe, Asia, and America, and in cold weather some cross over to the northern parts of Africa. In the first-named continent they have been observed in France, Italy, Hungary, and Turkey, and frequent, for the purpose of breeding, Denmark, Norway, Sweden, Finland, and the Hebrides.

In Yorkshire they occur on Thorne Moor. One was shot on the coast in the winter of 1851, as Mr. William Felkin, Junior, of Carrington, near Nottingham, has informed me; one also at Haxby, near York, on the 15th. of January, 1850. My servant found one, which had

been barely winged, in a field near Warter, in the East-Riding, on the 9th. of December, 1854. Three were sold in the Doncaster market in 1840. In Northamptonshire it is an occasional visitor, as the Hon. T. L. Powys has written to me. In Norfolk these birds occurred several times near Lynn, in the beginning of 1854; as they had also done in the winter of 1849-50. Two in December, 1851; one, which had been previously wounded, was caught near Upware, on the bank of the Cam, in Cambridgeshire, in January, 1850. Three, one male and two females, at Ely, on the 3rd. of May, 1851; one near Wisbeach in the beginning of 1850. In Norfolk, one out of a flock of twenty, was shot by Lord Coke, in January, 1841.

In Scotland these Geese breed in great numbers, among the Islands of Harris.

The Pink-footed Goose resorts in spring to the northern districts of the three continents, whence it returns in the autumn.

In their wild state they appear to travel in small flocks. Meyer writes, "Towards the spring these Geese become restless, flying to meadows, waste lands, and heathy commons, and finally leave their winter quarters for more northern regions. Their migratory journeys are performed usually in the day, and the speed at which they sometimes fly has been noticed to amount to forty or fifty miles an hour. The numbers that journey together vary from five to fifty or sixty; and when in large flocks they form a triangular figure, headed by the father of the foremost family."

These birds have been kept on the ornamental water in St. James' Park, as also in the Zoological Gardens.

They are shy and wary, awake to the slightest noise, roosting together in flocks to their greater security.

They repair towards evening to the borders of rivers, lakes, and open sands that verge upon the "water-mark," and leave these in the day-time for cultivated districts.

They feed on oats, peas, beans, barley, wheat, buck-wheat, and any other kinds of grain, and in lack of these on the roots, buds, and shoots of flags, rushes, and other water-plants.

The voice is a quick and sharp clack.

These birds pair about the middle of May. Mr. J. Macgillivray has remarked that he saw them "in pairs about the middle of the month, and they had the young fully fledged and strong upon the wing about the end of July." They had again collected into flocks by the beginning of August.

The eggs are of a pure white colour. Eight were laid by one of these Geese, kept on the water in St. James' Park by the Ornithological Society of London.

Male; length, two feet four inches; bill, bluish black at the base, the remainder pink red, except the tooth, which is also bluish black, but paler towards its base: a narrow line of white feathers surrounds the bill; iris, dark dusky brown. Head on the sides, crown, and neck on the back, rather dark and fine rufous chocolate brown, the nape paler, shading into yellowish brown on the sides of the neck; throat, also rufous chocolate brown; breast above, reddish fawn-colour; below, white; on the sides, broadly barred with pale brown and greyish white, with which each feather is broadly tipped; back, on the upper part, brownish grey, shaded off into yellowish brown, with dull yellowish white edges and tips to the feathers; below, greyish black, the feathers on the lower part tipped with white.

The wings, when closed, extend from an inch to an inch and a half beyond the end of the tail. Greater wing

coverts, dark brownish black; lesser wing coverts, brownish grey, edged and tipped with dull white. Primaries, greyish lead-colour, with white shafts, the second quill feather is the longest in the wing; secondaries, dark leaden grey, the ends nearly white; tertiaries, dusky brownish grey, with dull greyish white outer edges and tips; the shafts are strong and broad. Tail, grey, the feathers broadly tipped and edged with white; the shafts white; underneath the tail is white; it consists of fourteen feathers; upper tail coverts, white, with a pale crescent-shaped mark; under tail coverts, white; legs and toes, pink, with a tinge of red, the hind toe is short. Claws, black, paler at the base; webs, reddish pink.

In some specimens there are a few white feathers about the base of the bill.



WHITE-THROATED GOOSE



WHITE-FRONTED GOOSE.

WHITE-FRONTED WILD GOOSE. LAUGHING GOOSE.

Anser albifrons,
 “ *erythropus,*
Anas albifrons,

JENYNS.
 FLEMING.
 PENNANT. MONTAGU.

Anser—A Goose. *Albifrons.* *Albus*—White. *Frons*—
 The forehead.

THE Laughing Goose is the common species in Sweden and the other countries of old Scandinavia—Lapland, Norway, and Denmark; and visits also the southern parts of Russia, Poland, Prussia, France, Germany, Italy, and Holland.

It belongs too to some parts of Asia—Japan, according to Temminck, Siberia, and the neighbourhood of the Caspian Sea; and likewise to America, moving, at the different seasons of the year, to and from the regions within the Arctic circle and the United States, through the Fur Countries.

They breed in Tornea Lapland, or Lapmark, a province of Sweden; also in Iceland.

In this country they have occurred in greater or less numbers in Northumberland, Durham, Norfolk, Suffolk, Kent, Hampshire, Sussex, Cambridgeshire, Devonshire, and Cornwall; in fact, no doubt, though they have made no “matches” here, they belong to “All England.” Meyer mentions one shot by him in February, 1847, on the Thames, near London.

In Ireland, also, and in Wales, as likewise in Scotland, where Sir William Jardine has met with it in Dumfriesshire, and in the market at Edinburgh.

They frequent marshes and morasses, ponds, and other damp and watery places.

This species is occasionally seen in Northamptonshire, as the Hon. T. L. Powys tells me. It used to be a winter visitor to the fens in Cambridgeshire, varying in numbers according to the comparative mildness or severity of the season. In Norfolk several occurred near Lynn, towards the end of January, 1852. They were unusually common there in the beginning of 1854, and are met with annually in the spring and winter. Breydon, near Yarmouth, is also a locality. Specimens are procured near Doncaster and Sheffield in severe weather, and considerable numbers occasionally about Sutton-on-Derwent, near York, though by no means as regular visitants. They are not uncommon at Walton Park, and one was met with near Barnsley: in hard winters some occur near Burlington.

In Cornwall six were seen on Looe River, Helford, December 19th., 1849, and two shot on the 26th. of the same month. In Derbyshire, individuals have occurred by the Trent, in hard weather. The like remark has to be made of Oxfordshire, where small flocks are occasionally seen, but only in the severest seasons.

In Scotland it is a rare winter visitor in Sutherlandshire. It visits Orkney also, at the same season.

In Ireland two occurred near Waterford, in February, 1848.

They begin to move northwards by the end of February or the beginning of March, few being ever seen after the middle of that month, and return southwards early in September.

These birds have been kept in the gardens of the Zoological Society, and have reared their young, towards whom they exhibited great attachment. They have also similarly been preserved elsewhere, and appear to do well. In their wild state they collect at times in very large flocks, and associate, to a certain extent, with those of other species of their family, though not with any great intimacy. They seem naturally to resort more to streams and water sides than to the open country, as the other kinds. They are esteemed for the table, and when young are easily tamed.

They fly strong and well, and on going any distance keep in single line; they walk about, too, in a rather graceful manner with quickness and ease.

They feed on clover, turnip leaves, and those of other vegetables, both marine and inland, and corn; beetles and their larvæ, and other insects, with which they also swallow some gravel in aid of digestion.

The note is thought to resemble a laugh, and hence the vernacular name. Meyer likens it to the words 'click,' 'clack,' or 'cling.'

The eggs of this species are of a white colour, with a tinge of pale buff.

Male; weight, from between four and five to as much sometimes as seven pounds; length, two feet three inches; bill, pale yellowish red with a tint of orange, the tooth white; about the base of the upper mandible and the beginning of the forehead, the feathers are white, as indicated by the name of the bird. Iris, deep dark dusky brown; forehead, white or yellowish white, succeeded by a band of shaded black, forming, with that about the chin, a band round that part of the head; head, crown, neck on the back, and nape, brownish grey, or yellowish brown; chin, white bor-

dered with black; throat, pale greyish white; breast above, pale brownish white, with some irregular black bars; below, gradually paler, with broad waves of black more or less distinct; the sides greyish brown, with edgings of dull white: these marks are considered by Audubon to be characteristic of the breeding plumage, and they are no doubt then in their greatest intensity. Back above, dark greyish brown, with pale reddish brown edges to the feathers; below, dark brown.

The wings have the second quill feather the longest; greater and lesser wing coverts, grey, edged with rufous white or white; primaries, bluish black; secondaries, also bluish black; tertiaries, margined with dull white. The tail has the middle feathers dark grey, tipped with white, the outer ones nearly entirely white; upper and under tail coverts, white. Legs and toes, orange-colour; claws, very pale bluish grey; webs, pale reddish orange.

The female has less white on the forehead.

In the young of the first year, the feathers about the base of the upper bill are dark brown; the bill pale brown at the tip. The breast is without the dark bars and patches on the sides.



GOOSE

BERNICLE GOOSE.

CLARKIS. TREE GOOSE. COMMON BERNICLE GOOSE.
BARNACLE GOOSE.

Anser bernicla,
" *leucopsis*,
Anas "
" *erythropus*,

FLEMING. SELBY.
JENYNS. GOULD.
TEMMINCK.
PENNANT. MONTAGU.

Anser—A. Goose.

Bernicla—The Barnacle.

THIS species is abundant in Russia, Lapland, and Spitzbergen, and on many of the shores of the Baltic, Sweden, Denmark, and Finland, Norway, Jutland, and Holstein; and occurs besides in the Faroe Islands and Iceland. It is also plentiful in Holland, and is met with in Germany and France. In Asia, it appears to belong to the northern districts, and to Japan, and in America has been found at Hudson's Bay, and in Canada, as also, though less numerously, in the United States.

In Yorkshire, two were killed on Midgley Moor, September 2nd., 1836. In hard weather specimens are frequently shot near Doncaster, and some are taken occasionally in the neighbourhood of Huddersfield, on the Marsden, Slaithwaite, Meltham, and Holmfirth Moors; others, at times, near York. It is rare near Leeds, but one was shot at Rigton, in 1837. It may be met with in winter weather on the shores of the

Humber. Another out of a flock of nine, was killed in Coatham Marsh, near Redcar, on the 1st. of October, 1853.

One was seen in the Louth market, by the Rev. R. P. Alington, no doubt of Lincolnshire occurrence. It used to be met with in the Cambridgeshire Fens, in greater or less plenty, according to the season.

In Norfolk, a pair were procured at Salthouse, in January, 1848: the species is not uncommon in that county in the winter.

In Scotland, it is an occasional visitor, and occurs on the western side of Sutherlandshire, more numerous than on the east.

It frequents the sea-coast and sandy places thereby, where grass and other plants find root.

The Bernicle Goose has been noticed in various numbers, more or less, in Lancashire, and on the Firth of Solway, as also in the counties of Northumberland, Devon, Cornwall, Dorset, and Sussex.

It is likewise an Irish species, and has been procured at different times, though only locally. In Orkney, numbers arrive in the autumn, and remain till the spring.

"Its migratory journeys are performed during both night and day, in considerable flocks, and invariably along the sea-coast, skirting the land around head-lands and bays, and passing only when necessary over the open sea. The roosting-places are also the sea-coast." They leave us for more northerly regions early in the spring, none remaining after the middle of March. They return in the autumn.

Some of the birds of this species, preserved on the water in St. James' Park, have produced eggs. They very soon become perfectly tame, and exhibit the lon-

gevity in confinement of the other kind, that is to say at least, if given the opportunity. I saw some a year or two since in a quite domesticated state: in the wild condition they are very shy. One is said to have been known to have reached the long period of thirty-two years. After arriving at a "certain age" there may perhaps in its case have been another consideration, beyond the more scientific one of ascertaining the duration of life in the species: they are considered good for the table.

The late Lord Derby has recorded the circumstance of one of these Geese having paired one year with a Canada Goose, and the following year with a White-fronted Goose. In the former instance no eggs were laid; in the latter nine or ten.

They are birds of sociable habits, both among themselves and with other kindred kinds. It is well known that a ridiculous notion formerly prevailed respecting the origin of the Bernicle Goose. I copy the following from Bishop Stanley's "Familiar History of Birds:"—

"It will scarcely be now-a-days believed, that this Bernicle or Tree Goose actually derived its name from a very general belief that, instead of being hatched, like other birds, from an egg, it was produced from a shell which grew on trees and rotten wood, and the shell was therefore called the Goose-bearing shell, (*Lepas anatifera*.) For this foolish idea there was no other foundation than pieces of wood and decayed trees being often found in parts of the sea frequented by these Geese, all covered over with these shells, which seem to grow upon little stalks; and as the feelers of the fish within it are feathered or fringed, they were supposed to be the downy coverings of the young Goslings."

As a curious specimen of ignorant reasoning and

credulity, we shall extract an account written by the sage Gerard, as he was called, author of a well-known book called "Gerald's Herbal, or History of Plants." This author was born at Nantwich, in Cheshire, and lived in the time of Queen Elizabeth:—

"There is," says he, "a small island in Lancashire, called 'the Pile of Foulders,' on the west side of the entrance into Morecambe bay, about fifteen miles south of Ulverston, wherein are found the broken pieces of old and bruised ships, also the trunks and bodies, with the branches of old and rotten trees, cast up there likewise; wherein is found a certain spume or froth, that in time breedeth unto certain shells, in shape like those of the muskle, but sharper pointed, and of a whiter colour, wherein is contained a thing in form like a lace of silke, finely woven as it were together; one end whereof is fastened unto the inside of the shell, even as the fish of oisters and muskles are: the other end is made fast unto the belly of a rude masse or lump, which in time cometh to the shape and form of a bird: when it is perfectly formed, the shell gapeth open, and the first thing that appeareth is the aforesaid lace or string; next come the legs of the bird hanging out, and as it groweth greater, it openeth the shell by degrees, till at length it is all come forth, and hangeth only by the bill. In short space after, it cometh to full maturitie, and falleth into the sea, where it gathereth feathers and groweth to a fowl bigger than a Mallard, and lesser than a Goose, which the people in Lancashire call by no other name than a Tree Goose; which place aforesaid, and all those parts adjoining, do so much abound therewith, that one of the best is bought for threepence." So fully convinced was the sage Gerard, of the "truth thereof," that he closes his

account with an invitation to all who doubted the fact, to apply to him:—"If any doubt, may it please them to repair unto me, and I shall satisfie them by the testimonie of good witnesses."

They fly in a strong and powerful manner, the pairs or families keeping together and forming a line. In alighting a considerable noise is produced by the wings.

Their food consists of the leaves and roots of maritime plants, as well as at times of the blades of growing corn, rye, and grasses, as also of insects and their larvæ, for which they seek with the head and neck below water.

These birds appear to breed in large swamps and morasses.

The eggs are of a greenish white colour.

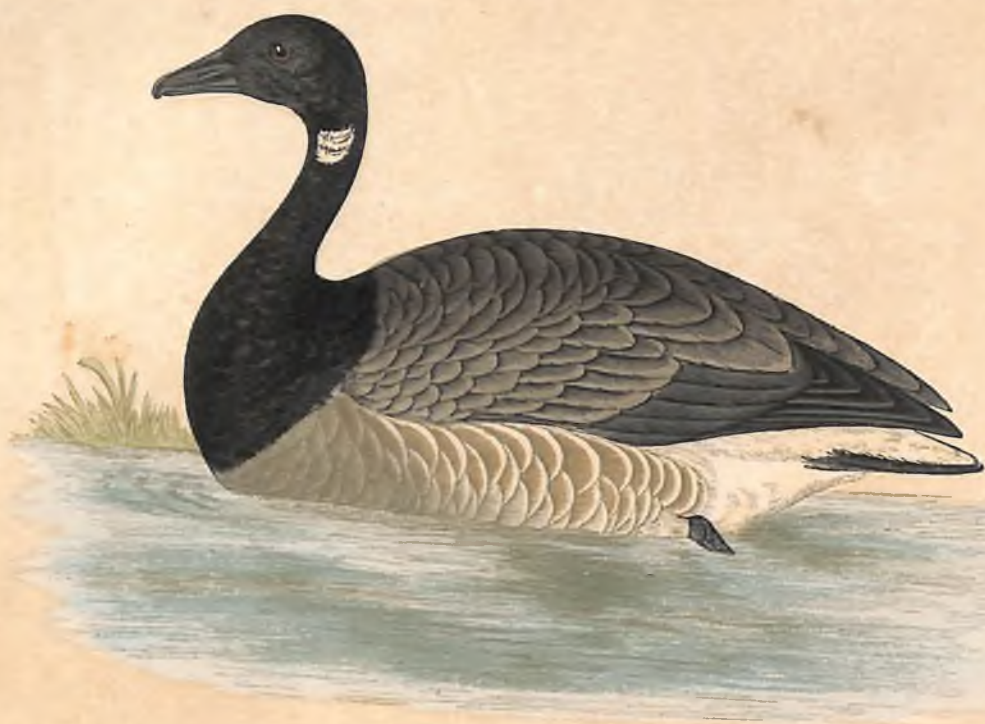
Male; weight, between four and five pounds; length, two feet one inch; bill, very small and black; from its base a broad black patch or line extends to the eye; iris, dark brown; forehead, and head on the sides, white; crown, neck all round, and nape, glossy black. Chin and throat, white; breast, on the upper part, glossy black, the remainder greyish white, ending in silvery white, with light greyish bars on the sides; the feathers on the legs black, with pale tips; back, fine bluish grey, with black or brownish black and white bars, the latter colour gradually widened, giving it an elegant dappled appearance; below, the back is black, on the lower part, bluish black.

The wings have the first quill feather the longest. Greater and lesser wing coverts, fine bluish grey, each feather edged with white, inside which at the tip is a crescent of bluish black. Primaries, almost black, edged a little way from the tips with bluish grey, at the base light grey on the outer webs; tertiaries, grey,

with white edges, and a crescent of bluish black at the tip, inside the white margin. The tail, which consists of fourteen feathers, is nearly black, the feathers are almost of a length, so that it is nearly square at the end; upper tail coverts, white, in a crescent shape; under tail coverts, silvery white. The legs, which are short and thick, are, as the toes, claws, and webs, black.

The female is like the male.

The young have the forehead spotted with black, the white on the sides of the head interspersed with black feathers; the streak between the bill and the eye much wider than in the old birds; the grey marks on the sides of the breast darker, and the white not so clear. The back darker, with a tinge of red on the tips of the feathers; the wing coverts similarly marked; the legs not so dark as in the old bird, being tinged with reddish brown.



BRANT GOOSE.

BRENT GOOSE.

<i>Anser brenta</i> ,	FLEMING. SELBY.
" <i>torquatus</i> ,	JENYNS.
<i>Anas bernicla</i> ,	PENNANT. MONTAGU. TEMMINCK.

Anser—A Goose.

Brenta—.....?

THESE Geese are very plentiful in Denmark, Norway, Sweden, Nova Zembla, Spitzbergen, Greenland, Iceland, and other countries of the north. They visit also France, Germany, Pomerania, and Holland.

In America, Captain James Ross noticed them in different places, up to the highest latitudes that have been reached, and in these they breed. They are well-known also in the United States, and Canada, and in the neighbourhood of Hudson's Bay.

With us the species is a regular winter visitor, and occurs in large multitudes on any parts of the coast that are suitable to them, such as those of Norfolk, Suffolk, Kent, and Northumberland.

In Yorkshire, it is met with at Sheffield, as also, though rarely, in the vicinity of Leeds, and likewise, in hard winters, near Doncaster and York occasionally, the moors around Huddersfield, and at the sea-side. In Cambridgeshire several were shot near Wisbeach, in the beginning of 1850. In Norfolk it is a common species. The Rev. R. P. Alington has seen this bird in Louth Market, the produce no doubt of Lincolnshire. In Surrey one was shot at Witley Farm, near Bramley.

In Cornwall, one was found dead on the sands, at Gwyllyn Vase, in December, 1846. A flock visited the Trent in Derbyshire, in January, 1831.

In Scotland the Brent Goose is met with in Sutherlandshire, but most so on the eastern side of the county. It is equally plentiful in the Hebrides and Shetland.

In Ireland it is also common, and some are said to have bred there, but it is considered that they may have been birds which had been partially tamed and had flown away.

It arrives in Orkney in the autumn, quitting again the following spring.

This species chiefly affects the sea-shore, but some have at different times been met with inland.

They arrive in large numbers about the beginning of October, and others keep continually joining the first comers till the beginning of November. They begin to leave again by the end of February, or beginning of March, and before April all have gone.

They are excellent eating, and are very easily kept in a domesticated state. They collect in immense flocks, so as often even to blacken the surface of the ground. In their wild state they appear not to be shy of human approach, probably as being unaccustomed to danger from that quarter in the distant parts of the world to which they naturally belong. Here, however, like so many other birds, which if not disturbed and harassed, would retain their natural character, they soon become extremely wary. Like the fortresses in the Baltic, they are only to be approached in the day-time, when on the water, by a low gun-boat, the invention of Colonel Hawker, previously to the adoption of which mode, they used to afford many "Nights Entertainments" to the cautious fowlers of a less inventive age. They thrive

well in confinement, and I have seen them on a lawn happy and contented: they have been known, as stated by Audubon and others, to produce young while thus kept.

They rise high into the air in circular courses before departing on their migration, and then move off over the sea. They can dive easily if desirous to do so, but such is not their ordinary habit.

They feed on marine vegetables, wrack, and grasses, and occasionally on small shell-fish; some sand is also swallowed.

Meyer says of the note, "Its description is varied, sounding like the different expressions, cuang, rott, and crock, all expressed in a hurried and harsh manner." The clamour of the gabbling and cackling of a flock when feeding or resting is heard at a considerable distance.

The nest of the Brent Goose is formed of vegetable materials, collected together in swampy places.

The eggs are white, with a faint tinge of brown or greyish.

Male; weight, not quite three pounds; length, one foot nine inches, to nearly two feet; bill, black, small, and rather narrow; iris, dark blackish brown. Head, crown, and neck all round, dull black, with a small white patch, intermixed with a few black feathers on the sides of the last-named: the amount of each colour varies in different individuals. Breast above, black; below, greyish slate-colour, the edges of the feathers lighter coloured; back above, dark dull slate-coloured, blackish brown, the edges and tips of the feathers paler than the remainder; below, blackish.

The wings have the first quill feather the longest; greater and lesser wing coverts, dark brownish black,

margined with a paler shade; primaries, blackish brown; secondaries, also blackish brown; tertiaries, dark blackish brown, the edges paler coloured. Tail, dark blackish brown; upper tail coverts, white; under tail coverts, white; they extend in length beyond the end of the tail. Legs, toes, claws, and webs, black with a tinge of reddish brown.

The female is a little less in size than the male. Her plumage has more of a shade of rusty brown.

The young, the first year, are without or nearly without the characteristic white mark on the side of the neck. The head and neck are of a dull leaden grey colour, the breast below light grey, the feathers of the back and wing coverts are tipped with brown. The legs are paler than in the adult birds, and more inclining to brown.



RED-BREASTED GOOSE.

RED-BREASTED GOOSE.

SIBERIAN GOOSE. RED-BREASTED BERNICLE.

Anser ruficollis,
Anas “FLEMING. SELBY.
PENNANT. MONTAGU.*Anser*—A Goose. *Ruficollis*. *Rufus*—Red. *Collis*—A neck.

THIS handsome species belongs to the northern districts of Europe and Asia, and breeds in Siberia and Russia, along the shores of the Frozen Ocean. In Iceland, it has been noticed, and also in Denmark and Jutland, in flocks of four or five. In Sweden, according to Professor Nilsson, it occurred once in 1793, and once in 1830. In France, only one example appears as yet to have been noticed: it was obtained near Strasbourg. In Holland likewise only one; in Belgium one; and in Germany one. In Asia, several were observed about Persia, and in the neighbourhood of the Caucasian range.

In this country the first recorded specimen was taken near London, during the hard frosts of the year 1766, and was obtained by Marmaduke Tunstall, Esq. The next was captured about the same time near Wycliffe, the ‘cunabula gentis’ of the Great Reformer, whose family derived its name from that place, in Yorkshire. Another was shot near the town of Berwick-on-Tweed. In Norfolk, one at Halvergate, in the year 1805. In

the county of Cambridge, others during the hard winter of 1813. In Devonshire, one was killed at Kenton Warren, in 1828; and another by the River Teign, February the 1st., 1837.

In winter this Goose moves to warmer regions.

These birds appear to be considered very good eating. They soon become tame in confinement.

They feed on green vegetables in preference to grain, but, on the principle of "Hobson's choice," put up with the latter if no better be forthcoming.

They utter their call-note to keep each other together, or if alarmed by a bird of prey: Meyer expresses it by the word 'tsjackwoy.'

Male; weight, about three pounds; length, one foot eight, nine, or ten inches; bill, very short and nearly black, with a tinge of red; tooth black. Iris, hazel; between the eye and the base of the bill is a large whitish patch; the eye is encircled with a line of dark brownish black. Forehead, and head on the crown, dark brownish black; on the sides is a patch of chesnut, speckled with black, and surrounded with a narrow line of white, which runs down the neck, bordering the black of the throat, and the back of the neck; neck on the back and nape, dark brownish black. The neck in front is rich orange chesnut red, bordered below with dashes of white. Chin and throat, dark brownish black; breast above, rich orange chesnut red, beneath which runs a narrow white band, and a narrow black one, in a festooned shape; on the middle and sides black, some of the feathers bordered with white; below white, with some waves of dusky brown; back, very dark blackish brown.

The wings expand to the width of three feet ten inches. Greater wing coverts, dusky black, margined

with white; lesser with coverts, dusky black, edged with greyish white, forming two bars across the wing; primaries, black; secondaries, also black. Tail, black, tipped with white; upper tail coverts, white; under tail coverts, also white. Legs and toes, dark brownish black, with a tinge of red. Webs, dark brownish black.

EGYPTIAN GOOSE.

Anser Egyptiacus,

JENYNS.

Anas Egyptiaca,

BEWICK.

Chenalopeæ Egyptiaca,

GOULD.

Anser—A Goose.*Egyptiacus*—Egyptian.

THIS bird, as denoted by its name, is a native of Africa, and occurs throughout the northern mediety of that continent. In Europe it is found in Turkey and the adjoining countries—in Germany, one was shot near Liege, and another also on the Meuse; divers in other parts: likewise in Sicily, and the islands of the Grecian Archipelago.

The shores of inland seas, rivers, and lakes, are the situations in which it is to be found.

One of these Geese, as Mr. W. C. Newby has informed me, was shot near Stockton-on-Tees, in the county of Durham, on the 2nd. of November, 1852; it was one of four seen at the same time. The circumstance is recorded in "The Naturalist," volume iii., page 60. In Cornwall, one is mentioned in the same magazine, volume ii, page 85, by John Gatcombe, Esq., as having been shot in the neighbourhood of Launceston. There was not the slightest indication in the look of the bird, to lead one to suppose that it had ever been kept in confinement. Another, of which Mr. William Fenwick has written me word, was killed near Stanhope, also in the county of Durham, in the begin-





AMERICAN DIVER.

ning of 1855. In Suffolk, a fine specimen was shot at Butley, near Woodbridge, about the 1st. of April, 1852. In Kent, five were seen about Romney Marsh for some few days in July, 1846. In the county of Oxford, one, on a piece of water at Shelswell; and another at Blenheim, the seat of the Duke of Marlborough, in December, 1847.

In Berkshire, one at Thatchem, in the month of January, 1795. In Sussex, an Egyptian Goose was shot on the harbour at Shoreham, on the 5th. of January, 1848; another in the parish of Shermanbury, on the 11th. of the same month; one at Pevensey, in January, 1850; one also near Seaford. In Norfolk, one on Ormesby Broad, on the 11th. of March, 1848, and a second a few days afterwards; two others, a male and a female, off Yarmouth, on the 28th. of April, 1851; Colonel Hawker refers to two shot in the same county. One on Derwent Lake, in Westmorland, on the 2nd. of the following May. In Cambridgeshire, one in Fulbourn Fields, the middle of September, 1852. In Dorsetshire, two in the year 1836. In Hampshire, Colonel Hawker speaks of three having been killed at Longparish, in the winter of 1823, and of a flock of eighty appearing near the same place the following year, during a tremendous gale from the west, when two more were obtained. In Northumberland, five were seen on the Fern Islands, in the month of April, 1830. In Somersetshire, four were shot on the Severn, near Bridgewater, in February, 1840.

In the Isle of Man, nine were seen together, in September, 1838.

In Ireland the species has also been met with.

In Scotland, three were shot at Campsie, near Glasgow, in November, 1832. A small flock were also noticed

on the River Tweed, in the month of February, 1839.

In the garden of the Zoological Society, an Egyptian Goose paired, in 1838, with a drake of the common domestic species; also in 1839. Young birds were hatched both years.

These birds appear to be of a wild and wary nature, and also, it is said, of a quarrelsome disposition; they are, however, readily kept in a half-domesticated state.

They dive, on occasion, with extraordinary speed, assisting themselves, no doubt, by the 'remigium alarum,' and can also run in a tolerably quick manner. Meyer says, "On the water it swims apparently with great exertion, having its fore parts very low in the water, and its hinder part very much elevated; to such an extent, that when swimming, its knees are invariably above that element. When the Egyptian Goose is pursued, it does not take to the water, unless as a means of crossing over to the opposite shore, but it runs for the shelter of some bush or thicket of long herbage, which proves the fact of its being more a land than a water inhabitant.

On the wing the Egyptian Goose is strong, and easily to be detected by its appearance, in consequence of its very long pinions, but it has great trouble apparently in rising from the ground: during its migrations it flies high; and when in a flock, they form double lines, after the manner of other Geese."

They swallow some gravel to help the digestion of their food, which they seek at times in stubble fields, as well as by the sides of streams and other waters. Barley and oats, as also green herbage, the roots of water-plants, worms, snails, and insects generally, are all suitable to their wants.

The note 'is a 'quack' sharply repeated.

These birds are believed to pair for life, and are much attached to each other. They make their nest, it is said, of reeds, leaves, and the stems of water-plants, and give it a lining of cotton and feathers. It is always placed near the water, and has been known on the surface, supported by the surrounding floating vegetation.

The eggs are of a dull white colour, with a tinge of buff, and six or eight in number.

Male; weight, five pounds; length, two feet two to two feet four inches; bill, pale brown, except the tooth, which is dark brownish black, as are also the edges and the base. Iris, pale yellow, the eyelids red; around the eye is a patch of chesnut brown. Forehead, rich reddish brown; head on the sides, pale rufous or yellowish white; crown, rich reddish or yellowish white; neck on the sides, pale rufous or yellowish white; on the back, rich reddish brown, finely pencilled with transverse waved lines; in front pale rufous brown or buff, with a darker ring around its base. Chin and throat, pale rufous or yellowish white; the breast has a patch of chesnut brown on the centre; above it is pale rufous brown, below pale brown—nearly white; the sides faintly pencilled with minute waved transverse lines. Back, rich pale ferruginous brown, finely pencilled with transverse waved lines; on the lower part nearly black.

The wings expand to the width of four feet three inches; they have a short blunt spur at the bend; greater wing coverts, white, with a deep black bar near the tip; lesser wing coverts, white tipped with black, forming a narrow black band; primaries, nearly black, with a tinge of green, brightest on the edges; secondaries, blackish brown, tinged with reddish and edged with chesnut, black at the tips, the outer webs brilliant varying green; tertiaries, rich reddish brown, greyish

brown on the inner webs. Tail, nearly black; upper tail coverts, also black; under tail coverts, yellowish rust-colour. The legs, which are rather long, and give a peculiar appearance to the bird, as a Goose, are, as the toes, of a pinkish colour.

The female is like the male, but the colours less bright. Bill, pale yellowish red; iris, brown; the chesnut-coloured patch around the eye is smaller and not so perfect. The ring round the neck is not so distinct, and smaller in size; the mark on the breast is not so well defined or large as in the male; the feathers of the back are tinged with grey. The white on the wings is less pure; secondaries and tertiaries, tinged with grey. Legs and toes, pale yellowish red.



SPUR-WINGED GOOSE.

SPUR-WINGED GOOSE.

GAMBO GOOSE.

Anser Gambensis,
Anas “

FLEMING.
 BEWICK.

Anser—A Goose.

Gambensis—From Gambia (?)

THIS is another African species.

One of these birds was killed in Cornwall, near St. Germans, the 20th. of June, 1821.

About the middle of February, 1855, another was shot near Banff, N.B.—an appropriate ‘Nota Bena’ of the occurrence of the second English or European specimen of this rare bird—as recorded in “The Naturalist,” for August, 1855, by Mr. Thomas Edward, of that place.

The Spur-winged Goose has been kept in the garden of the Zoological Society. It appears to be of a morose and domineering disposition. The spur on the wing, whence the name of the bird, seems to be used as a weapon of attack. The one mentioned in the beginning of this article, was observed, when first seen, to associate with some Geese of the common kind, at a farm.

Male; bill, dull reddish orange yellow; iris, amber colour. Head on the crown, dull brown; neck on the back, also the same colour; on the sides of the upper part, white spotted with brown; on the lower, black.

Chin and throat, white; breast on the sides, black; in front and all down, white; back, deep metallic brown, shewing purple and copper-colour in different lights, beautifully burnished with dark green.

The wings are armed at the bend with a strong spur, about five-eighths of an inch in length. It is of a white colour, and turns upwards, and rather inwards. The whole of the upper and front edges of the wings are white. The second, third, and fourth feathers are of equal length, and the longest; the first and fifth a little shorter. Greater wing coverts, white, forming a band of that colour across the wing; the primaries and secondaries have most of the outer feathers of a burnished green. The tertiaries are brilliantly bronzed and glossed with a metallic green; they are as long as the quill feathers. Tail, brown; under tail coverts, white. Legs and toes, red, or orange yellow.



CANADA GOOSE.

CANADA GOOSE.

CRAVAT GOOSE.

Anser Canadensis,*Anas* “*Cygnus* “

FLEMING.

BEWICK.

JENYNS.

Anser—A Goose: *Canadensis*—Of, or belonging to Canada.

THE name of the Canada Goose indicates the country of which it is a native. Immense flocks occur about Hudson's Bay, and in the other boreal districts of North America—Labrador, Newfoundland, and others. They go so far south in the summer as Carolina. The species appears to be plentiful also in Greenland and Spitzbergen.

In this country many have been observed and obtained. In Yorkshire, two were shot by Mr. William Mosey, of Skerne, near Driffield. In Cornwall, one was shot a few years since in the month of September, on the banks of the Laira; three or four also were obtained at different times at St. Germans: one on the Scilly Islands. In Oxfordshire, one on Port Meadow, in February, 1828; and another on Otmoor, in the winter of 1845, near Weston-on-the-Green. In Derbyshire, a pair remained for a short time on a pool at Melbourne, the second week in May, 1849. In Hampshire, Mr. Yarrell says that several have been shot. In Cambridgeshire, the Rev. Leonard Jenyns states that large flocks

have been observed, and some birds obtained. In Durham, many were taken on the sea-shore near Hartlepool, in the months of January and February, 1814, during the severe snow-storms of that date, which I can just remember myself, and which have been paralleled by none since till the same period in the present year, 1855.

The Canada Goose has occurred also in Ireland.

These birds migrate northwards and southwards, the former in the spring, and the latter in the autumn.

They have been kept tame on various waters, as those of St. James' Park and the Zoological Gardens, London; and at Gosford House, in Haddingtonshire, the seat of Lord Wemyss; and in each have reared their young. They readily mix, and have been known to pair with the common species; as also the Gander with the Bernicle Goose. They are good birds for the table.

"A Canada Goose," writes the Right Rev. Dr. Stanley, Bishop of Norwich, "was observed to associate itself with a house-dog, and would never quit the kennel except for the purpose of feeding, when it would return again immediately. It always sat by the dog, but never presumed to go into the kennel except in rainy weather. Whenever the dog barked, the Goose would cackle, and run to the person at whom she supposed the dog was barking, trying to bite him by the heels. Sometimes she would attempt to feed with the dog, but this was not allowed by the dog, who treated his faithful friend with as much indifference as the farmer before mentioned. The Goose would never go to roost at night with her natural companions unless driven by main force, and when in the morning she was turned into the field, she would

never stir from the gate, but sit there the whole day in sight of her favourite.

At last, orders were given that she should be no longer molested, but suffered to accompany the dog as she liked. Being thus left to herself, she ran about the yard with him all the night; and whenever the dog went out of the yard, and ran into the village, the Goose as constantly accompanied him, contriving to keep up with him by the assistance of her wings; and thus running and flying, would follow him to any distance. This extraordinary affection of the Goose towards the dog, which continued till his death, two years after it was first observed, is supposed to have originated from his having once saved her from a fox. While the dog was ill, the mourning bird never quitted him day or night, not even to feed; and it was apprehended she would have starved to death, had not a pan of corn been placed every day close to the kennel. All this time she generally sat close by him, and would not suffer any one to approach, except the person who brought the dog's or her own food. The end of the poor bird was very tragical, for, when the dog died, she still kept possession of the kennel; and a new house-dog having been introduced, which in size and colour resembled that lately lost, the poor Goose was unhappily deceived; and going, as usual, within his reach, the new dog seized her by the throat, and killed her on the spot."

"The Canada Geese appear to be peculiarly susceptible birds, and will sometimes make up by imagination or fancy what is deficient in reality. Thus a Canada Gander in a nobleman's park, near Windsor, having no mate for two springs, regularly mounted guard opposite a draw-bridge, in front of a thicket, where it was

clear he imagined there was a nest, and defended the approaches very courageously, continuing this ideal defence till the first brood of ducklings appeared from some other quarter, which he immediately took under his protection; and in the second year he actually chaperoned twenty-five. It should be added, that there was no nest of any kind whatever within the precincts which he so strenuously guarded."

They fly with the neck stretched out straight in front. On the ground, they walk in a shewy manner, frequently tossing the head, and bending at the same time the neck.

They feed on green vegetables and insects.

The note is considered to resemble the syllable 'wook,' frequently repeated.

The Canada Goose makes for herself, or rather for her expected brood, a "downy bed" of feathers, within a structure of dry plants of different kinds. It is of large size, and raised to the height of several inches. It is begun to be built in March or April, and is placed among deep grass, near the water. Audubon mentions his having found one on the stump of a large tree, standing in the middle of a small pond, and at a height of about twenty feet. Occasionally they build in the old nests of other large birds, and while the hen sits the male bird keeps sailing about over the water in the neighbourhood, but not coming very close to the nest. On the appearance of any danger he exhibits much anxiety for his family.

The eggs are sat upon by the end of May or the beginning of June. They are generally six or seven in number, but as many as nine have been found: they are of a dull white colour.

The young appear, like so many other kindred kinds,

to grow very rapidly. They are led to the water by the dam almost as soon as hatched, and her partner then joins them, and brings up the rear. "The little family remain together till the return of the flock, when all mix promiscuously, recruit themselves for a few days, and then depart." The female sits very close, and rarely leaves the nest. The pair are believed to unite for life.

Male; weight, about nine pounds. The largest of the two mentioned above as having been shot in Yorkshire, weighed ten pounds and a half. Length, three feet five or six inches; bill, black; iris, very dark brown. Head on the crown, black, with purple reflections; neck behind, black, tinged with purple; chin and throat, white, which colour extends upwards and backwards, somewhat after the fashion of a cravat, whence one of the names of the bird. It reaches nearly to the other side of the top of the neck; breast above, pale greyish brown; below white; on the sides pale brown, the edges of the feathers still paler; back above, brown; below, dusky black.

Greater and lesser wing coverts, brown, the edges paler; primaries, dusky black; secondaries, brown, with lighter coloured edges; tertiaries, also brown; the edges of a lighter colour. Tail, dusky black; upper tail coverts, white; under tail coverts, white; legs, toes, and webs, dark lead-colour or bluish black.

These birds begin to moult in July.

The females are somewhat less in size than the males.

HOOPER.

WILD SWAN. ELK. WHISTLING SWAN.

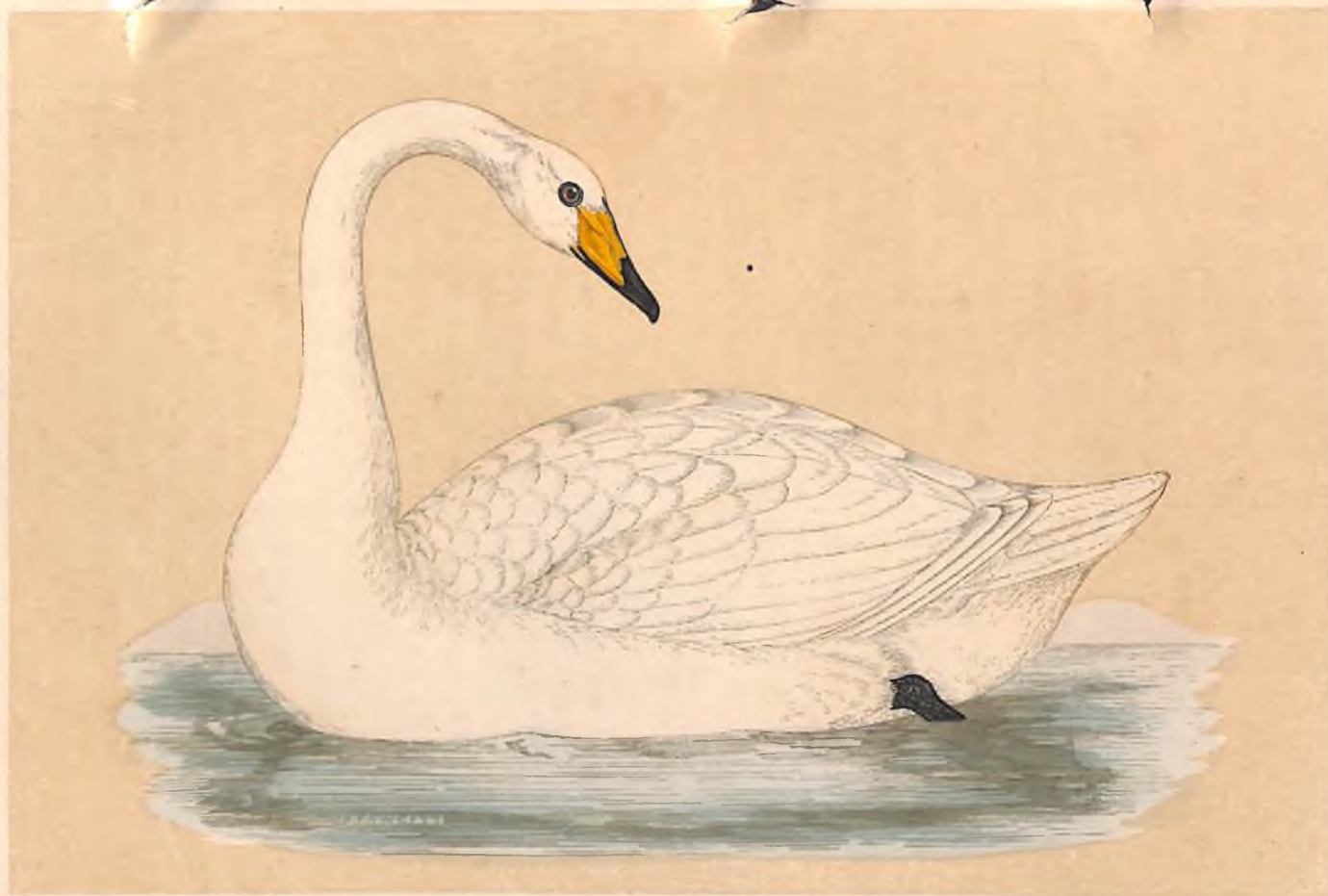
Cygnus ferus,
Anas cygnus,
 " *ferus*,

FLEMING. SELBY.
 PENNANT.
 MONTAGU.

Cygnus—A Swan.*Ferus*—Wild, savage.

THE Hooper visits Prussia, Turkey, Greece, Hungary, Poland, France, Holland, and Italy; occasionally seen also in different parts of Germany, particularly, it is said, in Westphalia, Saxony, Dessau, and Worlitz, from Iceland, Norway, Lapland, Sweden, Denmark, Spitzbergen, and Russia in Europe; in Asia, it occurs in Siberia, Kamtschatka, and Tartary, the regions that border on the Black Sea and the Caspian Sea, Japan, Syria, Persia, and China. It also is said to be found in America, from Hudson's Bay through the United States to Mexico. It appears likewise that it travels as far as Africa, to Egypt and Barbary.

In the Orkneys, some used, according to the Rev. G. Low, in his Natural History of those Islands, to abide throughout the year; and a few pairs build on the Loch of Stenness, but in autumn large flocks arrive from the north, and of these part remain all the winter, and others cross over to Scotland—Sutherlandshire, Caithnesshire, Forfarshire, and the other northern counties, and thence penetrate according as the season impels



HODDER.

them, even to the southern shores of Sussex and Hampshire.

In the Hebrides, Shetland, and Faroe Islands, these birds also have occurred.

In Yorkshire they have been shot near Doncaster, Sheffield, Barnsley, Leeds, and Sutton-on-Derwent; they are far from uncommon in hard winters.

A flock of five appeared in January, 1855, between the village of Cookham and Maidenhead, Berkshire, and two of them were shot, as Mr. Thomas Willmot has sent me word; and according to the information of the Hon. T. L. Powys, they have occurred in Northamptonshire. In Cambridgeshire it is not uncommon in severe winters in Whittlesea Wash, the old "Squattlesea Mere" of Roger Wildrake, and some were met with near Wisbeach, on the River Nene, in the middle of December, 1849. In Oxfordshire a flock of fifteen, one of which was shot, alighted in the garden of the Vicarage at Weston-on-the-Green, on the 6th. of February, 1838. In Derbyshire flocks occur on the Trent near Melbourne, and other places at intervals in the winter. In the year 1848 many were seen, and not a few killed, in Kent, near Gravesend; others also near the Thames above London, beyond Richmond, in Surrey, and near Chertsey.

They naturally frequent swamps and lakes, but, especially in winter, such as are near the sea, and the shore and the sea itself.

In Norfolk they are not unfrequent about the coast in winter, especially in severe seasons. This remark indeed applies to the country generally. Thus in the winters of 1784-5, 1788-9, 1813, 1814, 1819, 1823, and 1829, they were more than ordinarily numerous.

In Scotland these Swans have been shot by the Nith and the Annan, in Dumfriesshire; and in Selkirkshire.

In Ireland they occasionally appear.

They migrate, according to the season, in March or April, and October, northwards in the former months, and southwards in the latter one.

They appear not to be shy until they have been alarmed by being shot at, and are quite tameable. Mr. Yarrell writes, speaking of some which bred in the gardens of the Zoological Society, in the summer of 1839, and again in 1842. "A curious occurrence took place in reference to the brood of 1839. The Cygnets, when only a few days old, were sunning themselves on the margin of one of these islands, close to the deep water. The parent birds were swimming near. A Carrion Crow made a descent, and struck at one of the Cygnets, the old male Hooper came to the rescue in an instant, seized the Crow with his beak, pulled him into the water, and, in spite of all his buffetings and resistance, held him there till he was dead."

In the severe winter of 1838, several Swans were found dead in Orkney, apparently from the extreme cold.

Great numbers of these birds are killed in Iceland for the sake of the down and feathers, so very valuable in an Arctic climate. They are ridden and run down with horses and dogs in the autumn, when, being moulting, they are not so well able to fly.

The following account, given in the "Zoologist," volume vi., pages 2024-5-6, by Miss Ellen Webley Parry, shews how even a bird, whose very name means wild or savage, may be tamed in the most perfect manner by kindness:—"The winter of 1829-30 was remarkably severe, and especially so for South Wales, where the climate is generally mild and humid. There had been numerous flocks of Wild Geese and other

northern birds, including the Hooper, or Wild Swan, on the River Tivy and its tributary streams. A pair of these birds were shot and secured by the Rev. Samuel B. Shireff, of Stradmoor, Cardiganshire, whose residence was on the banks of that river. The male bird was merely wounded in the pinion, the female unfortunately too severely so to survive. Mr. Shireff presented the other to my father, the late Rear-Admiral Webley Parry, of Noyadd Trefann, in the same county, in the hope that he might be sufficiently tamed to put on a piece of ornamental water near the house.

The extreme wildness and fierceness of this bird, if approached, was remarkable, flying at every person who came near his domicile. We placed him in a small yard, with an open shed for him to retire to. It was many days before we could induce him to eat anything; as we were quite ignorant of his natural food we feared he would be starved to death, but fortunately he began to eat sea-biscuit soaked in water, which he continued to live upon for some months. After being kept in this place for more than two months, and being, as we thought, tolerably tame, we put him on the piece of water before named; but no sooner was he on his native element, than all his natural wildness seemed to return; he made his way down to a stream which ran into the Tivy, on which river he was caught, making his way towards the sea, and brought back again.

Shortly after this, an accident happening to the embankment, the piece of water became dry, and 'Dan,' as he was called, was brought up to the house, and had to content himself in the circumscribed limits of the stable and poultry yards, together with the farm-yard pond. From the number of people constantly passing and repassing there, and his long sojourn, he became excessively

tame, went to bed with the poultry, came when called, would follow us about, and knew his way about the premises as well as the dogs. After a while he returned to his old quarters, and from that time until his death never but once attempted to escape, though he would occasionally take a flight round the water, and alight again; at the time alluded to, he would doubtless have returned, but in his flight he alighted at a farm not far from Noyadd, when he was immediately caught and shut up, and notice sent to us of his capture. I went to fetch him, knowing he would follow me, and on my way saw him being driven home by a boy; but no sooner did he catch sight of me, than he commenced half-running half-flying towards me, and making that remarkable trumpet sound he was in the habit of doing when pleased; and walked the remainder of the distance by my side.

He knew all the servants and labourers, never molesting them; whilst every stranger, whether gentle or simple, equestrian or pedestrian, he invariably attacked if he could, especially any ragged person; he was rather the terror of our visitors, as he would frequently, like a watch-dog, dispute the entrance with them. He knew every member of the family at a considerable distance, whether on foot or on horseback, and would frequently leave the water to come and meet us, or walk by our side, talking all the time. He was lord of his own domain, and especially jealous of any animal approaching its banks, generally taking the trouble to swim from the farthest end to drive them away. He was so well known by cows and horses, that they generally decamped on his approach.

In the spring of the year he required little or no feeding, finding sufficient sustenance on the tadpoles

and other water animals abundant at that season; he would eat any kind of grain, and was particularly fond of bread, which he would take out of our hands: he was as sociable as a dog, and nearly as attached. Whenever the entrance gate was left open, he would make his way up to the house; he always found out which room we were sitting in, and would call under the windows and peep in, and would not be satisfied without having something given him; he would then lie down under them, seeming satisfied if he could be near us. In the summer time, when the doors were open, he would frequently walk into the house, and even round the breakfast table. Often when my mother was amusing herself at her flower-beds, he would see her, come up from the water, wait at the gate to be let in, and then come up and lie down close to her. Never so happy as when near us, he would sit under the windows or on the steps for hours, if allowed, and each year increased his attachment and sagacity.

After being with us for upwards of six years, to our great distress, on coming down to breakfast one morning, we discovered poor Dan standing upon the steps of the front door, with his head and neck covered with blood, the skin under his lower mandible being torn from the bone and hanging down, as was his tongue from having nothing to support it. The first thing we thought of was to sew the skin on again, in the hope of its adhering to the bone; but neither this nor other endeavours to effect a cure succeeded, and the poor bird was in danger of being starved to death, as he had not the power of swallowing, even if he got the food into his mouth, having no use of his tongue. We were very loath to sign his death-warrant, and yet could think of no means of saving him; when one

of the servants proposed the carpenter's making a wooden bill for him; we acted on the suggestion, and had one made with holes drilled in it, and corresponding ones through the horny substance of his mandible, and fastened it on with wire. This contrivance answered admirably; he was able to eat as usual, and began to recover his good looks; but nothing would induce him from the time of his accident, to remain on the water at night; he always came up to the house towards evening to go to rest, and was most persevering in his endeavours to obtain an entrance into his bed-place, and if he failed one way he would try another. Occasionally he would call under our sitting-room windows to be let in. In the morning he quietly marched down to the water, quite contentedly. What caused the accident we could never discover, and can only suppose it to have been done by a stoat or polecat, as he had been seen more than once attacking the former, which were very numerous.

The wooden bill answered admirably well for two or three months, when the wire by which it was fastened became corroded, and it dropped off; it had unfortunately been secured with brass or steel wire, instead of gold or silver; had it been done with either of the latter, in all probability poor Dan might yet have been alive, if not to tell his tale, to have shewn his wonderful cure; but as it was, we did not like putting him again to the pain of drilling fresh holes in his mandible, as the old ones were worn through; and though we kept him many days, in hopes that he might get accustomed to the loss of his false bill, and be able to feed himself, we found him totally unable to do so. As he was getting weaker and weaker, from want of sustenance, we were most reluctantly obliged to des-

troy this attached and sagacious creature, having had him nearly seven years."

The Swan was, I believe, formerly considered as a royal dish, but it is not now much esteemed for the table.

They fly in a long line, at times divaricated in the form of a wedge, and go in flocks or teams of from four or five to thirty, which unite together to the number of several hundreds, at the times of migration. Their flight is easy and well sustained, and usually conducted at a great height. It is exercised without much noise, except on first rising or alighting, when the sound may be heard to a considerable distance. It is said that they can fly at the rate of above one hundred miles an hour. They walk well, and can also run with considerable rapidity. In swimming about, except when feeding, the neck is carried in an upright posture, and seldom in the arched manner characteristic of the other species. In walking the neck is bent backwards over the body, and the head lowered as if to preserve a proper balance.

They feed on vegetable food of different kinds, the stems, leaves, and roots of plants; grain and fruit, also insects and their larvæ, young fish, frogs, and worms. "The manner of feeding in this species is peculiar; it not only seeks for its food by preference in shallow water, but it turns up the boggy ground, in order to obtain roots and worms; to such an extent is this done, that where a number of these birds congregate, the ground is perfectly broken up. The grain before-named, consists of barley especially, and oats; and the fruit, plums in particular."

The note resembles the word "hoop," repeated ten or a dozen times; hence the name of the bird. It

is both loud, clear, and sonorous, and sounds aloft like the clang of a trumpet. Other inflections of their voice are expressed by Meyer, by the syllables "hang, hang," "grou, grou," and "killelee." Montagu writes that having killed one of this species out of a flock of ten or twelve, its companions flew round several times, making a most melancholy cry before they flew off. "This," he says, "put us in mind of the solemn dirge of the dying Swan, described by the ancient poets, and may possibly have given rise to those accounts, only by them it is made to be sung by the dying bird." This, however, as Aristotle says, "makes not a little but the whole difference," and no such conclusion is therefore to be drawn from it.

The nest, which is of large size, as might naturally be looked for, is made of reeds, rushes, and other water-plants, and is lined with down, with which the eggs are also covered. It is about a foot and a half in diameter, and is placed not far from the water. It is begun to be made about the middle of March, and is built on the ground in marshy places.

The eggs are of a pale dull brownish white or pale greenish white colour. They vary in number from five to seven.

The female sits for forty-two days. She and her mate are united, it is said, for life. They keep the place of their nest free from intrusion, and resolutely repel its appropriation by any but themselves.

"No birds," says Colonel Hawker, "vary more in weight than Hoopers. In the last winter, 1838, I killed them from thirteen to twenty-one pounds." No doubt, however, he confounded this species with the Bewick's Swan. Some weigh twenty-four pounds. Length, four feet ten inches to five feet; the bill is black on the

edges and the fore part slanting upwards and backwards, the remainder, up to and round the eye, orange yellow. It is without the knob seen in the other species. Iris, brown; the head and upper part of the neck are generally like the rest of the plumage—pure white, but often of a fine rufous yellow colour, otherwise the crown, neck, nape, chin, throat, breast, back, wings, which expand to the width of from seven to eight feet, greater and lesser wing coverts, primaries, secondaries, tertiaries, greater and lesser under wing coverts, tail, upper and under tail coverts, are pure white. Legs and toes, greyish black; webs, greyish black.

The young, which are not fully fledged for three months, at first have the bill pale dull yellowish red, the tip and the edges of the sides black. Head, crown, neck, and nape, pale greyish brown; chin, throat, and breast above, pale greyish brown, the latter on the lowest part paler. The legs are, at first, pale yellowish-grey red.

At the moult at the end of their first year, they begin to assume the white plumage, which is complete by the same period the following year.

BEWICK'S SWAN.

Cygnus Bewickii,

" "

YARRELL. SELBY.

JENYNS. EYTON. GOULD.

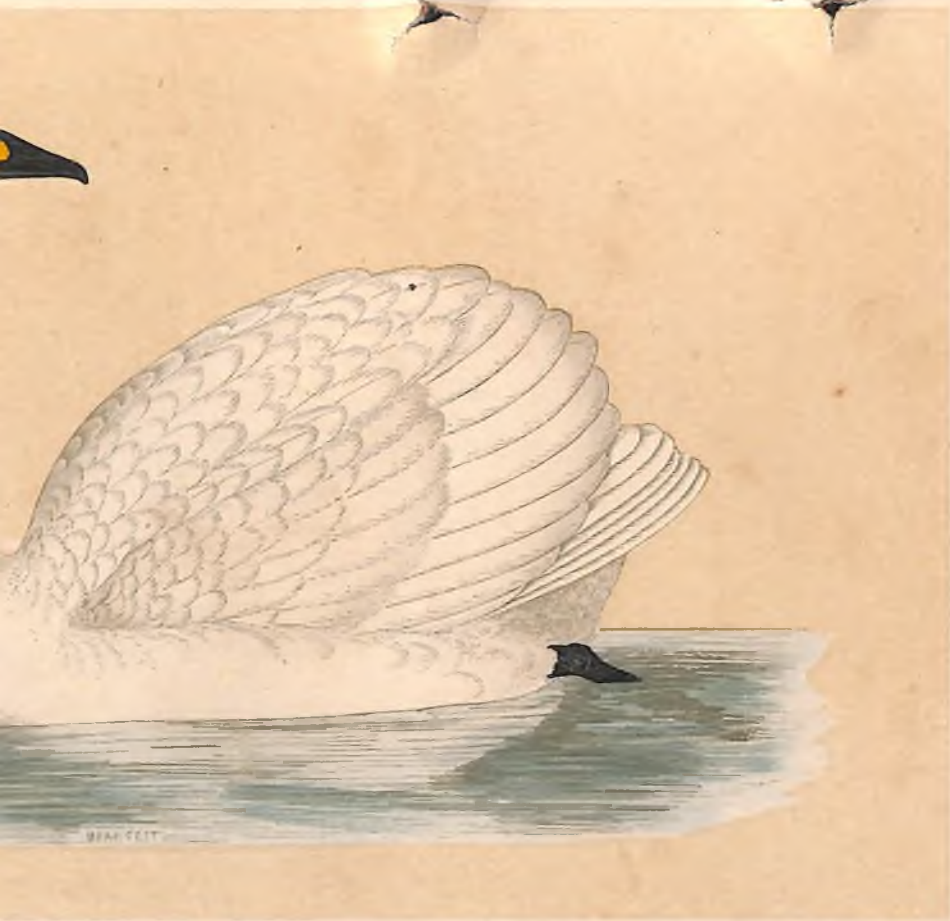
Cygnus—A Swan.*Bewickii*—Of Bewick.

THE Swan thus denominated in honour of Bewick, our own Bewick, whose name must ever be associated with "British Birds," appears to be distributed over the northern parts of Europe, Asia, and America, and the islands of the Arctic Ocean. Temminck says that it breeds in Iceland and Siberia.

In Yorkshire, Edward Dawson, Esq., son of my friend, G. P. Dawson, Esq., of Osgodby Hall, near Selby, has informed me of his having shot three of these birds at a shot on Skipwith Common, about the 14th. of February, 1855. There was a flock of five, the other two were the old birds. One was shot near Bawtry; several have occurred at different times near Burlington.

In Cambridgeshire, so J. R. Little, Esq., of St. John's College, has written me word, a flock of twenty was seen on Whittlesea Wash, about the middle of March, 1855, of which three were shot. A few near Wisbeach, on the estuary of the Nene, in the middle of December, 1849. In the county of Durham, one was shot near Stockton-on-Tees, in the winter of 1850. Six are said to have been seen in January, 1830, near St. Just, in Cornwall. In March, 1845, three were shot near Somer-





BEWICK'S SWAN.

sham, and three near Godmanchester, in the county of Huntingdon. In Norfolk they are not unfrequent in the neighbourhood of the sea, in winter. In Oxfordshire two near Oxford, in the winter of 1837-8. In Derbyshire a flock of eleven appeared on the Trent, near Melbourne, in February, 1845, and two of them were shot. In Lancashire a flock of twenty-nine, one of which was shot at Middleton, were observed at Crumpsall, near Manchester, on the 10th. of December, 1829; and again, seventy-three at the same place, on the 28th. of February, 1830. The bird just mentioned, being only slightly wounded, was kept alive, and on the 23rd. of March, another, a male, no doubt the same one that had been observed to remain with it at first, for some hours, after the rest of the flock had gone off, made its appearance, and after flying round and round for some time, descended to it with much apparent joy. It remained with it and soon became accustomed to the presence of strangers, but, on the 13th. of April, being alarmed by some dogs, took flight and did not return; and, on the 5th. of September, the female, whose wing had by that time become sound again, also disappeared, and was seen no more.

In Ireland this Swan has been noticed pretty commonly. Several flocks were seen in January, 1836. In February, 1830, a flock of seven alighted in a field near Belfast, and two of them were secured. One was obtained in Wexford harbour, on the 1st. of February, 1844.

In Scotland it is not uncommon in Sutherlandshire on the lochs.

They migrate southwards in October, and retire northwards again in March.

In their natural state they appear to be shy and timid, but they are, nevertheless, easily susceptible of a certain

degree of domestication; they are gentle in their manners, and live amicably with other kinds.

They feed on insects and their larvæ, seeds, the roots, stems, and leaves of water-plants, and worms, and swallow therewith some gravel. They wade for their food in shallow waters, immersing the head and neck for the purpose.

Their call is loud and clamorous—a deep whistle, heard at a considerable distance.

The nest is reported by Captain Lyons, R. N., to be built of peat-moss, and to be nearly as much as six feet long, four feet and three-quarters wide, and two feet high on the outside, the hollow one foot and a half across. Another account says that the materials used are flags, rushes, and the small boughs of willow trees; doubtless those most readily procurable are differently made use of in different places.

The eggs are of a cream white colour.

This Swan too is said to occupy six weeks in the incubation of its eggs. Many pairs build in the same vicinity, but each pair maintain the right of private property for the time being in their own more immediate abode.

Male; length, three feet ten inches to four feet; bill, black, except only the inner portion of the upper mandible extending back to the eye, which is orange yellow: in old birds a knob arises at the base. Iris, dark chesnut. The yellowish rust-colour on the head and neck appears in some individuals of this species also. Otherwise the head, crown, neck, nape, chin, throat, breast, and back, are white.

The wings reach in expanse to the width of from six feet to six feet three inches; the second and third feather are longer than the first and the fourth.

Greater and lesser wing coverts, primaries, secondaries, tertiaries, greater and lesser under wing coverts, tail, of twenty feathers, wedge-shaped, and the tail coverts, white. Legs and toes, dull black; webs, dull black.

The young, the first year, are greyish brown. In the second year, the bill is pale yellow over the base; iris, orange. The head and the breast are much tinged with red rust-colour; on the latter it wears off soonest. The young, according to Yarrell, have only eighteen feathers in the tail, and Selby gives this number to the adult; the point might therefore be considered as 'adhuc sub judice,' but the former statement seems the correct one.

MUTE SWAN.

TAME SWAN. DOMESTIC SWAN.

Cygnus mansuetus,
Cygnus olor,
Anas olor,

GOULD.
 JENYNS.
 PENNANT. BEWICK.

Cygnus—A Swan.*Mansuetus*—Accustomed.

THOUGH this species is that which we only see preserved as an ornament on the lakes, rivers, and ponds of the nobility and gentry of the country, and is not now known in a wild state, yet as there is no reason why it should have been imported for the purpose more than any of the others, and from the latter, commonly met with as they are, one would more naturally look for the supply to be obtained, it seems to me that the fact of its being now found as it is, ought to be accounted for by the probable supposition that wild birds obtained in this country were the original source of the present race; on this account, therefore, rather than because its establishment in the kingdom has become 'un fait accompli,' I consider that it has a fair title to the place which it holds as a British bird.

It is found in the wild state in Europe—in Russia, and the southern parts of Scandinavia generally, Prussia, Lithuania, Poland, Hungary, Germany, Holland, France, and Italy; in Asia—in Siberia, Persia, and the countries between the Black and the Caspian Seas.



MUTE SWAN.

Water is their element, whether that of the sea, the river, the lake, or the pond. If frozen out, they are obliged to take 'ton deuteron ploun,' and keep in the neighbourhood, or by any springs, if such there be, that have withstood the frost.

There are Swanneries of greater or less size in various parts of England, and in numberless places a pair of these noble, stately, and graceful birds are to be seen. As many as forty are mentioned by Mr. Knapp, the author of the "Journal of a Naturalist," as having been counted by him on a Swan-pool that then existed, but no longer exists, near Lincoln; and twice that number might recently be seen on the Swannery of Lord Ilchester, at Abbotsbury, in Dorsetshire.

In their wild state they are shy, but, as is expressed by their duplicate names, and also well known, are thoroughly tameable, so as to come when invited and take food from any one accustomed to give it to them, or even from strangers, when used, if so I may express myself, to the sight of them.

Bewick writes, "At the setting in of frosty weather, the Wild Swans are said to associate in large flocks, and thus united, to use every effort to prevent the water from freezing: this they accomplish by the continual stir kept up among them; and by constantly dashing it with their extended wings, they are enabled to remain as long as it suits their convenience, in some favourite part of a lake or river, which abounds with their food. The Swan is very properly entitled the peaceful Monarch of the Lake: conscious of his superior strength, he fears no enemy, nor suffers any bird, however powerful, to molest him; neither does he prey upon any one. His vigorous wing is as a shield against the attacks even of the Eagle, and the blows from

it are said to be so powerful, as to stun or kill the fiercest of his foes. The wolf or the fox, may surprise him in the dark, but their efforts are vain in the day."

Part of the above statement is, however, to be taken 'cum grano salis,' for while engaged with their young, and in guardianship of them, Swans are full of spirit, and their great strength makes them powerful and dangerous foes, to man, dog, or other supposed enemy. It has been said that a fair blow of the wing will break a man's leg. Meyer mentions one which he knew attack a man with great fury, and fracture his arm with one stroke. When different pairs of Swans, with their families, are on the same piece of water, each keeps within the limits of their own district, and resist any encroachment by the others.

The old birds associate with their young through the winter, but drive them away in the spring. Swans have been known to live fifty years. The male bird swims higher out of the water than the female.

The noise made by the sounding pinions of these great birds, may be heard at a long distance. They fly in a straight line, and at the height of three or four hundred feet, that is, the wild birds; the tame ones only attain to a much lower elevation. They walk in an ungainly manner, and evidently are not at home on the dry land. Every one must have observed the elegant manner in which the Common Swan arches up its wings, when sailing about on the water; and it seems, so I am told, that the attitude is peculiar to it, and is not exhibited by the wild species.

They feed on water-plants, their roots and leaves, insects, and their larvæ, and occasionally swallow fish. They take some water each time that they browse.

The Swan has obtained the character, contradicted by

its name, as well as, except in some very small degree, by fact, of being a bird of song. It has especially had assigned to it the office of singing before it dies, a dirge at its own departure, the echoes of which die away over the form that has then ceased to utter it. Some saturnine epigrammatist thus turned the idea into a medium of satire—

“Swans sing before they die—
Methinks, 't were no bad thing,
Would certain persons die before they sing.”

The usual note is rendered, by Meyer, by the words “maul, maul.” The Swan has, however, a low, soft, and not unmusical voice, formed of two notes, uttered in the spring and summer, when engaged with its young. Colonel Hawker has printed a few bars of it in stave: the bird kept nodding with its head as if pleased with its own music, or beating time to it.

The Swan disposes its nest on the ground near the water side, or on some mound on an island in the river or lake. It is made of rushes and flags, and if the water threatens to rise, more materials, which the male bird brings, and the female works in, are added to the deposit under the eggs, which are thus gradually raised further out of danger.

The following appeared in the “Nottingham Journal,” in 1844:—“We are informed, upon undoubted authority that the Swans (which usually build upon the ground,) have this year invariably raised their nests to the height of two yards and upwards; a similar fact is observable with respect to Water Hens. This is by some persons deemed an omen of a very deep summer flood.”

Yarrell relates the following similar account of one of these birds, as given to him by Lord Braybrooke.

"This Swan was eighteen or nineteen years old, had brought up many broods, and was highly valued in the neighbourhood. She exhibited, some eight or nine years past, one of the most remarkable instances of the powers of instinct that was ever recorded. She was sitting on four or five eggs, and was observed to be very busy in collecting weeds, grasses, etc., to raise her nest; a farming man was ordered to take down half a load of haulm, with which she most industriously raised her nest and the eggs two feet and a half: that very night there came down a tremendous fall of rain, which flooded all the maltheuses and did much damage. Man made no preparation, the bird did. Instinct prevailed over reason; her eggs were above, and only just above, the water."

The ordinary number of eggs laid by this Swan, is from two to four, sometimes five, occasionally six, and not very rarely eight. In one instance as many as nine were laid, and all of them successfully hatched, in the Jephson Gardens, at Leamington. It is possible, however, that, two birds may have made use of the same nest, and, if so, the one under whose care all came, proved no '*injusta noverca*,' but tended all with the like attention. At Beddington Park, in Norfolk, twelve eggs were deposited, and the brood all reared, in 1850.

The nest of this Swan, when the first egg is laid, is small in size, but, as by degrees a larger family is expected, she adds to the size of it by clutching at every suitable material in its vicinity, and this even to a greater extent than appears to be, or indeed is, at all necessary. Instinct suggests this for a wise purpose; but where reason would say "hold, enough," the former displays its inferiority by not knowing where to stop.

The eggs are from five or six to seven or eight in

number, older birds laying the larger, and younger the fewer numbers respectively. They are of a dull greenish white colour.

Incubation continues for from five to six weeks. After being hatched for one day, they follow the guidance of their parents to the water, and have but little instruction, beyond that instinctively given them by nature, in the art of swimming about and feeding themselves. Still, "The attention," says Meyer, "bestowed by the old birds upon the young is incessant; and when fatigued by the strength of the stream, or requiring to be removed to a far distance, too great for their young capacity, the hen bird takes the young ones on her back, which she accomplishes by lowering herself a little in the water, and occasionally assisting them to ascend with her foot, and in this manner they are carried in safety to some more desirable spot. The shape of the Swan's back, which is very flat, is well adapted for this purpose; and when her wings are raised, the young ones repose in the most beautiful and safe cradle imaginable."

Male; weight, about thirty pounds; length, from four feet eight inches to five feet; bill, rich reddish orange, with the exception of the tooth, the edges, the base, and the knob, which are black, and which colour reaches back to the eyes; iris, dark brown. Head, crown, neck, nape, chin, throat, breast, and back, all white. Greater and lesser wing coverts, primaries, secondaries, tertiaries, greater and lesser under wing coverts, tail and tail coverts, also white. Legs and toes, black; webs, black.

The female is smaller and slighter in make; the knob at the base of the bill is also not so large.

The young are at first of a dark dull bluish grey colour; bill, at first lead-colour, then becoming light

ish slate-colour, with a tinge of green. The chin, throat, and breast, are paler than the back. By the end of the second summer, they have nearly done with the grey livery, and when two years old are completely white.



POLISH SWAN.

POLISH SWAN.

Cygnus immutabilis,

YARRELL.

Cygnus—A Swan.*Immutabilis*—Unchangeable.

SEVERAL flocks of these birds were observed in this country, in the beginning of the year 1838, during the severe weather of that period. Of a flight of thirty, seen near Snodland, on the Medway, in Kent, four were shot. One was procured in Cambridgeshire, in the winter of 1840-41. In the summer of the year 1844, Arthur Strickland, Esq. saw a flock off Burlington Harbour. They were all white, and one of them being obtained, and proving to be a young bird its identity with the changeless Swan is at once apparent.

One was shot in the marshes near Horning, Norfolk, Mr. M. C. Cooke informs me, on the 20th. of January, 1854. Thirteen were seen at Ingoldisthorpe, near Lynn, and one of them was shot, in December, 1851. Three are recorded in the "Naturalist," vol. ii, page 132, as having been killed out of a flock of nine, at the same place about the same time. I conclude that they formed part of the same flock—All "Polish Refugees," and probably from Russia, the severity of whose climate has been only in keeping with her customs heretofore.

This species is also tameable, and in confinement has been known to pair with the Mute Swan.

Male; length, four feet nine inches. The knob at the base of the bill is small; the beak itself is reddish orange, except the base and the edges, which are black;

orange, except the base and the edges, which are black; the tooth also is black; iris, brown. Head, crown, neck, nape, chin, throat, breast, and back, pure white.

The wings have the second quill feather the longest. Greater and lesser wing coverts, primaries secondaries, tertiaries, greater and lesser under wing coverts, tail, and tail coverts, pure unsullied white. Legs and toes, pale grey slate-colour; webs, pale grey slate-colour.

The young of this species are white from the first, and hence the specific name.

Since the foregoing article was sent to the press, I have received a letter from Arthur Strickland, Esq., in which he informs me that a German naturalist has published a pamphlet, to prove that the so-called Polish Swan is only an albino variety of the common species. I am unable at present, not having seen the work, to do more than record the circumstance of its publication, but it seems to me, "as at present advised," that the fact of the young having been procured in different instances in the white plumage, is sufficient, in connection with the other peculiarities mentioned by Yarrell, to constitute the present a distinct bird.



RUDDY SHELDRAKE.

RUDDY SHIELDRAKE.

RUDDY GOOSE. COLLARED DUCK.

Tadorna rutila,
Anas rutila,JENYNS. SELBY. GOULD.
BEWICK.*Tadorna*—.....?*Rutila*—Fiery red.

THE bird thus called advances from Denmark, through the south of Russia, to various parts of the east of Europe, and has been met with also in Germany, Hungary, Italy, Turkey, Greece, and Austria. It likewise appertains to Asia, having been found in Persia, Asia Minor, the Dukkun in India, and the neighbourhood of the Caucasian range. Great numbers have been seen on Lake Van, that beautiful water, which no one can read the description of in Mr. Layard's "Ninevah" without wishing that he "might be there to see." In Africa also they are said to be found, even to the Cape.

Several of these Shieldrakes have now been procured in this country.

Marmaduke Tunstall, Esq. possessed one which was believed to have been shot in the severe winter of 1776, at Bryanstone, near Blandford, Dorsetshire, the seat of Mr. Portman, ancestor of Lord Portman. A second was subsequently killed in the south of England, and a third at Iken, near Orford, in the county of Suffolk, in January, 1834.

In Ireland one was shot on the Murrough of Wicklow, on the 7th. of July, 1847, by Mr. John Moreton.

In the Orkneys, one in Sanday, by Mr. Strang, in October, 1831.

The Ruddy Shieldrake appears to frequent the land more than the water.

These birds assemble in flocks, except when paired in the summer. The male and female seem much attached to each other.

They feed early in the morning, and again towards nightfall, in corn and stubble fields, resorting thither from the marshes, which they otherwise inhabit.

Yarrell says, "The voice of the bird when flying is not unlike the tone of a clarionet; at other times it cries like a peacock, especially when kept confined; and now and then clucks like a hen."

This bird builds its nest in holes in river banks, such as have been burrowed and deserted by animals, or those of natural formation. It is lined with feathers of the bird itself, the remainder being any sorts of stalks and sticks.

The eggs are white, and eight or nine or ten in number. They are highly polished.

Male; length, two feet two or three inches, to two feet four. The bill, which is red, is depressed in the middle part, and there is a raised knob at the base; iris, yellowish brown; head on the crown and sides, and neck on the back, buff colour, darkening towards the nape and all round, where it becomes almost orange brown, with the exception of a black collar, which encircles it round the middle; chin, buff colour; breast, orange brown; back, orange brown. Greater and lesser wing coverts, pale buff white; primaries, leaden grey—nearly black; secondaries, leaden grey, the speculum

brilliant green; tertiaries, orange brown. Legs and toes, brownish grey; webs, brownish grey.

Female; head on the sides, white; on the crown and the neck, mouse grey; throat, white; breast, light ferruginous, paler below; back on the upper part, light ferruginous, on the lower part dark brown with a tinge of green. The wings have a blunt spur at the bend; greater and lesser wing coverts, white, forming a broad mark on the wing; primaries, brown, the edges darker; the secondaries exhibit a green speculum. Tail, dark brown, with a tinge of green. Webs, black.

SHIELDRAKE.

COMMON SHIELDRAKE. SHIELDRAKE. SHELLDRAKE.
 SKELDRAKE.
 BURROW DUCK. SKELGOOSE. SKEELING GOOSE.

Tadorna Bellonii,
 " *vulpanser*,
Anas tadorna,

STEPHENS.
 FLEMING.
 LINNÆUS. PENNANT.

Tadorna—.....?

Bellonii—Of Bellon.

THE Shieldrake is a bird of very wide dispersion. In Europe it is known in Sweden, where it breeds; also in Iceland, Norway, Germany, Italy, Spain, France, and Holland. In Asia, its range extends from Kamtschatka and the southern parts of Siberia to Persia, Tartary, China, and Japan. Bewick mentions that Captain Cook had noticed them at Van Diemen's Land, and that they have been seen in great numbers on the Falkland Islands.

This species is strictly a maritime one, though it has sometimes occurred inland; but such instances form the "exception not the rule." It has been shot in Northamptonshire. The Hon. T. L. Powys has written me word, and he also mentions two killed near Oxford. In Cambridgeshire it used to be not uncommon. In Yorkshire, it has occurred near Doncaster, also near York, Driffild, and Thirsk, but rarely. Several have



SHELDRAKE.

been found near Sutton-on-Derwent, where they have appeared in small flocks. They used to breed on the banks of the Humber. In Nottinghamshire, near Retford. In Northumberland, they build on the coast, where there is sand above high-water mark.

In Lincolnshire, the Rev. R. P. Alington informs me that the Shieldrake occurs on the sea-coast, near Summercoats, and breeds in a rabbit-warren on the sand-hills of the sea-bank in that parish. In Cornwall, it has been met with at Gwyllyn Vase and Swanpool, near Falmouth, but rarely. In Oxfordshire, they occur in most years, in the neighbourhood of Weston-on-the-Green, as stated by the Revs. Andrew and Henry Matthews; likewise in Dorsetshire and Hampshire. In Norfolk they are not uncommon, and breed among the low sand-hills on the coast.

They occur in Ireland, and are indigenous, but rather rare; also on the shores of Scotland, quite to the north. In Orkney, too, they arrive early in the spring, and remain till the autumn, a few only staying throughout the winter.

Their proper home is the neighbourhood of the sea, but they are occasionally, and not very unfrequently, met with inland. They remain with us throughout the year, and always in pairs. They move southwards in the autumn, returning to the north in the spring; the former in September, and the latter in March.

A. E. Knox, Esq. mentions that a friend of his knew a brood of young Shieldrakes at Sandringham, in Norfolk, come from the rabbit-burrow in which they had been bred, at the whistle of the gamekeeper, to receive food. If the nest be approached by an unwelcome intruder, the young ones hide themselves: "the tender mother drops at no great distance from

her helpless brood, trails herself along the ground, flaps it with her wings, and appears to struggle as if she was wounded, in order to attract attention, and tempt a pursuit after her. Should these wily schemes, in which she is aided by her mate, succeed, they both return when the danger is over, to their terrified motionless little offspring, to renew the tender offices of cherishing and protecting them." When however the young are older, they fly straight away from them, as if aware that by diving and otherwise they could then better take care of themselves, as indeed is the fact. The young broods collect together, it seems, in troops of from thirty to forty, accompanied by the old birds.

This species, though naturally extremely wild, is very readily brought into a state of domestication, and will come to a call. Some that have wandered away have returned even after an absence of several months. The richness of its well-contrasted plumage renders it a great ornament. They have been known to breed in the reclaimed state, but not often: one at Lord Derby's paired with a duck.

They walk in an easy and handsome way, with the neck bent in a graceful manner. They fly strongly and quickly, in a straight line. They dive well.

These birds feed on marine worms, sandhoppers, small shell-fish, the lesser crustacea, and the fry of fish, as also on grain and seeds when to be obtained in lieu of the former.

The note is a shrill whistle.

Incubation lasts about thirty days. These birds are believed to pair for life: they unite in the second year, when the complete plumage has been assumed.

The Shieldrake builds in rabbit-holes and other hollows in the earth, often as much as ten or twelve feet

from the entrance. Some down plucked from their own breasts is the lining with which the nest is fitted, the remainder being dry grass.

The eggs are ten or twelve, or even more, it is said thirteen or fourteen in number; but these, in such cases, may possibly have been the produce of two birds. They are nearly perfectly white, having only a very faint tinge of green, and are smooth and shining.

Male; length, from two feet to two feet two inches; bill, crimson red; there is a knob on its upper part near the forehead: the tooth is black. The upper mandible, which is broad and flat, is grooved on the edges, and depressed in the middle. Iris, dark brown; head, crown, and neck on the back, black glossed with green; nape, white, which colour thence surrounds the neck in a band widened at and towards the front. Chin and throat, black glossed with green; breast, white; across it is a broad band of clear orange chesnut brown, which extends around the bird, and meets on the back just below the nape: a rich dusky dark brown line runs down the lower part of the breast, widened below; about there are some pale yellowish red feathers; back, white.

The wings have the second feather the longest; greater and lesser wing coverts, white. Of the primaries, some are nearly black, and the outer webs of the secondaries are glossed with golden green, forming what in this tribe is called the speculum: the edges of three or four of these quills are chesnut; some of the tertiaries are nearly black on the outer edges, those of the longest rich chesnut. Tail, white at the base—the tip black; upper and under tail coverts, white. Legs and toes, pale yellowish red; webs, pale yellowish red.

The female is somewhat less than the male, and her

plumage is not so clear and bright. The bill is without the knob. The band on the breast is not so wide.

The young, the first year, have the head and neck on the back blackish brown. The chin and throat are white, as also is the breast. The greater and lesser wing coverts, white; primaries, black; the secondaries shew the approach of the green speculum; tertiaries, white, edged with chesnut. Legs, toes, and webs, pale yellowish red. The whole plumage is indistinct.





CHOWDER.

SHOVELER.

BLUE-WINGED SHOVELER. SHOVELER DUCK.
 RED-BREASTED SHOVELER. COMMON SHOVELER.
 BROAD-BILL. KERTLUTOCK.

<i>Anas clypeata,</i>	PENNANT. MONTAGU.
<i>Anas rubens,</i>	PENNANT. .
<i>Anas muscaria,</i>	GESNER.
<i>Spathulea clypeata,</i>	FLEMING. SELBY.
<i>Rhynchaspis clypeata,</i>	GOULD.

Anas—A Duck.

Clypeata—*Clypeus*—A shield.

THE Shoveler is more or less common in Europe, in Sweden, Norway, Holland, Prussia, Kamtschatka, Poland, Denmark, Russia, Germany, Italy, and France. It has been noticed in Asia, in Japan, India, Asia Minor, Persia, and the country near the Caucasus; and has been brought both from Southern and Northern Africa. It is found in America, in the United States and about Hudson's Bay; southwards also, it is said, as far as Carolina and Mexico.

In Yorkshire, one was shot in December, 1852, at Carlton Miniott, near Thirsk, which Edward D. Swarbreck, Esq., of the latter place, has written me word of. One, a male, was obtained at Riccall, near Selby, about the 28th. of March, 1850. Specimens have also occurred near Doncaster, York, Killingbeck, near Leeds, and Greatland, near Halifax. The Rev. R. P. Alington has

met with this bird in the Louth market, no doubt a Lincolnshire specimen. It has also been noticed, he tells me, on Croxby Lake.

In Norfolk, several occurred near Lynn, in the winter of 1851-2. It is not uncommon in the neighbourhood of Yarmouth; also in Cambridgeshire. It is met with likewise in Kent, along the coast, and so on through Sussex, Dorset, Devon, and Hants.

In Cornwall, it has occurred at Carrack road, near Mylor Creek, in the neighbourhood of Falmouth; one was purchased in that town October 25th., 1849, and several others January 19th., 1850, in the market. One was shot at Bulwick, in Northamptonshire, the Hon. T. L. Powys informed me, as was also another at Standlake, in Oxfordshire.

It is frequent in Wales, and in Ireland—has been killed in the King's County. In Orkney young birds are not unfrequently met with, but the adults are rare. A male was shot in Sanday, by Mr. Strang, May 24th., 1833.

In Scotland a specimen, a female, together with the nest and eggs, was procured on the Frith of Forth; others have been obtained both northerly and in the south,

They have been known to breed in considerable numbers in Norfolk, at Winterton, Horsea, Stanford, and other places; also in Kent, in Romney Marsh. In Scotland, by the Tweed side.

Wild unreclaimed wastes, where water lies in ditches, pools, and ponds, encroaching on the land, and in its turn invaded by the natural herbage which it nourishes, are the favourite resort of the Shoveler.

These birds are winter visitors to us, but some remain every year to breed. Their times of migration

are in the autumn in the beginning of the month of October, and in the spring in those of March and April.

They are exceedingly good birds to eat, according to Audubon, appertaining, as they do, more to fresh waters than to salt. In their natural habits they are not very shy. During the day-time they keep on the larger waters, and towards evening repair to the smaller streams and their margins, and there remain through the night, till the break of morning warns them to retreat. The parent birds guard their young with much care.

They fly lightly and well, and straight forwards, though not with much rapidity. They walk tolerably well, but swimming is of course their 'forte.'

Their food consists of grass and the buds and young shoots of rushes and plants of different kinds, shrimps, worms, tadpoles, young frogs, leeches, snails, small fishes, and water and other insects. Most of their food is sought on the land, but some by dabbling in the water. They also swallow small stones.

The nest of this species, built besides rivers, lakes, and other waters, or in watery places, appears to be made of grass, commingled with down from the bird itself. In some cases the bare earth or sand is scarcely covered with any materials; in others, a tuft of grass is laid in. After the female has begun to sit, she covers the eggs with down plucked from her own body.

The eggs are as many as eight, nine, ten, or twelve in number. They are of a buff white colour, with a tinge of green.

Incubation lasts three weeks. The young leave the nest almost immediately after being hatched, and repair with their mother to the water.

This species bred in the year 1854, in the gardens of the Zoological Society, London.

Male; weight, about twenty-two ounces; length, about one foot eight inches; tail, long, and dark brownish lead-colour, the edges much dilated towards the tip. The tooth is small and turned inwards, and the margins of the bill in this bird are even more than ordinarily pectinated in both mandibles with the processes which fit into each other so as to act as a sieve for the food. Iris, bright yellow; head, crown, and neck on the back, brownish green, with a purple reflection, which colours in the summer change on the crown to blackish brown, spotted with lighter brown, and slightly glossed with green; the sides of the head and neck, reddish white, speckled with brown. Nape, white, in summer blackish brown, with the feathers margined with paler, and slightly glossed with green. The throat in summer is reddish white, speckled with brown; breast above white, on the middle rich chesnut brown; in summer ferruginous, spotted with black, and on the sides with zigzag lines of the same; below, white. In summer it becomes a mixture of yellowish brown and orange brown, or reddish white, the feathers being spotted with black. Back, dusky brown, on the middle dark brown, the edges of the feathers lighter-coloured, and glossed with green; on the lower part nearly black, tinged with green; in summer it becomes deep brown, margined with pale yellowish brown.

The wings have the second quill feather the longest; greater wing coverts, brown, tipped with white, forming thereby a bar across the wing; lesser wing coverts, pale blue; primaries, very dark dusky brown—nearly black; secondaries, also nearly black; the speculum, or spangle, very rich bright green; some of the tertiaries, which

are long and pointed, pale blue on the outer webs, the others rich purple black. Tail, dusky brown—nearly black, edged with white, the outer feather entirely white; upper tail coverts, dark brown—nearly black, with a gloss of bronze green; under tail coverts, similar; in summer yellowish white, with streaks of brown. Legs and toes, reddish orange, yellowish orange in summer; claws, black; webs, darker reddish orange; in summer yellowish orange.

The female has the head, crown, and neck on the back, pale reddish brown of two shades, the shaft streaks being dusky; breast, pale brownish rufous, with dusky brown spots; back, dusky brown, the edges and tips of the feathers of a paler tint, rufous white. Lesser wing coverts, tinged with pale blue; the speculum green.

In the young birds at first the bill, which is scarcely larger than usual in proportion to their size, is not dilated, but in three or four weeks assumes its proper and peculiar shape. The young male resembles the female till the autumn. Bewick says that the full plumage is not acquired till after the second moult.

There were some dark spots on the white, in the specimen killed near York.

The engraving is after a design by John Gatcombe, Esq., of Plymouth.

GADWALL.

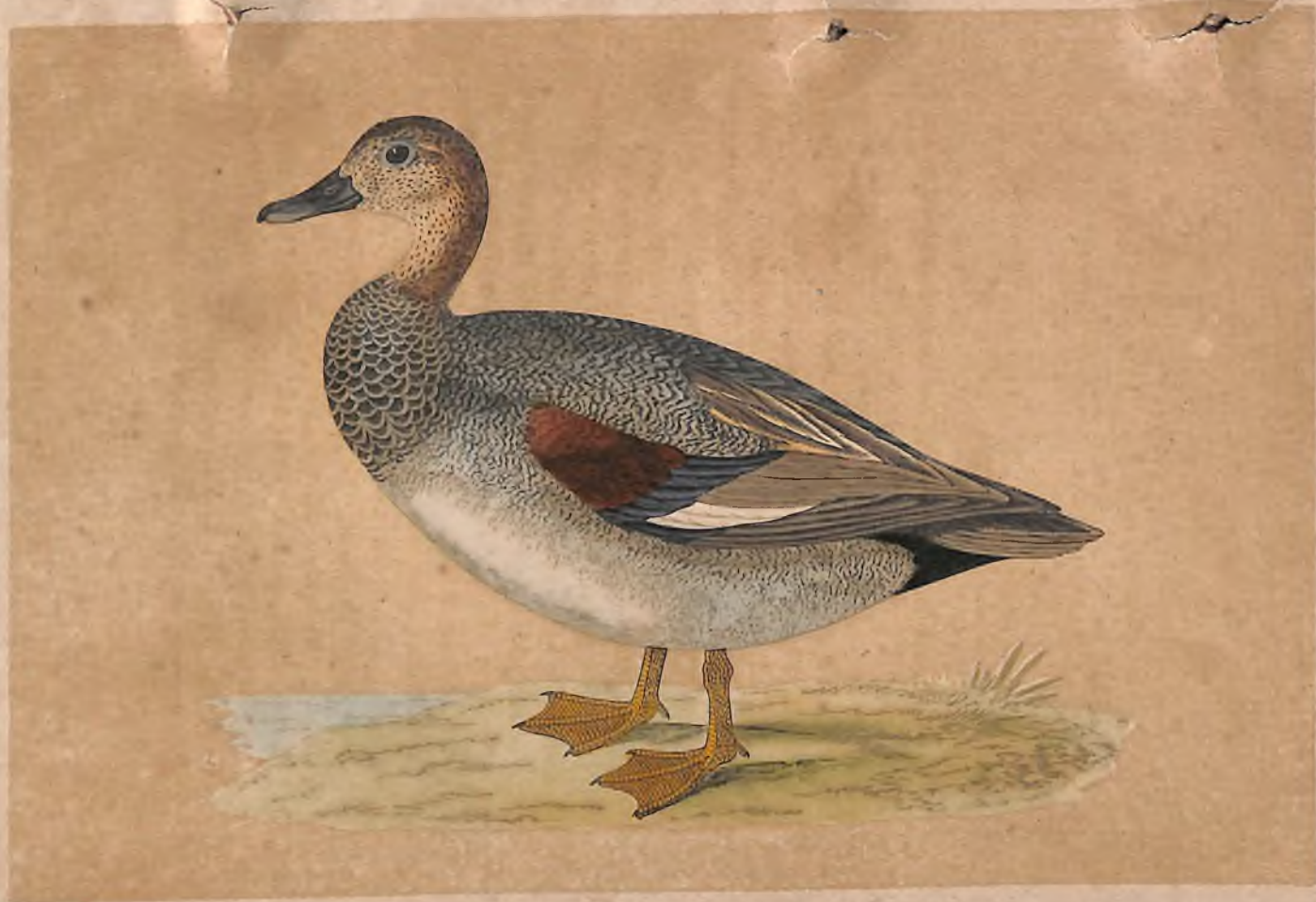
GADWALL DUCK. COMMON GADWALL.

Anas strepera,
Chauliodus strepera,PENNANT. MONTAGU.
SELBY.*Anas*—A Duck.*Strepera*—A factitious word from
Strepo—To rustle.

THIS is a rare species with us, but specimens are obtained now and then throughout the country.

On the continent of Europe it is met with in Spain, France, Italy, Holland, Switzerland, Denmark, Germany, Norway, and Sweden, as also in Iceland. On that of Asia, in Siberia, India, the country near the Caucasus, China, Japan, and Persia. In Africa likewise, in the northern parts; and in America, from the fur countries through the United States, to South Carolina.

In Yorkshire, two were obtained on the Humber, about the 10th of March, 1851; others near Doncaster. It has been met with, but rarely, near York, and also at Swillington, the seat of Sir John Lowther, Bart., near Leeds. In Norfolk, two or three used to be shot every year near Yarmouth, on Breydon. Two were on sale in the Cambridge market, on the 25th. of February, 1824. One, of which Mr. M. C. Cooke has informed me, was obtained in the vicinity of Ingham, in Norfolk; and the Hon. T. L. Powys mentions the occurrence of the species in Northamptonshire. In Cornwall, it has



GADWALL.

been met with at Gwyllyn Vase, near Falmouth. In Oxfordshire, a male was procured in January, 1833; and in the following year a female, near Standlake; others in other parts of the county.

In Ireland, it has been obtained near Limerick, on the River Shannon, and in other instances.

In Orkney, it has been shot at times in Sanday, but is not a regular visitant.

"The localities preferred by the Gadwall are inland lakes, large boggy flats, and ponds that are well covered with reeds, osiers, and long herbage. During the day this species frequents extensive open waters, but towards the dusk of evening it becomes restless, and goes in search of the lonely spots before mentioned, for the purpose of feeding, and the enjoyment of quiet and undisturbed recreation." It seldom visits the sea-shore.

It changes its quarters in September and October, and in March and April; in the former months for the south, and in the latter for the north. They migrate during the night.

It is said to be of recluse, shy, and wary habits, but sociable among its own species. It is a good bird to eat.

It flies quickly and with strength, and is alert in all its movements. It swims and dives well, and Meyer says, if pursued, clings to the weeds under the water. He adds, that if a family or small party of Gadwalls fly about, they keep close, but not in a line, and on alighting they disperse over the ground, and when taking wing, do so with more alertness than most other ducks. They thrive well in confinement, and have laid in the gardens of the Zoological Society.

These birds feed on water insects and their larvæ, small fish, and frogs, as also on plants, seeds, and grain

of various kinds, and grass. They chiefly seek their sustenance during the day, on the water, and dive the head under to procure it, but also near the water's edge in moist places.

The note is only the usual quack, seldom reiterated more than twice at a time.

The nest of the Gadwall is placed among reeds, sedge, rushes, or other aquatic herbage, such as vegetates by the sides of pools, meres, and lakes, and in marshy spots "with verdure clad." It is composed of dry grass, and the eggs are covered with down.

The eggs are from five to seven or eight, or, Selby says, ten or twelve in number. They are of a uniform buff white colour.

Male; length, about one foot seven inches. The bill, which is flat, is lead-colour, blackish towards the tip; after the summer moult, dusky, with orange about the base; iris, brown. Head, crown, neck on the back, and nape, light greyish brown, thickly speckled with darker brown, lighter after the summer moult; the crown has a tinge of yellowish; in front and on the sides the neck is grey, each feather tipped with a semicircle of a paler shade of the same colour. Chin and throat, greyish white, finely speckled with brown; breast above, brown, marked with crescent-shaped white lines on each feather, on the lower parts becoming gradually broader, assuming a spotted appearance; the sides beautifully variegated with short lines of grey of two shades; below, the breast is white in front. Back above, grey, a series of darker and lighter-coloured lines; below, dark brown, with broad yellowish margins to the feathers, some of them nearly black; after the summer moult, brown, with dusky centres to the feathers.

The wings expand to the width of two feet nine inches.

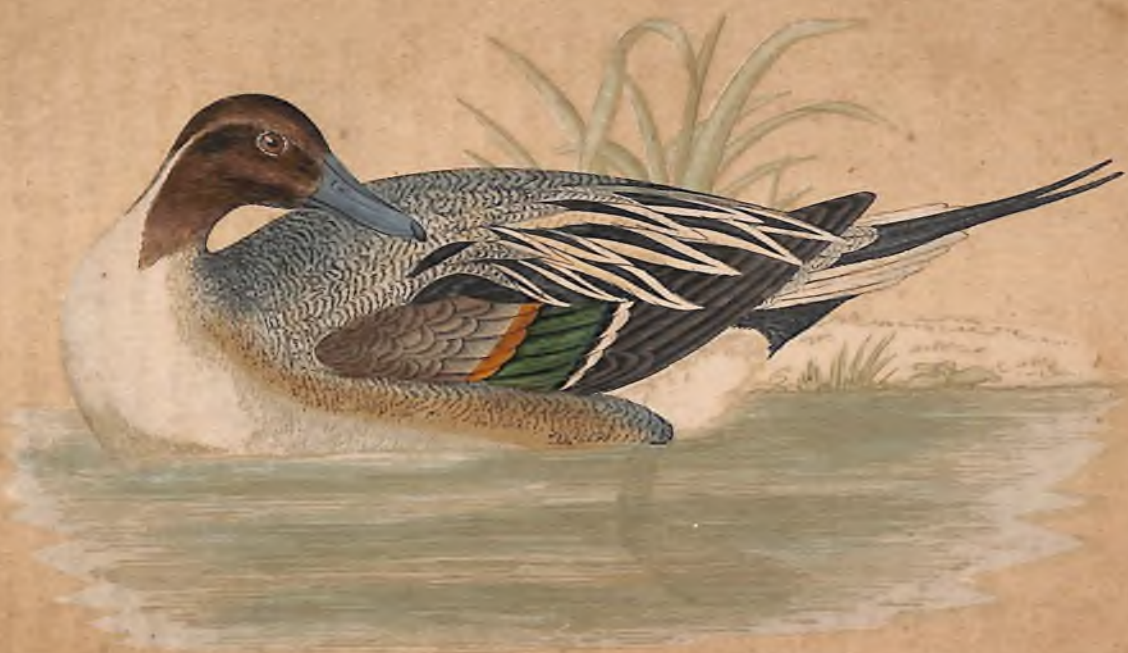
Of the greater wing coverts half are velvet black, and the others white, but greyish brown after the summer moult; lesser wing coverts, grey, marbled with yellowish white; the middle ones, chesnut brown, varied with orange brown; the tips of the feathers nearest to the speculum, broadly bordered with black, the upper rows grey; after the summer moult, greyish brown. Primaries, almost black, dusky after the summer moult, and lightest at the base of the feathers; secondaries, also nearly black, the speculum is a tricoloured bar of purple red, black, and white, except the four first feathers, which are grey at the base and black at the tip; after the summer moult it is dull white. Tertiaries, brownish yellow grey, the margins paler grey. Tail, brownish grey, the edges of the feathers paler—yellowish white; the two middle ones are pointed, making it wedge-shaped; the side feathers black. Upper tail coverts, bluish black with a tinge of purple green, white after the summer moult; under tail coverts, bluish black, tinted with green. Legs and toes, orange red, less bright after the summer moult; claws, black; webs, dusky orange red.

The female has over the eye a light streak intermixed with black; head on the crown, glossy black, mixed with greyish white; on the sides, yellowish white streaked with brown; neck on the back, pale brown, spotted with dark brown; in front, marked with alternate crescent-shaped bands of dark and pale brown, wider than in the male. Nape, brown, the feathers edged with a paler shade; chin and throat, white; breast, pale buff brown, with dusky spots on the feathers. Back, deep dusky brown, the edges of the feathers paler and of a rusty yellow or pale buff colour. Lesser wing coverts, greyish brown, the edges paler; the speculum dull white. Tail,

dark brown, the edges and tips of the feathers pale buff, brown, and white.

Yarrell says that the young birds of the year are "of a more uniform reddish brown colour above, speckled with dark brown; the middle of each feather also dark brown."

The plate is taken from a drawing by John Gatcombe, Esq., of Wyndham Place, Plymouth.



PINTAIL.

PINTAIL.

COMMON PINTAIL. PINTAIL DUCK. CRACKER.
SEA PHEASANT. WINTER DUCK.

Anas acuta,
Querquedula acuta,
Dafila caudacuta,

PENNANT. MONTAGU.
SELBY.
GOULD.

Anas—A. Duck.

Acuta—Sharp.

IN Europe this bird is said to be common in Lapland, Russia, Norway, Sweden, Holland, Germany, and France; occurring also in Spain and Italy. In Asia it has been seen in Siberia, Tartary, Japan, China, Asia Minor, Persia, and the vicinity of the Caspian Sea. It belongs also to North America, and is found from Hudson's Bay and Canada, to the United States, Florida, and Mexico.

The Pintail has been met with in Yorkshire, at Walton and Scarthingwell, and also near York. It occurs, but rarely, on Croxby Lake, Lincolnshire, as the Rev. R. P. Alington has informed me; also at times in Northamptonshire, the Hon. T. L. Powys says. In Cornwall one was shot at Pennance Point, near Falmouth, in the year 1845; and a second at Swanpool, in 1847. In Derbyshire it occasionally is seen on the Trent; also in Cambridgeshire, Dorsetshire, Devonshire, and Hampshire. In Norfolk, not uncommonly near Yarmouth.

This species has been known to pair with the Common

Duck, and a specimen of the progeny was exhibited before the Zoological Society, in 1831, by the Hon. Twisleton Fiennes; also with the Scaup, the Mallard, and the Bernicle. Lord Stanley had a female Pintail which paired with a Wigeon, and had eggs two successive seasons.

In Scotland one was observed on the River Doern, near Banff, in Aberdeenshire. Others have been noticed both in the north and south of North Britain, but not many. In Orkney it is pretty abundant in various parts, but especially in Sanday, where it is seen both on the sea and fresh-water.

In Ireland it is recorded by Mr. Watters, Junior, as having occurred in the county of Louth, and other localities commonly. In Wales it is also known; and in the Faroe Islands.

The haunts of the Pintail are the reedy borders of fresh-water lakes, rivers, and ponds: it is rarely seen on the sea-coast.

These birds move southwards in October and November, and northwards in March and April, earlier or later according to the forwardness or backwardness of the season. At the time of migration they are sometimes seen tarrying by the border of some retired bay or estuary, but for the most part in more inland situations; keeping by day, for the purposes of feeding or resting, on large sandy flats or the open water, and at night coming in to more circumscribed places.

The Pintail is in much estimation for the table. They assemble in the winter in small flocks, and are by no means shy. Considerable numbers are taken annually in the decoys of Lincolnshire, Norfolk, and other counties. They do well in confinement. The parent bird shews much solicitude for her brood, and will

remain on the nest, it is said, even to the last moment, if a supposed enemy approaches.

They seldom dive. When rising, on a sudden alarm, they cluster confusedly together.

They feed on the seeds, roots, and leaves of various plants that grow in shallow water, corn, beetles and other insects and their larvæ, small frogs and fish, worms, snails, and mollusca generally. Sir William Jardine shot two feeding in a stubble field. They are said to be particularly fond of beech-mast.

Their note is described as being soft and low during the season of courtship, and it is accompanied by various bowings and tossings of the head. A louder chattering noise is also made.

They appear, in some instances at all events, to be late in breeding. Mr. Dann saw a large flock of both males and females on the 1st. of July, 1838. The usual time seems to be the month of April.

The nest of this species is placed by the margin of, or at no great distance from, water, lakes, ponds, and seas, and is composed of grass and reeds, with a little lining of down. Some have been found in ditches, and even in standing corn: it is always well concealed.

From six to eight or nine eggs are laid. The young are hatched in about twenty-three days. They at once repair to the water.

These birds have repeatedly bred in confinement. Montagu has recorded several instances.

The winter plumage is as follows:—Male; weight, about twenty-four ounces; length, from two feet two to two feet four inches. The bill, which is rather long, brownish black at the base, and on part of the tip, the remainder and the sides, leaden grey; iris, yellow; head on the sides, crown, neck on the back, and nape,

rich dark brown, with a tinge of purple red, and mottled with small dark spots. From the back of the head there descends, on the sides of the neck, a white stripe, which widens as it goes down, and extends down the lower part of the front of the neck and the upper part of the breast. The neck is long and slender. Chin and throat, also rich dark brown, the latter mottled with small dark spots; breast above, white, as just mentioned, the middle and sides grey white, transversely lined with fine black pencillings, below white. The back is of a neat grey hue, the result of a series of alternate waved lines of yellowish or greyish white, and bluish black, the upper part is darker than the lower, the lines on the latter being more freckled, less distinct, and paler.

The wings have the first quill feather the longest. Greater wing coverts, greyish brown, tipped with white and reddish buff; lesser wing coverts, fine grey, produced by alternate waved lines of greyish white and blue black; primaries, dusky greyish brown, the shafts broad and pale; secondaries, black; the speculum or beauty spot, dark bronze, edged with black, which again is green, tipped with white, and with a reddish tint near the shaft; it is formed by these colours on the outer web and tip of each feather; tertiaries, long and pointed, the centre of each deep black, the outer web edged with white, the inner one with grey, or yellowish grey. The tail has the middle feathers three inches long, and black, slightly glossed with green; the others dark dusky brown, margined with white; under tail coverts, deep velvet black. Legs and toes, small, and blackish slate brown; webs, blackish slate brown.

The male bird assumes the plumage of the female in the summer.

In the female, who is less than the male, the bill

is slate-colour. The forehead and head on the crown, light reddish brown, speckled, or rather streaked, with very dark brownish black; sides of the head, pale dull yellowish, speckled with black; neck, pale brown, speckled with very dark brown; the white list is wanting. Chin and throat, cream-colour; breast, dull white, obscurely spotted with brown, on the sides dusky brown, the feathers barred and tipped with white, below it is cream yellow, irregularly spotted with brown. Back, dark brown, the feathers being nearly black in the middle, and pale brown, or yellowish white, on the edges. Greater and lesser wing coverts, pale purple brown, with margins and tips of white. Primaries, dusky brown; the secondaries have the speculum brownish bronze green, with white tips to the feathers; tertiaries, dusky brown, margined with white. The tail is long and pointed, dark brown, varied with imperfect bars of pale brownish yellow and white, the two middle feathers are only about half an inch longer than the others; under tail coverts, white, with chesnut brown spots. Legs and toes, brownish grey; webs, brownish grey.

A duck of this kind, a male, kept in confinement, as presently mentioned, did not exhibit the summer change of plumage, but an 'Exceptio probat regulam.'

In the young, the white of the breast has a yellowish tinge.

Yarrell writes as follows on the subject of the fact alluded to:—"The males constantly undergo that remarkable summer change in their plumage, which renders them for a time more like the females in appearance than any other species in which the change is observed. This alteration commences in July, partly effected by some new feathers, and partly by a change in the colour of many of the old ones. At first, one or more brown

spots appear in the white surface on the front of the neck; these spots increase in number rapidly, till the whole head, neck, breast, and under surface have become brown; the scapulars, wing coverts, and tertials, undergo, by degrees, the same change from grey to brown. I have seen a single white spot remaining on the breast as late as the 4th. of August, but generally by that time, the males can only be distinguished from females of the same species, by their larger size, and the beak remaining of a pale blue colour; in the female the bill is dark brown. I have seen a male Pintail confined in the hutch of a dealer throughout the summer, that did not exhibit any change at all.

The following is Montagu's description of a male Pintail, after he had thrown off the masculine plumage, taken on the 19th. of August:—'Bill, as usual; top of the head, and from thence down the back of the neck, dusky and pale ferruginous, intermixed in minute streaks, paler on the forehead; sides of the head and throat, brown, with minute dusky specks, tinged with ferruginous; the front and sides of the neck, brown, with dusky black spots, which are minute on the upper part, becoming larger by degrees downwards, where they are also more distinct; the breast, very pale brown, with more distinct dusky spots; the back and scapularies, dusky black, with pale margins, each feather having a transverse bar of white near the tip; the longer scapularies are only margined with rufous white, and some are powdered with white. As they approach the tail the feathers gradually lose the white bar, so that the tail coverts are only margined with white; the feathers on the sides of the body being large, have broad margins, with the middle dusky black, in which is either a ferruginous white bar, or two spots, one on each side of the shaft; the prime

quills dusky grey, as usual; the speculum changeable green, or copper, tipped with white; a violet bar dividing the green from the white. The first tertial is brown on the inner web, grey on the outer, near the shaft, and a broad margin of violet; the rest of the tertials are brown, dashed with cinereous black near the shafts; the coverts of the wings, plain dark cinereous, the larger series tipped with bay; the tail consists of sixteen dusky feathers, dashed with cinereous, gradually becoming darker towards the middle feathers, which rather exceed the rest in length, making the tail regularly cuneiform; vent, and under tail coverts, rufous white, with distant black spots.'

At the annual autumn moult, the males again assume, with their new feathers, the colour peculiar to their sex, but the assumption is gradual. White spots first appear among the brown feathers on the front of the neck; by the end of the second week in October, the front of the neck and breast are mottled with brown and white; at the end of the third week in October, a few brown spots only remain on the white."

WILD DUCK.

COMMON WILD DUCK. MALLARD.

Anas boschas,
*Anas fera,*PENNANT. MONTAGU.
BRISSON.*Anas*—A Duck.*Boschas*—.....?

THE Wild Duck is common over the continent of Europe, from Norway and Sweden. It is found also in Asia, even to Japan; and in America, from Labrador, Behring's Straits, and Newfoundland, to the United States; but in the latter is rare. Farther south, however, they are said to become more common again, and in Florida to be exceedingly abundant.

Mr. Thomas Allis, of Osbaldwick, near York, thus writes in his "List of Yorkshire Birds," of the present species—"Of rare occurrence near Halifax and Hebden Bridge, not uncommon about Barnsley, frequent in the vicinity of Sheffield and Doncaster; it occurs near Huddersfield, is occasionally seen about Leeds; it is common about York, and breeds in several localities in the neighbourhood; it is met with at Pilmoor, near Thirsk. Arthur Strickland writes, in the year 1800 the Act for the Beverley and Barmston drainage was passed: in this Act compensation for the destruction of the two principal decoys in this county was provided for, and which necessarily took place soon after the drainage of the country. These were the decoys of



WILD DUCK.

Watton and Scorbrough. Two other decoys, those of Home and Meaux, probably ceased to be used about this time also. I am informed that at the decoy of Watton only, which had a range of upwards of a thousand acres of water, nearly four hundred ducks have been known to be taken in one day. We may imagine the change in these matters in a country where now only a few chance birds fall by the gun in the course of a winter."

In Cornwall, the Wild Duck is not uncommon near Falmouth.

In Ireland it is plentiful.

Watery districts, ponds, lakes, rivers, and streams, are the natural resorts of these birds.

The Wild Duck is a resident throughout the country, but even in Orkney large flocks arrive in the autumn from still more northern regions. "In the extreme north the Mallard is a migratory species, in the temperate climes indigenous, and in the southern a winter visitant."

The time of movement from the north begins in the month of October, and continues throughout November. "During this time the flocks that pass over are immense, both with respect to number and extent. These migrations are chiefly performed during the night, but at times, when circumstances hurry them on, they continue the same during the day. The manner in which they fly is in the form of a slanting line, as if broken in its centre. When the journeys are to short distances, they are performed in small parties, following the course of the water or of low wet grounds, and they sometimes fly in a confused low mass near the ground."

Bishop Stanley writes—"Ducks too, like Geese, have a strong sense of affection. We cannot, indeed, produce

instances so striking or so interesting as those related of the latter, but the two following instances shew a similar tendency towards animals as well as human beings:—

A clergyman had a very fierce and noisy house-dog, within the length of whose chain it would have been dangerous for a stranger to have ventured; but notwithstanding this apparently savage disposition, a brood of ducklings, reared in the yard in which he was kept, soon became so fond of him, that whenever, from his barking, they apprehended danger, they would rush towards him for protection, and seek shelter in his kennel.

A farmer's wife had a young Duck, which by some accident was deprived of its companion, and from that moment seemed to concentrate all its affections on her. Wherever she moved it followed her so closely, that she was in constant fear of treading upon and crushing it to death. As it grew older, its affection seemed to strengthen rather than diminish; it laid itself by the fire and basked on the hearth, and when noticed, seemed delighted; this continued till some other Ducks were procured, when, being constantly driven out of the house, it gradually associated itself with its more natural companions."

The following occurs in the "Naturalist," vol. iv., page 43, from the pen of John Dixon Esq., of Leeds:—"A nest of this shy bird was found by a lad amongst a clump of sedge near the Eccup reservoir; he took the eggs home, and out of curiosity they were set under a Domestic Duck, and in process of time all hatched. The young brood seemed to take very kindly to their homely foster-parent, and grew remarkably tame, which lasted until they were well fledged, when their natural

wildness appeared to be slowly returning. The company of their domestic congeners was now too tame for them, and they generally kept to themselves, paying frequent visits to the not-far-distant reservoir, but always returning to the farm-yard; a sudden noise, or the presence of dogs, etc., would start them up, and away they would go again for the still waters. This continued until one day a gun was discharged very near them, when one and all took to their wings and never afterwards returned. I believe that many attempts have been made to restrain the natural wildness of this beautiful bird, but I can hear of no instance where the experiment has been perfectly successful in reconciling it to domestic life. While writing this the recollection of another curious circumstance comes fresh to my memory.

During a visit to some friends at Wiston, many years ago, I was often amused with the eccentricities of an old Goose, who had seemingly forsaken his own kindred, and formed a friendly alliance with a flock of Ducks, in the midst of which he was always to be found, either afloat or ashore, indeed any approach to his own tribe generally met with a rebuff; but he was of a peaceable turn, and not the Goose to pick up a questionable quarrel, so these insults were never retaliated but by a hiss. On inquiry into this strange friendship, I was given to understand that the venerable Goose had been hatched under a Duck, whose motherly kindness he still evidently cherishes, in the fact of his sticking to the family group ever after, in the midst of which he probably still maintains a conspicuous place."

The Wild Duck, like so many other birds, evinces great anxiety for her young if approached by any hostile, or supposed-to-be-hostile, intruder, scurrying and flapping along the surface of the water to some distance,

as if to court pursuit, and then taking wing, the young having in the meantime hidden themselves away. In frosty weather, flocks of Ducks huddle together on the ice, or assemble together on the open sea, or in some field near to their accustomed haunt, prepared to notice, and to take advantage of, the first symptom of change in the weather which sooner or later must come. Vast numbers of these birds are taken every year, and far greater numbers used to be taken in decoys, "they being," as Izaak Walton says of the Perch, "like the wicked of the world—not afraid, though their fellows and companions perish in their sight."

In its wild state the Mallard is monogamous, but the domesticated male birds are polygamous. It need hardly be mentioned that they, the former, to say nothing of the latter, are excellent for the table.* The young are called Flappers.

Sir William Jardine writes as follows:—"After the young have received complete first plumage, the whole again begin to congregate, and to frequent at the time of rest some chosen piece of water or large morass, where they remain during the whole day, making excursions morning and evening to various feeding-grounds. These differ according to the season; a river, if near and at all secluded, is much frequented; in autumn, the fields of grain are flocked to at dark, and when the crop has been laid, are selected for a spot to alight upon. Extensive holmes or valleys are much frequented, particularly if water be in the vicinity, to which, for a time, they can retire after feeding. As twilight approaches they may be seen by the watcher, early in the night coming from the points where he knows the daily resting-places are situate. They at first fly round in circles, gradually lowering and surveying the ground

around: but as the night advances, they fly straight to the spot and alight at once.

Many years since, when Wild Ducks were much more abundant, we have shot them by watching among the ripe grain. As the season advances, the stubble-fields are selected, and more particularly if the ground is at all moist, or is liable to be occasionally flooded, and the water continues standing in the furrows; in these situations they are able to find the grain, and by the sensibility of their bill-apparatus, to separate it from the water and foreign substances.

When winter ensues, and their resting-place is perhaps frozen, they have to seek for water in the springs and ditches which do not freeze, and in the rivers which are generally partially open, assembling in small parties or flocks; but in severe seasons they are often driven to great extremity, for we do not think that the individuals belonging, as it were, to a district, migrate far, or seek the coast. In a locality not more than twelve miles distant, we have rather seen an increase than the reverse at such times, and in one or two winters of unusual severity which have occurred within the last twenty years, where almost every pool or hole was either entirely blown up by snow, or frozen, we have seen the Wild Duck, (generally so shy,) so reduced, as to seek for any greener spot in a field, or the least open part of a ditch, and, if disturbed from these, merely fly around, or to a short distance, until the cause of annoyance had been removed, their bodies being at the same time completely emaciated.

Upon the sea-coast there is always a considerable number to be found during winter and in severe weather, but bearing no proportion to the large flocks of Wigeon and some of the true sea Ducks; these we

conceive to have been either birds which have migrated from another country, or those which belonged to the district in the immediate vicinity of the coast, and they have resorted to the sea more as a resting-place than for food, preferring at all times to seek it inland, unless when the severity of the weather has completely shut up all their accustomed sources."

On the water they are most at home, and there, if you can watch them, yourself unobserved, in their natural haunts, you will see them in every variety of posture, attitude, and occupation;—some idly floating about on the still surface; others asleep or half-asleep, the head turned back and the bill pillowed among the plumage; others ducking and diving in joyous sport; here one lying on its side and basking in the sun, and there another standing on the bank and preening its feathers into trim array.

They make their food of grain, worms, slugs, small fish, land and water insects, and these latter they snatch at and catch on the water, or pick up at times, especially in dull humid weather, on the dry, or to speak more exactly, on the moist land. They also eat the leaves of various plants and grain.

As the day wears away towards evening, before, and as if making arrangements for their departure for the night, Wild Ducks set up a clamorous gabbling, the female being both the loudest and most incessant in her conversational powers. When the debate has ended, the whole flock take wing in separate parties, and return again in like manner soon after dawn the following morning.

They are believed to remain in pairs throughout the year, and the young birds to choose their mates before the anniversary of their first summer.

The nest of this species, constructed the latter end of April, is placed, unless in a few rare exceptional instances, some of which will presently be mentioned, on the ground in a dry place, often near, but on the other hand not unfrequently at a distance from water; in some cases under a hedge, and in others in an open field, or in a wood, but under shelter of some kind; sometimes in marshy spots. It is small in size, little more than six inches in the inner width, and regularly formed of dry grass or other vegetable materials; the lining being down, to the thickness of between two and three inches.

As Mr. Hewitson observes, "We should scarcely expect to find the nest of the Wild Duck in a tree, and yet several instances have occurred in which it has chosen for itself a site thus elevated, and apparently uncongenial to its usual habits. Mr. Tuke has met with a nest of this species in the grounds of Castle Howard, in a large tree, twenty-five feet above the ground, and fifty yards from the edge of the water. Mr. Tunstall speaks of one at Etchingham, in Sussex, which was built in an oak tree twenty-five feet above the ground, and contained nine eggs; and Mr. Selby says that a Wild Duck laid its eggs in the nest of a Crow, at least thirty feet from the ground." Others have been found at a height of ten and eighteen feet.

In Daniel's "Rural Sports," mention is made of the deserted nest of a Hawk, in a large oak, having been appropriated by a Wild Duck; and Montagu speaks of one built between the trunk and the boughs of a large elm tree, and of another in a willow tree overhanging some water. Meyer mentions one found by him on the stump of an old willow tree; and G. B. Clarke, Esq., in "The Naturalist," volume i., page 116,

one built on the fragment of a broken branch of an oak about twelve feet from the ground, and a foot and a half from the trunk. Another was found at Thornton Abbey, in Lincolnshire, near the top of a large ivy-covered ash tree; another in an old ruin. Sir William Jardine mentions one built on the top of a precipitous rock, and Audubon one in the middle of some corn, a mile from any water.

The greater number of these birds go north to breed, but not a few remain here and there throughout the country all the year, and build.

The eggs are usually eleven in number; sometimes ten and sometimes twelve; and as many as fifteen are said to have been found in one nest; Montagu says even eighteen. They are smooth and of a very pale green colour, and of an obtuse shape.

The old birds are supposed to remain in pairs throughout the year, but the male leaves the female as soon as she begins to sit. The hen frequently covers the eggs with down or other substances if she leaves the nest for a time.

The young Ducks, or Flappers, are unable to fly until eight or ten weeks old. They choose their partners before leaving for the north the following year.

Male; weight, about two pounds and a half—from thirty-six to forty ounces. One was shot in March, 1855, on the Bassenthwaite lake, near Bowness, in Cumberland, which weighed three pounds and three-quarters. Length, two feet two inches. The specimen just mentioned, measured two feet three inches in length. Bill, yellowish green; iris, dark brown. Head, crown, and neck on the upper part, rich dark metallic glossy green—this is succeeded by a narrow ring of white—the neck

on the back lower down, and the nape, greyish chesnut brown; the remainder of the lower part of the neck, rich dark chesnut; in winter each feather has an edging of white; breast above, deep chesnut, with a vinous or deep purple tint; below greyish white, with a tinge of dull yellowish, and on the sides elegantly marked with delicate grey lines; back above, greyish chesnut brown, becoming darker on the lower parts, the feathers edged with the former colour; below, velvet black, with a reflection of blue or green.

The wings extend to the width of nearly three feet, and have the second quill feather the longest. Greater wing coverts, with a bar of white near the end, the tips velvet black; lesser wing coverts, greyish brown, with a tinge of yellowish brown; primaries, dusky greyish brown; secondaries, greyish brown on the inner webs, the speculum, formed of the outer portion of the outer webs, rich shining purple, passing into, and margined by, a bar of velvet black, and tipped with white; tertiaries, pale chesnut brown, the outer webs darker than the inner. The tail, of twenty feathers, has the four middle ones deep velvet greenish black, and curled upwards and backwards, or to speak perhaps more correctly, forwards, the others greyish ash colour, the margins white, those of the outermost feathers the widest; upper tail coverts, bluish or greenish velvet black; under tail coverts, velvet black. Legs and toes, orange yellow; webs, orange yellow.

In some other species of birds, we find the female, in occasional exceptional instances, the consequence either of age, or of some peculiar constitutional idiosyncrasy, assuming the plumage of the male, but it is a curious fact in the natural history of the Mallard, as also indeed in that of other Ducks, that every

year in every instance, he assumes the dress of the female, perhaps a shade darker. This change commences about the beginning of the last week in May, and is completed in a month, namely by the beginning of the last week in June. In the beginning of August he again begins to don his own attire, and by about the end of the first week in October is "himself again."

The female is less than the male. Length, one foot ten inches; bill, greenish grey, black on the inner part, and light yellowish brown towards the tip; the tooth black. Iris, brown; head on the sides and the crown, pale buff brown with streaks of blackish brown; neck, also pale buff brown and streaked with blackish brown, but the streaks smaller; the lower part of the neck of a richer tint; chin and throat, pale buff brown. Breast, pale dull yellowish brown, the centres of the feathers varied with a darker shade; on the sides pale yellowish brown with blackish brown spots; back, blackish brown, the feathers being deeply margined with reddish white and pale yellowish brown.

The wings have the first and second quill feathers nearly equal in length; greater wing coverts towards the end, white, the tips velvet black; lesser wing coverts, greyish brown, with the lower tier deeply tipped with pale reddish brown; primaries, dark brown; secondaries, dark brown on the inner webs, on the outer the speculum has the upper half green with purple reflections, the lower half velvet black with white tips to the feathers; tertiaries, also dark brown. Tail, brown, the feathers margined with white and reddish white; under tail coverts, pale brown, the centres of the feathers varied with a slightly darker shade. Legs and toes, orange; webs, darker orange.

In some instances, the female has been known to

assume the plumage of the male, even to the curled feathers of the tail.

The young have a tinge of yellow on the whole of the breast. The male resembles the female till after the first moult.

Sir William Jardine observes, "The Wild Duck is sometimes subject to variety; we have seen the drakes having the upper parts of a bluish grey, the dark breast paler; and we possess a Duck shot from a flock, which has the wings and part of the head and neck white."

A hybrid between the male Wigeon and the female Wild Duck, has been described as a separate species, under the name of the Bimaculated Duck, so called, apparently, from two patches of chesnut brown, margined and varied with white, on the side of the head and neck. It was supposed, subsequently for some time, to be a hybrid between the Mallard and the Teal, but Frederick Bond, Esq., in a letter to me on the subject, says, "I have a fine specimen, a male, of a hybrid between the Wigeon and the Wild Duck, which closely approaches the original specimen of the Bimaculated Duck, but being only a bird of the year, the markings on the head are not very well defined; but another specimen of the same brood, now alive, had the markings much better defined, and if it lives to moult again, I hope, and fully believe, that it will prove a complete Bimaculated Duck. The female of the brood is exactly like the specimen which formerly belonged to Mr. Vigors, and is now with the male in the British Museum."

Mr. Vigors' specimen, just mentioned, was taken in a decoy at Boarstall, near Otmoor, Buckinghamshire, in the year 1771. The following is the description of it, compiled from Mr. Selby's account:—Male; bill,

blackish grey, passing towards the base and edges into orange yellow; between the bill and the eye, and behind the ear coverts are two irregular patches of chesnut brown, margined and varied with white. Head on the sides, dark glossy green, on the front, crown, and back, very deep reddish brown, glossed with purple black, and passing on the back of the neck into deep violet purple; on the sides, the neck is dark glossy green, and on the rest of the upper part reddish brown, with oval black spots; breast, on the middle part, pale reddish brown, spotted with black; below, yellowish white, with waved black lines, most distinct on the sides.

Greater and lesser wing coverts, brown, the lower range having pale brown tips; the speculum is dark green, glossed with purple. The tail is wedge-shaped, with the two middle feathers black, narrow, and pointed, and much longer than the others, which are brown, margined with white; upper tail coverts, greenish black, glossed with purple; under tail coverts, also greenish black, with a purple gloss. Legs and toes, pale orange; webs, pale orange.

Temminck says that the males of this kind appear to vary very much in the degree of purity of the tints of their plumage, and in the colour and form of the two large spots on the neck. One specimen was covered in part only with the variegated plumage of the Mallard, while all the rest was like that of the female, but dotted here and there with some feathers of the male. The top of the head alone exhibited some red colour at the tips of the feathers, the metallic green also being clouded with black at the end of the white feathers.



THE END

GARGANEY.

GARGANEY TEAL. SUMMER TEAL. GARGANEY DUCK.

Anas querquedula,
Querquedula circia,PENNANT. MONTAGU.
SELBY.*Anas*—A Duck.*Querquedula*—.....?

THE present, in this country, as a rather rare and at the same time very neatly marked species, is always desirable as an acquisition to a collection.

In Europe it is plentiful in Holland and Germany, and is seen in Sweden, Russia, Kamtschatka, France, Spain, and Italy. In Asia likewise, in Siberia, the Dukkun in India, Persia, Arabia, China, and the neighbourhood of the Caucasus; also in Africa, in Tunis,

In Yorkshire the Garganey has more or less frequently occurred near Doncaster, York, Barnsley, Halifax, and other places. Mr. Dunn, of Hull, obtained two in the year 1840. Several specimens have been shot in the vicinity of Swinhope, Lincolnshire, as the Rev. R. P. Alington has informed me. In Cornwall two were procured near Falmouth, one of them at Swanpool, in March, 1846. In Oxfordshire they occur sometimes, though rarely, in the neighbourhood of Weston-on-the-Green, and other parts. In August, 1830, three birds of this species, all young, alighted on some water near Otmoor, and were shot by a farmer. In Norfolk the

Garganey is not uncommon in the neighbourhood of Yarmouth, and occasionally breeds about there; it also is known in different places in the county. It has occurred in Surrey, at Godalming. Likewise in Cambridgeshire. In Cornwall, Kent, Devon, and Essex, it is said to be rare.

In Scotland six specimens were obtained in Stirlingshire, during the last fortnight of March, 1841.

In Orkney a few appear in the spring.

In Ireland it is extremely rare, and the same observation is applicable to Wales.

The Garganey resorts to low watery lands, and only occasionally to the neighbourhood and estuaries of the sea-coast.

It is a migratory, or moveable, species, in the spring and autumn months, and is seen with us on these occasions, most so, it is said, in the former, for a brief space during each "changing scene." Those that occur are probably stray individuals, which have been driven out of their ordinary course. The vernal migration is made in March and April, and the autumnal in October and November. They travel by night, and in small parties.

The Garganey is considered a remarkable delicate bird for the table. It is not very shy in its habits, and soon becomes tame in confinement. Meyer says "During the day, the present species conceals itself on the water, among flags and weeds that abound on the borders of lakes and ponds, ditches and rivers; it may also sometimes be met with feeding in a low meadow or field. Its time for roosting is the middle of the day, and it takes its rest either on the water, or standing and squatting among the long grass in meadows. Towards the dusk of the evening, and mostly earlier than

other Ducks, it starts from its retreat to the usual feeding ground, among which, pools, occasioned by heavy rain and thawed snow, form a favourite resort; there the Garganey Teal busies itself throughout the night, until the approach of daylight reminds it that its safety becomes endangered.

The Garganey Teal is not conspicuous for the bright colouring of its plumage, but, on near inspection, it will be found to be one of the most beautifully marked of its family, and its general appearance is graceful; its capacities, in the way of swimming and walking, are equal, in every respect, to those of the foregoing species. Its flight is exceedingly buoyant, sometimes very quick, and it is said to be capable of evolutions that are peculiar to itself; these are, that the bird rolls occasionally over and over in the air, shewing to the beholder first its under, and then its upper parts. Its flight, when on its migratory journey, is performed in a straight progress, and when a small number or family are together on the wing, they form a sort of line, but the individuals do not keep close together like most other Ducks. In consequence of its wings being small in proportion to its size, the noise produced by them is very trifling and seldom heard.

When it is disturbed from its hiding-place, it very frequently settles again near the same spot, and during its stay in any place, it is known frequently to approach very near the habitation of man, where a suitable piece of water invites it."

The food of this species consists of insects and their larvæ, slugs, seeds, worms, the small fry of fish and frogs, the roots and shoots of different water-plants, grasses, grain, barley, millet, and oats. The last-named are moistened with water before being swallowed. The

smaller articles of food are obtained by sifting with the bill.

The usual note is described as a low hoarse croak.

The Garganey begins to lay, as Mr. Hoy has recorded in a communication to Mr. Hewitson, about the middle of April, or towards the end of the month or the beginning of May.

The nest, according to the same authority, is made of dry grass and rushes, mixed with the down of the bird itself. It is placed in low and marshy situations, among reeds and rushes, and by the borders of inland waters and rivers, among the adjoining rank herbage.

The eggs are from eight to ten, or even fourteen in number—buff in colour.

Incubation continues for about twenty-one days.

The young birds, as soon as hatched, follow their mother to the nearest water.

The colours in this species are of a subdued tone. Male; weight, fourteen or from nearly that to fifteen ounces; length, one foot four inches, or from that to one foot four and a half or five inches. Bill, bluish brown grey, behind its base and over the eye is a broad streak of white, which passes down the sides of the neck. Iris, dark brownish lead-colour; forehead, light purple reddish brown, shaded, on the crown, back of the head, and neck behind, into a rather darker shade, ending in a point half way down the latter. The sides of the head and of the neck, purple brown, variegated with short fine lines of white. Chin, black; throat and breast above yellowish brown, with rather broad crescent-shaped marks of pale blackish brown; below dull yellowish white, with a few dusky streaks; the sides distinctly marked with numerous transverse undulating black lines. Behind the legs is a transverse riband,

striped with grey, black, white, and leaden blue. Back, rather dark brownish black, glossed with green, with an edging to each feather of a lighter shade of yellowish brown, the edging becoming paler and more irregular on the lower part.

The wings have the first quill feather the longest; greater wing coverts, dull bluish grey, tipped with white; lesser wing coverts, bluish grey, edged with white; primaries, brownish black; the wing spot on the outer webs of the secondaries is dull but glossy green, with a margin of white below; tertiaries, bluish grey. The scapular feathers are very elegant, being long and of a lanceolate shape; the colour deep black, shaded into grey at their lower edge, and with a narrow distinct line of white running along the shaft. The tail, of fourteen feathers, is dusky greyish brown; under tail coverts, mottled with brownish black and yellowish white. Legs and toes, bluish grey brown; webs, bluish grey brown.

The female is less than the male; over the eye is an indistinct streak of pale brown; head on the crown, and all over, brown, with spots and lines of a darker shade; neck on the back, brown, the feathers edged with white; chin and throat, white. Breast, greyish white, variegated with two shades of brown; below white; the sides pale brown, varied with a darker shade; back, dark brown, with reddish brown edges, and white tips to the feathers. Greater and lesser wing coverts, dark greyish brown. The speculum very dull and indistinct, and bordered on each side with white; tertiaries, dark brown, the feathers tipped with white, and with reddish brown edges to the feathers.

The young male resembles the female till after the first moult.

TEAL.

COMMON TEAL.

<i>Anas crecca</i> ,	PENNANT. MONTAGU.
<i>Querquedula crecca</i> ,	SELBY. GOULD.
“ <i>secunda</i> ,	ALDROVANDUS.
“ <i>minor</i> ,	BRISSON.
<i>Anas</i> —A Duck.	<i>Crecca</i> —.....?

THE Teal is widely dispersed over the European continent, being plentiful in Germany, Denmark, Holland, France, Spain, Turkey, and Italy, Iceland, Kamtschatka, Norway, Sweden, and Russia. In Asia it occurs in Asia Minor, China, India, Japan, Arabia, and Persia; and in Africa in Egypt and the northern districts; also, so writes Selby, in North America.

They are plentiful in most parts of the country, at least in the winter half of the year, when the numbers of the resident birds are added to by large arrivals from the north. Either very dry, or very hard weather, causes them at each season to leave their accustomed haunts.

In Cornwall the Teal is not uncommon near Falmouth, as at Penryn Creek, Gwyllyn Vase, Swanpool, and other places. A young Teal was shot by Mr. Girdlestone, at Hickling, in Norfolk, in the month of July; some birds of this species generally remain to breed in that county—at Reedham, Ranworth Broad, and Scoulton Mere. In Kent, in Romney Marsh; and in Cumberland, in the



TEAL.

mosses about Carlisle, according to Dr. Heysham. They have done so in Yorkshire, on Strensall Common, near York; so too in Northumberland; and the Rev. Gilbert White, of Selborne, mentions young Teal taken on the verge of a pond in Wolmer Forest; likewise in Wales.

In Orkney, though a resident throughout the year, it is by no means numerous, but is most plentiful during winter: some stay to build in the summer. In Ireland also, it is a common and indigenous species; the same remark applies to Scotland.

The situations it frequents are the edges of rivers, lakes, pools, ponds, and streams, watery meadows, wet stubble-fields, and ditches, especially where flags and rushes afford both a natural screen from observation and a supply of food; cultivated and uncultivated districts, provided that these requirements are supplied, are equally sought.

It is a migratory species, appearing by the middle or end of September, and remaining till the middle of March. They travel, for the most part, in large flocks, and chiefly by night, though large numbers are also seen moving in the day-time; in either case at a high elevation.

These birds are fonder of lochs and inland waters than of the sea-side. They are not very shy, and I have seen them on a pond adjoining a public highroad, namely, at Burton-Agnes, near Burlington. They have a habit, like the Jack Snipe, when put up, of flying round and round in circles, returning to the same place, after a short flight, unless when disturbed in the morning, in which case they rise up high in the air, and fly off. During the day they repose on the water, or near to its brink, with the head drawn back between

the shoulders, or hidden under the feathers. They leave for their feeding-places immediately after sunset. These birds are excellent eating. They do well in confinement, and have bred in the gardens of the Zoological Society. The males assemble in small parties, in the latter part of the season, before the females and young make their appearance.

They fly very lightly and well, and, when in flocks, both in single line and the form of a triangle. They run very nimbly and cleverly among reeds and other long herbage.

They make their food of barley, oats, and grain generally; duck-weed and other plants, grass, seeds, and water-insects. The search for these occupy their "Night Thoughts," for, as before observed, they rest during the day. The first-named they moisten before swallowing.

The nest, which is usually built by the margin of an inland lake, but sometimes near the sea-shore, and in clefts of rocks and stony places, is placed among, and constructed of heath, grass, or other vegetable substances, in moorland and marshy districts, in rushy or boggy places. There is a thick lining of down and feathers: the whole is of rather large size.

The eggs are from eight, ten, or eleven, to fifteen in number. They have been found under a furze bush without any nest. They are white, with a tinge of buff or cream-colour.

Male; weight, about eleven ounces or a little over, on to twelve ounces; length, one foot two inches and a half, to one foot three inches. The bill is dark lead-colour—nearly black, the tip black. The feathers about the base of the under mandible are thickly speckled with dull green. These green spots extend round the

bill, getting darker underneath, and widening out at the chin, where they form a spot of considerable size, nearly black. Round the edge of this black spot a very narrow band of light buff extends along the chesnut on the head, over the eye, and loses itself in the chesnut at the back of the neck. Another stripe of buff branches off from the former in front of the eye, and extends under it, where it becomes nearly white, and ends at the ear coverts. Iris, pale hazel brown; the eyelid white, forming a spot below the lower line and the eye; between these two light bands round the eye, and extending a short way down the neck, rich light blue, glossed with deep green, gradually narrowing until it joins the chesnut at the back of the neck, at which point is a patch of black, slightly burnished with purple; underneath the lower pale line, extending to the chin and a short way down the neck, rich chesnut. Head on the forehead, crown, and sides, and a short way down the back and sides of the neck, very rich chesnut brown; these feathers are slightly elongated, almost concealing the black patch. Chin, black; throat and neck in front, chesnut; breast on the upper part, yellowish white, spotted with black, and with a tinge of purple; below dull dusky white; on the sides barred or waved with narrow zigzag black and white lines; back on the upper part, pale grey, minutely zigzagged with darker waved lines; on the lower part the dark brown colour is so thick as to appear nearly black.

The wings expand to the width of two feet eleven inches; the first and second quills are nearly equal; greater wing coverts, greyish brown, deeply tipped with white, forming a bar; those next to the body are tipped with yellowish rufous; underneath the quills are light blackish or grey; the shafts white; lesser wing coverts,

greyish brown; primaries, dull blackish brown. Of the secondaries the first six are of a fine velvet black, the next of a resplendent glossy green, and both tipped with white; the speculum, or spangle, has the first feathers black, tipped with white, and a small rich speck of burnished green at the base; this spot continues to increase in the other feathers till the entire half of each becomes rich green, with a reflection of blue; the last feather considerably pointed. The long tertiaries have some of the feathers half grey, and one feather near the beauty spot has one side dull grey, the other rich bright grey near the quill, then black, and finally edged with white. Greater and lesser under wing coverts, white. The tail is of fourteen feathers, slightly pointed, pale dusky brown, edged with white; the two middle feathers slightly extended and grey, edged with a narrow line of buff; underneath the tail is ash grey. Upper tail coverts, almost black, edged with rufous buff, some half black; under tail coverts, broadly edged with white, the centre feathers jet velvet black; outside these a pale but rich clear spot of cream-colour, bounded on the upper side with black. Legs and toes, brownish leaden grey, the joints darker; webs, brownish leaden grey.

The male assumes the plumage of the female in the summer, by the end of July or beginning of August, and this he retains till the general moult.

The female has the upper bill yellow on the edges, olive green on the sides, and olive brown on the ridge; the under bill yellowish; the tooth black. A brown streak extending to the nape is the substitute for the green patch behind the eye. Head on the crown, light yellowish brown, spotted with dark dusky brown; on the sides yellowish white, spotted with dusky brown;

neck on the front and sides, freckled with half-moon shaped marks of two shades of brown; on the back, pale dull yellowish, streaked with deep brown. Chin, pale brown; throat, yellowish white, spotted with brown; breast on the upper part, glossy yellowish white; on the lower part and sides, dull white, with dark brown spots. Back on the upper part, dark brown, with two narrow bars of yellowish buff brown and whitish on each feather. The speculum has less green and more of the purple tinge, and at the same time more black; under tail coverts, dull white, spotted with dark brown. Legs and toes with a tinge of yellow.

The young of the year, after the first two months are like the female, but somewhat darker in plumage; the males do not assume their distinctive dress till about the middle of December.

When first hatched they are covered with dark-coloured down.

The plate is taken from a design by the Rev. R. P. Alington.

WIGEON.

COMMON WIGEON. WHEW DUCK.

Anas Penelope,
Mareca Penelope,

PENNANT. MONTAGU.
 STEPHENS. SELBY.

Anas—A Duck. *Penelope*—The name of the wife of Ulysses.
 Why applied to this bird, I cannot tell.

THIS handsome Duck is widely distributed in Europe and Asia—it ranges from Iceland to Norway, Sweden, Lapland, Finland, Holland, where some breed, as also to France, Prussia, Germany, and Poland. It occurs likewise in Africa, finding its way to Egypt. In Asia, it has been perceived in Asia Minor, and in India and Japan.

It frequents both the sea-coast and the grassy borders of rivers, swamps, lochs, lakes, fens, and ponds. It is a very abundant species, and great numbers are taken in decoys.

In Yorkshire the Wigeon is met with more or less commonly about Doncaster, York, Leeds, Sheffield, Hebden Bridge, Barnsley, and other parts of the county. In Northamptonshire it occurs, as elsewhere; in Norfolk it is abundant. In Cornwall it is not uncommon in the neighbourhood of Falmouth—at Swanpool, Gwyllyn Vase, Penryn Creek, and Mylor Creek. In Lincolnshire on Croxby Lake.



In Orkney this species is numerous in winter. In Ireland also it is common.

Mr. Selby and Sir William Jardine have found the nest in Sutherlandshire, on Loch Laigal, Loch Hope, Loch Shin, and Loch Taver, and also on smaller waters near Lairg.

With such exceptions as those mentioned above, the Wigeon goes northwards in the spring to breed, returning again in the autumn; the former in March and April, and the "merry month of May," the latter in the middle or end of September, and early in October, or later with the weather. Meyer says, speaking of their migrations, "These journeys are generally performed during the night, at which time the birds fly at no great elevation, and may easily be known by their continued whistling; when the journeys are continued during the day, the birds fly very high, and in the usual manner of Ducks—following one another; but these birds fly so very close upon the heels of their leader, that it forms a distinguishing peculiarity." "The young keep among the rushes and reeds in the lakes; the old birds betaking themselves to the shallows on the coast."

In its natural habits the Wigeon is far from shy, and is easily tamed. It is, however, in this country, in its wild state, obliged to learn to provide for its security by suitable precaution. Lord Stanley had a male Wigeon which paired with a female Pintail that had previously bred in confinement. Eggs were laid two successive seasons, but the first year they were destroyed, and the second she forsook them. In the "Gardener's Chronicle" of April, 1842, it is stated, "A few years since a pair of Wigeons were kept in the river which bounds the Botanic Gardens at Bury St. Edmonds. The male bird was shot during the winter,

and the following spring was succeeded by a wild one, no doubt attracted by the call of the female, by whom it had several young ones, which all left at the usual period of migration except the pinioned parent. Last year a male bird again made its appearance, and another brood was the consequence; a small portion of their wings have been taken off, and they are now become as tame as any of the water-fowl." The Wigeon is much esteemed for the table. It is a sprightly and gay bird, and is a great ornament to a piece of water.

This species feeds principally on water-insects and their larvæ, small mollusca, worms, the fry of fish, and frogs; as also the buds, shoots, leaves, and seeds of plants, and grass; and these it browses in the day-time, but it chiefly seeks its food in the mornings and evenings, and also at times in the night.

The note is a whistling or whewing cry.

These birds visit northern countries for the most part to breed—Norway, Sweden, and others. They begin to pair by about "St. Valentine's day."

They build among rushes, grass, flags, fern, and reeds, or low bushes where there are such, and use the former materials and leaves in the construction of the nest, the lining being supplied with down from the bird's own body. The situation chosen is the neighbourhood of some lake or river, and the nest itself is cleverly concealed.

The eggs are from five to eight, or, Meyer says, ten or twelve in number. They are of a fine cream-white colour.

When the hen bird begins to sit, the male retires into seclusion. The incubation of the eggs continues for twenty-four or twenty-five days. The young, as soon almost as hatched, betake themselves to the water.

Both the male and female Wigeon have been known to pair with the Pintail, and with the Common Duck.

Male; weight, about twenty-three or twenty-four ounces; length, nearly one foot eight inches. The bill is narrow, and of a bluish lead-colour, the tip and the tooth black; iris, dark dusky brown—from it a green streak passes backwards. The head is high, and narrow in shape. From the forehead extends over the crown a band of fine yellowish orange cream-colour, forming a sort of crest; the remainder of the head and neck rich chesnut, speckled with black—it is divided from the breast by a band or collar of beautiful narrow waved lines of brown and white; nape, beautifully barred with black and pale reddish white; chin and throat, almost black. The breast, on the upper part and sides, is pale vinous red, lightest in front, and darkest on the sides: below, the breast is white, and rayed with grey on the sides, paler lower down. Back, variegated with greyish white and black in fine irregular undulating lines.

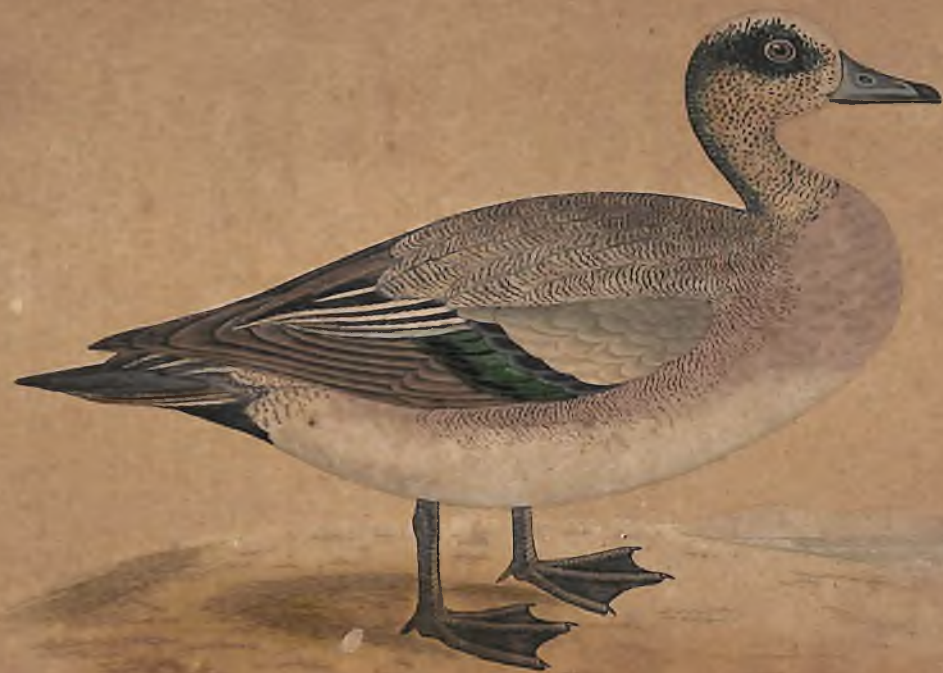
The wings have the first and second quill feathers of nearly equal length. They expand to the width of two feet three or four inches. The ridge of the wing is dusky grey brown; greater wing coverts, white, tipped with black, forming an upper border to the beauty spot; of the lesser wing coverts the upper ones are grey, finely powdered with white; the others white. Primaries, dusky brown; of the secondaries those next the body have the margin of the outer webs more or less white. The speculum is glossy green, with a broad edge of black above and below. Tertiaries, velvet black on the outer webs, with white edges, the inner ones deep greyish brown: they are very long. The tail is wedge-shaped, the two middle feathers being pointed, and considerably longer than the others; these are dusky black, with a

tinge of hoary grey; the others, which are also pointed, grey edged with rufous brown. There are fourteen feathers in all. Upper tail coverts, black, edged with rufous, and freckled with grey; under tail coverts, black, glossed with green, and edged with white. Legs and toes, dusky bluish or greenish grey—the hind toe has a rudimental web; claws and webs, dusky bluish grey, the middle of the web darker.

The mottled plumage of summer, which is begun to be assumed by the male bird as soon as the female begins to lay, and is retained till the end of November or the beginning of December, is as follows:—Head, crown, and neck, spotted all over with black; breast, reddish brown, with darker bars and lines; back, mottled and varied with large bars of reddish brown and dusky, and finer waved lines of black and white. Under tail coverts, white, with reddish brown bars.

Female; length, one foot five or six inches. The bill is less blue than in the male, and darker bluish grey. Head, crown, and neck, speckled with dark dusky brown and pale ferruginous, each feather being minutely barred. Breast above, vinous brown, below white, or nearly white, and the sides yellowish brown, which is often more or less extended over the remainder of the under parts. Back on the upper part, dusky greyish brown, with narrow bars of ferruginous brown, the centres of the feathers being darker than the margins. Lesser wing coverts, brown, margined with white. The speculum is black, tipped with white. The tertiaries are partially margined with white and partly with rufous, the latter next the body. The tail is of fourteen feathers; under tail coverts, white, spotted with blackish brown. Legs and toes, deep bluish grey.

The young male of the first year resembles the female.



AMERICAN WIGEON.

Anas Americana,
Mareca “

WILSON. AUDUBON.
 STEPHENS.

Anas—A Duck.

Americana—American.

THIS Duck is abundant in various parts of North America, from the River Saskatchewan and the Columbia, and the shores of Hudson's Bay, through the United States of Florida, Carolina, Mexico, Cuba, Martinique, and St. Domingo.

A pair of these birds were on sale in the London market in the winter of 1837-8, as recorded in the “Naturalist” magazine, volume iii, page 417.

In the autumn they depart in flocks from their summer quarters.

They are described as being of a lively and frolicsome disposition, and are considered excellent eating.

They are said sometimes to perch on trees.

Their food is composed of flies, worms, leaches, small fry, beech-nuts, and grain of various kinds; and they do much damage in the rice plantations. They come out to feed in the evenings.

The note is a soft whistle, enunciated by the sound “whew,” and it is frequently imitated successfully to their destruction.

The eggs are from six to eight in number.

Male; length, one foot eleven inches; bill, bluish grey, bordered and tipped with black; iris, hazel—behind the eye a broad dark green streak passes backwards. Forehead and crown, dull white, on the sides and back pale brownish white, freckled with black; the feathers at the back of the head a little elongated: a white band runs from the forehead to the nape. Neck in front, reddish brown. Breast above, white, on the sides brownish red, glossed with grey; on the sides it is barred with dark lines, below white. Back on the upper part, reddish brown, glossed with grey, each feather marked across with small zigzag blackish lines; on the lower part the back is brown, waved in like manner with brown and white.

The wings have the second feather the longest, but the first nearly as long; greater wing coverts, white, slightly marked with brown and tipped with black; lesser wing coverts, brown; primaries, brown. The secondaries have the speculum on the outer webs green, edged with black above and below. The tertiaries are blackish brown, with a tinge of green on the outer webs and brown on the inner, bordered with white. Tail, brown—it is slightly pointed, the middle feathers being elongated; upper tail coverts, brown, barred with paler brown and white; under tail coverts, brownish black, with a tinge of green. Legs and toes, dark brown; webs, dark brown.

The female is in length about one foot nine inches. Head, crown, and neck, yellowish white, thickly speckled with black. The breast with very little rufous. Back, dark brown, edged and faintly barred with pale brown and white.

The young male at first resembles the female, and does not require his full distinctive plumage till the

second year. Wilson says these birds are subject to a regular change every spring and autumn. It appears that the "Act of Uniformity" is infringed by most, if not all, of the males of the Duck tribe.



frost. In Durham it has occurred near Bishop Auckland and Hartlepool. In Norfolk a few young birds have been met with on the coast.

In Scotland, Robert Gray, Esq. has informed me of one which occurred on the Tyne sands, Dunbar, in 1851. In Orkney they are common, and many remain throughout the year, and breed in various parts of the islands. The same remark applies to the Hebrides and the Shetland Islands.

In Ireland it is known, but is rare.

The Eider is entirely a bird of the ocean, and of its estuaries—fresh water being uncongenial to it. Meyer writes as follows:—"Small islands that slope gradually into the sea, the Eider Duck chooses by preference; there they may be seen to sun themselves on the sands in fine weather, in the morning. The time of roosting is the middle of the day, which is most frequently enjoyed on the liquid element. During the night this bird is chiefly employed in feeding, and its movements from place to place are performed morning and evening."

These birds can hardly be said to migrate, but rather to wander, and at such times, as also when the females are accompanied by their young, they are most difficult to be approached, even with a boat or vessel of any kind.

If undisturbed they seem to be very fearless. Mr. Hewitson mentions that among some of the islands in Norway, where they are preserved, they would even suffer the old man who had the care of them to stroke them on the back. Others, in Iceland, allowed Sir William Hooker to touch them while they were sitting, without appearing to be at all alarmed. They go together in large and small flocks in the winter, and generally keep in deep water, diving for their food.

The Greenlanders esteem them for the table; but "what is one man's food is another man's poison," and I should be inclined to suppose that there are many other dishes which would be preferred by an Englishman's appetite. The young have been successfully reared in confinement at Knowsley, Lord Derby's, and others brought up by Mr. Selby from the egg lived for a year: like instances have also been recorded.

They dive with ease, and can remain under water for a long time. If suddenly surprised they endeavour by this mode to escape pursuit; but if approached in a boat at "long range," generally take wing. They fly strongly and well, at a rate, it has been computed, of more than ninety miles an hour. Their walk on the land is unsteady, and as if performed laboriously.

They feed on mussels and other shell-fish, small crabs and other crustacea, and the fry of fishes.

"In some countries, as mentioned by Meyer, "this bird is properly protected by the laws, which punish those who molest them with a fine of some eight or ten dollars; but where the breeding-places are respected, the number of nests increases annually to a wonderful degree, and in consequence the coast becomes literally covered with the nests of these birds. On the island of Wildoe, near Iceland, where only a single family resides, the place is entirely peopled by tame birds of this species during the breeding-season. The ground chosen for the nest is an undulating sea-coast or island, the same being scantily covered by low herbage, low birch trees, juniper or lichens, and at intervals interspersed with sand and shingle."

The Eiders pair in March, and the males have frequent contests with each other.

"About April," writes Selby, "they are seen assembling

in small groups along the shores of the mainland, from whence they cross over to the islands in May; soon after which the females begin to prepare their nests, and they usually commence laying about the 20th. of that month. The males, as soon as this takes place, and incubation commences, leave the females, and again spread themselves along the shore in companies of four or five together, and do not, as far as my observation goes, 'continue on watch near the shore as long as the females remain sitting,' and then desert her and the newly-hatched brood, as mentioned in Shaw's Zoology."

"In the localities," says Meyer, "where the Eider Duck breeds, it is so careless, or rather so little awed by the presence of mankind, that it makes its nest not only near but among human habitations, and the female allows persons not only to take her eggs from her, but even to touch her without shewing any timidity; the male bird is at the same time warily approached within gunshot, either on the water or land."

The down with which the nests of these birds are lined, is made an article of commerce, and in the countries where they are plentiful, the people rob the nests two or three times in the season. The eggs are also taken at the same time, so as to make the birds lay again, "but it is generally found that if they are robbed more than twice, they begin to desert the place, and if pillaged oftener they quit it entirely."

"A few days after the young Ducks leave the eggs," says Bishop Stanley, "they proceed to the water under the guidance of their dam, who swims with them on her back to some distance, when, making a sudden dive, she abandons them to themselves, and re-appearing, tempts them to come towards her; so that on the first trial they commonly become expert swimmers. When

the breeding-season is over, they generally stand out to sea; yet numbers are seen frequenting the bays and creeks about the coast. The eggs furnish food to the inhabitants, and the down is bought on the spot at about thirteen or fourteen shillings a pound, by merchants, who send it to different parts of the world. It is used chiefly for making bed-coverings, on account of its exceeding lightness as well as warmth; a large bed-quilt sometimes weighing only five pounds three ounces, of which the linen covering weighs two pounds and a half, leaving two pounds eleven ounces for the Eider-down."

Rennie writes as follows in his edition of Montagu's "Ornithological Dictionary:"—"Brunnich, who wrote an express treatise on the Eider Duck, informs us that their first object after pairing is to procure a suitable place for their nest, preferring the shelter of a juniper bush, where it can be had; and where there is no juniper, they content themselves with tufts of sea-grass, bundles of sea-weed cast up by the tide, the crevices of rocks, or any hollow place which they can find. Some of the Iceland proprietors of breeding-grounds, in order to accommodate them, cut out holes in rows on the smooth sloping banks where they would not otherwise build, but gladly take possession of them when scooped out to hand. It is not a little remarkable that, like several other sea-birds, they almost always select small islands, their nests being seldom, if ever, found on the shores of the mainland, or even of a large island. The Icelanders are so well aware of this, that they have expended a great deal of labour in actually forming islands, by separating from the main island certain promontories joined to it by narrow isthmuses.

The reason of this preference of islands seems to be security from the intrusion of dogs, cattle, and other

land animals, to whose vicinity they have so great an aversion, that the Icelanders are careful to remove these, as well as cats, to a distance from their settlements, 'One year,' says Hooker, 'a fox got over upon the ice to the island of Vidoc, and caused great alarm; he was, however, though with difficulty, taken, by bringing another fox to the island, and fastening it by a string near the haunt of the former, by which means he was allured within shot of the hunter.'

The Arctic Fox is traditionally said to have been introduced into Iceland by one of the Norwegian Kings, to punish the disaffection of the inhabitants.

Both the male and female Eider Ducks work in concert in building their nest, laying a rather coarse foundation of drift grass, dry tangle, and sea-weed, which is collected in some quantity. Upon this rough mattress the female spreads a bed of the finest down, plucked from her own breast, and by no means sparingly; but, as Brunnich informs us, heaping it up, so as to form a thick roll quite round the nest. When she is necessitated to go in quest of food after beginning to sit, she carefully turns this roll of down over the eggs to keep them warm till her return. Marten says she mixes the down with moss; but as this is not recorded by another observer, I think it is not a little doubtful, particularly as in the localities chosen for nestling she would find it no easy matter to procure moss. It is worthy of remark, that though the Eider Duck lays only five or six eggs, it is not uncommon to find more than even ten and upwards in the same nest, occupied by two females, who live together in perfect concord.

The quantity of down in each nest is said by Von Troil to be about half a pound, which by cleaning is reduced to a half; by Pennant, who examined the

Eiders' nests in the Fern Islands, off Northumberland, it is only estimated, when cleaned, at three-quarters of an ounce, and this was so elastic as to fill the crown of the largest hat. The difference of quantity in these two accounts, theoretically ascribed by the translator of Buffon to difference of climate, may have arisen from the one being first and the other the second or third nest of the mother Duck; for if the first nest be plundered of the down, though she immediately builds a second, she cannot furnish it with the same quantity as before; and if forced to build a third time, having then stript her breast of all she could spare, the male is said to furnish what is wanting, which is known as being considerably whiter than the female's. When the nest is not robbed, it is said that he furnishes none.

The extraordinary elasticity of the down appears from what I have already said of three-quarters of an ounce filling a large hat; and Pontoppidan says that two or three pounds of it, though pressed into a ball, which may be held in the hand, upon being allowed to expand, will fill the foot-covering of a large bed. It is worthy of notice, however, that it is only the down taken from the nests which has this great elasticity; for what is taken from the dead birds is much inferior, being as Pontoppidan says, far from as light as what the female plucks to form a bed for its young. It is on this account that it is prohibited by the laws of Norway to kill the Eiders for their down."

The Eider Duck begins to pair in March, and to lay about the beginning of the last week in May, that is to say, in this country. Incubation lasts from three weeks to a month. The male bird at this period leaves his mate, and repairs to the open sea. The young, as soon as hatched, are led by the dam to the water,

and in some instances, it appears certain that they must be carried by her in her bill. They gradually venture out farther and farther till able entirely to provide for themselves. Von Troil says that the female at first takes them on her back a little way, and then dives, and leaves them to "sink or swim."

In England the Eiders build so far south as the Fern Islands and Coquet Island. In one of the former the remains of an old lighthouse appear to be a favourite resort, and within the ruined and deserted walls several have been accustomed to lay. They seem to prefer islands for the purpose, but also make use of hollows in rocks on the mainland, and sand-banks along the sea-shore. Great numbers are frequently placed close together, so that it is hardly possible to walk along them without treading on some.

With reference to what has been already stated, it seems that at first the nest has only grass, lichens, or sea-weed, for its composition, but when all or nearly all the eggs are laid, down, plucked by the female from herself, is daily added, the quantity being then successively increased. If the bird leaves her charge for a time, the eggs are carefully covered over and concealed, either with down, or grass and leaves, according as each has been supplied.

The eggs, of a light green colour, are usually five in number, but not very unfrequently as many as eight or even ten are found together, two birds having laid in the same place. Both, it appears in that case, sit together in an amicable manner.

Male; weight, six or seven pounds or over; length, two feet to two feet one or two inches; bill, dull yellow, passing towards the tip into dull green; the tooth, yellowish white; iris, dark brown. Forehead and head on

the crown, velvet black, with a reflection of purple, as far as the back of the head, continuing in a line on each side; the remainder of the head is white, with the exception on the sides of two light green marks. The feathers which compose this are of a fine and silky texture, and capable of being raised so as to form a sort of ruff. Neck in front, above white, below pale buff; below the nape the feathers are pale green. Chin and throat, white; breast above, white, with a tinge of brownish yellow, below black, with the exception of one white patch above and behind the legs. Back, white.

The wings expand to the width of about three feet; greater and lesser wing coverts, white; primaries, dull black; secondaries, dull black; tertiaries, white and elongated, drooping downwards, the tip black. Tail, dusky greyish black; upper tail coverts, black. Legs and toes, dull greenish yellow; webs, dusky black.

The female is of a pale brown colour, with a reddish tinge, and mottled with marks of darker brown. Weight, between five and six pounds; bill, deep greenish grey. Head, crown, neck on the back, and nape, light reddish brown, streaked with dusky. Chin, throat, and breast above, reddish brown, barred with blackish, the latter is dark brown below with dull transverse black bars. Back, reddish brown, barred with black and grey.

The wings are crossed with two faint white bars; greater and lesser wing coverts, black, edged with brown; primaries, dull black. Tail, dull black; legs and toes, deep greenish grey.

The young male at first resembles the female. In changing their garb the first winter, Yarrell describes them as having the bill greenish grey; head and neck mottled with two shades of dark brown, with a few white feathers appearing in different parts: the lower

portion of the neck and the upper part of the back mottled black and white, the wing coverts and tertiaries becoming white, the rest of the plumage black; the legs greenish grey.

Montagu says that these birds do not arrive at maturity, and assume the pure white colour, till the third or perhaps the fourth year. Mr. Selby also assigns the latter period.

In the first year the back is white, and the parts that are usually so, except part of the crown and sides of the head, and the lower part of the neck and breast, black.

In the second year the crown of the head is black, and the neck and breast spotted with black and white.

In the third year they have a piebald appearance, the consequence of the assumption of white on the back and scapulars.

By the fourth year the adult garb is acquired.

Other varieties have also been observed.

STELLER'S WESTERN DUCK.

WESTERN POCHARD. WESTERN DUCK.

Anas dispar,
Fuligula dispar,
Polysticta Stelleri,

TEMMINCK.
 SELBY. JENYNS.
 EYTON.

Anas—A Duck.*Dispar*—Different.

THIS Duck, first described by Steller, is a native of the north of Europe, Asia, and America. A few have been killed in Sweden and Denmark, as also in Germany. In the second-mentioned continent it is found in Siberia and Kamtschatka, and others of the boreal regions.

In Yorkshire one of these birds was shot at Filey, August 15th., 1845. In Norfolk, one, a male, at Caisted, near Yarmouth, on the 10th. of February, 1830.

The places they inhabit are rocky coasts and the mouths of rivers, belonging, as they do, to the class of those kindred species, which 'in aquis degunt.'

They are said to assemble in flocks, and the male and female to keep permanently together.

They fly with much ease and rapidity, and also swim and dive well.

Their food is made up of the small fry of fish, sea-insects, and their larva.

This species breeds, it is said, on high and steep rocks.



STELLER'S WESTERN DUCK.

This is a bird of striking and handsome appearance. Male; length, one foot seven inches; bill, brownish black, the tip yellow; upon the forehead and between the upper mandible and the eye is a pale green spot. From the base of the lower mandible a blackish brown streak goes down to or nearly to a broad collar of the same colour, which encircles the neck and joins that of the back. Iris, pale brown; round the eye is a narrow circle of black, inclining also forwards and backwards, forming a spot at the back of the head. Head on the sides, crown, and the neck on the upper part, white, forming a collar which is only infringed on by the blackish brown of the chin. There is another pale green spot on the back of the head. The nape below the white is black, and this colour also comes round the neck. Chin and throat, rich blackish brown; breast above, white, on the middle and lower part rich chestnut brown, darker on the latter, passing into buff in front and on the sides just below the point of the wing. Back, all along the middle part, black; there is a black patch formed by the tips of the otherwise white feathers.

Just above the joint of the wing is a black spot with green reflections; lesser wing coverts, white; primaries, dusky blackish brown; secondaries, partly white, the outer web metallic blue, forming the speculum—the end portion white. The tertiaries are long and pointed, white on the inner webs, rich blue on the outer, and curved downwards, as are the long scapulars, which are also marked like the four upper tertiaries, namely, the narrow inner webs white, and the broader outer ones rich blackish metallic blue, and the shaft streak white. Tail, dusky blackish brown, and rather more pointed than in others of this genus; upper tail coverts, black, with a tint of blue; under tail

coverts, dark brownish black. Legs and toes, olive green—the hind toe has a deep lobe; webs, olive green.

The female has the bill olive black, the tooth yellow horn-colour; greater wing coverts, dusky olive brown, tipped with white; lesser wing coverts, dusky olive brown; primaries, dusky; the secondaries also tipped with white, thus forming two bars across the wing, between which is the speculum of rich chesnut colour. Of the tertiaries the three longest are dusky. Tail, dusky. Legs and toes, pale bluish; claws, black; webs, blackish.



KING DUCK.

KING DUCK.

KING EIDER.

Anas spectabilis,
Somateria spectabilis,

PENNANT. MONTAGU.
 FLEMING. SELBY.

Anas—A Duck.

Spectabilis—Shewy—handsome.

THE King Duck is in Europe abundant in the extreme north—at Spitzbergen and Nova Zembla. It is not uncommon on the coast of Norway, as also in Sweden and Denmark in severe winter weather.

In North America it is also plentiful about Hudson's Bay, Labrador, and in other parts, and advances southward in winter as far as New York; also in Greenland. It occurs in Asia, namely, in Siberia and Kamtschatka.

With us it is but of rare occurrence. One specimen was produced the first week in January, 1854, at Lowestoff, in Norfolk; another, a female, had been shot on Breydon, near Yarmouth, July 25th., 1813. In Suffolk, one was killed at Aldborough.

In Ireland it is mentioned as extremely rare, but has occurred. One of these birds was shot in 1850, by Arthur Dymoke Bradshaw, Esq., as he has informed me, I believe on the Lough of Belfast.

In Orkney it is a rare occasional visitant, and has been known formerly to breed on Papa Westray.

This species frequents the open ocean, and also its bays, inlets, and the mouths of rivers.

In the winter they do not go far south, but assemble, according to the report of Captain James C. Ross, R.N., in large flocks, the males by themselves, and the females with the young, and often in the open sea, far distant from any land—"a life on the ocean wave." The down is almost as much esteemed as that of the Eider Duck by the Greenlanders, by whom also the bird is considered as an excellent one to eat. "The King Eider is usually sociable, and even neighbourly, towards its congener, except during the breeding-season, when the male bird is too irritable and quarrelsome to be endured in company with the peaceable Eider: when one of this species mingles among the encampment of the Eider Ducks, the persons interested in their welfare are obliged to destroy it."

They feed on crustacea and marine insects.

The nest of the King Duck, placed on rocks near the sea, is lined with the down of the female, and composed externally of sea-weeds or sticks, with grass or mosses.

The eggs are of a pale green colour. They appear to be from four to six in number. The male bird leaves the care of them to the hen, and repairs to the sea.

In some parts of America, Wilson says that the nests are so crowded together, that a person can scarcely walk without treading on them.

Male; length, two feet and half an inch; bill, deep red, the knob at the base, which is flat on the top and compressed on the sides, but divided into two, the elevated parts velvet black, encircled with deep black, which colour is continued through the eye, and surrounds a green triangular-shaped mark, which proceeds from the base of the bill to below the eye, the tooth

is dull yellowish red; at the base of the upper bill the feathers are light green, passing backwards on each side of the neck and taking in half the eye, beneath which and round to the chin the collar is dull white; iris, ash-colour, on the sides green; neck on the upper part white, on the lower dull yellow; nape, white; chin, white, with a small black streak slanting back and downwards; throat, white. Breast above, pale dull yellowish, below black—there is a round white spot on the sides behind the legs. Back on the upper part of the middle, white, the remainder black.

Greater wing coverts, black, with a white patch on the middle, the shafts deep ferruginous, on each side of the outer ones a patch of white; lesser wing coverts, white; primaries, dusky black, tinged with red on the inner webs; secondaries, dusky black—they curve downwards over the quills. Tertiaries, dusky black, with a green reflection; their ends, as also the long scapulars, fall in a drooping manner over that part of the wings; greater under wing coverts, black; lesser under wing coverts, black. Tail, dusky black—it is of a wedge shape, and short; upper tail coverts, black; under tail coverts, black. Legs and toes, dull yellowish red; webs, darker yellowish red.

The female is less in size. Bill, greenish brown, the protuberance at its base is not so large, nor so bright in colour as in the male, and is nearly upright instead of horizontal. The whole of the plumage is brown of two shades. Head, crown, and neck, rather light brown of two shades.

The young male at first resembles the female. Later on, the head and neck are described as dusky yellowish grey, crowded with black spots; the feathers on all the

upper parts dull black, with yellowish brown edges; the breast yellowish brown, spotted and barred with black. The full plumage is said not to be acquired till the fourth year.

According to Captain Sabine the young birds do not acquire the development on the bill till the fourth year.

In some specimens there is a little white on the hind part of the head, and on the back.



VELVET SCOTER.

VELVET SCOTER.

VELVET DUCK.

Anas fusca,

PENNANT. MONTAGU.

Oidemia fusca,

FLEMING. SELBY.

Anas—A Duck.*Fusca*—A dark colour—brown.

THE native regions of this Duck are the northern parts of Europe, Asia, and America. It is numerous in Russia and Norway, and occurs also in Iceland, the Faroe Islands, Lapland, Sweden, Denmark, Holstein, Holland, Pomerania, Germany, France, Italy, and Switzerland. Thus again in Siberia, and Kamtschatka; as likewise in Labrador, Hudson's Bay, and the countries about it, stretching sometimes so far south as Georgia.

They breed in "central Norway on the lakes and ponds in the vicinity of the sea; on the islands and between the rocks of the bays of Bothnia and Finland; and are particularly plentiful on the Lake Ladoga. The male and female appear in pairs long before the breeding-season, and are apparently inseparable."

In Yorkshire, one was shot at Bentley, near Doncaster, by the gamekeeper of Sir W. B. Cooke, Bart.; another on the coast in the winter of 1851, as Mr. William Felkin, Junior, of Carrington, near Nottingham, has informed me; it is obtained occasionally on the moors near Huddersfield, at times also, but seldom, near Burlington. In Oxfordshire, specimens have been seen

near Oxford in severe winters. In Berkshire, one near Wargrave, in January, 1795. In Cornwall, the species has occurred near Falmouth, on the River Truro, and the Carrack road. One, a female, at Helford, December 4th., 1850. In Suffolk, a male bird was procured at Aldborough, in January, 1848, and a female on the River Orwell a few days afterwards. One also off Felixstowe, as T. J. Wilkinson, Esq. has written me word. In Westmoreland, one, a male, was shot on Windermere, on the 23rd. of May, 1848; a female was observed about the same time. In Norfolk, they are occasionally shot in hard winters, on the coast, but not exclusively so; several were procured in the very severe one of 1829-30. Devonshire is also given as a locality, if indeed that may be called such where the bird is not localized, and is only of chance and sparse occurrence.

In Scotland it is not uncommon in the Frith of Forth. They are common in Orkney, especially about Damsay Sound; also in the Hebrides. In Shetland they are more rare.

They have occurred likewise in Ireland—near Dublin.

These birds keep about the mouths of large rivers and other waters in the neighbourhood of the coast, retiring in winter to the open sea, the "Great Highway" not only for those "who go down to the sea in ships, and occupy their business in great waters," but for all those creatures of the hand of the LORD, who "take their pastime therein," both "feathered fowls" and "things creeping innumerable."

These Ducks arrive in September, October, and November, later or earlier according to the season, and begin to depart northwards in March. Their migration is made during the night-time.

They assemble in winter in small flocks of from three to six, or larger ones of from ten to twelve or twenty, and are for the most part not shy; single birds are at times seen. The mother shews much anxiety about her young, if approached.

They dive with great readiness even from the first, and are pre-eminent in the exercise of the art, if that indeed can be called an art, proficiency in which is innate, and not acquired. All animals that can swim, do so naturally, and without instruction, man being the only exception to the rule. On the land they are awkward in their movements, and walk but badly. Their flight is somewhat heavy if made only for a short distance, but when more extended is performed with greater speed.

Their food consists of mussels and other shell-fish, crustacea, worms, the fry of fish, and the buds and roots of different water-plants.

Its note is a short squeak, by no means, says Audubon, unpleasant to the ear.

They hatch, it is said, very late—seldom before the middle of July.

Audubon writes of this species, that they “begin to form their nests from the 1st. to the 10th. of June. The nests are placed within a few feet of the borders of small lakes, a mile or two distant from the sea, and usually under the low boughs of the bushes, of the twigs of which, with mosses and various plants matted together, they are formed. They are large and almost flat, several inches thick, with some feathers of the female, but no down.” They are also found on hummocks, or in long grass among willow swamps.

The eggs are usually six, but sometimes eight or ten in number, of a uniform pale cream-colour, tinged

with green. The males leave the females after incubation has commenced.

A pair had bred on the same water for six or seven years in succession. The young did not quit the pond until they were able to fly; as soon as that is the case the mother bird escorts them to the sea.

Male; weight, about three pounds two ounces; length, one foot ten or eleven inches. The bill, which is broad, is yellowish orange margined with black, the base of the upper mandible raised into a knob, also black on the upper part; the tip of the nail darker orange than the remainder. Iris, pale yellowish white; behind, and rather lower than the eye, is an angular space of pure white; the eyelids are also white, the eye small. The head, which is large, on the crown, and the neck, nape, chin, and throat, dull black; breast, black; back, intense velvet black.

The wings, which have the first quill the longest, are crossed by a white bar; with this exception, the whole of the remainder of the plumage the same, namely, the greater wing coverts, which are tipped with white, are otherwise, as the lesser wing coverts, primaries, secondaries, with the exception of the white tips, tertiaries, greater and lesser under wing coverts, tail, of fourteen feathers and short, and the tail coverts—also intense velvet black. Legs, scarlet red on the inner part, and red with a tinge of orange on the outer; the joints are stained with black; toes, orange red; claws, black; webs, dark brownish black.

The female is not so large as the male. Bill, dusky, the knob at its base is much less than in the male; between it and the eye, and behind the eye, are greyish white spots. Forehead and the sides of the head below the eye, dull brownish; crown, neck, and nape, dark

brownish, the tips of the feathers lighter; throat, white marked with dusky specks; breast, ash-coloured brown, streaked and spotted with dusky brown; back, dusky brownish black, the tips of the feathers paler. Primaries, deep brown; the secondaries are tipped with white. Tail, hoary brown. Legs and toes, yellowish red.

The young male has from the first the white spot over the eye; there is also a small white patch under the chin. The whole of the remainder of the plumage, or to speak more strictly, the down, is of a black colour. There is a general resemblance to the female, and the feet, according to Audubon, first begin to shew their brilliant colour.

COMMON SCOTER.

BLACK SCOTER. WHILK.

<i>Anas nigra</i> ,	PENNANT. MONTAGU.
" <i>cinerascens</i> ,	BECHSTEIN.
<i>Oidemia nigra</i> ,	FLEMING. SELBY.

Anas—A Duck.*Nigra*—Black.

IN Europe the Scoter ranges in its geographical distribution from Denmark, Lapland, Finland, and Russia, to Holland, France, and Italy.

In America, from the northern parts to the United States. It occurs also in Asia, in Siberia, and Kamtschatka.

It breeds in Iceland, but not in any great numbers.

It is found along the shores, especially of rocky coasts, and though compelled to leave these for a time, while engaged with its nest and eggs, it even then keeps to the vicinity of such, in the choice which it makes of a temporary home in some adjacent lake, pond, or bog.

This bird has been obtained in Yorkshire, near Doncaster, in severe winters, also in the neighbourhood of York, Selby, and Burlington, and on the moors about Huddersfield. In July, 1834, a very large flock appeared on the waters in Bretton Park, near Barnsley, and great numbers of them were procured. A specimen was shot on a small stream quite in the town of Louth, Lincolnshire, and at least a dozen miles from the sea, in the year 1850, by the Rev. William Marsden, as the



Rev. R. P. Alington has told me. In Cornwall it has been obtained on the River Truro, and Carrack road, and one was found dead on the beach at Flushing. In Hampshire they have been seen near Christchurch, and about the Isle of Wight.

In Oxfordshire these birds are very frequently seen in the winter; flocks have also occurred in Cambridge-shire. In Suffolk a specimen occurred at Beccles, in February, 1848; and another was met with on the coast. They frequent Windermere, in Westmoreland, every year. Fourteen were seen, and two of them shot the first week in July, 1848. In Norfolk they are common in some winters about Yarmouth, and occasionally occur inland. The young bird has been noticed by the Messrs. Paget, and others, in June and July. In Surrey one was shot on the canal at Farnham, on the 2nd. of November, 1844. In Wiltshire, one on the ornamental water at Stourhead, the seat of Sir Richard Colt Hoare, Bart., a distance of twenty miles from the sea.

In Orkney the Scoter is not very common as a winter visitant. One was shot in Sanday, in the winter of 1848-9, by W. Strang, Esq.

In Ireland it occasionally occurs. So also in South Wales, from whence Colonel Montagu received some specimens.

Meyer says, "The adult males leave the breeding places about the end of July; the young birds migrate in August, and the greater numbers of intermediate ages and the females follow soon after; thus the larger flights arrive in September and October. By the latter end of March, and the beginning of April, the northern migration takes place." On these occasions they fly in a slanting line.

They assemble at times in immense flocks, and cover

the surface of the sea to a great extent. Considerable numbers are taken now and then in the nets of fishermen. They are difficult to be approached.

This species dives in an admirable manner, and is able to keep under water for a more than ordinary length of time. It resorts to this mode of escape, if pursued, in preference to taking wing.

"Its flight is tolerably quick, sometimes very high in the air, and always accompanied with considerable noise, produced by the beating of its wings. On alighting it skims the surface for some distance." It may more frequently be seen flying at a low elevation above the surface of the water, and straight forward, from one spot to another. It walks in a clumsy manner, and in a rather upright position, so as to preserve the "balance of power."

The food of these birds consists of crustacea, mollusca, mussels and other smaller shell-fish, and sea insects.

The note of this Duck is rough and grating. That of the male has been likened to the monosyllables "tu, tu, tu," and that of the female to "ra, ra, ra."

The nest of this Duck is described as being placed by the side of water in the most unfrequented situations, often far inland among brushwood or on stony ground; and made of grasses, twigs, and the dry leaves and stalks of plants under the shelter of a willow or birch, or in a tuft of herbage, the down of the bird itself being made use of for lining.

After the female has laid, the male birds collect together in flocks, and repair to the coast.

The eggs are from five or six, to seven or eight, or nine, in number;—Thienemann says as many as ten, of a pale buff colour, tinged with green.

Male; weight, about two pounds nine ounces; length,

one foot six inches, or over; bill, black, and grooved along the edges, where it is broad and flat. There is a knob of the same colour at the base of the upper mandible, and a space along the ridge of orange yellow. The rim round the eye is of the same colour. Iris, dusky brown. Head, black, with a tinge of glossy purple blue; crown, neck, nape, chin, throat, breast, and back, black.

The wings, which are short, have the second quill feather the longest. The first is strongly notched at about half its length. Greater and lesser wing coverts, primaries, secondaries, tertiaries, greater and lesser under wing coverts, tail, of sixteen sharp-pointed feathers and wedge-shaped, the middle ones being the longest, all, as also the tail coverts, black. Legs and toes, dusky reddish black; webs, nearly quite black.

The female has the bill dusky black; the knob scarcely raised. Head on the sides, paler than the rest; crown, neck, and nape, blackish brown, the edges of the feathers being of a lighter hue; chin and throat, greyish white. Breast, paler brown than the upper parts, and the feathers of a silky texture; back, blackish brown, the feathers edged with a paler shade. The greater and lesser wing coverts have also the edges a little lighter; under tail coverts, dark brown. Legs and toes brown, with a tinge of green; webs, almost black.

The young resemble the female at first. Towards the winter, the sides of the head, neck in front, and on the sides, and chin, dull greyish white, The breast mottled with brown and white. The orange on the bill shews itself by degrees.

SURF SCOTER.

Anas perspicillata,
Oidemia perspicillata,

TEMMINCK.
 FLEMING. SELBY.

Anas—A Duck.

Perspicillata—.....?

THE Surf Scoter belongs to the cold north, but the Arctic winter is too severe even for it, and it makes its way southwards at that season, and comes down so far as Florida, by Labrador, the Gulf of St. Lawrence, Hudson's Bay, Baffin's Bay, Newfoundland, and the other intermediate districts of the American continent.

In Europe it occurs on the Norwegian and Swedish coasts; and one, a female, was found on the Rhine. Individuals have also occurred in Switzerland and France.

In Cornwall one was found near Pendennis Castle, Falmouth, in the winter of 1845.

In Scotland an individual was shot in Musselburgh Bay, in the spring of 1852. Others also on the Frith of Forth; and in "The Naturalist," old series, volume iii., page 420, mention is made of the occurrence of a specimen.

In Shetland one was seen in Rôna's Voe, by Mr. Robert Dunn, in June, 1847. In Orkney Surf Scoters appear in small flocks in the sounds during winter.

In Ireland a specimen was obtained near Belfast.

The Surf Scoter in summer resorts to the mouths of rivers, and fresh-water lakes in the neighbourhood of the sea, but this only for the purpose of rearing its



SURF SCOTER.

young, for at other times, as its name conveys, it is a bird of the sea, and delights to float among the heaviest breakers of the "rolling deep," over which it makes its way with buoyant ease.

These birds arrive in October, and remain till the end of March.

They assemble both in small and large flocks, and are said to be shy in their habits, and not easily approached.

They feed on mussels and other small shell-fish, and also on the shoots of water-plants, grasses, and flags.

Their cry is described by Audubon as rough, uncouth, and guttural.

The nest of this species, placed on the coasts of inland seas, and by the borders of lakes, is formed of dry and withered weeds, flags, and grasses, in the midst of a hummock, or tuft of grass. The down of the bird itself serves for the lining. The hollow of the interior is said by Audubon to be six inches across, by two and a half in depth.

The eggs are four, five, or six in number, and of an oval shape; their colour pale yellowish or cream white.

The males are said to leave the females till the young are able to fly.

Male; length, one foot nine inches; bill, orange yellow, with a knob at the base of the upper mandible of vermilion red, on each side of it a patch of black and of silver grey; iris, pale yellowish or cream white; on the forehead is an angular white patch; crown, neck, and nape, glossy black, with the exception of another white patch on the last named, brought down from the back of the head. Chin, throat, breast, and back, glossy black.

The wings have the first and second quill feathers of nearly equal length, and the longest in the wing, but the first rather the longest. Greater and lesser wing coverts, primaries, secondaries, tertiaries, greater and lesser under wing coverts, tail, of fourteen feathers, and the tail coverts, glossy black. Legs and toes, yellowish or reddish orange; webs, brownish black.

The female is dusky brown; bill, yellowish grey, the prominence at its base is small, and of a dusky colour. The patch on the forehead is pale brown, as is the other on the nape; the sides of the head paler brown than the remainder of the plumage. Crown, neck, and nape, sooty brown, the latter paler than the other parts. Chin, throat, and breast, also rather light sooty brown. Back, greater and lesser wing coverts, primaries, secondaries, tertiaries, greater and lesser under wing coverts, tail, and tail coverts, sooty brown. Legs and toes, greyish brown.



RED-HEADED DUCK

RED-CRESTED WHISTLING DUCK.

RED-CRESTED DUCK. RED-CRESTED POCHARD.

Anas rufina,
Fuligula rufina,
Mergoides “

TEMMINCK.
 GOULD. SELBY.
 EYTON.

Anas—A Duck.*Rufina*—Rufus—red.

THIS curious-looking bird is a native of the south-eastern parts of Europe, and the middle and eastern portions of Asia. In the former it is plentiful in Italy, especially in the south, Dalmatia, the south of France, Switzerland, Austria, Germany, Turkey, Greece, and Hungary, in which last it is said most frequently to breed, and in the latter occurs in Persia, Himalaya, and the Dukkun, in India, the south of Siberia, Tartary, and about the Caspian Sea. Specimens were also procured from the north of Africa by Sir Thomas Reade, and from Barbary, in the same region, by Shaw.

Its natural resorts are fresh-water lakes, rivers, ponds, pools, and bogs, whether with or without the accompaniment of the native forest, and to these it keeps, preferring the water to the land. It appears to be but rarely seen on the sea-coast, as not sharing with others of its tribe in a natural predilection for “the Sea! the Sea! the open Sea!”

The first occurrence of this species in England was at Boston, in Lincolnshire, where a male was shot in

the month of January, 1826; it was at the time in company with some Wigeons. Several more were procured the same winter; some of them in the London markets. Mr. E. Newman, in the "Zoologist," page 4166, records the occurrence of another example at Boston, in Lincolnshire, in January, 1854. One was shot in Cornwall, at Swanpool, near Falmouth, in February, 1845. Another of these birds was shot at Horsea Mere, in Norfolk, on the 12th. of January, 1844; one also at Yarmouth, in the same county. In Essex, one was met with near Colchester. In Kent, a flock of eighteen appeared near Erith, on the estate of the Hon. W. T. T. Fiennes, and one of them, a female, was procured. Mr. W. Brooks Gates, of Derngate, Northampton, has informed me of the occurrence of a specimen in that lordship, in January, 1853.

They appear, so to speak, to be far from shy in their wild state. In their habits they are sociable among themselves, and consort closely together in flocks.

They fly well, and swim and dive with great dexterity.

Their food is said to be composed of water-plants, small frogs, the fry of fish, insects, and crustacea; the last-named sought and found by diving or dipping the head under water.

Their note is described as hoarse—in unison with their name, which is not euphonicous.

The nest of this bird may be termed a bed of rushes.

The eggs are stated to be six or seven in number, and of an uniform olive brown colour.

"The young are able to fly about the beginning of July; the female is much attached to her young, but the male leaves the nursery as soon as the female begins to sit."

Male; length, one foot nine or ten inches; the bill

is of a very rich vermilion red colour, the nail also red, but paler; iris, bright red. A crest of long elongated feathers of a silky texture and dull yellow colour surmounts the crown; head on the sides and neck on the upper part, rich chesnut brown with a tinge of rose red; nape and lower part of the neck, dark brownish black. Breast, rich dark blackish brown, the feathers on the sides edged with dusky brown and white; back, pale greyish or yellowish brown, with a spot on the sides, on the upper part near the neck, of white, tinged with rose red. The white patches are tinted, while the bird is living, with a most delicate and beautiful rose-colour. The same is the case with the other white parts of the plumage, but the tinge is more faint.

The wings have a white patch at the joint; the first quill feather is the longest; greater and lesser wing coverts, greyish or yellowish brown; primaries, at the base, white tinged with rose-colour, the remainder greyish brown; the secondaries have the outer webs white, thus forming the speculum, which is white with a roseate tinge, and edged with slate-colour; tertiaries, greyish or yellowish brown. The tail, pale greyish brown; upper tail coverts, dark brownish black with a reflection of green. Legs and toes, vermilion red; webs, dusky black.

In the female the bill is brownish red, and therefore not so bright-coloured as in the male; the crest is wanting in development. Head on the sides, dull brownish white; forehead and crown, dark brown; neck on the back and nape, brown; on the sides the neck is greyish or brownish white; throat, also dull brownish white; breast above, yellowish or reddish brown, some of the feathers edged with a paler shade; on the middle

part greyish or brownish white; back, pale yellowish or rufous brown, some of the feathers edged with a lighter colour. The wings have the shoulder greyish white; primaries, dusky; the speculum on the secondaries is greyish white. Tail, yellowish brown. Legs and toes, reddish brown.

In the young male the bill is bright vermilion red, the tooth white; iris, bright vermilion red; head on the sides, light chesnut, the feathers elongated towards the future crest; neck, chesnut; neck behind lower down and nape, dark brown; breast below, light brown; back above, light brown; over the shoulder of the wing is a white patch. The wings underneath are white, with a faint tinge of pink; greater and lesser wing coverts, greyish brown; the primaries are dusky at the tip and on the edges; the shafts and part of the remainder white; the speculum is white. Tail, grey brown; upper tail coverts, dark brown; under tail coverts, also dark brown. Legs and toes, orange; the webs black.



POCHARD.

POCHARD.

RED-HEADED POCHARD. COMMON POCHARD.

POCHARD DUCK.

DUN BIRD, (FEMALE.) RED-HEADED WIGEON.

Anas ferina,
Fuligula ferina,
Nyroca "

PENNANT. MONTAGU.
 SELBY. JENYNS.
 FLEMING.

Anas—A Duck.*Ferina*—.....?

THE species of bird before us extends in its geographical range over a great portion of the continents of Europe and North America, going as far south in the last-named as Louisiana and Carolina; and is very plentiful in the states of Illinois, Indiana, Ohio, and Kentucky. They breed in the Fur Countries in the extreme north. Many likewise in various parts of Germany, Russia, and Holland. Some also, apparently, in France. They are taken too in Italy, and are found in Denmark and Sweden. In Asia the species occurs, namely, in India. It is recorded to have been met with in Africa—in Egypt.

In England it is, or used to be, the most abundant in Lincolnshire and Norfolk, but the drainage of the fens has made a great difference in its numbers. It is seen still on Croxby Lake, and elsewhere.

It haunts inland lakes, rivers, brooks, ponds, and

ditches, whose banks afford a shelter of alders, willows, reeds, and rushes; and other trees and plants, and also frequents the sea-coast.

The Pochard breeds in considerable numbers at Hornsea Mere, in front of Wassand, the seat of the late Rev. Charles Constable, in Yorkshire. It is met with in many parts of the county, more or less commonly, as about Doncaster, York, Leeds, Sheffield, Hebden Bridge, Barnsley, and Burlington. It occurs more or less frequently in Northamptonshire, the Hon. T. L. Powys has informed me. In Cornwall, Mr. Cocks quotes it as common in the market at Falmouth, January 19th., 1850. In Oxfordshire they are very frequently seen in the winter; so also in Cambridgeshire and Norfolk, and have been known to breed in the latter county, at Scoulton Mere. In Derbyshire they have occurred on the Trent; also in Durham. In Surrey fifty or more have been seen at Godalming.

In Orkney they abound on the Loch of Skaill, and various other sheets of water in divers parts. In 1831 one was shot in Sanday, so late as the 28th. of June. It seemed, however, to be a solitary bird. I quote, as in so many other instances, from the "Natural History of Orkney," published by Dr. W. B. Baikie, and Mr. Robert Heddle.

In Ireland they are common.

In Scotland, Sir William Jardine has shot one or two in Dumfriesshire, and they are frequently on sale in the market at Edinburgh.

They frequent fresh-water lakes, marshes, and rivers, as also the mouths of the latter when they join the sea, and the coast.

The Pochard is a winter visiter to us, arriving in October and November. The northern migration is

carried on, it is said, in the month of March.

During the day-time these Ducks keep to the sea, and towards night come in to the streams. They are to a considerable degree marine birds. They are in much estimation for the table, but when they have fed by the sea lose the flavour which they otherwise are considered to possess.

They swim, like other birds of their class, with great speed, and dive with much expertness, keeping for a long time beneath the surface. They seem to lie rather deep in the water. They fly with tolerable quickness, but with some exertion, the wings being moved with short and quickly-repeated strokes. They go in a body, and not in a straight or diverged line. On the dry land they make indifferent progress.

Their food consists of the stems, shoots, roots, seeds, blossoms, and leaves of various water-plants, obtained both by diving and otherwise, as also of tadpoles and young frogs, lizards, the fry of fish, insects, crustacea, and mollusca.

Mr. Yarrell mentions that when these Ducks are not excited or alarmed, their note is a low whistle, but that at other times it is a rough croak.

Meyer says, "about the end of April the Red-headed Pochards pair; there are no quarrels between the male birds, for the female is said to choose her own mate; and the pair remain inseparable, and do not quit the spot until the young brood are hatched and ready to follow them towards the larger lakes, etc., where they consider them out of danger."

The nest of the Pochard is made among rushes or other coarse herbage, and is lined with feathers. Many nests are placed near each other, in suitable localities, such as osier beds or grassy places.

The eggs are from eight or ten, to twelve or thirteen in number, and of a buff white colour.

The Pochard bred, in the year 1855, in the gardens of the Zoological Society, as Frederick Bond, Esq. has written me word.

Male; weight, about one pound thirteen ounces; length, about one foot seven inches and a half; bill, greyish blue across, black at the tip and about the base; iris, reddish or yellowish orange. Head on the sides and crown, deep glossy chesnut brown; neck in front, shading into deep brownish black on the breast; nape, brownish black. Breast above, deep brownish black, and on the sides dark dusky grey, marked with waved darker lines; and below the same, but paler. Back on the upper part, brownish black; on the middle and lower part, fine greyish white, with black waved pencillings.

The wings expand to the width of nearly thirty inches; the first quill feather is the longest; greater wing coverts, bluish grey; lesser wing coverts, greyish white, but darker and pencilled across with black; primaries, dark dusky brown, ended with darker brown; secondaries, bluish grey, tinged with brown, and narrowly tipped with white; tertiaries, freckled over with fine pencillings of grey, on a white ground. Tail, dusky greyish; it consists of fourteen feathers; upper tail coverts, nearly black; under tail coverts, black. Legs and toes, greyish blue; webs, bluish black, and large in size.

The female has the bill black; iris, brown; head on the crown, and neck on the back, sides, and nape, dusky greyish brown, with some ferruginous. The lower part of the neck in front is dark brown, with a tint of dark red. Chin and throat, pale greyish white, with an admixture of reddish brown. Breast above, dark reddish brown, the edges of the feathers mottled with

reddish white. There are some brown spots on the sides; below the breast is greyish white clouded with brown. Back on the upper part, reddish brown; under tail coverts, dark grey.

In the young male the black on the breast does not appear till the second year. Previously the plumage resembles that of the adult female.

Mr. Selby describes a variety shot on the Northumberland coast, in which the head and neck were bright reddish orange, passing into reddish white upon the crown; the breast very pale brown, with a silky lustre; all the rest of the body greyish white, with numerous very fine zigzag lines of a darker shade; the quills and tail plain greyish white. Legs and toes, ash grey, with the webs darker.

Sir William Jardine mentions another variety which was of a pale tint of cream-colour, yet having all the colours marked in their particular places.

A variety of Duck, a male, of a kind supposed at the time, by W. R. Fisher, Esq., and Mr. Yarrell, to be a hybrid between the Pochard and the Ferruginous Duck, and described as such by the former accordingly in the "Zoologist," volume iii., pages 437-8, and afterwards, as hereafter mentioned, as a new species, under the title of '*Fuligula ferinoides*,' or Paget's Pochard, but since considered, by Frederick Bond, Esq., to be intermediate between the Pochard and the Scaup, was obtained on Rollesby Broad, near Yarmouth, on the 27th. of February, 1845. The following is the description of it:—

Iris, yellowish white; head, crown, and neck, rich chesnut; the feathers on the lower part of the breast changing from yellowish brown to freckled. Back, freckled. The wings longer than those of the Pochard;

the feathers of the axillary plume freckled at the end; greater and lesser wing coverts, freckled.

Subsequently a second specimen, similar to the before-mentioned one, was purchased by Mr. Bartlett, in the market, London, and this was described by Mr. Yarrell, under the name of the American Scaup, 'Fuligula mariloides,' of Vigors, who considered that there might prove to be two American species; the one the British Scaup, though a smaller bird there than here, and the other a larger species, also known and alluded to by Dr. Richardson, Swainson, and Sir William Jardine, in a note to his edition of Wilson. I believe, however, that American birds of our kinds are uniformly larger than with us, and I should therefore rather look for a second species in the smaller sort spoken of.

A third specimen was also obtained in Leadenhall market, by Mr. Henry Doubleday. This was at first imagined to be of the same species as Mr. Yarrell's American Scaup, but was then considered, by Mr. W. R. Fisher, as a new one, and was figured and described by him under the name of Paget's Pochard, 'Fuligula ferinoides,' in the "Zoologist." The following is the description, as given by Mr. Fisher:—

"The specimen of this bird which I have mentioned in the possession of Mr. H. Doubleday, and which is represented in the foreground of the cut at the head of this paper, is supposed to be in the adult dress, and has the bill black at the point and at the base, the remaining portion being pale blue; the irides yellowish white; the head and upper part of the neck of a rich and very deep chesnut, finely glossed with purple; the lower part of the neck and breast, black; in the younger birds the neck almost wants the purple gloss, and is of a lighter colour, the breast being also at first

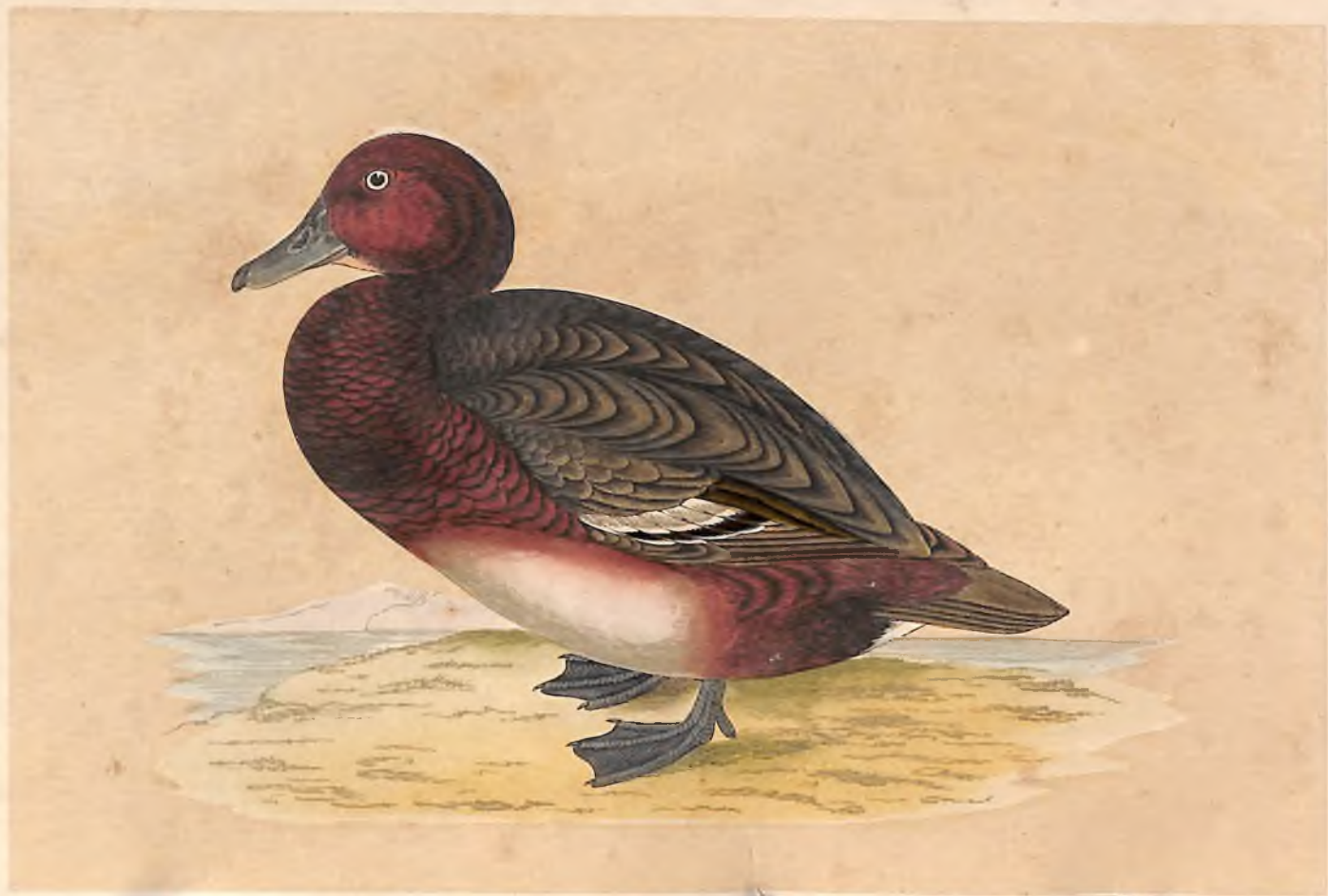
not much darker than the neck; the back and wing coverts are minutely freckled with greyish white on a black ground; the sides and flanks, both under and below the wings, are in the immature bird like the back, but in the adult lighter, the freckling being produced, as in the back of the Common Pochard, by lines of black on a white ground; the back and wing coverts are also darker in the immature than in the adult bird, and are tinged with yellowish brown; wing coverts, very dark brown, slightly powdered with greyish white; the primaries, light brown, broadly edged with dark brown, except the first, which has the whole of the outer and great part of the inner web dark brown; all the visible part of the secondaries, white, slightly powdered with grey, and forming a white bar across the wing; about a quarter of an inch near the ends of these feathers is black, and the tips are white in the immature bird, but in the adult the white is hardly visible; at both ages the uppermost feathers of the speculum are of a more uniform grey than the lower, and more or less edged with black; the rump and upper tail coverts, black, this colour being spread over a much greater extent in the adult than in the immature bird; on the chin is a small triangular spot of yellowish white; the lower part of the breast and belly, in the immature specimen, yellowish brown mixed with light grey, and slightly freckled with black; the yellow colour giving place to the grey, and the part becoming darker as the bird attains maturity; the feathers about the vent are in the immature birds white at the sides, and freckled with dark grey in the centre, the youngest bird also exhibiting in this part a good deal of yellowish brown; in the adult entirely of dark grey; the legs and toes, dark bluish grey; the webs and claws, black. The total

length of Mr. Bartlett's bird was seventeen inches and a half.

This species may be distinguished from '*Fuligula ferina*' externally, by its smaller size; the much smaller space occupied by the black colour at the base of the bill; the yellowish colour of the irides; the greater extent of the dark colour on the breast, which reaches further both upwards and downwards, than in the common species, and is, I think, at no age in such strong contrast with the colour of the neck and head, and by the purple tint and finer texture of the neck and breast feathers, by the white bar on the wing, and by the much darker tint of the freckled parts.

Internally, the eye, when removed from the head, was, in Mr. Gurney's bird, found to be considerably larger than that of '*Fuligula ferina*.'"

Mr. Fisher, however, has recently, in a letter to me, expressed his doubt whether the bird is not a variety between two species, and such I think it to be. I have endeavoured to give a concise and clear view of the different accounts and opinions, which at first sight, must seem to a casual reader to be somewhat confused. It appears on the whole to be concluded that the supposed new species must be assigned to the '*Index Expurgatorius*.'



FERRUGINOUS DUCK.

FERRUGINOUS DUCK.

WHITE-EYED DUCK. RED DUCK. CASTANEUS DUCK.

Anas ferruginea,
Fuligula nyroca,
Nyroca leucopthalma,

PENNANT. MONTAGU.
 SELBY. JENYNS.
 FLEMING.

Anas—A Duck. *Ferruginea*. *Ferruginous*—Rust-coloured.

In Europe this Duck is found principally in the eastern parts, namely, in Russia, Italy, and Hungary, but also in Iceland, Sweden, Denmark, Norway, Spain, France, Holland, and Switzerland, though only rarely in the latter-named country. In Asia it also occurs in Persia and India; and in Africa, in Nubia and Egypt.

It attaches itself for the most part to the sequestered parts of fresh-water lakes and rivers, and at times to the bays and estuaries of the sea.

In Yorkshire a Ferruginous Duck was taken in a decoy in Coatham Marsh, near Redcar, by the mouth of the Tees, on the 17th. of March, 1850.

Mr. Chaffey, of Dodington, Kent, has informed me that one was killed off the coast near Dover, in the winter of 1849-50. In Oxfordshire a bird of this species was shot at Cornwell, near Chipping Norton, December the 3rd., 1847. A pair were killed near Oxford, in the year 1832; another pair subsequently. In Suffolk one was shot on the coast early in April, 1848. In Norfolk one, a male, was shot by the Meer, Great

Yarmouth, on the 16th. of April, 1850. It has occurred in that neighbourhood in a few rare instances. A specimen was purchased in the Cambridge market. Several have been bought in London.

This bird has been observed in Orkney, though very rarely. In Scotland Sir William Jardine procured one, but only one, in the Edinburgh market.

In September and October this Pochard migrates southward, and returns in March and April.

The present species is kept well in confinement, if provided with water. It is reported to be very good to eat.

It swims with the greatest expertness, and dives equally well, remaining a long time below the surface. In flight it is somewhat heavy. It generally flies low, except when on its migration.

It feeds in the mornings and evenings, and at night, if there be moonlight, the roots, buds, shoots, and seeds of various water-plants composing its food, together with frogs, water-insects, and the fry of fish.

The note is a 'curr, curr.'

This Duck, like the others of its kindred, builds its nest near rivers, ponds, and marshes. It is placed among, and composed of, reeds, and other such materials. The male bird leaves the female soon after she has begun to sit. The nest is well supplied with down from the breast of the parent mother, as a lining.

The eggs of this species are white, with a slight tinge of green, and nine or ten in number. They are laid by the beginning of June, and are hatched in twenty-two or twenty-three days.

As Frederick Bond, Esq. has informed me, the Ferruginous Duck bred in the year 1854, in the gardens of the Zoological Society, London; and that it paired

in that or the preceding year with the Tufted Duck.

The female conducts her brood to the water as soon as hatched, and there provides them for the present with food.

Male; length, one foot four inches to one foot four and a half; bill, dark bluish grey, the tooth dusky; iris, white; the head, which is small, and neck, deep chesnut red; this is succeeded by a band of darker colour, or blackish brown, which, about the nape, runs into the colour of the back. Chin, partly white, dull in colour; throat and breast on the upper part, bright ferruginous, the latter below yellowish white or white, the sides dusky with broad pale grey or ferruginous brown edges; back, dusky blackish brown, with a gloss of green and purple finely powdered or speckled with reddish brown.

The wings have the first quill feather the longest; greater wing coverts, white at the base, forming a bar across the wing, and otherwise rather light dusky brown, glossed with green and purple, and finely speckled with reddish brown; lesser wing coverts, rather light dusky brown glossed with green and purple, and finely speckled with reddish brown; primaries, dusky blackish brown glossed with green, part of the inner webs white, and the bases; secondaries, black at the ends, the remainder, including the speculum, white, below it a black band edged with greyish white; tertiaries, dusky brown glossed with green and purple, finely speckled with reddish brown. The tail, of fourteen feathers, is dusky brownish black, with a faint tinge of ferruginous—it is slightly wedge-shaped; upper tail coverts, dusky ferruginous black, which colour comes downwards on the sides, distinctly contrasting with the white of these parts; under tail coverts, white, shewing a triangular-

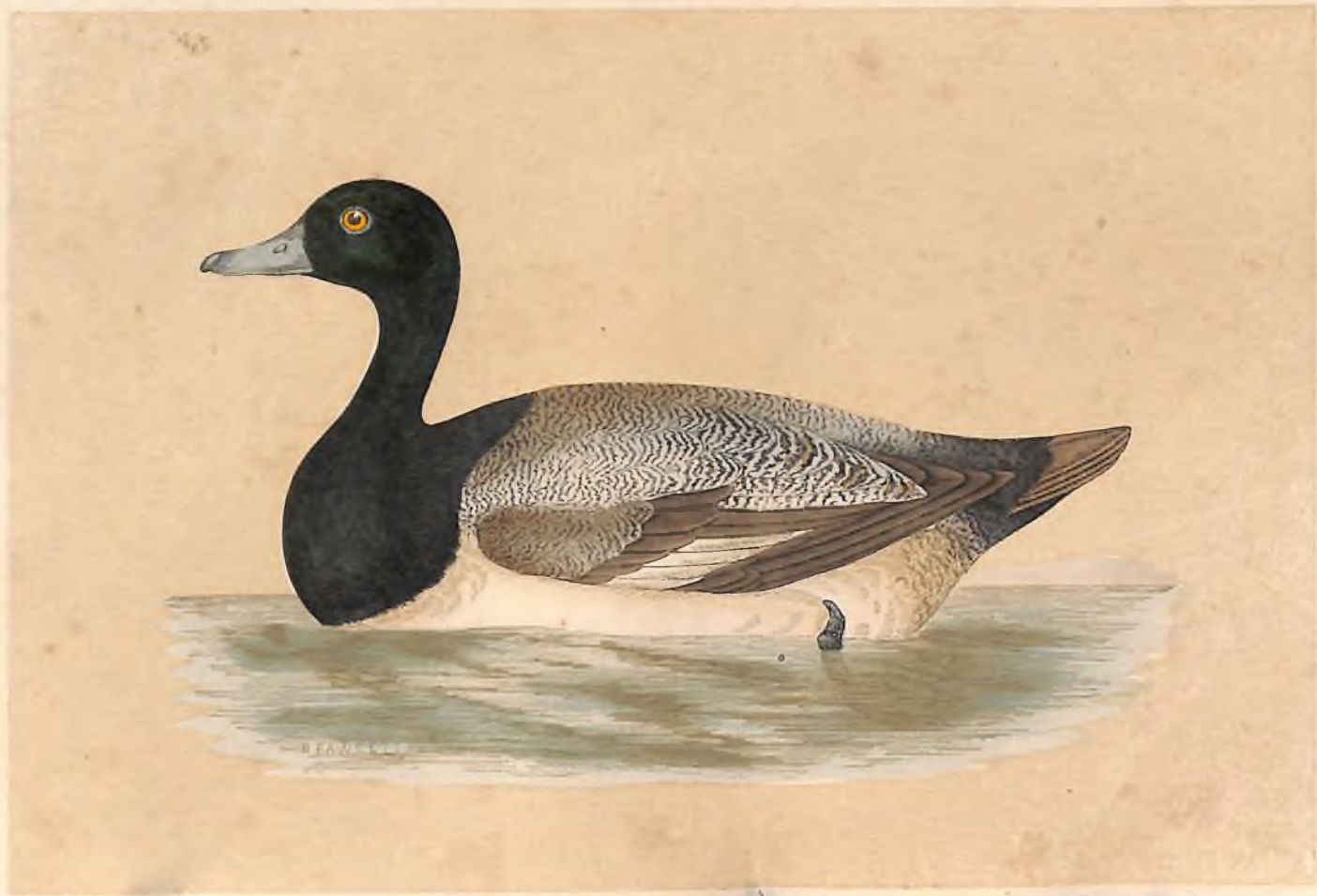
shaped spot. Legs and toes, which are rather large, dusky brownish grey, the middle toe is rather longer than the outer one; claws, black; webs, dusky.

In the summer change of plumage, the male resembles the female, but is somewhat brighter-plumaged, the spots not so large, and more on the white of the breast.

The female, rather less in size than the male, and her colours less pure, especially the chesnut and white on the breast, has the bill blackish grey; iris, not so distinctly white; head, crown, and neck, dark brown, with edgings of reddish or chesnut brown to the feathers, the sides of the head the brightest coloured; the ring round the neck is indistinct; the white on the chin is less extended than in the male. The breast above, brown, the feathers margined with pale chesnut brown, lower down mottled all over with dusky and pale brown, below white, on the sides and flanks yellowish brown; back above, deep glossy dusky brown, with paler edgings to the feathers, below dull white. The ridge of the wings is white; primaries, greenish black at the ends, light-coloured towards the base; secondaries, white tipped with greenish black, thus exhibiting the speculum. Tail, blackish brown; the upper tail coverts do not descend to the sides with the black markings; under tail coverts, white. Legs and toes, blackish grey.

The young is of duller tints, the upper parts being of two shades of brown, and the lower dusky brownish grey; by degrees, however, it appears 'in propria persona.'

The plate is from a beautiful drawing taken from life by John Gatcombe, Esq., of Wyndham Place, Plymouth.



SCAUP

SCAUP.

SCAUP DUCK. SCAUP POCHARD.

Anas marila,
Fuligula marila,
Nyroca marila,

PENNANT.
 SELBY. JENYNS.
 FLEMING.

Anas—A Duck.*Marila*—.....?

THE native countries of this species are those portions of the three continents of the old world, which, under the name of the Artic regions, belong to the frozen north. From these it comes southward in the autumn, to meet a milder winter. To the former category belong Baffin's Bay, Hudson's Bay, the Bay of Fundy, Greenland, Iceland, Siberia, Lapland, Norway, Sweden, Finland, and Russia, and to the latter the United States, and Mexico, Holland, France, Germany, Italy, and Switzerland: in America it is likewise found on the large rivers—the Ohio, Missouri, and Mississippi.

Their preference is for the sea-coast, especially where of a low and muddy character, and from this it advances into lochs near it, estuaries, and the tidal parts of rivers. This remark, however, must only be taken as applying to the winter half of the year. They breed in different parts of Scandinavia, as well as farther north.

They are with us regular visitants to such parts of the coast as are suitable to their habits.

In Yorkshire the Scaup Duck has been shot near

Doncaster, York, Huddersfield, Barnsley, Sheffield, and Sutton-upon-Derwent, and is, on the whole, a not uncommon species in the winter.

It is more or less frequent in the county of Northampton, says the Hon. T. L. Powys, in a letter to me.

In Cornwall one, a female, was shot at St. Keverne, near Falmouth, the 19th. of January, 1850. In Lincolnshire they have been met with on Croxby Lake. In Sussex, near Lewes. In Oxfordshire it is not an unfrequent winter visitant. One was caught on the 24th. of December, 1829, on the basin of water in the quadrangle of Christ's Church College, Oxford, where it had settled in company with two others. In Norfolk these birds are not uncommon about Yarmouth. The same remark applies to the coasts of Dorset and Hants. In Surrey a Scaup was shot on a piece of water near Milford House, Godalming, on the 8th. of December, 1846.

They are winter visitants to Shetland and Orkney.

In Ireland also they are described as common.

In one instance the Scaup Duck has been supposed to breed in this country, namely in Scotland, in Sutherlandshire, where a female attended by her young one was found by Sir William Jardine, Bart., in the month of June, 1834.

They arrive about the end of October, or beginning of November, according to the weather, and stay till March, when they depart to the north to build, lay, and rear their young.

These birds appear to go in small flocks of ten or a dozen. On their first arrival, they are naturally tame and ignorant of danger, but soon come to learn the lesson which has to be learnt for their security by most other birds, and become exceedingly shy and wary. They are very readily reconciled to comparative con-

finement, and are in such case said to become good for the table. Many are sold in the markets for the purpose, but without this preparatory change in condition.

They dive well, and remain under water for a full minute. They swim very fast, both on and below the surface, the former deep in the water. Meyer writes as follows of them:—"It is a beautiful sight to observe a string of these birds swimming on the sea, and especially to notice the usual manner in which they rise from that element. When one of the extremities of such a long body raises itself in the air, the rest rise as their turn comes; and thus they are, as it were, drawn up one by one from the surface of the water; and when pursuing their course, they continue to keep the same order in the air; on alighting the same regularity is observed, unless the birds are on their migratory passage, during which time they do not always follow each other so regularly, owing to some being more tired than others." They are compact and thick-set birds, and move themselves in the air with short and quickly repeated strokes of the wings. Selby says that the weight of their body, and the shape of their wings, compel them always to rise against the wind.

They feed on shell-fish, for which they dive to a depth of ten or twelve feet, and in search of, turn up the mud with their beak, from whence, possibly, as has been suggested by Yarrell, its name—as if scoop. The other articles of its diet are small fish, mollusca, water-insects, and plants.

The note is a hoarse sound, and while uttering it, the birds, in the spring-time, while playing their pranks, and sporting on the water, have a habit of tossing the head, and opening the bill.

They appear not to lay before the month of May.

The Scaup builds among the brushwood or other vegetation that is found in swampy grounds or by lakes, or in stony places near these. Very little nest is formed, the materials, such as they are, being dry grasses, stalks and leaves, but the eggs are well covered with down.

These are, it is said, from five or six, to eight or ten in number, of a dull yellowish brown colour.

The bird begins to lay in May.

Male; weight, about thirty-five ounces; length, one foot eight inches to one foot nine; bill, clear pale bluish lead-colour, the tooth curved and black; about the base it is narrower, and dilated towards the tip; iris, light golden yellow. Head on the sides, crown, and neck, dark rich velvet greenish black: the plumage on these parts is full, and of a silky texture. Nape, deep velvet black; chin and throat, dark velvet black, glossed with green; breast above, black, below white, with zigzag pencillings on the sides and flanks, and a yellowish tinge. Back on the upper part, pale greyish white, finely marked with numerous transverse zigzag lines of black, the intervals rather wider, and the markings darker on the lower part.

The wings have the first quill feather the longest, but the second nearly of the same length. They expand to the width of two feet eight inches or more; greater wing coverts, dark purple grey, pencilled with black; lesser wing coverts, black, with transverse zigzag white lines. Primaries, deep dusky black, the inner webs lightest, the ends black; secondaries, black at the tips, the remainder, including the speculum, white, bordered below with black; tertiaries, dark purple grey. The tail, of fourteen feathers, dusky; upper tail coverts, black, inclining to brown; under tail coverts, blackish

brown. The legs, which are short, and the toes long, are blackish blue-grey, with a dull green tint about the joints; webs, dusky black.

After the breeding-season the male assumes temporarily the plumage of the female.

The female is nearly as large as the male. Bill, dark bluish grey or lead-colour, the tooth black. The "head and front" are encircled by a broad yellowish white line at the base of the upper mandible, to the width of about half an inch, and decreasing from thence to the chin; iris, yellow. The head has a whitish spot on the sides towards the back. The feathers on the crown are larger than the others; it, the neck on the back, and the nape, dull or blackish chocolate brown, the feathers tinged more or less with a paler tint, the sides of the head and neck with green. Breast above, dark dull blackish, also with more or less of a paler tint or white on the edges of the feathers; below dull tawny white, the sides and flanks marbled with zigzag lines of white and brown. Back on the upper part, dusky, the tips of the feathers lighter grey, thus barred across with irregular dusky lines, the middle part dusky black, with a tinge of changeable green; below white.

Greater and lesser wing coverts, dusky black, tinged with variable green; primaries, dusky brownish black, with, nevertheless, a glossy lustre; secondaries, dusky brownish black at the tips, the speculum white, with a black border; tertiaries, black, with a tint of olive green. Tail, dark dusky brown, with a glossy tinge; upper tail coverts, dull blackish brown, the feathers more or less margined with a paler tint. Legs and toes, bluish lead-colour; claws, black; webs, dark lead-colour, nearly black.

The young male bird resembles the female, but the

light colour on the back is varied with brown. The young female is less distinct in all the colours, and the zigzag black and white lines are almost entirely wanting.



TUFTED DUCK.

TUFTED DUCK.

TUFTED POCHARD. BLACK WIGEON.

Anas fuligula.
Fuligula cristata,
Nyroca fuligula,

PENNANT. MONTAGU.
 SELBY. JENYNS.
 FLEMING.

Anas—A Duck.*Fuligula*—.....?

THE Tufted Duck is yet another northern species, frequenting, in Europe, Lapland, Finland, Norway, and Sweden, and coming southwards before winter to the warmer climes of Italy, France, Germany, Holland, Switzerland, and Hungary. In Asia, it spreads over parallel districts, and is found in the neighbourhood of the Caucasian range, in Persia, and, eastward, in India, in the Dukkun and Himalaya, as far as Japan. It is stated also to exist in the corresponding latitudes of North America.

Its haunts are the still waters of inland lakes, ponds, tarns, and the estuaries, inlets, and bays of the sea; the former in the summer, the latter in the winter season of the year.

A few pairs of these birds breed in Holland; also in the neighbourhood of Lulea, on the Gulf of Bothnia, and other places in the south; but the vast majority seek the retirement of the north.

In Yorkshire, this species has been procured near

Doncaster, Leeds, Barnsley, Huddersfield, York, Halifax, and divers other places. The Tufted Duck has been not unfrequently obtained in Cambridgeshire. It has also been killed several times in hard winters near Lilford, Northamptonshire, the Hon. T. L. Powys informs me; and is also occasionally seen on Croxby Lake, Lincolnshire, the Rev. R. P. Alington has written me word. In the county of Durham one was shot near Stockton-on-Tees, on the 17th. of March, 1853, and four others, two males and two females, on the 28th. In Norfolk, three were seen, a male and two females, and the former was shot, on the River Wensum, at Cossey, on the 25th. of March, 1848; one was shot at Wroxham Broad, on the 20th. of January, 1849: they are not uncommon about Yarmouth. In Hampshire, one on the River Itchen, near Worthy, October 13th., 1845.

In Scotland, one of these birds was seen by the Rev. James Smith, on the River Doern, near Banff, in Aberdeenshire. Sir William Jardine has shot some on the River Annan, in Dumfriesshire, and noticed others on the waters of Lochleven, in April, 1843. He mentions that it is observed on the Solway.

Tufted Ducks, though not in great numbers, visit Orkney every winter: they are most abundant during severe seasons.

In Ireland they are not uncommon.

In Yorkshire these birds have been known to breed; a family consisting of old and young were observed on Malham water, otherwise called Malham Tarn, near Skipton-in-Craven, in the first or second week in August, 1849, by the Rev. Robert Bryan Cooke, Rector of Wheldrake, near York. The Tufted Duck is known also to stay in some instances through the summer at Hornsea Mere, in Yorkshire. The nest of this bird

has been likewise found at Osberton, Nottinghamshire, by Francis Foljambe, Esq. They have bred in confinement in the gardens of the Zoological Society in the years 1839, 1840, and 1841.

The present species carries on its progressive northerly movement in early March, and continues it till the middle of April, some tarrying till May. Its migration is conducted at night, and chiefly, it appears, when there is no moon.

They roost on the water during the day-time, and consort together in small companies of a few pairs, or in single pairs, as well as in large flocks. They also associate at times with Ducks of other kinds. They seem to be shy birds. They are considered excellent to eat.

They are able to fly with great swiftness, and the wings of a large flock overhead make a considerable noise. They dive well and swim with equal cleverness. Like all the other Ducks, "I'm afloat! I'm afloat!" is the motto they most rejoice in.

Their food consists of water-insects, small shell-fish, and mollusca, young frogs and tadpoles, and the roots, seeds, and buds of plants.

These birds breed along the stony shores of the sides of inland waters, both lakes and rivers, among the cover of vegetation, more or less thick, with which such are usually bordered.

The receptacle for the eggs, for it can hardly be called a nest, is composed of stalks and grasses. It is not made till the end of May or beginning of June.

The eggs vary in number from eight to ten. They are of a pale buff colour, with a tinge of green.

The male bird leaves the female after she has begun to sit.

This species, as Frederick Bond, Esq. has informed me, paired with the Ferruginous Duck, as I have mentioned in the account of the latter, in the year 1853 or 1854. in the gardens of the Zoological Society.

It is a thick-set bird. Male; weight, about twenty-five ounces: Montagu says that they vary according to the condition they are in, from twenty-two to thirty-one ounces; length, one foot five inches; bill, deep bluish lead-colour, a portion of the tip and the tooth black: it is rather widened towards the point. Iris, golden yellow. There is a long dependent crest of very narrow black feathers, with purple and green reflections. The head, neck, and nape, are of the same colour. At the chin is a small triangular-shaped white mark; throat and breast, on the upper part black, the feathers tipped with grey; below, the latter is glossy white, or cream-coloured white, the thighs blackish. Back, dusky olive brown, with a slight violet tinge, very minutely speckled with grey, or yellowish white, which gives a subdued tone to the colouring of this part, the lower portion black.

The wings have the first and second quill feathers of nearly equal length; greater wing coverts, white, the tips broadly finished with black; lesser wing coverts, dusky olive black. The first three or four primaries pale brown, dusky olive black on the outer webs and the tips, the rest more or less white towards the base; of the secondaries the four or five inner ones are dusky olive black, the remainder forming the speculum white, with greenish black tips, and slightly edged with the same colour; tertiaries, dusky greenish olive black, minutely spotted with grey or yellowish white. The tail, which consists of fourteen feathers, and is short and somewhat wedge-shaped, is black; upper tail coverts, black; under tail coverts, black. Legs and toes, dark

greyish blue black; the claws and webs dusky black.

In summer the male assumes a brown plumage, the middle part of the breast white, the lower dull yellowish.

The female is of a dull rufous brown colour, the edges of the feathers paler. The upper mandible is dusky on the inner part, the remainder greyish blue black, and paler than in the male; the feathers about the bill pale yellowish, or whitish; iris, yellow. The crest is small, but partially developed in old birds, and deep rufous brown in colour. The breast on the centre part is yellowish white, but dull, being tinged with grey, or pale greyish brown, below white, with faint waves of pale brown; back, blackish brown, the feathers on the sides tipped with a paler shade. The speculum white; under tail coverts, white, speckled and barred with pale brown. Legs and toes, greyish blue black, paler than in the male.

The young bird resembles the female: the forehead varied with white, the head dark brown, at first without, afterwards with a slight tuft or crest; the upper part of the breast deep brown, below white; the back brown. more deeply bordered with paler brown. The speculum is indistinct. After the moult the males turn much darker, and lose the white feathers about the base of the bill.

LONG-TAILED DUCK.

NORTHERN HARELD. CALLOO. COAL-AND-CANDLE-LIGHT.
 LONG-TAILED SHIELDRAKE. SHARP-TAILED DUCK.

Anas glacialis,
Clangula “

PENNANT. MONTAGU.
 FLEMING. SELBY.

Anas—A Duck.

Glacialis—Belonging to ice.

THIS is yet another of those hardy birds which revel in the cold of the extreme north. It is a well-defined and handsome species.

They are very plentiful in the Hyperborean regions—Iceland, Nova Zembla, Spitzbergen, and others, and on the European continent are found in Russia, Denmark, Norway, Lapland, and Sweden, along the shores of the mainland, as well as among the islands of the Baltic. They have been known, too, in Germany, Italy, France, Switzerland, and Holland. In America they are equally abundant in Greenland and the North Georgian Islands, Labrador, Hudson's Bay, and about Newfoundland, and come southwards, in winter, as far as Carolina; likewise in the northern parts of Asia—Kamtschatka and others.

They frequent the offing of the sea-coast, and at times the lochs in its vicinity, but are rarely seen either inland, or often far out at sea.

In Yorkshire, Edward Dawson, Esq., of Osgodby Hall, shot one, a female, in the month of November, 1852, on



LONG-TAILED DUCK.

Riccall Common. One was shot on the coast in the winter of 1851, as Mr. William Felkin, Jun., of Carrington, near Nottingham, has informed me. It has also occurred near Driffeld, Doncaster, and York. In Oxfordshire one was killed near Standlake in the winter of 1840: the species has also occurred on the River Isis, near Kennington. In Derbyshire some visit the Trent in hard winters. In Durham it has occurred near Bishop Auckland; also on the Cumberland coast. In December, 1849, after a long chase, one of these birds was obtained by Arthur Dymoke Bradshaw, Esq., of Southampton, as that gentleman has written me word. In Huntingdonshire one was killed in January, 1838. In Devonshire a few have been obtained—one near Kingsbridge; also in Dorsetshire, as likewise in Kent, Essex, and Suffolk. They sometimes are on sale in the London markets. In Norfolk the species in the adult state occurs occasionally, though rarely, on Breydon, near Yarmouth, in hard winters. The immature birds are not so uncommon.

In Scotland they are plentiful on the Frith of Forth, and in Aberdeenshire, near Banff. They also appear in considerable numbers in Orkney and Shetland.

In Ireland they rank among the occasional visitants. The counties of Galway and Dublin have furnished specimens. The late William Thompson, Esq., of Belfast, has mentioned his having procured specimens four years successively from that neighbourhood.

During the day-time, if not engaged in feeding, they may be seen off the shore, resting on the rising and falling waves, or every now and then getting on the wing, and "flying round and round in circles, chasing one another, squattering along the surface, half flying, half swimming, accompanying all these gambols with their curious cries. When the storms are at their

loudest, and the waves running mountains high, then their glee seems to reach its highest pitch." Towards night they all fly off together for some favourite resting or feeding ground, so to call what is only a groundswell.

By the end of October or beginning of November, small flocks of these birds assemble in suitable localities in the northern parts of Scotland, from regions still farther north, and during the succeeding months of December and January, according to the severity of the weather, their numbers are added to by fresh arrivals, till large flights are collected together; until this is the case they generally go in small parties of three or four, one a male, the others females. Towards the end of March they begin again to separate, and this goes on till the second or third week in April, or even to the latter end of May, as the season is comparatively mild or severe. In brief, "They arrive with the first frown of winter, and depart with the earliest blink of summer sun." They migrate by night in large flocks.

These Ducks shun the society of other species, and keep their own company alone; so they also soon learn to avoid the approach of man, and make off while the gunner is yet distant: this, at least, after they have learned the wisdom of doing so, for otherwise they are far from shy. In the spring they become "noisy and restless in their movements. There appear to be contentions among the males; and they flutter along the surface, hurrying through each other's ranks, and splashing the water in all directions." They are true sea-birds, and pass almost their whole time on the waves, floating about when not feeding, and taking their rest there at night, "rocked in the cradle of the deep."

In the winter season small flocks of thirty or forty

individuals congregate together to the number of five or six hundred, and cover the surface of the land or water.

Mr. Charles St. John has given a good account of the habits of these birds. They swim well and dive expertly for their food, one keeping watch above while the others are below. They remain down for a considerable time, and when feeding are constant in their descents, after each necessary coming to the surface, dipping under, one after the other, with a curious kind of movement. Thus they drift along with the flowing tide, and ride at ease over the heavy surf, or plunge into the midst of the wildest waves.

"When a thin crust of ice forms during the night, the female may be often seen breaking a way with her wings for her young brood." Their ordinary flights are of short extent, and at no great height above the sea, into which they suddenly drop—their natural home. "Unless it is obliged by some sudden necessity to take wing, it does not prefer that mode of changing its position."

They feed on small shell-fish, mollusca, crustacea, shrimps, and other marine insects, which they fish for during the day, diving to a depth of from ten or twelve, to twenty or twenty-five yards. When forced by severe weather, to a greater distance than ordinary from the shore, so as to be obliged to dive to a still greater depth for their food, they are said to become thin and weak. They appear also to swallow sea-weed, and small fragments of sand, and in the breeding-season, when thrown in the way of vegetable diet, are said to partake of the roots, leaves, buds, and seeds of water-plants.

The note is expressed by the word 'calloo,' and again by the syllables 'our, o, u, ah,' or 'our' alone. When repeated together, the sounds are said to bear a

close resemblance to the words 'coal-and-candle-light.' Meyer gives 'Wark, wark, wark,' and 'ah, aulik.' The Americans, 'South Southerly;' the Kamtschatdales, and the North American Indians, 'Caccamee,' and 'Ha-Ha-Way,' all of which latter are, says Mr. Selby, to a certain degree, expressive of its note.

The voices of a number of these birds together, have a musical sound, and the harmony has been compared to the distant strains of the Scotch bagpipes. Their call-notes are uttered all the day, when the birds are collected together, and both male and female are constant in its use. The noise of the flock is heard to a considerable distance.

This species nidificates about inland lakes, ponds, and bogs, among the plants and low brushwood that afford cover near the water's edge. The nest is nothing more than a few stems of reeds, rushes, or grass, lined with the down of the mother bird, the quantity being added to as the number of the eggs increases. Many breed in the same vicinity.

"About the latter end of April," says Meyer, "the birds arrive in pairs at their breeding-places, and in May the female lays. By the end of June or the beginning of July the young make their appearance, and are soon led to the sea-shore, and instructed to swim, dive, and provide for themselves. The male, who leaves the care of the nursery to his mate, joins his family on their arriving at that locality, and accompanies them in their migratory journey and winter sojourn."

The eggs are usually from six to ten in number, but twelve have been found. They are of a pale greenish or bluish white colour, tinted with buff.

The Long-tailed Duck is a bird of striking and curious appearance. Male; length, one foot ten inches;

the bill is short, dusky black at the base and towards the sides, the tooth dusky black, the remainder of the upper mandible deep red: the edges of both mandibles are deeply pectinated. Iris, yellow; head on the crown, the feathers of which are long with hair-like beards, silvery cream white, the forehead and sides, which are grey, have a roseate tinge; neck in front, white; on each side of it, just below the head, there is an oblong patch, the upper part of which is blackish rusty brown, and the lower yellowish brown; nape, white; chin and throat, white; breast above, deep chocolate blackish brown, below white, the sides tinged with grey. Back on the upper part, dark chocolate brown, on the lower black.

Greater wing coverts, dusky; lesser wing coverts, chocolate brown; primaries, dusky; the speculum yellowish brown with the edge lighter; tertiaries, white. Tail, chocolate brown, except the two long middle feathers, which are dusky, and the outer ones, which are white; upper tail coverts, blackish on the middle part, that is, the four central feathers, and white on the sides, the remaining ones brown deeply margined with white, except the outermost, which are entirely white. The two middle feathers are narrow in shape, and three inches and a half longer than the others, in all nine inches in length; under tail coverts, white. Legs and toes, greenish or yellowish ash grey colour; the inner toes and the small ones behind are margined with small lateral webs; claws, black; webs, blackish.

The female has the bill blackish grey, the upper mandible orange yellow across the middle. Head on the front and sides, greyish white, on the back cinereous; crown, dark purple brown, as is a patch towards the back of the side of the head; neck, dull white; chin and throat, dark purple brown; breast above, deep

reddish brown, the edges of the feathers darker, below white; back, dusky brownish black. Greater and lesser wing coverts, margined with brownish yellow and greyish white. Tail, purple brown. Legs and toes, grey, the joints darker; webs, dark grey.

Sir William Jardine states that there is an extraordinary variation in the summer and winter dress of this bird. In a specimen procured in summer the forehead and sides of the head, brown; crown, black; back of the head, white; neck, deep black, a few white feathers on the front; chin, white; breast, deep black, the sides white. Back on the upper part, black, with broad margins of reddish brown, and a few white feathers intermixed; on the lower part, deep brownish black. The secondaries have the outer webs tinted with reddish brown, forming an indistinct speculum. Tail, deep brownish black; upper tail coverts, deep brownish black; under tail coverts, white.

He adds, in winter the bill is black at the base, the tooth black, behind it is a band of deep lake red; the forehead and sides of the head are pale greyish brown, back of the head white; neck on the back, white, on each side of it there is a large oval-shaped patch of blackish brown, ended below with yellowish or reddish brown; throat, white; breast on the upper part, white; back on the upper part, white, on the lower, brownish black. The tail graduated, the middle feathers being narrow and much elongated, brownish black in colour; upper tail coverts, brownish black; under tail coverts, white. Legs and toes, yellow grey.

In the female in winter, the crown is dark yellowish brown; the spot on the neck yellowish brown; nape, also yellowish brown. Breast above, yellowish brown; below, white; back, blackish brown. The tail is not elongated.



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HARLEQUIN DUCK.

HARLEQUIN GARROT.

Anas histrionica,
Clangula histrionica,

PENNANT. MONTAGU.
 FLEMING. SELBY.

Anas—A Duck. *Histrionica*——Histrionic.

THE Harlequin Duck, which derives its name from its variegated plumage, though on the whole it is of a dark appearance, is another northern species, and in Europe appertains the most to Iceland, Russia, Sweden, and those parts, and has occurred in France and Germany. In Asia it is known in Kamtschatka, and in Siberia, about Lake Baikal, and thence proceeds, according to the season, to the lower latitudes of Lake Aral and the Caspian Sea. In America it is common about the Bay of Fundy, Labrador, Newfoundland, Hudson's Bay, Greenland, and in winter advances southwards to the United States. It is mentioned also by Dr. Richardson as occurring in the vicinity of the Rocky Mountains.

It is altogether, as is related, a bird of the sea and its inlets, and the mouths of rivers, excepting during the breeding-season, and even then it appears not to go more than a mile or so from such to small lakes or other waters. Its occurrence farther inland is merely the result of some fortuitous circumstance.

These birds breed in Iceland.

A Harlequin Duck was once purchased in the market at Yarmouth, in Norfolk: an adult male is said to have been killed near that place. A female of this species was shot on the River Don, near Doncaster. In Devonshire one in the winter of 1830. Two the same season were purchased in the London market by Mr. Yarrell. In Cheshire one, a female, was shot by the gamekeeper of Sir Philip de Malpas Grey Egerton, Bart.

In Scotland a pair were formerly obtained by Lord Seaforth; another was shot near Gordon Castle, on the Spey, Banffshire, in October, 1851. In Orkney one, a female, has occurred.

During its summer migration, says Selby, it is found upon the coast, and frequently in deep water, at a considerable distance from land.

When not in pairs these Ducks are seen in flocks, being sociable among themselves. They are very shy birds, it is said, making off on wing at the slightest alarm. The male and female seem much attached to each other.

They dive with quick expertness, swim equally well, frequently nodding the head, but fly in a more laboured manner, the wings being short and quickly beaten.

They feed on different kinds of shell-fish, small fry, insects and their larvæ, frogs, tadpoles, and water-plants.

The note resembles the syllables 'eck, eck,' and is constantly repeated.

The Harlequin builds among low bushes and plants, in the precincts of streams and lakes, and the neighbourhood of the sea, not far from the water's edge; and "feathers its nest" with down from its own breast, the outside materials being dry leaves, stalks, grass, and reeds, arranged in a circular manner to the height of two or three inches.

The eggs are from five or six to seven in number, rarely more than the former, according to Audubon, but some say as many as eight, ten, or twelve, and of a white or very pale buff colour, with a tinge of green. "The texture of the egg is very fine, but without polish."

The female is very attentive to her brood. The male leaves them to her care and returns to the sea.

Male; length, one foot five inches; bill, bluish black; iris, orange reddish brown, behind it is a large white space, which colour goes backwards to the nape on the sides of the head in two narrow bands, and below it is another stripe of bright chesnut, the middle band from the bill to the hind part of the head and down the neck velvet black, thus bordered on each side by the white lines already mentioned. Head on the sides, crown, neck, and nape, blackish grey, glossed with purple violet, with the exception of the white and brown streaks just spoken of, the white spot on the hinder part of the sides of the head, and another white streak running down the sides of the neck near the back part, originating between the white spot and the junction of the two other lines on the nape. Chin and throat, black, with a purple violet gloss, between the latter and the breast is a white band, edged narrowly below with black. The breast is crossed at the middle by a crescent-shaped band of white, bordered above and below with black; the upper part between the two bands is bluish grey, the lower part below the second one dusky greyish black, darker, becoming deep reddish brown, towards the under tail coverts; the sides are rufous chesnut, and near the tail are a few large strong feathers with white tips, which make a small but distinct spot. The back on the upper part is purple grey, on the middle brownish

black, with a bloom of deep blue or purple grey, on the lower part dusky black.

The wings have the first quill feather the longest; greater wing coverts, bluish black, tipped with white; of the lesser wing coverts some are white, with a narrow greyish border to the feathers; primaries, dull brownish black; secondaries, also black, the outer webs forming the speculum are brownish black, glossed with deep blue; tertiaries, white on the outer webs, bordered with blackish brown. Tail, dusky black; under tail coverts, bluish black; legs and toes, dull bluish dusky black; webs, dusky.

The moult takes place, Audubon says, in July and August.

In the female the general plumage is sooty brown. Length, one foot two or three inches; before and behind the eye are patches of white; forehead, whitish; neck in front mottled with two shades of brown. Chin and throat, greyish white. Breast above, mottled with two shades of brown, below whitish, the sides also of two shades of yellowish brown and brownish grey, the flanks brown. Back, reddish brown, the margins of the feathers paler.

The young male in the first year resembles the female. The white collar is not gained till after the second moult.

According to Audubon, the young male in its first winter has the white spot over the eye mottled with grey, the line extending over the eye obscure, and the edging of the occiput faint reddish brown; bill, dusky. Head and neck, dull leaden blue, the crown darker; the two white marks exist on the neck, but are merely edged with darker blue; there are some indications of the white collar, and the band before the wing is marked, but much smaller than in the adult bird. In

the third year the white collar is still incomplete, but all the white markings of the neck are edged with black. In the third year the sides of the breast are dark brownish grey, waved with yellowish red bars; the fore part is dull grey, the middle yellowish grey, spotted with bluish grey. The back greyish brown; primaries, dark brown; secondaries, not tipped with white. Tail, bluish grey, the end lighter coloured; in the third year the tail is becoming glossy bluish black; upper tail coverts, dusky—they turn to glossy bluish black in that year. Legs and toes, lead-colour.

GOLDEN-EYE.

COMMON GOLDEN-EYE. GARROT. RATTLE-WINGS.
GOLDEN-EYE DUCK.

<i>Anas clangula,</i>	PENNANT. MONTAGU.
" <i>glaucion,</i>	BEWICK.
<i>Clangula vulgaris,</i>	FLEMING. SELBY.
" <i>chrysophthalmos,</i>	JENYNS.

Anas—A Duck. *Clangula*. *Clango*—To sound as a trumpet.

THE Golden-Eye is found in Iceland and the Ferroe Islands, and throughout Russia, Denmark, Lapland, Sweden, Norway, and Holland. It occurs also in Germany, Switzerland, Prussia, Saxony, Silesia, Hungary, Italy, and France. It belongs likewise to the northern parts of Asia, from Tartary, Persia, and the Caucasus, to Japan. It is said also to belong to North America.

They breed in the different countries of Scandinavia, and this not only in natural situations, but also in boxes placed for them by the inhabitants for the purpose.

The localities these birds frequent are principally, the sea coasts, near the mouths of rivers, but also the borders of inland lakes, ponds, and streams, not those that are rapid or turbulent, but such as belong to the scenes described in the Old Version of the Psalms of David—

"Where peaceful rivers, soft and slow,
Amid the verdant landscape flow."



GOLDEN-EYE.

When on the sea they prefer such a distance from the shore as will give a depth of two or three fathoms for the exercise of their foraging habits.

In Yorkshire the Golden-Eye has been obtained in plenty, though for the most part in immature plumage, near Doncaster, Hebden-Bridge, Barnsley, Leeds, York, Huddersfield, and elsewhere. In Norfolk they are not uncommon about Yarmouth, that is to say young birds, the old ones only occurring in severe weather. They are likewise occasionally met with in the fens in Cambridge-shire; also on the Shropshire meres. In Oxfordshire birds of this species not very unfrequently occur, but chiefly females and young males. In Derbyshire some are met with at times, though but rarely, on the Trent—two on the 9th. of March, 1848.

Individuals have been met with near Lilford, Northamptonshire, by the Hon. T. L. Powys, and others have occurred elsewhere in the county. W. Brooks Gates, Esq. tells me of one obtained at Weston Favell, near Northampton, the beginning of February, 1855. In Lincolnshire on Croxby Lake. In Sussex near Lewes. In the winter of 1847, Mr. M. C. Cooke informs me that one was shot, an immature bird, at Swanscombe, in Kent. In Cornwall it is scarce near Falmouth, but has occurred at Gwyllyn Vase, and one was shot near the former place January the 29th., 1848. In Durham one, a male, was shot near Stockton-on-Tees, on the 26th. of February, 1853; another at Bishop Auckland.

In Orkney and Shetland they are frequent; so also in Ireland.

They migrate the end of October and beginning of November, and again towards the end of March or beginning of April. Their numbers with us are regulated by the comparative severity or mildness of the

winter. At the spring of the year they repair to the inland lochs.

They frequently unite in small flocks in winter. The old males are shy, but the females and their broods are less so. When they have been frequenting fresh-water for some time, they become very good to eat. A female Golden-Eye has been preserved on the water in St. James's Park.

The Golden-Eye is strong and vigorous on the wing, and a whistling sound, peculiar to it, and from which one of its trivial names is derived, the wings being struck quickly and as if with effort, is produced by its flight. It dives with great expertness, and is below the surface on the slightest alarm. On the water it swims low. Meyer says "When it dives it has been observed to raise itself again quickly by touching the bottom with its tail, and this it does so frequently that in many instances it will be found that the tips of its tail feathers are much worn." He also adds, "when on the wing, and pursued by birds of prey, it has the capacity of shooting down from the air into the water, and disappearing instantaneously below its surface." Yarrell states that if five or six of these Ducks are together, they do not all dive at the same time, but that some of them keep a good look-out to prevent being approached and surprised by an enemy. Sir William Jardine says, on the contrary, that they are the more easily approached for that they all dive simultaneously. When thus stolen a march on, they seek safety by flight, and not by diving. On the land they walk in a shuffling and ungainly manner.

They make their food of shell-fish, frogs, and tadpoles, water-insects, mollusca, small fry, and the buds, seeds, and roots of various plants.

Their cry is hoarse and somewhat sibilous, but the former sound indeed is more or less characteristic of all the Ducks, none of whom are wont to express wants and wishes '*sotto voce*.'

The Golden-Eye builds in the vicinity of lakes and rivers, giving a preference to the latter, particularly such as flow over falls and rapids. The Laplanders place boxes with holes in them, in the trees in these localities, for the birds to build in, and thus procure the eggs, for the cotes are sure to be resorted to for the purpose of laying in. The nest is made of rushes and other herbage, lined with down. Mr. Hewitson found one in a hole in a tree, ten or twelve feet from the ground.

The eggs are of a greenish hue, and from ten to fourteen in number.

It appears that the old bird takes the young one to the water, by holding it under the bill between it and the neck.

Male; weight, nearly two pounds; length, one foot six to one foot seven inches; bill, bluish black, deep at the base, behind it is a round patch of clear white, observable in flight, even at a considerable distance; iris, golden yellow; forehead, brownish black. The head, which is large, is on the crown, the feathers on the back of which are a little elongated, and capable of being much raised at will, as are the neck on the upper part, nape, chin, and throat, brownish black, glossed with green and violet; the lower part of the neck all round and the breast, white, or yellowish white in some, the sides dull greyish black, and there are a few streaks of velvet black on the flanks, the outer parts of the inner webs of the feathers being of that colour. Back, deep bluish black.

The wings have the first quill feather the longest; greater and lesser wing coverts, black at the base, the remainder white, with a few streaks of black; primaries, dusky black. Of the secondaries, seven are mostly white, the remainder dusky black; tertiaries, dusky black. Tail, dusky greyish black; it is rather long, and consists of sixteen feathers; upper tail coverts, bluish black; under tail coverts, white. The legs, which are short, and the toes, are orange yellow; the inner and hinder toes furnished with lateral webs, the latter large; webs, dusky black.

Female; bill, brownish black at the base, towards the tip yellowish orange brown; iris, pale yellow. Head, crown, neck on the upper part, nape, chin, and throat, rusty brown, the lower part of the neck or collar in front white. Breast on the upper part, greyish ash-colour, the centres of the feathers dark, below white or greyish white, the flanks blackish grey in rather a mottled manner, the margins of the feathers being paler than the rest. Back, brownish black, the edges of the feathers being paler, with a bluish grey tint. Greater wing coverts, white, the bases brownish black; lesser wing coverts, grey, tipped with white, the bases brownish black; primaries, dusky black; secondaries, partly white; tertiaries, dusky black. Tail, greyish black, the edges of the feathers bluish grey; upper tail coverts, greyish black; under tail coverts, mottled with greyish black. Legs and toes, pale dusky yellowish orange in front, the hind part blackish; webs, dusky.

The young male at first is like the female, but by degrees the brown of the head becomes darker, and acquires the glossy green, and the feathers become more elongated; the white patch shews itself, the back also grows darker, and more white is apparent on the wings.

After the third moult the full plumage is put on.

The plate is from a drawing made by John Gatcombe,
Esq., Wyndham Place, Plymouth.

BUFFEL-HEADED DUCK.

BUFFEL-HEADED GARROT.

Clangula albeola,
Fuligula “

JENYNS.
 BUONAPARTE.

Clangula. *Clango*—To sound as a trumpet. *Albeola*—A
 diminutive from *Albus*—white.

THIS Duck is very common in North America throughout the Union; and has been observed also in California, among the Rocky Mountains, and again in Newfoundland, the Bay of Fundy and the Fur Countries.

In our country the “First on record” of this species, a male, was shot near Yarmouth, in Norfolk, in or about the year 1830. A previous one was mentioned by Donovan. In the same county one at Hunstanton, of which the Rev. W. C. Fearon, Vicar of that parish, has been so obliging as to send me word.

These birds go northwards to breed.

They dive with great quickness and facility.

They feed on shell-fish, shrimps, and water-plants.

The note is a mere croak.

Male; length, one foot three inches. The bill, which is small and narrow, is bluish black; iris, dark brown, behind it an oval-shaped patch of white, narrow in front, but wider behind, extending to the back of the head. Forehead, bluish black, tinged with rich purple and green. The feathers on the crown are elongated, forming



PINTAIL DUCK.

a crest erectible at the pleasure of the bird. It and the neck above, with the exception of the white patch just mentioned, are bluish black, with the same rich tinge of purple and green; the lower part of it white. Nape, greyish; chin and throat, bluish black, tinged with purple and green; breast, white; back, black. Greater and lesser wing coverts, white; primaries, greyish black; secondaries, white, tertiaries, black. Tail, pale ash grey; upper tail coverts, pale ash grey. Legs and toes, yellow.

The female is less than the male. Length, one foot one inch. Head, crown, and neck, greyish brown, with a patch of white behind the eye; breast, dull white. Back on the upper part, greyish brown, on the lower part black. Greater and lesser wing coverts, dark greyish brown; primaries, dark greyish brown; secondaries, white; tertiaries, dark greyish brown. Tail, ash grey; legs and toes, bluish black.

The young male at first resembles the female.

I have arranged the above description from Yarrell's account.

SMEW.

LOUGH DIVER. WHITE NUN.

WHITE MERGANSER. WHITE-HEADED GOOSANDER.

SMEW MERGANSER. RED-HEADED SMEW.

Mergus albellus," *minutus*," *Asiaticus*,*Merganser stellatus*,

PENNANT. MONTAGU.

LINNÆUS. .

GMELIN.

BRISSON.

• *Mergus*—A Diver.*Albellus*. *Albus*—White.

THE Smew is an exceedingly elegant and handsome bird, though its plumage is plain, consisting only of the two primitive colours, so to call them.

It occurs in Iceland, Sweden, Russia, Holland, France, Germany, Switzerland, Greece; also in Asia, in Persia, Kamtschatka, and Siberia, Asia Minor, about the Caucasus, and in Japan. It is known, though only as a straggler, in America, in the Fur Countries, United States: it belongs to Greenland.

It frequents the coast as well as rivers and inland waters, giving a preference, it would seem, to the latter, and not, like so many other birds we shall soon have to give account of, to the "deep, deep sea."

In Yorkshire one was killed at Sutton-upon-Derwent, near York, in May, 1852, as the Rev. George Rudston Read, Rector of that place, has informed me; several have been shot near Doncaster in hard winters; a few



near Leeds; one at Swillington, January 24th., 1838; also at Gledhow. Others near York, the males more rarely, the females and young less so. The same remark applies to Oxfordshire, and indeed no doubt everywhere else. In the month of January, 1838, however, three adult males were killed at one shot on the Isis, near the seat of the famous University, the foundation of the Great Alfred.

The Hon. T. L. Powys has met with the Smew on the River Nene, in Northants, near Stoke Doyle, on the 5th. of January, 1850. In January, 1849, as Arthur S. H. Lowe, Esq., of Highfield House, near Nottingham, has written me word, several were seen near there, and four were shot: only three had been known in the preceding thirty years. Three or four, G. Grantham, Esq. mentions to me as having been procured near Lewes, on the Sussex coast, one of them in February, 1855, between Cuckmere Haven and Seaford. In Hertfordshire one was shot near Watford. In Cambridgeshire the Smew has occurred near Ely on the 7th. of December, 1849. In Surrey, near Godalming.

In Cornwall this species is rare, and only occurs in severe winters. In Norfolk young birds are not uncommon near Yarmouth in hard winters: the adult bird is more rare. Specimens have also occurred at Gwyllyn Vase, and Swanpool, near Falmouth—one on the 29th. of January, 1848. In the county of Northumberland Bewick mentions three females killed on the Tyne at one shot, in January, 1820, after a severe frost. In Cambridgeshire, Willughby mentions having had one from Cambridge, and the Rev. Dr. Thackeray has another, bought in the market there, in April, 1825.

The Smew has been observed in Sanday, Orkney, and is believed to breed in that part.

In Ireland it is an occasional winter visitant. It is a Scottish species likewise in the same manner.

They come to us in winter. Their movements are southwards in the autumn, and northwards in the spring.

They are shy and careful birds, and take wing with great readiness when apprehensive of danger. One has been kept on the water in St. James' Park, London.

They feed on small fish, crustacea, and water-insects.

They fly quickly, and are excellent divers, but walk in a laboured manner.

The nest of the Smew is made of dry grass, and lined with the down of the bird herself. It is placed on the ground, upon the banks of lakes and rivers, not far from the water, or in a hollow in a tree.

The eggs are said to be eight or ten or from that to fourteen in number, and of a yellowish white colour.

Male; weight, a little over a pound and a half; length, one foot five inches, to one foot five and a half. Bill, bluish leaden, grey colour, the tooth white—a black patch, with green reflections, extends from its base to and round the eye. Iris, reddish brown; head, white, except that from the crown another dark patch, tinged with green, descends down the back of the neck; it assumes the form of a crest, intermixed with some long white feathers: they are of a silky texture: neck, white, with the exception above named. Chin and throat, white; breast, white, but two half-moon-shaped streaks of black run forwards from the back in front of the wing, one of them for an inch and a half, the other about an inch farther back; the sides are barred with fine grey zigzag lines. Back, on the middle part, black.

Greater wing coverts, deep glossy black, tipped with white; lesser wing coverts, partly white. Primaries,

dusky black; secondaries, deep glossy black, fringed narrowly and tipped with white, forming two small bands across the wing; tertiaries, leaden grey, the outer feathers the lightest coloured. Tail, greyish ash-colour, and wedge-shaped; upper tail coverts, greyish ash-colour; under tail coverts, white. Legs and toes, bluish grey; webs, bluish grey.

Like the Ducks, the male Smew assumes the plumage of the female in the beginning of June, and retains it till the autumnal moult, when he re-assumes his own costume.

The female is much less than the male. Weight, fifteen ounces; length, one foot two inches and a half, to one foot three or four; bill, bluish lead-colour—at its base is a black patch. Iris, reddish brown. Head and crown, reddish chesnut brown, which colour goes down the upper part of the neck; this colour is darkest between the bill and the eye, where the black patch exists in the male; the feathers on the crown and occiput are elongated, and on the last-named are somewhat hackled. On the back of the neck and nape the dark streak running downward till it encircles the front, spreads out before and towards the back. The sides of the upper part of the neck white. Chin and throat, white; breast above, light greyish white, below white, the sides and flanks grey; back above, dark greyish brown; on the middle and lower part, greyish black.

Greater wing coverts, deep greyish black, tipped with white; lesser wing coverts, greyish white on the middle part. Primaries, dusky greyish black; secondaries, deep greyish black, bordered and tipped with white, but the cross bands thus formed are narrower than in the male: the last secondary is grey, having the outer web white, bordered with a tint of black; tertiaries, dark

bluish grey. Tail, dark greyish brown; it consists of sixteen feathers; upper tail coverts, dark greyish brown. Legs and toes, bluish grey; webs, bluish grey.

The young male resembles the female till the second year, but the reddish brown on the head is clearer, and the feathers less elongated; the greater wing coverts and the secondaries are of a deeper black, and the white tips are conspicuous, the back too then becomes varied with black, and the two crescents begin to shew themselves.

The young female does not acquire the dark patch behind the bill till her second year. There is more of the red colour on the back of the neck. The lesser wing coverts are greyish white, and the breast is dull white.



HOODED MERGANSER.

HOODED MERGANSER.

Mergus cucullatus,

SELBY. JENYNS. EYTON.

" *fuscus*,

LATHAM. GOULD. TEMMINCK.

Mergus—A Diver.*Cucullatus*—Hooded.

THIS is another very neat species. It belongs to North America, coming southwards from Hudson's Bay to the United States and Mexico, but has only occurred in Europe as a rare and occasional straggler. It has been observed in France.

It is not frequent along the coast, but prefers inland waters and smaller creeks or ponds to those which are larger.

In this country one of these birds was obtained near Yarmouth, Norfolk, in the winter of 1829. One in Suffolk; one at Benton Park, the seat of Anthony Ralph Biddulph, Esq.; and one near Bangor, in Wales, in the winter of 1830-31.

Two specimens have been obtained in Ireland.

They arrive from the north in October, and go farther south according to the weather of the season. They make their retrograde movement from the beginning of March to the middle of May. They migrate in small flocks without any order.

The mother is very attentive to her young—the male leaving her as soon as she begins to sit. These birds generally go in small flocks of from five or six to

ten. They are, Audubon says, eaten by some persons, but this qualified mode of expression leads to the opinion that they do not by their innate excellence contribute much to "la haute cuisine."

They are extremely quick in flight, active in their movements, and most expert divers.

They feed on snails, tadpoles, and insects.

The note is represented by the syllables 'croo, croo,' repeated more or less frequently. Both birds utter it.

The nest, placed in trees, or, when these are wanting, in holes and hollows, in either case by the margins of lakes and rivers, is formed of grass and other herbage, lined with feathers and down from the breast of the mother-bird.

The eggs, eight or ten in number, and of a yellowish white colour, are laid in May, and hatched in June.

Male; length, one foot six or seven inches; bill, clear reddish brown, the tooth black; iris, golden yellow. The head on the crown is surmounted by a half-circular hood, from whence the name of the bird. It is spread out flat-wise or closed at pleasure. According to Wilson, the crest is composed of two separate rows of feathers, radiating from each side of the head, and easily separable. This hood, as well as the remainder of the head, is dusky black with purple and green reflections, with the exception of a large somewhat triangular-shaped patch or spot of pure white, bordered on the outside with black, behind the eye. This is more conspicuous when the crest is spread from about it. Neck, also dusky black, with metallic purple and green reflections. Breast, white, with two crescent-shaped streaks of greenish black, coming forwards on its upper part from the like colour on the back; the sides and flanks yellowish rust-

colour, and finely pencilled with yellowish brown and black; back, deep dusky blackish brown.

Greater wing coverts, glossy greenish black, tipped with white, the bases also white; lesser wing coverts, deep brownish black. Primaries, deep brownish black. The secondaries deep brownish black, and having the outside borders white, are crossed with a bar of white, the bases also white; tertiaries, metallic greenish black, the shaft streaks white. Tail, brownish black. Legs and toes, clear reddish brown; webs, dusky.

The female is rather less in size. Length, not quite one foot and a half. The bill, which is slender, is clear reddish brown. Head on the crown, reddish brown, the feathers elongated at the occiput in a semicircular manner, verging into pale reddish brown; the remainder and the neck and nape, pale brown; the front of the neck paler, the edges of the feathers being lighter coloured. Chin, greyish white, speckled with pale brown; throat and breast above, brown, deeply margined with grey; below, white, the sides brown with paler edges to the feathers; back, brownish black.

The wings, when closed, only reach to within three inches of the end of the tail. The secondaries have the outside edges of the outer webs white, forming a small speculum. The tail consists of fourteen feathers, and is deep brown. Legs and toes, clear reddish brown.

The young at first resemble the female. The male obtains some white on the head in the second year, but is not complete in plumage till the third.

RED-BREASTED MERGANSER.

RED-BREASTED GOOSANDER. SAWBILL. HARLE.

<i>Mergus serrator</i> ,	PENNANT. MONTAGU. BEWICK.
“ <i>cristatus</i> ,	BRISSON.
“ <i>niger</i> ,	GMELIN.
<i>Merganser niger</i> ,	BRISSON.

Mergus—A Diver. *Serrator*. *Serra*—A saw.

THE Merganser is a common bird in Europe—in Norway, Sweden, Lapland, Iceland, and the Ferroc Islands, as also in Holland, Germany, Switzerland, France, and Italy. It likewise is found in Asia, in Siberia, about Lake Baikal, and along the courses of the larger rivers, and eastward to Japan. In America it belongs to Greenland, the Fur Countries, the shores of Hudson's Bay, and Newfoundland.

They frequent the coast, its bays and estuaries, and the lower parts of rivers, namely, where they disem-bogue themselves into the sea, but sometimes advance upwards, and reach inland waters, though seldom beyond the influence of the tide. They breed, however, on fresh-water lakes.

In Northumberland these birds occur along the coasts, Holy Island and the Fern Islands being favourite localities; also along the shores of Durham.

In Lincolnshire the Rev. William Waldo Cooper shot one in the Ancholme, in the winter of 1853-4. In



RED-BREASTED MERGANSER.

Northamptonshire the species has occurred on the River Nene. In Suffolk one near Ipswich, as T. J. Wilkinson, Esq., of Walsham Hall, has written me word. In the adjoining county of Norfolk one, a male, an adult bird, was seen at Lowestoft, in the third week of July, 1852, as recorded by J. H. Gurney, Esq., of Easton, in the "Zoologist," page 3599. In the usual way it is also seen in those parts in the winter months, but old males are seldom obtained except in severe seasons. Many specimens were procured along the coast of Essex and the two last-named counties in the winter of 1829-30. They are not uncommon near Yarmouth, and generally on the Norfolk coast in severe weather, but the immature birds are much more common than the adult.

In Yorkshire, a fine female specimen was shot near Richmond on the 12th. of December, 1854; a female also at Barnsley, in January of the same year. Specimens have occurred near Hebden Bridge; also near Doncaster—one in 1837. Individuals also near York, and at Swillington, near Leeds—several were procured in the year 1830. In Cambridgeshire, a pair were shot at Pricwillow, in 1854. A female in Burwell Fen, in summer; others have been sold in the Cambridge market. In the sister county of Oxford, a fine specimen of this bird was killed on Otmoor, in February, 1838, and in the winter of 1841, two others fell to the gun near Cassington. A pair, male and female, were shot near Reading, in 1795. Three were shot, adult birds, a male and two females, at Terrington Marsh, Norfolk, on the 7th. of December, 1849. In Essex, two on the Thames, near Barking, the beginning of January, 1850.

In Cornwall, one was shot near Penryn Creek, Falmouth, in December, 1846, and a second specimen in November, 1847; others on the Truro river and its

branches. The species has occurred also in Kent, by the Thames; in Worcestershire, on the Severn, near Worcester; likewise in Lancashire, Dorsetshire, and Surrey, near Chertsey, in November, 1842. One was shot out of a flock of thirty-four.

In South Wales, Mr. Dillwyn has noticed its occurrence at Swansea. It has also been met with in North Wales. In Montgomeryshire three were seen at Bronafron, on the River Severn, January 2nd., 1850, one of which was shot.

They also breed in Scotland, in Sutherlandshire, on all the lochs, as near Scowrie and elsewhere; likewise in Argyleshire, on Loch Awe, where the nest was found by Sir William Jardine, Bart., and Mr. P. J. Selby, in June, 1828; in Rossshire, at Loch Maree. They also remain throughout the year in Orkney, Shetland, and the Hebrides, and rear their young. Pennant has mentioned their breeding in the Isle of Islay, and Mr. Macgillivray found the nest in Harris.

In Ireland specimens have been obtained in Meath and other parts. There also the birds are indigenous.

They come to us in winter, "when the winds whistle cold" and even the hardiest sea-birds are glad to betake themselves to comparative shelter.

These birds are extremely shy and wary, especially during the breeding-season. They go in flocks. They too, have the power of submerging the whole body in a gentle and imperceptible manner, the bill only being kept out.

They swim and dive with the greatest expertness, and are able, it is said, to remain two minutes under the water, making rapid progress beneath the surface. They can walk fast, but are ungraceful in their movements. They fly in a buoyant and easy manner.

Their food is chiefly made of small fish, but also of beetles, and water-insects and their larvæ, worms, and frogs.

The note sounds most like the words 'curr, curr.'

The places chosen by this species for nesting, are the vicinage of the sea, and the neighbourhood of lakes and rivers, among reeds and rushes.

Male; weight, two pounds; length, one foot nine or ten inches. The upper bill, which is closely serrated, is dark orange reddish brown, the edges brighter; the under bill red; the tooth, horn-colour; iris, red. The head, and crown, which has the feathers loose, webbed, and elongated, and the neck all round on the upper part, dark shining greenish black, changing in different lights from glossy violet black, to a beautiful gilded green; down the back of the neck and the nape descends a narrow line of glossy black; the remainder of the neck all round is white. Chin and throat, dark glossy green; in winter the chin is yellowish white. Breast above, pale chesnut brown, streaked with black, the centres towards one side of the feathers being of that colour; in winter it is paler, and mixed with white at the edge; below the breast is white, and in front of the wings are several rounded feathers, edged broadly with rich velvet black. The sides of the breast are grey, pencilled with irregular bars of darker. Back on the upper part, glossy black, and the lower part deep greyish brown, undulated with white.

The wings are dark brown at the point; greater wing coverts, glossy black at the base, white at the ends; lesser wing coverts, white, deep brown near the shoulders; primaries, brownish black; secondaries, glossy black at the base, the remainder white; two conspicuous white bands are formed by these and the others across the

wing; tertiaries, white, edged narrowly with glossy black. Tail, greyish black; it consists of sixteen feathers, the shafts of the feathers are very strong; upper tail coverts, white, with grey waved pencillings; under tail coverts, white. Legs and toes, bright reddish orange; webs, darker reddish brown.

The male in summer assumes temporarily the plumage of the female.

The female is rather less in size than the male. Length, about one foot nine inches; bill, dark orange reddish brown; iris, orange red. The head and crown, on which latter the feathers are darker, and at its back elongated, are reddish brown; neck behind and nape, also reddish brown; chin, paler brown, or greyish white. Throat and breast on the upper part, white, spotted with dusky, the centres of the feathers being of that hue, below the breast is white; the sides blackish grey, the edges of the feathers paler. Back, brown, or blackish grey, the edges of the feathers paler.

Greater wing coverts, dark brownish black, ended with white; lesser wing coverts, brown; primaries, dark brownish black; secondaries, dark brownish black, the ends white, forming with the tips of the greater coverts two white bands across the wing—a double speculum, as it were; tertiaries, white, but broadly edged with dark brownish black, and except on one or two the white is impure. Tail, brownish grey; upper tail coverts, brownish grey; under tail coverts, white. Legs and toes, dull orange reddish.

When first hatched the young are dark brown above, below white, the sides of the neck reddish.

The young male afterwards resembles the female, but is brighter coloured. The bill is pale red, the ridge of the upper mandible horn-colour, the head dark brown,

the crest very short, the chin nearly white, but tinged with brown. The lower part of the neck grey, tipped with white; the back of the neck grey; breast, dull white, the flanks grey; back and lesser wing coverts, hoary grey; primaries, dark brown, the outer webs black; secondaries the same, except six, which are broadly tipped with white, forming the speculum, which, when closed, has a dark wedge-shaped mark across it. The wings underneath mottled with grey and white; under tail coverts, grey. Legs and toes, dull orange, the joints tinged with dusky; the webs dusky grey.

GOOSANDER.

DUN DIVER. SPARLING FOWL. SAWBILL. JACK-SAW.

Mergus merganser,
" *castor*,LINNÆUS. GMELIN.
PENNANT. BEWICK.*Mergus*—A Diver. *Merganser*—A word of the "composite
order," from *Mergus*—A Diver. *Anser*—A Goose.

THE Goosander is indigenous in Iceland, Finland, Lapland, Sweden, Denmark, Russia, and Norway; and likewise is known in Poland, Hungary, Greece, Italy, Prussia, Pomerania, France, Holland, Switzerland, and Germany.

It belongs to North America, extending from Hudson's Bay over the United States, also to Greenland.

In Asia it wanders from the Black Sea and the Caspian Sea, to Tartary, Siberia, and Japan.

In Yorkshire the Goosander has been met with occasionally, that is to say, in severe winters, in the neighbourhood of Halifax; also in the East Riding. In Oxfordshire it is often met with on the rivers during severe frosts, but seldom in milder weather.

One, a female, of which Mr. W. Brooks Gates has written me word, was shot at Weston Favell, near Northampton, the first week in February, 1855. One also in the same county, by the gamekeeper of Lord Lilford,



GOSWANDER.

in the beginning of 1850. It occurs but rarely on Croxby Lake, Lincolnshire, the Rev. R. P. Alington has informed me. It has been shot too at Burleigh, near Stamford. In Cornwall its occurrence is rare. One was obtained at Scilly, the end of December, 1853. Several have been killed at Penryn Creek, Falmouth.

In Shropshire one was shot near Shrewsbury, on the River Severn, by the gamekeeper of J. A. Lloyd, Esq., the first week of January, 1850. In Nottinghamshire, "on December 17th., 1844, a Goosander took up its abode on the Trent, and stayed some weeks. It was not shy, and when fired at with a gun, merely dived below the surface of the stream, and re-appeared after a few seconds. When observed unmolested, its manners were pleasing and amusing, as it swam leisurely on the water, pecking and pruning its plumage, or occasionally dipping underneath. The Trent was partly covered with ice, and it would disappear near the edge of a large piece, and after diving under it perhaps for fifty yards, again come to the surface. Several individuals have been shot off the river."

These birds were very numerous along the coasts of Norfolk, Suffolk, and Essex, in the winter of 1829-30. They are of frequent occurrence, that is to say young birds, the old ones being only met with in very severe weather. One at Guyhirn Wash, on the 7th. of December, 1849. They occur near Yarmouth occasionally, in hard winters. In the county of Durham a pair of Goosanders, male and female, were shot on the Tees, near Stockton, the middle of March, 1853. The former was found to have part of a gold ear-ring in its gizzard: what was its history? November 1st., 1852, one was shot near Belvere Castle, Leicestershire. It has also occurred in Surrey, near Godalming; and

likewise in Dorsetshire, Northumberland, Sussex, and Kent. These birds are now and then exposed for sale in the London markets.

It is not uncommon in the Hebrides, and breeds in those islands—North Uist, and others. The Rev. G. Low has mentioned also that it used to do so in Orkney. It seems to be now only a winter visitant there.

In Scotland it is not uncommon in the county of Sutherland.

In Ireland they are unusual visitants at the same season.

These birds frequent the sea-coast, and the mouths of rivers, the course of which latter they follow upwards in quest of food; and also inland lakes.

The vernal migration of this species takes place in February or March; the autumnal in November. The former to, the latter from the north.

In the autumn and winter they assemble in small flocks of about six or eight. They are sociable among themselves, but do not mix by choice with other water-fowl. The Rev. James Smith, of the Manse of Monquhitter, by Turriff, Aberdeenshire, writes the following particulars of this bird, in the "Zoologist," pages 2295-6. "While the male almost uniformly takes wing on your approach to the river, the female rarely or never does so, but with a hoarse and as it were suppressed kind of croaking, makes off for the opposite side, sunk deeply in the water, and hurrying rapidly down the stream. Should she be surprised unexpectedly, or pressed more hardly and perseveringly than usual, she finally dives, makes her way rapidly under the water, and emerges silently at a very considerable distance from the spot where she went down. The male, on the contrary, although he gets upon wing with apparent difficulty,

moving at first like a stone skimming the surface of the water, ascends, nevertheless, to a great elevation in the air, describing a circle of extended diameter, and only alighting again after more evolutions than one, and when the danger is apparently over." They are wild and wary birds.

On the land they are but ungainly in their movements, but can, nevertheless, proceed in a rapid manner, if occasion require. Swimming and diving are their most natural occupations, and these they perform with ease and grace. They swim low in the water. Meyer adds, "when the Goosander dives in open water, it re-appears generally from fifty to sixty yards from the spot of its disappearance; but in places where there is only a small opening in the ice, it repeatedly comes up in the same place. The bird is said to remain frequently under water for two minutes, and it has been seen to walk about at the bottom in pursuit of food." They fly with great ease, and in a rapid manner, and can proceed for a considerable distance.

They feed on fish and the smaller reptiles.

The call-note of the Goosander resembles the word 'carr, carr,' and the young utter a piping cry while yet unfledged.

The Goosander builds on small islands in fresh-water lochs in the neighbourhood of the sea, and near the water's edge.

The nest, which is placed under the cover of bushes, in long grass, among stones, or in the hollow of the stump of a decayed tree, is large altogether, being raised to a height of seven or eight inches, on a mass of dead weeds, but the inner and more finished part is only about seven inches and a half across, and four in depth. It is composed of dry grass and small roots,

rather neatly twined together, and lined with the down of the bird.

The eggs, of a long oval shape, are from four to six, seven or eight, and, Yarrell says, ten or fourteen, in number, or more, though rarely; if removed from the nest, as many as thirty have been successively laid: their colour a uniform buff white or cream yellow.

The female has been seen to carry her young on her back, in the same way as described of the Swan. She leads them to the water as soon as they are hatched, or carries them thither in her bill if the nest has been built in the hollow of a tree, and at once commences their education.

The males appear to leave the females when the latter have begun to sit, and do not rejoin them till the summer is over: while absent they are only accompanied by one or two females, if any.

Male; weight, about four pounds; length, two feet two inches and a half to two feet three or four inches. The bill, which is long and rather slender, serrated on the sides, and hooked at the end, is bright red, the upper mandible edged with black, the tooth horn-colour; iris, carmine red. Crest, towards the back of the head, the feathers on the crown being long and loose, and neck on the upper part, behind, and nape, black, glossed with green; sides of the head, chin, and throat, dull black. When the bird is alive the breast on the upper part is tinged with a beautiful roseate hue; when this fades the colour remains of a rather pale, though decided buff salmon-colour; the remainder of the breast is white, but the sides on the extreme lower part are waved with grey and white. Back on the upper part, fine glossy black, on the lower part brownish grey.

The wings in breadth reach to three feet two inches;

the upper border of the wing is black; greater wing coverts, grey, with some white, and tipped with rich buff orange; lesser wing coverts, white; primaries, dusky velvet black, with ash-colour on the inner webs of some of the inside ones; secondaries, white, bordered narrowly with greenish black on the outer webs; tertiaries, also white, bordered narrowly with dusky velvet black. The tail is dark bluish grey, the shafts dusky: it consists of eighteen feathers; upper tail coverts, brownish grey. The legs, which are placed far back, and the toes, rich orange; webs, darker orange red.

The female is not so large as the male. Bill, dull purple red on the sides, the remainder of both mandibles black, the edges finely serrated; iris, purple red. The crest is long and pendant. Head, crown, and neck on the upper part, ferruginous, or pale reddish brown, the former darker than the last named; the feathers at the back of the head are elongated. Nape, grey; chin and throat, white; breast on the upper part and sides, grey, the former tinged with yellowish buff, the edges of the feathers paler, and the latter undulated with pale brown. The lower part of the breast is white, with a tinge of buff. Back, deep bluish grey, with a tint of brown. Greater wing coverts, greyish white at the ends of some, or white; the lesser wing coverts have the lower row tipped with black, otherwise they are bluish grey; primaries, dusky black. Six of the secondaries are white at the ends, forming the speculum; tertiaries, grey. Tail, grey; upper tail coverts, grey; under tail coverts, white. Legs and toes, reddish orange.

The young resemble the female till after the first moult. The blackish green feathers on the head and

upper part of the neck are the first distinguishing marks that are acquired. The full plumage is not attained till the second year.



GREAT CRESTED GREBE.

GREAT CRESTED GREBE.

TIPPET GREBE. CARGOOSE. LOON.

Colymbus cristatus,

LINNEUS.

Podiceps cristatus,

PENNANT. MONTAGU.

Colymbus—A Diver.*Cristatus*—Crested.

The Great Crested Grebe is very plentiful in Holland and Germany, and belongs also to Iceland, Sweden and Norway, Italy, France, and Russia. In Asia it has been observed about the Caucasus and in Siberia, Asia Minor and Japan. Also in Africa, both north and south. It belongs likewise to North America, advancing southwards from the Fur Countries, as far as Mexico, through the States.

This singular-looking bird is indigenous in many parts of the country, videlicet, in Lincolnshire, Norfolk, Shropshire, and Wales. Its occurrence has been noticed in Cumberland. In Yorkshire, one was procured near Doncaster, the beginning of 1837. They are sometimes obtained in Oxfordshire, in the neighbourhood of Weston-on-the-Green. One in Berkshire, near Hungerford, in February, 1808. In Hampshire, one was seen on the Southampton Water, the end of March, 1849. In Surrey one, a young bird, was captured near Reigate, on the 28th. of February, 1849. An adult male was shot in the month of June, on the Lincolnshire

fens, Mr. William Felkin, Junior, of Carrington, near Nottingham, has informed me. It has occurred also on Croxby Lake. In Sussex, three near Battel, one of them the beginning of March, 1848. In Northamptonshire, one was shot on the 27th. of January, 1855, on the River Nene, as I am informed by the Hon. T. L. Powys; he adds, that it has also occurred at Blatherwycke Park, the seat of Augustus Stafford, Esq., M.P. In Norfolk four were shot near Yarmouth, on the 14th. of April, 1851; they are common on the Broads, and breed there: twenty-nine were collected in the same county, in the months of April and May, 1851, by Richard Strangways, Esq.; one at Diss Mere, the end of July, 1834. One of these birds, a male, was shot in February, 1850, at Blyth, in Northumberland. One on the 27th. of November, 1852, near Henley-upon-Thames, in Oxfordshire. In Cornwall, they are not uncommon off the coast in winter; also in Devon.

In Wales, Mr. Dillwyn has noticed the species in Glamorganshire.

In Scotland, it is considered rather a rare winter visitor. They breed in the Hebrides.

In Ireland, it is a perennial resident on the larger lakes, but is only occasionally seen,

Their haunts are lakes, ponds, rivers, and creeks of the sea, if these indeed are bordered with reeds and other such covert. In winter frost and ice send them down to the mouths of rivers and the coast.

Towards evening this species becomes active and lively, having previously been disposed to float about quietly, with the head drawn back on the plumage.

They migrate in small and large flocks of from seven or eight to fifty or more, during the night, taking

advantage of calm weather. When "Gaffer Winter" is creeping on, they pass to the south, and in March return in pairs to their intended breeding-places.

The skin of the breast of this Grebe has become a fashionable substitute for fur, and several were exhibited accordingly in the Great Exhibition of 1851. They appear to go in small numbers of eight or nine in the water. One of these birds has been kept on the water in St. James' Park, London.

These birds can fly well, and to a distance of a couple of miles or more; but during the time that they are engaged with their nest, they resort exclusively to diving, in which they are perfect adepts, for security, raising the head only above water to breathe, after a stretch of a couple of hundred yards. They do not excel in walking or running, but swim admirably, and dive with remarkable quickness: they float low. The female, "if disturbed from her charge, seldom rises within gunshot, and if a boat be stationed to intercept her, will tack about and alter her course under water, without rising to breathe.

Their food, procured by diving, is made up of small fish and young fry, crustacea, water-insects and their larvæ, small frogs, tadpoles, and parts of plants; and "it is a remarkable fact that the specimens obtained of this species, invariably prove to have feathers in their stomachs, from the breast of the bird itself."

The note sounds like the words 'cuck, cuck, cuck,' and 'craærr, craærr.'

The Loon breeds in fresh water, and makes its nest, such as it is, early in the year—in the month of April. It is a very large and careless mass of weeds, flags, and other water-plants, partly sunk under, and partly raised above the water, the top being slightly hollowed.

The general width is about a foot or a little over, the height about half as much.

The eggs are three or four, and occasionally five. Four appears to be the usual average number, but one of them is generally addled. They are concealed by fragments of rushes placed over them, and if these be removed others are added. Their colour is white or greenish white.

Yarrell says, "The parent birds are very careful of their young, taking them down with them for security under their wings when they dive." According to Meyer, the birds pair for life, and haunt the same nesting-place year after year, both assisting in the work of nidification. The young swim about as soon as hatched.

If the nest or eggs be taken, the bird continues laying over and over again.

Male; weight, about two pounds and a half; length, one foot nine inches to one foot ten; bill, dusky along the top, the base vermilion red, the tip pale horn-colour; between the bill and the eye is a bare red space, that is to say, in the breeding-season, for afterwards it fades to a dusky colour. Iris, bright, but pale crimson or pink red; over the eye is a white streak. Forehead and crown, greyish brown; the crest of this bird, which is long and silky, is erectible at pleasure, but ordinarily stands out backward like two long ears; it is as the head, the sides of which shade into yellowish red and white, and a ruff round the neck, displayed at pleasure, bright ferruginous, edged below with glossy greyish black, often with purple and green reflections; the back of the head and the neck next to the ruff are of a chesnut red and brownish black colour; nape, dusky brown tinted with grey, and often

glossed with green and purple. Chin, throat, and breast above, orange buff of a paler or richer tint, which fades after death; below, silvery white, the sides dashed with brown and chesnut. Back, dusky grey, with here and there green and purple reflections.

The wings expand to the width of two feet six inches; lesser wing coverts, dusky brown; primaries, dull black; secondaries, white, forming an oblique bar across the wing when closed, but most visible when the wings are extended; tertiaries, buff orange, of a paler or deeper hue: they have on their outer webs a narrow black edge. Tail, short, and dusky greyish brown. The legs are deep greyish green on the front, and behind pale yellowish green, the scales forming a double ridge. The full plumage and crest are not acquired until the end of the third year.

In the female, which is not so large as the male, the bill is dull vermillion at the base; the crest is a little smaller. Head on the back, the feathers being long, loose, and somewhat hackled, crown, and neck, reddish brown; chin and throat, white; breast, yellowish white above, grey on the sides, below yellowish white, but sometimes tending to orange buff. The greater wing coverts are broadly tipped with white; primaries, greyish black; secondaries, partly white, exhibiting a speculum of that colour; tertiaries, deep greyish black; the shafts black. Legs and toes, dull reddish orange.

The young are first clothed in reddish brown and greyish white down. Mr. Yarrell says "For some time after they are hatched, the young chicks have their bills mottled black and white; the head and neck ornamented with long dark stripes on a ground colour of dull greyish white; the upper surface of the body dark

brown, with longitudinal stripes of light brown; the whole under surface white.

In the immature plumage, the eye is yellow; there is but little crest under two years; the forehead is white, and on the front of the head and the neck are numerous dusky zigzag lines; the red about the head is wanting, and there is a dusky streak in front of and under the eye; the sides are dashed with yellowish brown.



RED-NECKED GREBE.

RED-NECKED GREBE.

<i>Colymbus rubricollis,</i>	GMELIN.
<i>Colymbus subcristatus,</i>	GMELIN.
<i>Podiceps rubricollis,</i>	LATHAM.

Colymbus—A Diver. *Rubricollis*. *Ruber*—Red.
Collis—The neck.

THE Red-necked Grebe is common in Sweden and Denmark, Holland, France, Switzerland, and Italy; as also in Germany, and the eastern countries of Europe. In Asia, it appears to be found in Japan and Persia.

In North America it was noticed by the lamented Sir John Franklin, during his expedition in 1822; and Audubon relates that it occurs in the Bay of Fundy, and in different parts of the United States.

It is for the most part a sea bird, but occurs also frequently on lakes, ponds, and rivers, and in these latter it nidificates, as mentioned hereafter.

In Yorkshire one was obtained in full plumage, in September, 1852, off Bridlington Quay, by Mr. H. C. Weaver, of Newark, who records another killed on the banks of the Trent, about two miles above Newark, Nottinghamshire. Another was obtained on the Trent between Burton and Stapenhill, in April, 1849. In Devonshire, five specimens occurred at Slapton Ley, early in the year 1809. In the same county a fine one was killed near Barnstaple, in February, 1850. And one at Teignmouth in January. I have a specimen

in my collection which, many years ago, "once upon a time" I am sorry to say, was shot off the coast of the adjoining county of Dorset, near the village of Charmouth. It is not an uncommon species along the Northumbrian coast, by the Fern Islands, and other parts; also on that of Durham. In Gloucestershire one, also a young bird, near Bibury, in January, 1850. In Surrey, near Godalming.

In Norfolk three were shot at Yarmouth, in January, 1828, but they are deemed very rare. It is, however, a regular visitant in early spring, and late in the autumn, and it occasionally happens that a pair of these birds remain and breed in the county. One occurred at Surlingham, on the 26th. of January, 1848. One, in breeding plumage, near Yarmouth, the beginning of April, 1848; and one shortly afterwards at Skottow. In Kent, two were procured in April, 1786; and one, in after years, at Sandwich, in October. In Essex, this species has occurred at Saffron Walden. In Cornwall, a specimen was procured near Penzance, in the beginning of April, 1850. One previously in Falmouth harbour, and one at Looe. In Cumberland, one was shot near Ulverston, towards the end of February, 1838. In Oxfordshire, one near Henley-upon-Thames, in the winter of 1850. One in Derbyshire, on the Derwent, near Derby, in the beginning of 1844. In the county of Buckingham a fine specimen of this bird, in winter plumage, was shot at Sanderton, near Risborough, on the 10th. of October, 1848. In Berkshire, a Red-necked Grebe was killed at Burghfield, in May, 1792. In Kent, one in Stangate Creek, near the mouth of the Medway, the 6th. of February, 1849.

It is a common species in Scotland, on the Frith of Forth.

In Orkney this Grebe is not uncommon in the winter. It has been observed so early as the 26th. of September.

In Ireland it is considered extremely rare; has been met with in the county of Dublin, and also at Belfast and other places.

They appear not to be shy, until compelled by frequent alarms for their safety to become so.

They can fly very well, but are only able to accomplish "plain sailing," owing to the shortness of their wings. In swimming and diving they are perfect adepts, and if pursued, merely raise the bill above the surface for respiration. It is asserted that in diving they do not use their wings, thus threading their way better through the masses of weeds.

They feed on small fish, insects and their larvæ, and appear like the other species, to swallow feathers plucked from themselves.

The note is a mere 'cack, cack,' varied at times in their hours of pastime, into a sort of gabble. They appear, however, to be fond of making the most of it, at least in the way of quantity.

The nest is made among reeds, flags, and rushes, on the borders of fresh-water lakes and ponds, and is composed of the said materials. It is placed upon the water, and attached to the growing vegetation.

The eggs of the Red-necked Grebe are either white, or white with a slight tinge of blue or green, clouded, Selby says, with deep brown. They are four or five in number.

Several pairs of these birds breed in the same locality.

The male and female both assist in the construction of the nest, and shew much affection for their charge. The young take to the water as soon as they are hatched.

Male; weight, from about eighteen or nineteen ounces, to twenty-three; length, one foot four and a half, or from that to one foot five inches and a half, to one foot six inches. Bill, dusky black, or dark horn-colour, except about the base, which is reddish yellow, and the underside of the lower mandible is of the latter colour; in winter the red becomes pale yellow. Iris, fine orange red. The crest, which is short, the feathers being a little lengthened on each side of the upper part of the head, and capable of being extended or not at pleasure, the forehead and crown, rich blackish brown, in winter tinged with grey; the sides of the lower part of the head, greyish white. Neck on the back, and nape, dark greyish black; the sides and front of the neck, rusty yellowish red; chin and throat, white, or greyish white. Breast on the upper part, and below, silvery greyish white, turning to brownish grey, with some dusky streaks on the sides. Back, dark greyish or blackish brown; the tips of the feathers being greyish brown, the remainder blackish brown.

The wings are very short; greater and lesser wing coverts, dusky blackish brown; primaries, dark, nearly black towards the tips, the remainder dark tawny brown; secondaries, mostly white, and some with more or less black on the outer webs, one or two of the first, that is, towards the outside of the wing, have the tips only white, gradually increasing on each; tertiaries, dusky blackish brown. Under tail coverts, greyish brown. The legs are broad and flat, edgeways towards the front. They are greenish black on the outer part, and on the inner dull yellowish green; toes, the same; lobes, dusky on the outside.

Female; bill at the base, dull yellow. Crown, neck on the back, and nape, dusky; throat, white. Breast

above, pale reddish rust-colour, mixed with some dusky; below, dusky white. Back, dusky.

The young have the head and neck dusky brown, the chin and throat greyish white; the back paler than in the adult.

DUSKY GREBE.

SCLAVONIAN GREBE. HORNED GREBE.
HORNED DABCHICK. BLACK AND WHITE DABCHICK.

<i>Colymbus obscurus,</i>	GMELIN.
" <i>Caspicus,</i>	GMELIN.
" <i>cornutus,</i>	GMELIN.
<i>Podiceps</i> "	LATHAM.
" <i>obscurus,</i>	LATHAM.
" <i>Caspicus,</i>	LATHAM.

Colymbus—A Diver. *Cornutus*—Horned. *Cornu*—A horn.

THIS Grebe is found in Europe in Iceland, and occurs in France, Germany, Holland, Switzerland, and Italy. In Sweden it breeds, so also in Sclavonia, whence one of its names. In America it ranges from Hudson's Bay and the Fur Countries, Canada and the United States, to Florida, and is a generally distributed species. It is found likewise in the northern parts of Asia, and about the Caspian Sea.

The places that it frequents are both the sea-coast and its inlets, lakes, and large ponds.

A fine immature specimen of the Sclavonian Grebe was found on the 22nd. of October, 1853, in a disabled state by the side of the railway, near Stockton-on-Tees, having evidently flown against the telegraph wires, as many other birds have at different times done, the result being a fatal "shock to the system," the "electric



DUSKY GREBE.

wire" being at one and the same time a "conductor" thereof, and a "non-conductor" to them.

One of these birds, of which W. Brooks Gates, Esq. has given me an account, was taken in the parish of Weston Favell, near Northampton, in January, 1855. Another, a young bird, at Piddinghoe, in Sussex, the end of January, 1850. One also in Lancashire, on a reservoir at Beswick. In Oxfordshire, several have been killed near Oxford in the winter months; some also, though very rarely, during summer. In the county of Durham, one was shot on the Tees, near Stockton, on the 13th. of November, 1852. The young bird is not uncommon on Breydon, near Yarmouth, Norfolk, in the winter, being a regular visitant to that county; an adult was met with in May, 1826. In Lincolnshire, Mr. Alington records it as occurring on Croxby Lake; it has also been procured elsewhere. In Cornwall one was killed near Truro, May 4th., 1796. Also in Devonshire.

In Sutherlandshire this Grebe is a permanent resident, and throughout the whole of Scotland, for it occurs all the way to the Border; it is in the winter that it is usually observed. Sir William Jardine has frequently shot the species on the Annan, in Dumfriesshire.

In Orkney, it is, though in small numbers, a constant inhabitant. It was formerly common about the Loch of Aikerness, and is still occasionally seen about the Loch of Stenness. It is more frequently observed in the immature state than in the adult plumage. It belongs also to Shetland.

In Ireland, a few individuals have occurred in the counties of Meath and Kildare.

In Wales, Mr. Dillwyn has noticed the occurrence of a specimen at Peurice, near Swansea; it was shot by C. R. M. Talbot, Esq., M.P.

The annual migration of this species takes place in April and May for the north, and in October and November for the south: it is conducted by night. The birds go in flocks of thirty together.

Meyer says, "It is a remarkable fact in the character of this species, that it generally swims about near the shore, and scarcely ever dives on the approach of danger, until it has become imminent." It certainly appears not to be so shy or alarmed at danger as the common species, but as soon as danger is apprehended the bird is down in an instant. More than three or four are seldom seen together. The male and female exhibit much conjugal affection.

It seems that these and other Grebes, when they have young, dive with them sheltered under their wings. They go to a great distance, when alarmed, beneath the water, and it is said take wing on emerging to the surface.

These birds feed on shell-fish, crustacea, insects, and parts of plants, procured by diving. They also appear to swallow some of their own feathers at times.

The nest of this species is large—a mass of reeds, sedge, and other water-plants, placed by the edge of the liquid element, or floated on the surface among the rushes or other such vegetation as there has its natural growth.

The eggs appear to be from two to four or five in number. They are of a white colour, with a faint tinge of blue.

Male; length, one foot one inch and a half; the base of the under mandible is pale yellowish pink, the tip, greyish, the remainder black; the space between the bill and the eye is rich yellowish chesnut red, or orange buff-colour, and this bar goes behind the eye, growing gradually broader; iris, yellow in the centre, surrounded

with bright crimson red, the pupil bordered with white; the eyelids and the feathers round the eye and those that compose the double-horned tuft on the back of the head are of a bright orange buff-colour; the tufts are somewhat erectible, and stand out like two ears. The forehead, dull ferruginous; the crown, the ruff that surrounds the head, its sides, and the upper part of the neck, are dusky black, with a reflection of purple or green; in winter dark brown; neck in front and on the sides, bright ferruginous orange chesnut; on the back part and the nape, dusky, or blackish grey dashed with ferruginous, the feathers having paler margins. Chin and throat, dusky black with purple and green reflections, and a little mottled with white, in winter white; breast on the upper part bright, ferruginous orange chesnut, darker on the lower part; below silky white, the sides intermixed with dusky and orange ferruginous; in winter the breast on the upper part is greyish white. Back, blackish grey, the edges of the feathers being paler than the remainder; in winter it is dark greyish brown.

The wings extend to the width of one foot ten inches; greater and lesser wing coverts, dark brown; the primaries are dark brown; the secondaries are tipped with white; forming a conspicuous band across the wing when opened; the tertiaries are in winter greyish brown. Under tail coverts, white. Legs and toes, blackish grey on the outer part, and pale yellowish or greyish brown tinged with pale yellowish grey on the inner.

In the autumn, from the base of the bill a stripe of chesnut-tipped feathers goes over the eyes to the back of the head; the head on the crown is dull black, on the sides mottled with black and white, not quite meeting behind the head; neck in front and on the sides, mottled with dusky and chesnut; throat and breast, silvery white.

Back on the lower part, mottled with dusky and chesnut.

The female is of less bright colours and size.

The young, when first hatched, are covered with grey down. The bill is dusky, the base of the lower mandible and the tip pale horn-colour; head on the sides white, on the crown, neck on the back, and nape, dark ash-coloured with a tinge of brown; chin and throat, white; breast, silky white, the sides grey. Back, dusky brownish grey, the margins of the feathers paler. Legs and toes, dusky, darker on the front than the back part.



PAUL G. H. 1880

EARED GREBE.

EARED DABCHICK.

Colymbus auritus,
Podiceps “

LINNÆUS.
 LATHAM.

Colymbus—A Diver. *Auritus*—Eared. *Aures*—The ears.

THE Eared Grebe belongs to various countries of Europe—Iceland, Russia, Sweden, Lapland, Germany, Holland, Switzerland, Greece, France, Italy, and Zealand. In Asia it is found in Siberia, and has been procured also from Persia. It is said to be a denizen of the United States, and to belong, too, to the Falkland Islands.

Its haunts are fresh-water lakes, rivers, and pools, as also the sea-coast.

A specimen of this bird was taken in January, 1850, in a stackyard at Thorsway, near Swinhope, Lincolnshire, as I am informed by the Rev. R. P. Alington. They used formerly, as recorded by Pennant, to breed in the fens near Spalding. One was obtained in Surrey, at Frincham Pond, near Farnham. In Cambridgeshire one on Whittlesea Wash, the middle of December, 1849, and two others near Wisbeach, about the same time. In Cornwall a specimen, a male, was obtained near Truro in April, 1829. Two in April, by T. Passingham, Esq., at Pennance Point; several were seen in 1849, about Gwyllyn Vase and Swanpool, Falmouth, and one January 15th., 1851.

In Norfolk one was shot near Yarmouth, on the 14th. of April, 1851. Two others, a male and a female, in fine plumage, on the 17th. of the same month. They are rarely shot on Breydon-on-the-Broads. Five specimens, all males, were killed within a week at Wroxham Broad and other places in the county. One at Sutton the end of April, 1849. In Durham one near the Light-house, by the Tees' mouth, 12th. of April, 1846. A pair of these birds were shot on a pond by Peperharow Park, near Godalming, Surrey. In Oxfordshire a fine male specimen was shot on Port Meadow, near Oxford, the end of April, 1843. In the month of June, 1847, a specimen was captured on the Isis near Sandford in full summer plumage. The bird has been procured near London, one at Hampstead, and two near Kingsbury, Middlesex, in 1841. One at Duxford; also in Dorsetshire and Sussex. Others have occurred in the winter months.

In Orkney this Grebe is stated by Mr. Clouston to be not rare. One was shot near Kirkwall in October, 1852, by J. H. Baikie, Esq.

In Scotland a few specimens have occurred. Robert Gray, Esq., of Glasgow, has sent me notice of one met with at Dunbar.

In Ireland it is extremely rare, but has occurred in the county of Dublin.

They dive to perfection, and are equally "au fait" at swimming.

They feed on water-insects and their larvæ, tadpoles, young frogs, and water-plants, obtained principally by diving.

The bird before us builds its nest of and among reeds and rushes, and places it by the edge of a pond.

The eggs are of a pure white colour, sometimes with

and sometimes without a tinge of blue; the surface is rough. They are of a regular oval shape, widest in the middle, and tapering towards each end. Their number, three or four, or, Selby says, four or five.

Incubation is said by Meyer to last three weeks.

Male; weight, nineteen ounces; length, one foot to one foot and one inch. The form of the bill readily distinguishes this species. It is gradually bent upwards to the tip, which is slightly reflected. The under bill reddish at the base, the tip, and the whole of the upper bill, black; the tip is slightly bent; the base flattened. Iris, rich deep orange red, the eyelids edged with the same colour; behind the eye is a triangular-shaped patch, presently described; forehead, sooty black. The head on the sides has two tufts of long narrow feathers of pale yellow or buff, passing into deep orange chesnut. Crown, neck on the back, and nape, shining black; chin, speckled with grey; throat, deep shining greyish black. Breast, silky white, the sides shaded with dusky and deep chesnut red. Back, dark brown.

The wings measure one foot ten inches across when extended. The secondaries are tipped with white, most visible when the wing is open. The legs are in front dusky greenish, and behind greenish ash-colour.

The female, generally speaking, resembles the male.

DABCHICK.

DOBCHICK. LITTLE GREBE. BLACK-CHINNED GREBE.
 DIDAPPER. DUCKER. DIPPER. SMALL DOUCKER. LOON.

<i>Colymbus Hebridicus,</i>	GMELIN.
<i>Podiceps minor,</i>	PENNANT. MONTAGU.
“ <i>Hebridicus,</i>	MONTAGU. BEWICK.

Colymbus—A Diver. *Hebridicus*—Belonging to the Hebrides?

THIS small species is common in Europe in Switzerland, and is found in France, Italy, Holland, and Germany.

It is noticed also at the Cape of Good Hope, and in other parts of South Africa. In Asia it appears to exist likewise in the same latitudes.

The Dabchick is very generally distributed over the British Islands, and though more commonly seen perhaps in winter than in summer, appears both in the extreme north and the farthest south at all seasons.

Its natural home is the water, both the open lake and the village-pond, the gently flowing river and the still pool, the narrow streamlet and at times the edge of the open sea. In winter, when the frost has shut the door of its natural larder, it betakes itself to the salt-water, if within reach, and is then to be found in bays and sea-side pools.



DABCHICK.

In the "Zoologist," page 1601, J. H. Gurney and W. R. Fisher, Esqrs., relate that more than one specimen of the Little Grebe were taken about the 14th. of December, 1846, in the streets of Norwich; and on the 23rd., a gentleman, who was passing about eleven o'clock at night along the street, was surprised by a bird of this species suddenly striking against the wall near a gas-lamp, which was above him, and immediately afterwards falling upon his head. In Norfolk they are not uncommon at Yarmouth and elsewhere; also in Lincolnshire. In Nottinghamshire they occur on the Trent. In Cornwall they are plentiful on Swanpool, near Falmouth.

In Scotland the species is equally common as in England, in Sutherlandshire, Dumfriesshire, and other parts, and is commonly met with in the Frith of Forth; likewise in Shetland and Orkney. So also in Ireland it is indigenous.

In some parts of the country the Dabchick disappears, so it is said, in winter. In Yorkshire it is constantly seen at that season, as well as in summer, except indeed when its usual places of haunt are frozen up, and then, as a matter of course, it is obliged to quit them for a time. In frosty weather they are compelled from the larger pieces of standing water to the running stream.

This Grebe is naturally less, but becomes accustomed to the sight of passers by the water that it inhabits, and its quick movements in diving may be watched not far off with little disturbance of its proceedings. They occasionally enter the sea close to the shore in those places where their accustomed haunts are adjacent to it.

The Dabchick, like some other birds previously mentioned, has the power of sinking its body under the water, the head only and tail being kept out, and of then submerging itself, if need be, and diving off to

some distance, when it rises as suddenly as it went down, and with a shake of the head, urges itself on its way. If suddenly startled, it is curious to see how "instanter" it vanishes with a quick splash; and this even more especially to be admired, if it has risen to the surface after having been before alarmed, when, if the cause of disquietude is still visible, its descent again seems but a continuation of its upward movement. It is able to remain underneath the water for an almost incredible time, if need be, and when anxious to escape from threatening danger, rarely resorts to flight, though it will do so at times, but endeavours to conceal itself after the first alarm among the tangled plants that fringe the margin, or carpet the floor of its native element.

If alarmed they dive, this, as just said, being the mode of escape they prefer to attempt. They are spirited birds, and when taken will attack any object within their reach. The young, when hatched, presently take to the water, and swim about with their parents to be fed, diving also with innate readiness.

I have only seen these little things fly close over the water, with trailing legs, dappling the surface as they have gone along. They have however been observed flying at a height of from six to ten feet. Their flight is tolerably rapid. It is on and below the surface of the water, however, that they are most at ease, and every movement is characterized by the most consummate dexterity and facile quickness and agility: the most expert waterman that skulls his skiff on the Thames or the Isis, is but an humble and unskilful imitator of the Dabchick. In moving straightforward the wings are used to aid their progress, as if in the air, and in turning "it has an easy gliding motion, feet and wings being used as occasion requires, sometimes on one side

and sometimes on the other." This species walks but indifferently, as may readily be imagined from the position of the legs, so very far back.

It is pleasant to watch the parent bird feeding her young.—Down she dives with a quick turn, and presently rises again with, five times out of six, a minnow or other little fish, glittering like silver in her bill. The young rush towards the spot where the mother has come up, but she does not drop the fish into the water for them to receive, until she has well shaken it about and killed it, so that it may not escape, when for the last time in its own element. I have seen a young one, which had just siezed, out of its turn I have no doubt, the captured prey, chased away by her, and pursued in apparent anger, as if for punishment, the following one being willingly given the next fish without any demur. I have noticed the old bird feeding the young one so late as the 14th. of September. Small fish or young fry comprise their ordinary food, together with shrimps and marine insects, when sojourning for a while by the sea. Plants are also made use of, and some of the feathers of the bird itself are swallowed. A Dabchick was found dead at Witchingham, in Norfolk, apparently choked by a bull-head fish, which it had been swallowing, the spines being seen sticking in its throat. Other similar instances have very often occurred.

The note of this interesting species is a lively, pretty, and sonorous, though somewhat shrill, chirruping, quickly repeated. It is uttered when on the wing in the spring, as well as when on the water at other times. It has been likened to the sound made by drawing a stick across a rail.

The nest of the Dabchick, which is placed at a little distance, often as much as twenty or thirty yards,

from the water, on or among any plants that grow near the sides of rivers, lakes, and ponds, is composed of short pieces of roots, reeds, rushes, and flags, and a considerable quantity of these is occasionally put together, sometimes to the height of a foot or more; when dry the whole naturally becomes very brittle. It is seldom raised more than an inch or two above the water, so that, except in hot seasons, it generally is quite soaked with water.

The hen bird may be seen pecking about her while on the nest. It is related that until the latter is finished she is in the habit of sitting at night on a similar but smaller tuft which she has raised by its side.

The eggs are four, five, or six in number, oval in shape, tapering towards each end, and dull white in colour. The bird is in the habit of covering them over with weeds when leaving the nest for a time, at least, as soon as they are all laid; and it would further appear that the covering is not then removed, but that she sits on both it and the eggs: they become a good deal stained in consequence. The period of breeding is about the middle of May.

The young take to the water immediately on being hatched.

Male; weight, between six and seven ounces; length, from nine inches and a half to ten inches; bill, black, the tip paler, a light horn-colour; the upper mandible is straight, the under one angular; in winter the lower mandible is paler than the upper: the basal part of both is yellowish or yellowish white; iris, deep reddish brown. Head on the crown, neck on the back, and nape, dark brownish black, glossed with green; the head on the sides is chesnut red: in winter all these are brown.

The feathers about the head are soft and flexible, and capable of being puffed out or laid flat at the pleasure of the bird. Chin, dull black, also with a tinge of green. Throat and breast, dull but glossy silvery greyish white, with a tint of black; on the sides dusky brown. Back, rusty blackish brown, with a tinge of dull greenish, shading towards the sides of the breast into a paler tint, which is continued down to the flanks. In winter the back is brown—the lower part is paler than the upper.

The wings in the stretch are about one foot four inches; primaries, dark brown, in winter some of them are greyish white; secondaries, white at the base and on the inner webs, apparent when the bird is flying; in winter they are greyish white. Legs and toes, dull blackish green, the insides paler, and with a tinge of yellowish red. They are large in size in proportion to that of the bird.

The plumage of the young chick is dark brown on the head, neck, and back, with longitudinal streaks of pale yellowish brown; the breast silvery white. In the first year's plumage the bill is pale yellowish brown at the tip, the remainder brownish horn-colour; the head, neck on the back, and nape, rather pale brown, with a mixture of grey and rufous; the sides of the neck still lighter, eventuating in reddish grey; the chin white; the breast greyish white; the sides clouded with brown.

END OF THE FIFTH VOLUME.

B. FAWCETT, ENGRAVER AND PRINTER, DRIFFIELD.



