GOULD'S

BIRDS

OF

EUROPE

RAINES, BINDER, BATH

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V.4

THE

BIRDS OF EUROPE.

BY

JOHN GOULD, F.L.S., &c.

IN FIVE VOLUMES.

VOL. IV.

RASORES. GRALLATORES.

LONDON:

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

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

1837.

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VOLUME IV.

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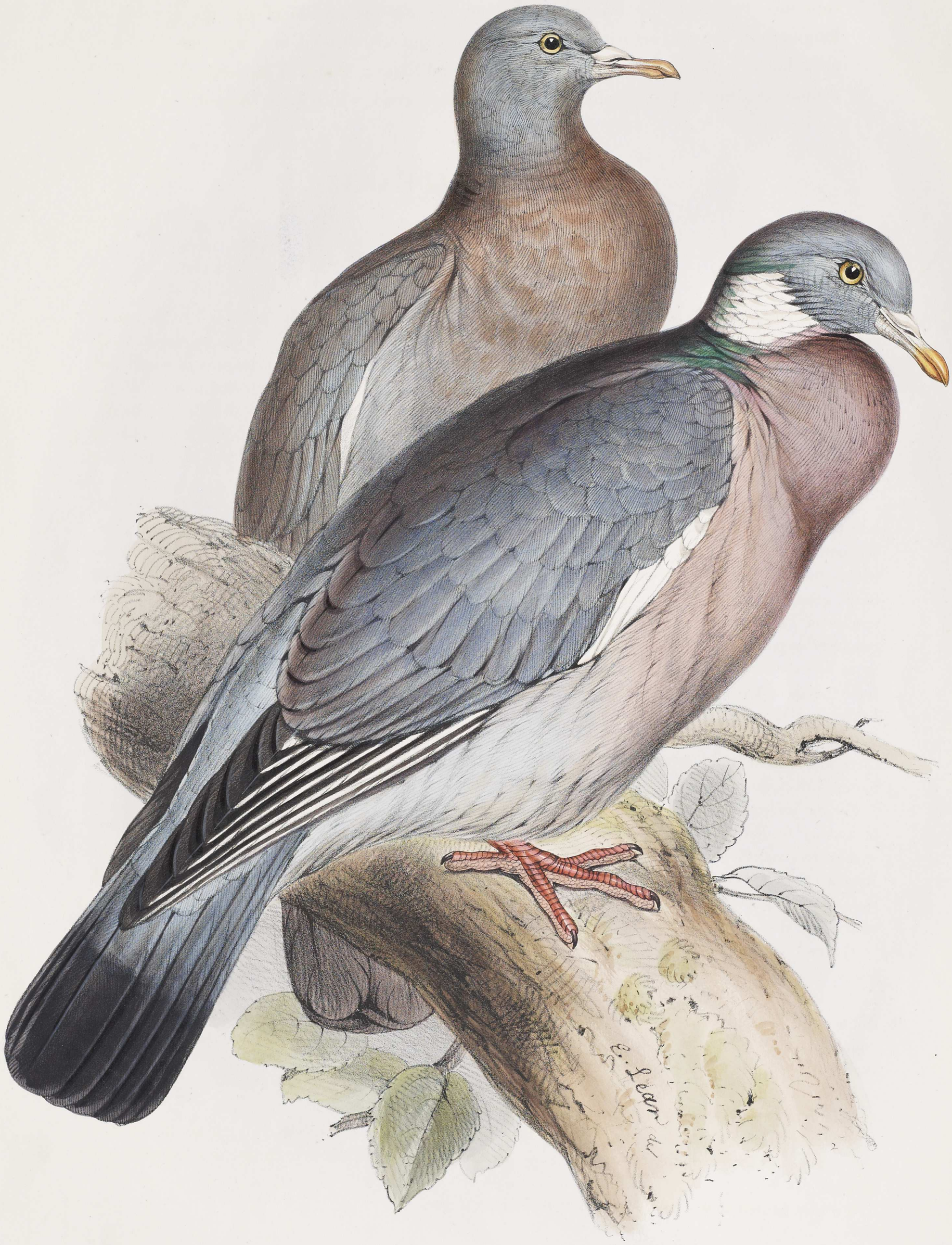


WOOD PIGEON.

Columba palumbus. *(Linn.)*

E. Lear del et lith.

Printed by C. Hullmandel.

Genus COLUMBA.

Gen. Char. *Bill* of mean strength, straight at the base, with the tip or horny point compressed and deflected. Base of the upper mandible covered with a soft, protuberant, cartilaginous substance in which the *nostrils* are lodged towards the middle of the bill, forming a longitudinal cleft. *Feet* with three toes before, entirely divided, and with one hind toe articulated on the heel. *Claws* short, strong and blunt. *Wings* of moderate length and acuminate; the first quill rather shorter than the second, which is the longest.

WOOD PIGEON.

Columba palumbus, *Linn.*

La Colombe ramier.

The Wood Pigeon, or Ring-dove, is, in Europe, the largest species of the genus to which it belongs, and is sufficiently common over the whole of the European continent to be exceedingly well known, but is considerably more abundant as well as more stationary in the southern parts. It lives principally in woods and forests, and feeds upon all kinds of grain, the leaves of some plants, corn, beech-nuts and acorns. In the British Islands the Wood Pigeon is a constant resident in the large tracts of wooded and inclosed districts, feeding during summer and autumn on the leaves of young clover, green corn, peas, beans, &c., and resorting in flocks during the severer weather of winter to turnip-fields, and to the woods for berries and the harder produce of oaks and other trees.

Early in the spring these birds begin to pair; they make a flat thin nest of small sticks loosely put together, a fir tree in a grove or plantation being a favourite receptacle, on one of the horizontal branches of which the nest is placed, generally twelve or sixteen feet from the ground. The eggs are two in number, oval and white; the young birds are fed from the softened contents of the parent's crop, and two or three pair of young birds, generally a male and a female in each pair, are produced in the season. Ornithologists agree that this species of Pigeon has never been induced to breed in confinement. Montagu says, "We have been at considerable pains to endeavour to domesticate this bird; and though we have tamed them within doors so as to be exceedingly troublesome, yet we never could produce a breed, either by themselves or with the tame Pigeon. Two were bred up together with a male Pigeon, and were so tame as to eat out of the hand, but as they showed no signs of prolificacy in the spring, were suffered to take their liberty in the month of June, by opening the window of the room in which they were confined, thinking the Pigeon might induce them to return to their usual place of abode, either for food or to roost; but they instantly took to their natural habits, and we saw no more of them, although the Pigeon continued to return."

For the information and encouragement of those who may have the inclination as well as the opportunity of making further trials, with the view to endeavour to domesticate so large and valuable a species, we are enabled to state, that a pair of these birds in the dove-house at the Gardens of the Zoological Society in the Regent's Park, built a nest and produced two eggs, but unfortunately during the period of incubation, in which the male assists, the eggs were broken by some of the numerous other birds, most of them of the same genus, with which they were confined.

The head, coverts of the wings and scapulars are of a deep blueish ash colour; the neck in front and the breast vinaceous, beautifully glossed with green and copper colour, changeable in different lights; on each side of the neck is a large patch of glossy white; back and tail ash colour, the latter black at the end; vent and thighs white, tinged with ash colour; the bastard wing almost black, near which a few of the coverts are white, forming a line down to the greater quills, which are dusky, edged with white; beak pale flesh colour, the tip reddish orange; legs and feet red.

Like most of the genus, the Wood Pigeon has great powers of flight. There is little or no distinction in the plumage of the sexes; but the male is the larger bird of the two.

Young birds before their first moult have neither the white space on the sides of the neck, nor the brilliant and glossy appearance of the plumage of adult birds: the whole of their colours also are less pure and decided.

We have figured an old and a young bird of the natural size.



STOCK DOVE.

Columba œnas. *(Linn.)*

Drawn from Life and on Stone by J. & E. Gould.

Printed by C. Hullmandel.

STOCK DOVE.

Columba œnas, *Linn.*

Le Colombe colombin.

Although the Stock Dove closely resembles many of our domestic breeds in plumage and general appearance, it is not now considered the origin of those birds; the European varieties of which are ascribed to another nearly allied species, the *Columba livia*, whose natural habitat is confined to rocks, towers and ruins, especially those adjacent to the sea-coast, whereas that of the present species is restricted to woodlands, building in hollow trees and perching on their branches. Independently of the difference of the localities chosen by each, we find the Stock Dove destitute of that peculiar mark which characterizes most of our domestic varieties, viz. the conspicuous white band on the rump and upper tail-coverts,—a feature equally distinguishing the *Columba livia* from the present bird, in which we find this part of the same lead-coloured blue as the rest of the plumage.

The Stock Dove inhabits the whole of the middle countries of Europe, becoming less common as we approach the northern and southern regions. In England it is found in several midland districts that are well covered with woods, particularly Hertfordshire and the adjoining counties.

The *Columba œnas* is one of the many of its species in which the typical characters both as to colour and form are truly developed: in its manner it closely resembles the Wood Pigeon; it differs, however, in some minor points, viz. the situation of its nest, and its more shy and retired disposition at the time of incubation. Its favourite breeding-place is among parks, beech-woods, and forests abounding with old trees, in the holes of which it frequently breeds, making but little or no nest, as is usual we believe with most of the birds of this genus. It lays two eggs of a pure white. Its food consists of peas, and other leguminous seeds, to which it adds the green tops of turnips and other vegetables.

The sexes offer no differences in plumage, and the young are only to be distinguished by the want of the changeable reflections of green on the sides of the neck, and the general dulness of the plumage.

The head and whole of the upper surface is of a beautiful blueish ash colour; the quill-feathers dark grey; the centre of the wings have two obscure spots of black, the tips of the tail-feathers being of the same colour; the sides of the neck are of a rich changeable green; the breast is tinged with vinous, and the whole of the under parts are of a more delicate grey than the upper; beak dull red; irides and feet dull scarlet. Total length twelve or thirteen inches.

Our Plate represents an adult bird of its natural size.



ROCK DOVE.

Columba livia; *(Linn.)*

Drawn from Nature & on Stone by J & E. Gould.

Printed by C. Hullmandel.

ROCK DOVE.

Columba livia, *Linn.*

Le Colombe biset.

It is now almost universally conceded that this small and elegant species of Pigeon is the origin of the numerous domestic varieties which tenant our dovecotes and pigeonlofts. We are aware that the Stock Dove (*Columba œnas*, Linn.) has been reputed as the parent stock from whence they have sprung; but taking the habits and manners of the two species into consideration, we cannot fail to perceive on which side the probability lies, the *Columba œnas* being altogether woodland in its habits and strictly migratory, while the present species is an inhabitant of precipitous rocks, towers, and steeples, never perching on trees, and generally remaining with us throughout the year. To this we may also add, that the white rump which distinguishes the Rock Dove is retained by its descendants in captivity, or if it disappear for a few generations in obedience to the art of the pigeon-fancier, whose skill consists in producing monstrosities in nature, it uniformly returns, or at least shows so strong a tendency so to do that still further crosses are required to prevent the white feathers from predominating. As regards the difference in size and form which our domestic Pigeons exhibit, we have only to observe that they show the same results of the influence of man upon the animals subject to his controul as do the dog, the sheep, and the ox. One thing is certain, as experience has well taught us, that domestication has a decided tendency to produce both an increase of size and a variation of form and colours.

The habitat of the Rock Dove appears to be extended throughout Europe and the greater portion of Africa, particularly its northern regions, everywhere frequenting the rocks which border the ocean, islands, precipices, and ruined buildings adjacent to the coast. Along the shores of the Mediterranean and in the island of Teneriffe it abounds in great multitudes, and in our own islands it is nowhere more plentiful than in the Orkneys and along the coasts of Wales; it is, however, also to be met with wherever abrupt rocks near the sea afford it a congenial asylum.

Like the rest of its genus, it lays two white eggs, on the shelves of the rocks, and is said to breed twice or thrice in the season.

Its food consists of grain and various seeds, to which, according to Montagu, are added the inhabitants of various land shells, particularly that of the *Helix virgata*.

The colouring, which is the same in both male and female, is as follows:

The head, face, and throat deep blueish grey; neck and chest beautiful green and purple, changing in every light; upper and under surface delicate blueish grey, with the exception of the rump, which is white; two distinct bars of black pass across the wings; quills and tail dark grey, the latter tipped with black; bill brown; legs and irides red.

The figure represents the bird of the natural size.



TURTLE DOVE.

Columba Turtur, *(Linn).*

Drawn from Life & on Stone by J & E. Gould.

Printed by C. Hullmandel.

TURTLE DOVE.

Columba Turtur, *Linn.*

La Colombe Tourterelle.

Among the feathered harbingers of spring, whose voice gladdens our woodlands when "winter is over and gone," this charming bird has ever been celebrated as a universal favourite. The Turtle Dove, as if by common consent, in every age and in every clime, has been considered by the poet as an emblem of serenity and peace, to grace and soften his pictures of rural harmony. No one can listen with indifference to its notes among the budding foliage of the trees, blending with the songs of other birds, and harmonizing with the genial influence of reviving Nature.

The Turtle Dove appears among us in April; but, like other birds that arrive about the same period, its appearance is influenced by the congeniality and mildness of the season. On arriving, it takes up its abode in the thickly wooded districts of our island, more especially the midland and southern counties, commencing the process of incubation as soon as the foliage becomes sufficiently dense to afford it shelter, selecting with indifference any tree, but more frequently the fir and such others as have their stems covered with ivy, and thus afford a secure resting-place for their rude flat nest. Upon this frame-work, composed of a few straight sticks most inartificially crossed, and interwoven with little care or skill, the female deposits two eggs of the purest white, which may be seen through the apertures of the nest, so slightly and so rudely is it built.

The Turtles pair, as do the Doves in general. The male and female sit by turns, alternately relieving each other, dividing the task of incubation and mutually providing for the wants of their unfledged progeny. The young the first autumn have only the indication of white on the neck, and the feathers of their plumage emarginated with distinct and lighter brown. They as well as their parents depart, in September and October, to the opposite shores of the European Continent, whence they proceed southward to more congenial climes. The Turtle Dove, however, is abundant over Continental Europe, extending far northward, but is not found, we believe, within the region of the arctic circle. Its general habits appear to be migratory; and if we may hazard a conjecture, we should consider that the northern and particularly the more woody portions of the coast of Africa form its winter domicile, as we have reason to know is the case with so many of our summer visitants. Its food consists of grain and vegetables, in search of which it frequents fields of corn for pease and other vegetable seeds.

The sexes differ in so trifling a degree, that the description of one will serve for both. The head and neck are varied with ash-colour, becoming richer and brighter on the breast; the sides of the neck are distinguished by a patch of black feathers uniformly tipped with white, so arranged as to produce a series of alternate lines of black and white; the back dark brown; the wing-coverts reddish brown, each feather having a large dark central mark; tips of the shoulders lead-colour; quill-feathers brown; the lower part of the belly and tail-coverts white; tail rounded; the two middle tail-feathers brown; the rest tipped with white; the external feather on each side having its external edge also white; irides and feet red. Length eleven inches.

Our Plate represents an adult male.


E. Lear, del.
COMMODIE ASIANE.
Phasianus Gelbianus

Genus PHASIANUS, *Linn.*

Gen. Char. *Bill* of mean length, strong; upper mandible convex, naked at the base, and with the tip bent downwards. *Nostrils* basal, lateral, covered with a cartilaginous scale; cheeks and region of the eyes destitute of feathers, and covered with a verrucose red skin. *Wings* short, the first quills equally narrowed towards their tips, the fourth and fifth the longest. *Tail* long, regularly wedge-shaped, and composed of eighteen feathers. *Feet* having the three anterior toes united by a membrane as far as the first joint, and the hind toe articulated upon the tarsus, which in the male birds is furnished with a horny, cone-shaped, sharp spur.

COMMON PHEASANT.

Phasianus Colchicus, *Linn.*

Le Faisan vulgaire.

This bird has been so long naturalized that it may now be said to claim a place in the European Fauna; it would, however, appear that Europe is not its aboriginal habitat, and that there is every reason to believe that it was introduced at a very early period from the western confines of Asia; and history assigns to Jason the honour of having brought it from the banks of the Phasis on his celebrated expedition; and from whence the various modifications of the word are derived, viz. Phasianus in Latin, Pheasant in our own language, Faisan in French, Faisiano in Italian, &c. The ancient Colchis is the Mingrelia of the present day, and here it is said to be still found wild and unequalled in beauty.

All the details connected with the habits and manners of this species are so well known to every one that we need do little more than refer our readers to the minute and accurate descriptions published by Montagu and Mr. Selby, of the changes of plumage, diseases to which it is subjected, &c.

The nest is very inartificial, and is placed on the ground in long grass or thick underwood, and not unfrequently in fields of clover: the eggs are of a clear dull green, and from ten to fourteen in number. The young, which are hatched during the months of June and July, continue with the females until they begin to moult and assume the adult plumage, which commences about the beginning of September, and is completed by the middle of October.

The food of the adults consists of grain and seeds in winter, of roots and insects in spring and summer; but the young are fed exclusively upon the latter. "I have observed," says Mr. Selby, "that the root of the Bulbous Crowfoot (*Ranunculus bulbosus*), a common but acrid meadow plant, is particularly sought after by this bird, and forms a great portion of its food during the months of May and June. The root of the garden tulip is also an article of diet, which it omits no opportunity of obtaining, and which by means of its bill and feet, it is almost certain to reach, however deep it may be buried."

The male has the cheeks naked and of the brightest scarlet, minutely speckled with black; the crown of the head bronzed green; on each side of the occiput a tuft of dark golden green feathers, capable of being erected at pleasure, and very conspicuous in the pairing-season; upper part of the neck dark green, glossed with purple and violet blue; lower part of the neck, breast, and flanks deep reddish orange, showing in some positions beautiful reflections of light purple; each feather bordered and terminated with pansy purple; centre of the belly and thighs blackish brown; centre of the back and scapular feathers black or brownish black, surrounded with a yellowish white band and bordered with deep reddish orange; lower part of the back and upper tail-coverts green, intermingled with brownish orange and purplish red; tail-feathers brown, crossed by bands of black, and fringed with reddish brown; bill pale yellow; irides pale brownish orange; legs and toes greyish black.

The female has the cheeks covered with small closely set feathers, and the whole of the plumage yellowish brown, mingled with different shades of grey, brown, and black.

We have figured an adult male and female one third less than the natural size.



Genus **TETRAO**, *Linn.*

Gen. Char. *Bill* short, strong; upper mandible convex, and arched from the base to the tip. *Nostrils* basal, lateral, partly closed by an arched scale, and hidden from view by small closely set feathers. *Eyebrows* naked, and adorned with a red papillose and fringed skin. *Wings* short; first quill much inferior in length to the second, which is shorter than the third and fourth. *Tail* of sixteen feathers. *Feet* with three toes before, united as far as the first joint, and one behind, short, the edges of all pectinated. *Tarsi* feathered to the toes.

CAPERCAILZIE, OR COCK OF THE WOOD.

Tetrao Urogallus, *Linn.*

Le Tetras Auerhan.

This noble bird, the largest of the Grouse tribe, was once common in the forests of Scotland, and, in all probability, in the northern parts of our island; for centuries, however, it has been gradually diminishing in number until at length it has become completely extinct there. Mr. Selby informs us that "the last individual of this species in Scotland was killed about forty years ago, near Inverness; previous to which date the breed had become extinct in Ireland."

Those who wish to see this bird in a state of nature must visit the extensive forests which cover the greater portion of Norway and Sweden, from whence our markets are annually supplied with this celebrated game. Although these countries may be considered as its great depôt, it is also to be found in all the wild and mountainous districts of Europe wherever extensive pine-woods afford it food and shelter.

In habits and disposition the Capercailzie and the Black Cock (*Tetrao Tetrix*), differ considerably from the genuine Grouse; they are, in fact, more essentially arboreal, and their feet being furnished with horny papilli enable them to rest on the smooth and slippery branches of the pine and other alpine trees. As the breeding-season approaches, the male becomes greatly excited, and perched on some large branch, in a dense part of the forest, invites his mate by often-repeated and loud calls, which very frequently leads to his own destruction by apprising the sportsman of the immediate locality in which he is seated: hence in the months of April and May the London markets are frequently stocked with fine males in their highest state of plumage, and with a favourable wind for the lobster-boats, which are the general means of conveyance, arrive in good order.

The male far exceeds his mate in size and in the beauty and elegance of its plumage.

The Capercailzie is decidedly polygamous in its habits, and lives separate from the females except in the breeding-season. The female rears her young in independent seclusion: the nest is placed amidst brakes and dense underwood; the eggs are from eight to sixteen in number, of a yellowish white spotted with darker yellow.

The young of both sexes during the first autumn resemble the female; but as spring approaches, the males assume their sexual characteristics of plumage.

The food of the Capercailzie consists of alpine berries, tops of fir, snails, &c.

The male has the head, neck, whole of the upper surface, flanks and under tail-coverts dark ashy grey, with innumerable small irregular markings of black; forehead and throat dusky black, the feathers of the latter being long and pendulous; breast fine dark glossy green; wings fine chestnut brown, with innumerable small irregular markings of black; secondaries slightly tipped with white; quills dull brown on their inner webs, paler on the outer; under surface black with spots of white, which are most numerous about the thighs and vent; the two outer rows of the upper tail-coverts are tipped with white, are considerably longer than those in the middle, and, gradually lengthening, reach nearly to the end of the tail, which is rounded and of a black colour with a few irregular spots of white on the sides; bill yellowish white; irides hazel; over the eye a bare red skin; legs covered with brown hair like feathers.

The female has the head, neck, and upper part of the back barred with reddish brown, grey and black; wings and lower part of the back dark brown, each feather edged and tipped with irregular markings of reddish brown; secondaries tipped with white; quills as in the male but lighter; throat pale reddish brown; breast rich reddish brown; under surface pale reddish brown, each feather being barred near its extremity with dark brown and tipped with greyish white, which colour predominates on the under tail-coverts; tail rich rufous brown, numerously barred with very dark brown; bill greenish horn colour; legs pale brown.

We have figured a male and female about two thirds of the natural size.



HYBRID GROUSE.

Tetrao hybridus. (Sparrm.)

HYBRID GROUSE?

Tetrao hybridus, *Sparrm.*

——— medius, *Meyer.*

Le Tetras Rakhelhan.

We believe it is now the prevailing opinion among naturalists, that the bird figured in the accompanying Plate (the *Tetrao medius* of Meyer and Temminck,) is merely a hybrid between the Capercailzie and the Black Grouse, and as we ourselves are inclined to entertain the same opinion, our figure will therefore be of interest as an illustration of the singular appearance presented by the mixture of the two species. While in this country, Professor Nilsson of Stockholm, a competent judge, and in whose opinion we should consequently have no hesitation to confide, informed us that no doubt existed in his mind as to the hybridization of the two birds in question, and this we believe is also the opinion of the resident inhabitants of the countries where they are found. On a subject respecting which so much doubt exists, it will perhaps be preferable to consider it as a hybrid, until the discovery of a female or more information is acquired relative to its history. The countries in which this bird is found are of course only those inhabited by the two species in question, consequently Norway and Sweden are the places where it is most generally met with. Few springs pass without examples of this bird being sent to London in company with Capercailzies, Black Grouse, &c. Of the numerous individuals we have had opportunities of examining little difference was found to exist; neither, we believe, did the examples inspected by Mr. Yarrell differ from each other in their internal structure.

Head, the whole of the neck, and breast dark purple; the feathers of the head, and back of the neck very minutely freckled with whitish; the remainder of the upper surface dark brown, minutely freckled with lighter brown; the scapularies and secondaries terminated with whitish; quills dull brown margined with greyish white; on the shoulder a small patch of white; under surface dark brown minutely freckled with lighter brown; vent white; under tail-coverts black, largely tipped with white; tail black, some of the centre feathers slightly tipped with greyish white; feathers of the legs mingled with greyish white and brown; bill horn colour; feet black.

The figure is of the natural size.



BLACK GROUSE.

Tetrao Tetrix. *(Linn.)*

E. Lear del. et lith.

Printed by C. Hullmandel.

BLACK GROUSE.

Tetrao Tetrix, *Linn.*

Le Tétras Birkhan.

The European portion of the globe may be truly considered the exclusive habitat of this noble bird; if however any exception is to be made to this rule it will probably be in favour of Siberia, but of its existence there we have no certain information. On the Continent it occurs commonly in Russia, Norway, Sweden, Germany, France, and some parts of Holland. From Norway and Sweden great numbers are annually brought to the London markets, and, together with the Capercailzie and Willow Ptarmigan, forms no trifling article of commerce. At the same time it is far from being uncommon in many parts of England, and in Scotland it is very abundant. Mr. Selby, who is at once a naturalist and a sportsman, has so well described the manners and habits of the Black Grouse, that we trust we shall be pardoned for transcribing the observations of this gentleman, whose splendid work on British Ornithology is too well known to need any eulogium from our pen.

"The present species is now confined, in the southern parts of England, to a few of the wildest uncultivated tracts, such as the New Forest in Hampshire, Dartmoor, and Sedgemoor in Devonshire and the heaths of Somersetshire. It is also sparingly met with in Staffordshire and in parts of North Wales, where it is under strict preservation. In Northumberland it is very abundant, and has been rapidly increasing for some years past, which may be partly attributed to the numerous plantations that within that period have acquired considerable growth in the higher parts of the county, as supplying it both with food and protection. It abounds throughout the Highlands of Scotland, and is also found in some of the Hebrides. The bases of the hills in heathy and mountainous districts which are covered with a natural growth of birch, alder and willow, and intersected by morasses, clothed with long and coarse herbage, as well as the deep and wooded glens so frequently occurring in such extensive wastes, are the situations best suited to the habits of these birds, and most favourable to their increase. During the months of autumn and winter the males associate and live in flocks, but separate in March or April; and, being polygamous, each individual chooses some particular station, from whence he drives all intruders, and for the possession of which, when they are numerous, desperate conflicts often take place. At this station he continues early every morning, and in the evening during the pairing-season, repeating his call of invitation to the other sex, and displaying a variety of attitudes, not unlike those of a Turkey Cock, accompanied by a crowing note, and by another similar to the noise made by the whetting of a scythe. At this season his plumage exhibits the richest glosses, and the red skin of his eyebrows assumes a superior intensity of colour. With the cause that urged their temporary separation, their animosity ceases, and the male birds again associate, and live harmoniously together.

"The female deposits her eggs in May; they are from six to ten in number, of a yellowish grey colour blotched with reddish brown. The nest is of most artless construction, being composed of a few dried stems of grass placed on the ground, under the shelter of a tall tuft or low bush, and generally in marshy spots, where long and coarse grasses abound. The young of both sexes at first resemble each other, and their plumage is that of the hen, with whom they continue till the autumn moult takes place; at this time the males acquire the garb of the adult bird, and quitting their female parent, join the societies of their own sex. The food of the Black Grouse during the summer, chiefly consists of the seeds of some species of *Juncus*, the tender shoots of heath, and insects. In autumn, the crawberry or crawcrook (*Empetrum nigrum*), the cranberry (*Vaccinium oxycoccos*), the wortleberry (*Vaccinium vitis-idæa*), and the trailing arbutus (*Arbutus uva-ursi*), afford it a plentiful subsistence. In winter and during severe and snowy weather, it eats the tops and buds of the birch and elder, as well as the embryo shoots of the fir tribe, which it is well enabled to obtain, as it is capable of perching upon trees without any difficulty. At this season of the year, in situations where arable land is interspersed with the wild tracts it inhabits, descending into the stubble-grounds, it feeds upon grain.

"In the adult state the Black Grouse displays great shyness of character, and after the autumnal moult, is not easily approached within gunshot. Frequent attempts have been made to domesticate this bird, but without success; and through all the trials that have taken place, it has never been known to breed in confinement."

The flesh of this species is in such general request as a delicacy for the table, that we need make no remark on its excellence as an article of food.

The male has the head, neck, breast, back, and rump black with purple and blue reflections; abdomen, wing-coverts, and tail deep black; secondaries tipped with white, forming with the adjoining coverts a band across the wing; under tail-coverts pure white; feathers of the legs blackish grey; bill black; feet brown.

The female has the head, neck, all the upper surface and tail orange brown blotched and rayed with black; breast and under surface pale brown barred with black and brown; under tail-coverts white, rayed with black; bill and feet as in the male.

We have figured an adult male and female, rather less than the natural size.



HAZEL GROUS *OR* GELINOTTE.
Bonasia Europea.

Drawn from Nature & on stone by J. & E. Gould.

Printed by C. Hullmandel.

Genus BONASIA.

Gen. Char. *Head* crested; *tarsi* and *toes* unplumed; and a tuft of feathers projecting from each side of the neck; in other respects as in the genus *Tetrao*.

HAZEL GROUSE, OR GELINOTTE.

Bonasia Europæa.

Le Tetras Gélinotte.

In the days of Linnæus and the older writers every species of Grouse was comprised in a single genus (*Tetrao*); subsequent research, however, having added many other species, and even new forms, modern naturalists have been induced to subdivide this interesting family into smaller groups, each distinguished by characters peculiar to itself: it has, moreover, been considered expedient to apply to each of these minor subdivisions a generic title, retaining the old name *Tetrao* for the most typical Grouse; the Ptarmigan necessarily forms another group, and the bird under consideration a third. The half-plumed tarsi, the crested head, and the tuft of feathers on each side of the neck are features peculiar to the genus *Bonasia*: in the European Hazel Grouse this latter character is but slightly indicated, but is exhibited to a greater extent in a species from America. The *Bonasia Europæa* is the only species yet discovered in the Old World, but it has its representative in the New, in the well-known Canada Grouse, *Bonasia umbellus*, and others. These slight differences in structure are, as might be supposed, always accompanied by some difference of habits. The feet of the Ptarmigan are as ill adapted for perching on trees as the pectinated toes of the Capercailzie are expressly fitted for that purpose. Although the Hazel Grouse does not equal the Ptarmigan in flight, its powers in this respect are far from being inconsiderable. They frequently perch on trees, and love to dwell in wooded plains skirting hilly and mountainous districts; they feed on alpine fruits and berries, to which are added the tops of heath, fir, juniper, and other tender shoots. They fly in packs or companies, and are not so shy or distrustful as most other members of this family; when disturbed they perch on trees, and are then easily approached and shot.

The Hazel Grouse is dispersed over the continent of Europe from north to south, inhabiting nearly all the elevated ridges and natural boundaries of the different countries. Dr. Latham states that they are so abundant on a small island in the gulf of Genoa that the name of Gelinotte Island has been given to it. It also inhabits France, Germany, Sweden, Norway, and Russia, thus extending itself from the sultry regions of Italy to the limits of the arctic circle. No instance is on record of its having been discovered in England, and so exclusively does it appear to be confined to the European continent, that we have never observed it in collections from other countries.

The eggs of the Hazel Grouse are from ten to twelve in number, of a rusty red, thickly spotted with a darker colour, and are deposited on the ground at the foot of a fern or hazel-stem.

The male may be distinguished from the female by the red naked skin behind the eye, the black mark on the throat, and by the bright and more contrasted markings of the plumage. The young during the first autumn are without the black throat, in which state the colouring of the plumage nearly resembles that of the female.

The Hazel Grouse is held in high esteem for the table, its flesh being both delicate and of good flavour; for which purpose thousands are yearly captured; and it not unfrequently happens that small packages of them in good preservation arrive from Norway and Sweden, in the markets of our Metropolis.

The male has the top of the head, crest, and upper surface varied with markings of reddish brown, black, and grey, disposed in zigzag lines across every feather; the scapularies and secondaries having a large spatulate mark of white running down the stem of each feather; the primaries are brown on their inner webs and varied with buff and brown on the outer; the feathers of the tail, with the exception of the two middle ones, which are grey finely freckled with black, are strongly banded with black near their tips, which are grey; the throat is black, encircled with an obscure band of white, which extends to the shoulders; naked skin over the eye scarlet, bounded above by a patch of white; the feathers of the chest and flanks are black and red with a white tip; those of the breast and belly and the tail-coverts are white, each having a black centre; bill, feet, and eyes brown.

The female differs from the male in not having the black throat and the red naked skin over the eye, and in being less brilliant in all her markings.

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



RED GROUSE.

Lagopus Scoticus. *Leach!*

Drawn from Nature & on Stone by J & E Gould.

Printed by C. Hullmandel.

RED GROUSE.

Lagopus Scoticus, *Lath.*

Le Tetras rouge.

The Red Grouse, so renowned for the delicious flavour of its flesh, and so highly prized by the sportsman for the amusement it affords him while in pursuit of his favourite occupation, is so exclusively a native of the British Isles that it has never been discovered either on the adjacent continent or upon that of America. It is not a little surprising that a bird so widely spread over all the heathy districts of our islands, especially those of Scotland, Yorkshire, Westmoreland, Cumberland, Derbyshire, Wales, and many parts of Ireland, should be so strictly confined in its habitat as to be unknown in any other part of the globe, more especially as the Black Cock and Ptarmigan, neither of which possesses greater powers of flight, are dispersed over a large portion of its more northern latitudes. Wide and open moors and heaths, particularly such as are characterized by swelling hills and undulations, are the situations to which the Red Grouse gives preference. It pairs and commences the task of incubation very early in the spring, the female laying in March or April. The young keep in the company of their parents until the autumn, when the various broods assemble together and form large flocks, called *packs* by the sportsman, which continue associated till the spring, when, in obedience to the great law of nature, each selects its mate, and they then disperse over the moorlands to commence the work of reproduction.

Its food consists of the tender tops of the heath, and the fruit of the bilberry, cranberry, and various plants of the genus *Arbutus*; they also readily eat oats and other grain, hence those farmers whose lands adjoin heathy districts often suffer very considerably from their visits. Their flight is rapid, and is often sustained for a considerable distance, particularly after being harassed during the early part of the shooting season, which commences with these fine birds on the first of August.

They construct little or no nest, the eggs, which are from eight to twelve in number, of a reddish white blotched all over with dark brown, being deposited in a shallow cavity lined with a few loose grasses, generally placed in a tuft of heath.

The sexes may be distinguished by the male being darker in colour and by his having the red naked skin over the eye larger and of a more intense colour than in the female.

The whole of the plumage is of a rich chestnut brown marked with fine undulating bars of black, and often irregularly blotched with white; the belly and vent-feathers white; tail black, with the exception of the four middle feathers, which are ash brown barred with black; tarsi and toes clothed with greyish white downy feathers; naked skin over the eye red; irides hazel; bill and nails black.

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



COMMON PTARMIGAN.

Lagopus mutus. *(Leach).*

COMMON PTARMIGAN.

Lagopus mutus, *Leach.*

Le Tetras Ptarmigan.

The great care which Nature takes of her subjects is beautifully exemplified in the mountain Ptarmigans, whose habits and manners lead them to dwell in situations where they experience the greatest extremes of temperature, but against the effects of which they are most amply provided, not only by the assumption of a thick under-covering on the approach of winter, but by a total change in the colour of the plumage, which assimilates to the surface around them, and doubly tends to their safety and preservation, and renders them much less conspicuous to their enemies.

As might be supposed, the mountain Ptarmigans are less wary and shy in their disposition than the other Grouse, doubtless in consequence of being less disturbed by man, against whom the elevated regions they inhabit present an obstacle of too formidable a nature to be often encountered. The common Ptarmigan appears to enjoy an extensive range throughout the whole of the alpine districts of the middle of Europe, as well as in the northern part of the American continent; it is also found, but in less abundance, in Norway, Sweden, and Russia, countries in which the *Lagopus saliceti* is more especially diffused. In the British Islands it is found in all the mountain districts of Scotland, and it is reported to have inhabited Wales at a former period.

Our Plate will convey better than any description we can give, the great difference which exists between the plumage of summer and winter; a change, we may observe, which takes place by the process of a gradual moult.

The Ptarmigan's food consists, in summer, of the berries of alpine plants, and the young shoots of heath in the winter: when the mountains are covered with snow, it burrows beneath it in search of food, as well as for protection against the severities of the season. It incubates early in spring: the eggs, which are from twelve to fifteen in number, have a white ground colour mottled all over with reddish purple brown, and are placed, without any nest, on the bare ground. In the colour of their plumage, the young resemble the female in summer, and gradually change to white with the approach of winter.

The sexes are only to be distinguished by the somewhat larger size of the male, and the more intense black streak between the bill and the eyes.

In summer, the whole of the upper surface is minutely barred with black and deep ochreous yellow; the feathers of the breast and flanks are also of the same colour; the outer feathers of the tail are black; the under surface is greyish white; the primaries white; the shafts black, and these feathers are only moulted once during the year.

In winter, the whole of the plumage is pure white, except the outer tail-feathers, and the spot between the bill and the eyes, which are black.

The Plate represents an adult in the summer plumage, and one in the snowy livery of winter.



ROCK PTARMIGAN.

Lagopus rupestris, *(Leach)*.

E. Lear del. et lith.

Printed by C. Hullmandel.

ROCK PTARMIGAN.

Lagopus rupestris, *Leach.*

We are indebted to the kindness of the Earl of Derby for a drawing of a bird in His Lordship's collection which has been considered by some as identical with the *Lagopus rupestris* of North America; while on the other hand several of the best ornithologists have after a minute examination been induced to consider that this, and the other birds killed in Scotland in the orange-coloured dress here represented, are nothing more than the females of the Common Ptarmigan (*Lagopus mutus*) in the plumage of spring and summer, during which period of the year, as abundance of examples testify, both sexes of that bird have the plumage strongly marked with rufous and brown; the male, however, has the colouring much more grey, the rufous markings being principally on the neck and breast, where it sometimes approaches to black. Should this prove to be the case, our figure will not be destitute of interest, as it will exhibit the female Ptarmigan in a state of plumage not usually seen; but until this matter is finally cleared up we have thought it best to figure the bird under the specific title of *rupestris*. The drawing above mentioned, and the figure recently published by T. C. Eyton, Esq., in his continuation of Bewick's British Birds, were both taken from the same specimen. In conclusion, we ourselves question whether any of the American Grouse can be referred with certainty to those of the European continent, for on comparison they always present differences which, although minute, are nevertheless constant.

The whole of the wings are white; the tail black; all the remainder of the plumage rich orange brown, numerously marked and barred with blackish brown, but least so on the belly and flanks; bill and claws black.

Our figure is of the natural size.

WILLOW PTARMIGAN.

Lagopus Salicus. (Swainson.)



WILLOW PTARMIGAN.

Lagopus Saliceti, *Swains.*

Le Tétras des Saules.

The characteristic features which distinguish the Willow Ptarmigan from the *Lagopus mutus* consist in its superior size, in the rufous colouring of its summer plumage, and the total absence at all times of the black mark between the bill and the eye. Although not an inhabitant of the British Islands, the Willow Ptarmigan is perhaps more widely dispersed than any other species, being abundant over the whole of the arctic circle. It is the most plentiful kind of Grouse found in Norway, Sweden, and Lapland; and extends its range over the whole of Russia and Siberia. These elevated and dreary regions afford it situations most congenial to its habits and mode of life, in consequence of which its numbers are much diminished as it approaches more temperate climes; hence in the midland countries of Europe it is much less frequently seen, and south of these latitudes it is never found.

In its habits, manners, and general economy it strictly resembles the common species, feeding during summer on the tender shoots and buds of heath, together with berries of alpine plants: in winter, when the face of the country is covered with snow, it burrows beneath the surface, and feeds on the scanty herbage, the buds of the dwarf willow, and whatever green vegetable food it can obtain.

Its nest is placed on the ground among tufts of herbage and brushwood: the eggs are from six to ten in number, larger than those of the Common Ptarmigan, but much resembling them in colour.

There is perhaps a greater contrast between the summer and winter plumage of this bird than in any other of the Ptarmigans. The purity of the white in winter being contrasted by the rich colouring of summer, which in some individuals we have seen is of a pure uniform chestnut, with scarcely any trace of the zigzag bars of black.

Our Plate exhibits two birds, one in the pure white livery of winter, the other in an intermediate stage, namely, that of spring, the white having to a great extent given place, by a partial moult, to the coloured feathers of summer.

The sexes offer little difference at either season of the year. The first plumage of the young is coloured, which at the autumn moult is exchanged for white.

In summer the head, neck, back, scapularies, middle tail-feathers and coverts are of a pure chestnut more or less deep, and more or less blotched, with zigzag lines of black; breast, vent, centre of the wings, and quill-feathers pure white; lateral tail-feathers black; beak and nails horn colour; irides greyish white.

In winter the whole of the plumage is pure white.

The Plate represents two adult birds, in different stages of plumage, of the natural size.



SHORT-TOED PTARMIGAN.

Lagopus brachydactylus.
Temm.

SHORT-TOED PTARMIGAN.

Lagopus brachydactylus.

Tetrao brachydactylus, *Temm.*

Le Tetras à doigts courtes.

We are indebted to the kindness of M. Temminck for the loan of his specimen of this fine species, which he informs us he received from the Baron de Feldegg of Frankfort, who obtained it from the northernmost part of Russia. It is a remarkable and well-defined species, differing from *Lagopus Saliceti* in having the nostrils thickly covered and the bill almost hidden by feathers, in its shorter and thickly feathered tarsi, and in having the shafts of the primaries and the nails of the toes of a pure white. We regret that we are unable to give any account of its habits and manners, in which it doubtless closely resembles the other members of its genus; or of the localities it frequents, further than that it appears to be an inhabitant of the extreme northern regions of the Old World. It is exceedingly interesting to the ornithologist, from the circumstance of its forming another species of that beautiful group the Ptarmigans.

If we were more fully acquainted with its history, we should doubtless find that it is subjected to a change of plumage similar in every respect to its congeners, being of a rich chestnut brown in summer, and of a spotless white in winter. M. Temminck's specimen, which we believe to be unique, has the whole of the plumage of a pure white, with the exception of the tail-feathers, which are black; the bare skin over the eye scarlet; and the bill black.

Our figure is rather less than the natural size.



SAND GROUSE.

Pterocles arenarius. (Temm.t.).

Genus PTEROCLES, *Temm.*

Gen. Char. *Beak* moderate, compressed, sometimes slender; the upper *mandible* straight, and curved towards the point. *Nostrils* basal, partly closed by a membrane, and covered by the feathers of the forehead. *Feet* furnished with short toes, the hind toe being very small, and articulated high on the tarsus; three toes before united together as far as the first articulation and edged by a membrane; the front of the tarsus covered with short feathers, the posterior aspect being naked. *Nails* very short, that of the hind toe sharp, the rest obtuse. *Tail* conical; the two middle feathers occasionally prolonged into filaments. *Wings* long and pointed; the first *quill-feather* longest.

SAND-GROUSE.

Pterocles arenarius, *Temm.*

Le Ganga unibande.

The birds which compose the genus *Pterocles* have been separated by M. Temminck from the genus *Tetrao*, under which they had been previously included; and, as they now stand, form a well-defined genus, the species of which inhabits the dry and sandy deserts of the hotter portions of the globe. The number, however, is far from being considerable; two only have, we believe, as yet been ascertained to be natives of Europe. The present species is found in many of the provinces of Spain, particularly Granada and Andalusia; it is also found in Sicily and in the deserts of the North of Africa, as well as in Asia, whence we have received it from the Himalaya Mountains. It does not appear to extend itself further northward in Europe than the places above noticed.

The *Pterocles arenarius*, as far as our experience goes, is the largest of its genus, and belongs moreover to that section of it which wants the elongated filiform tail-feathers, so characteristic of the other European species. In habits, manners, and places of nidification, it closely resembles the *Pterocles setarius*,—circumstances which we have detailed at length in our description of that beautiful bird.

The male and female differ considerably in their plumage,—a circumstance in a greater or less degree characteristic of the species of this genus.

In the male, the top of the head, the occiput and breast are of a delicate grey colour; the back and wing-coverts light rufous; each feather being irregularly blotched with greyish black and tipped with tawny yellow; the quill-feathers dark grey; the throat and sides of the cheeks rufous, beneath which a large triangular black mark surmounts the delicate grey of the breast, and across this again extends a black band passing from one shoulder to the other. The whole of the under surface is black, with the exception of the extremities of the tail-coverts, which are white; the tail tawny yellow with grey bars, and terminating gradually with the same colour. Total length twelve or thirteen inches.

In the female, the whole of the upper surface is of a tawny yellow, thickly covered with irregular zigzag and barbed markings of black; the throat merely affords an indication of the black mark which distinguishes the male; the breast is of the same colour as the upper surface, spotted with black and crossed from shoulder to shoulder with a narrow band of black, beneath which, and the under surface which is black, intervenes a space of about an inch broad of a delicate fawn colour; the under tail-coverts partly white as in the male; feet greenish olive.

We have figured a male and female in their adult plumage, rather less than their natural size.

PIN-TAILED SAND GROUSE.

Pterocles Alchata, (Temm.)



PINTAILED SAND-GROUSE.

Pterocles setarius, *Temm.*

Le Ganga Cata.

The Pintailed Sand-Grouse is a native of the southern portion of Europe, the North of Africa, and the level and arid plains of Persia; it is also particularly abundant in Spain, Sicily, and through the whole of the Levant, visiting at uncertain seasons, and in small numbers, the southern provinces of France. It is a bird of migratory habits, and, like its congeners, prefers wild and barren districts where the poverty of the soil affords but little inducement to the enterprise of man; we are consequently unable to obtain any minute details respecting its habits and manners. Its food consists of seeds, insects, and the tender shoots of vegetables. Its nest, says M. Temminck, is constructed on the earth among loose stones and tufts of herbage, the female being said to lay four or five eggs, the colour of which is unknown. Nothing can be more beautiful, or evince more evident marks of design, than the peculiarities which the great Author of Nature has bestowed upon the birds that compose the great family *Tetraonidæ*, or Grouse, as regards form and colouring in connexion with their habits and mode of life. They are all more or less migratory; but in those species which nature has placed in countries where a luxuriant vegetation supplies them with abundance of food, we find a rounded form of wing, and moderate power of flight, sufficient only to enable them to pass from one pasture or heath to another. It appears also bountifully provided by Providence, that various birds inhabiting countries where the seasons and surface of the earth in summer and winter present striking contrasts, should also undergo a corresponding and analogous change of plumage;—thus, the different species of Ptarmigan of the northern parts of Europe change their brown livery of summer, which accords so well with the colour of the heathy hills they inhabit, to a pure white in winter, almost rivaling the spotless snow by which they are then for a time surrounded. Their plumage also at this inclement season becomes thicker, and invests the whole of the body even to the extremity of the toes.—If from this we turn to the bird before us, we find an equal provision for its wants and mode of life, varied according to the almost opposite circumstances in which it is placed. Not inhabiting moors or districts covered with verdure, but dwelling in extensive sandy plains, with here and there only a patch of scanty vegetation, and where the season and soil preserve an almost complete uniformity of temperature and appearance, greater powers of flight are required and bestowed; the wings are elongated and pointed, to enable it to pass with facility over immense tracts in its search after food or water, or to change its situation from one district to another; the colour of the plumage also remains unchanged throughout the year, that it may ever assimilate with the sandy and stony soil where nature has fixed its abode; the nostrils remain unconcealed, and the tarsi (although exhibiting rudiments of down,) are naked in comparison with the fur-clad feet of its northern relatives. The connexion which such changes and such modifications of structure evince, in reference to the preservation and protection of the species, cannot fail to suggest themselves to the understanding, and need not be insisted on. The colours of the male and female of the Sand-Grouse differ considerably. In the male, the throat is black; the cheeks light rufous; across the breast extends a band nearly two inches broad, of a rufous colour, edged above and below with a narrow black line; the head, neck, back and scapulars olive-green; rump and tail-coverts barred with black and yellowish; the small and middle wing-coverts obliquely marked with chestnut and edged with white; greater coverts olive inclining to ash-colour, each feather being terminated by a black crescent; the whole of the under surface of a pure white; the tail-feathers tipped with white; the outer one on each side edged with white also; the two middle feathers are long, and pass gradually into slender filaments exceeding the rest by three inches: length between ten and eleven inches, exclusive of the elongated tail-feathers.

In the female, the throat is white; below this a partial collar of black which reaches only to the sides of the neck, with the broad orange band and black lines common to the male; the whole of the upper part barred with black, yellow, and ash-blue; all the wing-coverts bluish ash; the primaries have a band of red and terminate with black bars; the two elongated tail-feathers only exceed the others two inches.

Young birds differ from both parents, in having the general plumage less varied.

We have figured a male and female of the natural size.

EUROPEAN FRANCOLIN.



Genus **FRANCOLINUS.**

Gen. Char. *Beak* strong, middle size, convex above, and incurved towards the tip. *Nostrils* basal, lateral, half closed by a naked arched membrane. *Tail* moderate, very slightly rounded, and consisting of twelve feathers. *Feet* four-toed, naked; the *tarsi* of the male with strong blunt spurs. *Wings* short.

EUROPEAN FRANCOLIN.

Francolinus vulgaris.

Le Francolin à collier roux.

It is delightful to examine the series of affinities by which the natural groups of animated nature are connected; and although we cannot at all times clearly trace this connexion, yet we must believe the deficiency to exist in ourselves, and not in those laws of relation which the Creator appears to have impressed upon all his works. In the bird before us we trace, or fancy we can trace, one of those unions through which the splendid-coloured Pheasants of the East are united to the sober-coloured Quails and Partridges of the European Continent; its form and habits connecting it with the latter, while its colouring manifests a relationship to the beautiful Oriental genus *Tragopan*, of which many examples have recently come under our immediate inspection. The near relationship which we fancy exists between the genera *Francolinus* and *Tragopan*, consists in their general style of colouring, in their short spurs, and in the conformation of the beak. Another section of the genus *Francolinus*, peculiar to Africa, exhibits also a form differing from these in the structure of the beak, in which particular, as well as in the uses to which it is applied in obtaining food, it assimilates to the Oriental genus *Lophophorus:* still between these groups we may yet expect to find others, harmonizing with each, so as to form a complete concatenation.

Of the genus *Francolinus*, the present is the only species indigenous to Europe. Unlike its African congeners, which feed on bulbous roots, for procuring which their beak is expressly adapted, our European bird differs little in its food and form of beak from the true Partridge. It however exhibits a preference for moist and humid districts, and perches on trees. In Europe, its habitat appears to be exclusively confined to the southern regions, as Sicily, Malta, and the Neapolitan territories; but it is also found in the North of Africa, and over the greater portion of the Asiatic Continent, and we have also received it in collections from the Himalaya Mountains.

Respecting its habits and nidification we have nothing to communicate. Like most gallinaceous birds, its flesh is very delicate, and much esteemed in India.

In the male, the feathers on the top of the head are black with a margin of yellowish brown; ear-coverts white; circle round the eyes, lower part of the cheeks, sides of the head, and throat of a deep black; below which a broad chestnut collar extends round the neck; wings and back yellowish brown, each feather having a dark reddish brown centre, except those of the quills which are barred with this colour; rump and tail-coverts white, barred with black, as are also the middle tail-feathers, the outer ones being entirely black; breast and lower parts black; sides blotched with black and white; thighs brownish barred with black; under tail-coverts chestnut; beak black; legs reddish flesh-colour; tarsi spurred.

In the female, the general ground colour of the plumage is a yellowish brown, darker on the cheeks and quill-feathers, and becoming paler on the under parts; the feathers of the back and wings are marked as in the male; the breast and under surface irregularly crossed with barb-shaped marks of dark brown; the rump and tail-coverts barred alternately with broad marks of obscure brown and narrow lines of white; under tail-coverts chestnut; beak brownish; legs reddish; tarsi unarmed.

We have figured a male and female of the natural size.

RED-LEGGED PARTRIDGE.

Perdix rubra. (Briss.)



Genus **PERDIX**, *Lath.*

Gen. Char. *Bill* short, strong, naked at the base; upper mandible convex, with the point bending considerably downwards. *Nostrils* basal, lateral, pierced in a large membrane, and partly concealed by an arched naked scale. *Wings* short, concave, the first three quills shorter than the fourth and fifth, which are the longest. *Tail* of fourteen or eighteen feathers, generally bending towards the ground. *Feet* with three toes before, which are united by a membrane as far as the first articulation, and one behind. *Tarsi* in the male bird frequently with one or more than one spur or tubercle.

RED-LEGGED PARTRIDGE.

Perdix rubra, *Ray.*

Le Perdrix rouge.

From this peculiar and beautiful group the Common Partridge may with great propriety be separated, as their habits and characters vary considerably, the Red-legs being spurred, and according to some authors perching on trees, which the common species never does; and it is also destitute of spurs.

Of the Red-legs five distinct species are now recognised, three of which are natives of Europe: of these the species here represented is the most common, and is, we believe, confined entirely to the Continent and the islands of Guernsey and Jersey. Like the Pheasant, the Red-legged Partridge is now naturalized in the British Islands, but it must nevertheless be considered an introduced species, and consequently as not strictly belonging to our Fauna; and we much question whether those who have them on their estates have not cause to regret their introduction, for although highly ornamental in their appearance, their flesh is not equal to that of the Common Partridge (*Perdix cinerea*), which from its diminutive size and less pugnacious habits is compelled to retreat and give place to its more powerful opponent. It is more shy and wary than the common species, and is very difficult to approach, even at the commencement of the shooting-season, a covey being seldom flushed without having run before the dogs for a considerable distance, when they mostly rise out of gun-shot. It is now becoming extremely numerous in many parts of England, particularly Suffolk and the adjoining counties. Although it does extremely well in preserved manors, arable lands, &c., still it appears to evince a partiality for sterile wastes and heathy grounds. It is very abundant throughout the plains of France and Italy, is rarely found in Switzerland, and scarcely if ever in Germany or Holland. It is very prolific, the female laying from fifteen to eighteen eggs, of an orange yellow freckled all over with markings of a red colour. The young before the second moult have their plumage striated somewhat after the manner of the young of the common species, but by the end of October this colouring is exchanged for the transversely marked plumage of the adult: the old birds of both sexes are so nearly alike in the colouring and markings, that were it not for the blunt spur, which always forms an appendage to the male, it would be difficult to distinguish them. Its food consists of wheat and other grains, vegetables, insects, &c. Its flesh is whiter and more dry than that of the common species.

The male has the forehead grey; crown of the head and whole of the upper surface greyish brown with a tinge of rufous; throat white surrounded by a black band, which dilates upon the chest and the sides of the neck into a number of small black spots on a grey ground; abdomen and under tail-coverts sandy red; feathers of the flanks grey at their base, to which succeeds a broad transverse band of black, the tips being chestnut red; outer tail-feathers rufous, the centre ones more grey; legs, bill, and eyelids red.

The Plate represents a male of the natural size.



BARBARY PARTRIDGE.

Perdix petrosa.

GREEK PARTRIDGE.

Perdix saxatilis

BARBARY PARTRIDGE.

Perdix petrosa, *Lath.*

La Perdrix rouge de Barbarie.

Although this species is generally known by the appellation of the *Barbary Partridge*, from its common occurrence on that line of the coast of Africa, nevertheless it is equally frequent in the southern portion of Europe which borders the Mediterranean, and in the islands of that sea; breeding abundantly among the rocky mountains of Spain, and in the islands of Majorca and Minorca, in Sardinia, Corsica, Malta, and Sicily. Its occurrence in France is very rare, and then only accidental, nor is it known to visit the more northern parts of Europe.

In the general character of its plumage, the *Perdix petrosa* bears a striking resemblance to the two other species of Red-legged Partridge, which are also indigenous to Europe, but may at once be distinguished by the rufous brown collar round the neck, thickly spotted with white points. In habits and manners it is strictly identical with the well-known Guernsey Partridge, in the description of which we have entered more fully into the details of the subject. The female chooses barren places and desert mountains, where among low bushes she deposits her eggs to the number of fifteen, the colour of which is yellowish, thickly dotted with greenish olive spots. Grain, and insects occasionally, form, as is the case with the others of the genus. the food of this species.

The beak and a bare space round the eyes are red; the legs, which in the male are furnished with a short blunt spur, are also red; irides hazel; a deep chestnut stripe commences at the gape and runs over the top of the head to the back of the neck, where it passes off on each side, forming a collar round the neck studded with white spots; a broad line above the eyes; the cheeks and throat are of a dull blueish-ash colour, but the ear-feathers are reddish brown. The whole of the upper surface, with the exception of a few blue feathers edged with red near the shoulders, is of a brownish grey. Breast dull ash-colour; the sides barred transversely with ferruginous brown and black on a light ground; each feather barred with grey, black, brown and white, ending in a band of darker ferruginous brown; the under parts light reddish-brown. Tail chestnut. Length thirteen inches.

The female differs only in being rather smaller, the collar round the neck somewhat narrower, the general plumage scarcely so bright, and the absence of spurs on the tarsi.

GREEK PARTRIDGE.

Perdix saxatilis, *Meyer.*

La Perdrix Bartavelle.

Of the three species of Red-legged Partridges which inhabit Europe, the present is the most rare. In size and general colouring it is not unlike its allied congeners, which, with one from the Himalaya Mountains, forms a beautiful group, embodying differences, we think, sufficiently marked to warrant its separation into a new genus, distinct from that of which the Common Partridge of our corn-fields is a familiar example.

The localities of the present species are much more northern than those of the *Perdix petrosa*. It inhabits the Alps, Tyrol, and Switzerland; as well as Italy, the Archipelago, and Turkey; frequenting the higher regions of the mountains during the summer, and descending towards the valleys as winter approaches. M. Temminck informs us that it breeds among the moss and herbage which covers the surface of rocks and large stones, laying fifteen eggs or more, very much resembling those of the preceding species. The beak, the circle round the eyes, and the legs are red; the tarsi armed with a short blunt spur. Irides hazel; a black band beginning at the beak passes through the eye down each side of the neck and meets on the chest, inclosing the cheeks and throat, which are white; the top of the head, the back of the neck, and the whole of the upper parts of the body are of a blueish ash colour, the feathers across the shoulder having a vinous tinge; the breast cinereous; the sides barred as in the preceding species,—with this difference, that the black bands are not so far apart, and the intervening space is of a delicate fawn colour; the lower part of the belly is of a yellowish cream colour; the tail consists of eighteen feathers, of a deep chestnut.

There is no difference between the sexes, with the exception of the female being smaller in size and destitute of spurs.

Our Plate represents a male of each of these species, of the natural size, and in the adult plumage.



COMMON PARTRIDGE.

Perdix cinerea. *(Lath.)*

Drawn from Nature & on Stone by J. & E. Gould.

Printed by C. Baillmandel.

COMMON PARTRIDGE.

Perdix cinerea, *Lath.*

La Perdrix grise.

So exclusively European is this celebrated bird, that as far as our own observations go, and these have not been circumscribed, we have never seen an example either from Asia or Africa; although M. Temminck states that it visits Egypt and the shores of Barbary. In affinity it appears to us to rank directly intermediate between the Quails and Redlegs, and with some species from India to form an independent genus to the exclusion of the Quails on the one hand and the Redlegs on the other; and as the Quails have been already separated, it is to us very evident that the Redlegs ought to be separated also.

We do not propose to enter into any details respecting the circumstances that render the Partridge so interesting to sportsmen, as the subject has already engaged the attention of numerous writers, to whose accounts we have nothing to add.

The Partridge pairs early in spring, when fierce contests ensue between the males for the possession of the females. They rear one brood in the year, consisting of from ten to eighteen young, which generally make their appearance about the end of June, and continue associated during the autumn and winter, forming what the sportsman calls a covey, and in the ensuing spring separate, each selecting its mate. The eggs are deposited on the ground in a small hollow, scratched for the purpose under the cover of a tuft of grass or any similar material, and is not unfrequently found in fields of clover or standing corn. The males are distinguished from the females by being larger in size, by possessing a brighter colour about the face, by having a large chestnut-coloured mark on the breast, and by wanting the transverse bars of brown on the upper surface so conspicuous in the plumage of the female.

The Partridge prefers wide tracts of rich corn land to more barren and uncultivated districts, and in bleak and mountainous situations is almost unknown.

The male has the cheek, throat, and a stripe over each eye pale buff; the neck and breast bluish grey ornamented with fine zigzag black lines; on the breast a large horseshoe-shaped patch of chestnut brown; flanks grey, banded with pale brown; back, wings, rump, and upper tail-coverts brown transversely barred and spotted with black; shafts of the scapularies and wing-coverts yellowish white edged with black; quills blackish grey barred with brown; tail reddish orange; bill, legs, and toes bluish grey; irides brown; naked skin behind the eye red.

The particulars in which the female differs having been pointed out above, it will be unnecessary to repeat them here.

We have figured male and female of the natural size.

QUAIL.

Coturnix dactylisonans, *(Meyer)*



Drawn from Nature & on Stone by J.& E. Gould. *Printed by C.Hullmandel.*

Genus COTURNIX.

Gen. Char. *Beak* short and somewhat feeble, the upper mandible curved towards the point. *Nostrils* basal, lateral, and half covered with a membrane. Orbits closely surrounded by feathers. *Wings* moderate, having the first and second quill-feathers the longest. *Tarsi* smooth, without spurs or tubercles. *Toes* four in number, three before and one behind. *Tail* short, rounded, and concealed by the tail-coverts.

QUAIL.

Coturnix dactylisonans, *Meyer.*

La Caille.

Without commenting upon the propriety of separating the Quails from the Partridges, a point on which we are fully decided, we shall at once enter upon a history of the bird before us. No individual of the Gallinaceous order enjoys so wide a range in the Old World as the Common Quail: it is abundant in North Africa, most parts of India, and, if we mistake not, China; while the whole of the southern portions of Siberia, and every country in Europe except those approximating to the polar circle, are visited by it annually, or adopted for a permanent abode. A considerable number are stationary in the southern portions of Europe, such as Italy, Spain, and Portugal, but their numbers are greatly increased in the spring by an accession of visitors, which emigrate from the parched plains of Africa, in search of more abundant supplies of food, and a congenial breeding-place. So vast and countless are the flocks which often pass over to the islands and European shores of the Mediterranean, that a mode of wholesale slaughter is usually put in practice against them, a circumstance which no doubt tends to limit their inordinate increase. They are polygamous in their habits; and in their migrations the males always precede the females, and are easily decoyed into nets by an artificial imitation of the voice of the latter. This mode of taking them is practised to a great extent in France and other parts of the Continent, which accounts for the vast majority of male birds yearly imported from thence into the London markets. In the British Islands the Quail is more sparingly dispersed, arriving in spring as soon as the tender corn is of a sufficient height to afford it shelter, and remaining with us till it has performed the duties of incubation, when it retires by gradual journeys towards the south; for although when flushed in our fields its flight is neither protracted nor elevated, it is enabled to perform its migrations with greater ease than the general contour of its body would lead us to expect.

The eggs are from eight to twelve in number, of a pale yellow brown blotched and dotted with darker brown and black, and are deposited on the ground with little or no nest.

The sexes may be distinguished by the male having a black mark on the throat, which part in the female is white. The young of the year so closely resemble the female that they are scarcely to be distinguished.

The general plumage of the upper surface is brown, beautifully variegated with dashes of black and yellow, and numerous fine zigzag transverse lines of black; the scapularies and the feathers on the flanks have each a lanceolate stripe of yellowish buff down their centres; the chin is dusky white bordered in the male with black; the breast and belly pale buff, the sides being streaked and mottled with reddish brown, black, and white; tarsi brownish flesh colour; bill brown.

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

ANDALUSIAN TURNIX.
Hemipodius tadydromus. (Temm.)



Genus HEMIPODIUS, *Temm.*

Gen. Char. *Beak* moderate, slender, straight, very compressed; culmen elevated and curved towards the point. *Nostrils* lateral, linear, longitudinally cleft, partly closed by a naked membrane. *Tarsi* rather long. *Toes* three before, entirely divided: no posterior toe. *Tail* composed of weak yielding feathers clustered together, and concealed by the feathers of the back. *Wings* moderate, the first quill-feather the longest.

ANDALUSIAN TURNIX.

Hemipodius tachydromus, *Temm.*

La Turnix tachydrome.

The birds of this genus are mostly inhabitants of the intertropical regions of the Old World; two species, it is true, have been discovered in the southern parts of Europe, but in such limited numbers as to prove satisfactorily that the northern portions of Africa are their true habitat, consequently the southern parts of Spain, Italy, and the Islands of the Mediterranean are among the utmost limits of its range northward. They differ from the true Quails (*Coturnix*), in the total absence of the hind toe, and in the long and slender form of their bills: they are the most diminutive birds of the gallinaceous tribe, being not more than half the size of the Common Quail. M. Temminck states that they are polygamous, and that they give a preference to sterile lands, sandy plains, and the confines of deserts, over which they run with surprising quickness; he also states that the young and old do not associate in company or in bevies as is the case with the Quail. Their food is said to consist principally of insects, to which are added small seeds, &c.

The sexes are so much alike that it is very difficult to distinguish them by their plumage. Col. Sykes states that the birds of this genus which he observed in the Dukhun, viz. *Hem. pugnax*, Temm., *Hem. Taigoor*, Sykes, and *Hem. Dussumier*, Temm., were either solitary or in pairs, and mostly found in pulse and *Chillee* fields (*Capsicum annuum*)." The last-named species "frequents thick grass, and sits so close as to expose itself to the danger of being trodden upon," and its "flight is so abrupt and short, that ere the gun is well up to the shoulder the bird is down again," in all which respects we doubt not the bird here represented very closely resembles them.

The Andalusian Turnix is tolerably abundant at Gibraltar and that part of Spain which borders the Mediterranean, being more scarce in the central portions, and in the northern and all similar latitudes altogether absent.

The top of the head is dark brown, streaked longitudinally with reddish yellow; throat white; the feathers on the sides of the chest reddish chestnut, those of the flanks yellowish white, with a crescent-shaped mark of rich brown occupying the centre of each; lower part of the belly pure white; the upper surface is dark brown with numerous zigzag lines of reddish ash, and transversely rayed with lines of brown and chestnut, each feather being finely margined with white; coverts of the wing yellow with a spot of reddish chestnut on the inner web; primaries ashy brown, the outer web bordered with white; bill and legs greyish flesh colour.

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



COLLARED PRATINCOLE.
Glareola torquata. (Wagler.)

Genus GLAREOLA.

Gen. Char. *Beak* short, hard, convex, curved for upwards of half its length, and compressed towards the point. *Nostrils* at the sides of the base, oblong, and obliquely cleft. *Legs* feathered nearly to the knee; toes three before and one behind, the outer united to the middle one by a short membrane; claws long and drawn to a fine point. *Wings* very large, the first quill-feather the longest. *Tail* more or less forked.

COLLARED PRATINCOLE.

Glareola torquata, *Briss.*

Le Glaréole à collier.

The genus *Glareola* appears to be strictly confined to the Old World, no Transatlantic example having ever been discovered; nor, indeed, are we aware of any form in the ornithology of America which at all approaches the present. Three species are all that are as yet discovered. Of these, two (the *G. grallaria* and the *G. lactea*) are peculiar to the eastern provinces of Asia and Africa; the other, the bird now before us, is spread throughout the warm and temperate regions, not only of these continents, but Europe also: hence it would seem as if Nature endeavoured to make up by extent of habitat for the limitation of species. Still, however, although thus diffused, the Pratincole may be said to be truly a native of the eastern provinces of Europe, on the Asiatic borders, and especially Hungary, where wide tracts of morass and flatlands, abounding in lakes both fresh and saline, and traversed by mighty rivers, afford it food and security. "In Hungary," says M. Temminck, "among the immense morasses of the lakes Neusidel and Balaton, I have been in the midst of many hundreds of these birds;" and we may add, that it is no less abundant in Western Tartary. In England it is only an occasional visiter; but in Germany, France and Italy it is a bird of periodical occurrence.

With the long wings and forked tail of the Swallow, the Pratincole possesses that rapidity and power of flight for which that bird is so remarkable. It takes its food, which consists of insects, and especially such as frequent marshes and the borders of rivers, while on the wing, darting along in the chase with the rapidity of an arrow; nor is it less distinguishable for celerity on the ground, and often catches its prey as it nimbly runs along.

This elegant and graceful bird incubates in the concealment afforded by reeds, osiers and tall herbage, laying three or four white eggs.

As it respects their plumage, the sexes offer no difference. The young are more obscure in their tints, the upper parts being clouded with dull brown, and the throat being dirty white.

The adult plumage may be thus detailed. Head, back of the neck, and whole of the upper surface greyish brown, except the secondaries, which are tipped with white, and the upper tail-coverts and the lower portion of the tail-feathers, which are white; quills and remaining portion of the tail-feathers blackish brown; throat and sides of the cheeks white with a wash of buff, and bordered by a narrow black band, which takes its origin beneath the eye; under wing-coverts deep ferruginous; chest brownish grey passing into pale fawn or white; abdomen dull white; beak black, except the base, which with the irides and circle round the eye are reddish brown; tarsi brownish ash colour.

Our Plate represents a male and female of their natural size.



CREAM COLOURED COURSER.

Cursorius Isabellinus. *Meyer.*

Genus CURSORIUS, *Lath.*

Gen. Char. *Beak* shorter than the head, depressed at its base, slightly convex at its points, and somewhat curved and pointed. *Nostrils* oval, surmounted by a small protuberance. *Tarsi* long and slender. *Toes* three before only, entirely divided, the inner toe scarcely equalling half the length of the middle toe. *Wings* long; the first and second quill-feathers nearly the same length, and the greater coverts as long as the quill-feathers.

CREAM-COLOURED COURSER.

Cursorius Isabellinus, *Meyer.*

Le Court vite Isabelle.

The most superficial view of the structure and proportions of this singular and elegant bird, would at once enable us to perceive that it is a fleet and rapid courser, peculiarly fitted for dry and sterile situations, such as sandy deserts, plains, and open tracts of country.

Although in many respects it approaches the Bustards, yet it has with great propriety been separated from that group into a distinct and well-defined genus, which now includes five or six species, closely united to each other in form and general habits, and, as well as the genus *Otis*, strictly confined to the older known portions of the globe. Africa supplies some peculiar species, continental India one or two others; and we have seen one from the islands of the Indian Archipelago differing from every other.

The present species, the *Cursorius Isabellinus*, although frequently visiting Southern Europe, and occasionally our own island, is, strictly speaking, a native of Northern Africa and Abyssinia, where, from the remarkable similarity of the colour of its plumage, it finds security among the sandy deserts and plains, from which it can hardly be distinguished, and where it speeds along with the swiftness of an arrow, in pursuit of its food, which consists principally of the insects peculiar to such situations. Of its nidification no authentic information has reached us; but most probably, like the Bustard, it incubates among loose stones and the scanty herbage of the desert.

We have had the good fortune to obtain examples of the young, in addition to the adults, of both sexes, which latter do not offer any material difference of plumage. The young, although nearly arrived at its full size, may be distinguished by the absence of the black occipital patch, as well as the bands of black and white which pass from behind the eye, and by its plumage being obscurely waved with dusky, transverse and somewhat arrow-shaped markings.

The general plumage of the adult is of a delicate fawn colour above, lighter beneath, the occipital and quill-feathers being black; from above the eye to the back of the neck extends a white line, circumscribing the black portion of the occiput, beneath which, from the angle of the eye, runs a similar, but still narrower band of black; tail, with the exception of the two middle feathers, banded near its extremity with black, and tipped with dull white; beak black; legs light cream colour.

The Plate represents an adult male, and a young bird of the first autumn, both of the natural size.

GREAT BUSTARD.
Otis tarda (Linn.)



Genus OTIS.

Gen. Char. *Bill* moderate, straight, depressed at the base, and having the point of the upper mandible curved. *Nostrils* removed from the base, lateral, oval, and open. *Legs* long, naked above the knee. *Tarsi* reticulated. *Toes* three, all forward, short, united at the base, and bordered with membranes. *Wings* of mean length, the third quill-feather the longest.

GREAT BUSTARD.

Otis tarda, *Linn.*

L'Outarde barbue.

As man extends his dominion over the globe, many races of animals, and among them the present family, will gradually disappear from the haunts where they now abound, and linger only in localities which hold out no inducements to the exertions of human enterprise. Africa then, we may venture to predict, will afford on its extensive plains the last asylum in which the Bustard may find security, till at length, like the Dodo, many species of this stately family will become extinct, leaving only their remains for our investigation.

So nearly has the Great Bustard become annihilated in the British Islands that it is even doubtful whether any males still exist to accompany the few old females which remain on some of the extensive inclosures and large fields of turnips in the counties of Norfolk and Suffolk. On the Continent, as might be supposed, with the exception of Holland, the Great Bustard is tolerably numerous; a circumstance to be accounted for by the comparative thinness of the population and by the wide and extended plains which there exist. From the sandy deserts of Spain and Italy, which afford a congenial nursery wherein it may dwell and rear its young in safety, its range extends as far north as Siberia and Kamtschatka, but no example of this genus has ever been seen in America.

The eggs are two in number, of an olive green colour with slight darker variations; they are rather larger than those of the Turkey, and are deposited on the bare ground among the herbage, frequently in clover, trefoil, and corn. The young are hatched in a month, and from the day on which they are excluded from the shell they follow their parents over the plain until the following spring. The Great Bustard rarely takes wing unless so hard pressed as to have no other chance of escape, but runs with great strength and swiftness for the distance of several miles.

As an article of food the flesh of the Bustard is highly esteemed, and on the Continent the bird is frequently to be seen exposed in the markets for sale.

The food of this bird consists of various kinds of grain, to which are added the tender leaves and shoots of trefoil and other vegetables; nor does it disregard snails, insects, mice, &c.

The male has a large and membranous stomach, and possesses a lengthened gular pouch, extending down the fore part of the neck, the entrance of which is situated beneath the tongue; although the purpose of this pouch is not yet clearly ascertained, it is supposed by some to be formed for holding water, with which it might supply itself, the female, or young during the period of incubation; "yet," says Mr. Selby, "this supposition does not carry with it much probability, as the male is never seen in close company with the female except previous to the time of laying;" thus leaving us still in doubt what precise purpose this singular organ is designed to perform.

The general weight of the male when in good condition is from twenty-eight to thirty pounds, and when fully adult, which is not until it is at least five or six years old, may be distinguished from the female not only by its larger size, but also by the lengthened wiry feathers which spring from the sides of the face and extend backwards for several inches, and by the rich band of dark grey which crosses on the chest from side to side.

The head, nape, and fore part of the neck and chest fine ashy grey; a streak of brown passes from the top of the head to the occiput; chin, throat, and mustaches white; lower part of the neck and sides of the chest rich chestnut brown inclining to reddish orange, strongly barred, variegated with black and grey; secondaries and greater coverts grey; quills black; tail-feathers white at their base and tip, the intermediate space being barred with black and reddish brown; belly and vent white; legs brownish black; beak bluish grey.

The female resembles the male in the colour of her plumage, but differs from him in wanting altogether the mustaches and in being only about half his size.

The Plate represents an adult male and female rather less than half the natural size.



RUFFED BUSTARD.

Otis Houbara, *Linn.*

L'Outarde Houbara.

Although the present beautiful species of Bustard has been occasionally killed in Spain and other parts of Europe, its native habitat is undoubtedly Arabia and Northern Africa, where extensive sandy deserts afford it a situation congenial to its natural habits. Dr. Latham, in his "General History of Birds," informs us, that according to Bechstein the Houbara has been killed in Siberia; but we have now some reason to doubt this conclusion, as J. E. Gray, Esq., of the British Museum, has lately made known a species of Bustard from the elevated range of the Himalaya which extends itself into Siberia, and we therefore suspect Bechstein has confounded this bird with the *Otis Houbara*, as it is characterized by the same singular kind of ruff and general style of colouring; although it may be distinguished from it by its inferiority in size and other minor particulars. To his bird Mr. Gray has given the specific name of *Macqueenii*; and the circumstance of its discovery is the more interesting, as we have now two species of Bustards exhibiting this singular disposition of plumage, which at once distinguishes them from the other birds of that family.

Athough so rarely met with in Europe, the Houbara abounds in Africa, where it is much prized for the excellence of its flesh, which is considered one of the greatest delicacies, and is said to be of exquisite flavour.

The history of this bird is at present but imperfectly known, European naturalists being unacquainted with its eggs or nidification: nor have the characters of the female been yet observed; so that we are unable to say whether or not she possesses that ornamental plumage which graces the male; most probably if the feathers of the ruff exist at all, they are much less perfectly developed; and indeed, as it regards the male, we have yet to learn whether he does more than possess these long feathers during the breeding season, and lose them subsequently, a change analogous to that which we know so frequently occurs in others of the feathered race.

The beak is lengthened and depressed at its base, and, together with the feet, is of an olive colour. The head is surmounted by a crest of long and slender filamentous feathers of a pure white; the top of the head, the cheeks, occiput, back, and forepart of the neck grey, with minute zigzag bars and spots of brown; from the sides of the neck spring two large tufts of flowing feathers, gradually increasing in length to the extent of seven or eight inches; the upper portion of which is black, the remainder white; the whole of the upper surface is light tawny, each feather being irregularly marked with transverse zigzag bars of brown; the primaries dark brown at the tip, and white at their base; the tail-feathers besides being spotted are ornamented with three bands of blueish grey; the breast and under parts pure white. Total length from twenty-five to twenty-eight inches.

Our figure is that of an adult bird, two thirds of its natural size.



LITTLE BUSTARD.

Otis tetrax. *Linn.*

LITTLE BUSTARD.

Otis tetrax, *Linn.*

L'Outarde canepetiere.

Although the Great Bustard (*Otis tarda*, Linn.) was at one time common in England, we are by no means so well assured that such was also the case with respect to the bird before us; indeed we should suspect, from the localities which it affects, that its visits to the British shores have ever been, as at the present day, accidental and of rare occurrence. Its habitat appears to be more exclusively confined to the southern portion of Europe, especially Spain, Italy and Turkey, as well as the northern coast of Africa; and although occurring in the central parts of France, it is by no means a common bird; nor is it at all found in the northern parts of the European Continent. If, however, we are not to consider the Little Bustard as one of the birds strictly indigenous to our island, still the circumstance of its having been often killed in England fully entitles it to a place in the Fauna of this country. Of the various British specimens taken, we may refer among others to one in the possession of His Grace the Duke of Northumberland, shot at Warkworth, in the autumn of 1821; another in the possession of Mr. Selby, shot in February 1823; and a third in the collection of Mr. Yarrell, which was taken near Harwich.

The specimens above enumerated, as well as all those of which any report has reached us, have been either invariably females or immature males, and in no instance an adult male, so conspicuous for the beautiful and singular markings which ornament the plumage of his neck and chest. We may here observe, that we have been unable satisfactorily to ascertain, either from our own observation or the information afforded by M. Temminck, whether these bold and decided markings constitute its summer plumage, being lost during winter, as in many species of the allied genus *Charadrius;* or if they are borne throughout the year, so as to constitute a permanent characteristic. In the specimen (in the author's collection) from which our figure was taken, this beautiful state of plumage is exhibited in a manner which the pencil is hardly adequate to convey.

The habits and manners of the *Otis tetrax* are strictly characteristic of the genus to which it belongs; and its general conformation and strength of limb render it well adapted for the station it occupies among those birds whose province is more peculiarly the ground, the surface of which affords them food and a place for nidification. The present species frequents open and extensive wilds or uncultivated districts, particularly uncovered arid plains, where, far removed from the habitation of man, it finds a secluded abode consonant to its reserved and timid disposition; and in these places, among the short herbage, it constructs an inartificial nest, and deposits from three to five eggs, of a uniform glossy olive-green.

In the male, the top of the head and occiput are light yellow, contrasted with numerous dots and lines of black and brown; the throat and cheeks slate-colour deepening, as it proceeds, to black, which continues in a line for some distance down the front of the neck, around which runs a necklace of pure white, commencing on each side of the occiput; the back of the neck (where the feathers are elongated into a short mane), and the sides, are of a deep jet black which meets across the lower part of the neck beneath the white necklace; over the breast extends a large crescent-shaped collar of white, below which is a narrower one of black; the whole of the back and sides of the chest light yellow with shades of reddish brown, thickly barred and dotted with elegant zigzag markings of black (which follow the outline of each feather,) interspersed, especially about the upper part, with large black spots and dashes; the edges of the greater wing and tail-coverts white; the quill-feathers blackish brown; tail yellowish with zigzag markings like those of the back, and crossed by indistinct bars, with indications of others; the middle of the chest and whole of the under surface pure white; bill olive-brown; irides orange; legs and tarsi yellowish grey.

Length eighteen inches; tarsi three inches; middle toe one inch and a quarter. From the joint of the tarsus to the feathery part of the thigh one inch; wing lengthened, and somewhat rounded.

The females and young males have the whole of the upper surface barred as in the male with dark brown zigzag markings on a fawn-coloured ground; the wing-coverts edged with white; the quill-feathers dark brown; the chin white; neck yellow, marked with longitudinal stripes, which as they proceed merge into transverse bars, becoming more and more decided on the chest, where the ground is still yellow; the under parts are pure white.

We have figured a male and female in their full plumage, two thirds of their natural size.



COMMON CRANE.

Grus cinerea. (Bechst)

B. Lear del et lith.

Printed by C. Hullmandel

Genus GRUS.

Gen. Char. *Beak* longer than the head, straight, strong, compressed, pointed. *Nostrils* placed horizontally in the anterior part of a furrow, large, concave, pervious, posteriorly closed by a membrane. *Legs* long, strong, naked above the joint; three toes in front; middle toe united to the outer one by a membrane; hind toe articulated high up on the tarsus. *Wings* moderate, rounded; first quill-feather shorter than the second; the third the longest.

COMMON CRANE.

Grus cinerea, *Bechst.*

La Grue cendrée.

That the Crane was once common in England is a fact learned from the accounts of all the writers on Falconry, who enumerate it among the noblest game, which the Jer and Peregrine Falcons could alone encounter. The gradual cultivation of the country, the draining of marshes, and the inclosure of wild tracts since those days, have almost wholly banished this elegant bird from our island; still, however, it pays occasional visits, and few seasons pass without a specimen being killed within the precincts of England. As in the present day, it must then have been a bird of passage, appearing only in autumn and winter; since its native climate appears to be the higher northern latitudes, both of Europe and the adjoining parts of Asia, whence they pass southwards, being forced to abandon their solitary realms upon the approach of winter, and gladly returning when spring opens the frozen regions, and again offers a friendly asylum.

Flocks of these birds are seen at stated times in France and Germany, passing northwards and southwards as the season may be, in marshalled order, high in the air, their sonorous voices distinctly sounding even from their elevated course. Occasionally they descend, attracted by new-sown fields, or the prospect of finding food in marshes, the borders of rivers, or even the shores of the sea; but generally they continue their flight unchecked towards their destined resting-place.

The food of the Crane is of a more mixed nature than is usual among the great class of Waders, grains and plants, especially such as grow in morasses and moist lands, being added to worms, frogs and fresh-water shells.

The nest is usually placed among reeds, thick osier beds, and the matted foliage which borders lakes and morasses; but sometimes also on the tops of old ruins and similar buildings, where solitude invites to the great task of incubation. The eggs are two in number, of a dull greenish hue with dashes of brown.

The young of the year, besides having the plumes of the wings little developed, are distinguishable by the want of the bare space on the top of the head, or at least in its being but barely indicated, while the black of the front of the neck and occiput is not yet apparent, or indicated only by a few dark streaks.

The adult birds, male and female, are similar in colour, the plumes being less elongated and graceful in the female.

The whole of the body is of a delicate grey, the throat, the fore part of the neck, and the occiput, being of a deep greyish black; the forehead and space between the eye and the beak garnished with black hairs; the top of the head is naked and red; the secondaries form a beautiful flowing pendent plume, each feather being long and decomposed, consisting of loose unconnected barbs hanging half way to the ground; the beak greenish black, passing into horn colour at the tip, but reddish at its base; tarsi black; irides reddish brown. Length, from beak to tail, three feet ten inches.

The aged birds have a white space passing from behind the eye over the cheeks, and along the side of the neck for a considerable distance.

Our Plate represents an adult male nearly one half of the natural size.



WHITE CRANE.

Grus leucogeranus. *(Temm)*

E. Lear del. et lith.

Printed by C. Hullmandel.

WHITE CRANE.

Grus leucogeranus, *Temm.*

La Grue leucogerane.

This splendid species of Crane having been lately added to the European Fauna, we have deemed it necessary to include it in the present work, and have accordingly figured it from a beautiful specimen of the male presented to us by M. Temminck, who in a letter accompanying it states that it is one of our most recent accessions, and is consequently one of the rarest among the European birds. Its native habitat is doubtless the northern and central portions of Asia, whence its range is extended even to Japan, where it is common. The only European localities in which it has as yet been observed are the most easterly portions of the Continent.

In size this species exceeds the Common Crane, and independently of its snow-white colouring, it also differs from that species in its much longer bill.

Snails, frogs, the fry and ova of fishes, small crustacea and bulbous roots are said to constitute its food.

The whole of the plumage, with the exception of the primaries, which are brown, is of a pure white; bare part of the head red; bill greenish horn-colour; legs and feet black.

The figure is about one third of the natural size.



NUMIDIAN DEMOISELLE.

Anthropoides Virgo: *(Vieill.)*

E. Lear del. et lith.

Printed by C. Hullmandel

Genus ANTHROPOÏDES, *Vieill.*

Gen. Char. *Bill* scarcely longer than the head, entire above, sulcated. *Nostrils* linear. *Head* either feathered, or the temples naked. *Feet* four-toed, cleft; the outer toes connected by a membrane at the base.

NUMIDIAN DEMOISELLE.

Anthropoïdes Virgo, *Vieill.*

La Grue Demoiselle.

Africa is undoubtedly the true habitat of the members of this genus, of which the bird here figured is a typical example; at the same time, that the range of this species is exceedingly extensive is proved by the circumstance of our having lately seen a specimen killed in Nepâl, and we are of opinion that it is also sparingly dispersed over other parts of India. In Africa the Numidian Demoiselle is abundant over the whole of its northern portions, particularly in the neighbourhood of Bildulgerid and Tripoli, while its beautiful ally the *Anthropoïdes Stanleyanus* of Mr. Vigors is confined to its southern portions. Dr. Latham mentions that it is very common along the whole of the African coast of the Mediterranean; we need not therefore be surprised at its being included in the Fauna of Europe, as its great powers of flight would readily enable it to cross the Mediterranean; and this we find to be the case, as the same author informs us it is found in the southern plains about the Black and Caspian Seas, that it is frequently seen beyond Lake Baikal, about the rivers Selinga and Argun, but that it is never seen further north. M. Temminck also includes it in the Fauna of Europe as an occasional visitant to the southern parts of the Continent. It everywhere evinces a partiality for marshes and the neighbourhood of rivers, and feeds upon snails, aquatic insects, small fish, and lizards.

Like the Cranes in general, it bears confinement extremely well, and forms a highly ornamental and docile creature in the menagerie. It has been known to breed in captivity, but of its nidification in a state of nature nothing is on record.

The sexes are alike in plumage.

Cheeks, throat, front part of the neck, primaries, and the tips of the prolonged scapularies black; a tuft of feathers proceeding backward from the eye pure white; crown of the head and all the remainder of the plumage delicate ash grey; bill black at the base and yellow at the tip; legs brownish black.

We have figured an adult male rather more than half the natural size.



COMMON HERON.

Ardea cinerea. *(Auth.)*

E. Lear del et lithog

Printed by C. Hullmandel.

Genus **ARDEA**.

Gen. Char. *Bill* long, strong, straight, compressed in a lengthened cone; upper mandible slightly channelled, ridge rounded. *Nostrils* lateral, basal, slit lengthwise in the groove, and half shut by a membrane. *Legs* long, slender, naked above the knee. *Toes* three before, the two outer united by a membrane, the inner divided, and one behind placed interiorly. *Claws* long, compressed, sharp, the middle one denticulated on the inside. *Wings* of middle size, the first quill a little shorter than the second and third, which are the longest.

COMMON HERON.

Ardea cinerea, *Linn.*

Le Héron.

Our large sheets of water adjacent to woods and wild scenery have their pictorial beauties greatly enhanced by this majestic bird, which, however, preserved with the utmost rigor when the art of Falconry was in vogue, is now in less estimation; and notwithstanding its preservation at the present period in many extensive heronries, we have every reason to believe its numbers are yearly diminished; circumstances to which the draining of our fens and marshes doubtless also materially contribute: and it is a question whether at no long distant date the Heron will not become as scarce in our island as the Bustard. It may not be out of place here to observe, that the Crane and Stork were once as common with us as the Heron is now; but being migratory birds, and finding that year after year their subsistence decreased, it is not so much to be wondered at that they should altogether abstain from visiting such an inhospitable abode. The range of the Heron is very extensive, being distributed not only over the continent of Europe, but in nearly every portion of the Old World; and in America we find its place supplied by a species closely resembling it in colour and habits, but nearly a third larger.

The Heron is very nocturnal in its general habits, and will when undisturbed remain during the day perched upon the branch of some large tree, where it sleeps away till evening calls it to exert itself in procuring the necessary supply of food; when there are no trees in the neighbourhood, it may be observed reposing in the centre of the marsh, but generally so elevated as to command a view of every approach, so as to be as safe as circumstances will admit. In the dusk of evening it may be seen leaving its retreat, and winging its way to the accustomed fishing-place, where it spends the whole of the night and morning in watching for its prey: to this end it wades into the water, there remaining motionless as a statue, its keen eye watching the approach of its victims,—fish, particularly eels which are working their way into the shallows in search of their own food: let one come within the range of its neck, which is retracted upon its shoulders in readiness for a blow, and quick as lightning it is seized by the never-failing stroke of its sharp-pointed bill. We may here notice the strong digestive powers with which this bird is provided, whence arises the necessity of an exuberant supply of food; and as its means of procuring it are in conformity with its wants, few birds make such destructive havoc in the preserves of fish: in addition to fish, however, it greedily devours frogs, aquatic insects, water rats, mice, &c. Few birds are more buoyant than the Heron; it elevates itself to a considerable height, and is also capable of maintaining its flight over large rivers and tracts of country.

On the earliest approach of spring, these birds assemble in flocks at the accustomed breeding-places, or heronries as they are termed, and either repair the nests of the preceding year, or construct new ones. They are large, flat structures, composed of sticks and twigs, the interior being lined, according to Mr. Selby, with wool and other materials, and are placed on the topmost branches of trees of the highest growth. The eggs are four or five in number, of a blueish green colour. The young are easily reared, and become quite domesticated in captivity, forming stately ornaments to sheets of water in the vicinity of mansions. During the first year of their existence, they are destitute of the flowing plumes of the back, chest and occiput, the whole plumage having an obscure and dusky tinge.

The adult male has the forehead, the sides of the head, throat, and shoulders of the wings, breast and belly pure white; on the front of the neck a double row of oblong spots of black; several long plumes of white springing from the lower part; a long plume of white feathers rising from the occiput; the sides of the chest black; the whole of the upper surface of a silvery grey; the scapularies elongated, forming loose, streaming, pendent feathers which fall over the wings; the beak and the band round the eyes beautiful yellow, with a tinge of grey; and the tarsi olive green.

The female resembles the male externally, but is somewhat smaller.

We have figured an adult male nearly three fourths of the natural size.



PURPLE HERON.

Ardea purpurea. *(Linn.)*

E Lear del et lith

Printed by C. Hullmandel

PURPLE HERON.

Ardea purpurea, *Linn.*

Le Heron pourpré.

In this elegant species we cannot fail to remark one of those beautiful gradations of form uniting proximate groups which the ornithologist meets with so continually in his survey of the feathered tribes, and which serves to show that the harmony obtaining throughout all great groups is interminable, except by the accidental annihilation of species. These observations apply with peculiar force to the bird before us, which seems to take an intermediate station between the Common Heron on the one hand and the Bittern on the other; to the former it assimilates in the length and slenderness of the neck, in the occipital plumes, and in the lengthened form of the bill, while by its large spreading toes, straight long nails and shorter legs, it is closely connected with the Bittern, to which it also bears a striking similarity in its habits and manners. Unlike the Common Heron, which prefers open countries and the exposed edges of large sheets of water, the Purple Heron haunts the dense coverts of reed-beds, morasses, and swampy lands, abounding in luxuriant vegetation, among which it is concealed from observation, and instead of building its nest on the topmost branches of the tallest trees, it incubates on the ground amongst that herbage which affords it an habitual asylum. As is also the case with the Bittern, the eggs are three in number, and of an uniform pale bluish green.

The range of this species is so great, that we may say in few words it inhabits the whole of Europe, Asia, and Africa. It is especially abundant in Holland, and in the low marshy districts of France; in the British Islands it must be considered as an accidental rather than a regular visitant, and we suspect that many of those killed in England had escaped from captivity, since numbers are annually brought alive from Holland to the London markets, where we have frequently seen a dozen at one time, together with Spoonbills, Common Herons and Bitterns, all in the most beautiful state of plumage, having been captured during the season of incubation; and often accompanied by hundreds of their eggs. We fear that this wholesale traffic has much diminished the numbers of these species, for the supply has been much less abundant during the last two or three years than it was formerly.

The food of the Purple Heron consists of fish, frogs, mice, and insects.

The sexes are alike in plumage after they have attained complete maturity; and may be thus described:

Crown of the head, occiput, occipital crest, a stripe down the back of the neck, another from the corner of the mouth to the back of the neck, and one passing down each side of the neck, black; throat white; sides and front of the neck rufous, the feathers on the lower half of the latter part lighter and with a broad stripe of blackish brown down the centre; the plumes at the bottom of the neck long, acuminate, and of a greyish white; lower part of the back of the neck, back, wings, flanks, and tail bluish grey, tinged with rufous; shoulders and under wing-coverts rich rufous; breast, all the under surface, and the long filamentous ends of the scapularies, deep reddish brown, intermingled with bluish grey; thighs pale rufous; bare space before the eyes and the bill fine gamboge yellow, with the exception of the ridge or culmen, which is brown; irides pale yellow; legs and feet greenish black.

The young are destitute of the occipital crest, and of the elongated feathers of the scapularies and at the base of the neck, until they are three years old; the forehead and crown of the occiput are grey with a reddish tint; the neck is much paler, and destitute of the black stripes; front of the neck white, with longitudinal black spots; under surface reddish white; upper mandible blackish brown; under mandible, bare space before the eyes, and irides pale yellow.

We have figured an adult male about two thirds of the natural size.



SQUACCO HERON.

Ardea comata; *(Pallas).*

Drawn from Life & on Stone by J. & E. Gould.

Printed by C. Hullmandel.

SQUACCO HERON.

Ardea comata, *Pallas.*

Le Heron crabier.

The Squacco Heron is one of those birds whose occasional visits have procured for it a place in the Fauna of Great Britain. We are in possession of several facts relative to its capture in different parts of England, but more particularly Norfolk and Lincolnshire, and within the last few years we know of more than one killed in the marshy districts surrounding Great Yarmouth; in addition to which Dr. Latham mentions two or three instances of its capture, one in Wiltshire by Mr. Lambert, and another which became entangled in a fisherman's net, whilst it was spread for drying, at Ormsby in Norfolk. The native locality, however, of this beautiful species appears to be along the western confines of Asia, extending into Turkey, the Islands of the Archipelago, and Italy, where it inhabits the banks of stagnant waters, morasses, the sides of rivers, and the low lands on the sea shore; it also visits some parts of Germany, Switzerland and France, but has never we believe been known to extend its migrations to the more northern regions of Europe.

The total length of the present species is about sixteen inches. The top of the head is ornamented with long yellowish feathers having marginal stripes of brown; these feathers become much more elongated at the occiput, whence spring seven or eight long slender flowing plumes of a yellowish white edged with black; throat white; neck, back, and the long filamentous feathers which rise from it, of a tawny yellow; these feathers, however, sometimes assume a vinous tinge; beak azure-blue at the base, passing through greenish white, to its tip which is black; the naked skin around the eyes and the feet of a greenish olive; irides fine light yellow.

The adult males and females differ but little.

In the young, the upper parts of the body and the scapulars are tinged with brown more or less decided; the beak and legs are not so brilliant in their colouring, but more inclined to a dull yellowish olive; nor do they assume the long occipital plumes or the lengthened feathers which ornament the head and back of old birds in their perfect livery, until they are more than two years old.

According to M. Temminck the nest is built in trees; but nothing is known respecting the colour or number of its eggs.

It subsists on small fish, frogs, marine insects, and mollusca.

We have figured a male in its full plumage, somewhat less than the natural size.


E.Lear.
GREAT EGRET.
Ardea alba (Linn.)

GREAT EGRET.

Ardea alba, *Linn.*

Le Heron Aigrette.

This beautiful species of Heron is an inhabitant of the eastern and southern parts of Europe, and the adjacent portions of Africa and Asia. It is said to be found in abundance on the shores of the Black and Caspian Seas, the southern portions of Russia, and in the whole of Turkey, its numbers gradually diminishing as we proceed westward from those parts. In Germany, France, and Holland its appearance is quite accidental, and at indefinite and uncertain periods; its occurrence in the British Islands is still more seldom; indeed, the accounts of its capture here are so unsatisfactory, that we almost doubt the propriety of retaining it in our Fauna.

In its habits, manners, and general economy it closely resembles the Common Heron (*Ardea cinerea*), being an inhabitant of the marshes, and feeding upon frogs, lizards, fishes, and various aquatic insects.

It builds in trees, and lays from four to six eggs, of a bluish white.

It is now generally admitted, that notwithstanding the slight difference which exists between the present bird and its representative in America, they are really distinct. "By many of the later writers," says Mr. Selby, "*Ardea alba* has been confounded with *Ardea Egretta*, an American species, and apparently its representative in the New World. Even Temminck, whose character as a descriptive ornithologist stands deservedly in the highest estimation, has failed in pointing out the distinctive characters of the two species, and considers them in his Manual as identical, in which he has been followed by Stephens and others. Wagler, however, whose skill in detecting and accuracy in delineating specific distinctions merit the highest praise, has marked with much precision the characters of each; and Wilson, who describes the *Ardea Egretta* in his admirable Ornithology of North America, states his conviction, from a comparison of the characters of each, that the European must be a distinct species from that which he describes."

During the spring and a greater part of the summer, the adult bird is adorned with a number of beautiful, long, divided, hair-like feathers springing from the back and extending considerably beyond the tail, and which may be elevated and depressed at will. These plumes are, we believe, wholly cast off at the commencement of autumn; this peculiarity, together with its slighter form and the immaculate whiteness of its plumage, has by some naturalists been considered of sufficient importance to warrant its separation into a new genus, and although we have here retained the old name of *Ardea*, we fully concur in the propriety of this subdivision.

The whole of the plumage is of a perfectly pure white; the bill deep brown tinged with yellow about the nostrils; the space between the eyes and the orbits greyish green; irides orange; legs and feet yellowish brown.

The young are destitute of the long plumes, have the bill blackish green tinged with yellow, and the legs greenish black.

We have figured an adult male rather more than half the natural size.



E. LEAR 1833.

EGRETT.

Ardea garzetta (Linn.)

LITTLE EGRET.

Ardea garzetta, *Linn.*

Le Héron garzette.

The Little Egret can scarcely be considered as having a decided claim to a place in the British Fauna; for, although one or two instances are upon record of its having been captured within the boundaries of our Island during the last half-century, still we do not know what degree of credit is to be attached to these accounts, as it is one of those birds respecting which much confusion has hitherto prevailed. The statements of its having been served up in such abundance at various feasts in the fifteenth century, recorded by the writers of that period, must be received with some degree of caution, for it is more than probable that the name was then given to another bird:—however this may be, the Little Egret is now found only in the southern portion of Europe, especially the countries adjacent to Asia and the Mediterranean; a few, however, migrate periodically into France, and occasionally also into Germany; but Sicily, Sardinia, Turkey in Europe, and the Islands of the Grecian Archipelago constitute its true habitat. Hence passing southwards and eastwards, it is abundantly spread through the temperate and warmer regions of Asia, and throughout the whole of Africa, but never occurs in the continent of America, where its place is supplied by a species closely allied, indeed, but possessing characters which sufficiently distinguish it. The young have been described by many authors as a distinct species, under the name of the "Little White Heron," because being destitute until the third year of the slender graceful plumes from the back and the occiput, it was supposed that the birds could not be identical; this is now disproved. There is, however, a "Little White Heron" noticed by Montagu which is truly a distinct species, and the specimen he described from, the only one known to have been taken in England, is now in the British Museum.

But it is not the plumage of the young birds only that has led to confusion, for the adult birds lose their ornamental plumes after the autumn moult. Hence Buffon, who calls this bird in full feather "L'Aigrette," gives to it when unadorned the name of "La Garzette blanche."

The food of the Little Egret, like that of its congeners, consists of the reptiles and insects peculiar to the morasses among which it dwells, to which fishes and molluscous animals are also added.

Latham states, that in Egypt it is called the "Ox-keeper," from its frequenting plains where the herds of cattle are pasturing, and that it is seen "often perching on the backs of these animals to feast on the larvæ of Œstrus which infest them."

It is said to make its nest among the herbage of morasses, and to lay five white eggs.

The colour of the plumage is a pure white. In the adult birds, at least during the breeding season, the occiput is ornamented with a pendent crest of two and sometimes three long narrow feathers, and a range of slender hair-like feathers is continued down the back of the neck; from the top of the back arise three ranges of plume-like feathers six or eight inches long, with waving shafts fine and tapering and thinly set with silky slender barbs, forming a light flowing plume; the beak is black; the naked skin round the eyes olive green; irides bright yellow; tarsi greenish black except at their lower part, where as well as on the toes the colour is greenish yellow. Length one foot eight or ten inches.

We have figured an adult in full plumage, and about two thirds of its natural size.



RUFOUS BACKED HERON.
Ardea rufa, Temm.

RUFOUS-BACKED EGRET.

Ardea russata, *Wagl.*

Le Héron roussâtre.

It is not, we believe, generally known that this little Egret has been more than once captured within the precincts of the British Isles: the first instance of its occurrence was recorded by Montagu, in the ninth volume of the Linnean Transactions, and it was afterwards more fully described in his Ornithological Dictionary under the name of Little White Heron; and this identical specimen now forms a part of the English collection at the British Museum. It was shot in the autumn of 1805 near Kingsbridge in Devonshire, and upon dissection proved to be a female, in all probability a bird of the year, as it is destitute of the fine rufous-coloured tint with which the adults are adorned.

In Europe this species is almost entirely confined to the most southern and eastern parts, and even there it is a rare bird; at the same time there are few species of the genus which enjoy so extensive a range, being dispersed over the greater part of Africa and Asia, and being particularly plentiful in the Himalaya and Nepaul.

Of its habits and manners we have no certain account; but that small fish, frogs, and insects constitute its principal subsistence there can be no doubt. The specimen killed in England was observed in the same field several days among some cows and feeding upon insects.

The adult has the bill, irides, all the head and neck, and the long plumes on the back rich reddish orange; the remainder of the plumage pure white; the legs greenish olive; and the nails black.

We have figured an adult of the natural size.



COMMON NIGHT HERON.
Nycticorax Europæus, (Steph.)

Genus NYCTICORAX.

Gen. Char. *Bill* very strong, rather longer than the head, compressed; upper mandible curved towards the point; maxilla sulcated for three fourths of its length and emarginated; culmen rounded; tomia of both mandibles straight and sharp, that of the under mandible entering within the upper one. *Nostrils* basal, longitudinal, placed in the furrow of the maxilla, and covered above by a naked membrane; lores and orbits naked. *Legs* of mean length, slender. *Toes* three before and one behind; middle toe shorter than the tarsus, exterior toe connected by a membrane to the middle one as far as the first joint. *Claws* short, falcated, that of the middle toe pectinated. *Tibiæ* naked for a short space above the tarsal joint.

COMMON NIGHT HERON.

Nycticorax Europæus, *Steph.*

Le Bihoreau à Manteau noir.

No bird, we conceive, can better show the necessity of minor subdivisions of large families than the Common Night Heron. The genus *Nycticorax* is now, we believe, universally acknowledged: seven species at least are known to us, most of which are inhabitants of remote and distant regions; one being found at Terra del Fuego, another in New South Wales, and a new one having been lately discovered in Manilla.

The Common Night Heron is the only species found in Europe, over the whole of which it is dispersed, as also over the whole of Asia, and the northern regions of Africa; and if not identical, the Night Heron of North America bears so great a resemblance to the European bird, as to require an experienced eye to detect the difference: the American birds are, however, we believe, larger in all their proportions.

Both the adults and young have been frequently killed within the British Islands, and particular instances are recorded in the works of Mr. Selby and others. It is especially abundant in Holland, France, and Germany, where it gives preference to low swampy and marshy situations, in the neighbourhood of trees and high woods. In its form the Night Heron is intermediate between the true Herons, *Ardea*, and the Bitterns, *Botaurus*, and, as may be supposed, partakes of the habits and manners of both, for although it affects more reedy and secluded situations, it nevertheless frequently resorts during the day to high trees and woods, where it may be seen perched on the topmost branches, the truth of which we can ourselves attest, having received a fine adult specimen immediately after it had been shot from a high tree in the gardens of Frogmore near Windsor: this individual evinced no fear at being approached, which enabled the keeper to make an easy prize of this rare visitor.

On the approach of evening, the Night Heron retires to the marsh or river-side, which never fails to afford it a plentiful supply of food: when fish cannot be obtained it feeds upon frogs, insects, and mice. It breeds in society much after the manner of the Common Heron; and constructs a nest, composed entirely of sticks, on the topmost branches of trees, or, when no suitable woods are near its accustomed haunts, among the reeds: the eggs are four in number, of a pale greenish blue.

Bill black inclining to yellow at the base; crown of the head, back of the neck, upper part of the back, and scapulars black with green reflections; sides of the neck, lower part of the back, rump, wings, and tail pearly grey; forehead, throat, and under parts white; from the back of the head spring three long, narrow white feathers, which are concave beneath, and lying one over the other, appear like a single plume: they can be erected at pleasure; legs and toes pale yellowish green; claws black, short, and hooked; that of the inner toe pectinated on the inner side; irides deep reddish orange; bare space round the eyes greenish blue.

The young bird during its first or nestling plumage is destitute of the plumes at the back of the head, has the culmen and point of the bill blackish brown, with the base and lower mandible yellowish green; the head and back of the neck brown, with the centre of each feather yellowish white; the front of the neck and the feathers of the breast and under surface yellowish white deeply margined with dull yellowish brown; the back and lesser wing-coverts deep brown, the centre of each feather streaked with yellowish white; greater coverts and quills deep brown, tipped with triangular spots of white; the tail brown, the legs yellowish green, and the irides bright orange. Between this state, when it is known by the name of the *Gardenian Heron*, and maturity, it acquires at each successive moulting a plumage approaching nearer to that of the adult, and in each of these stages has been described as a different species.

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



Genus BOTAURUS, *Selby.*

Gen. Char. *Bill* strong, rather longer than the head; both mandibles of equal length; the upper sulcated for two thirds of its length and very gently curving from the base to the tip; tomia of both mandibles very sharp and finely serrated near the tip; lores and orbits naked. *Nostrils* basal, linear, longitudinal, placed in the furrow of the maxilla, and partly covered by a naked membrane. *Legs* of mean length. *Toes* long and slender, all unequal; middle toe of the same length as the tarsus; hind toe long, articulated with the interior toe on the same plane; claws long, subfalcate, that of the middle toe pectinated; front of the tarsus scutellated; back part reticulated. *Wings* long, rounded; the first three quills nearly equal and the longest.

COMMON BITTERN.

Botaurus stellaris, *Steph.*

Le Heron Grand Butor.

Formerly, when large portions of the British Islands were uncultivated, and extensive marshes and waste land afforded the Bittern abundance of retreats congenial to its habits, it was plentifully distributed over the country; but as cultivation has extended and the marshes been drained, its numbers have gradually decreased, and although not absolutely a rare bird its presence is not always to be reckoned upon, for in one year it may be tolerably common, and then for several succeediug seasons scarcely to be procured at all.

We have received specimens of the Common Bittern from Asia and Africa, but we are of opinion that Europe alone is its native habitat. At the present time it finds sufficient shelter and retreat among the marshes of Holland and other low countries, where it may fulfill the task of incubation in comparative security.

The Bittern is a solitary and shy bird, hiding itself in dense masses of reeds during the day, and seldom appearing abroad until the evening, when it resorts to ditches and the more open parts of the marshes in search of small mammalia, frogs, lizards, fishes, and various aquatic insects, retiring again to its retreat when its wants are satisfied.

No two birds can better show the necessity of subdivisions than the Bittern and the Heron, which have been until lately classed under one generic title (*Ardea*). They are equally shy and wary, yet each evinces its timidity in a strikingly opposite manner, the Heron always choosing as a place of rest, after feeding, the topmost branches of high trees, or some elevation where it can perceive the approach of danger; while the Bittern depends for security upon the covert afforded it by the thick reed-beds and other dense masses of vegetation, from whence it is not roused without considerable difficulty, and then seldom flies to any great distance. "When wounded or surprised," says Mr. Selby, "and unable to escape, it defends itself with vigour, and as it always aims at the eyes of its enemy with its strong and sharp-pointed bill, a considerable degree of caution must be used in capturing it. When attacked by a dog, it throws itself upon its back and strikes with its claws as well as with its bill; and in this manner it will keep the most resolute dog at bay, as the infliction of a stroke or two of the latter spear-pointed weapon is commonly sufficient to keep him afterwards at a respectful distance. The Bittern used to afford excellent sport in falconry; for when flown at, it immediately begins to soar, rising in spiral circles, and endeavouring to keep above its enemy. Should this manœuvre fail, it then prepares for the descent of the Hawk by setting its sharp bill perpendicularly upwards, upon which its impetuous antagonist frequently transfixes itself, or is so severely wounded as to be obliged to give up a second attack. The bellowing or booming noise of the Bittern is confined to the pairing-season, which commences in February or the beginning of March. At this time, on the approach of twilight, it rises in a spiral direction to a very great height, uttering at intervals the peculiar cry, formerly heard with superstitious dread."

In earlier times the flesh of the Bittern was esteemed a great luxury, and even now fetches a good price; it is dark coloured but not coarse, and partakes of the flavour of the hare and that of wild fowl.

The nest is composed of sticks, reeds, &c., and is generally placed near the water's edge among the thickest herbage: the eggs are four or five in number, of an uniform pale brown colour. The young are produced in about twenty-five days; they are fed by the parents until fully fledged and do not quit the nest till they are able to provide for themselves.

The sexes are alike in plumage.

Crown of the head black, glossed with bronzy green; feathers of the occiput margined with pale buff, rayed with black; from the gape a broad streak of blackish brown; all the upper surface pale buff irregularly marked with black and reddish brown, the former predominating; sides of the neck barred transversely with dark brown, the front with large longitudinal streaks of reddish brown intermingled with blackish brown; feathers of the breast blackish brown deeply margined with buff; under surface buff with narrow longitudinal streaks of brownish black; quills blackish brown, barred with reddish brown; tail reddish brown, with irregular markings of black; orbits and angles of the mouth yellow; bill yellowish green, darkest on the culmen; legs and feet pale grass green; claws pale horn colour; irides yellow.

The Plate represents a male about two thirds of the natural size.


Edwards Lear. del.

AMERICAN BITTERN.

Botaurus lentiginosus, *Steph.*

Le Butor de l'Amérique.

A BIRD of this species was shot in Devonshire in the autumn of 1804; and after passing through the hands of two or three persons, who were not aware of the rarity and value of the specimen, it came into the possession of Colonel Montagu, by whom it was first described and figured in the supplement to his Ornithological Dictionary under the name of Freckled Heron, *Ardea lentiginosa*, and after whose death it was transferred with his whole collection to the British Museum. It is now ascertained that the true habitat of this species is America, and that it is only an occasional visitant to this country.

Wilson, who has described it under the specific title of *minor*, says, "This is another nocturnal species, common to all our sea and river marshes, though nowhere numerous. It rests all day among the reeds and rushes, and unless disturbed flies and feeds only during the night. When disturbed these birds rise with a hollow note, and are easily shot, as they fly heavily. Like other nocturnal birds, their sight is most acute during the evening twilight; but their hearing is at all times excellent." Wilson has also himself found and shot this species in the interior of the country near Seneca Lake, and had learned, probably from the account of Mr. Hutchins, that this bird makes its nest in swamps, laying four cinereous green eggs among the long grass. The young are said to be at first black. The stomachs of those examined by Wilson were usually filled with fish or frogs.

Dr. Richardson, in his North American Fauna, says this Bittern "is a common bird in the marshes and willow thickets of the interior of the fur countries up to the fifty-eighth parallel. Its loud booming, exactly resembling that of the Common Bittern of Europe, may be heard every summer evening, and also frequently in the day."

Top of the head dusky reddish brown; back of the neck pale yellowish brown, minutely dotted with blackish brown; a broad stripe of black on the sides of the neck, from behind the ears; upper surface dark umber brown, minutely freckled with chestnut and yellowish brown; long feathers on the shoulders broadly edged with buffy yellow; wing-coverts brownish yellow, freckled with umber brown; spurious wing, primaries, and secondaries greyish black, the tips of the latter, the lesser quills, and tail brownish orange dotted with black; chin and upper part of the throat white; front of the neck and under surface ochreous yellow with a broad stripe of mottled brown down the centre of each feather, margined on each side with a fine line of a darker tint; bill dark brown above, sides and under mandible yellow; legs greenish yellow.

We have figured an adult about two thirds of the natural size.



LITTLE BITTERN.

Botaurus minutus, *Selby.*

Le Héron blongios.

Although we have followed Mr. Selby in placing this bird in the genus *Botaurus*, of which the Common Bittern is the type, stil we conceive that the present species (with numerous others, possessing the same form and habits, distributed over nearly every part of the globe,) possesses characters which entitle it to form the type of a genus as distinct from *Botaurus* as that genus is from *Ardea* and *Nycticorax*. It cannot be denied, however, that it is intimately allied to the more typical *Botauri* in its solitary and secluded habits, everywhere frequenting low and swampy situations, abounding in thick coverts of reeds, willows, &c., and from which it is not driven without considerable difficulty. In England it is, and always has been, a bird of considerable rarity; nevertheless various examples have been taken at different times, so that there are few collections of any extent which do not contain one or more British specimens. On the Continent it is found in considerable abundance, especially in the southern provinces; nor is it rare in Holland and France, in both of which countries it is known to breed annually. From the seclusion of its haunts, and the difficulty of access, its nest is seldom seen: it is said to be placed in low bushes and tufts of herbage, among the thickest rushes. The eggs are five or six in number, of a pale greenish white.

The compressed form of body which so eminently characterizes the Little Bittern enables it to avoid pursuit with the utmost facility, by threading its way through the most closely compacted and intricate masses of reeds, &c., which it does with the utmost silence and rapidity. Like most other Herons, it is capable of perching; and this it often does on willows, the stems of thick reeds, &c. If forced to take wing, its flight is slow and heavy, not protracted to any great distance.

Its food consists of small fishes, frogs, snails, insects, &c.

In their adult state, the sexes offer little or no external difference in the colour of their plumage. The young are wholly destitute of the fine green of the back and top of the head, which, together with the wing-coverts, are then brown, each feather having longitudinal blotches of a darker colour. From this stage it passes through several changes of colouring, until it assumes the full plumage of maturity, which is not accomplished before the second or third moult.

Adults have the top of the head, back of the neck, whole of the upper surface, and tail glossy greenish black; middle of the wings, neck, and whole of the under surface delicate fawn yellow; bill, circle round the eye, and irides yellow; tarsi greenish yellow.

The Plate represents an adult, and a young bird in the intermediate stage, of the natural size.



WHITE STORK.

Ciconia alba: *(Bellon.)*

E. Lear del. et lithog.

Printed by C. Hullmandel.

Genus CICONIA.

Gen. Char. *Beak* long, straight, strong and pointed. *Nostrils* pierced longitudinally in the horny substance. *Eyes* surrounded by a naked skin. *Legs* long. *Feet* four-toed, three toes before, united by a membrane to the first joint. *Wings* moderately large, the first quill shorter than the second, and the second shorter than the third, fourth, or fifth, which are the longest.

WHITE STORK.

Ciconia alba, *Bellon.*

La Cigogne blanche.

From its familiarity, and the services which it renders to man in the destruction of reptiles and the removal of offal, the Stork has ever insured for itself an especial protection, and an exemption from the persecution which is the lot of the less favoured of the feathered tribes. Its periodical return to its accustomed summer quarters,—to its nest, the home of many generations,—has ever been regarded with feelings of pleasure ; and its intrusion within the precincts of man has not only been permitted but sanctioned with welcome. The Stork is a bird of passage, but its range is not extensive. Egypt and the northern line of Africa appear to afford it a winter retreat : with the return of summer it revisits Europe, but seldom ventures far northwards, and only occurs accidentally in the British Isles. Its scarcity in this country may perhaps be attributed rather to the drainage of our marshes, and the comparative difficulty of procuring food, than to anything uncongenial in the climate. Holland is its favourite place of residence, to which we may add the low tracts of Germany, Prussia, France, and Italy. Spain appears to be one of its winter retreats, numbers frequenting Seville at that season, "when," says Dillon, "almost every tower is peopled with them, and they return annually to the same nests." Instead of being shy and distrustful, the Stork is confiding and bold, as if aware of its privileges ; hence it may be seen on the house-tops in towns and villages, whence it wings its way to the neighbouring fields and swamps in search of food, and returns again to roost. Steeples, tall chimneys, elevated buildings, and also decayed trees, are the localities chosen for the site of its nest, a cumbrous mass of sticks and coarse materials. The eggs are generally three in number, of a pale yellowish white.

The food of the Stork consists of the various aquatic reptiles and insects which swarm in its favourite localities : its appetite is, however, somewhat indiscriminate,—snakes, mice, moles, worms, and offal being greedily devoured. With the setting in of the winter months, when the resources upon which it relies are no longer available,—when the morasses and swamps are frozen, and the ground is covered with snow,—the Storks assemble in vast multitudes, and prepare for a southward flight. Immense flocks, during the performance of this journey, are often seen in the air, passing over the country, of which instances are recorded by many writers. Like other birds of passage, it most probably begins the journey at the hour of midnight.

The males and females are alike in their plumage, having every part of a pure white, except the scapularies and wings, which are black ; the skin round the eye is also black ; the beak and feet are reddish orange.

The young have the black more inclining to dull brown.

Our figure represents an adult bird, half its natural size.



BLACK STORK.

Ciconia nigra *(Bellon)*

E.Lear del. et lith.

Printed by C.Hullmandel

BLACK STORK.

Ciconia nigra, *Bellon.*

La Cigogne noire.

Among the wading birds of Europe, there are few if any which excel the Black Stork either in richness of plumage or stateliness of general aspect. Although resembling the White Stork in its habits, the present bird offers many points of difference from its well-known and familiar congener.

Instead of associating in the immediate vicinity of the habitations of man, the Black Stork is much more shy and distrustful, leading a life of seclusion among the morasses and wooded districts of the central and northern portions of Europe. The interchange of forests and tracts of marshy ground, where draining and cultivation have made but little progress, afford this bird not only food, but an unmolested asylum in which to rear its brood. Notwithstanding the length of its limbs and its semipalmated toes, it perches on trees, and builds its nest on the branches, choosing for that purpose some tall pine of ancient growth, in the depths of the forest, where its colour assimilates with the gloomy hue of the surrounding objects. It appears, however, to be a bird of migratory habits, travelling northwards and southwards with the spring and autumn. Its winter residence is not precisely ascertained, but, like all birds whose sustenance is dependent on the seasons, is doubtless in a country where the rigours of winter do not lock up the marshes and lakes with ice. Dr. Latham states it to have been met with along the Caspian Sea and at Aleppo. The preference which the Black Stork manifests for a densely wooded district is doubtless one reason why it is a bird of such rare occurrence in Holland, which in other respects is well adapted for its residence, and abounds in its favourite food, namely small fishes, frogs, worms and insects. Great Britain can scarcely lay claim to the Black Stork as one in the list of her Fauna, so few are the instances upon record of its capture in our islands.

Although shy and timid by nature, this bird soon acquires confidence and familiarity in captivity, and bears the confinement of the aviary equally well with its relative the White Stork, whose docility is proverbial.

The male and female are alike in plumage.

The head, neck, chest, and all the upper parts of the body, are blackish with purple, green, and bronze reflections; the under surface is pure white; the naked space surrounding the eye, that on the throat, and the beak, crimson red; irides brown; tarsi deep red.

The young have the beak, the naked skin round the eye and on the throat, as well as the tarsi, greenish olive, and the plumage is more inclined to reddish brown.

Our Plate represents an adult bird, half its natural size.



MAGUARI STORK.

Ciconia Maguari; *(Temm:)*

E.Lear del et lithog.

Printed by C.Hullmandel.

MAGUARI STORK.

Ciconia Maguari, *Temm.*

Le Cicogne Maguari.

We find in this stately and fine species of Stork the first indications of a departure from the typical form of the genus *Ciconia*, and an approximation to that of *Mycteria*, which is characterized not only by a greater stoutness and solidity of the bill, but also by the recurved form of the mandibles; a character which, in a slight degree, is perceptible in the bird before us.

In general habits and manners the Maguari Stork bears a great resemblance to its celebrated congener the White Stork (*Ciconia alba*, Bellon); it is not, however, a native of Europe, but obtains a place in the Fauna of this portion of the globe, from the circumstance of accidental visitors having at different times been killed in France and other places. In our islands no examples have ever been captured. America is its true habitat, the vast morasses and savannahs of that continent, both in its northern and southern portions, affording it food and shelter. Of its nidification and eggs we have no certain information.

The whole of the plumage is white, with the exception of the quills, secondaries, and upper tail-coverts, which are glossy greenish black; beak greenish yellow at its base, passing into dull blue at the tip; naked skin round the eye red, as is also a naked portion on the throat, which is capable of considerable dilatation; tarsi and toes red; nails brown; irides greyish white.

In size, the present species is considerably larger than the White Stork, and the figure in the Plate represents the bird somewhat less than half its natural size.



SPOONBILL.

Platalea Leucorodia, *(Linn).*

Drawn from Life & on Stone by J & E. Gould.

Printed by C. Fullmarden.

Genus **PLATALEA**, *Linn.*

Gen. Char. *Beak* elongated, strong, compressed, the point dilated and rounded, spoon-shaped, the upper *mandible* channeled round the margin, furrowed transversely at the base. *Nostrils* approaching, oblong, open and edged by membrane. *Face, head* and *chin* more or less naked. *Tarsi* long, and of considerable strength. *Toes* united by a membrane, deeply cleft, and terminating as high as the second articulation; hind-toe long, and applied entirely to the ground. *Wings*, second and third *quill-feathers* nearly equal and longest, the first rather shorter.

SPOONBILL.

Platalea leucorodia, *Linn.*

La Spatule blanche.

Nature in her exhaustless resources exhibits great variety of means adapted to the same end, which she apparently delights to display, as if to convince us of the unlimited extent of her empire, and the powers under her command. The truth of this observation is plainly exemplified in the species under consideration. Allied to the Stork, Heron and Crane, and subsisting in a great degree on the same kind of food, still the essential modification in the structure and form of that apparatus by which it is obtained has induced naturalists to assign the Spoonbill a station as the type of a separate genus. In the Crane, the Stork and the Heron, we find the bill conical and pointed; but in the Spoonbill this organ is modelled differently; and although, as already stated, the food of the present bird nearly resembles that of the species above mentioned,—viz. mollusca, newts, frogs and their ova, together with small fishes,—it appears, if we may hazard a conjecture, a plan of construction still better adapted to its particular purpose.

Although the Spoonbill in its general manners is closely allied to the Stork, it is by no means so familiar with man, but affects localities more remote and unfrequented. In captivity, however, it acquires confidence and loses that distrust which characterizes it in freedom; and from its gentleness and inoffensive disposition, as well as from the purity of the colour of its plumage, its graceful crest, and the ease and elegance of its attitudes, adds beauty and interest to the aviary.

The genus *Platalea* thus separated is very limited, containing, as far as our researches have yet enabled us to ascertain, not more than five or six species, of which the present alone, we believe, is a native of the European portion of the globe. The British Islands, it is true, no longer afford a secure retreat for the Spoonbill, owing to the draining of our more extensive marshes and inland waters; nevertheless it still occasionally visits this country, and the author for several years past has ascertained the fact of the Spoonbill annually appearing on the coast of Norfolk, at that period of the year in which they wander in search of uninterrupted asylums; and we doubt not that this species and many others, if unmolested, would still breed with us as heretofore.

The Spoonbill is spread over Europe generally; but Holland appears to be the principal place of summer rendezvous, whence it migrates, on the approach of winter, to more southern regions, where it remains till the return of spring,—it then again retraces its course. It generally selects the tops of lofty trees for the site of its nest; sometimes, however, it chooses less elevated situations, building among rushes or reeds, and laying two or three large white eggs marked with obscure spots of red; varieties, however, are often found completely white.

The plumage of the adult bird is white, with the exception of a pale reddish-yellow band which encircles the lower part of the neck, about three inches in width on the under part, whence it gradually contracts as it extends upwards; and the crest (both of which it acquires only during the breeding season,) is of the same colour, though of a paler tint. A flesh-coloured space entirely devoid of feathers extends from the base of the lower mandible to the eye, and is continued about two inches down the throat, where it assumes a deeper yellow; beak black with a yellow tip; the irides red; the legs and feet black. Total length, two feet six inches; length of the beak varying from seven to nine inches.

The female differs from the male only in being rather smaller. The young when they leave the nest bear a general resemblance to the parent birds, with the exception however of the following particulars; viz.—the beak is not so large, softer in texture, and of a lighter colour; the shafts as well as the tips of the quill-feathers are black; the irides ash-coloured; the naked parts about the head are paler, and there is no indication of that elongated crest which ornaments the adult birds, both male and female, in the breeding season.

Our Plate represents a male in the spring plumage.



FLAMINGO.

Phœnicopterus ruber; *(Linn.)*

E. Lear del et lith.

Printed by C. Hullmandel.

Genus PHŒNICOPTERUS, *Linn.*

Gen. Char. *Beak*, thick, strong, the depth exceeding the breadth, serrated, conical towards the point, naked at the base; the upper mandible suddenly bent and curved at the tip over the inferior mandible, which is of larger size than the upper. *Nostrils* longitudinal, placed in the centre of the beak, pierced through, and covered above by a membrane. *Tarsi* of great length. *Toes* three before, united by a web as far as the nails, and one behind, which is very short and placed high on the tarsus: nails short and flat. *Wings* moderate, the first and second quill-feathers the longest.

COMMON FLAMINGO.

Phœnicopterus ruber, *Linn.*

Le Flamant.

Of all the forms in ornithology, none is more extraordinary than that of the Flamingo, whose singularly shaped bill, long and slender neck, stilt-like legs, and brilliant colouring render it a most striking object. The present form exists in all the warmer portions of the continent of Europe, Asia, Africa and America. We are acquainted with at least three or four species, but we are still uncertain whether that found in America be or be not identical with the one found in Europe; we therefore consider it best to confine our remarks to the range of the species inhabiting the Old World: we may observe, however, that should the identity of the European and American birds be hereafter satisfactorily ascertained, M. Temminck's proposed specific title of *antiquorum* must be given to the bird found in the Old World.

In Europe the only countries regularly visited by the Flamingo are those which form the coasts of the Mediterranean. It is abundant in Sicily, Calabria, and Sardinia; it occasionally occurs in France, and even in Germany, as is proved by its having been killed on the banks of the Rhine. In Asia and Africa it is very extensively spread, and, indeed, is one of the commonest birds along the whole of the African shores. Its favourite haunts in all countries are morasses, the sides of rivers, and the low muddy and sandy shores of the sea, creeks, and inlets. Admirably formed for seeking its food in these situations it is enabled from the length of its legs to wade to a considerable distance from the shore, while the corresponding length of its neck enables it to reach the bottom with its beak, which in collecting its food is placed with its upper mandible downwards, a position quite contrary to that of every other bird at present known, but for which the acute bend in the upper mandible is expressly adapted. Its food consists of small molluscous animals, the fry of fishes, and other marine productions. Though it possesses a webbed foot, this structure appears to be more for the purpose of enabling it to traverse soft and muddy places without sinking, than for the purpose of swimming, which it seldom or ever attempts. In its native haunts it is mostly seen in small bands or companies, and is extremely watchful and cautious, so that it is not without the greatest difficulty a person can get within gun-shot range. Its flight when elevated in the air is rapid, and the troop assumes a wedge-shaped form, as is the case with the Wild Geese.

Not having had an opportunity ourselves of observing its nidification, we give the account published by M. Temminck and other writers, who state that it erects among the morasses an elevated mound of mud and earth, on the top of which, in a slight depression, the female deposits her eggs, placing herself astride to cover them, the great length of her limbs precluding the possibility of her assuming the usual position: the eggs are said to be two in number, of an oblong form and of a pure white.

The sexes, although differing but little in colour, may be readily distinguished by the greater size of the male. During their progress from youth to maturity, which occupies a space of four years, they undergo a considerable change of plumage; besides which, we believe, there are differences depending upon season, the beautiful rose red being characteristic of the spring and summer. The young before the first moult are of a uniform grey, with the exception of the secondaries and tail, which are black. As they approach maturity they gradually assume the snowy white and scarlet plumage of the adults, which may be thus described:

Head, neck, upper and under surface beautiful rosy white; centre of the wing bright scarlet; primaries black; bill blood red at the base and black at the tip; tarsi and toes rosy red.

The Plate represents an adult and a young bird about half the natural size.



TRUCK-KNEED BUSTARD.
Œdicnemus crepitans. (Linn.)

Genus ŒDICNEMUS.

Gen. Char. *Beak* longer than the head, straight, strong, a little depressed towards the tip; *culmen* of the upper mandible elevated; lower mandible forming an angle. *Nostrils* placed in the middle of the beak, cleft longitudinally to the horny part of the beak, open before, pierced from side to side. *Tarsi* long, slender. *Toes* three before, united as far as the second articulation by a membrane which advances along their edges. *Tail* strongly graduated. *Wings* moderate, the first quill-feather a little shorter than the second, which is the longest.

THICK-KNEED BUSTARD.

Œdicnemus crepitans, *Temm.*

L'Œdicneme criard.

We are here presented with one of those peculiar and interesting forms which serve as a link to connect two important groups. The groups to which we allude are the Bustards on the one hand, and the Plovers on the other; and we have often had occasion to remark, that while the normal or typical groups are abundant in species, the aberrant forms, which appear to be created for the purpose of filling up the intervening chasms, are restricted for the most part to a limited number of species: such is the case in the instance before us, for while the Bustards and Plovers comprise a vast multitude of species, the genus *Œdicnemus* contains at most but five or six, and these confined entirely to the regions of the Old World. The Thick-kneed Bustard is the only one of its genus which is known in Europe, in most parts of which it appears to be migratory. It arrives in the British Islands at the commencement of spring, giving the preference to elevated downs, commons, and heaths, particularly those of barren and sterile districts, confining itself, however, principally to the midland counties, being especially abundant in Norfolk, Suffolk, Kent, and Hampshire. It first appears in small companies, which soon after separate to breed. The eggs are two in number, and are placed on the bare ground, without any trace of a nest: the place of incubation is generally among loose stones and flints; and the young, which are capable of running as soon as excluded, are not to be discovered without great difficulty, their colours assimilate so closely with the surrounding objects. On the Continent it is found dispersed in similar situations, and is especially abundant, not only in the southern and eastern portions of Europe, but on the adjacent borders of Asia and Africa.

The Thick-kneed Bustard is no less distinguished for its rapidity on foot, than for its sweeping and powerful flight, which is generally performed in wide circles. Its food consists of slugs, worms, reptiles, and, not unfrequently, mice, &c.

The sexes offer little or no difference in their plumage, and the young assume the adult plumage at an early period.

The top of the head, cheeks, and whole of the upper surface brownish ash, with a tinge of vinous, each feather having a central dash of umbre brown; throat white, the same colour being obscurely indicated both above and below the eyes; a pale yellow bar passes longitudinally across the shoulders; the greater coverts are tipped with white; flanks and under surface yellowish white, the former having the shaft of each feather streaked with brown; naked skin round the eyes, the irides, and the basal half of the beak bright yellow; tarsi and toes yellow, with a slight tinge of green.

The Plate represents an adult of the natural size.



LONG LEGGED PLOVER.

Himantopus melanopterus, *(Meyer).*

Drawn from Life & on Stone by J & E Gould.

Printed by C Hullmandel.

Genus HIMANTOPUS, *Briss.*

Gen. Char. *Beak* long, slender, cylindrical, flattened at its base and compressed at the point; both *mandibles* channeled to the extent of half their length from the base. *Nostrils* lateral, linear. *Tarsi* very long and slender. *Toes* three before, the external and middle toes united by a membrane; *nails* small and flat. *Wings* very long, the first *quill-feather* the longest.

LONG-LEGGED PLOVER.

Himantopus melanopterus, *Meyer.*

L'Echasse à manteau noir.

The genus *Himantopus* although widely distributed, contains, we believe, only two well-authenticated species, —the example here figured, and one very nearly allied to it from North America.

This bird, so singular in its appearance, from the extraordinary length and slenderness of its legs, has been often killed in England; but it must be classed among those birds whose visits are accidental and uncertain. It is equally scarce in Holland and the northern portion of Europe: in fact, though apparently abundant nowhere, it exhibits so wide a range, that its deficiency in point of number in any given locality is counterbalanced by its almost universal distribution. We have been presented with skins which we consider to belong to this same species, from Africa, India, the Islands of the Indian Archipelago, and, if we mistake not, from North and South America.

The Long-legged Plover, as its conformation would lead us to conclude, is a bird whose most congenial habitat is morasses, and the low flat shores of lakes, rivers and seas. Hence in the eastern portions of Europe, where it is said to arrive from Asia in small flocks, it takes up its abode along the lakes and among the vast morasses of Hungary and Russia, where, according to M. Temminck, it rears its progeny, and where it fearlessly wades in search of its food, without much chance of being carried out of its depth; but should such an occurrence happen, or the waves drift it out from the shore, it possesses, like many of the true wading birds, the power of swimming with the greatest ease and lightness; in fact, in whatever point of view we consider the Long-legged Plover, we find it adapted in the best possible manner for its habits and modes of life: few birds exceed it in the powers of flight; its wings far exceed the tail, and it passes through the air with astonishing rapidity. When on firm ground, it appears as if tottering on long and awkward stilts: but firm ground is not its congenial habitat. The egg as figured by Dr. Thienemann measures one inch nine lines in length by one inch three lines in breadth, of a pale blueish green, spotted and specked with dark brown.

In the male, the top of the head, face and under parts are white with a faint tinge of rose-colour; back of the head and neck black; back and wings black with green reflections; tail light grey; beak black; irides crimson; tarsi and feet fine orange-red. In some stages of plumage the head and neck are perfectly white, the black being, in all probability, the plumage of summer.

The female differs from the male in having the back brown instead of black, with green reflections.

The young have their colours altogether more obscure, with a brown tinge; the tarsi and irides are also less brilliant.

We have figured a male in perfect plumage, nearly of the natural size.



H.E. Gould

BASTARD OR GREY PLOVER.

Squatarola cinerea. (Cuv.)

Genus SQUATAROLA.

Gen. Char. *Bill* rather strong, cylindrical, straight, nearly as long as the head; the tip, or horny part, about half the length of the whole bill, tumid, and arched, with the *tomia* bending inwards. *Nasal groove* wide, half the length of the bill. *Mesorhinium* depressed below the level of the tip. *Nostrils* longitudinally pierced in the membrane of the groove, linear, oblong. *Wings* rather long, acuminate, with the first quill-feather the longest. *Legs* slender, of mean length, naked above the tarsal joint. *Feet* four-toed, three before and one behind; front toes joined at their base by a membrane, that portion of it between the outer and middle toe being the longest. Hind toe very small or rudimental. *Tarsi* reticulated. *Plumage* thick, close, and adpressed.

GREY PLOVER.

Squatarola cinerea, *Cuv.*

Le Vanneau Pluvier.

The Grey Plover is the only European example of the genus *Squatarola*, a genus of more than ordinary interest to the ornithologist, possessing as it does characters which seem to place it in an intermediate situation between the genus *Charadrius* on the one hand and that of *Vanellus* on the other. In its most striking peculiarities, both as regards its general form and the nature of its periodical changes of plumage, it exhibits a striking affinity to the well-known Golden Plover; in fact, in some stages of its plumage, it requires a nice attention to other points to distinguish it from that bird: for example, during the first autumn and winter of its existence, each feather has its edges spotted and margined with yellow, as the single feather in the foreground of our Plate will illustrate. The next change consists in the loss of the yellow colour, which is exchanged for grey, a style of plumage which ever after characterizes this bird, excepting in the commencement of the breeding season, and during the subsequent moult, when the greater part of the under surface is, as in the Golden Plover, of a uniform rich and glossy black. Trusting to these characteristics alone, we should be ready to assign to the bird a place in the genus *Charadrius*; but on examining the feet we should immediately discover our mistake, for although we do not find a well-developed hind toe, still we are presented with one in a rudimentary condition, indicating the fact of its departing from the typical form of the genus *Charadrius*, and its alliance to that of *Vanellus*, between which it becomes a connecting link: hence we agree with Baron Cuvier in the propriety of constituting the genus *Squatarola* for its reception.

The range of the Grey Plover is very extensive. It is found in the northern portions of the continents of Europe and America, everywhere preferring the borders of the sea and the mouths of large rivers, particularly where low, flat, muddy shores extend, abounding with food expressly adapted to it, such as worms, various kinds of insects and their larvæ. At some seasons it is very abundant on our shores; at others more sparingly diffused, but never, we believe, altogether absent: they appear in the greatest abundance while performing their periodical migrations, in the months of April and May, when their numbers are greatly augmented.

Along the coasts of Lincolnshire, Norfolk, Suffolk, Essex, and Kent, at such seasons they appear in flocks, some individuals having the breast wholly black, others mottled with black and white, while some few have not yet begun to exhibit this change; which varied appearances depend on the maturity of the bird, and on the degree of forwardness attained for the great purpose of reproduction.

But little can be correctly affirmed regarding its nidification; and it is still questionable whether it is to be deemed a bird which regularly breeds in our island. M. Temminck informs us that it is common in the regions of the arctic circle and on the confines of Asia. The eggs are four in number, of a light olive blotched with black.

The Grey Plover, like its relation the Golden Plover, is an active bird, running rapidly along the flat shores with his head depressed and his body in a horizontal position; nor is it less remarkable for its powers of flight.

In consequence of the remarks on the plumage above given, it will only be requisite for us to describe the livery which characterizes the bird during the first autumn. The whole of the upper surface, together with the sides of the chest, are beautifully bespangled with yellow and brown on a dark olive-grey ground; the under parts white; irides, beak, feet and legs, blackish olive.

The Plate represents two adult birds: one in its spring, the other in its winter plumage, both of the natural size; and it will be observed that the black chest of the bird in its spring plumage is bordered by a band of pure white.



Genus VANELLUS.

Gen. Char. *Bill* shorter than the head, straight, slightly compressed; the points of both mandibles horny and hard. *Nasal groove* wide, and reaching as far as the horny tip. *Nostrils* basal, linear, pierced in the membrane of the nasal groove. *Legs* slender, with the lower part of the tibiæ naked. *Feet* four-toed; three before, and one behind, united at the base by a membrane; hind toe very short, articulated upon the tarsus. *Tarsi* reticulated. *Wings* ample, tuberculated or spurred; the first three quill-feathers notched or suddenly narrowed towards their tips, and shorter than the fourth and fifth, which are the longest.

LAPWING.

Vanellus cristatus, *Meyer*.

Le Vanneau Huppé.

The Lapwing, or Peewit, both with respect to the elegance of its plumage and the general outline of its contour, and the light and graceful manner in which it trips along the ground, together with its habits and economy, is one of the most interesting of our native Plovers. When we consider that all this grace and elegance is appointed by nature to add life and cheerfulness to bleak moorlands and swampy plains, far from the habitual resort of man, we cannot but feel that those desolate spots in creation are not without their peculiar attractions. Those of our readers who would wish to observe this bird in a state of nature will be amply repaid by a visit to its native districts; and as there are no heaths, wide moorlands, or swampy places of any extent throughout the British Islands without the presence of the Peewit during summer, their natural habits and manners may be investigated with great ease and with but little expense or trouble.

This species is distributed over the whole of Europe, everywhere inhabiting situations similar to those it occupies in our own island. We have also seen specimens in collections from India and Africa. Although this individual species is confined to the Old World, America is not without this peculiar form, as the collection formed by Capt. P. P. King during his late survey of part of the southern coast, and since presented by him to the Zoological Society, fully confirms.

The flight of the Lapwing is heavy, flapping, and apparently performed with considerable exertion. If the breeding-place be approached, the male utters his call of *Peewit* repeatedly, and at the same time exhibits a series of aërial evolutions peculiar to himself; and although no great velocity distinguishes his flight, his numerous turns are made with great quickness and dexterity.

Its nidification, like that of the rest of its allied race, takes place on the bare earth, no nest being made for the reception of the eggs, which are four in number, of an olive colour blotched and spotted with black.

They perform the task of incubation at an early season of the year, commencing on our heathy moorlands in the month of March, soon after which they deposit their eggs, which are eagerly sought for as a luxury for the table; hence immense numbers are annually gathered and transmitted to the various markets: nor are the birds themselves less esteemed. Their food consists of insects, worms, and slugs.

The sexes are much alike in plumage; the male, however, exhibits a richer tone of colouring and a longer occipital crest. Some little variation takes place between the summer and winter dress, the male in the former season being adorned with a fine black throat, which changes to white in winter. The young attain the adult plumage in their second year.

Adults have the top of the head, crest, and breast black; the upper surface black, with green and bronzed reflections; many of the back feathers edged with brown; the under parts pure white; the tail-feathers white largely tipped with black; the outer tail-feathers white; the upper and under tail-coverts rufous; the beak black; and the legs reddish brown inclining to purple.

The Plate represents a male and female in the summer and winter plumage.

KEPTUS CHILA LAPWING.

Vanellus Keptuschka. (*Temm.*)



KEPTUSCHKA LAPWING.

Vanellus Keptuschka, *Temm.*

Le Vanneau Keptuschka.

It affords us considerable pleasure that we are enabled to illustrate the old and young of this very interesting and rare species of *Vanellus*, from a fine adult male kindly forwarded to us by M. Lichtenstein of Berlin, and from a young bird in the collection of the Zoological Society of London, to whom it was presented by their valued correspondent Keith E. Abbott, Esq., of Trebizond. We are also indebted to M. Temminck for the use of a spirited oil painting of this bird, taken from an individual killed in France. M. Lichtenstein considers the *Vanellus Keptuschka* and the *Vanellus gregarius* to be one and the same species, and we find on reference to the 'Systema Avium,' that this was also the opinion of the lamented Dr. Wagler, who in his monograph of the group has given the preference to the specific appellation of *Keptuschka*.

The eastern provinces of Europe constitute the only portions of our quarter of the globe inhabited by this species: it also frequents the marshes of Siberia, and is common in Persia and Asia Minor.

Although closely allied to the Common Lapwing of our island, this bird and a few other species may hereafter be considered sufficiently distinct from the typical form of the genus to constitute a separate group, particularly when we have acquired a knowledge of their habits, mode of flight, &c.

The adult male has the forehead and a broad stripe surrounding the crown pale buffy white; crown of the head, space between the bill and the eye, and a narrow line behind the eye deep black; throat and sides of the neck buff, which is palest on the chin; back of the neck, back, rump, scapularies, and wing-coverts light brownish grey tinged with olive; secondaries pure white; quills deep black; breast dark brownish ash, gradually passing into deep black on the abdomen, which latter colour terminates posteriorly in rich chestnut; thighs, vent, under tail-coverts and two outer tail-feathers pure white; the remainder of the tail-feathers pure white, with a more or less extensive mark of deep black near their extremities, presenting the appearance when the feathers are closed of one large irregular patch; bill and feet black.

The young has the feathers of the crown dark brown in the centre, margined with buff; only a faint indication of the band surrounding the crown; sides and back of the neck, breast, upper surface, and wings dull olive brown with paler margins; chin and abdomen white; secondaries, quills, and tail as in the male.

The figures are of the natural size.

SPUR-WINGED PLOVER.

Hoplopterus spinosus.



SPUR-WINGED PLOVER.

Pluvianus spinosus.

Charadrius spinosus, *Auct.*

Le Pluvier armé.

This species of Plover is said occasionally to visit the southern and eastern portions of Europe; and when we consider the wide range it possesses in the adjoining countries, we cannot wonder at this circumstance, it being abundant over nearly the whole of Northern Africa, Asia Minor, &c. Dr. Latham informs us that it "inhabits Russia, and is frequent near Aleppo, about the river Coic. The Spur-winged Plovers are very numerous and exceedingly noisy; have a hasty and almost continual movement of the head and neck, drawing them up briskly, and then stretching them quickly forward, almost as if they were making hasty and eager bows."

Of its nidification nothing is at present known.

The sexes are so closely alike in plumage that one description will serve for both.

Bill, crown and back of the head, a broad stripe down the centre of the throat, breast, abdomen, primaries, and the tips of the tail-feathers deep black; the outer feather of the latter finely tipped with white; sides and back of the neck, under surface of the wings, secondaries, greater wing-coverts, flanks, vent, upper and under tail-coverts pure white; back and remainder of the wings greyish brown tinged with olive; legs, feet, and spur on the shoulder brownish black.

Our Plate represents a male of the natural size.



GOLDEN PLOVER.

Charadrius pluvialis, *Linn.*

Genus CHARADRIUS.

Gen. Char. *Beak* slender, straight, compressed, shorter than the head; *nasal furrow* prolonged more than two thirds; *mandibles* enlarged towards the tip. *Nostrils* basal, jagged, cleft longitudinally in the middle of a large membrane which covers the nasal fossa. *Legs* moderate, or long and slender. *Toes* three, directed forwards, the external united to the middle one by a short membrane; the inner toe free. *Tail* square, or slightly rounded. *Wings* moderate; first *quill-feather* the longest.

GOLDEN PLOVER.

Charadrius pluvialis, *Linn.*

Le Pluvier doré.

The Golden Plover is extensively spread over the whole of the northern portions of Europe, and is by no means uncommon in our Islands, inhabiting heaths, downs, and swampy moors during the summer, but congregating near the coast and about the marshy inlets of the sea in autumn and winter. Its breeding place, however, will generally be found upon the heath-covered hills of our northern counties, and the Highlands of Scotland, the female depositing her eggs on the ground, four in number, of a large size, exceeding those of the Lapwing, of a dull olive-coloured ground blotched with black.

The habits of the Golden Plover, as well as those of the rest of its congeners, may be denominated exclusively terrestrial; for although distinguished by a rapid and sweeping flight, its characters, structure and powers, are such as to qualify it in an especial manner for running on the bare turf and among the heath of the mountains, which it does with great quickness and agility; and as nature perfects those endowments the earliest, on which depend the means of maintaining existence or avoiding foes, so we see the young, just excluded from the egg, covered with dusky brown, crouching or running with great celerity, and yet incapable of flight,—a power which they do not possess until after a considerable period.

The difference that exists in the plumage of the Golden Plover at particular seasons of the year is sufficient, without a knowledge of the change, to produce a deception as to the identity of the species. In winter, the general colour of the upper surface is dusky with numerous spots of yellow, lighter beneath; but in March, a few black feathers appear on the breast and under parts, which are augmented in number during the succeeding month; and in May a broad expanse of jet black, beginning above the beak, and passing over the cheeks and sides of the neck, covers the throat, breast, and under parts of the body. The margins of this black close abruptly on a line of white, which continues its course from the forehead along the neck and sides, gradually blending with the rest of the plumage. As soon as the season of incubation is over, the black feathers disappear, as well as the white marginal line, the dusky plumage of the winter returning.

The cause of this change in plumage is not clearly understood; it is, however, produced by a partial moult which takes place in the spring and autumn; so that the black colour is not superinduced upon the old feathers, but is the original colour of the new ones; nor does this tint fade in these feathers so as to become grey, but the feathers themselves gradually fall off in the autumn, the grey ones succeeding. The whole plumage, with the exception of the primaries, which are moulted but once in the year, is subjected to a similar law:—we do not here mean to say that in all birds which undergo periodical changes in the colour of their plumage this double moult takes place; but in the present instance we have ascertained such to be the case. The young of the year differ but little from the adult in winter, with the exception of a yellower tint pervading the whole body.

The bill is dusky; eyes dark hazel; head and all the superior parts of the body dark brown, beautifully spangled with golden yellow; legs and feet olive-brown. Length ten inches: weight seven or eight ounces.

Its flesh is extremely delicate, and is much sought after for the table; hence there are multitudes annually brought to the London markets for sale.

We have represented the adult bird in its summer and winter dress, the black breast being the characteristic of the former:—the sexes are not distinguishable by their plumage.

DOTTEREL.

Charadrius Morinellus, *Linn.*



DOTTRELL.

Charadrius morinellus, *Linn.*

Le Pluvier guignard.

The natural history of this species is less perfectly known than that of many others which are much more rare. It is seen in several parts of England, and in considerable numbers, but only at two periods during each year, in its passage to and from that country in which it breeds; yet where that very important part of its economy is accomplished to any extent, has been but partially proved.

These birds make their first appearance every year in the month of May, sometimes as early as April, and are then in their finest plumage. The female frequently weighs upwards of four ounces, and measures almost ten inches in length; the male weighs only three ounces and a half, and measures but nine inches and a half. The plumage of the sexes is not very dissimilar; and it has happened to us, that the largest in size, as well as the finest in plumage we have ever been able to procure, have invariably, on internal examination, proved to be females. The beak is dusky; irides hazel; the forehead speckled with brown and white; crown of the head much darker, the middle of each feather being nearly black and edged with light brown; from the beak, and passing over the eye on each side, is a broad band of white, which extending backwards almost unite at the nape of the neck; chin and throat white, with small elongated brown spots; the whole of the neck below ash-grey; back and wing-coverts light yellowish brown, each feather edged with pale fawn-colour; lower part of the neck white, occasionally bounded above with a narrow line of black; breast rich orange; abdomen black; region of the vent and under tail-coverts greyish white; quill-feathers dusky brown; the tail-feathers olive brown,—both margined with pale ferruginous; legs dingy yellow brown; toes darker. Young birds of the year have the crown of the head mottled with brown and white, the white mark over the eye less conspicuous, the colours on the upper parts more dull, with the whole under surface of the body pale ferruginous and dusky.

It is stated of these birds, that they are more abundant in Asia than in Europe; rather common during winter in the Grecian Archipelago and the Levant; are seen, on their passage, in Germany and France, but very rarely in Holland. They visit Sweden, Dalecarlia, and the Lapland Alps, and breed in the northern parts of Russia and Siberia.

In our own country they frequent the downs of Sussex, Hampshire, Wiltshire, Berkshire and Cambridgeshire, resorting to the open fallow-grounds in their vicinity for food, which consists principally of insects and worms. They first appear about May, in small flocks, or *trips* as they are called, of from four or five to ten birds each, on their passage northwards, and return at the end of August recruited in numbers by the addition of their offspring, and we have at that season seen twenty and sometimes thirty together. We have learned also from old shepherds on the Royston and Cambridge hills, that these birds were formerly much more numerous there than they are at present. They are also seen in Lincolnshire, Derbyshire and Yorkshire. They appear in the neighbourhood of Carlisle in May, remaining ten days or a fortnight, and then depart for Skiddaw and the adjoining mountains, where they are said to breed annually. On Skiddaw in particular, a few of these birds have been seen and shot in the month of June, and their nests and eggs taken.

Montague, and also Colonel Thornton, saw an occasional pair of Dottrell in Scotland, at a season which warranted them in concluding that some of these birds produced their young in that country. We do not remember any record of their having been seen in the Hebrides, nor does Mr. Low include them in his Fauna of Orkney and Shetland.

Dr. Latham, in his General History of Birds, informs us, that in the district of Aberdeenshire, called Braemor, (being the most elevated part of the country,) these birds hatch their young on dry mossy ground near to, and on the very summits of, the highest parts; sometimes in the little tufts of short heather, or moss, which are to be found in those elevated grounds: even in so exposed a situation they take so little trouble to form their nest, that were it not by the eggs, no person could suppose there was one. The hen sits three weeks, and the young birds make their appearance about the middle of July: they rarely lay above three eggs, and generally bring forward as many young.

The eggs of these birds are so difficult to obtain, that we only know one collector who possesses them. They are one inch eight lines long, by one inch two lines and a half in breadth, light olive brown, blotched and spotted with black:—these specimens were procured from the Grampian Hills.

About the periods of their passage to and from their breeding-ground, as before referred to, a few of the Dottrell are to be seen occasionally in the London markets, and always command a considerable price for so small a bird, usually selling readily at six shillings per couple. A young bird in good condition is said to be of exquisite flavour.



RING DOTTREL.

Charadrius hiaticula. *(Linn.)*

Drawn from Life & on Stone by J. & E. Gould.

Printed by C. Hullmandel.

RING DOTTRELL.

Charadrius hiaticula, *Linn.*

Le Grand Pluvier à collier.

Of all those elegant birds which constitute the group of the genus *Charadrius* generally termed Dottrells, the present beautiful species is by far the most common and universally spread, being an inhabitant, not only of our own shores, but equally so of those of temperate Europe in general, as well as of North America. Its favourite localities are flats along the shore, particularly where the sea at its ebb retires to a distance, and leaves extensive beds of sand or shingles. It is not, however, confined entirely to the margin of the sea, being not unfrequently met with on the borders of lakes and at some distance from the mouths of large rivers. It appears to be a bird which makes a permanent residence in our own and similar latitudes, breeding along the shore among broken shells and gravel, merely hollowing out a small depression for the reception of its eggs, which are of considerable size in proportion to the bulk of the bird,—a circumstance which may be noticed as general among the *Charadriadæ*. Their colour is yellowish white, streaked and dotted with irregular marks of black, which are most numerous at the larger end.

The young, while yet covered with down, and hatched a few days only, run with great quickness and dexterity, separating and squatting for concealment among the loose stones and long weeds of the shore on the appearance of danger, while the parents exert every artifice to draw off the intruder to a distance, uttering their mournful cry, and feigning inability to escape pursuit.

The food of the Ring Dottrell, which it searches for on the shore, consists of worms and insects of various species.

The difference between the summer and winter plumage consists rather in the depth of the black and pureness of the white, during the season of incubation, than in any decided change. In winter, in fact, the plumage approaches to that of the immature bird of the year, in which the black band on the chest is indicated only by a dark tint of brownish grey.

The adult colouring of the male in summer consists of a brownish grey over the whole of the upper surface, the head being white with a black band stretching over the top from eye to eye, and a band of a similar colour passing from the forehead, at the base of the upper mandible, beneath the eye and over the ear-coverts; a broad black band occupies the chest, becoming narrower at the back of the neck, where the extremities meet; beak bright orange colour merging into black at the tip; naked circle round the eyes and tarsi orange.

The female differs in having the coronal band and that of the chest of smaller size and of a somewhat browner hue.

Besides having only indications of the pectoral band, the immature birds have the feathers of the upper surface of a light brown, edged with yellowish, the coronal band wanting or very obscure; the beak blackish; and the tarsi dull yellow.

The Plate represents a male and female in the spring plumage, of the natural size.



LITTLE RING-DOTTREL.

Charadrius minor, (*Meyer*).

Drawn from Nature & on Stone by J. & E. Gould. *Printed by C. Hullmandel.*

LITTLE RING-DOTTRELL.

Charadrius minor, *Meyer*.

Le Petit Pluvier à collier.

We are indebted to our friend Mr. Henry Doubleday, of Epping, for the loan of an example of this elegant little Plover, which he informs us was taken at Shoreham in Sussex. From the extreme youth of the specimen transmitted to us, it is clear that it must have been bred on the spot; and it is worthy of notice that the person who killed it affirms that he has long suspected the present bird to be a resident on that part of the coast, from having remarked that he could always perceive a difference in the note of this bird from that of either of the other species. Whether this Plover habitually resorts to our shores or not, it may now reasonably claim a place in the Fauna of our island; and we are glad of the opportunity of introducing it to the notice of British ornithologists, and still more so that the only British-killed specimen should have fallen into the hands of an individual so zealous in the collection of our native birds as the gentleman above mentioned. On the Continent it is by no means a scarce bird; we learn from the *Manuel* of M. Temminck that it is abundant in the South of Germany as far as Italy, and that it is occasionally found as a bird of passage in Holland, ever giving the preference to the borders of large rivers rather than the shores of the sea. We have compared it with American specimens, and can attest that they are specifically different.

Its general habits, manners, and mode of life are strictly in accordance with the Common Ring-Dottrell; like that species it constructs its nest on the sand and shingles which border the water's edge. The eggs are four or five in number, of a yellowish white colour, marked with blotches of black and brown.

The adults of both sexes are nearly alike in plumage; the young, on the contrary, do not acquire the collar and black markings until the second year. From the Common Ring-Dottrell, the only bird in Europe with which it could be confounded, it differs in being much smaller in size, in having the beak entirely black and comparatively small, and in the fleshy colouring of the tarsi.

The adults have the bill black, a band of the same colour passing from the bill to the eye, and extending over the ear-coverts; the forehead pure white, above which on the crown a black band passes from eye to eye; the occiput grey, beneath which a white circle spreads from the throat round the neck; this is succeeded by a black band, broad on the chest, but narrowing until it meets at the back of the neck; the whole of the upper plumage, with the exception of the rump, which is white, of a fine brownish grey; under surface white; feet and legs flesh colour; irides hazel.

The young entirely want the black collar and facial markings, the crown of the head and face being brownish grey; in every other respect they resemble the adults, except that a brownish tint pervades the whole of the upper plumage and that every feather is edged with a lighter margin.

The Plate represents an adult, and a young bird of the first autumn, of the natural size.



KENTISH PLOVER.

Charadrius cantianus./Lath./

Drawn from Life & on Stone by J. & E. Gould.

Printed by C. Hullmandel.

KENTISH PLOVER.

Charadrius Cantianus, *Lath.*

Le Pluvier à collier interrompu.

In its habits and manners, as well as in localities, this interesting little Plover is closely allied to the Ring Dottrel, *Charadrius hiaticula*; and we have every reason to suppose that it is often mistaken by casual observers for that bird, as when seen in a state of nature, unless approached very nearly, they are scarcely distinguishable: still no Ornithologist could mistake it upon actual examination; its smaller size, black legs, and the rufous mark behind the head which characterizes the male, affording a marked ground of distinction. As the Kentish Plover is a species still in great request by most collectors of our native birds, we have the pleasure of stating, that if sought for in the localities hereafter mentioned it will assuredly be met with, our own experience enabling us to assert that it annually breeds in many parts of this Island. We have received it in considerable abundance from Great Yarmouth in Norfolk, which, as far as we have been able to ascertain, forms its northern boundary in this country. It is also found along the flat and shingly beaches of Kent and Sussex; and we may particularize Selsey beach, the immediate neighbourhood of Hastings, and Shellness near Sandwich, as places where, if sought for in the months of May, June and July, it is sure to be met with. During the last season several pairs were shot near Sandwich by the Rev. George Clayton, of Much Hadham, near Bishops Stortford, Herts. The opposite coasts of France and Holland, where a similar character of shore prevails, are also among the places to which it pays annual visits.

As we have before mentioned, the actions of the Kentish Plover are strictly similar to those of the Ring Dottrel, in whose company it is often found, the instinct of both species leading them to prefer the sea-shore, its inlets and creeks, seldom venturing from these localities to visit the fresh waters. Like the rest of its genus, it is quick and active in its motions, running with great celerity, with its head depressed below the level of its back, over the loose shingles and muddy flats of the shore, and occasionally taking short and circular flights, returning almost to the same spot, uttering while on the wing a brief and mournful note, repeated at short intervals.

Its food consists of small marine insects and worms, which it searches for among the loose stones, sand, and oozy mud; to which it also adds the smaller kinds of slender-shelled bivalves.

It lays its eggs, which are five in number and of a yellow olive marked with irregular spots and blotches of dark brown, in depressions on the naked sand, or among the shells and shingles of the beach.

M. Temminck informs us that the moult of this bird is single, taking place in autumn, as he has often had opportunities of observing.

In the adult male the colours of the plumage are as follows. Forehead, eyelids, a band on the back of the neck, and all the under parts, of pure white; the space between the eye and the beak, a band on the forehead, and a large spot on each side of the breast, of a deep black; behind the eye, a large dark grey mark; the head and back of the neck, of a light reddish brown; the upper parts, of a brownish ash colour; the quill-feathers slightly edged with white; the two lateral tail-feathers white, the third whitish, and the others brown; beak, irides and feet, black.

The female wants the black band on the forehead, its place being occupied by a little transverse bar; the sides of the breast, the space between the eye and the beak, and the region behind the eyes, are ashy brown; and the back of the head and neck is tinged with grey.

The young of the year differ from the adult females chiefly in having the feathers of the upper part of a light ashy brown, each feather being edged with a lighter tint of the same colour; and the lateral markings of the breast being indicated by light brown.

We have figured a male and female, in their adult plumage, of the natural size.



RED-CHESTED DOTTREL.

Charadrius pyrrhothorax; *(Temm.)*

Drawn from Nature & on stone by J. & E. Gould. *Printed by C. Hullmandel.*

RED-CHESTED DOTTEREL.

Charadrius pyrrhothorax, *Temm.*

An example of this bird has been forwarded to us by our valued friend and correspondent M. Temminck as a species inhabiting Europe, and of which, he informs us, a description will appear in the forthcoming part of his 'Manuel.' No information having been transmitted with the specimen, we must content ourselves with giving a faithful representation of it, and with stating that as we have seen it in many collections from India, we are consequently disposed to consider it as only an occasional visitant to the eastern portions of the European continent.

A broad stripe crossing the forehead, passing under the eye, over the ear-coverts, and down the sides of the neck blackish brown; crown of the head, back of the neck, all the upper surface and tail greyish brown; primaries blackish brown; throat, abdomen, and under tail-coverts white; breast rich reddish chestnut, which colour gradually blends with the white of the throat and abdomen; bill, legs, and feet black.

The young bird has the forehead, a faint line over the eye, and all the under surface pure white; stripe between the bill and eye, and the ear-coverts pale brown; all the upper surface greyish brown, but of a much lighter tint than in the male; bill, legs, and feet black.

We have figured an adult, and a young bird of the natural size.



OYSTER CATCHER.

Hæmatopus Ostralegus. *(Linn.)*

Drawn from Nature & on Stone by J. & E. Gould.

Printed by C. Hullmandel.

Genus HÆMATOPUS.

Gen. Char. *Bill* longer than the head, straight, strong, the point much compressed, forming a wedge; culmen of the anterior part slightly convex; upper mandible with a broad lateral groove extending one half the length of the bill; mandibles nearly equal and having their tips truncated. *Nostrils* basal, lateral, linear, pierced in the membrane of the mandibular groove. *Legs* of mean length, naked for a short space above the tarsal joint. *Tarsi* strong. *Feet* three-toed; all the toes directed forward, and united at their base by a membrane. *Nails* strong, broad, slightly falcate, and semi-acute. *Wings* of mean length, with the first quill-feather the longest.

OYSTER-CATCHER.

Hæmatopus ostralegus, *Linn.*

La Huiterier pie.

The only species of this widely diffused but restricted genus which can claim to be considered as European is the bird before us, and we have every reason to regard it as indigenous, not only in the British Isles, but throughout the whole of the Continent. The localities to which it gives preference are the low muddy shores bordering the sea, salt marshes, and inland saline lakes. The whole of its actions are characterized by considerable liveliness and spirit: it runs along the level sands with great swiftness, nor is it less distinguished for its sweeping velocity when on the wing; in addition to which it swims with ease and address, although it does not habitually take to the water: indeed, it is only when wading far from the shore, and finding itself out of its depth, that it resorts to the expedient of swimming to effect its return. Its robust and powerful frame admirably adapts it for the efficient use of its strong hard bill in obtaining its prey, such as limpets (which require considerable force to detach them from the stones), bivalves, crustacea, and marine worms. As its name implies, it is said to be extremely dexterous in opening the shells of oysters in order to obtain the animal within, which is known to be a favourite article of its food.

In winter the Oyster-catcher is gregarious, assembling together in considerable flocks, which separate on the approach of spring, when each pair retires to its peculiar breeding-station.

It is very common in Lincolnshire, Norfolk, and all parts of our coast where a marshy stripe of land borders a long sandy beach, among the shingles of which it deposits its eggs, which are four in number, of a light olive colour blotched and otherwise marked with black. While the female is engaged in the task of incubation, the male keeps assiduous watch, and gives notice of the approach of danger by a sharp and peculiar kind of whistling cry. The young quit the nest on the day of their exclusion from the egg, and are assiduously attended by the parents, which continually sweep round any intruder, and assail him with loud cries. The young attain at an early age the adult livery, without undergoing any intermediate gradations of plumage.

The sexes are alike in their outward appearance, and the only difference in their summer and winter dress consists in the presence of a white crescent-shaped mark half round the throat during the latter season.

The bill is reddish orange at the base, becoming lighter at the tip; the legs orange red; irides crimson; the whole of the plumage is black, with the exception of the rump, a band across the base of the quills, and the under surface, which are pure white.

The Plate represents an adult male in the summer plumage, of the natural size.



Genus IBIS.

Gen. Char. *Beak* lengthened, slender, arched, large at its base, depressed, obtuse, and rounded at the point; the upper mandible grooved throughout its whole length. *Nostrils* near the base on the upper part of the beak, oblong, narrow, encircled by a membrane. *Face* naked, as is often also a part of the head and neck. *Legs* moderate and slender, naked above the knee. *Toes* three before and one behind; the former being webbed as far as the first joint; the hind toe long, and resting closely on the ground. *Wings* moderate, the first quill-feather shorter than the second and third, which are the longest. *Tail* short and square.

GLOSSY IBIS.

Ibis Falcinellus, *Temm.*

L'Ibis Falcinelle.

While every temperate and tropical country of the globe possesses various examples of this widely spread genus, the present species is the only one, as far as is known, which passes over the border line of Africa and Asia, and takes up its residence in the Southern and temperate countries of Europe. The Glossy Ibis is tolerably abundant in all the swampy and marshy districts of its south-eastern portions, particularly Hungary, Turkey, and the Archipelago: it passes hence, but in much less abundance and at uncertain intervals, to the more central and western portions; and occurs, though very rarely, in Holland and the British Islands. Along the course of the Nile and in the adjacent provinces of Africa, this handsome bird appears to find a most congenial situation, and is as abundant there at the present day as it was in ancient times, when it was regarded as sacred, and embalmed equally with the *Ibis religiosus*, or Abouhannes of Bruce.

As is the case with the other birds of its tribe, the food of the Glossy Ibis consists of worms, slugs, lizards, freshwater mollusca, and aquatic vegetables.

The graceful proportions of this bird, the elegance of its actions, together with the resplendent lustre of its plumage, render it one of the most interesting of the Waders, and we have to regret that our knowledge of its habits and manners are so imperfect, that of its nidification and eggs we can give no certain information.

The sexes offer but little difference of colouring: the young, on the contrary, before the second or third year, at which period they attain their adult colouring, are much more obscure in their tints, and exhibit none of that metallic lustre which afterwards forms so characteristic a feature.

The adult birds have the head of a dark chestnut; the neck, breast, top of the back, the upper edge of the wing, and all the under parts of a rich reddish chestnut; the lower part of the back, the rump, quill- and tail-feathers of a dark green, with bronze and purple reflections; the naked skin round the eyes olive green, becoming more grey towards the outer margin; the irides brown; legs and feet dull olive brown.

In the young, the feathers, which are of a fine chestnut in the adults, exhibit faint indications only of this colour, being of a dull brown, and each feather on the neck is edged with a margin of greyish white; the other parts display but little of the metallic reflections.

The Plate represents an adult male about three fourths of the natural size.



COMMON CURLEW.
Numenius arquata. Lath.

Genus NUMENIUS, *Lath.*

Gen. Char. *Bill* long, slender, incurved, slightly compressed, rounded through its whole length, with the tip of the upper mandible projecting beyond the lower one; hard, and semi-obtuse; laterally furrowed for three fourths of its length. *Nostrils* basal, placed in the lateral groove, linear, and covered above by a naked membrane. *Lores*, or space between the bill and eyes, covered with feathers. *Legs* long, slender, naked above the tarsal joint. *Feet* four-toed; three before and one behind; the front ones connected at the base by a large membrane. *Toes* short; the outer and inner ones of nearly equal length; hind toe short, and articulated above the plane of the others, upon the tarsus, its tip only resting upon the ground. *Claws* short and blunt. Front of the tarsi partly scutellated; back reticulated. Front of the toes scutellated.

COMMON CURLEW.

Numenius arquata, *Lath.*

Le Grand Courlis cendré.

Since the North American Curlew (*Numenius longirostris*, Wils.) has been found to possess good specific differences, the range of the present species will be restricted to the regions of the Old World; and different as the climates of this vast range must necessarily be, the Common Curlew is found equally diffused from the sultry portion of the torrid zone to the frozen countries of the North: the islands of the Pacific Ocean, particularly New Holland, are not devoid of its presence, and we also possess examples from China, Nepaul, &c. In its disposition the Common Curlew is extremely wary and distrustful; and it resorts to such wild and open situations that the greatest ingenuity is required to approach it, which, indeed, is seldom accomplished except by the sportsman secreting himself in the neighbourhood of its haunts, and thereby obtaining an opportunity of shooting it while flying over the place of his concealment.

It is migratory in its habits; at least those which frequent the temperate portions of Europe pass the winter on the sea-coast and the neighbouring marshes, and retire to the high lands of Norway and Sweden during the months of summer, such situations being conducive to its security during the period of incubation. From the circumstance of a few of these birds being left on most of our extensive moors and wild open districts during the breeding-season it may be considered a permanent resident in England, although the greater number of those which winter on our shores do certainly retire northwards to the Western, Orkney, and Shetland Islands, whence probably many of them cross the Channel to Norway and Sweden. The Common Curlew possesses extraordinary powers of flight, and is consequently enabled easily to pass from the shores of the sea, at every rising tide, to inland wilds, fields, morasses, &c., and by some peculiar instinct to return again to the coast almost at the moment of the commencement of the ebb, when it follows the receding waves, and feeds upon such marine worms, crustacea, &c. as are left on the sands. We cannot refrain from here inserting an interesting note on the habits of this bird by Sir Wm. Jardine, Bart., copied from his edition of Wilson's American Ornithology.

The Common Curlew, "*Numenius arquata*, during the breeding-season, is entirely an inhabitant of the upland moors and sheep-pastures, and in the soft and dewy mornings of May and June forms an object in their early solitude which adds to their wildness. At first dawn, when nothing can be seen but rounded hills of rich and green pasture, rising one beyond another, with perhaps an extensive meadow between, looking more boundless by the shadows and mists of morn, a long string of sheep marching off at a sleepy pace on their well-beaten track to some favourite feeding-ground, the shrill tremulous call of the Curlew to his mate has something in it wild and melancholy, yet always pleasing to the associations. In such situations do they build, making almost no nest, and, during the commencement of their amours, run skulkingly among the long grass and rushes, the male rising and sailing round, or descending with the wings closed above his back, and uttering his peculiar quavering whistle. The approach of an intruder requires more demonstration of his powers, and he approaches near, buffeting and *whauping* with all his might. When the young are hatched, they remain near the spot, and are for a long time difficult to raise; a pointer will stand and road them, and at this time they are tender and well-flavoured. By autumn they are nearly all dispersed to the sea-coasts, and have now lost their clear whistle."

The sexes are alike in plumage, and their flesh is by many considered as a great delicacy for the table.

Bill blackish brown for half its length from the tip, the rest being fleshy white; head, neck, and upper surface light grey, the centre of each feather being dark brown; rump white; tail transversely barred with brown and white; quills dark brown, the shafts being white, and the inner webs barred with the same colour; throat, neck, and chest yellowish white thickly striped with olive brown; rest of the under surface white; legs and feet bluish lead colour; irides dark brown.

The Plate represents an adult male of the natural size.



WHIMBREL.
Numenius Phæopus, (*Lath.*)

Drawn from Nature & on stone by J. & E. Gould.

Printed by C. Hullmandel.

WHIMBREL.

Numenius Phæopus, *Lath.*

Le Courlis corlieu.

Although North America presents us with a species closely allied to the Whimbrel, and with which it has been confounded by some writers, we believe we are safe in affirming that the British species is limited in the range of its habitat exclusively to the Old World, over which it appears to be very widely dispersed: we have received it in abundance from the Himalaya, and several other parts of India, as well as from Northern Africa. In the temperate latitudes of Europe, and doubtless in those of Asia, it is strictly a winter visitant, retiring on the approach of spring to the regions within the arctic circle, where it incubates and passes the summer, and where the land, almost destitute of inhabitants and abounding in extensive flats and morasses, appears to be peculiarly suited for the summer sojourn of vast numbers of the *Scolopacidæ* and other Grallatorial birds.

The inferiority of its size will always distinguish the present species from the Curlew, which in other respects it closely resembles.

In the British Islands it is tolerably common throughout the winter, inhabiting all the low flat parts of our coasts, and especially the mouths of our larger rivers, and feeding upon various molluscous and other marine animals, which it takes when the tide is at the ebb, and retires to the neighbouring saline marshes when the water covers the shore. It is generally seen in small flocks, which on being approached take wing and fly off with great vigour and rapidity. Dr. Fleming states that it has been known to breed in Shetland, constructing its nest on the exposed heath and moorlands. Its eggs, four in number, are of an olive brown colour, blotched and spotted with darker reddish brown; but as far as our own researches go we have never been able to meet with an example of its eggs, or an instance of the young being obtained.

The sexes are alike in plumage, and differ but little in size or in the winter or summer livery.

The bill is black with the base of the under mandible flesh colour; top of the head brown with a longitudinal stripe of greyish white down the centre; throat, rump, and abdomen white; cheeks, stripe over the eye, and chest greyish white with a longitudinal dash of dusky brown on each feather; back and wings mottled with deep brown and greyish white; tail thickly barred with brown and white; legs brownish black.

We have figured an adult of the natural size.

SLENDER-BILLED CURLEW.

Numenius tenuirostris. (Vieill.)



SLENDER-BILLED CURLEW.

Numenius tenuirostris, *Savi.*

Independently of the size of the bill, the distinct spotting of the breast will at all times serve to distinguish this bird from its near allies the Curlew and Whimbrel, which until lately were the only examples of the genus *Numenius* found in Europe: the honour of adding the present very elegant species is due to Professor Savi. It is a native of the southern portions of Europe, and, which is very singular, we have never seen it from Asia or Africa, countries in which both the common species, the Whimbrel and Curlew, are very abundant.

Of its habits, manners, &c. nothing is known, but they doubtless resemble those of the other members of the genus.

Throat white; the whole of the head and the remainder of the neck pale brown, each feather ornamented in the centre near the tip with an oblong mark of deep brown; upper part of the back and lesser wing-coverts deep brown margined with pale brown; greater wing-coverts and the long scapularies pale brown with whitish edges, and barred with deep brown; tail white, barred with blackish brown; breast and abdomen white passing into buff on the flanks, and each feather having a large heart-shaped mark in the centre, near the tip; vent and under tail-coverts white; base of the lower mandible reddish, the remainder and the whole of the upper mandible black; legs and feet greenish black.

We have figured an adult of the natural size.

BLACK-TAILED GODWIT.



Genus LIMOSA.

Gen. Char. *Bill* very long, rather thick at the base, compressed, more or less turned upwards; both mandibles laterally grooved to within a short distance of the point, which is somewhat dilated and blunt; tip of the upper mandible projecting beyond the lower one. *Nostrils* basal, placed in the lateral groove, narrow and longitudinal. *Wings* acuminate, of mean length, the first quill-feather the longest. *Legs* long and slender; a great part of the tibiæ naked; front and back part of the tarsi scutellated. *Feet* four-toed, three before and one behind; the outer toe united to the middle one by a membrane as far as the first joint; the inner one nearly free; hind toe short, and articulated upon the tarsus.

BLACK-TAILED GODWIT.

Limosa melanura, *Leisl.*

Le Barge à queue noire.

This stately bird, one of the finest of its race, was so common in the low lands and fenny districts of England so late as twenty years since as to have been then regarded as one of the very commonest of the *Scolopacidæ* visiting the British Isles; since which period, however, its numbers appear to have gradually diminished, so much so that a fresh-shot native specimen is now considered an article of a somewhat singular nature.

The Godwits are subject to considerable changes in their plumage, but in no one species are they more striking than in the Black-tailed, its winter dress consisting of grey above and white beneath, while the spring or nuptial attire is altogether different, the bird being then characterized by a much brighter and more gay colouring. From the periodical changes to which both sexes are subject, much confusion has arisen in the works of the older ornithologists, which by more recent investigation has been entirely cleared up, and the fact is now completely established, that the birds exhibiting variations of plumage between those here figured are identically the same; and as the birds of this genus do not acquire the rich colouring of the summer plumage until they are two or three years old, it is not surprising that the succession of intermediate stages which they continually present should have misled the ornithologist. The most clear and certain mark by which the present species may at all times be distinguished from its near ally, is the colouring of the tail, which is perfectly black for half its length from the tip, while, as its name implies, the barred tail of the other species is a feature equally distinguishing.

Besides the European continent, over the whole of which it is distributed, we find examples of the Black-tailed Godwit in most of the collections from Africa and India. It is especially abundant in Holland, whence it is brought to the London market in great abundance, both living and dead. In its manners and actions it is elegant and graceful; and soon becoming tame and familiar, it forms an agreeable tenant for the aviary. The flesh of the adult is rather coarse and rancid, but the young of the year are more delicate, and are therefore more in request for the table. A few pairs annually resort to the marshes in the neighbourhood of Yarmouth, and to the fens of Lincolnshire, but they are rarely permitted to breed unmolested, their large size and peculiar actions being sure to attract the notice both of the sportsman and the egg-gatherer. The eggs are four in number, of an olive green faintly blotched with black, and are deposited on the bare ground among the herbage, with little or no nest.

Its food consists of worms, shell-snails, insects, and their larvæ, for procuring which its lengthened tarsi and greatly developed bill admirably adapt it. It runs with great facility, and its power of flight is such as the lengthened form of its wing would lead us to expect.

The female surpasses the male in size, and frequently in the brilliant colouring of the summer plumage.

In winter the whole of the upper surface is brownish grey; the tail for half its length from the tip black; under surface greyish white; primaries blackish brown; legs and feet black tinged with olive.

In summer the crown of the head, the throat, neck, and breast are clear reddish brown streaked and barred with black; the whole of the upper surface and flanks transversely barred and edged with black and red; base of the bill red, deepening into black at the tip.

The young of the year has the crown of the head blackish brown, each feather being edged with reddish brown; the front of the neck and chest clear reddish ash; a streak between the bill and the eye, and the whole of the under-surface white; wing-coverts grey, margined and terminated with reddish white.

The Plate represents two birds, one in the winter, the other in the summer plumage, of the natural size.



BAR-TAILED GODWIT.
Limosa rufa. (Brisk)

BAR-TAILED GODWIT.

Limosa rufa, *Briss.*

La Barge rousse.

Notwithstanding multitudes of this bird visit our island during their vernal and autumnal migrations, we possess no authenticated instance of its having remained and bred with us, nor even, indeed, is the colour of its eggs satisfactorily ascertained. Like many others of the same tribe, they appear to make our island a resting-place during their periodical flights only: we should observe, however, that a limited number sojourn with us during the winter, the number being increased in spring by large flocks which have wandered further southwards; the whole then return to their northern home. That Iceland, Lapland, and the regions within the arctic circle are the summer abode of the Bar-tailed Godwit, is a fact not to be questioned; and from thence they retire in autumn divested of that richly coloured livery with which they are adorned at their departure from the South in spring. Large flocks of the young also pass over at the time of the arrival of the adults, or soon after: these are the progeny of the past summer, and are to be distinguished by a more spotted and streaky plumage, and by their having the feathers of the whole of the upper surface margined with a lighter colour; the breast is then of a dull fawn yellow strongly streaked with brown.

With regard to the adult birds, few species present a more decided contrast in the colours of their summer and winter plumage; from which circumstance has arisen much confusion and a perplexing list of synonyms in the works of various writers; indeed, both the males and the females, as well as the young, have been characterized as distinct species, nor was it until very lately that these errors were corrected.

The places most frequented by the Bar-tailed Godwit during its residence in our island are the low muddy shores of the sea, the borders of creeks and inlets, saline marshes along the coast, and the mouths of large rivers: here, with other Waders, they may be observed in small flocks busily searching for their food, which consists of aquatic insects, worms, and mollusca. They run with great facility over the oozy ground, and fly, when roused, to a considerable distance, uttering as they rise on the wing a hoarse deep note. Their visits to the Continental districts take place at the same time as in our island. In Holland and the level parts of France, which afford them a congenial residence, they abound much more than in England, and, like the Black-tailed Godwit, are annually killed in great numbers and forwarded to the London markets.

Both sexes assume the red plumage in spring, but it is much deeper and more conspicuous in the male: the female is, however, considerably larger in size, as we have seen is the case with its near ally and many others of its family.

In summer the crown of the head and back of the neck are rufous, streaked longitudinally with blackish brown; the whole of the upper surface blackish brown mottled with rufous; quills dark brown; throat and under surface deep rufous; rump white; tail barred with reddish white and black; feet and legs dark olive; bill reddish yellow at the base and dark brown at the point.

All the parts which are red in summer are greyish white in winter, and the dark markings of the upper surface are exchanged for more obscure tints of brown.

The Plate represents two birds, one in the summer and the other in the winter plumage, of the natural size.



TEREK GODWIT.
Limosa Terek; (Temm)

Drawn from Nature & on Stone by J. & E. Gould.

Printed by C. Hullmandel.

TEREK GODWIT.

Limosa Terek, *Temm.*

La Barge Terek.

In figuring this bird as an occasional visitant of the continent of Europe we are entirely guided by our friend M. Temminck, who has not only forwarded us a specimen to figure from, but in a letter accompanying it states that an example has been killed in Normandy; and on comparing the European-killed specimen with others from Borneo and Japan, no difference exists between them. The specimen forwarded to us is in its winter plumage, which is here represented, and which gives place to a mottled and spotted plumage during the spring and summer, particularly on the upper surface, where the markings are larger and assume a lanceolate form. Although we have followed M. Temminck in placing this elegant species with the Godwits, we are not fully persuaded that its situation is natural. We ourselves, notwithstanding the upward curvature of the bill, are inclined to believe it to be nearly allied to the true *Tringas*, or Sandpipers; but as an acquaintance with its habits, manners, general economy, and mode of flight would alone enable us to confirm our opinion respecting its natural situation, we leave it where it has been placed by M. Temminck.

The head, back and sides of the neck, all the upper surface, and tail pale brown with a fine line of a darker tint down the centre of each feather; shoulders and primaries dark brown, with the shaft of the first quill white; secondaries, chin, front of the neck, and all the under surface pure white; sides of the upper mandible and base of the lower yellow; the remainder of the bill dark brown; legs and feet yellow.

The figure is of the natural size.

AVOCET.

Recurvirostra avocetta, *Linn.*



Genus **RECURVIROSTRA**, *Linn.*

Gen. Char. *Beak* long, slender, feeble, depressed through its whole length; the point flexible, and turning upwards; the *upper mandible* grooved along its surface, the *under* grooved laterally. *Nostrils* on the surface of the beak, long and linear. *Tarsi* long and slender. *Toes* three before, palmated as far as the second articulation; and one behind, merely rudimentary and articulated high on the tarsus. *Wings* pointed; first *quill-feather* longest.

AVOCET.

Recurvirostra avocetta, *Linn.*

L'Avocette à nuque noire.

The very interesting and well-defined genus *Recurvirostra* contains but a very limited number of species, of which the present is the only European example; not, however, that it is altogether confined to that portion of the globe, but is also found from Egypt throughout the whole of Africa, to its most southern boundary, as is proved by the identity of individuals killed on the northern coast, and at the Cape of Good Hope. It is found in India also, although rather sparingly. It would appear, however, that Holland, France and Germany may be considered its natural and most congenial habitat; preferring in each of these countries the low flat lands bordering the sea, salt marshes and swamps occasionally covered by the tide. A century ago, before our fens were drained, and while extensive marshes afforded food and concealment, the Avocet was common in England, frequenting in abundance the fens of Lincolnshire and Norfolk, to which it even now occasionally resorts for the purpose of incubation. We believe it to be strictly migratory, arriving in our latitudes only at those seasons when the marshes and lakes are unfrozen and abound in its peculiar food, which consists chiefly of minute insects, the larvæ of crustacea, &c., for the taking of which its beak is most singularly and beautifully adapted; nor is the construction of its legs less adapted to sustain it on the mud and swampy ground in which it wades; its semipalmated feet being more adapted for the purpose of supporting its weight on a soft and yielding surface, than for assisting it when swimming, to which it seldom resorts but in cases of necessity. The places it selects for the purpose of incubation, are similar to those of other marsh birds, usually a depression in the ground, making little or no nest, where it deposits its eggs, which rarely exceed two in number, and which, except in size, so nearly resemble in shape and markings those of the Lapwing as to be easily mistaken for them. They are however much larger, measuring 2 inches 1 line in length by 1 inch 7 lines in width, of an olive brown, spotted with black.

Dr. Latham informs us that the Avocet is very bold in defence of its young, and when disturbed in the breeding season, it hovers over the sportsman's head like the Lapwing, and flies with its legs and neck extended, uttering a sharp note like the word *twit twit* often repeated. The young soon resemble the adults in colouring, and old birds present no external differences, having the whole of the body white, with the exception of the top of the head, the back of the neck, the scapulars and quill-feathers, which are black; beak black; irides reddish brown; feet and legs blueish ash.

We have figured an adult bird in full plumage.

SPOTTED REDSHANK.

Totanus fuscus, Linn.



Genus TOTANUS.

Gen. Char. *Beak* moderate, often slightly recurved, rounded, hard, and pointed; the upper mandible sulcated, and having the tip arched and curving over that of the lower one. *Nostrils* basal, lateral, linear, and longitudinally cleft in the furrow of the mandible. *Legs* long, slender, naked above the tarsal joint. *Toes* three before and one behind, the former united at the base by a small membrane, hind toe short; front of the tarsus and toes scutellated.

SPOTTED REDSHANK.

Totanus fuscus, *Leisl.*

Le Chevalier arlequin.

The ornithologist cannot but be gratified and greatly interested in the study of the family of which the present species forms an example. Independently of the graceful form which this elegant bird possesses, it is characterized by a change of colouring as singular as it is chaste and becoming. We allude to the contrast of its summer and winter dress, as well as to that which distinguishes the young of the year, in which stage the whole of the upper plumage has the margins of the feathers thickly spotted with white, as is found in the wing-feathers of the birds in the present Plate, more particularly like that of the olive-coloured bird, which is figured in a particular stage, partly that of winter and partly that of immaturity, the uniform colouring of the back, which in perfectly adult birds extends over the wings, being the usual characteristic of the winter dress. The dark-coloured bird in the foreground of our Plate is in a stage of plumage common to both sexes during the breeding-season, in which state they are extremely rare, their breeding-places being in the northern regions of Europe, and the examples we occasionally obtain are consequently in general more or less imperfect: notwithstanding this, we have had frequent opportunities of examining this bird in all its changes; it is, however, one of those irregular visitants whose appearance is not to be depended on. It traverses an extensive range of country, being abundant in many parts of Asia, whence we have received examples strictly identical with those of Europe. Its favourite places of residence are the borders of rivers, lakes, and morasses, where it feeds on freshwater mollusca, insects, and worms. On the neighbouring parts of the Continent it appears to be as scarce and irregular in its visits as it is in the British Islands. Of its nest and eggs nothing has been correctly ascertained.

The plumage of summer may be thus detailed: Head, neck, back, and under parts dark greyish black; the rump white; wing-coverts and scapularies dark greyish black, with their edges spotted with numerous dots of white; upper tail-coverts barred with black and greyish white; quills black; bill black at the tip and red at the base; legs orange red.

In winter the whole of the upper surface is brown, with a tinge of olive; the under surface is pure white; the legs, beak, wings, and tail being the same as in the summer plumage.

The sexes offer no difference except in size, the female being somewhat the largest.

The Plate represents two birds, the one in the plumage of summer, the other a bird between youth and maturity, assuming its winter dress.

Drawn from life & on Stone by J. & E. Gould. Printed by C. Hullmandel.

REDSHANK.
Totanus calidris. (Linnæus)



REDSHANK.

Totanus calidris, *Bechst.*

Le Chevalier Gambette.

This species of Redshank is not so remarkable for the transitory changes in the colour of its plumage, as is its allied congener the *Totanus fuscus*; for while this last would appear to form another species at different seasons of the year, if change of colour was sufficient, the present bird has the plumage very generally spotted during the seasons of spring and summer, the ground-colour only remaining wholly unchanged. In point of number the Redshank is by far the most common, and is very universally spread over the marshy and low lands of Europe. It is indigenous to the British Isles, and is equally dispersed from Orkney and Shetland to our most southern counties. During the autumn and winter its favourite localities are the edges of the sea and mouths of large rivers, running with great ease and elegance over the flat muddy plains which have been recently left bare by the retiring tide. In the summer it takes to the adjacent marshes, where amid tufts of grass or rushes it constructs a slight inartificial nest, in which it deposits four eggs, rather larger than those of the Snipe, of greenish yellow marked with brown spots which blend together at the larger end. Although the young are soon able to run and provide for themselves, they are not in possession of the power of flight for a considerable period; when disturbed they hide themselves among the herbage with the utmost caution, while the parents may be observed at a distance uttering their querulous and pitiful notes, not unfrequently perched on some neighbouring post or rail, where, with drooping wings and outspread tail, they display the most grotesque and singular appearance.

The sexes offer no difference of plumage, but if compared together may be distinguished by the larger size of the female.

The colour during the spring and breeding season is as follows.—From the eyes to the beak an obscure white mark; the head, back of the neck, top of the back, scapulars and wing-coverts of a greyish olive-brown; on each feather there is a large longitudinal brown mark, except on those of the scapulars and wing-coverts, where there are small black transverse bars; the rump white; the sides of the head, the throat, and all the underparts white, each feather having a longitudinal dash of brownish black which becomes oblique on the abdomen and under tail-coverts; the feathers of the tail are barred with black and white terminating in the latter, the white portion of the four middle ones being tinged with ash colour; the basal half of the beak and the feet are of a bright orange red. As winter comes on these markings become more and more obscure, till at length the back of the neck and the whole of the upper surface are of one uniform ashy brown; the throat, the sides of the head, the fore-part of the neck, and breast, of a greyish white, each feather having the shaft of a dull brown; the rump and underparts of a pure white; the tarsi of a pale reddish orange; irides brown.

Length ten inches.

We have figured adults in the summer and winter plumage.

SEMIPALMATED SANDPIPER.

Totanus semipalmatus (Temm.)



SEMIPALMATED SANDPIPER.

Totanus semipalmatus, *Temm.*

Le Chevalier semi-palmé.

The celebrated Wilson having beautifully portrayed the history of this species, we have taken the liberty of extracting rather largely from his valuable work, before which, however, we would state that it is on the authority of the continental naturalists that we have been induced to give a figure of it in the present work. M. Temminck informs us that it is accidentally found in the North of Europe, but like ourselves, quotes from Wilson an account of its food, manners, &c. We have also been favoured with an European-killed specimen presented to us by Professor Lichtenstein of Berlin; no doubt therefore can exist as to the propriety of admitting it into the Fauna of this portion of the globe, although America must be considered as its true habitat.

"This," says Wilson, "is one of the most noisy and noted birds that inhabit our salt marshes in summer. Its common name is the Willet, by which appellation it is universally known along the shores of New York, New Jersey, Delaware, and Maryland, in all of which places it breeds in great numbers. It arrives from the south on the shores of the middle states about the 20th of April or beginning of May; and from that time to the last of July its loud and shrill reiterations of *pill-will-willet*, *pill-will-willet*, resound almost incessantly along the marshes, and may be distinctly heard at the distance of more than half a mile. Their nests are built on the ground, among the grass of the salt marshes, and are composed of wet rushes and coarse grass, forming a slight hollow or cavity in a tussock. This nest is gradually increased during the period of laying and sitting to the height of five or six inches. The eggs are usually four in number, very thick at the great end, tapering to a narrow point at the other, and of a dark dingy olive, largely blotched with blackish brown, particularly at the great end. The eggs, in every instance that has come under my observation, are placed during incubation in an almost upright position, with the large end uppermost; and this appears to be the constant practice of several other species of birds that breed in these marshes. During the laying season, the Crows are seen roaming over the marshes in search of eggs, and wherever they come spread consternation and alarm among the Willets, who in united numbers attack and pursue them with loud clamours."

The Willet subsists chiefly on small shell-fish, marine worms, and aquatic insects, in search of which it regularly resorts to the muddy shores and flats at low water.

This species differs considerably in its summer and winter plumage, the latter being of a pale dun colour with darker shafts, and the former as follows:

Upper surface dark olive brown, each feather streaked down the centre and crossed with irregular lines of black, and numerously blotched with dull yellowish white; wing-coverts greyish olive; basal half of the primaries white, the remainder black; secondaries white; rump dark brown; upper tail-coverts white, barred with olive; tail pale olive crossed with bars of dark brown; chin white; breast and flanks cream colour transversely mottled with olive; belly and vent white, the latter barred with olive; tip of the bill black; the base and the legs and feet pale lead colour.

We have figured two birds of the natural size, one in the summer and the other in the winter plumage.



GREEN SHANK.
Totanus glottis; (Bechst.)

GREENSHANK.

Totanus glottis, *Bechst.*

Le Chevalier aboyeur.

We are not inclined to consider the upward curvature which the mandibles of this bird exhibit of sufficient importance to warrant its separation from the genus *Totanus*, answering as the rest of its characters do to those upon which that genus was established; for, like most of the species, it undergoes a slight periodical change in the colouring of its plumage, the summer livery, which is varied with markings of dark grey, particularly on the chest and flanks, giving place in autumn and winter to a uniform tint of white over the whole of the under surface. It is in this latter stage that the bird is represented on our Plate. In its habits and manners also, as well as in the circumstance of the sexes not being distinguished by the colouring of their plumage, it is strongly allied to the two species of Redshank, which may be considered as typical examples.

From the circumstance of the Greenshank having been lately added to the Fauna of America by that justly celebrated ornithologist M. Audubon, it may be considered to possess a range scarcely equalled in extent by any of the Sandpipers, as it is generally spread over the whole of India and Africa, nor is it less numerously diffused over the countries of Europe. Although it does not make the British Islands either a place of permanent residence or of incubation, still it is sufficiently numerous during its vernal and autumnal migrations to be considered as strictly within the list of British species. In England it frequents the shores of the sea and the mouths of the larger rivers: on the Continent, during the winter, it is common on the coast of Holland, but less so on that of France; it also occurs on the lakes of Switzerland and Germany, as well as on the banks of the Rhine and other large rivers.

Its breeding-place must in all probability be looked for in the high northern latitudes, which form a place of summer residence to so many other members of the family.

Its food consists of aquatic worms, insects, mollusca, and the small fry of fishes.

Top of the head and sides of the neck dull white, streaked with dusky brown; face, sides of the head, throat, front of the neck, and all the under surface pure white; flanks streaked and rayed transversely with light brown; upper part of the back, wing-coverts, tertials, and scapulars deep brown, tinged with purple; each feather margined with greyish white, and dotted with brown of a deeper tint; quills brownish black; the shafts of the first being white; lower part of the back and rump white; tail white irregularly barred with brown; bill brownish black; legs and feet greenish grey.

The figure is of the natural size.



BARTRAM'S SANDPIPER.

Totanus Bartramia; *(Temm.)*

Drawn from Nature & on Stone by J. & E. Gould.

Printed by C. Hullmandel.

BARTRAM'S SANDPIPER.

Totanus Bartramia, *Temm.*

Le Chevalier à longue queue.

For the history of this bird we must have recourse to the valuable pages of the justly celebrated American ornithologist Wilson, by whom it was first discovered and described. Its occurrence in Europe is so rare that we know of only two or three instances of its having been procured within the limits of this portion of the globe. M. Temminck informs us that one was killed in autumn on the Dutch coast, and that another came under his observation which had been taken in the eastern part of Germany. We believe that as yet it has never been seen in Great Britain.

"Unlike most of their tribe," says Wilson, "these birds appear to prefer running about among the grass, feeding on beetles and other winged insects. There were three or four in company; they seemed extremely watchful, silent, and shy, so that it was always with extreme difficulty I could approach them.

"Having never met with them on the sea shore, I am persuaded that their principal residence is in the interior, in meadows and suchlike places. They run with great rapidity, sometimes spreading their tail and dropping their wings, as birds do who wish to decoy you from their nest: when they alight they remain fixed, stand very erect, and utter two or three sharp whistling notes as they mount to fly. They are remarkably plump birds, weighing upwards of three quarters of a pound; their flesh is superior, in point of delicacy, tenderness, and flavour, to any other of the tribe with which I am acquainted.

"This species is twelve inches long and twenty-one in extent; the bill is an inch and a half long, slightly bent downwards, and wrinkled at the base; the upper mandible black on the ridge, the lower as well as the edge of the upper of a fine yellow; front, stripe over the eye, neck, and breast pale ferruginous marked with small streaks of black, which on the lower part of the breast assume the form of arrow-heads; crown black; the plumage slightly skirted with whitish; chin, orbit of the eye, whole belly and vent pure white; hind head and neck above ferruginous, minutely streaked with black; back and scapulars black, the former slightly skirted with ferruginous, the latter with white; tertials black bordered with white; primaries plain black; shaft of the exterior quill snowy, its inner vane elegantly pectinated with white; secondaries pale brown spotted on their outer vanes with black and tipped with white; greater coverts dusky, edged with pale ferruginous and spotted with black; lesser coverts pale ferruginous, each feather broadly bordered with white, within which is a concentric semicircle of black; rump and tail-coverts deep brown black, slightly bordered with white; tail tapering, of a pale brown orange colour beautifully spotted with black, the middle feathers centred with dusky; legs yellow tinged with green; the outer toe joined to the middle by a membrane; lining of the wings elegantly barred with black and white; iris of the eye dark or blue black; eye very large. The male and female are nearly alike."

We have figured an adult male of the natural size.



MARSH SANDPIPER.

Totanus stagnatilis, *(Bechst)*

Drawn from Nature & on Stone by J. & E. Gould.

Printed by C. Hullmandel.

MARSH SANDPIPER.

Totanus stagnatilis, *Bechst.*

Le Chevalier stagnatile.

This elegant species of Sandpiper is here represented in its adult state, and in the plumage of winter, which differs from that of summer only in being more generally light on the upper surface, the ash-grey being uninterrupted with transverse bars of black, the last remains of which may be observed on the scapularies: the under surface is also more purely white, with scarcely any traces of the longitudinal black streaks which characterize the plumage of summer. In form and general contour, the Marsh Sandpiper approaches closely to the Spotted Redshank (*Totanus fuscus*, Leisl.), but is not much more than half its size; besides which, the legs of the former are of an olive-green, while those of the latter are red.

The Marsh Sandpiper is not a native of the British Islands, and it appears to be extremely rare upon the Continent: its extent of habitat, however, is by no means very limited, since, according to M. Temminck, who favoured me with the examples from which the present figure was drawn, it migrates from the North of Europe, its summer habitat, throughout the eastern provinces as far as the Mediterranean, frequenting the borders of large rivers, but never taking up its residence on the sea-shore.

As its name implies, it obtains its food from the marshes and humid tracts which border inland rivers and sheets of fresh water.

The top of the head grey, with longitudinal spots of black; upper surface grey, each feather having a lighter margin; wings blackish brown; tail white, marked with diagonal bars of brown; the other parts and the whole of the under surface white; the bill and irides blackish brown; the legs bright olive-green: such is the plumage of the adult in winter. Its total length is about nine inches.

The young have the whole of the upper plumage of a brownish black, each feather bearing a yellowish border; the scapularies barred with narrow diagonal lines of black; and the tarsi of a greenish ash colour.

The figure is of the natural size.



WOOD SANDPIPER.
Totanus Glareola; (Temm.)

GREEN SANDPIPER.
Totanus ochropus; (Temm.)

Drawn from Nature & on Stone by J. & E. Gould.

Printed by C. Hullmandel.

GREEN SANDPIPER.

Totanus ochropus, *Temm.*

Le Chevalier Cul blanc.

Although we believe that this delicate species frequently passes the summer in Wales and other mountainous districts of Great Britain, and consequently breeds there, we are not in possession of sufficient facts to warrant us in stating positively that such is the case. We are strengthened in this opinion, however, by the circumstance of Mr. Doubleday, an accurate observer of nature, having informed us that he has observed it flying over the smaller streams in the neighbourhood of Snowdon in the middle of summer. It generally arrives in Britain at the latter end of September, when it disperses either singly or in pairs over nearly every part of our island, more particularly its interior portions, but always in very small numbers. It is most frequently met with during its autumnal and spring migrations, and appears to give preference to the edges of small ponds, rivulets, and ditches, particularly those which are secluded: its habits in this respect differ very considerably from those of most of the other members of its family, which resort to the sea-beach and the sides and mouths of large rivers as favourite places of abode.

The snow-white rump of the Green Sandpiper renders it a conspicuous object when flushed, at which time it utters a shrill whistling note, from which circumstance it is known to many persons, particularly sportsmen, by the name of the Whistling Snipe: it runs with great activity, but generally flies low, skimming over the surface of the water, and following the bends and angles of the stream. It possesses an extensive range of habitat, being dispersed over the whole of Europe, the greater part of Asia, and Africa; but it is not found in America, as most naturalists have asserted it to be, its place there being supplied by a nearly allied but totally distinct species. It differs from the Wood Sandpiper in its larger size, its shorter tarsi, and in the more diminutive spotting of the upper surface.

According to M. Temminck, the nest is made by the side of a stream, and the eggs are greenish white blotched with brown.

The sexes are so nearly alike in size and colour that a description of both is quite unnecessary.

The top of the head, back of the neck, and upper surface olive brown; the back, the scapularies, and most of the wing-feathers marked at their edges with minute spots of yellowish white; quills dark brown; sides of the chest and flanks longitudinally streaked and spotted with brown; rump, under surface, and tail white, the latter having the four central feathers strongly barred with black; feet and legs olive; bill black with a tinge of olive; irides dark brown.

WOOD SANDPIPER.

Totanus Glareola, *Temm.*

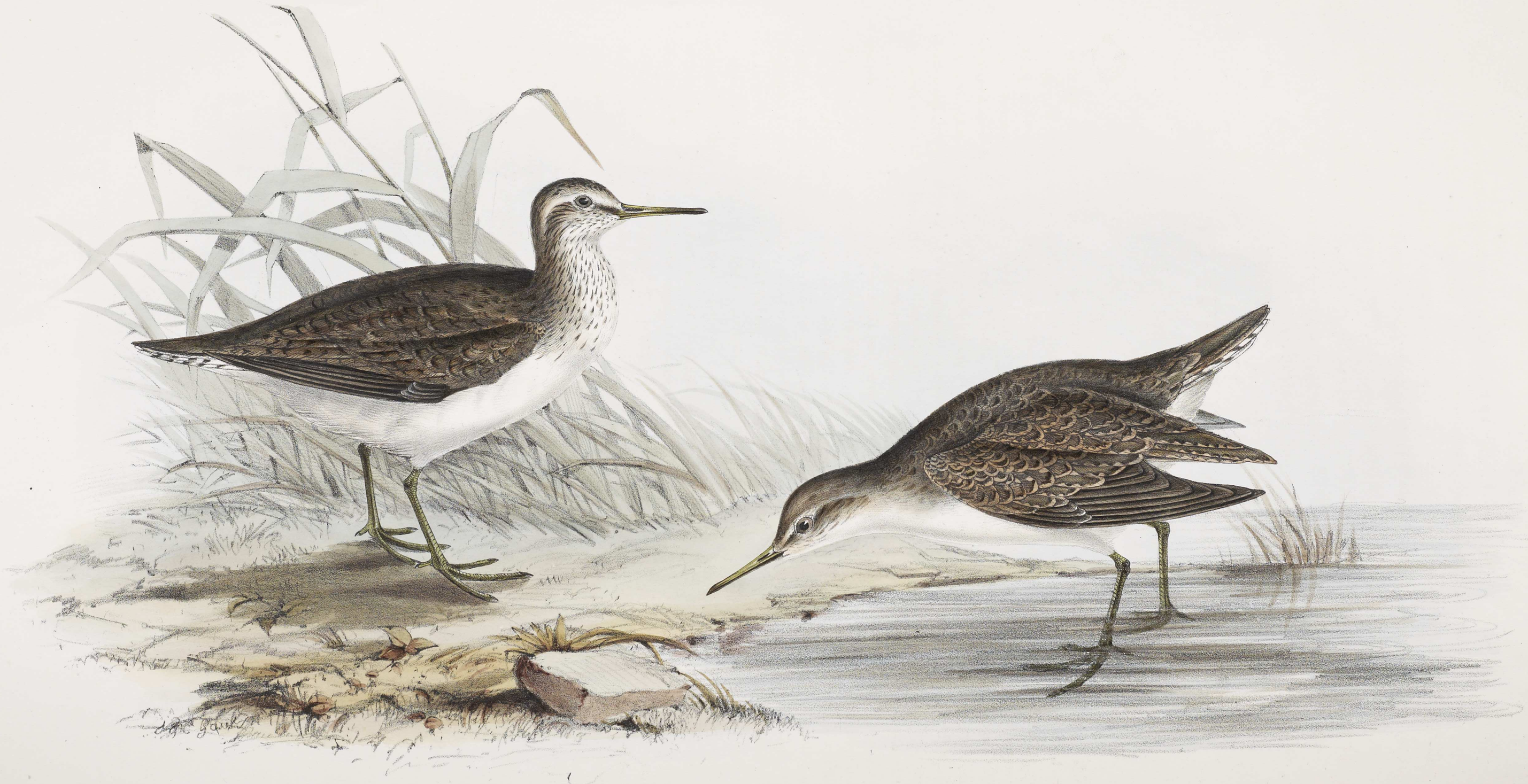
Le Chevalier sylvain.

This species has been so frequently confounded with the preceding, that we are induced to figure both on the same Plate, in order to enable our readers more readily to distinguish their differential characters. There is no difference in the colouring of the sexes of either species, and as their plumage is not influenced by the seasons or other causes, we trust our Plate will illustrate every feature necessary to render their distinctness sufficiently apparent.

The Wood Sandpiper is still more rarely seen in the British Islands than its near ally, but in every other particular the history of the preceding species is applicable to the present; it is, however, even more widely dispersed, as is proved by its being found not only over the whole of the Asiatic continent, but in most of the islands of the Pacific Ocean also, which we believe is not the case with the Green Sandpiper.

A streak of brown passes between the bill and the eyes; crown of the head and sides of the neck brown, streaked with a darker tint; whole of the breast and scapularies dark brown, the edge of each feather being spotted with greyish white; lower part of the rump and the tail white, the latter numerously barred with brown; legs and feet dark olive; bill black; irides dark brown.

We have figured each species of the natural size.



COMMON SANDPIPER.

Totanus Hypoleucos. *(Temm.)*

Drawn from Nature & on Stone by J. & E. Gould. *Printed by C. Hullmandel.*

Genus TOTANUS, *Bechst.*

Gen. Char. *Bill* long, rounded, solid, hard, and drawn to a point; in some species slightly incurved; upper mandible sulcated, the furrow generally about half the length of the bill; the tip arched and curving over that of the lower one; tomia of both mandibles bending inwards progressively to the point. *Nostrils* basal, lateral, linear, longitudinally cleft in the furrow of the mandible. *Legs* long, slender, naked above the tarsal joint. *Toes* three before, and one behind; the front ones united at their base by a membrane; that connecting the outer with the middle one always the largest; hind toe short, and barely touching the ground with its tip, or nail; fronts of the tarsi and toes scutellated.

COMMON SANDPIPER.

Totanus Hypoleucos, *Temm.*

Le Chevalier Guinette.

Those who have had opportunities of observing this little emigrant in a state of nature must, we think, have been gratified with its tame and inoffensive disposition, and we should suppose would be desirous of knowing more of its history. Unlike many others of its tribe, which are capable of braving with impunity the severities of our hardest winters, the present delicate little bird appears to be adapted to climates of a milder kind, and to inhabit peculiar localities. Arriving here about the end of April, it retreats to inland lakes, rivers, and small brooks, the banks of which it enlivens during the whole of the summer with its active and sprightly habits and simple note. The task of incubation is commenced soon after its arrival, the female depositing her four delicate eggs, of a pale reddish white ground spotted with darker red, on the bank near the water's edge, a mere hollow in the soil or depression in the shingle serving instead of a nest; sometimes, however, it is lined with dried grass, leaves, &c. It is to be feared that the timid disposition of this bird militates much against its security, and that a great portion of those which resort to our navigable rivers and canals fall a sacrifice to the gun, or are otherwise so much disturbed as to prevent their accomplishing this task, for which alone they have been impelled hither; those, on the contrary, which have chosen situations of greater safety and retirement have in a few weeks accomplished the process of incubation, and their half-fledged young soon trip nimbly over the sand and oozy mud, and a short period longer enables them to wing their way after their parents and to seek both food and safety for themselves. Unlike the Dunlin and other marine species whose immense flights almost astonish us, the Common Sandpiper can scarcely be called gregarious, four or six in company being of rare occurrence. Although not very numerous, it inhabits every part of Europe, over which it is dispersed in pairs; and not unfrequently a single individual is observed in solitary retirement, having been bereft of its mate, or by some other circumstance left by itself. In the British Isles the adults commence their autumnal migrations southwards about September, preceding the young by a few weeks, which period allows the latter to gain sufficient strength to perform a fatiguing journey across the Channel to seek retirement in the hotter portions of Europe; and in all probability the northern regions of Africa are not beyond the limits of their annual range. Independently of Europe and Africa, we have observed skins of this species from several parts of India, which proves its range over the Old World to be widely extended. Its place in America is supplied by the well-known Spotted Sandpiper *Totanus macularius*, which occurs in Europe only as a rare visitant.

The sexes are so strictly alike in their colouring as to render a separate description quite unnecessary. The young of the year have the edges of the feathers fringed with a margin of greyish white; in other respects they resemble the adults.

The food of the Common Sandpiper consists of insects of various kinds, to which are added small shelled snails, worms, crustacea, &c., in capturing which, its motions are not less elegant than graceful, running with agility over the oozy mud and sand-banks, often exhibiting a peculiar and singular jerking of the tail and a nodding of the head not unlike that of the Common Water-hen and some of the terrestrial pigeons of the West Indies. Its flight is somewhat slow and flapping, as if performed with considerable exertion, passing so close to the surface of the water as scarcely to avoid wetting the pinions: while flying, it utters its plaintive monotonous call, which is repeated at short intervals until it alights on the opposite side.

Head and upper surface light brown, glossed with olive green; the feathers of the back and scapulars marked with transverse zigzag lines of dark brown, producing a mottled appearance; greater wing-coverts tipped with white; the lesser coverts transversely barred with brown; the first two quill-feathers wholly brown, the remainder of the same colour with a large white spot in the centre of the inner web; the four middle feathers of the tail similar to the back; the two next on each side tipped with white; the outer ones being pale brown with darker bars and a white tip; throat white slightly speckled with pale brown; sides of the neck and breast greyish white streaked with brown; belly white; bill olive; legs and toes greyish yellow.

We have figured an adult and a young bird in autumn, of the natural size.

SPOTTED SANDPIPER.

Totanus macularius, (Linn.)



SPOTTED SANDPIPER.

Totanus macularius, *Temm.*

Le Chevalier perle.

This elegant little Sandpiper is most intimately allied to the well-known Common Sandpiper (*Totanus hypoleucos*), which pays its annual visit during the summer months to the brooks and rivulets of our island; but, unlike this latter bird, its visits are of the most rare occurrence, no instance having come under our own observation. M. Temminck states that it occurs accidentally on the shores of the Baltic, and in some of the provinces of Germany, but never in Holland. The native country of this bird appears to be the arctic regions of both continents; but it is most abundant in America, extending from these high latitudes over the whole of the United States, where it appears to take up the same situation as the *Totanus hypoleucos*, frequenting Pennsylvania, and the rivers Schuylkill and Delaware, as we are informed by Wilson, from whose valuable work we have taken the liberty of extracting an account of the habits and manners of this bird, which we have not had the opportunity of observing. "This species is as remarkable for perpetually wagging the tail, as some others are for nodding the head; for whether running on the ground or on fences, along rails or in the water, this motion seems continual; even the young, as soon as they are freed from the shell, run about constantly wagging the tail. About the middle of May they resort to the corn-fields to breed, where I have frequently found and examined their nests. One of these now before me, and which was built at the root of a hill of Indian corn, on high ground, is composed wholly of short pieces of dry straw. The eggs are four, of a pale clay or cream colour, marked with large irregular spots of black, and more thinly with others of a paler tint. They are large in proportion to the size of the bird, measuring an inch and a quarter in length, very thick at the great end, and tapering suddenly to the other. The young run about with wonderful speed as soon as they leave the shell, and are then covered with a down of a dull drab colour, marked with a single streak of black down the middle of the back, and with another behind the ear. They have a weak plaintive note." To this we may add, that the young in this stage of its existence, being destitute of the spotted markings of the breast, is very like the young of the Common Sandpiper; its smaller size, however, will always distinguish it. "On the approach of any person, the parents exhibit symptoms of great distress, counterfeiting lameness, and fluttering along the ground with seeming difficulty. . . . . The flight of this bird is usually low, skimming along the surface of the water, its long wings making a considerable angle downwards from the body, while it utters a rapid cry of *weet*, *weet*, *weet*, as it flutters along, seldom steering in a direct line up or down a river, but making a long circuitous sweep, stretching a great way out, and gradually bending in again to the shore."

The tip and upper mandible of the bill "dusky, basal part orange; stripe over the eye, and lower eyelid, pure white; whole upper parts a glossy olive, with greenish reflections, each feather marked with waving spots of dark brown; quills dusky black; bastard wing bordered and tipped with white; a spot of white on the middle of the inner vane of each quill-feather, except the first; secondaries tipped with white; tail rounded, the six middle feathers greenish olive, the other three on each side white barred with black; whole lower parts white, beautifully marked with roundish spots of black, small and thick on the throat and breast, larger and thinner and well defined as they descend to the tail; legs of a yellow clay colour; claws black."

"The female is as thickly spotted below as the male; but the young birds of both sexes are pure white below, without any spots: they also want the orange on the bill."

We have figured an adult male, and a young bird of the first autumn, of the natural size.



TURNSTONE.

Strepsilas collaris *(Temm.)*

Genus STREPSILAS.

Gen. Char. *Bill* as short as the head, strong, thick at the base, tapering gradually to the point, forming an elongated cone: upper *mandible* the longest, rather blunt at the end. *Nostrils* basal, lateral, linear, pervious, partly covered by a membrane. *Wings* long, pointed, first quill-feather the longest. *Feet* four-toed, three before, one behind, the anterior toes united by a membrane at the base, and furnished with narrow rudimentary interdigital membranes; hind-toe articulated up the tarsus and only touching the ground at the tip.

TURNSTONE.

Strepsilas collaris, *Temm.*

Le Tourne-pierre à collier.

Only one species of this genus has hitherto been discovered by naturalists, which, when in the adult state, is as remarkable for the beauty and variety of its plumage as for the singularity of its form. It is found on our shores, and particularly those of our eastern coast, during the greater part of the year, but absents itself from May to July, and proceeds northward to breed. Dr. Fleming states, that having seen this bird at all seasons in Zetland, he concludes it breeds there. It also breeds in Norway, on the shores of the Baltic, in the North Georgian Isles; and our intrepid Arctic voyagers found it at Melville Island, from whence they brought some of its eggs. This bird is found also in Africa and America.

The Turnstone frequents the sandy and gravelly parts of the sea-shore, where it feeds upon insects, small mollusca, and crustacea, which it finds under stones, for the turning over of which its wedge-shaped beak is admirably adapted. In its habits it differs from the Sandpipers generally, as it is not observed to fly in flocks, or, like them, to frequent the soft and oozy mud left by the retiring tide. It is lively and quick in its motions, and runs from place to place in search of its food with rapidity.

The adult male has the forehead, the space between the beak and the eye, throat, nape and side of the neck, lower part of the back, upper tail-coverts, breast, and all the under parts, pure white; the top of the head is mottled with black; below the eye and on the sides and front of the neck the plumage is black, with two narrow black bands passing backwards from the upper and under edges of the base of the beak. The black feathers on the side and bottom of the neck also extend backwards, forming two collars more or less perfect; the back, scapulars and wing-coverts, are reddish brown varied with black; primaries black on the outer webs, secondaries tipped with white; rump black; outer tail-feathers on each side white, the others black tipped with white; beak black; irides dark drown; legs orange red.

The plumage of the female is generally less brilliant than that of the adult male.

Young birds of the year have the throat white; the darker parts of the head and neck ash brown; back, scapulars and wing-coverts dusky brown, with lighter edges; all the under parts white. As the season advances, the feathers on the lower part of the neck in front become nearly black; the centre of the feathers on the back and wings much darker, with broad rufous edges, assuming by degrees the brilliancy of old birds, which is nearly acquired by the end of the following spring.

Some difference of opinion exists as to the colour of the eggs of the Turnstone. By M. Temminck and some other foreign naturalists it has been described and figured as having a green or ash-coloured ground, spotted with dark brown or black. Mr. Lewin's figure represents it ash green with spots of two colours, both dark. An egg, marked "Turnstone," in the extensive collection at the British Museum has a reddish white ground spotted with dark red, and we have seen one of the specimens brought from Melville Island which was exactly of the same colour.

We have figured a male in his adult plumage, and a young bird in that of the first autumn.

WOODCOCK.
Scolopax rusticola, *Linn.*



Genus SCOLOPAX, *Linn.*

Gen. Char. *Bill* long, straight; the tip obtuse, rounded, and ending with an internal knob; both mandibles, in dead birds, rugose behind the tip; under mandible shorter than the upper, which is sulcated for nearly the whole of its length. *Nostrils* basal, lateral, placed in the commencement of the groove, linear, longitudinal, covered with a membrane. *Wings* having the first and second quills of nearly equal length and the longest. *Legs* slender; the tibiæ either entirely plumed or naked for a short space above the tarsal joint. *Feet* four-toed, three before and one behind, the former cleft to the origin, the latter short and its tip only resting on the ground.

WOODCOCK.

Scolopax rusticola, *Linn.*

Le Becasse ordinaire.

So well has the history of this familiar, and to the sportsman favourite, bird been detailed by various British and Continental authors, among whom we may especially mention Mr. Selby, that we shall confine our remarks more to its geographical distribution than to those minor details with which most persons must be familar: but before entering upon these particulars, we would here express our decided opinion that the present bird, with the Woodcock of the United States of America, and, if we mistake not, one or two other species, may with strict propriety be separated into a distinct genus, which has indeed been done by M. Vieillot under the name of *Rusticola*; for not only is the difference in form between the Woodcock and Snipe very apparent, but there is a still greater diversity in their habits and manners.

In England and we believe in nearly every portion of Europe, the Woodcock is a migratory species: a few pairs, it is true, stay with us to breed, but the great mass undoubtedly pass northwards, even to within the limits of the arctic circle, tenanting during summer the wilds and forests of that desolate region; and as soon as the work of incubation is over, they commence in vast hordes their southward flight, our island being merely a resting-place for a large portion of them in their progress towards still more southern latitudes; hence the promontories of Ireland, Wales, Cornwall, and Devonshire abound with them at the periods of their vernal and autumnal migrations. From these summer haunts, which appear to extend throughout the Old World portion of the zone, they radiate southwards, not only through Europe, but to the vast regions of Asia, penetrating even into India, whence we have received numerous specimens differing in no respect from those killed in our own island.

There is scarcely any difference in the appearance of the sexes, and they do not undergo any decided periodical change in their plumage.

The nest is generally placed in a thicket, near the root of a tree or shrub, and is merely a slight hole lined with a few dead leaves and grass; the eggs are four in number, of a yellowish white, blotched with pale chestnut brown, and in Sweden and other parts of the Continent are considered a great delicacy for the table.

The food of the Woodcock consists principally of worms, which it procures by inserting its long bill into the earth.

Forehead and top of the head grey; hind part of the head and neck marked with four broad brownish black bars; the intermediate spaces reddish white; from the gape to the eye a streak of deep brown; chin white; on each side of the neck a patch of brown; upper surface a mixture of rufous brown, pale dull yellow and grey, with large spots and zigzag transverse lines and bars of black, which colour is deepest on the back and scapulars; rump and tail-coverts pale chestnut brown with pale reddish white tips and narrow transverse bars of black; tail black varied with chestnut brown; the tips of the feathers grey above and pure white below; quills dusky, outer webs having triangular bars of chestnut brown; under surface greyish white tinged with yellowish brown and barred transversely with brown of a darker tint; vent and under tail-coverts yellowish white, with a triangular spot of black in the centre; legs flesh-red tinged with grey.

We have figured an adult bird of the natural size.



GREAT SNIPE.

Scolopax major, *(Gmel.)*

Drawn from Nature & on stone by J. & E. Gould.

Printed by C. Hullmandel.

GREAT SNIPE.

Scolopax major, *Gmel.*

La Grande ou Double Bécassine.

The specific appellation given to this bird, as is the case in many other instances, shows the impropriety of such names as *major*, *minor*, *minuta*, &c.; for although we admit that the present bird is the largest of the European true Snipes, still there are two others which exceed it in size from the hilly districts of India, and a third from Mexico, whose size is even superior to that of the Woodcock: the name of *major* as applied to our bird is therefore perfectly inappropriate.

The northern parts of Europe undoubtedly constitute the true habitat of the Great Snipe. Sir Humphry Davy killed several during one of his summer visits to Norway, &c.: these were afterwards transmitted to the Zoological Society of London, and on examination were ascertained to be strictly identical with those killed in England. We do not mean to affirm that Norway and the northern regions generally are its sole habitat, for we have received it in abundance from the temperate and southern portions of Europe and the borders of Asia. Although we have no direct evidence that it breeds in the British Islands, still it is far from being improbable that instances of the kind may occasionally take place, particularly as it appears to be more common than has been hitherto supposed.

The term *Solitary*, by which it is known in some parts of England, is not inappropriately applied to this Snipe, in as much as it is always found alone, and, as it were, isolated from the companionship of others of its species; neither does it appear to congregate into bodies for the purpose of migration, each individual, or at most each pair, seeming to act independently for itself.

In its general appearance the Great Snipe closely resembles the Common Snipe (*Scolopax Gallinago*), but on minute examination the flanks will be found to be strongly barred with brown, the secondaries and lesser wing-coverts numerously spotted with white, and the outer tail-feathers totally destitute of any markings; in addition to which it is much heavier, the weight of the Common Snipe being rarely more than four ounces, while the Great Snipe frequently weighs seven or eight. Its flight is less tortuous and rapid than that of the Common Snipe, being performed in a more steady and even line, and is not unlike that of the Woodcock.

Its food consists of insects, which it procures by thrusting its bill into the soft and oozy mud.

Like its congeners it is principally found in heaths, low marshy situations, morasses, &c.

Its habits, nidification, &c. are said to be precisely the same as those of the Common Snipe, and its flesh is equally esteemed as a delicacy for the table.

Crown of the head dark brown, interspersed with small markings of reddish brown, with the central streak of the same colour; a streak of pale buff between the bill and the eye; back dark brown varied by longitudinal markings of yellowish brown; lesser wing-coverts tipped with white; breast, sides, and flanks white with transverse triangular bars of deep brown; tail of sixteen feathers, the two centre ones black for two thirds of their length; the outer feathers quite white for nearly their whole length; legs olive; bill blackish brown.

The Plate represents an adult male of the natural size.



1. SABINE'S SNIPE.
Scolopax Sabini; *(Vigors).*

Drawn from Nature & on stone by J. & E. Gould.

2. COMMON SNIPE.
Scolopax Gallinago, *(Linn.)*

Printed by C. Hullmandel.

SABINE'S SNIPE.

Scolopax Sabini, *Vigors.*

The occasional occurrence of this rare and singular species of Snipe in our island, teaches us that we have yet much to learn respecting the native localities of many of the feathered tribes, for we know of no instance of its having been killed in any other part of the globe than the British Islands; still it is very evident that these islands are not its native home, and that those that have been killed here are merely stragglers from some unknown region. The first example of this bird was killed in Queen's County, Ireland, in August 1822, and was sent to Mr. Vigors the same day; it was described by him under the above title in the 14th vol. of the Transactions of the Linnean Society, and is now contained in the Museum of the Zoological Society, to which institution it was presented by Mr. Vigors with the whole of his fine collection. A second example was shot on the banks of the Medway, near Rochester, in October, 1824. Besides these, Mr. Selby informs us that he has "received a fresh specimen of this rare Snipe from Morpeth, possessing all the characteristics of Mr. Vigors's bird;" and we ourselves know of another example having been killed in Ireland.

As we are indebted to Mr. Vigors for our knowledge of this species, we deem it but just to quote his own words in pointing out its distinctive characters. "It is at once distinguished from every other European species of *Scolopax* by the total absence of white from its plumage, or any of those lighter tints of ferruginous yellow which extend more or less in stripes along the head and back of them all. In this respect it exhibits a strong resemblance to *Scolopax saturata* of Dr. Horsfield, from which, however, it sufficiently differs in its general proportions; and I find no description of any other extra-European species of true *Scolopax* which at all approaches it in this character of its plumage. In the number of its tail-feathers, again, which amount to *twelve*, it differs from *Scolopax major*, which has sixteen, and *Scolopax Gallinago*, which has fourteen; it agrees, however, in this point with *Scolopax Gallinula*, which also has but twelve; but it can never be confounded with that bird from the great disproportion between the essential characters of both, the bill alone of *Scolopax Sabini* exceeding that of the latter species by one third of its length. In the relative length and strength of the tarsi it equally differs from all. These members, although stouter than those of *Scolopax Gallinago*, fall short of them by $\frac{3}{20}$ths of an inch; they are much weaker, on the other hand, than those of *Scolopax major*, although they nearly equal them in length." Of its habits, mode of nidification, &c., we know nothing; but in these respects it doubtless bears a close resemblance to the other members of the genus.

Top of the head and back black, the latter being transversely barred with chestnut; whole of the under surface dusky black, thickly barred with dull chestnut; quills blackish brown; tail of twelve feathers, black at the base, chestnut at the tip barred with narrow lines of black; bill dusky black, the base of the upper mandible pale chestnut; legs dark olive green.

COMMON SNIPE.

Scolopax Gallinago, *Linn.*

Le Bécassine ordinaire.

Although the contrary has been long recorded by naturalists, we conceive that the natural range of the Common Snipe is comparatively limited, and that the Snipes from India, Africa, and North America, that have been regarded as identical with our bird, will be found, on examination, to be specifically distinct; in the character of their plumage they are indeed somewhat similar, but they nearly all present a different form in the feathers of the tail, and also a difference of number.

The Common Snipe is strictly indigenous in our islands, although the great mass retire northwards to breed, leaving a few scattered over our extensive moors and marshy districts, where they perform the task of incubation: these few have their numbers augmented in autumn by the return of those which had retired to northern latitudes, whence they are now driven with their young by the severity of the climate and the impossibility of acquiring food. On the Continent it inhabits the same situations as in Great Britain and is equally abundant. Its habits, manners, mode of life, and flight are so universally known that a detailed account of them is perfectly unnecessary, neither need we say anything about the excellency of its flesh as an article of food. The nest is usually formed by lining some small depression of the ground, under a tuft of grass, heath, or rushes, with dried grasses and similar materials; the eggs are four in number, long and pointed, of an olive green blotched with different shades of reddish brown. The young quit the nest almost immediately after their exclusion from the shell, and run nimbly about after their parents while yet covered with a particoloured dress of brown and buff. The sexes offer so little difference in the markings of their plumage, that it is impossible to distinguish them by this means.

In the adult bird the top of the head is brown, divided by a longitudinal central stripe of yellowish white; a similar stripe of yellowish white runs from the base of the beak above the eye, followed by a stripe of brown from the base of the beak to the eye; chin white; sides of the neck and chest tawny yellowish white, numerously spotted with dark brown; back and scapularies fine black barred with brown, and with longitudinal stripes of rich buff yellow on the outer edges of the feathers; wings dark brown, each feather being spotted and edged near the tip with yellow; primaries dark brown, the outer web of the outer quill being white; under surface white, barred on the flanks with brown; tail consisting of fourteen feathers which are black for two thirds of their length from the base, the rest reddish brown with a bar of black and tipped with reddish brown; legs and feet greyish olive; beak yellowish brown becoming redder at the base and darker at the tip.

We have figured a male of both species of the natural size.

JACK SNIPE.
Scolopax Gallinula, *Linn.*



JACK SNIPE.

Scolopax Gallinula, *Linn.*

Le Becassine sourde.

The Jack Snipe, although equally as abundant as the Common Snipe during the autumn and winter, quits us entirely on the approach of spring, and retires to more northern countries, probably within the regions of the arctic circle, where, in company with numerous others of the feathered race, it remains to incubate, and again returns to us in the months of October and November, when as long as the weather is open it may be found in any of the marshy districts of this country, and throughout the Continent generally. We have reason to believe, however, that Europe alone constitutes its true and almost exclusive habitat; for although it may be occasionally met with out of Europe, it is extremely rare. Among all the numerous collections from the Himalaya mountains we do not recollect having seen more than one specimen. It is by far the least of the true *Scolopacidæ*, its weight being seldom more than two ounces. The Jack Snipe usually frequents the same localities as the Common Snipe, but differs from it considerably in its habits and manners; for while the latter is somewhat shy and easily flushed, the Jack Snipe, on the contrary, will frequently allow itself to be almost trodden upon before it can be forced to take wing. And we cannot fail to remark how beautifully the colouring of this bird assimilates with the ground and the surrounding herbage among which it lies, which, together with its motionless manner of lying, renders it most difficult to be discerned, unless the spot on which it sits is most carefully and scrutinously examined. The individual from which our drawing is taken was captured alive by ourselves with the hand, from before the nose of the pointer.

Its flight, although often extremely rapid, is seldom prolonged to any distance, the bird generally alighting again immediately, except on the approach of the vernal migration, when we have seen it mount in the air and totally disappear, without even uttering the alarm cry usual with this and other members of the genus. Its flesh has a most delicate flavour, but from its diminutive size it is not so much sought after by the sportsman as the larger common species.

It is said to breed in bogs and morasses, and according to M. Temminck the eggs are four in number.

The sexes offer no difference in the markings of their plumage, which undergoes little or no change in spring or summer. The young acquire the adult colouring, although not so bright, from the time they leave the nest.

A band of black spotted with yellowish red extends from the forehead to the nape; a distinct band of buff passes over the eye; the remainder of the face is alternately striped with black and light buff; throat whitish; upper part of the chest yellowish brown, blotched with spots of brown; back and scapulars blackish brown with green and bronze-like purple reflections; the latter feathers are long and narrow, and have their outer edges of rich buff, forming two longitudinal bands down each side; wing-coverts blackish brown, each feather margined with light brown; tail brownish black edged with rich brown; abdomen white; flanks and lower parts longitudinally streaked with brown; legs olive; bill greyish olive.

The Plate represents two birds of the natural size.

GREY SNIPE.

Macroramphus Griseus (Leach.)



Genus MACRORHAMPHUS, *Leach.*

Gen. Char. *Beak* very long, straight, rounded, rather slender in the middle, the tip dilated, somewhat incurved and rugose. *Nostrils* lateral, basal. *Legs* four-toed; the outer *toes* connected at their base by a membrane; hinder *toe* touching the ground only at the tip; lower part of the tibiæ naked. *Wings* long and pointed.

GREY SNIPE.

Macrorhamphus griseus, *Leach.*

La Becassine ponctuée.

The bird now before us has the beak of a *Scolopax*, but with this it also possesses toes connected by a membrane; to this we may add, that its habits and the peculiar periodical change of plumage to which it is subject, still further prove its alliance to the species of the genus *Tringa*. Dr. Leach, however, considered it sufficiently removed both from Snipes and Sandpipers to warrant the adoption of a separate generic distinction, and we have followed his example.

This bird occurs but seldom in Europe. A single specimen has been taken in Sweden. A second was obtained in England on the Devonshire coast, which came into the possession of Colonel Montagu, and is preserved in the British Museum: this specimen is in the plumage peculiar to the winter season. A third example has been shot at Yarmouth, which was in the plumage of summer. No other instances, that we are aware of, are recorded. It is, on the contrary, very plentiful on the Western shores of North America, from the United States, even to the Arctic circle; and to the excellent work of Wilson we are indebted for the best account of its habits and œconomy.

"The Red-breasted Snipe," as it is called by Wilson, on account of the prevailing colour of its summer plumage, "arrives on the sea-coast of New Jersey early in April; it is seldom or never seen inland: early in May it proceeds to the North to breed, and returns by the latter part of July or beginning of August. During its stay, it flies in flocks, sometimes very high, and has then a loud and shrill whistle, making many evolutions over the marshes; forming, dividing, and reuniting. They sometimes settle in such numbers, and so close together, that eighty-five have been shot at one discharge of a musket. They frequent the sand-bars and mud-flats at low water, in search of food; and being less suspicious of a boat than of a person on shore, are easily approached by this medium, and shot down in great numbers."

"These birds," says Wilson, "of all our sea-side Snipes, are the most numerous, and the most delicious for the table. They doubtless breed not far to the northward of the United States, if we may judge from the lateness of the season when they leave us in spring, the large size of the eggs in the ovaries of the females before they depart, and the short period of time they are absent." This hiatus in their history has been supplied by Dr. Richardson in his Fauna of North America, who says, "they are well known in the fur-countries, and have an extensive breeding range from the borders of Lake Superior to the Arctic Sea.

The whole length of this bird is nearly eleven inches, the bill two inches and a half. In winter, the head, neck, breast and wing-coverts are uniform ash-coloured brown; a streak of the same colour from the base of the beak to the eye; throat, belly and thighs pure white; flanks white, varied with light brown; back and scapulars light brown, each feather with a darker brown edge; rump, upper and under tail-coverts white, with black cross bars; tail-feathers twelve, crossed with narrow black and white bars alternately; the beak dark greenish black; legs dull green. In summer, the top of the head and neck, back and scapulars are irregularly varied with black, reddish brown, and yellow; the space round the eye bright red; front of the neck and breast reddish buff; wing-coverts ash-colour and edged with white; belly, rump and tail the same as in winter. The female is paler on the back, and less ruddy on the breast.

The figures on our Plate represent the plumage of both seasons.



KNOT.
Calidris canutus.

Genus CALIDRIS.

Gen. Char. *Beak* mediocral, rounded, rather slender, flexible, above sulcated, its tip depressed, smooth and dilated. *Nostrils* linear, placed in a long groove. *Feet* four-toed; the toes margined and cleft; the hinder toe with its tip alone resting on the ground.

KNOT.

Calidris canutus, *Briss. et Cuv.*

Le Bécasseau canute.

Although the Knot does not make the British Islands a place of permanent residence in which to incubate and rear its young, yet it is abundant on its passage both during its equinoctial and polar migration. While on the latter journey, it visits our island in the month of May, at which time many individuals have almost entirely gained the full plumage of summer, so much so, as to lead us to suppose that they would remain on our shores to breed; a supposition which is strengthened by actual dissection; still, however, we have no undoubted facts upon which to assert that such a circumstance has occurred. Leaving our shores after a short sojourn, they pass northwards to their arctic breeding-places: this duty accomplished, they commence their migration southward, visiting our island again in their passage, when many remain the whole of the winter, during which they live congregated in flocks on the borders of the sea, but giving the preference to marshy and fenny countries in their native latitudes for the purpose of incubation. While they make this island their asylum, numbers are annually taken, either in nets or by the gun, for the purposes of the table. In the London markets they may be generally met with in the spring, and during the whole of the winter.

The Knot is not only common in the arctic regions of the Old World, but is equally so in the northern portions of America, extending throughout the whole of the circle; its southern migrations seldom exceeding the latitudes of the Mediterranean,

We know of no birds in which the great difference between the stages of plumage in winter and summer has led to so much confusion and the creation of so many synonyms: an examination of individuals in every stage of plumage, from the greyish white of winter to the fine brownish red of summer, has clearly satisfied us that they are specifically the same. Independently of the great dissimilarity of colour which the adult Knot exhibits at these opposite seasons of the year, the young possess a colouring distinct from either, the ground of which nearly resembles the plumage of winter, but every feather on the upper surface is edged at its tip with two crescents, the outer one white and the inner one black, producing a most beautifully barred appearance: under surface buff colour. Concerning the nidification of the Knot we have been able to collect no information whatever.

The two sexes are alike in colouring, or, if there be any difference, the female is the finest in colour and the largest in size.

In summer, the whole of the upper surface is of a reddish brown, the top of the head and back of the neck being marked with small longitudinal streaks of black, while each feather on the back and wings has a central dash of the same colour branching out into irregular bars on the wings; quill-feathers and tail blackish brown; the whole of the under surface is of a brick red; bill green at the base, black at the tip; legs greenish olive; irides dark brown.

In winter the whole of the upper surface is of a fine ash grey; the quills and tail brownish black; the breast and whole of the under surface white, flanks and sides of the chest being variegated with longitudinal and arrow-shaped marks of brown.

The Plate represents an adult bird in the summer and winter states of plumage of the natural size.

Machetes pugnax. (Linn.)

Drawn from Nature & on Stone by J. & E. Gould. Printed by C. Hullmandel.



Genus MACHETES, *Cuv.*

Gen. Char. *Bill* straight, rather slender, as long as the head, with the tip dilated and smooth. *Nostrils* basal, lateral, linear, placed in the commencement of the groove. *Wings* long and sharp-pointed; first and second quill-feathers equal and longest. *Legs* long and slender. *Tibiæ* naked for a considerable space above the tarsal joint. *Feet* four-toed; three before, and one behind; the outer toe united to the middle one by a membrane as far as the first joint; hind toe short.

The head and neck of the male, during the breeding-season, are adorned with long plumose feathers, springing from the occiput and throat, which, when raised, form a large ruff around the head; and the face of the male bird, during the same period, is covered with small fleshy warts or papillæ.

RUFF.

Machetes pugnax, *Cuv.*

Le Bécasseau combattant.

The species of the great family of Sandpipers, from which this remarkable bird has been separated into a distinct genus, are well known to undergo a striking periodical change of plumage immediately preceding the season of reproduction; but it is in the present bird alone that we find so great a diversity of colour in the plumage during this period, as to render it scarcely possible to discover two individuals exactly according with each other either in tints or markings. In one, for example, we find the frill of a beautiful buff, with elegant bars of black; in another, white, grey, or chestnut, with longitudinal markings of shining black with violet reflections. Others, again, have the frill of a uniform white, black, or brown, with auricular feathers of a different colour. The remainder of the plumage (and it is even the same with the colouring of the legs and bill) undergoes a considerable change, though not to so remarkable a degree as do the feathers of the neck. With the accession of these ornamental plumes, the ruff also acquires a multitude of small warty tubercles, thickly disposed over the front part of the head. To figure the whole of these spring changes common to the male is of course impossible; we have therefore selected for our Plate an example the colour of which could be most faithfully represented. This remarkable change, by which the Ruff is so much distinguished, commences and is completed during the month of April. In this, which we may call its most perfect state of plumage, it continues about a month, when the plumes are gradually thrown off, and by the end of June it assumes its more common appearance, which it retains during the remainder of the year, no difference being then to be perceived between the individual whose frill had been white, and the one in which it had been black. The females, or Reeves, are much smaller than the male, are never adorned with the elongated feathers of the neck, and vary but little in their plumage throughout the year, which is very similar to that of the male in his winter dress.

In England the Ruff is not so abundant as it was formerly: its chief resorts now are the fens of Cambridgeshire, Lincolnshire, and Norfolk, although some few are occasionally found in other places. In Holland and the low and marshy districts of France and Germany it is in the greatest abundance. From these countries it spreads northwards to very high latitudes during the summer, as it is known to breed in Lapland, Sweden, and Russia.

The Ruff may be considered a strictly migratory species, retiring to southern latitudes in winter, and arriving in our own in the early part of spring, the males making their appearance several days previous to their expected mates. Unlike the *Tringæ* in general, the Ruff is polygamous in its habits, each male claiming to himself a certain district, the limits of which he defends with the utmost obstinacy. On the arrival of the females, the males pay their attentions by various displays of their plumage, which is now in full perfection; and as many lay claim to the same female, sharp contests ensue for the possession of her, and she becomes the prize of the conqueror.

On account of the great delicacy of its flesh, the Ruff is highly esteemed for the table; hence various means are resorted to for the purpose of securing them alive, in order that they may be fattened in confinement. They soon become extremely tame and familiar; are fed with bread and milk, boiled wheat and other farinaceous seeds, which they eat with great avidity; and speedily become very fat. In a state of nature their food consists of worms, aquatic insects, and their larvæ.

As the description of one male in his summer dress will not be applicable to any other individual, we shall content ourselves with giving that of the male in winter, which is the same in every example.

The whole of the upper surface brown, each feather having its centre of a deeper tint, and its margin of a light reddish grey; the whole of the under surface is white; feet and bill light brown.

The female, or Reeve, is full a third less than the male, and closely accords with him in his winter dress, except that the throat, fore part of the neck, and breast are light brown, mingled with darker blotches.

The Plate represents a male in summer and winter plumage, and an adult female, all of the natural size.



BUFF-BREASTED TRINGA.

Tringa rufescens, *(Vieill.)*

Drawn from Nature & on stone by J. & E. Gould. *Printed by C. Hullmandel.*

BUFF-BREASTED SANDPIPER.

Tringa rufescens, *Vieill.*

Le Tringa roussâtre.

This prettily marked Sandpiper was first made known (Linn. Trans., vol. xvi.) as an occasional visitor to England by Mr. Yarrell, who possesses a specimen killed in Cambridgeshire in 1826. In the following year a specimen was killed in France, which is now deposited in the Paris Museum; since which another example has been killed in England at Sherringham in Norfolk, which is preserved in a collection of birds in that county.

This species was first discovered in Louisiana by M. Vieillot, and was unknown to Wilson and other American ornithologists of that time. Mr. Thomas Nuttall of Boston, the author of 'A Manual of the Ornithology of the United States and Canada,' says this elegant species in some seasons is not uncommon in the market of Boston in the months of August and September, being met with near the capes of Massachusetts Bay. It has also been obtained in the vicinity of New York. From its having been found in Louisiana, Mr. Nuttall infers that coursing along the shores of the Mississippi, and thus penetrating inland, it probably proceeds by this route, as well as by that of the sea coast, to its northern destination to breed, and is often seen associated with the Pectoral Sandpiper, which it resembles very much in size and bill, though perfectly distinct in plumage.

Mr. Audubon appears not to have met with this bird in America, beyond procuring a specimen at Boston. The geographical range of this Sandpiper is very extensive. Captain James Clark Ross possesses a wing of this species, (which from the very peculiar markings of its under surface cannot be mistaken,) received from a sailor of the crew, who found it in the course of one of the numerous inland excursions in the desolate regions of the North from which these intrepid navigators have recently returned. It is therefore probable that it breeds near the arctic circle. From M. Natterer we learn that this species is common in Brazil, and we have already noticed its occurrence three times in Europe.

Mr. Nuttall states that in America its food consists principally of land and marine insects, particularly grasshoppers, which, abounding there in autumn, become the favourite prey of a variety of birds.

Top of the head dark brown, the feathers edged with very light brown; back of the neck light brown, with minute longitudinal darker spots; the back dark brown, the extreme edges light brown; wing-coverts brown; primaries nearly black, tipped with white, the shafts white; tertials brown, edged with light brown; tail cuneiform; the coverts brown, with lighter borders; the centre feathers black; the shafts and edges lighter; the feathers on each side light brown, inclosed by a zone of black and edged with white; chin, sides of the neck, throat, and breast light brown, tinged with buff; abdomen, flanks, and under tail-coverts white; sides of the neck spotted; anterior portion of the under wing rufous brown; under wing-coverts pure white; inner webs of the primaries speckled; secondaries mottled, and ending in sabre-shaped points; the legs light brown.

Mr. Audubon informs us that the female is somewhat larger than the male, which it resembles in colour, but has the lower parts paler, and the feathers of the upper parts of a lighter brown, with an inner margin of brownish black and an outer one of greyish yellow.

In young birds the tints are said to be much lighter, the primaries more spotted, some of the inner wing-coverts also mottled; all the upper plumage more broadly edged with pale buff, on the back inclining to white. The colour beneath is also buff, becoming almost white on the belly and vent.

We have figured an adult male and female of the natural size.



PECTORAL SANDPIPER.

Tringa pectoralis, (Bonap.)

Drawn from Nature & on stone by J. & E. Gould.

Printed by C. Hullmandel.

PECTORAL SANDPIPER.

Tringa pectoralis, *Bonap.*

Le Becasseau Pectorale.

An example of this species of Sandpiper having been killed in our island, we have deemed it necessary to include a figure of it in the present work. As we have nothing to add to the account published by Mr. Hoy in Loudon's Magazine of Natural History, we think it best to quote that gentleman's words: "The occurrence of the Pectoral Sandpiper, *Tringa pectoralis*, is noticed and a plate given by Mr. Eyton in his continuation of Bewick's *Birds*. I am not aware of a more recent instance of its occurrence, and have thought it might be interesting to some of your readers to know something more respecting the capture of the above-named specimen. This *Tringa* seems allied both to *T. variabilis* and *T. subarquata;* and in the form of the bill shows some affinity with the Knot (*T. canutus*). In size it is superior to the Curlew Tringa (*T. subarquata*). It was killed on October 17th, 1830, on the borders of Breydon Broad, an extensive sheet of water near Yarmouth, rather celebrated for the numerous rare birds which have at different times been observed and shot on its banks and waters. The person who killed it remarked that it was solitary, and its note was new to him, which induced him to shoot it. It proved a female on dissection.

"This specimen has been examined by M. Audubon, and identified by him with the *Tringa pectoralis* of North America," which is its true habitat.

Crown of the head, all the upper surface, wings and central tail-feathers dark blackish brown, which is bounded with ferruginous and margined with cinereous; stripe over the eye, chin, abdomen and under tail-coverts white; sides of the face, back and sides of the neck, and the breast pale brown with a stripe of dark brown down the centre of each feather; bill reddish yellow at the base, black at the tip; feet greenish yellow.

Our figure is of the natural size.



PIGMY CURLEW.

Tringa subarquata *(Temm.)*

Drawn from Life & on Stone by J. & E. Gould.

Printed by C. Hullmandel.

PYGMY CURLEW.

Tringa subarquata, *Temm.*

Le Bécasseau cocorli.

The Pygmy Curlew in its winter plumage has been frequently confounded with the Purre; the beak, however, is longer, rather more slender, as well as more curved; the legs longer and thinner, and the bare part above the joint of greater extent; there is also a constant and marked difference in the upper tail-coverts, which in this bird are invariably white, but in the Purre the central tail-coverts are of the same colour as the feathers of the back. In their decided summer plumage and the various consequent vernal and autumnal changes, in both, the differences are too obvious to require particular notice.

The Pygmy Curlew has been considered also a very rare British bird, and one that did not breed in this country: we have reason, however, to believe,—from the various specimens we have seen and obtained in their most perfect nuptial dress, some of which will be more particularly referred to hereafter, and the several young birds which could only very recently have quitted their nest,—that the Pygmy Curlew breeds every year on various parts of our coast. We have ourselves shot the male, in full summer plumage, at the end of May in the present year (1833), near Sandwich, and have received adult birds equally fine, with the young, from Yarmouth early in July. In its habits it resembles the Purre, flying in flocks in company with other shore birds, and like them also feeding on marine insects, worms, minute mollusca, and crustacea. The male specimen, in summer plumage, from which our right-hand figure was drawn and coloured, we killed out of a flock, and brought down at the same shot a Purre and a Ring Dottrell.

The Pygmy Curlew frequents the shores of the European continent generally, being most observable in spring and autumn: it also inhabits Africa and North America. In its winter plumage, represented by the bird on the left side of our Plate, the throat, neck, breast, all the under parts, and the upper tail-coverts, are pure white; crown and sides of the head, back, scapulars and wing-coverts, ash brown, the shaft and middle of each feather being rather darker; wing-primaries black; tail-feathers ash colour edged with white; beak black; irides dark brown; legs brownish black. During the season of producing the young, the feathers on the top of the head are varied with spots of black and reddish brown; throat, breast and abdomen chestnut red, some of the feathers tipped with white; upper and under tail-coverts white slightly barred across with black and red; back, scapulars and tertials nearly black, the feathers varied on their margins with red and ash grey; some of the wing-coverts remain unchanged; the primaries black; tail-feathers dusky brown with lighter edges.

The intermediate states of plumage, as they appear in spring and autumn, may be inferred from a previous knowledge of the appearance of the bird in winter and summer, the feathers on the breast changing by degrees from white to red, and afterwards regaining the white; those on the back alternating between ash colour and red brown.

The young birds of the year most resemble the adult bird in winter; but the feathers on the upper surface of the body and wings have broad edges of yellowish white; the under surface tinged with buff colour; the legs brown.

M. Temminck states, that this bird occasionally breeds in Holland near the edge of the water, laying four eggs, yellowish white, spotted with brown.

We have figured two birds of their natural size.



DUNLIN, OR PURRE.

Tringa variabilis, *Meyer*

Drawn from Nature & on stone by J. & E. Gould. *Printed by C. Hullmandel.*

DUNLIN, OR PURRE.

Tringa variabilis, *Meyer*.

Le Becasseau brunette, ou variable.

In consequence of the remarkable changes to which this *Tringa* is subjected, it has in its various stages received several specific appellations, therefore to the one now generally adopted, *variabilis*, is attached a great number of synonyms.

In its winter or grey dress it is called the Purre, and it is at this season that it is most plentifully distributed along the whole line of our coast, where it may be observed congregated in vast flocks, enlivening the bleak and dreary beach by the celerity with which it runs over the sands, and by its sweeping and vigorous flight, during which, like many other of its congeners, every individual of the flock, be it ever so numerous, simultaneously exposes the upper or under surface of the body, as they sweep along over the surface of the ocean or across the sands.

On the approach of spring, the great mass which have wintered in the British Islands retire northwards to breed. At this period a strongly contrasted change takes place in the colouring of the plumage, the uniform grey of winter being superseded by the more rich colouring, which is represented on our Plate. It is in this latter state that it is known by the name of Dunlin.

When the breeding-season commences the greater portion of these birds leave the sea-shore, and retire inland to wild heaths and the upland country, availing themselves of every situation on their passage that affords a suitable retreat for the rearing of their young. They generally select similar spots to those chosen by the Common Snipe (*Scolopax Gallinago*, Linn.), to which bird it assimilates in the whole process of incubation.

Although the greater number of the Dunlins annually migrate northwards, a few solitary pairs always remain in the northern portions of England and Scotland; in the Orkney and Shetland Islands they are still more abundant, and their numbers gradually increase as we proceed further north, until we arrive at the Arctic Circle.

On the Continent the Dunlin is as abundant as it is with us, being universally dispersed and subjected to the same natural laws. We would here also mention, that although the sea-coast constitutes their principal place of residence, they are also found on the banks of inlets and streams, as well as on those of the larger rivers, both on the Continent and in our islands.

The nest is merely a depression in the ground, lined with a few straws or dried grasses: the eggs, four in number, are of a greenish grey, spotted all over with reddish brown.

The food consists of worms, insects, mollusca, and the small crustacea, which it obtains by following the ebb-tide.

The great changes which the Dunlin undergoes rendering it necessary to describe the summer, winter, and immature plumage, we take the liberty of availing ourselves of the accurate description published by Mr. Selby, who has paid great attention to the subject.

"Winter plumage. Crown of the head, hind part of the neck, back, and scapulars ash grey, with a tinge of hair brown, the shaft of each feather being darker; between the bill and the eye an indistinct line of brown; eye-streak and cheeks white, streaked with pale hair-brown; chin and throat white; lower part of the neck and breast grey, the shafts of the feathers hair-brown; under surface pure white; wing-coverts hair-brown margined with pale ash grey, the larger ones having white tips; rump and upper tail-coverts deep brown margined with paler; two middle tail-feathers deep brown, the rest on each side grey, with white shafts; bill black; legs and toes blackish grey.

"Summer plumage. Crown of the head black, each feather margined with reddish brown; chin white; cheeks, fore part of the neck and breast black, with the feathers deeply margined with white, giving these parts a beautifully spotted appearance; under surface black; flanks and side-coverts of the tail white, streaked with black; back part of the neck, mantle, and scapulars black, each feather deeply margined with clear reddish brown; lower part of the back and upper tail-coverts brownish black; wing-coverts as in the winter plumage.

"Immature plumage. Head blackish brown, each feather edged with yellowish brown; upper surface exhibiting a mixture of the pale grey feathers that mark the winter plumage with the darker, or nestling feathers; cheeks and sides of the neck pale brown mixed with grey; breast grey spotted with black; belly white with large black spots; vent and under tail-coverts white."

The Plate represents two adults, one in the winter and the other in the summer plumage, of the natural size.



SCHINZ'S SANDPIPER.

Tringa Schinzii, *(Bonap)*

Drawn from Nature & on Stone by J & E Gould

Printed by C Hullmandel

SCHINZ'S SANDPIPER.

Tringa Schinzii, *Bonap.*

Through the kindness of Sir Rowland Hill, Bart., we are enabled to add this species to the list of British Birds; a single specimen killed at Stoke Heath near Market Drayton, Shropshire, a few years since, is now in that gentleman's collection. We have compared the individual from which our figure is taken, with others killed in America, between which we could discover no difference. Its shorter bill and white rump will at all times serve to distinguish it from the other European members of the group. We believe that the continent of America is the true habitat of this species, and that its occurrence in England must be attributed to accidental causes.

M. Temminck has forwarded us specimens of the *Tringa Schinzii*, Brehm, which he informs us were received from M. Brehm himself. On examining these specimens we cannot however but express our misgivings as to their specific value, resembling as they do in every particular the Dunlin (*Tringa variabilis*) of our island: the only difference we could discover between M. Brehm's bird and examples of the Dunlin killed in England was that the former were rather smaller in size; but we doubt not that among the numerous examples of the Dunlin brought to our markets we could find males equally diminutive. The bird here represented, and which is very distinct from the Dunlin, has been considered by American naturalists as the *Tringa Schinzii* of Brehm, in consequence of which much confusion has arisen, which confusion will perhaps be removed by allowing the name of *Schinzii* to remain for the present bird, and consequently to be the *Tringa Schinzii* of Bonaparte and not of Brehm, whose bird we firmly believe to be synonymous with *Tringa variabilis*.

"They are," says Mr. Nuttall, "either seen in flocks by themselves or accompanying other Sandpipers, which they entirely resemble in their habits and food, frequenting marshy shores, and borders of lakes and brackish waters. They associate in the breeding-season, and are then by no means shy; but during autumn, accompanying different birds, they become wild and restless. Their voice resembles that of the Dunlin, but is more feeble; and they nest near their usual haunts." The eggs are four in number, smaller than those of the Dunlin, and of a yellowish grey spotted with olive or chestnut brown.

Crown of the head, neck, wings, and tail dark brown with paler margins; centre of the back and scapularies blackish brown tipped with pale brown and margined on each side with rufous; primaries dark brown, with white shafts; rump pure white; throat and all the under surface whitish; the lower part of the neck, breast, and flanks ornamented with numerous oblong spots of dark brown: bill and feet black.

Our figure is of the natural size.

BROAD-BILLED TRINGA.

Tringa platyrhyncha: *(Temm.)*



Drawn from Nature & on Stone by J. & E. Gould. *Printed by C. Hullmandel.*

BROAD-BILLED TRINGA.

Tringa platyrhyncha, *Temm.*

Le Bécasseau platyrhinque.

The specific name of *platyrhyncha* is given to this species in order to indicate the breadth and flatness of the beak. Like many others of its genus, it has been confounded with various species, and it is but recently that it has been extricated from the confusion in which it was involved.

The high northern regions appear to be its true habitat, whence it passes annually southwards along the rivers of the eastern portion of the Continent; it is said also to be common on the borders of the lakes of Switzerland, particularly in spring. It is a species of some rarity, and its history is but imperfectly understood. Like most of the *Tringæ*, it is subject to a change of plumage in summer and winter. Our Plate represents it in its autumnal livery, when the red markings of the upper surface have disappeared, in consequence of the edges of the feathers wearing away, while at the same time the rufous tint which covers the eye-streak and the face has given place to a dirty white.

Of its habits, manners, and nidification we have been unable to gain any information.

The sexes are alike in the colouring of their plumage: that of the individual we have copied, and which we believe to be an adult in its autumnal plumage, is as follows:

Sides of the face and neck white dotted with brown; an obscure stripe of brown from the base of the beak to the eye; top of the head and whole of the upper surface black, each feather being more or less edged with tawny white; throat and chest white marked with red and brown; abdomen white; primaries dark brown; the outer tail-feathers greyish brown; feet dark olive brown.

The figure is of the natural size.



LITTLE SANDPIPER.

Tringa minuta; *(Leisler)*.

Drawn from Life & on Stone by J. & E. Gould.

Printed by C. Hullmandel.

LITTLE SANDPIPER.

Tringa minuta, *Leisler*.

Le Becasseau echasses.

This beautiful species, which we have figured in various states of plumage, is, with one exception only, the smallest of the British Sandpipers, and although it is nowhere numerous, is yet occasionally obtained on various parts of our coast, where it feeds and flies in company with small flocks of the Purre and the Sanderling, but sometimes occurring alone.

It is not uncommon about the margins of large fresh-water lakes on the continent of Europe generally; and specimens received from India have proved, on comparison, to be identical with those of Germany, France and Holland.

As this little bird constantly assumes at the breeding season a plumage peculiar to that period, distinct in colour from that which it bears during winter, and has besides been confounded by several authors with one European, and one extra-European species, we shall endeavour to supply descriptions of *Tringa minuta* under its various appearances, which, with the figures, will enable our readers to distinguish it at any season.

The whole length of the bird is about six inches, females being larger than males; beak straight, rather shorter than the head, black; all the upper parts of the body ash-colour, with a dusky brown streak in the line of the shaft of each feather; sides of the chest ash-colour, tinged with reddish brown; a brown line from the eye to the beak; front of the neck, throat, middle of the breast and all the under parts pure white; quill-primaries dusky black; lateral tail-feathers ash brown, the two middle ones darker brown, these last and the outer ones on each side longer than the others, giving to the tail the appearance of being doubly forked; legs and feet black, *tarsi* measuring ten lines in length, bare portion above the *tarsi* short. This is the appearance of the plumage in winter.

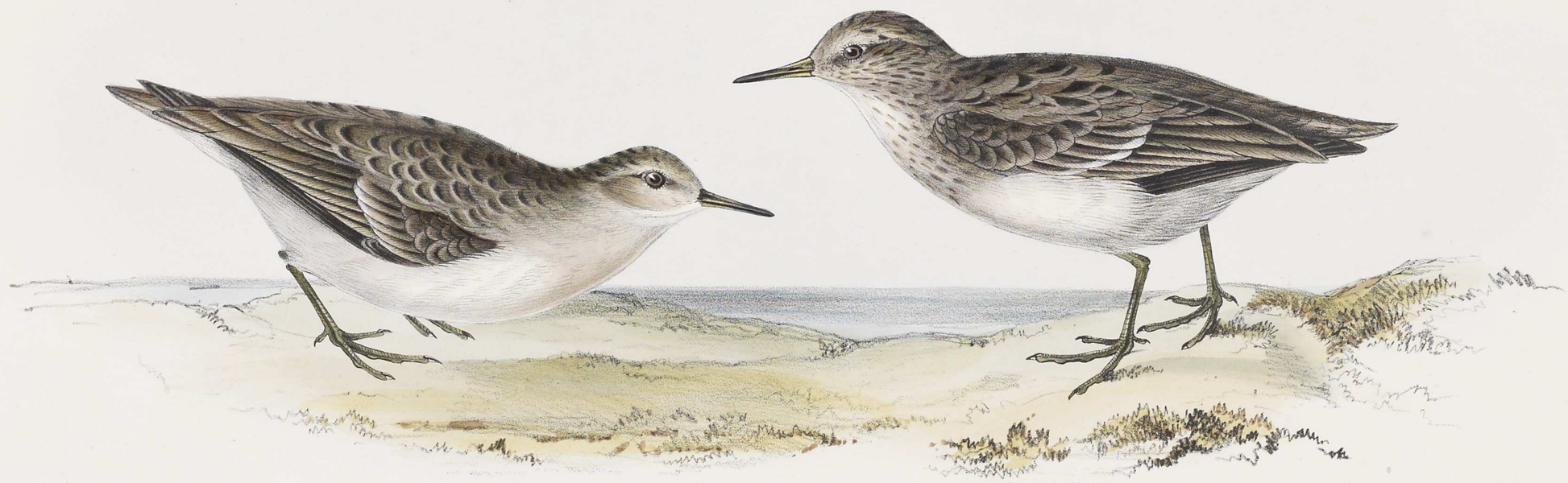
In the breeding season the top of the head is spotted with black and bright red; cheeks, sides of the neck and breast rufous, marked with small angular brown spots; under parts white as in winter; feathers of the back, the scapulars, wing-coverts, tertials, rump and two middle tail-feathers deep black in the centre, but nearly all have a broad border of bright red; some few feathers about the wings retain through the summer the ash colour peculiar to winter, remaining unchanged; lateral tail-feathers ash brown; legs and feet black.

Young birds of the year have the feathers on the top of the head spotted with black, and edged with reddish buff; those on the upper surface of the body and wings margined with pale buff-coloured white; the feathers on the sides of the neck, the scapulars and tertials bordered with yellowish red; in other respects like the parent birds.

We have figured these small Sandpipers of their natural size; the representation on the right side of our Plate is in the plumage of winter; that in the middle is in the perfect plumage of summer; the figure on the left is that of a young bird of the year.

Their food consists of small worms, aquatic insects, and minute crustacea.

But little is known of the nidification of this interesting little Tringa, but we have it in our power to add a description of its egg. This in its colour and markings is very like the egg of *Tringa hypoleucos*, but much smaller, measuring one inch one line in length and nine lines in breadth, the ground colour reddish white, spotted and specked with dark red brown.



TEMMINCK'S TRINGA.

Tringa Temminckii, *(Leisl.)*

Drawn from Nature & on stone by J. & E. Gould.

Printed by C. Hullmandel.

TEMMINCK'S TRINGA.

Tringa Temminckii, *Leisl.*

Le Bécasseau Temmia.

The *Tringa Temminckii* is the least of its tribe yet discovered: it is a species possessing many synonyms, and has been frequently confounded with its near ally the *Tringa minuta*, from which it differs in being more diminutive in size; in never, as far as we have observed, obtaining the red colouring of the upper surface; and in possessing much shorter tarsi, which are always olive green instead of black. It also differs considerably from *T. minuta* in its habits, giving preference to inland creeks and muddy shores, rather than to the open shingly beach, which is known to be the favourite resort of the latter. Although tolerably common on our coast during spring and autumn, we have no authentic account of its ever breeding with us; yet from the circumstance of numbers of immature birds having come under our notice, there can be no doubt that this delicate species, as well as the Dunlin and many others of its race, rear their young in some of our more secluded and extensive marshes. On the Continent its range appears to be universal, that is, on every line of coast favourable to its habits, and wide rivers and lakes offering a congenial habitat. Europe, however, is not the extent of its range, as is proved by its being dispersed over the North of Africa and the greater portion of Asia. Specimens have been received in collections from the high range of the Himalaya.

The summer plumage of this species is much darker than that of winter, the back and whole upper surface being covered with numerous markings of blackish brown. The young of the year may at all times be distinguished by the semilunar edgings of black and grey which border the tips of each feather.

The food consists of flies and other insects, worms, and molluscous animals.

The female is rather larger than the male, but in their colouring the sexes offer no difference.

Forehead, top of the head, and whole of the upper surface greyish brown, the centre of each feather being blackish brown; over the eye an indistinct line of white; from the bill to the eye a pale brown streak; chin and throat white; sides of the neck and the breast greyish brown, with numerous small spots of dark brown; primaries dull brown slightly edged with white; secondaries and greater wing-coverts dull brown very slightly tipped with white; shaft of the first quill white, the others dull brown; belly, vent, and under tail-coverts white; tail consisting of twelve feathers, of which the six central ones are greyish brown, and the three outer ones on each side white; bill blackish brown; legs light olive brown; claws black.

We have figured an adult and young bird of the natural size.



PURPLE SANDPIPER.

Tringa maritima, *(Brunn.)*

Drawn from Nature & on stone by J. & E. Gould. *Printed by C. Hullmandel.*

PURPLE SANDPIPER.

Tringa maritima, *Brunn.*

Le Becasseau violet.

"The locality of this species," says Mr. Selby, "being strictly confined to the rocky coasts of the ocean, and seldom found upon the flat and sandy shores, (the usual resort of most of the maritime scolopaceous birds,) has occasioned its falling less frequently under the notice of ornithologists, and its history has been consequently involved in much obscurity, and there is some difficulty in collating the synonyms under which it has been described by different authors."

The most remarkable feature presented by this species of Sandpiper consists in the great difference of colour between it and the rest of the genus, the plumage during a great portion of the year, and especially the breeding-season, having a rich violet lustre; we have also seen specimens exhibiting traces of the barred markings of black and red, so conspicuous in the Knot (*Tringa Canutus*), to which species the Purple Sandpiper evidently bears a close affinity. The specimens referred to as resembling the Knot were, we must observe, from the region of the Arctic circle, whither this bird is supposed to retire, for the purpose of incubation, when it leaves us in April, and from whence it again returns to the temperate portions of Europe early in autumn, appearing in our island in October, and frequenting the rocky shores, particularly promontories, artificial jetties, and embankments. On the Northumberland coast and in the Fern Islands, Mr. Selby informs us it is very common, and he further remarks that he has met with the young in the month of June, a circumstance which proves that at least occasionally it breeds in our island.

Like many other species of the genus it congregates in small flocks, and has the same wheeling flight which distinguishes the Dunlin, &c.

Its food consists of small shelled mollusca, marine plants, and minute crustacea.

The Purple Sandpiper appears to be very widely distributed, at least over the northern portions of the globe, being common in the northern parts of America, as well as those of Europe and Asia.

In winter the head and neck are greyish black tinged with brown; orbits, eye-streak, and chin greyish white; breast grey inclining to brown, many of the feathers being darker in the centre and margined with white; belly and under tail-coverts white, streaked and spotted with dark brown; back and scapulars greyish black with purple reflections, and each feather margined with grey; wing-coverts greyish black margined and tipped with white, forming a bar across the wings; secondaries nearest the tertials almost wholly white, the rest only tipped with white; rump and upper tail-coverts blackish brown; middle tail-feathers greyish black; outer ones lighter grey margined with white; bill reddish orange at the base; blackish at the tip; legs and feet ochreous yellow.

In summer the whole of the plumage becomes darker, the purple hue more conspicuous; the feathers on the head are margined with greyish white, and the spots on the breast are more distinct.

In the young the whole of the plumage is of a dull greyish black, margined with dirty yellowish brown; the sides of the neck and breast are grey, with darker streaks; and the flanks and under tail-coverts are streaked longitudinally with deep ash grey.

We have figured an adult of the natural size.



SANDERLING.
Arenaria Calidris; (Meyer).

Drawn from Nature & on stone by J. & E. Gould.

Printed by C. Hullmandel.

Genus ARENARIA, *Bechst.*

Gen. Char. *Bill* as long as the head, straight, slender, semi-flexible, compressed at the base, with the tip dilated and smooth. *Nostrils* lateral, basal, narrow, longitudinally cleft in the nasal furrow, which extends to the dertrum or nail of the bill. *Wings* of mean length, acuminate, with the first quill-feather the longest. *Legs* of mean length, naked above the tarsal joint. *Feet* three-toed, all the toes directed forwards, with a very small connecting membrane at their base.

SANDERLING.

Arenaria Calidris, *Meyer.*

Le Sanderling variable.

The Sanderling is one of the few birds whose distribution may be considered as almost universal, a circumstance probably to be accounted for by the great powers of flight and the extreme high northern latitudes to which it is known to retire for the purpose of breeding, from whence it would appear to radiate not only over the sea-shores of the Old World, but also over those of the New, extending its migration during winter to within the tropics. It is very plentiful in Brazil, whence we have received specimens which do not present the slightest difference either from those of our own island or from those of Africa and Asia.

From the dreary regions of a northern clime they commence an early return to more temperate latitudes, and it not unfrequently happens that the Sanderling may be observed on our shores as early as the month of August, "at which time," says Mr. Selby, "I have killed several individuals upon the Northumbrian strand. These have generally been the young of the year, and are probably stragglers from flocks of the earliest broods which were destined to reach more southern latitudes, as the great body that resorts to our shores and those of the opposite continent, seldom arrives before the middle of September."

The actions of the Sanderling while on the ground are characterized by the greatest activity, and bear a striking resemblance to those of many of the smaller *Charadriadæ*, among which, particularly the Ring Dottrel, it is often associated.

Its food consists of insects of various kinds, but more particularly the smaller *Coleoptera*, in the capture of which it displays the greatest agility. Its flight is rapid and vigorous; hence it is enabled to perform considerable migrations in a comparatively short space of time.

There is no member of the family to which the Sanderling belongs that exhibits a greater change of plumage than takes place in this species; in fact, were we not acquainted with the peculiar law relative to the members of this group, and had two examples of this bird been presented to us for the first time, one in the plumage of summer and the other in that of winter, we should undoubtedly have pronounced them to have been distinct species.

The nest and eggs are at present unknown.

In winter the forehead, sides of the neck, and all the under surface are pure white; crown, nape of the neck, back and scapulars ash grey, with the shafts blackish brown; secondaries brown, with white tips which form a bar across the wings; outer webs of the greater quills deep brown, and their shafts white; middle tail-feathers brown margined with white; outer ones greyish white; bill and legs black.

In summer the crown and the forehead are black, each feather margined with pale reddish brown and white; throat, neck, and breast mingled reddish brown, ash grey, and brownish black; back and scapulars reddish brown irregularly blotched and spotted with black; greater coverts blackish brown margined and tipped with white, forming a bar across the wings.

The young before the first moult have the forehead, a streak over the eye, cheeks, and throat white; at the lower part of the neck a band of yellowish white passing into ash grey; all the under surface white; crown of the head black margined and spotted with pale buff; nape pale grey with streaks of a darker tint; back and scapulars black margined and spotted with white; tertials brown margined with greyish white; legs blackish grey.

We have figured two birds, one in the summer, the other in the winter plumage, of the natural size.



RED-NECKED PHALAROPE.

Phalaropus Hyperboreus; *(Lath.)*

Drawn from Life & on Stone by J. & E. Gould.

Printed by C. Hullmandel.

Genus PHALAROPUS, *Briss.*

Gen. Char. *Beak* straight, depressed at its base; both *mandibles* furrowed as far as the point, the tip of the upper one obtuse, and bending over the under, which is pointed. *Nostrils* basal, lateral, oval, encircled by a membrane. *Feet* moderate, slender. *Tarsi* compressed. *Toes*, three before and one behind, those in front united as far as the first joint by a membrane which is continued to their extremities in indented festoons; the hind toe having only the rudiments of a membrane. *Wings* lengthened; the first *quill-feather* longest.

RED-NECKED PHALAROPE.

Phalaropus hyperboreus, *Lath.*

Le Phalarope hyperboré.

The two species of Phalaropes which are recognised as natives of Europe, have in their different stages of plumage received various synonyms; and the present species, from its more lengthened and attenuated bill, has been separated by M. Cuvier, and advanced to rank as a genus, which he has designated *Lobipes*. With the views of this great naturalist we do not in the present instance concur; being unwilling that birds agreeing so closely as these in habits, manners, and food, should be separated: though it must at the same time be confessed that as the modification the bird here figured exhibits in the structure of the beak, points out a degree of affinity to the genus *Totanus*, so on the contrary the other species evinces an approach to the *Tringas*, *T. hypoleucos* for example; a bird which although it does not swim, except from necessity, is certainly endowed with that power beyond its congeners. Retaining, however, the two European species under one and the same genus, we may proceed to observe, that the Red-necked Phalarope is the least of the two, and that the elegance of its form, together with the grace and ease of its actions on the water, cannot but excite the admiration of every lover of Nature. It more particularly inhabits the northern portion of the globe, being found both in Europe and America, frequenting the shores of the sea and large sheets of water whether fresh or salt, but more especially the latter. In the British dominions,—Scotland, and its northern and western Isles, are the most frequent places of resort, where it also breeds; the specimens from which our figures were taken having been collected among the Shetland Islands, in their mature and breeding plumage during the season of 1832, by Mr. Dunn of Hull, who informs us that they were by no means uncommon, and that their familiar and unsuspecting habits rendered them easy of acquisition. Their nests, which have been found among the lochs of Sanda, as described by Mr. Salmon, were placed in small tufts of grass growing close to the edge of the water; the eggs four, one inch two lines in length, and ten lines and a half in breadth, olive-brown spotted and specked with brownish black. M. Temminck states that in Germany and Holland this bird is of rare occurrence.

As we might expect from the lengthened form of the wings, the power of flight which the Red-necked Phalarope possesses is very considerable; nor is it less endowed with facilities for swimming, not only upon the smooth surface of lakes and ponds, where it is sometimes seen, but also upon the rougher billows of the ocean far from shore, where it finds itself quite secure. On land it does not display that lightness and activity which characterize the *Tringa* in general; in its lobed feet, however, it possesses an advantage over that tribe in being able to walk on the soft and oozy mud which covers the sides of creeks and estuaries, among which it finds its principal food, consisting of insects, worms, and minute mollusca.

The changes of plumage which this bird undergoes are but little understood; we know, however, that the young differ materially from the adult birds, having a lighter colouring of plumage, wanting the red on the sides of the neck, and all their feathers being margined with greyish white. M. Temminck, as well as other naturalists, has fallen into an error respecting the sexual differences which characterize the Phalaropes, the Sandpipers and Plovers, the Ruff excepted,—viz. in considering the largest and richest-coloured birds to be males, whereas the contrary is in reality the case. This law appears to prevail with most of those birds that produce but one brood of young during the summer, and the females are further remarkable for laying very large eggs in proportion to the size of the bird.

We take our description from adult specimens now before us. The whole of the head, the back of the neck, the breast and flank, are of a dark ash colour; throat, belly and vent, white; between the breast and throat intervenes a broad patch of beautiful chestnut-red; the remainder of the upper plumage of a brownish black, the feathers having a rufous margin; secondaries tipped with white, which forms a band across the wings; bill black; irides brown; feet olive-brown. Length about six inches.

We have figured both sexes in their summer plumage; the female will be readily distinguished by her more brilliant colour and larger size.



GREY PHALAROPE.

Phalaropus platyrhynchus; *(Temm.)*

Drawn from Life and on Stone by J. & E. Gould.

Printed by C. Hullmandel.

GREY PHALAROPE.

Phalaropus platyrhynchus, *Temm.*

Le Phalarope platyrhynque.

This bird can no longer be ranked among the rarities of our British catalogue, from its frequent occurrence and the many instances of its capture of late years in this country, particularly in its winter plumage, in which state it is known by the name of Grey Phalarope ;—a mode of nomenclature which, referring to one state only, we consider by no means appropriate to birds that undergo various periodical changes of plumage. Indeed, were it not for adding to the list of synonyms, already too numerous, we should have ventured to designate the present species "the Broad-beaked Phalarope," in order to distinguish it from its congeners, from which it differs so much in this single character ; we retain, however, the name of Grey Phalarope, as it is generally used by British Ornithologists.

The native habitat of this species is well known to be the regions extending within the limits of the Arctic circle, where it takes up its summer abode, migrating as the severity of winter comes on to more temperate climes, and dispersing singly or in pairs throughout most of the countries of Europe, especially the British Islands ; nor is it less abundant in many parts of Asia, as well as of America, from the northern towards the intertropical regions. Although the powers of wing, which enable the Phalaropes to make extensive migrations, are very great, still we do not look for their periodical visits with that degree of certainty and regularity which characterizes the migrations of birds in general. The places, moreover, which it not uncommonly chooses for residence during its sojourn with us, are such as would possess for it, according to our ideas, but little attraction ; thus, for instance, it will often continue for weeks together, if unmolested, about a farm-yard pond or mere puddle, manifesting a familiar and unsuspecting disposition, and allowing itself to be approached with freedom ; it does not, however, appear to confine itself much longer to one spot, but after remaining at a certain place from one to three or four weeks, suddenly departs, if on the approach of spring, towards the north, and in autumn towards the south ;—every European country in fact appears to be equally visited, although at uncertain and often long intervals.

Like the other species, it is an admirable swimmer, taking its food on the surface of the water with the utmost agility and address ; indeed it appears to seek its nourishment there alone, and may be watched, while assiduously engaged in this occupation, displaying a thousand graceful attitudes and manœuvres.

Though usually seen in England in its grey or winter livery, it sometimes occurs in an intermediate state during the progress of change, and occasionally, though very rarely, in its red or summer plumage. Our most frequent visitors of this species are young birds of the year, which make their appearance during autumn, and are then for the first time putting forth the delicate grey feathers of the back, which they carry through the winter.

We transcribe from the published account of these birds by Captain Edward Sabine, some particulars of the difference in the size of the sexes, and of their plumage, which had been previously unnoticed. "Average length of males 7 inches 6 lines ; extent 16 inches 2 lines ; weight 1¾ ounce. Females 8 inches 4 lines ; extent 17 inches ; weight 2 ounces. The breeding plumage of the male corresponds minutely with the description which Temminck has assigned to both sexes : the female has the forehead, crown and hind head a uniform deep sooty black, without intermixture of orange or red : the band which passes through the eye is a pure white, and is larger and better defined than in the male, including more space above and in front of the eye ; the black predominates in the back and scapulars, the orange bordering of the feathers being smaller and much lighter than in the male ; the under plumage is of a deeper and richer brick-red colour, and is unmixed with white feathers for a much longer portion of the season ; the female bird attains her perfect plumage earlier in the year, and retains it longer than the male, which is also the case with several other of the Northern birds."

Few birds differ so much in the winter and summer states of their plumage as the present, the transition being from a strong reddish brown to a delicate silver grey.

The nest is unknown, or, at least as far as we are acquainted, is undescribed ; the eggs are one inch two lines and a half long, and eleven lines across, of a greenish stone colour, spotted and specked with black.



COOT.

Fulica ater. *(Linn.)*

E. Lear del et lith.

Printed by C. Hullmandel.

Genus FULICA.

Gen. Char. *Bill* shorter than the head, strong, straight, subconical, compressed, much higher than broad, the culmen of the upper mandible distended into a broad shell-like plate, which extends over a portion of the forehead. *Nostrils* concave, pierced in the membrane of the mandibular furrow near the middle of the bill, pervious, linear, and oblong. *Wings* with the second and third quill-feathers the longest. *Tail* short. *Legs* of mean length and strength; naked above the tarsal joint. *Feet* four-toed, three before and one behind. *Toes* long, united at the base, and lobated, the inner one with two, the outer one with four, distinct round membranes: middle toe longer than the tarsus.

COOT.

Fulica ater, *Linn.*

Le Folque macroule.

The Coot is indigenous to our islands, residing on all large sheets of water, whether flowing or stagnant, but giving preference to those overgrown with rushes and margined with a belt of thick reeds and luxuriant vegetation. It abounds in equal numbers throughout the continent of Europe, particularly in Holland, France, and Germany. In the secluded situations above mentioned it prepares early in the spring for the work of incubation, building a large, strong, and solid nest composed of rushes, various grasses, and aquatic plants. The nest thus put together rises above the level of the water, the mass of compacted materials in some cases resting on the bottom, where the shallowness of the water will admit, but is more frequently intermingled with the tufts of vegetation which grow in abundance on the water's edge and partially conceal it from view. On this raft the female deposits her eggs, which are of a brownish white spotted with dark brown, and from seven to ten in number, and there patiently performs her allotted task. The young when first excluded are clothed with a black down, and actively take to the water, attended by their assiduous parent, who may be often seen thus leading her tribe of nestlings in the earnest search for food, which consists of seeds, aquatic plants, insects, and mollusca.

When winter covers the ponds, lakes, and canals with ice, thus cutting off every needful supply, the Coot leaves its secluded quiet haunts of summer, and seeks the wide stream of the larger rivers, venturing even as far as their embouchures in the sea. At Southampton, multitudes annually visit the river during this season, disappearing on the approach of spring; and it is generally observed, that from October the places where they have taken up their summer abode are deserted till the month of April, when they again make their appearance.

It seems almost needless to say that few birds swim more easily or gracefully than the Coot; it also dives with considerable facility: on wing, however, it is slow and embarrassed, and, indeed, seldom rises unless so pressed that no other means of escape present themselves. On land it trips along with great facility, and, indeed, may be often observed reposing on the bank, or, like the Gallinule, traversing up and down in quest of worms and slugs, which it devours with much avidity. If surprised, it immediately plunges into the water and makes its way as rapidly as possible to the dense covert of reeds or rushes, where it is effectually concealed.

No external difference characterizes the sexes; nor do the young of the year exhibit any difference, except that the frontal plate is imperfectly developed.

The general plumage is deep greyish black, with a tinge of blue on the under surface; bill and frontal plate white; irides scarlet; naked part of the tibiæ orange; tarsi and toes olive green, the former tinged with yellow.

Our Plate represents an adult bird rather less than the natural size.

WATER RAIL.

Rallus aquaticus, (Linné)



Genus RALLUS, *Linn.*

Gen. Char. *Beak* slender, longer than the head, slightly arched or straight, compressed at its base, cylindrical at its point; the upper *mandible* furrowed. *Nostrils* communicating, lateral, opened longitudinally in the furrow, partly closed by a membrane. *Tarsi* long and strong, naked above the knees. *Toes* three before and one behind; the anterior ones divided; the posterior articulated upon the tarsus. *Wings* moderate and rounded; the third and fourth *quill-feathers* longest.

WATER RAIL.

Rallus aquaticus, *Linn.*

Le Rale d'Eau.

The Water Rail is very generally dispersed over Europe, but abounds principally in the low flat lands of Holland, France and Germany, where fresh-water morasses, swamps, and rivers afford a congenial and native habitat; and although never observed in any abundance in the British Islands, the apparent scarcity must be attributed rather to its cunning and retired habits than to its being really a rare bird. Except when closely pressed, the Water Rail seldom takes to flight, but evades pursuit by quietly yet quickly traversing the bottoms of thick-set reed-beds and banks overgrown with luxuriant vegetation, bordering the sides of pools and ditches, where it finds a covert, through which its slender and compressed form enables it to pass with the greatest facility; besides which it possesses the power of swimming and diving, both of which materially aid its escape. Without denying the possibility of this bird being migratory, we have the strongest reason to believe that numbers remain with us during the whole of the year, frequenting during the summer season fen land, morasses, ponds, and ditches, about which it incubates; resorting on the approach of winter to the sides of our large streams and rivers. Its nest is composed of rushes and vegetable fibres, closely concealed among herbage, at a little elevation from the water; its nidification, in fact, closely resembles that of the Moorhen. Its eggs are of a yellowish white colour, marked with spots of red brown. Its food consists of worms, snails, soft insects and their larvæ, which abound in swampy places; vegetable substances also form a part. The young when first excluded from the egg are covered with black down, and are observed to be in perfect possession of the powers of swimming, and providing for their own safety and subsistence; remaining, however, under the parent's care and protection. In a short time their plumage undergoes a change; the feathers characterizing the species advance through the down, and they then nearly resemble the adult bird, but are to be distinguished by the breast and under parts being of a reddish brown, and the markings of the flanks more obscure and undefined. The sexes are alike in plumage, but the male is generally the largest. The throat is whitish; the sides of the head, neck, breast and belly of a blueish ash; the upper surface brown, the centre of each feather black; the feathers of the flanks are barred transversely with clear black and white; the under tail-coverts white; the beak red at its base, becoming gradually black towards the tip; irides reddish orange; feet and toes light brown.

We have figured an adult bird of its natural size.

HYACINTHINÆ. PORPHYRIO.

Porphyrio hyacinthinus, Temm.



Genus PORPHYRIO.

Gen. Char. *Bill* shorter than the head, strong, hard, thick, concave, nearly as high as long, culmen of the superior mandible depressed and dilated upon the forehead. *Nostrils* lateral, placed near the ridge, and pierced through the mandible. *Feet* strong. *Toes* long; each furnished with a fine lateral membrane. *Wings* moderate, the third or fourth quill-feather the longest.

HYACINTHINE PORPHYRIO.

Porphyrio hyacinthinus, *Temm.*

Le Talève Porphyrion.

The birds forming the restricted genus *Porphyrio* may be readily distinguished from the Gallinules (*Gallinula*) by the greater depth and richness of the colour of their plumage, by the extraordinary development of the feet, and by the robust form of the bill. Although the number of species is somewhat limited, they are widely distributed over the tropical portions of the Old World,

Independently of the southern and eastern parts of Europe, the marshes of which are the places of constant resort for this beautiful bird, its range is extended over a great portion of Africa to the south, and as far as the mountains of the Himalaya to the east. In Europe it is especially abundant in the Grecian Archipelago, the Levant, and the Ionian Islands; it is less common in Dalmatia and Sardinia. The southern provinces of Hungary and Russia, and the borders of the Caspian Sea, may also be enumerated among its European localities.

Like the Water-hen, or Common Gallinule, it dwells on the borders of rivers and in all marshy situations. In its food it is partly herbivorous, feeding on various kinds of marine vegetables; still, as the robust and hard character of its bill implies, it is destined to live upon other food, and hence we find it frequently giving a preference to hard seeds and grain, to which are added snails, frogs, and other aquatic animals.

Although its form would seem to deny the fact, its actions and appearance on the land are both elegant and graceful. It is extremely quick in all its movements, running with ease and swiftness; and from the great expansion of its feet it is enabled to pass with facility over soft oozy mud, aquatic herbage, &c.: but although much agility characterizes this species on land, its aërial evolutions are heavy, and apparently performed with considerable difficulty.

The sexes offer no difference in the colour of their plumage. They breed in marshes, much in the manner of the Common Gallinule, giving preference to the sedgy parts of the morass and partly inundated rice-fields, where it constructs a nest of aquatic plants, and lays three or four white eggs that are nearly round.

Bill fine red; legs and feet fleshy red; irides lake red; cheeks, throat, sides of the neck, and chest turquoise blue; remainder of the plumage deep dull indigo blue, having the edges of the greater and lesser coverts of the wings lighter in colour and more brilliant; under tail:coverts white.

The Plate represents an adult of the natural size.

LAND RAIL.

Gallinula crex, Linn.



Genus GALLINULA.

Gen. Char. *Bill* shorter than the head, compressed, conical, higher than broad at the base, the ridge advancing on the forehead, and dilating itself in some species into a naked plate; *mandibles* of equal length, the points of both compressed, the upper slightly curved; the *nasal grooves* very large, communicating. *Nostrils* lateral, longitudinal in the middle of beak, partly closed by membrane. *Legs* long, naked above the knee. *Toes,* three before, and one behind. *Wings* moderate, and slightly rounded.

LAND RAIL.

Gallinula crex, *Lath.*

Le Rale de Gennet.

The Land Rail appears to be extensively spread over the whole continent of Europe; it is very abundant in Holland, and not uncommon in France and Germany. It is a migratory species, arriving with us about the latter end of April or the beginning of May, when it scatters itself in pairs over the whole of the British Isles. Its habits are extremely shy and retiring, selecting for its places of abode grassy meadows, fields of young corn, ozier-beds, and marshy grounds, seldom allowing itself to be seen; and were it not for the peculiar note of the male, which consists of a singular grating *monotone*,—sometimes sounding as if beneath one's feet, and again appearing as if uttered at a distance,—its presence would not be betrayed. In these its favourite places of resort and concealment it carries on the process of incubation, constructing its nest on the ground, and occasionally on small hillocks; the nest being composed of slender flags or grasses; the female laying from eight to twelve eggs, rather less than those of the Moor-hen, to which in the markings they bear some resemblance, of a yellowish-white, covered with dull rust-coloured spots. The young when hatched are covered with a black down, and are soon able to follow the parent birds, attaining by the commencement of the shooting season nearly the adult size and plumage, when they are often killed by the sportsman, and much sought after by the epicure, being esteemed a great delicacy.

It is with difficulty forced to take wing, but runs with great rapidity before the pursuer, whom in general it readily eludes.

Its flight is very short and embarrassed, with the legs hanging down; and it evidently trusts for safety more to its activity on the ground, and to the seclusion afforded by the herbage beneath which it crouches.

In autumn, when the fields and meadows no longer afford cover for its concealment, it retires to brakes and thickets, and its note is seldom heard. In the latter part of October they commence their migration southwards, passing over to the Continent; leaving occasionally a few feeble or wounded birds behind, which remain with us during the winter.

The male and female are alike in plumage: their food consists of insects and their larvæ, such as grasshoppers, &c., as also worms, snails, vegetables, seeds, and grain.

The bill and legs are flesh-coloured; irides hazel; over the eye a large ash-coloured mark, which extends towards the occiput; the top of the head and the whole of the upper surface of the body of a rufous brown, the feathers of the back having a black mark in the centre; the shoulders and quill-feathers of a light chestnut; the sides light brown, marked with darker transverse bars; breast ash-colour, inclining to a lighter tinge on the under parts.

Length nine inches and a half; weight seven or eight ounces.

The figure in our Plate is that of an adult in its spring plumage.



COMMON GALLINULE.

Gallinula Chloropus. *Lath.*

Drawn from Nature & on stone by J. & E. Gould.

Printed by C. Hullmandel.

COMMON GALLINULE.

Gallinula chloropus, *Lath.*

La Poule d'Eau ordinaire.

This common species appears not only to be dispersed over the whole of Europe, but extends its range over the greater portion of Africa and India; and, in fact, like the Peregrine Falcon and Barn Owl, it may be said to be universally distributed over the globe: it is even questioned among some of our most able naturalists whether those from tropical America, China, and the islands of the Pacific, which exhibit the most trifling marks of difference, should not be considered as identically one and the same species. In the British Islands it dwells in rivers, ponds, sedgy districts, and all low marshy situations. During the severities of winter, when all our inland waters are frozen over, it retires to the larger streams and rivulets, which afford it during the rigorous weather not only a better protection against the sportsman, but also a supply of food, which could not be procured on the banks of its favourite pond or accustomed residence. Although its long and thin toes would appear to be but little adapted for such a purpose, it nevertheless possesses the greatest facility for diving, which power it not unfrequently makes use of for the purpose of obtaining water-snails, insects, and their larvæ, which, with tender weeds and grasses found at the bottom of the stream, constitute part of its food. In less rigorous weather it may frequently be seen on land, particularly in meadows and grass-fields, feeding upon worms and insects, and when thus observed its actions are both elegant and graceful; if unmolested it soon becomes less shy and retiring, and adds considerably to the life of the landscape. Its flight is heavy and awkward, and seems to be performed with great exertion. One circumstance respecting this familiar bird appears to have escaped the notice of most ornithologists, we allude to the fact of the female being clothed in a dark and rich plumage, and having the base of the bill and frontal shield of a bright crimson red tipped with fine yellow; her superiority in these respects has caused her to be mistaken for the male, which, contrary to the general rule, is at all times clothed in a duller plumage, and has the upper surface more olive than in the female; the bill is also less richly tinted. We were first led to notice this fact in consequence of observing the birds sitting or rising from the nest to be those whose richly coloured bills had induced us to believe them to be males, and which the dissection of a great number of individuals has now fully proved to us to be the females. Besides this difference in colouring, the sexes vary in size, the female being about one fifth less than her mate.

The nest of the Common Gallinule is neatly constructed of flags and weeds, and is placed among the rushes in the most retired parts of the brook or pond. The eggs are from five to nine in number, of a pale yellowish brown spotted all over with red. The young, which are hatched after an interval of three weeks from the time the female commences sitting, are clothed with a black down, and so strictly aquatic are they in their habits that they take to the water the moment after they are excluded from the shell, and are in immediate possession of all the faculties requisite for obtaining their subsistence, feeding on water-insects, flies, &c. At this tender age they encounter many enemies, and require the most assiduous care of their parents to protect them from the attack of rats, weasels, and the voracious pike, which commits the most destructive havoc not only among the young of this species but also those of many other kinds of water-fowl. The young during the first autumn, although equal to the adults in size, have a much lighter plumage, the whole of the throat and under surface being then greyish white and the bill and legs olive.

The male has the bill red at the base strongly tinged with olive; the whole of the upper parts olive brown; breast and under parts dark bluish grey tinged with olive; the centre of each feather on the flanks is blotched with a large oblong patch of white, which is the colour of the under tail-coverts; irides red; tarsi and toes greenish olive, the former being encircled with a red mark immediately above the tarsal joint, which is commonly called the *garter*.

The distinguishing characters of the female and young being given above, it is unnecessary to repeat them here.

The Plate represents an adult female and a young bird of the first year, of the natural size.

Drawn from Nature & on Stone by J & E Gould.

Printed by C Hullmandel.

SPOTTED CRAKE.

Zapornia Porzana



Genus ZAPORNIA, *Leach.*

GEN. CHAR. *Beak* slender, shorter than the head, acuminated, compressed, acute; the upper mandible gradually incurved. *Nostrils* linear, lateral, placed at the base of the beak. *Neck* elongated and slender. *Legs* long, slender, cleft, with three toes in front: the hinder toe elevated from the ground at its base: the tibiæ half naked.

SPOTTED CRAKE.

Zapornia porzana.

La Poule d'Eau Maronette.

ALTHOUGH the group of which the Land Rail is the type, and the members of the present genus, approximate very closely, still they differ so much in their general habits and in their style of colouring that we are inclined to admit the validity of their separation; and although the present bird was not included by Dr. Leach in the genus he established, we conceive that it strictly belongs to it, and have consequently associated it with the two other species *Zapornia pusilla* and *Zap. Baillonii.*

With regard to their economy and habits, while the Land Rail is entirely confined to meadows and fields, the Spotted Crake and its congeners, on the contrary, are strictly aquatic, so much so, indeed, as to make the waters their constant asylum; and although not web-footed, they swim with the greatest facility. The dense vegetation along the borders of marshes and pools is the situation to which they are particularly attached: they are rarely seen on the wing, and are scarcely ever flushed unless closely pursued by a dog.

The Spotted Crake is found in the North of Asia, is particularly abundant in the northern and eastern parts of Europe, and in the British Islands is a periodical visitor, arriving early in spring and departing on the approach of the severities of winter.

"Its nest," says Mr. Selby, "is built among the thick sedges and reeds of the marshes, and from the foundation of it being frequently placed in water, is composed of a large mass of decayed aquatic plants interlaced, with the hollow neatly formed, and comfortably lined. The eggs are eight or ten in number, of a yellowish grey colour, with a tinge of pink, and with round spots of umber brown of various sizes, and with other secondary colours of a lighter shade. It feeds on worms, aquatic insects, slugs, seeds, &c.; and its flesh is sweet and well flavoured. In autumn it becomes loaded with fat, a layer of nearly a quarter of an inch in thickness covering the whole surface of its body."

The sexes have no distinguishable difference in the colouring of their plumage, nor do the young of the year offer any considerable variation in their colour or markings.

Crown of the head and the whole of the upper surface deep greenish olive speckled with white, the centre of each feather very dark; wing-coverts and secondaries spotted and crossed transversely with irregular markings of greyish white and black; primaries dark olive brown, edged with greenish olive; stripe over the eye and throat grey; sides of the neck, breast, and under surface pale greenish olive, spotted and transversely barred with greyish white bounded by black; bill red at the base and yellow at the tip; legs olive yellow.

The Plate represents an adult of the natural size.



BAILLON'S CRAKE.

Zaporna Baillonii, *(Leach)*

Drawn from Nature & on Stone by J. & E. Gould.

Printed by C. Hullmandel.

BAILLON'S CRAKE.

Zapornia Baillonii, *Leach.*

Poule-d'eau Baillon.

The very prettily marked bird figured in our Plate is the smallest of the European Crakes, and although long known on the Continent, it is only since the days of Montagu that this species has been added to our British catalogue; it being considered as established—from the opportunities of examining both the specimens that formerly belonged to our indefatigable English ornithologist, and which are now in the British Museum, as well as the specimen which belonged to Mr. Plasted of Chelsea, also referred to in the Supplement to Montagu's Ornithological Dictionary,—that neither of those birds belong to the species now under consideration, which latter appears to have been obtained in this country more frequently than *Z. pusilla*, and of which we have examined a variety of specimens, continental as well as British, in different states of plumage. We may here mention as a particular mark of distinction, to which we have as yet seen no exception, that, when adult, *pusilla* exhibits on the upper surface but a few indistinct white marks, and those confined to a small space on the centre of the back only; in *Baillonii*, on the contrary, these white marks are very numerous, occupying several distinct situations, namely, the central line of the back, and the scapulars, wing-coverts, and tertial feathers on both sides. These white marks, placed on a black ground, forming the centre of each feather, are so conspicuous and brilliant as to have led M. Temminck originally to select the term *stellaris* for this species; but he subsequently proposed to change *stellaris* for *Baillonii*, as a compliment due to the celebrated naturalist of Abbeville; and this latter name has been received and adopted.

Baillon's Crake inhabits the southern and south-eastern portions of Europe, is rather common in Italy, and found in several provinces of France. In England it can be considered but as an occasional visitor, and has only been obtained in the south-eastern part. The most usual places of resort with this species are the banks of rivers, large lakes, ponds and marshes, where aquatic vegetation is in luxuriance. In such situations its timid nature finds a secure retreat, and passing its small and delicate form through the thick herbage with great ease, it can rarely be made to take wing. It is said to be able to swim and dive very readily, and makes its nest near the water's edge, in which it deposits seven or eight eggs, not unlike a large olive in form, size, and ground-colour, but spotted with darker greenish brown. Its food consists of worms, slugs and insects, with portions of vegetables and seeds. A specimen in the collection of the Rev. Dr. Thackeray, Provost of King's College, Cambridge, was taken during a cold and frosty January on some ice near Melbourn, about nine miles south of Cambridge. To this spot, originally fen land, the poor bird had resorted in an inclement season to obtain a meal, but having wandered far from its native and more congenial latitude, was so exhausted by want of food or the low temperature of the season, or the combined effects of both, as to allow itself to be taken alive by the hand.

In adult males the forehead, eyebrows, sides of the neck, and the whole of the under surface are of a dark-blue grey, almost approaching to black on the belly and flanks, which are barred with white; the top of the head, back of the neck, and all the feathers on the upper surface of the body, of a rich olive brown, the centre of each feather more or less pervaded with black; those of the middle of the back, scapulars, wing-coverts, and tertials splashed with pure white; the primaries are dark brown, and extend only to the middle of the tail-feathers, which are also dark like the primaries, but edged with olive brown, the marginal markings becoming narrower as the bird increases in age. Beak green; irides hazel; legs flesh colour, but darkest in adult birds. Several examples averaged seven inches in length, from the point of the beak to the end of the tail.

Adult females differ but little from the males, except that their general colours are less vivid. Young birds have the chin and throat white, the neck, breast and belly mottled with reddish brown, dusky black and dull white; abdomen and flanks less distinctly marked by black and white, the alternate bars not so well defined, and the two colours much less decided.

We have figured an adult and a young bird of the natural size.



LITTLE CRAKE.

Zapornia pusilla. (Steph.)

Drawn from Nature & on Stone by J. & E. Gould.

Printed by C. Hullmandel.

LITTLE CRAKE.

Zapornia pusilla, *Steph.*

Poule d'eau Poussin.

We have preserved the term *Little*, given to this species by Montagu, although the bird is somewhat larger than that named after M. Baillon, which has also occurred in this country even more frequently than the subject of the present article. Indeed, except the examples obtained by Montagu, that which belonged to Mr. Plasted of Chelsea—also noticed by Montagu in the Supplement to his Ornithological Dictionary,—and a specimen taken alive in a drain in Ardwick meadows, near Manchester, in the autumn of 1807, by Mr. James Hall, as recorded in Loudon's Magazine of Natural History, vol. 2. p. 275, we are not aware of any other instances of this species having been obtained in this country. This Little Crake is, however, by no means so rare on the European Continent: it is even common in the eastern countries of Europe, in Italy and in Germany; more rare in the northern parts of France, and only occasionally taken in Holland. It principally frequents marshes, but is sometimes seen on the higher and more cultivated soils. The habits of the smaller species of Gallinules, says Montagu, are their principal security: they are not only capable of diving and concealing their bodies under water, with only the beak above the surface to secure respiration, but run with celerity, and conceal themselves amongst the rushes and flags of swampy places, and are with difficulty roused even with the assistance of dogs, depending more on concealment in thick cover than upon their wings to avoid danger. Insects, slugs, the softer aquatic vegetables and seeds are the principal food of this species. It constructs a nest among reeds, upon the broken stems of rushes and water plants, and lays seven or eight oval-shaped eggs, of a yellowish brown colour, spotted with elongated marks of darker olive brown. In the adult male, the eyebrows, cheeks, front and sides of the neck, breast and belly are of uniform slate grey, without any spots; abdomen and flanks mixed and barred with brown and white; the top of the head and all the upper parts generally olive brown, the feathers on the middle of the back much darker in colour, almost black, and varied with a few white marks, but without any white on the wings or wing-coverts; the tertials dark in the centre, olive brown at the edge; the primaries uniform dusky; under tail-coverts dark lead colour, almost black, but barred with white; beak olive green; the base orange yellow; irides reddish hazel; legs and toes olive green; length seven inches and a half.

Notwithstanding some slight differences, we believe the Olivaceous Gallinule of Montagu to be identical with the adult male bird here described; and we also consider his little Gallinule to be a young bird of this same species, which may be thus described; eyebrows and sides of the head light ash colour; throat whitish; chest and belly brownish buff, thighs and flanks ash coloured, barred with brown and white; under tail-coverts tipped with white; upper parts reddish brown; the dark space on the middle of the back varied with a few white spots; wing-coverts olive; beak olive without the orange base; eyes dark hazel; legs and feet olive. Whole length seven inches and a half. Young birds are still lighter in their general colouring; the whole of the throat and neck is whitish; the white marks on the back are very few in number, or scarcely perceptible; and the feathers on the flanks are brown, with white bars, without the ash colour.

We have figured an adult male and young bird of the natural size.

VOL IV 01C

GOULD'S
BIRDS
OF
EUROPE

VOL. IV.

RASORES
GRALLATORES

1837