

**A pocket-book of British birds / by E.F.M. Elms.**

**Contributors**

Elms, E. F. M.

**Publication/Creation**

London : West, Newman & co. [etc.], 1906.

**Persistent URL**

<https://wellcomecollection.org/works/a36umuyx>

**License and attribution**

Conditions of use: it is possible this item is protected by copyright and/or related rights. You are free to use this item in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s).



Wellcome Collection  
183 Euston Road  
London NW1 2BE UK  
T +44 (0)20 7611 8722  
E [library@wellcomecollection.org](mailto:library@wellcomecollection.org)  
<https://wellcomecollection.org>

# Pocket-Book of British Birds

E. F. M. Elms

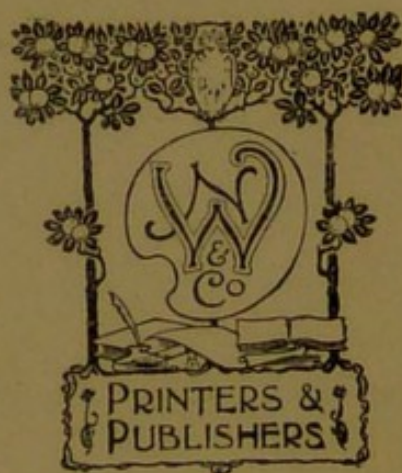


22102057493

**Med**  
**K5927**



A POCKET-BOOK OF BRITISH BIRDS



85433

# A POCKET-BOOK OF BRITISH BIRDS

BY

E. F. M. ELMS

WEST, NEWMAN & CO., 54, HATTON GARDEN

SIMPKIN, MARSHALL & Co., LTD.

—  
1906

16 160365

"Take not away the life you cannot give,  
For all things have an equal right to live."

DRYDEN.

"Oh! let not, aim'd from some inhuman eye,  
The gun, the music of the coming year  
Destroy; and harmless, unsuspecting harm,  
Lay the weak tribes, a miserable prey,  
In mingled murder, fluttering on the ground."

THOMSON.

"No birds that haunt my valley free  
To slaughter I condemn;  
Taught by the Power that pities me,  
I learn to pity them."

WELLCOME INSTITUTE LIBRARY	
Coll.	welMOmec
Call No.	
	QL

## PREFACE.

---

As introductory to this little book, I think it is desirable that its object should, in the first place, be explained. It is intended solely for the purposes of reference in the field, and has been very carefully compiled by the combined aid of well-known ornithological works, coupled with practical observations and notes made by myself from time to time in various parts of the British Isles. The book is of a small size, and should be carried in the pocket, where it would always be handy.

I am aware that an alphabetical arrangement has much to commend it, but I have refrained from adopting such for the very reason that, in the field, as elsewhere, the mind should be trained to regard birds as creatures belonging to some distinct order and family; accordingly I have adopted a scientific arrangement similar to that set forth in Howard Saunders's admirable 'Manual of British Birds,' a comprehensive work that all lovers and students of Ornithology, requiring more complete information, should at once consult.

Information will be found about all British birds that breed in these islands, and those that are regular visitors at one time of the year or another.

Rare species—in some cases irregular stragglers and perhaps unwilling visitors—hardly come within the scope of this book, as the chances of seeing them during a country ramble are very slight.

Dismissing at once those species of which only a few specimens have been observed or obtained in this country, there yet remain a goodly number of rare birds, and a short note about them is given, either because in many cases, though irregular in their visits, they may be seen in considerable numbers when they do come, or because, though admittedly rare, they so closely resemble other commoner kinds, that it is quite possible they may have been overlooked.

The various local names—and some species enjoy a long

string of aliases—are omitted, as inclusion of them would considerably swell the volume without materially enriching it. The most usual English name is given in every case.

Remarks as to a species being resident, intermigratory, or migratory are given. "May to September" means that the bird may usually be found in these islands from May and during the ensuing months till September.

The important subject of distribution is treated, setting forth the districts in which a species is most frequently met with, and *vice versâ* and the kind of locality it affects, under the heading of "Haunts."

When a species is at all likely to be confounded with another, a note under the heading of "Observations" is given, briefly setting forth how it may be distinguished.

The description of the plumage is not exhaustive, but the idea has been to characterize briefly the predominant and striking features of a bird's appearance in breeding plumage that most attract the eye, either with or without field-glasses. The winter plumage is also given where necessary, as some birds have a totally different dress at that time of the year. The plumage of the female and young bird is given, too, as in some cases the female is quite unlike the male, and the immature bird does not always bear a very close resemblance to its parents.

The language of a bird is another highly important matter, as sound knowledge of its various cries—*e. g.*, call-, alarm-, anxiety notes, &c.—are of great help in identification. It must be remembered that bird-cries are most difficult, some absolutely impossible, to render in writing, so that any attempts to syllabise their diversified notes, whether melodious or discordant, will, I trust, be given a little latitude.

Under the heading of "Habits" will be found a short description of any characteristics or peculiarities with which a certain kind of bird is endowed. Since volumes might be written on a bird's habits, it is at once obvious that the reader will find much that is left unsaid, and for full information should refer to some standard work on birds.

A note is inserted on the subject of food.

For the purposes of this book the usual time of the year for nidification, under normal conditions, is given; but birds are impulsive creatures, and the prevailing state of the weather has much to answer for, so that early nests may often be found should the weather be unusually mild. All birds will probably make a second nest if the first one be destroyed, so that "one brood" must be read as rearing only one brood in the year if unmolested. A great many species, however, have two, three, or more broods.

The sites given for the nest are those most commonly resorted to, and the particulars of the materials employed for the construction of the nest are those generally used; but many birds are adaptive, and it is no uncommon occurrence to find nests built in curious situations, and made with exceptional materials.

Finally, the eggs are briefly treated; the proper number in a clutch, and the usual type as regards colouring, markings, and shape, being described.

As regards the nests and eggs of birds, a fuller description will be found in 'Birdsnesting and Bird-skinning,' by the late Edward Newman, and revised by Miller Christy, a capital little pocket-book for field-work, containing, as it does, in addition to the information about nests and eggs, chapters on egg-collecting and bird-skinning. Provided with this and the 'Pocket-book of British Birds,' both the same size and comfortably carried in the pocket, and "armed" with no more terrible or destructive weapons than a field-glass, a note-book, and a pencil, and, in the case of a conscientious collector, a vasculum or collecting tin, the observer will be enabled to recognize and identify the birds encountered during the course of many a pleasant ramble, and thus add greatly to his enjoyment of the country.

In conclusion, I desire to acknowledge my indebtedness to the following works, from which I have obtained much useful information in compiling this little 'Pocket-Book':—

Howard Saunders's 'Manual of British Birds.'

Dr. A. G. Butler's 'British Birds, their Nests and Eggs.'

W. H. Hudson's 'British Birds.'

C. A. Witchell's 'Cries and Call-notes of Wild Birds.'

David T. Price's 'A Ready Aid to distinguish British Wild Birds.'

## AN APPEAL.

I should like to make a very earnest appeal to all lovers and students of Nature against the all too common evil of taking life unnecessarily, and the plundering of birds' nests that stand in urgent need of protection. There have been men who have killed for the mere lust of killing; some who have created a demand for British birds' skins and clutches of eggs; and others who have supplied this demand relentlessly; and as the natural sequel to such wholesale and indiscriminate slaughter and trafficking, we are on the verge of finding several kinds of our beautiful birds extinct, and many species, not so long ago common, now rare, and increasingly so. It has been proved that some kinds will, if protected, take up their abode with us, and upon the present generation devolves the happy task of affording to their utmost all the necessary facilities a rare bird must perforce have nowadays, to enable it to regain or uphold its status among our British Avifauna.

It is brought very poignantly home to us that unprincipled destruction of birds and their eggs is intolerably selfish, for it is with very harrowed feelings that one walks abroad to-day and finds the country-side less rich in its avifauna than it should be. Personally, and I am sure many will concur, I should like to see fewer obituary notices of birds in the papers devoted to Ornithology.

But if birds must be shot, and eggs taken, let it be carried on with discretion, and only as a means towards the always worthy end—the furtherance of our knowledge in this ever-interesting science. Let us lay down the gun more often, and take up the field-glasses. At least the latter “weapon” is worth a trial, and I most confidently believe that he who does so will speedily agree with me when I say that all creatures are vastly more interesting alive and enjoying their unrestrained freedom, than when consigned lifeless and mummified to the dark recesses of a cabinet.

E. F. M. ELMS.

*London, 1906.*

# Pocket-book of British Birds

---

## ORDER PASSERES.

### *Family TURDIDÆ.*

### *Subfamily TURDINÆ.*

#### MISSEL THRUSH (*Turdus viscivorus*).

Resident. Found throughout Great Britain; less common towards the North. Abundant in Ireland.

*Haunts*.—Woods, plantations, shady gardens, &c.

*Observation*.—Our largest Thrush, in appearance greyer than Song Thrush.

*Plumage*.—Upper parts greyish olive-brown; under parts buffish white with dark fan-shaped spots; under wing-coverts white, conspicuous in flight, as are also the white tips to tail feathers. Bill dark brown. Legs pale brown. Length 11 in. Female rather lighter than male. Young, under parts buff, which in adult become buffish white.

*Language*.—Song, loud, wild, disconnected, and abrupt; may be heard almost throughout the winter (hence Stormcock); when alarmed it utters angry screeches (hence Screech Thrush). Call-note, "tuc," several times repeated.

*Habits*.—On the ground the movements are rapid, with moments of motionless attention. Flight strong but undulating; when disturbed from nest it becomes extremely excited, dashing wildly about, and almost buffeting the intruder with its wings. Usually shy, but often assumes more temerity at breeding time.

*Food*.—Snails, slugs, worms, insects, and their larvæ. In winter—berries of various kinds, especially those of the mountain-ash and holly (hence Holm-screech), and mistletoe (hence Mistletoe Thrush). Small soft fruits in season.

*Nest*.—February or March onwards. Two broods.

*Site*.—In fork of some tree, on lateral branch; seldom in bushes, except sometimes in shrubberies.

*Materials*.—Small twigs, roots, dry grass, and moss, firmly compacted with mud, lined with dry grass and rootlets. Rather bulky and often untidy.

*Eggs*.—Four to five. Pale greenish blue, spotted and blotched with rich ruddy brown and pearl-grey or violet under-markings. Variable.

### SONG THRUSH OR THROSTLE (*Turdus musicus*).

Partially migrant. Abundant throughout Great Britain; rarer towards the North.

*Haunts*.—Pleasure-grounds, gardens, orchards, woods, and well-cultivated districts.

*Plumage*.—Upper parts olive-brown; wing-coverts tipped with buff, forming two bars; under parts buffish white well spotted with dark fan- or wedge-shaped markings. Bill dark brown. Legs pale brown. Length 9 in. Female rather smaller. Young, upper parts mottled with buff.

*Language*.—Song, loud and inspiring, though rather tending towards monotony as the same phrase is frequently practised over and over again. A persistent singer—often from October right through winter (on mild days) to June. Song may be syllabised thus: "How d'ye do; bo-peep; bo-peep; Judy; Judy; pretty Dick," &c., according to the listener's fancy and imagination. Call-note, "chick." When alarmed it utters loud chirps and screams.

*Habits*.—It takes incredibly long hops or straight quick runs. When searching for worms it stands quite still with its head slightly on one side, then suddenly pitches upon some unwary worm and pulls it forcibly from its hole. It smashes snail shells against stones. It is not easily flushed from its nest.

*Food*.—Insects, slugs, snails, and earthworms. Soft fruits in season. In winter—seeds, berries, and grain.

*Nest*.—February or March onwards. Two or three broods.

*Site*.—In forks of trees, in centre of thick bushes, non-deciduous trees often favoured, among ivy on wall or tree, in pile of faggots, &c.

*Materials*.—Twigs, dry grass, roots, and moss. Internally neatly plastered, like a small bowl, with mud, cow dung, and decaying wood fibres.

*Eggs*.—Four to six. Greenish blue, spotted with deep brown and black; spottings variable; sometimes unspotted.

REDWING (*Turdus iliacus*).

Migrant; October to April. Generally distributed.

*Haunts*.—Cultivated districts and grass-lands; roosting in woods.

*Observation*.—In appearance a lesser Song Thrush, but differs in decided white eye-stripe and chestnut-red on flanks.

*Plumage*.—Upper parts olive-brown, broad white stripe over eye; under parts whitish, streaked with dark brown; under wing-coverts and flanks chestnut-red. Bill dark brown. Legs pale brown. Length  $8\frac{3}{4}$  in. Female, less bright than male. Young, spotted on upper and under parts.

*Language*.—Song, a pleasing fluty ditty, like "trui" repeated two or three times, then "tri-tri-tri"; seldom heard in England. Call-note, "see-you." Another note like "chack."

*Habits*.—Gregarious. Flight rapid, much resembling the last. Usually frequenting the same locality year after year.

*Food*.—Insects, snails, worms, various berries.

*Nidification*.—Breeds in Northern Europe.

FIELDFARE OR FELT (*Turdus pilaris*).

Migrant; October to May. Generally distributed.

*Haunts*.—Meadows and fields; roosting in trees.

*Observations*.—Might be confounded with Missel Thrush, but is smaller, and the grey rump, contrasted with dark wings and tail, is conspicuous.

*Plumage*.—Head, nape, and rump slate-grey. Mantle chestnut-brown. Wings and tail dark brown. Throat and breast golden-brown streaked with black. Flanks marked with deep brown. Belly and under wing-coverts white, conspicuous in flight. Bill yellowish. Legs dark brown. Length 10 in. Female less bright. Young spotted above and below.

*Language*.—Song, "a wild desultory warble," not heard in England. Another note a harsh "chak."

*Habits*.—Gregarious. Flight strong, rapid, and rather undulating. Vagrant in their movements. When feeding the flock always moves in the same direction and not at random, and when perched they always face one way. Extremely clamorous just before roosting time.

*Food*.—Insects and worms; soft fruits in season. In winter—many kinds of berries, especially those of the juniper and hawthorn.

*Nidification*.—Same as last.

BLACKBIRD (*Turdus merula*).

Partially migrant. Generally distributed, and common throughout Great Britain.

*Haunts.*—Gardens, orchards, well-cultivated and wooded districts.

*Plumage.*—Glossy jet-black. Bill and eyelids orange-yellow. Legs and feet brownish black. Length 10 in. Female sooty brown, paler on under parts, and marked with dusky. Young like immature hen birds, but feathers have dark tips, and those of under parts are barred.

*Language.*—Song, mellow and fluty, uttered in a placid—almost dawdling—manner; generally breaks off abruptly, and is followed either by a mimicking echo in the minor key or an interlude of silence—maintained for a few moments. When alarmed it utters a harsh chuckling cry, especially at nightfall, thus “chink,” repeated several times; then “chacka, chacka, chack, chuck, chuck, chuck.” Call-note, a shrill “tzeet.”

*Habits.*—Pugnacious, and often fights desperately at mating time. Fond of skulking under thick bushes, and is never flushed without many loud and clattering remonstrances. In flight, fairly rapid and direct. On alighting it always throws up its long tail—almost at right angles to its body. It sometimes runs, though more usually it hops. It is a close sitter, and if driven from the nest is most vociferous.

*Food.*—Worms, spiders, snails, slugs, insects, and larvæ. Soft fruits in season. In winter—vegetable food and various berries.

*Nest.*—March onwards. Several broods.

*Site.*—Generally low down in centre of thick bush, in trees, shrubberies, trained fruit trees, faggot piles, amongst ivy, &c.

*Materials.*—Twigs, roots, coarse grass, leaves, moss, &c., plastered with mud, lined with fine roots and dead grass.

*Eggs.*—Four to six. Greenish blue, closely spotted, and mottled with red-brown. Variable; might be confounded with Ring Ouzel's, Fieldfare's, and possibly Missel Thrush's, and Jay's.

#### RING OUZEL (*Turdus torquatus*).

Rarely resident; generally migrating in autumn. Local, though abundant in the North. Breeds in West, and in suitable localities in the Midlands, east and south.

*Haunts.*—Moorland and mountainous districts.

*Observation.*—Distinguished at once from Blackbird by white throat band.

*Plumage.*—Generally sooty, with greyish white edgings to the feathers. There is no complete ring; it is a broad white crescentic-shaped gorget. Bill yellowish tipped with black. Legs brownish black. Length  $10\frac{1}{2}$  in. Female browner, gorget less developed and dingy. Young, back and breast barred with black, and wing-coverts tipped with buff.

*Language*.—Song, loud, rather fluty and wild. When alarmed it utters harsh cries like “tack-tack-tack,” much resembling the Blackbird. Call-note, a shrill kind of whistle.

*Habits*.—Much like the Blackbird; very similar in the way it hops about when seeking food, in its flight with the inevitable flirt of the tail when alighting, and in its behaviour when alarmed. On their return in April they consort in flocks until paired off.

*Food*.—Worms, grubs, slugs, snails, and insects; soft fruits and various berries in season.

*Nest*.—April or May. Probably two broods.

*Site*.—On the ground, in holes of banks, amongst rocks concealed by furze or heather. Sometimes in low bushes.

*Materials*.—Pieces of heather, dead leaves, moss, and roots, compacted with mud, lined with fine dry grasses. Much like the Blackbird's.

*Eggs*.—Four or five. Resembling the Fieldfare's and Blackbird's. Bluish green, spotted and mottled with reddish brown.

#### WHEATEAR (*Saxicola ænanthe*).

Migrant; March to September. Local. Towards the North more abundant, but it breeds in many suitable localities in the South, and other districts abounding in rough, broken ground, rabbit warrens, and open wastes near the coast.

*Plumage*.—Upper parts bluish grey. Forehead and streak over eyes white. Lores and ear-coverts black; under parts white, tinged with buff. Wings almost black. Rump white; two middle tail-feathers black, rest white, tipped with black. Bill and legs black. Length 6 in. Female, upper parts yellowish brown; ear-coverts dark brown, superciliary streak dingy white. Young, spotted above and below, and wing and tail-feathers margined with buff.

*Language*.—Song, a short and somewhat insignificant warble. It has some powers of mimicry. Call-note, a sharp metallic “chack” or “tack,” like striking two pebbles smartly together.

*Habits*.—Always conspicuous, for it readily takes to wing, when the white rump at once attracts the eye. Fond of perching on any little proclivity or point of vantage on the rock-strewn and broken land which it always affects, it is constantly flitting about from one rock to another. Insects captured on the wing, though food is usually taken on the ground, where it runs rapidly, staying its progress at intervals, and flirting its tail up and down.

*Food*.—Insects largely, and their larvæ; spiders, worms, grubs, and small beetles.

*Nest*.—May onwards. Two broods.

*Site*.—In holes in the ground, often in disused rabbit-burrow, amongst heaps of stones, in stone walls, in banks, under clod of turf, &c., and always well concealed.

*Materials*.—Dry grass, roots, moss, wool, and hair, loosely put together.

*Eggs*.—Five, six, or more. Pale greenish blue; sometimes faintly freckled at the large end with rusty or purple.

### WHINCHAT (*Pratincola rubetra*.)

Migrant; April to October. Possibly some remain throughout the winter, in mild parts. Local, though pretty generally distributed throughout Great Britain, rarer towards the North. Very local in Ireland.

*Haunts*.—Open commons, heathy hillsides, and meadow lands, where there are furze-tracts, but it is by no means so inseparable from furze-clad wastes as the Stonechat.

*Plumage*.—Upper parts dusky brown; feathers edged with reddish yellow, white stripe over eye. Lores and cheeks dark brown. Throat and sides of neck white. Wings dark brown with white spot. Tail dark brown; basal portion white. Throat and breast yellowish red; under parts yellowish white. Bill and legs black. Length  $5\frac{1}{4}$  in. Female, duller colouring, white spot on wing smaller, and eye-stripe buff. Young much resemble female, but breast more spotted.

*Language*.—Song, a pleasing warble; short, impetuous, and rather resembling the Redstart's. While singing it fans its tail. Call-note, "utic-utac" or "uchack." Note of anxiety, a weak "tzwee."

*Habits*.—Partial to grass-lands (hence Grasschat). Fond of perching on the summit of low, stunted bushes, all the while fidgiting extremely, fanning its tail, and making little excursions into the air with undulating flight to take an insect, and returning to the same bush or one adjacent. Most of its food is obtained on the ground. Flight fairly rapid and direct.

*Food*.—Largely insects and their larvæ, spiders, grubs, wire-worms, and small beetles.

*Nest*.—May onwards. Two broods.

*Site*.—On the ground, under clod of grass, under thick furze or other bush, always studiously concealed—usually a little tortuous tunnel through the tangle leading to the nest.

*Materials*.—Bents, grass, rootlets, and moss, loosely compacted, lined with finer materials and hair.

*Eggs*.—Four to six. Greenish blue, not unlike the Hedge Sparrow's. Sometimes faintly speckled and zoned with red-brown.

STONECHAT (*Pratincola rubicola*).

Resident, but no doubt intermigratory in winter. Rather less common than the last, being local and confined to furze-clad commons.

*Plumage*.—Head and throat black; upper parts black, with feathers edged with brown. Tail and wings dark brown, with conspicuous white patch on the latter; tail-coverts white, spotted with brown. Sides of neck white. Breast bright chestnut-red paling into almost white on the belly. Bill and legs black. Length  $5\frac{1}{4}$  in. Female, duller in colour throughout, with smaller white wing spot; tail-coverts reddish brown; throat black, with small dingy white and reddish spots. Young spotted above and below; no dark throat or white patches.

*Language*.—Song, soft, sweet and varied though short, uttered on the wing and when perched. Call-note, "chat-chat," like two pebbles being knocked together. Note of anger or alarm, "huett-jurre," with the r's rolled.

*Habits*.—Generally resembling the last but more conspicuous in its harlequin-like dress. It loves to perch on the topmost spine of a gorse-spray, fanning and twitching its tail nervously and fidgiting the whole time. Insects captured on the wing. When alarmed it skulks in dense cover. Nest difficult to locate owing to the deceptive wiles of the parents.

*Food*.—Insects chiefly; spiders, small worms, grubs, and beetles. In winter, seeds.

*Nest*.—April or May. Sometimes two broods.

*Site*.—On or very near the ground at the base of furze-bush, well concealed by growing herbage.

*Materials*.—Dry grass, rootlets, and moss, loosely compacted, lined with finer grass, hair, feathers, and sometimes a little wool.

*Eggs*.—Four to six. Pale greenish blue; speckled, chiefly at large end, with reddish brown.

REDSTART (*Ruticilla phœnicurus*).

Migrant; April to September. Well distributed though not common. Local in some parts. In Scotland and Ireland rather rare.

*Haunts*.—Ivy-mantled ruins, broken walls, orchards, gardens, groves, and wild uncultivated land.

*Plumage*.—Forehead white; ear-coverts, chin, and throat black; upper parts slaty-grey. Wings brown. Breast, rump, and tail bright chestnut-red (hence Firetail). Belly buffish white. Bill black. Legs dark brown. Length  $5\frac{1}{4}$  in. Female, duller colouring throughout; upper parts grey tinged with red. Throat and belly dingy white. Breast, flanks, and tail pale red. Young, spotted above and below.

*Language*.—Song, rather reminds one of the Wren's but much feebler and lower; also not unlike the Whitethroat's ditty, a short, jerky strain. Call-note, a short kind of squeak. Alarm-note, "weet-chick-chick"; first syllable being a kind of whistle, the two following like striking two pebbles together.

*Habits*.—The fiery colouring and the white splash on the forehead always attract the eye as it performs lightning-like dashes from one point of vantage to another; always on the move, the tail being incessantly and quickly agitated laterally. Flight rapid. It is an adept at suddenly doubling in the air when taking insects.

*Food*.—Insects and their larvæ, spiders, soft fruits, and even grain.

*Nest*.—May onwards. Two broods.

*Site*.—A great variety; a hole in a wall or tree, &c., much the same as the Robin.

*Materials*.—Dry grass, roots, and moss, lined with hair and feathers.

*Eggs*.—Usually six. Uniform pale greenish blue, not so beautiful as Hedge Sparrow blue. Sometimes a few reddish dustings.

#### BLACK REDSTART (*Ruticilla titys*).

Migrant; Autumn to April. Rather rare; most commonly met with in Devon, Cornwall, and south-western counties. Has been noted in Ireland, and very rarely in Scotland.

*Haunts*.—Orchards, gardens, &c.

*Observations*.—Distinguish from last by absence of white forehead splash, and conspicuous white wing-patch absent in Redstart.

*Plumage*.—Upper parts slate-grey. Forehead, face, throat, and breast black, paling into grey on belly. Wings brown, with conspicuous white patch. Rump and tail chestnut. Bill and legs black. Length  $5\frac{3}{4}$  in. Female, duller colouring; upper parts smoky brown. Young, like female.

*Language*.—Song, simple and short, but rich in tone. Call-note a low "sit." Alarm-note, "tek."

*Habits*.—Not unlike the Redbreast in the way it stoops its head and jerks its tail. Conspicuous in flight.

*Food*.—Insects and their larvæ, spiders, beetles, small crustacea, and small soft fruits.

*Nidification*.—Extremely doubtful if it has ever bred in Great Britain. It rather resembles the Redbreast, but the five to six eggs are white faintly suffused with blue, and occasionally minutely dotted with brown.

RED SPOTTED BLUETHROAT (*Cyanecula suecica*).

A chance visitor on autumn and spring migrations. Chiefly observed in the East and South. Distinct on account of its white eye-stripe and cobalt gorget banded with black, white, and chestnut.

REDBREAST OR ROBIN (*Erithacus rubecula*).

Resident, and everywhere abundant, except in the extreme North.

*Haunts*.—Essentially a bird of the garden, and only quits the society of mankind during the autumn moult.

*Plumage*.—Upper parts olive-brown. Forehead, lores, chin, throat, and breast red edged with grey. Belly white. Bill black. Legs brown. Length  $5\frac{3}{4}$  in. Female, similar but duller. Young, feathers above and below spotted with buff and tipped with black.

*Language*.—Song, most cheerful and pleasing and familiar to all. Note of anxiety, "lit-it-it-it," sounding somewhat metallic. Call-note, a short kind of squeak.

*Habits*.—Eminently of a confiding and also extremely pugnacious nature. On the ground it takes long hops, punctuated every now and then by a curious stoop of the head, a flick of the wings, and a jerk of the tail. Flight undulating and never sustained for long.

*Food*.—Insects and their larvæ, spiders, small worms, soft fruits, berries and seeds, and crumbs and scraps in winter.

*Nest*.—March onwards. Several broods.

*Site*.—A variety of places. Usually in hole in wall, in grass bank, in cleft in tree, amongst ivy, &c.

*Materials*.—Dry grass, skeleton leaves, rootlets, and moss, lined with finer grass, hair, and sometimes feathers. Somewhat untidy, and not unlike the Nightingale's.

*Eggs*.—Four to six. Pinky white (pinkiness disappears after blowing), spotted and freckled with pale reddish brown. Variable.

NIGHTINGALE (*Daulias luscinia*).

Migrant; April to September. Extremely local, but occurring in nearly all counties. Very rare in the North and some parts of the West. Unknown in Ireland.

*Haunts*.—Thickets in copses, woods, plantations, and shrubberies in gardens.

*Observation*.—In appearance like a large Robin without ruddy breast.

*Plumage*.—Upper parts russet brown. Tail tinged with chestnut. Breast grey, under parts buffish grey; flanks pale

ash. Bill and legs brown. Length  $6\frac{1}{2}$  in. Female, similar. Young, darker; spotted above with yellow-brown, and barred beneath with greyish brown.

*Language*.—Song, the best melody of all our birds, and must be heard to be appreciated. Its chief characteristics lie in the liquid quaverings and rollings, giving way at intervals to a sad wailing note. Soon after the young are hatched the song degenerates into a dismal croaking. Note of anxiety, "wate-wate-cur-cur."

*Habits*.—It is a skulker and loves the densest thicket. It sings from the lower branches of some bush, but dislikes an audience, whereupon it croaks dismally. When perched it incessantly flirts its rather long tail. Food taken on the ground. It proceeds with long hops, punctuated with statue-like motionless moments.

*Food*.—Insects and their larvæ, spiders, small worms, beetles, ants' eggs, fruit, and berries.

*Nest*.—About mid-May. One brood.

*Site*.—Very low down or on ground, studiously concealed by dense cover, in base of small bush.

*Materials*.—Dead leaves, grasses, &c.; loosely and untidily put together; lined with fine grass, fibres, and sometimes hair.

*Eggs*.—Four to six. Uniform olive-brown.

#### *Subfamily SYLVIINÆ.*

#### WHITETHROAT (*Sylvia cinerea*).

Migrant; April to September. Abundant throughout Great Britain, but rarer in extreme North.

*Haunts*.—Woodsides, thickets, brambly heaths, commons, and hedgerows. Fond of nettle-beds (hence Nettle-creeper).

*Plumage*.—Head and neck ashy grey; upper parts greyish brown, darker on wings and tail. Breast white, faintly suffused with rose. Flanks buff. Bill brown. Legs pale brown. Length  $5\frac{1}{2}$  in. Female, similar, but no grey head or rosy tinge to breast. Young, more of a ruddy brown.

*Language*.—Excitement is the key-note of its rapid, erratic love-song. Call-note, "pweet-pweet;" note of anxiety, a harsh chiding sound, like "chuck-uck-uck-uck."

*Habits*.—Like many small birds it is uneasy and fidgety, fond of flitting from spray to spray down some ragged hedgerow, pausing to deliver its little torrent of song with distended throat, erected forehead feathers, and odd gestures of its tail. Occasionally it springs up into the air singing. When alarmed it skulks, uttering its scolding notes.

*Food*.—Insects chiefly; also soft fruits.

*Nest*.—Mid-May onwards. Two broods.

*Site*.—In middle or base of low, thick bush, among nettles, brambles, &c.

*Materials*.—Dry grass and stalks, lined with finer grass, bents, and horsehair. Cup deep and flimsily constructed.

*Eggs*.—Greenish white, mottled and blotched with olive and slaty grey; variable.

### LESSER WHITETHROAT (*Sylvia curruca*).

Migrant; May to September. More local than last; scarce in West and North, unknown in Ireland.

*Haunts*.—Thickets, copses, shrubberies, &c., much as last.

*Observation*.—Slightly smaller than last and, unlike it, has darker lores.

*Plumage*.—Crown of head, neck, and back greyish brown. Lores almost black. Wings ash-brown, with pale tips and margins. Breast and flanks white, tinged with yellowish brown; under parts white. Bill black. Legs slate-grey. Length  $5\frac{1}{4}$  in. Female, smaller and duller. Young browner.

*Language*.—Song, a short, vigorous strain, consisting of the rapid repetition of one whistling kind of note; anxiety note, "kek kek," and another, "tse-tse," somewhat like one of the Blue Tit's utterances.

*Habits*.—Closely resembling the last, extremely restless, and a great skulker when alarmed, not easily flushed from nest. Flight undulating, with quickly beating and somewhat feeble agitations of the wings.

*Food*.—Insects and their larvæ principally; inordinately fond of raspberries and currants.

*Nest*.—May onwards.

*Site*.—In thick hedges, brambles, and other bushes; not so low down as last, and always well concealed.

*Materials*.—Bents and rootlets, neatly intertwined with cobwebs, lined with finer materials and horsehair; cup shallower than last.

*Eggs*.—Four to five. Dull or creamy white, spotted and blotched with slate or purplish grey and olive-brown; often zoned; variable.

### BLACKCAP (*Sylvia atricapilla*).

Migrant; April to September; sometimes winters here. Rather local, but found in most counties. Rarer in Scotland and Ireland.

*Haunts*.—Thickets and wild places, abounding in tangles of brambles and the like; also gardens.

*Plumage*.—Head above eyes jet-black. Throat, chin, and

flanks ash-grey; upper parts grey, tinged with olive; under parts ash-grey, paler on abdomen. Bill horn-brown. Legs lead-colour. Length  $5\frac{3}{4}$  in. Female: chocolate-brown head, and rather browner colour generally. Young: like female until the young male assumes the black head.

*Language*.—On its first arrival it records or rehearses its song in a *sotto voce* till early May, when the true song is commenced, which is second only to the Nightingale, and reminds one of a piccolo. It has certain powers of ventriloquism and mimicry. Alarm-note, a harsh "tac." When angry it scolds rather like the Whitethroat.

*Habits*.—It loves to sing perched in its shady brambly home. Song ceases when young are hatched; the cock bird assists in incubation. Very restless and shy, like others of the family. Flight rather hesitating.

*Food*.—Insects and their larvæ, spiders, soft fruits (especially raspberries and currants), also berries.

*Nest*.—May.

*Site*.—Low down in thick bush, in nettles and brambles and privets, and other situations.

*Materials*.—Dry grass and fibres, lined with horsehair—a slight structure.

*Eggs*.—Dirty white, or light red spotted and blotched with dark red and ruddy brown; variable. Smaller than Garden Warbler's.

#### GARDEN WARBLER (*Sylvia hortensis*).

Migrant; May to September. Less abundant than last, but generally distributed. Rare in Ireland, Cornwall, and some parts of Wales.

*Haunts*.—Like last, but where the Blackcap is scarce the Garden Warbler is frequently common, and *vice versâ*.

*Observation*.—Distinguish from last by absence of black crown.

*Plumage*.—Upper parts olive-brown, darker on wings and tail; faint light streak over eye; area at back of eyes ash-grey; under parts buffish white; under tail-coverts white. Bill brown. Legs lead-colour. Length  $5\frac{3}{4}$  in. Female similar but paler. Young rather greener than adults.

*Language*.—Much like the Blackcap's, but lower in tone and more mellow and continuous. Alarm-note, a harsh "tac."

*Habits*.—Very similar to last. It is a close sitter, and when flushed it dives in the undergrowth, fidgeting about and uttering its alarm-note.

*Food*.—Insects and their larvæ, spiders, small soft fruits and berries.

*Nest*.—May. One brood.

*Site*.—Near ground, in brambles or low bush, in shrubberies, in dwarf box hedge, &c.

*Materials*.—Dry grass, lined with finer grasses and hair, loosely put together.

*Eggs*.—Four to five. Dull white, blotched and spotted with brown and greyish olive; no ruddy suffusion as in last.

DARTFORD WARBLER OR FURZE WREN  
(*Sylvia undata*).

Resident; very local and uncommon. Breeds in most of the southern counties, more especially in Hants, Surrey, Sussex and Kent; much rarer further north.

*Haunts*.—Furze-grown commons.

*Plumage*.—Upper parts dark greyish brown, more slaty on the head; under parts chestnut-brown, paling into dull white on the belly. Tail dark grey, long and fan-shaped, two outer feathers broadly tipped with brownish white. Bill horn-brown, paling into yellowish at the base. Legs pale brown. Length 5 in. In appearance much like a dark-coloured long-tailed Wren. Female smaller and paler; after autumn moult, throat, breast and flanks spotted and streaked with white. Young, paler than female and whiter under parts.

*Language*.—Song, hurried and impetuous like the Wren's, a loud "pitchoo" repeated two or three times; scolding note, a harsh "cha."

*Habits*.—A most skulking bird, and seldom seen; extremely restless and full of curious antics, fanning its long tail and perching on the topmost sprays of gorse. Flight fairly rapid and undulating.

*Food*.—Insects principally, also fruits.

*Nest*.—April onwards. Two broods.

*Site*.—Always low down in thick furze-bush, and carefully concealed.

*Materials*.—Dead pieces of furze and bents intertwined with moss or wool, lined with finer materials and, perhaps, some horsehair. Cup deep, but flimsily compacted.

*Eggs*.—Four to six. Greenish white, closely speckled with reddish brown and olive.

GOLDEN-CRESTED WREN (*Regulus cristatus*).

Resident; generally distributed throughout Great Britain.

*Haunts*.—Well-wooded localities; especially fond of coniferous trees.

*Observation*.—Our smallest bird.

*Plumage*.—Top of head bright yellow, shading into orange at the back, bounded by a dark streak, below which comes the

whitish superciliary eye-streak. Cheeks ashy. Upper parts yellowish olive-green. Wings greyish brown. Tail ash-brown, with yellowish margins; under parts greyish brown, whitish on abdomen. Bill dark brown. Legs brown. Length  $3\frac{1}{2}$  in. Female, duller crown, browner and less defined black streak round same. Young, crown minus yellow and black border.

*Language*.—Song, not extensive and very weak. Call-note, a thin, wiry squeak, rather like the noise produced by a damp wash-leather on a pane of glass.

*Habits*.—It spends nearly all its life fluttering about seeking its food amongst the feathery branches of some non-deciduous tree. Very Tit-like in its antics. Sociable and often seen in parties.

*Food*.—Small insects and spiders; in winter, seeds and small berries.

*Nest*.—April onwards. Probably two broods.

*Site*.—Nearly always built on to a lateral branch of some non-deciduous tree, suspended from one bough and supported by another, or made fast to the smaller twigs of the bough from which it hangs, especially spruce trees.

*Materials*.—Dry grass, leaves, moss, lichens, fir-needles, wool, cobwebs, &c., all wonderfully interwoven and felted together into an almost spherical ball, lined with a profusion of small soft feathers.

*Eggs*.—Six to ten. Creamy white, closely mottled with reddish brown, especially at large end.

#### FIRE-CRESTED WREN (*Regulus ignicapillus*).

A casual visitor, usually between October and April, and chiefly noted in the South and East.

*Plumage*.—Much like last, but differs in the more developed white superciliary streak and yellowish frontal band; also a black streak from gape through eye, and slight moustachial streak. Neck and shoulders brighter green. Bill black. Legs brown. Length  $3\frac{1}{2}$  in. Female, duller and paler crest. Young, no crest.

*Language*.—Song, not unlike the last, but less shrill; a low "zit-zit."

*Habits*.—Generally much like the last.

*Food*.—Insects and spiders principally.

*Nidification*.—Breeds in Southern Europe.

#### CHIFFCHAFF (*Phylloscopus rufus*).

Migrant; April to September. Fairly commonly distributed, being most abundant in the South and south-western counties. Rare in Scotland and Ireland.

*Haunts*.—Woods and well-timbered districts.

*Plumage*.—Pale yellow superciliary streak over eye. Lores olive; upper parts olive-green. Breast and flanks greyish white, suffused with yellow. Wings and tail brown, edged with olive-green; under wing-coverts yellow; under parts white, slightly washed with yellowish. Thighs yellow. Bill brown. Legs dark brown. Length  $4\frac{3}{4}$  in. Female similar. Young, greener, and eye-streak ill-defined.

*Language*.—Song, a monotonous "chiff-chiff," or "chiff-cheff." Alarm-note, "tewy."

*Habits*.—Flight undulating. It sings from the top of some tall tree, when its sombre plumage and small size make it difficult to observe. When not singing it actively and restlessly pursues its insect prey among the leaves.

*Food*.—Small insects and their larvæ and soft fruits.

*Nest*.—May onwards. Two broods.

*Site*.—On or near the ground in hedgebank, or in patch of rankly-growing grass, in lower part of small bush, &c.

*Materials*.—Dry grass, dead leaves, rootlets and moss, lined with fine rootlets, a little hair, and many soft feathers. Nest leave-shaped.

*Eggs*.—Five to seven. White, more or less spotted and speckled with brown and purplish brown.

## WILLOW WARBLER OR WILLOW WREN

(*Phylloscopus trochilus*).

Migrant; April to September. Found generally throughout Great Britain, but in some parts of Cornwall, Wales, and Ireland it is rarer.

*Haunts*.—Woodland districts, but less a bird of the woods than the last. It has no especial predilection for willow trees, as the name might imply.

*Observation*.—Rather larger and altogether yellower than the Chiffchaff.

*Plumage*.—Sides of head, superciliary streak over eyes and throat bright yellow; upper parts yellowish olive-green. Breast and flanks yellowish olive; wings olive-brown, tipped with yellowish; under-wing coverts bright yellow; under parts yellowish white, more yellow on thighs and rump. Bill and legs brown. Length 5 in. Female similar. Young, generally yellower.

*Language*.—Song, a little reminiscent of the Chaffinch's ditty, in that it mounts up and then hurries down the scale in a staccato, irregular manner, and ends in a subdued kind of whisper. Alarm-note like the Chiffchaff's "tewy."

*Habits*.—When seeking food amongst the leaves of some moderately tall tree, it reminds one of the Tits with its odd

acrobatic actions. Flight undulating. It sings persistently from April to July. It rarely alights on the ground, but when it does it hops much like a Robin.

*Food*.—Insects chiefly; soft fruits in summer.

*Nest*.—May onwards. Often two broods.

*Site*.—On or very near the ground among thick grass, &c., or under bush or hedge.

*Materials*.—Dry grass, dead leaves, and moss, lined with wool, rootlets, hair, and feathers. Nest cave-shaped.

*Eggs*.—Five to eight. White, spotted and speckled with reddish sienna-brown, much like some of the Tits' eggs.

### WOOD WARBLER OR WOOD WREN

(*Phylloscopus sibilatrix*).

Migrant; April to September. Generally distributed; local in Scotland, rare in Ireland.

*Haunts*.—As last, but essentially a bird of the woods.

*Observation*.—Distinguished from its congeners by its larger size, brighter appearance, and rather longer wings.

*Plumage*.—Superciliary streak over eyes bright yellow. Chin, throat, and breast white, suffused with yellow; upper parts yellowish green; wings greyish brown, edged with yellowish and tipped with white. Belly white. Rump and thighs yellow. Bill and legs brown. Length  $5\frac{1}{4}$  in. Female similar. Young, yellower than adults.

*Language*.—Song, clear and sweet, beginning slowly, then becoming faster, and ending in a tremulous, sibilous note, thus—"twit-twit-twit-tit-tit-tit-ti-ti-ti-i-i-i." Call-note, "tee-er." Alarm-note, "pi-o."

*Habits*.—Very similar to last two. Very restless and active in its movements. Specially fond of beech and oak trees.

*Food*.—Insects and their larvæ. Small soft fruits.

*Nest*.—May. Probably one brood only.

*Site*.—On or very near the ground, well concealed by growing herbage, and nearly always in a wood, copse, or the like.

*Materials*.—Dead leaves, grass, and moss, lined with finer grass and horsehair. *Note*.—Feathers never used as a lining, like the last two. Nest cave-shaped.

*Eggs*.—Five to seven. White, well spotted and speckled with dark brown and purplish grey. Often zoned.

### REED WARBLER (*Acrocephalus streperus*).

Migrant; April to September. Local, but abundant enough in suitable places in the South and south-eastern parts, rarer towards the North. Practically unknown in Scotland and Ireland.

*Haunts*.—Reed-grown margins of rivers, lakes, ponds, &c., but not necessarily met with in the vicinity of water.

*Plumage*.—White streak over eye ill-defined; upper parts reddish brown; breast and flanks reddish buff; under parts pale buff. Rump and upper tail-coverts brown, suffused with chestnut; under tail-coverts buff, tinged with red. Bill horn-brown above and yellowish below. Legs slaty brown. Length  $5\frac{1}{2}$  in. Female similar, but less rufous. Young more tawny on the under parts.

*Language*.—Very loquacious, its notes reminding one of the incessant chiding chattering of the Sedge Warbler; it is poor music. When alarmed, even if at night, it at once bursts into a torrent of harsh, scolding notes. It is somewhat of a mimic.

*Habits*.—Very restless, and for ever climbing about the reed-stems of its home. Not easy to observe, as, when alarmed, it immediately drops down into thick cover.

*Food*.—Insects and their larvæ, especially young dragon-flies, spiders, slugs and worms; also soft fruits and berries.

*Nest*.—May onwards. Probably two broods.

*Site*.—Generally supported between reed-stems; also in osier and willow twigs.

*Materials*.—Dry grass, bents, pieces of reeds, moss, and cob-webs, lined with fine grass and horsehair. A very deep cup.

*Eggs*.—Five to six. Dull greenish white, freckled and blotched with dark olive and grey.

#### MARSH WARBLER (*Acrocephalus palustris*).

Migrant; April to September. Decidedly local and uncommon. It breeds in Somersetshire, Gloucestershire, and Oxon, and, no doubt, in other suitable counties.

*Haunts*.—Usually swampy places and osier beds.

*Plumage*.—Very similar to last, but differs in being less rufous and greener on upper parts. Wing-feathers tipped and edged with pale buff, under parts yellower, and legs pale brown. Length  $5\frac{1}{4}$  in.

*Language*.—Superior to and more melodious than last. It is also a mimic.

*Habits*.—Resembling the last but not so skulking.

*Food*.—Similar to last.

*Nest*.—June. One brood.

*Site*.—Never overhanging water like last; in low bushes, meadowsweet, or nettles, near water.

*Materials*.—Grass, moss, and leaves, lined with horsehair; cup deep.

*Eggs*.—Five to seven. Whiter ground-colour than last; spotted and blotched olive-brown and grey.

SEDGE WARBLER (*Acrocephalus phragmitis*).

Migrant; April to September. Local in extreme North; otherwise common and generally distributed.

*Haunts*.—River banks, marshy places, and the like.

*Observation*.—Distinguish from Reed Warbler by lighter upper parts and more pronounced eye-stripe.

*Plumage*.—Head-feathers black, with brown edges; pale buff superciliary streak over eyes. Lores smoky brown. Chin and throat white; upper parts greyish golden brown, with dark centres to feathers. Primaries greyish brown, narrowly edged with white; under parts buffish, passing into white on abdomen. Rump and upper tail-coverts reddish brown. Bill dark brown above, lighter below. Legs light brown. Length 5 in. Female similar but duller. Young spotted with brown on breast.

*Language*.—An incessant singer, the song being harsh and chiding, interspersed here and there with notes very similar to those of several species. It sings by night as well as by day. Alarm-note, "chuck-uck-uck-uck-churr." Call-note, "chiddy-chiddy."

*Habits*.—Not particularly shy, but difficult to observe, owing to its intense restlessness. When alarmed it at once rattles out its curious babbling song.

*Food*.—Aquatic insects and their larvæ, slugs, and worms; also soft fruits, *e.g.*, elder-berries.

*Nest*.—May onwards. Two broods.

*Site*.—Low down amongst thick aquatic herbage, or at foot of hedge or bush amongst undergrowth.

*Materials*.—Dead leaves, grasses, and stalks, lined with fine grass, hair, vegetable-down, and, perhaps, a few feathers and a little wool. Cup fairly deep.

*Eggs*.—Four to six. Dull white, mottled and clouded with yellowish brown; almost invariably a dark hair-like streak at the large end.

AQUATIC WARBLER (*Acrocephalus aquaticus*).

A chance visitor to Great Britain, but owing to its close resemblance to the Sedge Warbler it may have been overlooked. Distinguish from Sedge Warbler by buff streak along centre of crown.

GRASSHOPPER WARBLER (*Locustella naevia*).

Migrant; April to September. Found pretty generally throughout Great Britain, but more local in Scotland.

*Haunts*.—Both dry and marshy ground, copses, choked ditches, wild commons, and wastes.

*Observation.*—When close to this bird, note spots on neck and breast and slight bars on tail.

*Plumage.*—Feathers of neck and breast whitish, with dark centres; upper parts light olive-brown, each feather having a dark centre; under parts pale brown. Abdomen lighter. Tail brown and slightly barred. Bill brownish above and yellowish below. Legs yellowish brown. Length 5 in. Female almost similar. Young, more buffy on under parts.

*Language.*—Song; much resembling the stridulous noise of the grasshopper (hence its name). There is no music in it. It is a thin, monotonous burring, not unlike an angler's reel being wound up at great speed. This "song" is persistently uttered. Another note, "tzic-tzic-tzac."

*Habits.*—It usually comes to the top of some spray to deliver the song, when the body quivers as though an electric current were running through it. When alarmed it at once glides into the tangle like a mouse, and skulks.

*Food.*—Insects and their larvæ, spiders; also soft fruits and berries.

*Nest.*—May onwards. Two broods.

*Site.*—In thick tuft of grass on or near the ground, at bottom of furze bush, &c.

*Materials.*—Dry grass, dead leaves, and moss, lined with fine grasses and fibres.

*Eggs.*—Five to seven. Pinkish white, well speckled with reddish brown; often zoned.

### SAVI'S WARBLER (*Locustella luscinioides*).

Once a regular, though scarce, summer migrant breeding here, but since the draining of the Fen district it has become practically extinct, certainly as a breeding species. It differs from last in having upper parts rather warmer in colouring and uniform, *i.e.*, with no striations and no spots on neck and breast.

### Subfamily ACCENTORINÆ.

#### HEDGE SPARROW OR ACCENTOB (*Accentor modularis*).

Resident; abundant everywhere, except towards the extreme North.

*Haunts.*—Gardens, orchards, copses, shrubberies, hedges, &c.

*Plumage.*—Head smoke-grey, streaked with dark brown; neck, upper breast, and scapulars bluish grey. Back and wings reddish brown, streaked with dark brown. Lores brown. Breast and belly buffish white, flanks with dark streaks. Bill brown. Legs yellowish brown. Length 5½ in. Female has

crown and flanks more distinctly streaked. Young, no grey on head or throat, and are browner and more spotted.

*Language*.—Song, a cheerful little performance, uttered in a rambling, hurried way. Call-note much like the Robin's—a short squeak.

*Habits*.—Fond of creeping about the bottom of a hedgerow. On the ground it both runs and hops, shuffling its wings as well (hence Shufflewing). It sometimes sings at night. Flight hesitating.

*Food*.—Insects, beetles, spiders, worms; also seeds.

*Nest*.—March onwards. Often three broods.

*Site*.—In hawthorn hedge, furze bush, evergreens, ivy, piles of faggots, &c.

*Materials*.—Dry grass, roots, small twigs, moss and wool, lined with hair, wool and a few feathers.

*Eggs*.—Four to six. Uniform turquoise-blue.

### Family CINCLIDÆ.

#### DIPPER OR WATER OUZEL (*Cinclus aquaticus*).

Resident; most common in the mountainous districts of Ireland, Scotland, Wales, and in the northern, central, and south-western counties of England.

*Haunts*.—Inseparable from rushing mountain torrents.

*Plumage*.—Upper parts slaty grey, each feather being margined with brown. Head brown. Chin, throat, and breast pure white; under parts chestnut-brown. Bill blackish. Legs brown. Length 7 in. Female similar. Young greyer above, with no chestnut on under parts.

*Language*.—Song, neither extensive nor powerful, and slightly reminiscent of the Wren's. Another note often uttered is "chick."

*Habits*.—Flight much like the Kingfisher's, *i.e.*, straight and swift. It loves to perch on a rock in mid-stream, warbling and jerking its stumpy, Wren-like tail. It dives into the water with facility, using both wings and feet to propel itself along. Also said to walk on the bed of the stream.

*Food*.—Insects and larvæ, especially those kinds found at the bottom of a stream; spiders, worms, molluscs, and seeds.

*Nest*.—April onwards. Two broods.

*Site*.—Among rocks, in crevices in stone bridges, in holes in river bank, &c.

*Materials*.—Mosses and leaves felted together, lined with grass, rootlets, leaves, and sometimes feathers. Nest domed.

*Eggs*.—Four to six. Pure white, and oval in shape.

## Family PANURIDÆ.

BEARDED REEDLING OR TITMOUSE  
(*Panurus biarmicus*).

Resident; strictly local, and much rarer than it used to be. Chiefly found in eastern counties.

*Haunts*.—Reed-beds.

*Plumage*.—Head bluish grey; black loreal patch in the shape of a moustache. Nape, back and rump tawny yellow; upper parts orange brown. Wings marked with black, white and rufous. Tail very long and orange brown; outer feathers variegated with black and white. Bill yellow. Legs black. Length  $6\frac{3}{4}$  in. Female, head brownish fawn, no black moustache. Young like female, but streaked on head and back with black.

*Language*.—Somewhat like the Blue Tit's, but call-note "ping-ping," rather like the twang of a banjo. Alarm-note, "chi-arre."

*Habits*.—Very Tit-like in its active climbing about the reed-stems. In appearance graceful and slender. When alarmed it at once drops down to the base of the reeds and skulks. Sociable in winter.

*Food*.—Aquatic insects, molluscs, and seeds of reeds in winter.

*Nest*.—April onwards. Probably two broods.

*Site*.—On marshy ground amongst aquatic herbage, in tuft of sedge, &c.

*Materials*.—Reed-stems and leaves, and grass, lined with feathery fibres of the reed-tops; a deep cup.

*Eggs*.—Five to seven. Dingy white, minutely speckled and lined with dark brown.

## Family PARIDÆ.

LONG-TAILED TITMOUSE (*Acredula caudata*).

Resident; rather local, but nevertheless tolerably common and generally distributed.

*Haunts*.—Plantations, orchards, shrubberies, &c.

*Observation*.—The predominating hue, when seen at a little distance, is grey.

*Plumage*.—Head, neck, throat, and breast white. Back, wings, and portion of tail black. Black stripe over eye; under parts white, suffused with rose. Beak black, and very short. Black tail very long, with conspicuous white edges. Legs black. Length  $5\frac{1}{4}$  in. Female similar. Young duller, and no rose tint on breast.

*Language.*—Song, a constant repetition of the call-note, "tse-tse," or "zit-zit."

*Habits.*—Very sociable, and usually seen in foraging parties. Like all Tits, exceedingly restless, and it performs graceful and engaging acrobatic feats among the branches of a tree when hunting for insects. Flight undulating—in fact, it looks like a feathery arrow skimming wavily in the air. Insects captured on the wing. Occasionally food is taken on the ground, but the tree branch is the rule.

*Food.*—Insects and their larvæ.

*Nest.*—March onwards. Two broods.

*Site.*—In middle of hawthorn hedge, or evergreen; in furze-bush, against trunk of tree, supported by a lateral branch.

*Materials.*—Moss, lichens, wool, hair, cobwebs, carefully felted together, lined with a profusion of small soft feathers. Nest domed (hence Bottle Tit).

*Eggs.*—Six to ten, sometimes more. White, sparingly speckled with light rusty red.

#### GREAT TITMOUSE OR OX-EYE (*Parus major*).

Resident; common and well distributed except in extreme North.

*Haunts.*—Woods, plantations, orchards, gardens, &c.

*Observations.*—Our largest Tit—about the size of a Sparrow. Note black head and white cheeks.

*Plumage.*—Head, throat, and band on centre of breast black; upper parts olive-green. Cheeks and nape white; under parts yellow. Wings bluish grey, tipped with white. Tail-feathers slate-grey; outer pair tipped and edged with white. Bill black. Legs lead-coloured. Length 5½ in. Female rather duller, and less black on the breast. Young duller, and white cheeks washed with yellow.

*Language.*—The well-known rasping noise (hence Saw-sharpener), like "che-chi-che-chi." Also it sings "tzoo-tzoo-werry-tzoo-tzoo-werry-tzee-tzee." Call-note, "chick-chick," rather like Chaffinch. Alarm-note, "werry-urre," with the r's vibrated.

*Habits.*—Always restless and shifting about from one tree to another, indulging in various acrobatic performances all the while. Pugnacious, and will attack weakly small birds and split their skulls.

*Food.*—Insects and their larvæ; also seeds, fruits, scraps, suet, nuts, &c.

*Nest.*—April onwards. Two broods.

*Site.*—In holes in walls or trees, in squirrel's drey, or rook's nest, &c.

*Materials*.—If in an open situation, moss, grass, hair, and wool; if in a cavity, less external material; lined with feathers, hair, and wool.

*Eggs*.—Six to twelve. White, spotted with reddish brown; like other Tits, only larger.

#### COAL TITMOUSE (*Parus ater*).

Resident; generally distributed, but local in Scotland; nowhere very abundant.

*Haunts*.—Woods, &c., near open commons and moors, gardens, &c.

*Observation*.—Note double white bars on wings and white splash on crown absent in the Marsh Tit.

*Plumage*.—Crown, throat, and front of neck black. Cheeks and spot on nape white; upper parts slaty grey. Wings bluish grey, with two white bands; under parts white, tinged with grey. Bill and legs dark horn-brown. Length  $4\frac{1}{4}$  in. Female duller, and white patches washed with yellow. Young more olive above and white patches yellower.

*Language*.—Song, "tee-tzoo-tzoo-terry." Another note, "ick-hec."

*Habits*.—Sociable, and closely resembling other Tits in its curious antics when searching for food. Fond of coniferous trees, but feeds more readily on the ground than other Tits.

*Food*.—Insects and their larvæ; in winter, practically omnivorous.

*Nest*.—April onwards. Probably one brood only.

*Site*.—In hole in tree or wall, &c., always near ground.

*Materials*.—Grass, moss, wool and hair, felted together, lined with feathers.

*Eggs*.—Six to eleven. White, speckled and dotted with pale reddish brown.

#### MARSH TITMOUSE (*Parus palustris*).

Resident; less common than last. Rarer in Scotland and Ireland. Not by any means confined to marshy places, as its name implies.

*Haunts*.—Woods, orchards, gardens, &c.

*Plumage*.—Very like last, but differs in having a black head and no white nape spot. Head, nape, and chin black; upper parts grey. Wings darker grey. Cheeks and throat ashy white; under parts white, suffused with buffish. Bill black; legs lead-colour. Length  $4\frac{1}{4}$  in. Female similar. Young browner on upper parts.

*Language*.—Its chief note is "chick-a-dee." It also has other notes much like the other Tits.

*Habits.*—Closely resembling the other Tits, but rather shyer in the breeding season.

*Food.*—Insects and their larvæ, seeds, and berries.

*Nest.*—April or May. Probably one brood only.

*Site.*—In decayed stump of a tree, in willows, in bank, hole sometimes excavated by the bird; always near the ground.

*Materials.*—Grass, moss, hair, and wool, felted together, lined with willow-down. *Note.*—None of the other Tits use this latter material.

*Eggs.*—Five to eight. White, speckled and dotted with pale red-brown.

#### BLUE TITMOUSE (*Parus cæruleus*).

Resident. Well distributed and common; rarer in the North of Scotland. Found well nigh everywhere, even in large cities.

*Plumage.*—Crown blue encircled with white. Cheeks white bounded with blue; upper parts olive-green. Wings and tail blue; under parts yellow. Bill nearly black. Legs bluish grey. Length  $4\frac{1}{2}$  in. Female duller; cheeks ashy. Young less blue throughout and yellower.

*Language.*—Song, "pim-im-im-im-im." First two syllables pitched about two tones above the rest, and rather metallic in tone. Call-note, "tzee"; also a chiding, scolding note.

*Habits.*—One of our prettiest small birds. It is a kind of acrobatic harlequin, and seems quite as much at home hanging head downwards from a bough as in any other position. Flight undulating. It readily goes to the ground to feed if necessary. On the nest the bird sits tightly, hissing, and pecks intruding fingers (hence Billy-biter).

*Food.*—Insects and their larvæ; but failing this, practically omnivorous.

*Nest.*—April onwards. Probably two broods.

*Site.*—A variety of places, quaint and otherwise, usually in hole in wall or tree or other suitable cavity.

*Materials.*—Moss, leaves, grass, feathers, and cobwebs, lined with wool, hair, and many feathers.

*Eggs.*—Five to nine. White, speckled and dotted with pale reddish brown.

#### CRESTED TITMOUSE (*Parus cristatus*).

Resident. Rare and strictly local, and confined—at least as a breeding species—to certain pine forests in Scotland.

*Plumage.*—Feathers of head black edged with greyish white and forming a crest; a black streak from eye to back of head, continuing round cheeks, and ending in the black throat and

chest. Back and wings olive-brown. Tail brown; under parts dull, more buffy on the flanks. Bill black. Feet lead-colour. Length  $4\frac{1}{2}$  in. Female less defined crest and less black on throat. Young like female, but no crest.

*Language*.—Call-note "see-see-see," then "tur-re-re-re," given in a trilling manner.

*Habits*.—Very like the other Tits, and confining its attentions chiefly to fir-trees and the like.

*Food*.—Insects and their larvæ, seeds, and berries.

*Nest*.—April onwards. Probably two broods.

*Site*.—In hole in fir-tree excavated by the bird, behind bark on a decaying tree and the like.

*Materials*.—Dry grass, moss, feathers, fur, hair, &c., felted together.

*Eggs*.—Five to eight. White, well spotted, speckled, and often zoned with reddish brown.

### *Family SITTIDÆ.*

#### NUTHATCH (*Sitta cæsia*).

Resident. Well distributed generally; commoner in southern and midland counties; much rarer towards the north. Unknown in Ireland.

*Haunts*.—Well-wooded districts.

*Plumage*.—Upper parts slaty grey. Black stripe from base of mandibles through eye and down sides of neck. Cheeks and throat white; under parts buffish chestnut. Outer tail-feathers black with white spot near end. Tail short. Bill horn-colour. Legs brown. Hind claws hooked. Length  $5\frac{1}{2}$  in. Female duller. Young duller still.

*Language*.—Song, a bubbling twitter, and reminds one of the noise produced by throwing a stone across the frozen surface of a pond. Call-note, a sharp shrill "whit."

*Habits*.—It spends most of its time creeping about tree-trunks searching bark crevices for food. It proceeds in a series of quick jerks, and is not particular whether it goes upwards or comes down head first. It wedges nuts into the interstices of the bark and hammers sharply at them with its beak until the kernel can be extracted. When alarmed it usually places the trunk between itself and the spectator, and consequently is more often heard than seen. Flight undulating and not very rapid.

*Food*.—Insects and their larvæ, nuts, kernels, beech-mast; in winter it feeds like, and often in company with, Sparrows and Tits, on scraps and refuse found near houses.

*Nest*.—April. Probably one brood only.

*Site*.—In hole in wall or tree, &c., usually near the ground. If the hole is too large it will cement up the orifice with mud mixed in the beak with adhesive saliva.

*Materials*.—Dead leaves, grass, and scraps of bark.

*Eggs*.—Five to seven. White, spotted with brownish red, and sometimes grey shell-spottings. Much like the Great Tit's, but rather larger.

### *Family TROGLODYTIDÆ.*

#### WREN (*Troglodytes parvulus*).

*Resident*. Well distributed and common.

*Haunts*.—Hedges, woods, &c.

*Plumage*.—Upper parts reddish brown, transversely barred with dusky brown; whitish streak over eye. Wings barred alternately with black and brown and buff on outer webs. Tail dusky, barred with black, and stumpy; under parts pale reddish brown. Bill dark brown above and paler below and rather long. Legs light brown. Female slightly smaller, duller and browner beneath. Young more rufous and less distinctly barred.

*Language*.—Song, rapid and loud for so small a bird; somewhat like the Hedge Sparrow's, but more varied, and terminating with a little trill. Alarm-note, a sharp clicking "chit," like the noisy winding-up of a clock.

*Habits*.—In winter more confiding, otherwise a skulker, creeping about the bottom of hedges, and coming up to the top of a small bough to fire off its rapid notes at intervals. It is most jealous of its nest and makes many false ones known as "cock-nests." Flight rapid and peculiar, the wings being most rapidly vibrated in a whirring manner like the Partridge.

*Food*.—Insects and their larvæ, spiders, &c.; in winter, more omnivorous.

*Nest*.—April onwards. Two broods.

*Site*.—A variety of places, usually amongst ivy, against tree-trunk, in grassy bank, in thatch or side of rick, in furze, brambles, &c.

*Materials*.—Varying according to site, as the nest is usually composed of materials harmonizing with its surroundings. Dead leaves, grass, moss, bents, fern-fronds, &c., lined with moss, hair, and feathers. Domed nest.

*Eggs*.—Five to eight or more. White, thinly spotted with red.

## Family CETHIADÆ.

TREE CREEPER (*Certhia familiaris*).

Resident; pretty well distributed; affecting well-wooded districts.

*Plumage*.—Upper parts dark brown, mottled with yellowish brown; pale streak over eye. Throat and breast white, more lily on the belly. Wings brown, tipped with white and barred with brownish yellow. Tail reddish brown; rather long stiff pointed feathers acting as fulcrum or prop when climbing. Beak rather long and curved; dark brown above and yellowish below. Legs light brown. Length 5 in. Female similar. Young more rufous, and shorter and less curved beak.

*Language*.—Song not often heard, pleasing but brief. Call-note, a low "cheep," and a plaintive "syu."

*Habits*.—It may be called a parasite on trees, as it spends its whole life climbing spirally upwards on trunks, staying its progress every now and then to probe some crevice for insects with its bill, much like a mouse creeping, and most unobtrusive. When watched it at once jerks round to the other side of the tree. It never descends the trunk when climbing, but on reaching the top flies down to the base and again winds spirally up, and so on. Flight undulating.

*Food*.—Insects and their larvæ, spiders, and seeds, especially those of the Scotch fir.

*Nest*.—April onwards. Two broods.

*Site*.—Behind bark on a decaying tree, in hollow in tree, and the like.

*Materials*.—Bark-strips, small twigs, rootlets, and grass, lined with ligneous fibres, moss, fine grass, feathers, and hair.

*Eggs*.—Six to nine. White, spotted with reddish brown, sometimes with grey underlying marks, like some of the Tits.

## Family MOTACILLIDÆ.

PIED WAGTAIL (*Motacilla lugubris*).

Partial resident. Well-distributed and common; rarer towards the north.

*Haunts*.—The vicinity of water, meadow-land, gardens, farmyards, and near human dwellings.

*Plumage*.—Generally variegated with black and white (hence Pied). Upper parts, scapulars, chin, and throat black; sides of neck and forehead white. Wing-coverts edged with white, conspicuous in flight. Tail black, two outer feathers white,

conspicuous in flight. Belly white. Bill and legs black. Length  $7\frac{1}{4}$  in. Female rather greyer above; in autumn both sexes lose the black throat and chin. Young, white areas washed with yellow.

*Language*.—Song seldom heard but is loud and hurried, often uttered on the wing; not unlike the Swallow's warble. Call-note, a sharp "chizzic"; it also utters a shrill kind of whistle.

*Habits*.—Though not so quick and graceful as the Grey and Yellow Wagtails, it is most engaging with its see-sawing tail-waggings and its aerial evolutions when insect-hunting; always conspicuous. Flight undulating. It walks sedately, with bobbing head, or runs very nimbly and quickly. Fond of bathing (hence Dishwasher). Much more confiding than the other Wagtails.

*Food*.—Chiefly insects and their larvæ, spiders, and seeds.

*Nest*.—April onwards. Two broods.

*Site*.—In holes in banks, walls, or roof of open shed, and many other similar situations.

*Materials*.—Dry grass, roots, bents, lined with wool, hair, and feathers. Nest rather large and shallow.

*Eggs*.—Four to six. White or greyish white, speckled with grey and dark brown, like one variety of House Sparrow.

#### WHITE WAGTAIL (*Motacilla alba*).

A somewhat casual visitor, chiefly occurring in the South. In Ireland practically unknown; owing to its close resemblance to the last, it may have been overlooked.

*Haunts*.—Like last.

*Plumage*.—Much like last, but differs in the greyer back and wings; more white on head and sides of neck. Length  $7\frac{1}{2}$  in. Female no black on nape or back. Young, cheeks and throat washed with yellow; more of an olive-grey on upper parts.

*Language*.—Similar to last.

*Habits*.—Same as last.

*Food*.—Same as last.

*Nest*.—Same as last.

*Site*.—Same as last.

*Materials*.—Same as last.

*Eggs*.—Five to seven. Same as last, but said to have a bluer tinge.

#### GREY WAGTAIL (*Motacilla melanope*).

Resident or intermigratory. Most common in mountainous districts, but rarer and more local than Pied Wagtail.

*Haunts*.—Rushing mountain torrents, like the Dipper.

*Plumage*.—Head and upper parts bluish grey; pale streak over and under eye. Gorget black. Wings brownish black, edged with buffish white. Tail greenish yellow, long and graceful, with outer feathers white, conspicuous in flight. Under parts bright yellow. Bill dark brown. Legs pale brown. Length  $7\frac{1}{2}$  in. Female duller and no black gorget; throat white (latter remark also applies to male in autumn); breast buff; tail shorter. Young browner above; eye-stripe and under parts more buffy.

*Language*.—Closely resembling that of its Pied relative. Call-note, "si-si."

*Habits*.—A most graceful and pretty bird, quick and agile in its actions, running quickly, and flying in an undulatory manner.

*Food*.—Insects and their larvæ largely; spiders, centipedes, mollusca and crustacea; also seeds.

*Nest*.—April onwards. Two broods.

*Site*.—On the ground in thick tuft of grass, under bush or rock, in wheel-rut, choked ditch, &c.

*Materials*.—Grass, roots, and moss, lined with wool and hair.

*Eggs*.—Five to six. Creamy white, closely mottled and clouded with pale brown, like Yellow Wagtail's, but rather larger.

#### BLUE-HEADED WAGTAIL (*Motacilla flava*).

A casual visitor only, generally in spring, and has bred with us on a few occasions. Has been observed chiefly in the south-eastern, south-western, and southern counties.

*Observations*.—Very like the Yellow Wagtail, but note white streak over eye (not yellow) and double yellowish bars on wings.

*Plumage*.—Crown and nape bluish grey. Lores and ear-coverts dark grey; white superciliary streak; upper parts yellowish olive-green. Wings dark brown, tipped with yellowish white, forming two bars. Tail-feathers blackish brown. Chin white; under parts bright yellow. Bill and legs black. Length  $6\frac{1}{4}$  in. Female shorter; head less grey; under parts not so yellow. Young upper parts greenish brown; under parts pale yellow.

*Language*.—Call-note, "chit-up" or "scizzur."

*Habits*.—Resembling the other Wagtails.

*Food*.—Insects and their larvæ, etc.

*Nest*.—May. Probably one brood only.

*Site*.—On the ground in corn-fields, on bank, &c., amongst herbage.

*Materials*.—Dry grass, roots, moss, lined with hair and a few feathers.

*Eggs*.—Yellowish white, clouded and mottled with pale brown; usually a hair-like streak, like next.

#### YELLOW WAGTAIL (*Motacilla raii*).

Migrant; April to September. Well-distributed though not abundant except in Devon and Cornwall. Local in Scotland, Ireland, and Wales.

*Haunts*.—Pasture-lands, ploughed fields, commons, and brickfields; usually near water.

*Observation*.—Distinguish from Grey Wagtail by the brownish (not dark grey) upper parts and relatively shorter tail.

*Plumage*.—Upper parts generally greenish olive, bright yellow streak over eye. Wings brown, tipped and edged with buff. Tail-feathers blackish brown, two outer pairs white, conspicuous in flight; under parts bright yellow. Bill and legs black. Length  $6\frac{1}{2}$  in. Female browner above and paler below; eye-stripe less yellow. Young even browner than female; throat buffish; sides of neck and breast streaked and spotted with brown.

*Language*.—Song, not extensive and infrequently uttered, somewhat like the Swallow's; call-note a soft whistle, and another note much like the "chizzic" utterance of the Pied Wagtail.

*Habits*.—Closely resembling the other Wagtails. It is most active and graceful, running about quite unconcernedly around the hoofs of beasts when grazing, leaping into the air at intervals to take an insect.

*Food*.—Insects and their larvæ, spiders, and worms.

*Nest*.—April onwards. Two broods.

*Site*.—On ground, in a natural depression or cart-rut, &c., concealed by growing herbage.

*Materials*.—Grass, bents, and moss, lined with finer materials; sometimes some wool hair, and a few feathers.

*Eggs*.—Four to six. Greyish white, mottled with pale ash and olive-brown; usually a dark hair-like streak at the large end.

#### TREE PIPIT (*Anthus trivialis*).

Migrant; April to September. Occurring commonly in most localities, except the most western parts of Cornwall and Wales. More local in Scotland. Practically unknown in Ireland.

*Haunts*.—Outskirts of woods, shrubberies, gardens, parks, &c., where there are some good-sized trees.

*Observation.*—Distinguish from Meadow Pipit by larger size, warmer tint, and paler legs.

*Plumage.*—Upper parts ashy olive, each feather having a dark centre. Wings darker, with pale margins. Tail dark brown, with two outer feathers white, conspicuous in flight; superciliary stripe buffish. Throat dull white; under parts buff, with dark brown spots and streaks. Bill brown above, paler below. Legs flesh-coloured. Length 6 in. Female slightly smaller, with spots on breast less clear. Young more spotted than adult.

*Language.*—Song may be syllabised thus: “chee-chee-chee-chee-e-chaw-e-chaw-whee-whee-whee,” last syllables repeated several times; call-note, a prolonged “see”; alarm-note, a sharp “chip.”

*Habits.*—Much like the Wagtails in the way it fans its tail and walks or runs. It usually has a favourite tree from which it at intervals springs up into the air with rapidly beating wings. When about thirty or forty feet up it commences to sing, descending to the tree from which it started, or an adjacent one, in a series of graceful curves, and with wings held open in a parachute-like manner; it also sings when perched.

*Food.*—Insects and their larvæ, spiders, seeds of cereals, &c.

*Nest.*—May onwards. Two broods.

*Site.*—On the ground; often at foot of male's favourite tree, in some depression concealed by growing herbage.

*Materials.*—Bents, roots, dry grass, and moss; lined with fine bents, grass, and hair.

*Eggs.*—Four to six. Most variable in colour and markings. Dull white, densely spotted or mottled with greyish olive-brown.

### MEADOW PIPIT OR TITLARK (*Anthus pratensis*).

Resident, or partially migrant. Common pretty well everywhere, haunting moors, commons, pasture-lands, and the like.

*Plumage.*—Upper parts ashy olive-brown, each feather having a dark centre. Dull white eye-stripe; wings darker and primaries edged with yellowish. Tail also darker, with two outer feathers whitish, conspicuous in flight; under parts buffish white, with many elongated brown markings. Bill dark brown above, paler below. Legs pale brown. Length  $5\frac{3}{4}$  in. Female less strongly marked below. Young yellower, and under markings darker.

*Language.*—Song delivered like last, and consists of “chuwick,” repeated several times in the ascent, and “see-see,” repeated often in the descent. Call-note, “ist.” Alarm-note, “peet.”

*Habits*.—Much resembling the last, but not arboreal, confining its attentions to low bushes, from which it frequently rises, singing and returning to same or an adjacent one with expanded wings and tail. Food taken on the ground. Flight rather wild and jerky, somewhat like the Wagtail's.

*Note*.—Practically indistinguishable from the Rock Pipit, but this species never quits its grass-land haunts.

*Food*.—Insects and their larvæ, spiders, worms, small beetles, and small seeds.

*Nest*.—April onwards. Two broods.

*Site*.—On the the ground, in some cavity concealed by growing herbage.

*Materials*.—Dry grass, bents, and moss, lined with fine bents, fibres, and hair.

*Eggs*.—Four to six. Greyish white mottled with olive-brown; usually a hair-like streak at the large end. Like Rock Pipit's, but smaller.

#### ROCK PIPIT (*Anthus obscurus*).

Resident; found nearly all round our coast-lines, except on the east; common in Channel Islands and in northern islands of Scotland.

*Haunts*.—Rocky sea-coasts; the only songster inhabiting the seashore.

*Plumage*.—Upper parts olive-brown, each feather having a dark centre; a whitish eye-stripe; a smoky grey patch on inner web of outer tail-feathers; under parts buffish white, spotted and streaked with dark brown. Bill dark brown above; paler below. Legs brown. Length  $6\frac{1}{2}$  in. Female similar. Young more streaked and spotted.

*Language*.—Song much like Meadow Pipit's, and delivered on the wing as a rule, with a rock instead of a low bush as a base. Call-note, "ist," persistently repeated if disturbed.

*Habits*.—*Note*. Almost indistinguishable from Meadow Pipit, but this species never quits the seashore; much like the other Pipits. When alarmed it does not fly far, but shifts uneasily about from rock to rock uttering its call-note.

*Food*.—Marine insects and their larvæ, small mollusca and crustacea; also seeds.

*Nest*.—April onwards. Two broods.

*Site*.—Among or under rocks, &c.; in clump of sea-pink, or in tuft of grass.

*Materials*.—Bits of seaweed, grass and moss, lined with fine grass and hair.

*Eggs*.—Four to five. Greenish white; densely mottled, especially at the large end, with dark brown; like Meadow Pipit's, but with no hair-like streak.

## Family ORIOLIDÆ.

GOLDEN ORIOLE (*Oriolus galbula*).

An annual spring migrant, more especially in the South. It has bred with us, and doubtless would do so annually if "collectors" would allow it.

*Haunts*.—Gardens, plantations, woods, &c.

*Plumage*.—Lores black; wings black, margined and tipped with yellowish white. Tail yellowish, tipped with black; otherwise golden yellow. Bill red. Legs lead-colour. Length  $9\frac{1}{2}$  in. Female duller and greener, with reddish markings rather than black; under parts streaked with greyish. Young duller than female.

*Language*.—Song not extensive, but melodious and flute-like—"weet-li-wee-o." Call-note, a harsh "khrr."

*Habits*.—Although not averse to man's haunts, it is very shy, and prefers to sit in the umbrageous shelter of some thick tree, as though self-conscious of its brilliant exotic colouring. It flies like a thrush, only more undulatingly.

*Food*.—Insects and their larvæ, spiders, &c.; specially fond of cherries.

*Nest*.—May or June. Probably one brood only.

*Site*.—Usually suspended at the end of some small bough of an oak or fir-tree.

*Materials*.—Bark-strips, grasses, and wool lined with grass; hammock-like in appearance.

*Eggs*.—Four to five. Glossy white, spotted with dark brown.

## Family LANIIDÆ.

GREAT GREY SHRIKE (*Lanius excubitor*).

A fairly frequent visitor in autumn and winter; it has not been proved to breed here.

*Plumage*.—Eye-stripe white; lores and ear-coverts black; upper parts pearl-grey, whiter on the scapulars. Wings black; primaries and secondaries tipped with white. Tail black, tipped with white; outer tail-feathers white; under parts white. Bill black, and slightly hooked. Legs black. Length  $9\frac{1}{2}$  in. Female duller, and faintly barred on under parts with greyish brown.

*Language*.—Call-note, "tru-i-i"; alarm-note, "shake-shake."

*Habits*.—Flight strong and undulating. Like the other Shrikes, it is predaceous, perching like a sentinel at the top of some tree, watching its quarry, upon which it pounces, and

either tears it to pieces like a hawk, or impales the writhing victim on stout thorns.

*Food*.—Small birds and mammals, lizards, frogs, insects, beetles, and grasshoppers.

*Nidification*.—Breeds in Europe.

### RED-BACKED SHRIKE (*Lanius collurio*).

Migrant; April to September. Common enough in certain localities; most abundant in southern counties, except Cornwall; rarer towards the north; rare in Ireland.

*Haunts*.—Margins of woods, commons, and the like, where there are good thick hedges.

*Plumage*.—Band passing from base of bill through eyes to lores black; upper parts grey, except mantle, which is chestnut-brown. Wings dark brown, edged with chestnut. Two central tail-feathers black, the rest black at the end and white at the base; under parts buff suffused with rose. Bill and legs black. Length 7 in. Female: upper parts reddish brown, slightly barred; no black on head, and pale buff eye-stripe. Young almost similar to female.

*Language*.—A great mimic, uttering notes like several other birds; one note like a House Sparrow's attempt at song. Call-note a harsh chirp. Alarm-note a harsh "chack."

*Habits*.—It resembles the other Shrikes in its raptorial habit of capturing its prey and spitting it on thorns near its nest (hence Butcher Bird). When perched at the top of some hedge or tree—like a sentinel—it utters its chattering notes and jerks its tail.

*Food*.—Small birds, mammals, and reptiles; also bees, wasps, beetles, &c.

*Nest*.—June. One brood only.

*Site*.—In fork of thick hawthorn hedge, usually.

*Materials*.—Stalks, roots, and moss, lined with bents, horse-hair, and occasionally some wool; nest rather large.

*Eggs*.—Four to six. Dull pinky or buffy white, spotted or zoned with reddish and olive-brown, and purplish grey underlying. Variable.

### Family AMPELIDÆ.

#### WAXWING (*Ampelis garrulus*).

An irregular visitor, usually to the northern and eastern districts, often in considerable numbers.

*Plumage*.—Frontal band, lores, and chin black. Forehead and crest chestnut-brown; upper parts light greyish brown, shading into ash-grey towards rump. Wings black, tipped

with white; outer webs of secondaries tipped with white, and with several red sealingwax-like appendages (hence Waxwing). Tail black, broadly tipped with yellow; under parts rosy brown, whiter on the belly; under tail-coverts chestnut. Bill and legs black. Length  $7\frac{1}{2}$  in. Female duller. Young browner, and no black chin.

*Language*.—Usually rather silent; it has a note not unlike the Blue Tit's, thus: "cir-ir-ir-irre."

*Habits*.—Flight not unlike the Starling's. In its movements and actions it reminds one of the Tits.

*Food*.—Insects, but fond of many kinds of berries, especially mistletoe berries.

*Nidification*.—Breeds in Northern Europe, &c.

### Family MUSCICAPIDÆ.

#### SPOTTED FLYCATCHER (*Muscicapa grisola*).

Migrant; May to September. Pretty common throughout Great Britain; rarer towards the north and in Scotland and Ireland.

*Haunts*.—Gardens, margins of woods, &c.

*Plumage*.—Upper parts ashy brown. Wings and tail darker brown, with paler margins; under parts greyish white, marked with elongated brown spots. Bill dark brown. Legs blackish. Length  $5\frac{1}{2}$  in.; female similar; young more spotted.

*Language*.—Song a faint utterance, composed of a few rambling notes delivered in a *sotto voce*; really a repetition, more or less varied, of the call-note, which much resembles the Robin's. Alarm-note, "chick."

*Habits*.—Fond of perching on a post, rail, or wire-fence, and making erratic little excursions therefrom to catch insects, returning to same time after time—a most distinctive habit. Flight rapid and undulating. It returns year after year to the same nesting site.

*Food*.—Insects almost entirely; spiders, centipedes; fruits, and berries, sometimes.

*Nest*.—June onwards. Two broods, sometimes.

*Site*.—In cavity in tree or wall, on rafter of open shed, amongst ivy, in evergreens or trained wall-fruit tree, and many other similar situations.

*Materials*.—Small twigs, roots, grass, moss, and spider's web; lined with fine grass, rootlets, feathers, hair, and wool.

*Eggs*.—Four to six. Bluish or greenish white, spotted and blotched with reddish brown. Rather variable.

PIED FLYCATCHER (*Muscicapa atricapilla*).

Migrant; April to September. Much rarer and more local than last; breeding sparingly in the southern counties, but rather more frequently in the West, Wales, and the North.

*Haunts*.—Gardens, orchards, &c.

*Plumage*.—Upper parts and tail black, greyer on rump and browner on wings. Forehead, central wing-coverts, and under parts, white. Bill and legs black. Length 5 in. Female: upper parts browner, and white surfaces washed with buff. Young spotted above with buff, and below with dark brown.

*Language*.—A far better songster than last, song reminding one in turn vaguely of the Redstart's and Chaffinch's. Alarm-note, "chick."

*Habits*.—Closely resembles the last.

*Food*.—Insects chiefly; small beetles and worms; also soft fruits.

*Nest*.—May or June. One brood.

*Site*.—In hole in a tree or wall, &c.; never in an exposed situation like last.

*Materials*.—Bents, rootlets, grass, leaves, and moss; lined with wool, feathers, and hair, loosely compacted.

*Eggs*.—Five to nine. Uniform very pale blue.

## Family HIRUNDINIDÆ.

SWALLOW (*Hirundo rustica*).

Migrant; April to October. Well distributed and common, except in the extreme North.

*Haunts*.—Country villages and towns.

*Plumage*.—Forehead and chin chestnut-brown. Upper parts, sides of neck, and belt across chest black with purplish reflections; under parts dull reddish white. Tail long and forked. Bill and legs black. Length  $7\frac{1}{2}$  in. Female, less chestnut on forehead and less black on chest; under parts whiter. Young, duller, chestnut areas whiter.

*Language*.—Song, pleasing, and rather reminiscent of the Linnet's; a twittering kind of warble, consisting of one note like "le-wit," and another rather metallic one. Call-note, "whit." Alarm-note, "whit-tit-tit-tit."

*Habits*.—Flight graceful, gliding and doubling. It seldom alights on the ground, and even drinks on the wing, skimming the surface of the water for the purpose. It returns year after year to the same nest.

*Food*.—Insects, almost entirely captured on the wing.

*Nest*.—May onwards. Two broods.

*Site*.—On top of rafter or purlin in an open shed, in chimneys, under stone bridges, &c.

*Materials*.—Mud pellets mixed with dry grass or hair; lined with fine grass and feathers. Nest saucer-shaped.

*Eggs*.—Four to six. White, spotted with rich red-brown, and greyish purple shell-markings.

#### HOUSE MARTIN (*Chelidon urbica*).

Migrant; April to October. Generally distributed and common, except in the extreme North.

*Haunts*.—Country villages, farm-yards, &c.

*Observation*.—Distinguish from Swallow by shorter and less forked tail and white throat and rump.

*Plumage*.—Head, nape, upper parts, except rump, black with purplish reflections; under parts and rump pure white. Wings and tail sooty-brown. Bill black. Legs and toes covered with white downy feathers. Length  $5\frac{1}{2}$  in. Female, similar. Young, browner above and under parts dingy white.

*Language*.—Song, a simple twittering repetition of the call-note, "szeet."

*Habits*.—Much resembling the last, but not quite so quick on the wing. Better able to walk, but its progress is laboured. It nests in small colonies usually, and returns to the same place yearly.

*Food*.—Insects entirely.

*Nest*.—May onwards. At least two broods.

*Site*.—Against the wall of some building, generally with the eaves projecting over it; under bridges, &c.

*Materials*.—Mud applied with the beak and giving a wattled appearance, and in shape semi-spherical with entrance-hole near the top; lined with straw, dry grass, and feathers.

*Eggs*.—Four to six. White and slightly glossy.

#### SAND MARTIN (*Cotile riparia*).

Migrant; April to September. Somewhat local, but occurring abundantly enough in suitable places.

*Haunts*.—Gravel- and sand-pits, waste, broken land; partial to rivers.

*Observation*.—Distinguish from two preceding species by prevailing mouse-brown upper plumage.

*Plumage*.—Upper parts, cheeks, and bar on breast mouse-brown. Throat and under parts white. Wings and tail blackish brown. Bill black. Legs dark brown. Length 5 in. Female, similar with narrower bar across breast. Young, upper parts tipped with whitish buff; under parts dingy white.

*Language*.—Rather like the last, but sharper and coarser in tone. Call-note, "sweer."

*Habits*.—It feeds like the last two on the wing, but the flight is far more vacillating. Although weak-billed, it tunnels into the faces of sand and gravel-pits for the purpose of nest-site. Breeds in colonies.

*Food*.—Insects.

*Nest*.—May onwards. Two broods.

*Site*.—In gravel- or sand-pits, in railway-cuttings, &c., the tunnel being two or three feet long, terminated by the nest cavity.

*Materials*.—Dry grass, straw, and rootlets loosely put together, with a lining of feathers.

*Eggs*.—Four to six. White and slightly glossy.

### Family FRINGILLIDÆ.

#### Subfamily COCCOTHRAUSTINÆ.

#### GREENFINCH (*Ligurinus chloris*).

*Resident*. Abundant throughout Great Britain, except in the extreme North.

*Haunts*.—Shrubberies in gardens, orchards, outskirts of woods, &c.

*Plumage*.—Yellowish green, variegated with yellow and ash-grey. Bill flesh-coloured and rather massive. Legs horn-brown. Length 6 in. Female, rather smaller and browner. Young, much like female.

*Language*.—Song, bright and clear, but always terminating with a monotonous “zshweer.” Another note is “did-it-it.”

*Habits*.—Sociable, even in the breeding season. It likes to hide among the leaves of some moderately tall tree, where, for hours, it will utter its “zshweer” note, especially in sultry weather. In autumn and winter they go about in foraging parties. In flight the yellowish margins of the primaries are rather conspicuous, as is also the yellower green of the tail.

*Food*.—Grubs, caterpillars, and various kinds of seeds.

*Nest*.—April onwards. Two broods or more.

*Site*.—In the middle of thick hawthorn hedge or in dense evergreens; in trees, amongst ivy, &c.

*Materials*.—Variable; generally small twigs, roots, dry grass, straw, and moss, lined with fine grass, hair, and feathers.

*Eggs*.—Four to six. Like Linnet's, but larger. Greenish white, spotted and speckled chiefly at large end with purplish red and reddish brown.

HAWFINCH (*Coccothraustes vulgaris*).

Resident. Decidedly local, but occurring in most counties ; rarer in Wales, the West and the North ; rare in Ireland.

*Haunts*.—Well-wooded districts ; seldom seen near human habitations.

*Plumage*.—Lores, throat, and line round base of bill black. Crown and cheeks reddish brown. Nape ash-grey. Back dark reddish brown. Wings bluish black. Median coverts white, conspicuous in flight ; under parts light purplish red, fading into white on under tail-coverts, noticeable in flight. Bill blackish at tip, lead-colour towards base ; very massive. Eye white. Legs flesh-colour. Length 7 in. Female, duller throughout, and white areas more dingy. Young, no black on throat or grey on nape ; head yellower ; under parts paler ; upper parts more or less mottled ; breast and flanks barred with dark brown.

*Language*.—Song, rather like the last, but inferior to it. It is usually a silent bird. Call-note, a sharp clicking sound like “ sit ” three or four times repeated.

*Habits*.—Being very shy it seems rarer than it really is. Flight rapid and undulating. Sociable in winter.

*Food*.—Chiefly seeds and berries of many kinds ; sometimes caterpillars and insects.

*Nest*.—May. One brood.

*Site*.—In thick hedge or tree in a wood.

*Materials*.—Twigs, stalks, roots, and lichens, lined with fine roots, grass, and some hair. In form rather like the Bullfinch's, but flatter and larger.

*Eggs*.—Four to six. Pale bluish green, spotted and streaked with dark olive-brown, and faint grey underlying.

## Subfamily FRINGILLINÆ.

GOLDFINCH (*Carduelis elegans*).

Resident, but intermigratory in winter. Pretty generally distributed, but less abundant than formerly.

*Haunts*.—Woods, plantations, gardens, orchards, and waste lands.

*Plumage*.—Back of head, nape, and region round base of bill black. Forehead and throat blood-red. Cheeks, fore part of neck, and under parts white. Back dark brown. Wings variegated with black, white, and yellow. Tail black, tipped with white. Bill whitish tipped with black. Legs flesh-colour. Length 5 in. Female, slightly smaller and duller. Young, no black or crimson on the head, under parts brownish white.

*Language.*—Although a favourite cage-bird, the song is neither brilliant nor extensive. It is really a repetition of the call-note with variations: thus, “whee-e-ur, whee-e-ur, too-oo-ee, ti-weer-ti-weer, whit-wea, chi-whit-chi-wit, chi-whit, wheec-wheec-wheec.” Call-note, “twit it-it.”

*Habits.*—Very sociable in winter. Fond of perching on thistle plants, tearing the down out and scattering it upon the breeze, in its endeavours to get at the seeds. Flight undulating and fairly rapid; it twitters whilst flying.

*Food.*—Aphides, caterpillars, and many kinds of seeds.

*Nest.*—May onwards. Two broods.

*Site.*—In apple and other fruit trees; sometimes in evergreens and hawthorn hedges.

*Materials.*—Small twigs, rootlets, bents, moss, wool, and lichens, lined with thistle-down, hair, and feathers.

*Eggs.*—Four to five. Greenish or bluish white spotted and streaked with reddish or purplish brown and lilac-grey shell markings. Much like Linnet's but rather smaller.

#### SISKIN OR ABERDEVINE (*Chrysomitris spinus*).

An irregular migrant. Chiefly confined to the fir-woods of the North, but it has bred sparingly in some of the southern counties. In winter more generally distributed.

*Plumage.*—Crown, chin, and lores black. Yellow stripe at back of eye. Upper parts olive-green, with darker shaft margins. Wings black with greenish yellow bar. Rump yellow. Tail black towards tip, yellower towards base. Two central feathers dusky. Throat and breast yellow. Belly white. Bill light brown. Legs brown. Length  $4\frac{1}{2}$  in. Female, a little smaller, duller, and no black on head; under parts more streaked. Young, still duller.

*Language.*—Song, a rapid and irregular twitter, finishing with a harsh “chair.” Call-note, “hoote-lee.”

*Habits.*—Very active, and almost Tit-like in some ways. Sociable. In the love-season the male soars up from his perch and then descends to it with fluttering wings and outspread tail.

*Food.*—Seeds of weeds, aphides, and caterpillars.

*Nest.*—April onwards. Two broods.

*Site.*—At the top of some fir-tree, or at end of lateral branch; less frequently in bushes.

*Materials.*—Small fir-twigs, bents, heather, rootlets, and moss, lined with fine grass, vegetable down, hair, and sometimes feathers.

*Eggs.*—Four to six. Pale bluish green, spotted and dotted with dark reddish brown. Much like Goldfinch's, but rather smaller and bluer.

HOUSE SPARROW (*Passer domesticus*).

Resident, and common everywhere.

*Plumage*.—Crown, nape, and lower part of back slate-grey. Lores black. Back and chest nut-brown streaked with black. Wings brown with white bar on middle coverts. Tail blackish brown. Throat and breast black. Cheeks and sides of neck white; under parts dingy white. Bill bluish black. Legs pale brown. Length 6 in. Female, duller; no black on throat and breast; white bar on wings less distinct; under parts browner. Young, like female but paler.

*Language*.—A variety of notes, none of which are really musical. Usually a chirping kind of "chissic," and others like "chow, chow, chivi, chivi, chow-chivi."

*Habits*.—Gregarious even at nesting-time, and usually seen in foraging parties of half-a-dozen or more. In towns it performs the useful office of a scavenger, but in the country it is apt to become a pest in the farmer's estimation. It hops on the ground. In the love season the male has a curious habit of puffing out his feathers and drooping his wings, all the while pirouetting round chirping gaily, apparently for the delectation of the female. It will fight very desperately with others of its kind at this season. It often takes possession of Martin's nests and drives them away.

*Food*.—Practically omnivorous. In the garden it is a nuisance, and is fond of tearing various flowers to pieces. If not kept under it becomes a pest, devouring large quantities of grain and seeds.

*Nest*.—April onwards. Several broods.

*Site*.—Various, usually in the thatch of some farm-building, amongst ivy, in trees, in and under eaves-gutters, &c.

*Materials*.—Nothing comes amiss. Generally dry grass, and other rubbishing materials, like rags, string, &c., lined with feathers. Nest domed, or more correctly bag-shaped, with entrance near the top; always untidy.

*Eggs*.—Four to six. Bluish white, speckled and spotted with grey and dark brown. Very variable.

TREE SPARROW (*Passer montanus*).

Resident. Most abundant in the eastern and midland counties, and in the east of Scotland and Ireland, but distinctly local. Being shyer than the last, it is seldom met with near houses, preferring the open country.

*Plumage*.—Closely resembling the last, but differing in its slightly smaller size, chestnut-brown head, white collar almost surrounding the neck, and the two (instead of one) white

transverse bars on the wing; otherwise lores and throat black. Upper and under parts like the last. Length  $5\frac{1}{2}$  in. Female, similar. Young have black markings replaced with brown, and wing-bars washed with buff.

*Language*.—Much like the last but, if anything, its chirrupings are rather more tuneful.

*Habits*.—More shy and active than the last, and more partial to trees, seeking its food there as well as on the ground.

*Food*.—Insects, caterpillars, and spiders. Various kinds of seeds in winter.

*Nest*.—April onwards. Two or three broods.

*Site*.—In holes in trees, preferably pollards growing near water, in holes in walls, sometimes in the outside of thatched roofs.

*Materials*.—Dry grass and straw lined with feathers, wool, and hair. In shape like the last, and untidily and flimsily constructed.

*Eggs*.—Four to six. Much like the last but smaller. Greyish white, speckled and spotted with various shades of brown and dark grey. Variable.

#### CHAFFINCH (*Fringilla cœlebs*).

Resident. Generally distributed throughout Great Britain.

*Haunts*.—Well-wooded districts.

*Plumage*.—Forehead velvety black. Crown and nape bluish grey. Mantle bright chestnut. Rump yellowish green. Breast chestnut-red passing into white on the belly. Wings black with two white conspicuous bars. Tail black; two middle feathers grey, two outer feathers broadly banded with white, conspicuous in flight. Bill lead-colour. Legs brown. Length 6 in. Female: back and crown buffish brown; under parts buffish grey. Young, like female but paler.

*Language*.—Song, bright and joyful though tending towards monotony, as it is repeated again and again without the slightest variation. It pitches deliberately on the highest note and energetically rattles down the scale in a staccato manner, thus: "tsip-tsip-tsip-tsip-turrrrl-turrrrl," terminating with "tissi-ear" or "de-ur." Call-note, "whit" or "twit." Alarm-note, like "pink" or "spink," rather metallic.

*Habits*.—Sociable in winter, but the sexes usually keep apart until early spring (hence "cœlebs"). It both runs and hops when feeding on the ground. Flight undulating.

*Food*.—Chiefly insectivorous in summer; in winter, seeds of various kinds and grain.

*Nest*.—April onwards. Two or three broods.

*Site*.—In fork of some lichen-clad fruit-tree, on lateral

bough of elm-tree, in thick hedge, in beech and birch trees, sometimes in evergreens.

*Materials*.—Lichens, moss, grass, cobwebs, and wool felted together, lined with hair, down, and feathers.

*Eggs*.—Four to six. Greenish blue, spotted, dotted, clouded, and streaked with reddish and purplish brown.

### BRAMBLING (*Fringilla montifringilla*).

An irregular winter migrant. Commoner in the North, and much rarer in the South and West; it may breed in the extreme North.

*Plumage*.—Head, cheeks, nape, and upper part of back black (tipped with light brown in winter). Scapulars tawny brown. Wings black, variegated with orange-brown and white. Rump white mottled with black. Tail black; white bases to outer pair of feathers. Throat and breast reddish tawny, fading into white on the belly. Flanks spotted with black. Bill bluish black. Legs brown. Length 6 in. Female, no black areas and all colouring duller. Young, like female.

*Language*.—Song, much like Chaffinch's without the terminal notes, and also long-drawn, monotonous "zshweo," much like the Greenfinch's. Call-note, a harsh "chib" or "whit."

*Habits*.—Much like the last.

*Food*.—Insects in summer. In winter, beech-mast and various seeds.

*Nest*.—May or June. One brood.

*Site*.—In fork of some birch or fir-tree. Sometimes in bushes.

*Materials*.—Birch bark-strips, lichens, and moss, lined with fine grass and feathers. Not unlike the last.

*Eggs*.—Five to seven. Much like Chaffinch's, but greener and less marked.

### LINNET (*Acanthis cannabina*).

Partially migrant; well-distributed through Great Britain, except in the more mountainous parts.

*Haunts*.—Furze-grown commons, uncultivated lands, &c.

*Plumage*.—Variable according to age, sex, and season. Fore-head and centre of crown crimson; other parts of head and sides of neck brownish grey. Mantle chestnut-brown. Wings blackish with outer edges white, giving a conspicuous bar in flight. Tail-feathers black edged with white. Chin and throat dull white striped with greyish brown. Breast crimson. Belly sordid white. Bill horn-colour. Legs brown. Length  $5\frac{1}{2}$  in. In autumn, feathers of crown and breast bordered with grey,

almost hiding the crimson. Under parts more striated. Female, slightly smaller, no crimson colouring, and altogether duller and more striated. Young, like female.

*Language*.—Song, a chuckling "turra-tit-turra-turra-turra," generally delivered in an irregular manner on the wing; also "chick-chick-a-chock-chick-chick-a-chick, chick, chick, chick-achoo." Call-note, "twit," rapidly repeated.

*Habits*.—Flight fairly rapid and undulating, more aerial than other Finches, and in the love season the male delights in rising up into the air a few yards and then gracefully descending, singing his best notes. Gregarious, even in the breeding-season.

*Food*.—Aphides and caterpillars in summer. Its diet, however, is chiefly various kinds of seeds; berries and grain in winter.

*Nest*.—April onwards. Two broods.

*Site*.—Preferably in a furze-bush; in evergreens, and garden shrubberies sometimes, in hawthorn hedges and bushes.

*Materials*.—Dry grass, small twigs, stalks, moss, and wool, lined with wool, down, hair, and feathers.

*Eggs*.—Four to six. Bluish or greenish white, spotted and speckled, and sometimes streaked with reddish and purplish brown.

#### MEALY REDPOLL (*Acanthis linaria*).

An irregular winter visitor; chiefly observed in the east of Scotland and the north of England.

*Observation*.—Distinguish from Lesser Redpoll by generally lighter appearance.

*Plumage*.—Lores black. Forehead crimson. Upper parts dark brown, mottled and streaked with blackish brown. Wings blackish, edged with pale brown and whitish. Tail dark brown with pale margins. Chin black. Sides of neck and breast carmine; under parts dingy white, streaked on flanks with dark brown. Bill horn-colour, yellower towards base. Legs dark brown. Length 5 in. In autumn, colouring altogether paler and carmine areas more or less concealed. Female, smaller, darker above, and more streaked below; less carmine on head and none on breast.

*Language*.—Song, a vibrating kind of trill. Call-note, "tewey."

*Habits*.—Very Tit-like in its actions, being most restless and fidgety.

*Food*.—Insects and their larvæ, but usually seeds of many kinds.

*Nidification*.—Breeds within the Arctic Circle.

LESSER REDPOLL (*Acanthis rufescens*).

Resident. Occurring most abundantly in the north of England and Ireland. It nests in most of the counties, but more sparingly towards the South. In Scotland, very local.

*Haunts*.—Well-wooded districts.

*Observation*.—Our smallest Finch, and distinct on account of its darker and rosier colouring.

*Plumage*.—Forehead, lores, and throat black. Crown crimson; upper parts reddish brown, streaked longitudinally with blackish. Wings and tail dark brown with pale margins. Breast rose-red. Belly and under tail-coverts sordid white. Bill dark brown at tip, otherwise yellowish. Legs blackish brown. Length 5 in. In autumn rosy tints less distinct. Female slightly smaller and duller, with rose colour only to head. Young, duller than female, and no rose-colour on head.

*Language*.—Song, a short clear twittering, not unlike the Linnet's but much coarser. Call-note, "tit-it-it."

*Habits*.—Much like the Linnet, but more Tit-like and engaging in its movements. It seldom feeds on the ground, except in winter, when it is gregarious. Rather a confiding bird.

*Food*.—Insects and their larvæ, and seeds, especially those of the birch.

*Nest*.—May onwards. Two broods.

*Site*.—In the fork of a tree or hedge, in low bushes and tufts of grass, in alders, willows, &c.

*Materials*.—Small twigs, roots, stalks, and moss, lined with vegetable down, hair, wool, and feathers.

*Eggs*.—Four to six. Pale greenish blue, spotted and speckled with reddish and purplish brown.

TWITE OR MOUNTAIN LINNET (*Acanthis flavirostris*).

Resident, but migratory to some extent in winter. Occurring locally in the northern midlands and the North; common in North Wales, Scotland, and Ireland.

*Haunts*.—Mountain and moorland districts.

*Observation*.—Distinguish from Linnet and Redpolls by absence of rose tint on head and breast.

*Plumage*.—Upper parts dark brown. Feathers margined with lighter brown. Rump rose-red. Wings dark brown margined with whitish, and conspicuous in flight. Cheeks and throat reddish buff. Breast and belly dingy white, streaked on the flanks with dark brown. Bill light yellow. Legs dark brown. Length 5 in. In winter much greyer in colouring. Female, no rose-red rump. Young, duller.

*Language*.—Song, not unlike the Linnet's, but inferior to it. Call-note, "twah-it" (hence Twite).

*Habits.*—Much like the Linnet, but of slimmer appearance, and more shy than the last. Gregarious in winter.

*Food.*—Small caterpillars and various seeds.

*Nest.*—May onwards. Two broods.

*Site.*—Very low down, or on the ground in bunch of heather, tuft of grass, or furze-bush.

*Materials.*—Dry grass, rootlets, heather-sprigs, and moss, lined with hair, wool, feathers, and sometimes thistle-down.

*Eggs.*—Four to six. Pale greenish blue, speckled and spotted with reddish and purplish brown.

### BULLFINCH (*Pyrrhula europæa*).

*Resident.* Generally distributed in well-wooded localities. More local in Scotland.

*Haunts.*—Districts abounding in thick bushes and hedges, near woods.

*Plumage.*—Head, throat, wings, and tail black. Back bluish ash-grey. Sides of neck and under parts salmon-red, except under tail-coverts which are dull white. Rump white and conspicuous. Broad white conspicuous band across wings. Bill black. Legs dark brown. Length 6 in. Female, duller on upper parts; under parts dove-brown. Young, like female, but without black on head, and wing-bars sordid white.

*Language.*—The natural song is poor, being short in duration and feeble in utterance, but in captivity its notes are capable of development, when it becomes a good songster. Call-note, a plaintive whistling "wheoo."

*Habits.*—Gregarious in autumn and winter. In the breeding season it keeps strictly to woods; obtains its food usually in trees and bushes, seldom on the ground except in winter.

*Food.*—In summer, aphides, caterpillars, and small seeds. It is said to devour buds of fruit-trees, and is much persecuted on this account.

*Nest.*—April onwards. Two broods.

*Site.*—In a thick non-deciduous tree, in hawthorn hedges, &c.

*Materials.*—Small twigs, roots, and bents, lined with fibres and horsehair. Nest rather flat.

*Eggs.*—Four to five. Greenish blue, spotted, blotched, and streaked with red and dark purplish brown.

### COMMON CROSSBILL (*Loxia curvirostra*).

An irregular migrant; breeding only in certain pine-woods in Scotland and Ireland; elsewhere met with irregularly in winter, usually in small flocks.

*Plumage*.—Variable, according to age, sex, and season. Wings and tail brown; otherwise brownish red is the usual colouring. Bill dark brown, having the mandibles crossed (hence name). Legs dark brown. Length  $6\frac{1}{2}$  in. Female, more or less streaked, and brownish red colouring of the male replaced by greenish yellow. Young, more of a greyish green and more streaked below.

*Language*.—Song, a low warble. Call-note, "gip-gip" or "chip-chip."

*Habits*.—Gregarious. When climbing about the branches of a fir it is distinctly parrot-like in its actions, helping itself along with its beak. Flight strong and undulating.

*Food*.—Caterpillars in summer, but chiefly berries, and especially seeds of the fir and pine.

*Nest*.—February or March. Probably one brood only.

*Site*.—At varying altitudes, in a fork or on lateral branch of a fir-tree.

*Materials*.—Fir-twigs, grass, and lichen, lined with fine grass, moss, wool, and feathers.

*Eggs*.—Four to five. Pale greenish blue, spotted and speckled rather sparingly with dark reddish brown, and paler underlying markings.

## TWO-BARRED CROSSBILL (*Loxia bifasciata*).

A very rare straggler. It is distinguished from the last by the two white bars on the wings.

### Subfamily EMBERIZINÆ.

## CORN OR COMMON BUNTING (*Emberiza miliaria*).

Resident. Generally distributed, but decidedly local, and found most abundantly in well-cultivated districts. Rarer farther north.

*Haunts*.—Fields, more particularly where cereals are growing.

*Plumage*.—Upper parts yellowish brown with blackish centres to the feathers. Wings darker brown margined with buff. Tail lighter brown with pale edges; under parts buffish white marked with dusky streaks. Bill yellowish brown. Legs flesh colour. Length 7 in. Female, slightly smaller and greyer. Young, more richly coloured.

*Language*.—Song, two or three energetic chirps followed by a jumbled-up sound like the smashing of glass as heard from some distance, or the crunching of a bunch of keys in the palm of the hand, thus: "tees-tees-tees-tis-is-is-s-s-r-r-re." Call-note, "tzit" or "tzit-kaak," having a metallic sound.

*Habits.*—Sedentary, and fond of sitting on the top of a hedge, telegraph wire, &c., uttering its curious, monotonous song. Flight laboured and clumsy, with dangling legs. In autumn gregarious.

*Food.*—Insects and their larvæ; also peas, beans, and unripe corn. In winter, grain and seeds.

*Nest.*—May or June. One brood.

*Site.*—Close to or on the ground, amongst growing herbage, in hollow of grassy bank, among brambles.

*Materials.*—Dry grass, straw, roots, and a little moss, lined with fibres, grasses, and horsehair. Nest-cup deep.

*Eggs.*—Four to six. Pale purplish or creamy white, blotched, streaked, and scribbled, in characteristic Bunting fashion, with dark purplish brown.

### YELLOW BUNTING OR YELLOW HAMMER

(*Emberiza citrinella*).

Resident, and abundant throughout Great Britain.

*Haunts.*—Open country and well-cultivated districts.

*Plumage.*—Head, neck and under parts bright yellow, more or less streaked with blackish; upper parts chestnut, streaked with dusky; white edges of tail conspicuous in flight. Bill bluish. Legs pale brown. Length  $6\frac{1}{2}$  in. Female, much less yellow, and more streaked with reddish brown. Young, like female in non-breeding dress, *i.e.*, more ashy on upper parts.

*Language.*—Song, the familiar "Little bit of bread and no cheese," with the last syllable drawn out. Call-note, "chick-chick-churr."

*Habits.*—Fond of perching on the top of a hedge or gatepost, &c., to sing. Rather sedentary, but flight fairly rapid and undulating. In autumn gregarious, often consorting with the Finches. On the ground it hops.

*Food.*—Insects and their larvæ; in winter, grain and seeds.

*Nest.*—April onwards. Two or three broods.

*Site.*—Near or on the ground, in side of hedge amongst herbage, at base of low bush, among brambles; seldom in furze-bushes.

*Materials.*—Straw, dead grass, stalks, roots, and moss, lined with fibres and horsehair. Cup fairly deep.

*Eggs.*—Four to five. Pale purplish white, streaked, veined, and scribbled with purplish red and greyish lavender; variable.

### CIRL BUNTING (*Emberiza cirrus*).

Resident. Local, being most abundant in the South. Rarer towards the North. Unknown in Ireland.

*Haunts.*—Cultivated districts where there are plenty of trees bordering the fields.

*Observation.*—Distinguish from last by the black cheeks.

*Plumage.*—Crown olive, streaked with black. Throat, neck, and band through eyes black; stripe above and below eye, and collar bright lemon-yellow. Breast greyish olive; flanks chestnut. Belly dull yellow. Otherwise very like the Yellow Hammer. Length  $6\frac{1}{2}$  in. Female, duller and more streaked below. Young, duller than female.

*Language.*—Song, similar to last, but without the thin terminal note. Call-note, "chea-che."

*Habits.*—Rather like the last, but more shy, keeping to the tops of trees, from which it sings. Rather skulking.

*Food.*—Grasshoppers, beetles, insects, and spiders; in winter, various seeds and grain.

*Nest.*—May onwards. Two broods.

*Site.*—Like last.

*Materials.*—Like last.

*Eggs.*—Four to five. White, faintly suffused with lilac, streaked, dotted, and scribbled with purplish black or brown.

## REED BUNTING, ALSO REED SPARROW

(*Emberiza schœniclus*).

*Resident.* Generally distributed. Never found far from rivers or marshy places except when frozen out, when it consorts freely and wanders about the country with Finches.

*Plumage.*—Head, throat, chin, and gorget black; nape, sides of neck, and moustachial streak white; upper parts variegated with reddish brown and blackish. Tail blackish; two outer feathers white, conspicuous in flight; under parts dull white, and streaked with black. Bill and legs brown. Length 6 in. Female: head reddish brown with dusky spots, white areas less pure. Young, like female.

*Language.*—Song, a brief performance, and may be rendered "cheo-cheo-chee-chee-chee-chee," ending with a harsh "zshwee," not unlike the Greenfinch's terminal note. Call-note, "tschee."

*Habits.*—It sings from the top of some reed-stem, and, if disturbed, flies on a few yards, perches again and sings, and so on. Flight slow and rather clumsy. It hops on the ground.

*Food.*—Insects and their larvæ. Small mollusca and various seeds in winter.

*Nest.*—May onwards. Two or three broods.

*Site.*—On or close to the ground, and always near water, among rushes at side of a ditch, among osiers, &c.

*Materials.*—Dry grass, bits of aquatic plants, and moss, lined with fine grass and horsehair.

*Eggs.*—Four to five. Brownish lavender or purplish grey,

blotched, spotted, and scribbled with purplish brown and underlying patches of grey.

#### LAPLAND BUNTING (*Calcarius lapponicus*).

An irregular visitor, usually observed in autumn and winter.

*Observation*.—Distinguish from last by white stripe above and not below eye.

*Plumage*.—Crown, cheeks, throat, and chest black; white stripe over eye and down sides of neck; chestnut band across back of neck; upper parts tawny brown, centred with blackish and with pale margins. Tail dark brown. Belly white, streaked with black on flanks. Bill yellow, tipped with black. Legs black. Length  $6\frac{1}{4}$  in. Female: no black on head and chest, but streaked with brownish black, paler above. In winter plumage of both sexes more tawny.

*Language*.—Song, not unlike the Tree Pipit's, and delivered in a similar manner. Call-note, a plaintive whistle. Another note, like "chee-up."

*Habits*.—Flight rapid and undulating. It is quite distinct on account of the contrasting black and white markings of the head.

*Food*.—Insects and their larvæ, and various seeds.

*Nidification*.—Breeds in circumpolar regions.

#### SNOW BUNTING (*Plectrophenax nivalis*).

Usually a winter visitor. Much more commonly met with in Scotland, rarer in England. A few individuals remain to breed in the extreme North.

*Haunts*.—Waste lands, &c., usually near the sea.

*Plumage*.—Head, neck, part of the wings, and under parts white; upper parts black. Bill and legs black. Length  $6\frac{3}{4}$  in. Female: head and upper parts mottled with dull black, and otherwise duller; winter plumage, upper parts edged with chestnut; bill yellow, tipped with black. Young, greyish brown, and darker above and below.

*Language*.—Song, a low melodious warble, uttered either when perched or fluttering in the air like a Tree Pipit. Call-note, "tsee." Alarm-note, "tweek."

*Habits*.—Flight vacillating. It feeds principally on the ground, where it runs quickly or hops.

*Food*.—Insects, seeds, and grain.

*Nest*.—June or July. One brood.

*Site*.—In clefts in rocks, amongst a heap of stones, &c.

*Materials*.—Dry grass, roots, and moss, lined with hair, wool, and feathers.

*Eggs*.—Four to six. Greyish white, spotted and blotched with reddish brown and purplish black.

## Family STURNIDÆ.

STARLING (*Sturnus vulgaris*).

Partially resident. Generally distributed and abundant; as ubiquitous as the House Sparrow.

*Plumage*.—Glossy black, beautifully shot with green, purple, violet, and Prussian blue reflections, more especially on the head, mantle, and breast; feathers to upper parts tipped with pale buff, under tail-coverts margined with white. Bill yellow. Legs ruddy brown. Length  $8\frac{1}{2}$  in. Female, less brilliant reflections, and spotted below. Young, uniform greyish brown (hence Brown Starling).

*Language*.—Song, contains certain phrases like the notes of other birds. It is delivered in an energetic manner, and is a conglomeration of whistling, hissing, gargling, warbling, chattering, and squealing. It also makes a noise like the snapping of fingers. During the performance the head feathers become slightly erected, the throat distended, and the wings quiver. Another cry, probably that of anger, is a harsh "cah," whilst that of alarm is a shrill reedy whistle.

*Habits*.—In autumn and winter Starlings congregate in huge flocks. Flight straight and rapid. Fond of aerial excursions, especially when gregarious. On the ground it walks, or runs hurriedly about with bobbing head, poking its bill most indefatigably into every likely hole for food. It constantly perches on sheep's backs to pick out parasitical ticks. Clamorous when settling down to roost.

*Food*.—Insects and their larvæ, worms, and slugs. Soft fruits in summer; berries, seeds, and grain in winter.

*Nest*.—April onwards. Two broods.

*Site*.—In holes in trees, walls, &c., under slates of roofs, in rain-water down-pipes and chimneys, in crevices in ruins, church towers, sea cliffs, &c.

*Materials*.—Dry grass, straw, and other rubbishing materials, lined with wool and feathers. Loosely and untidily compacted.

*Eggs*.—Four to six. Uniform pale greenish blue.

ROSE-COLOURED STARLING (*Pastor roseus*).

An irregular visitor which has occurred from time to time in most counties.

*Plumage*.—Head, crest, neck, and throat glossy purplish black. Wings and tail glossy greenish black. Back and under parts salmon-rose. Bill rose-coloured, black towards base. Legs yellowish brown. Length  $8\frac{1}{2}$  in.

In habits and language it much resembles the Starling.

*Family CORVIDÆ.*CHOUGH (*Pyrrhocorax graculus*).

Resident; extremely local, and probably a decreasing species. Found most frequently in Cornwall, North Devon, Lundy Island, West Wales, and Channel Islands.

*Haunts*.—Wild and rugged sea cliffs.

*Plumage*.—Black, with purple and green reflections. Bill orange-vermilion and arched. Legs orange-vermilion. Length 16 in. Female, slightly smaller. Young, beak and legs dull orange colour.

*Language*.—It utters a note like "chough," reminding one of the Jackdaw. Another cry, a clear metallic "kling."

*Habits*.—Gregarious, and always nesting in communities, like the Jackdaw. It flies in a series of curves, at intervals closing its pinions and dropping towards the ground, then rising again. It both walks and hops on the ground.

*Food*.—Insects and their larvæ, worms, marine mollusca, and refuse left by the receding tide. Also berries and grain.

*Nest*.—April or May. One brood.

*Site*.—In hole or cleft in the cliffs, in ruins, and the like, and generally inaccessible.

*Materials*.—Sticks, twigs, sprigs of heather, &c., lined with dry grass, roots, fur, wool, and hair.

*Eggs*.—Four to six. Greenish white, spotted, blotched, and streaked more or less with varying shades of brown and grey. Rather variable.

JAY (*Garrulus glandarius*).

Resident. Rather rare in Scotland; otherwise pretty commonly met with in woodland districts. Essentially a bird of the woods.

*Plumage*.—Crest fairly well-defined and greyish white, streaked with black; moustachial streak black. Plumage generally grey tinged with rufous, and darker above than below. Rump and upper tail-coverts white—conspicuous in flight. Chin and throat buffish white. Primaries blackish, secondaries deep black and white; greater wing-coverts barred with black, white, and bright blue. Tail black. Bill horn-colour. Legs pale brown. Length  $14\frac{1}{2}$  in. Female and young similar.

*Language*.—A harsh scream like "chaik." It has certain imitative powers.

*Habits*.—It shuns mankind, and always seeks concealment among the tree tops. Very active, alert and exceedingly inquisitive if no danger appears to be at hand. When perching

it incessantly flirts its tail and erects and depresses its crest. Flight not very rapid and direct.

*Food*.—Worms, spiders, insects, eggs, young birds, &c. In winter, berries, &c. Practically omnivorous.

*Nest*.—May. One brood.

*Site*.—At the top of some thick bush, in fork of sapling or small tree.

*Materials*.—Sticks, twigs, and roots, lined with dry grass, rootlets, and a little hair. Cup well shaped.

*Eggs*.—Four to seven. Pale green or greenish blue, thickly mottled with olive-brown. Usually a black, irregular line at the large end.

#### MAGPIE (*Pica rustica*).

Resident. Fairly common, though irregularly distributed in some districts. Not so much a bird of the woods as the Jay.

*Plumage*.—Head, throat, and back velvety black, showing purple and green reflections. Rump whitish grey. Scapulars and under parts white. Primaries black, glossed with green. Tail black and very long, with greenish cupreous and purple reflections. Bill and legs black. Length 18 in. Female slightly smaller and duller. Young still duller.

*Language*.—A harsh chattering, rather reminding one of the noise produced by a policeman's rattle, only not so powerful.

*Habits*.—In disposition active, shy, crafty, alert, and noisy. Always distinct on account of its long tail, frequently flirited, skimming, arrowy flight, and quick beatings of its short wings. On the ground it runs and, at intervals, takes surprisingly long hops.

*Food*.—Practically omnivorous. Much persecuted in game-preserving districts on account of its fondness for eggs.

*Nest*.—April. One brood.

*Site*.—Among the smaller branches at the top of some tall tree; sometimes in a thick hawthorn hedge.

*Materials*.—Sticks and turf plastered with mud, lined with mud and fine grass. Cup deep, over which a basket-like dome of thorny sticks is placed.

*Eggs*.—Six to nine. Pale bluish green, thickly spotted and speckled with olive-brown and blotched with faint ash-grey.

#### JACKDAW (*Corvus monedula*).

Resident. Abundant in all suitable localities.

*Haunts*.—Ruins, church towers, sea cliffs, &c.

*Observation*.—Distinguish at once from Crow and Rook by smaller size and grey nape.

*Plumage*.—Upper parts glossy black, with green and purple

reflections; ear-coverts, sides of neck, and back of head grey; under parts dull black. Bill and legs black. Eye white. Length 14 in. Female slightly smaller. Young, dull black, and grey areas less distinct.

*Language*.—A sharp, impertinent "chack" or "jock."

*Habits*.—Very sociable, always breeding in communities, and passing much of the winter in company with Rooks. Fond of flight, and loves to manœuvre in the air, sweeping and circling about, and then returning to the same place it started from. Flight strong, and wings rapidly vibrated. On the ground almost as indefatigable as the Starling when searching for food.

*Food*.—Practically omnivorous and, like the last, very fond of eggs.

*Nest*.—May. One brood.

*Site*.—In holes in ruins, trees, sea-cliffs, and other similar situations.

*Materials*.—Sticks, dry grass, and an endless amount of rubbish; lined with wool, fur, &c.

*Eggs*.—Four to six. Pale blue or bluish green, spotted and blotched with dark olive-brown and lavender-grey; rather variable.

#### RAVEN (*Corvus corax*).

*Resident*. Very local and rare, except in Scotland, where it is more abundant. It also breeds in suitable localities in the south and south-western counties, and in Ireland.

*Haunts*.—Mountainous districts and especially sea-cliffs.

*Observation*.—Distinguish from Crow and Rook by larger size.

*Plumage*.—Glossy black, with purple and Prussian blue reflections. Bill and legs black. Length 25 in. Female slightly smaller and not so lustrous. Young, like female.

*Language*.—A hoarse, croaking "whurk;" also a cry resembling the hoarse growl of a dog.

*Habits*.—Flight powerful, heavy, and sweeping. On the ground it sidles along with long, ungainly hops.

*Food*.—Omnivorous.

*Nest*.—March. One brood.

*Site*.—Not often in trees; usually on some inaccessible ledge of the sea-cliffs.

*Materials*.—Stout sticks, twigs, and heather-sprigs, lined with grass, roots, wool, fur, &c.

*Eggs*.—Four to six. Greenish blue, more or less densely spotted and blotched with dark olive-brown; variable.

CARRION CROW (*Corvus corone*).

Resident. Pretty well distributed in well-wooded districts; commoner in Scotland, and rare in Ireland.

*Haunts*.—Well-wooded districts, estuaries, sea-cliffs, &c.

*Observation*.—Distinguish from Rook by absence of white nude patch at base of the bill.

*Plumage*.—Black, with green and purple reflections. Bill and legs black. Length 19 in. Female, less lustrous. Young, still duller.

*Language*.—A hoarse "horr," rather like the Rook's, but rougher.

*Habits*.—Somewhat resembling the last. Flight laboured, but nevertheless strong and rapid. At a distance indistinguishable from the Rook, but always seen singly or in pairs—never in flocks.

*Food*.—Carrion principally, but it will kill birds and small mammals too weak or sickly to defend themselves.

*Nest*.—April or May. One brood.

*Site*.—In a tall tree or on a ledge in a cliff.

*Materials*.—Sticks, twigs, plastered with mud, and lined with grass, roots, fur, wool, hair, feathers, &c.

*Eggs*.—Four to six. Bluish green, spotted and blotched with olive-brown and some markings of purplish grey. Like the Raven's, but smaller.

HOODED CROW; ALSO GREY CROW AND ROYSTON CROW (*Corvus cornix*).

Migrant; being chiefly a visitor in autumn and winter. In Scotland and Ireland well distributed, resident and breeding there. A few pairs remain to breed in suitable localities in England.

*Haunts*.—Estuaries and the sea-coast.

*Plumage*.—Head, throat, front of breast, wings, tail, and thighs black, with green and purple reflections; remainder of plumage ash-grey. Bill and legs black. Length 19½ in. Female slightly smaller. Young duller.

*Language*.—A harsh "cra."

*Habits*.—Like the last.

*Food*.—Like the last.

*Nest*.—End of March.

*Site*.—Like the last.

*Materials*.—Like the last.

*Eggs*.—Four to six. In colouring and markings identical with the Carrion Crow's.

ROOK (*Corvus frugilegus*).

**Resident.** Abundant in all suitable localities ; more local in Scotland.

**Haunts.**—Well-timbered and cultivated districts.

**Plumage.**—Black, glossed with purple reflections. At base of bill a white, nude, warty patch. Bill and legs black. Length 19 in. Female, less glossy and slightly smaller. Young, still less glossy, and area round base of beak covered with bristly feathers.

**Language.**—The well-known and familiar cawing, sometimes sounding like "carr."

**Habits.**—Eminently gregarious, and always nesting in communities (rookeries). Flight, though powerful, is somewhat laboured. It walks sedately, and is a great delver, and, consequently, is much persecuted.

**Food.**—Insects and their larvæ, snails, worms, grubs, and a little grain. Very fond of noxious wireworms.

**Nest.**—March. One brood.

**Site.**—At the top of some tall tree, several nests being found in one tree. They frequent the same rookery annually.

**Materials.**—Stout sticks, twigs, turf, and mud plaster, lined with grass, roots, moss, and feathers. Large and compact.

**Eggs.**—Four to six. Pale blue or greenish blue, spotted and blotched with olive-brown and greyish purple. Like the Crow's, but slightly smaller.

## Family ALAUDIDÆ.

SKYLARK (*Alauda arvensis*).

**Resident.** Abundant throughout Great Britain, though more local in the extreme North.

**Haunts.**—Arable and pasture lands.

**Plumage.**—Head feathers somewhat erectile. Upper parts varied with three shades of brown, with blackish centres to feathers. Faint whitish superciliary streak over eye. Throat white. Under parts buffish white, spotted and streaked with blackish brown. Outer tail-feathers white and conspicuous. Bill dark brown above, paler below. Legs yellowish brown. Length  $7\frac{1}{4}$  in. Female, slightly smaller. Young, similar, but with buff tips to the feathers.

**Language.**—The well-known song is delivered as the bird soars, but sometimes it sings on the ground. Call-note, "worryou."

**Habits.**—Distinct, on account of its propensity for soaring up into the air singing until it becomes a mere speck in the sky. Flight undulating, fluttering, and powerful. It roosts on the ground, seldom perching in trees. It is fond of dusting itself. On the ground it runs or walks.

*Food*.—Insects and their larvæ, spiders, worms; in winter, seeds and the like.

*Nest*.—April onwards. Two broods.

*Site*.—In natural depression in the ground, in cart-rut, &c. Always well sheltered by growing herbage.

*Materials*.—Dry grass, bents, and moss, lined with fine grass, fibres, and hair.

*Eggs*.—Four to five. Dull white, thickly mottled and clouded with olive-brown; often zoned; variable.

### WOODLARK (*Alauda arborea*).

*Resident*. Much rarer and more local than the last. Found principally in the South and West of England and Wales; rare in Scotland and Ireland.

*Haunts*.—Well-timbered districts.

*Plumage*.—In general appearance like a lesser Skylark with a shorter tail and much more striking eye-stripe. Upper parts reddish brown, with blackish brown centre to each feather; yellowish white streak over eyes; under parts yellowish white, streaked with dark brown. Conspicuous dark brown patch, tipped with buffish, on the great wing-coverts. Bill dark brown above, paler below. Legs light horn-brown. Length  $6\frac{1}{2}$  in. Female, slightly smaller. Young, rather more rufous above, and feathers tipped with buff; yellower below, and more spotted.

*Language*.—Song resembles the last somewhat, but sweeter and more flute-like in tone and not so powerful.

*Habits*.—It sings whilst soaring, but does not usually soar so high as the last. It ascends in a series of circles. It also sings from a tree-top. Although fond of perching, it obtains most of its food and builds its nest on the ground.

*Food*.—Like the last.

*Nest*.—March onwards. Two broods.

*Site*.—In slight depression in the ground under a bush, or, sheltered by growing herbage, in tussock of grass.

*Materials*.—Dry grass, bents, and moss, lined with finer grass and a little hair.

*Eggs*.—Four to five. Greenish or buffish white, spotted and freckled with reddish brown and brownish lilac, and purplish grey under-markings. Always more ruddy than Skylark's.

### SHORE LARK (*Otocorys alpestris*).

An irregular winter visitor.

*Observation*.—Distinguish at once from other Larks by black lores and band on chest.

*Plumage*.—Band on crown, erectile tuft of feathers, lores, and cheeks, and band on chest black. Forehead, throat, and

space at back of lores yellowish white. Nape, mantle, and tail vinaceous brown. Wing-coverts tipped with white; under parts dull white, streaked with brown on flanks. Bill and legs black. Length 7 in. Female, smaller and less black on head; duller throughout.

*Language*.—Song, short but melodious, delivered either on the ground or when soaring.

*Habits*.—Except when soaring it spends nearly all its time on ground, seldom perching. Generally seen here in flocks.

*Food*.—Insects and their larvæ, small mollusca and crustacea; seeds, &c., in winter.

*Nidification*.—Breeds in Northern Europe, Asia, and America.

## ORDER PICARIÆ.

### Family CYPSELIDÆ.

#### SWIFT (*Cypselus apus*).

Migrant; May to August. Found more or less abundantly in all localities, but more infrequently towards the extreme North.

*Plumage*.—Generally sooty brown. Chin and throat dull white. Gape very wide. Wings long, pointed, and sickle-shaped. Tail forked. Bill and legs black. Length 7 in. Female, similar. Young, white areas less pure.

*Language*.—A harsh scream, like "swee-ree."

*Habits*.—One of the most aerial of birds, and flying with extreme rapidity. Especially active in sultry weather, and most susceptible of cold. Practically incapable of walking, and never perches.

*Food*.—Insects captured on the wing.

*Nest*.—May. One brood.

*Site*.—In holes in ruins, church towers, and sea-cliffs, under slates of roofs, &c.

*Materials*.—Straw, grass, feathers, moss and wool, cemented together with its adhesive, inspissated saliva. Rude, flat, and ill-compacted.

*Eggs*.—Two or three. White, rough in texture and oval in shape.

### Family CAPRIMULGIDÆ.

#### NIGHTJAR (*Caprimulgus europæus*).

Migrant; mid-May to September. Most abundant in the southern counties; rarer towards the North.

*Haunts*.—Commons, moors, stony wastes, &c.; near woods.

*Plumage*.—Ash-grey, barred and spotted with black, brown, and cinnamon; white tips to the outer tail-feathers, and large

white spots on the inner web of the first three primaries; middle toe pectinated; gape very wide; rectal bristles strongly developed. Bill dark horn-brown. Legs horn-brown. Length  $10\frac{1}{4}$  in. Female, white spots less distinct and less bright. Young, spots on wing and tail buff.

*Language*.—It makes a most extraordinary sound, which may be called purring, reeling, spinning, or vibrating; a good idea may be obtained by vibrating the tongue against the roof of the mouth, only the bird's noise is louder; it also reminds one of a policeman's rattle, but not so loud. Call-note, "pee-ep."

*Habit*.—When perched lengthwise—not crosswise as in most birds—on a dead branch lying on the ground, it provides an instance of protective resemblance, harmonising perfectly with the bark. Chiefly nocturnal, flying round and round like a big moth in the dim light, doubling here and turning there, uttering its weird note.

*Food*.—Moths and cockchafers, principally; also other kinds of insects.

*Nest*.—June. One brood.

*Site*.—On the ground, among bracken; under brambles; frequently quite exposed.

*Materials*.—None.

*Eggs*.—Two. White; blotched, mottled, clouded, veined and marbled with brown of two or three shades and lilac.

### *Family PICIDÆ.*

#### *Subfamily IYNGINÆ.*

#### WRYNECK (*Iynx torquilla*).

Migrant; mid-April to September. Most common in the southern and south-eastern counties; rarer and more local in the North. Rare in Scotland, and almost unknown in Ireland.

*Haunts*.—Woodland districts.

*Plumage*.—Upper parts reddish grey, spotted and barred with brown and black; nape and scapulars streaked with black. Wings tawny brown, finely reticulated with black, and marked with alternate black and yellowish red spots; under parts pale buffish white barred with dark brown; on breast and belly markings arrow-headed in shape. Tail ashy brown, mottled with black, and barred with black and buff. Bill and legs horn-brown. Length 7 in. Female: upper parts tipped with sandy brown and narrowly barred with black; wings sandy brown; smaller than male, and bill shorter. Young more heavily barred on the under parts.

*Language*.—A sharp rapid whistle, like "dill-ill-ill." Alarm-cry, "tuck," or "kuck."

*Habits*.—It is a difficult bird to observe, on account of its unobtrusive plumage, and it is far more often heard than seen. It darts out its long exsertile tongue and hisses like a snake (hence Snake-bird). When disturbed on its nest it contorts its head in a most surprising manner. Flight wild and erratic. It shuffles up tree-trunks somewhat like the true Woodpeckers. On the ground it hops jerkily, often using the wings at the same time. Often called "Cuckoo's mate," on account of its punctual appearance each year shortly before that bird.

*Food*.—Ants, chiefly taken with its long snake-like tongue, which is coated with an adhesive secretion; also other insects and berries.

*Nest*.—May. One brood.

*Site*.—In hole in a tree-trunk, often near the foot of the tree. It does not excavate the hole itself.

*Materials*.—None.

*Eggs*.—Six to ten. Pure white, and glossy.

#### *Subfamily PICINÆ.*

#### GREEN WOODPECKER (*Gecinus viridis*).

Resident; generally distributed, though rather local; rarer further north, and very rare in Ireland.

*Haunts*.—Well-wooded districts.

*Plumage*.—Upper parts olive-green. Crown of head and moustachial streak bright carmine; sides of face black. Wings smoky brown, with outer webs of primaries barred with white and blackish. Rump yellowish; under parts greyish green. Bill slaty black, and rather long. Tail-feathers stiff and pointed. Legs slate-grey. Length 13 in. Female, no carmine on the cheeks, but black. Young, under parts barred, no black lores. Cheeks spotted with carmine in the male and pale brown in the female.

*Language*.—A ringing kind of laugh.

*Habits*.—Like all Woodpeckers, it is practically a parasite on trees, in which it finds its food and lays its eggs. The tapping of the Woodpecker is a familiar woodland sound. Flight strong and undulating. On the ground it walks or hops; on the tree-trunk it ascends spirally and by means of a series of jerks, aided by its stiff tail-feathers and tenacious claws.

*Food*.—Insects, and especially ants; also nuts and acorns in winter.

*Nest*.—May. One brood.

*Site*.—In a hole in some tree, excavated by the bird itself, and used yearly if not disturbed.

*Materials*.—None.

*Eggs*.—Five to seven. Pure glossy white.

## GREAT SPOTTED WOODPECKER

*(Dendrocopus major).*

Resident; rarer than the last, but found fairly abundantly in the midland and southern counties; still rarer towards the north; very rare in Ireland.

*Haunts.*—As last.

*Observation.*—In general appearance distinctly spotted.

*Plumage.*—Upper parts and head black; nape crimson. Spot each side of neck, scapulars, lesser wing-coverts, and under parts white. Vent and under tail-coverts crimson. Bill slaty black. Legs dark brown. Length  $9\frac{1}{2}$  in. Female smaller, and no crimson on nape. Young, crimson areas duller.

*Language.*—"Chik," or "gick"; it also calls to its mate by rapping its beak on a bough.

*Habits.*—Far more silent than the last, and confines its attentions more to the smaller branches of trees; otherwise very similar.

*Food.*—Insects and their larvæ; spiders, worms, acorns, nuts, seeds, &c.

*Nest.*—Mid-May. One brood.

*Site.*—In a hole in a tree, usually made by the bird.

*Materials.*—None.

*Eggs.*—Five to eight. Shining creamy white.

## LESSER SPOTTED WOODPECKER

*(Dendrocopus minor).*

Resident; fairly abundant in the southern and midland counties; much rarer farther North; very rare in Ireland.

*Haunts.*—As last.

*Plumage.*—Much like last, but smaller, being about the size of a Sparrow. Distinctly barred rather than spotted on the back and wings. Length  $5\frac{1}{2}$  in. Female, crown whitish, and not crimson as in male, and under parts more striated. Young, much like the adults.

*Language.*—A short sharp chirp; also "tick-tick."

*Habits.*—It keeps to the smaller branches like the last, and, on account of its small size, is difficult to observe; otherwise similar to the last two species.

*Food.*—Insects and their larvæ, principally.

*Nest.*—May. One brood.

*Site.*—In hole in a tree, excavated by the bird.

*Materials.*—None.

*Eggs.*—Five to eight. Glossy creamy white.

Family *ALCEDINIDÆ*KINGFISHER (*Alcedo ispida*).

Resident; generally distributed in Great Britain, in suitable localities; rarer in the extreme North and in Ireland.

*Haunts*.—Rivers, lakes, reservoirs, and sheets of water.

*Plumage*.—Crown and nape bluish black, barred with emerald-green and cobalt. Back, rump, and upper tail-coverts azure-blue. Tail indigo-blue. Wings bluish green, spotted with azure-blue. Loes and ear-coverts chestnut; buffish white patch at sides of neck. Throat white; under parts dull orange-red. Tail short. Bill black, orange at the base, and long. Legs reddish brown. Length  $7\frac{1}{2}$  in. Female, duller and greener. Young, paler and browner, and bill black.

*Language*.—A shrill piping "kee."

*Habits*.—It loves to perch on a branch overhanging a stream, intently watching for its finny prey; then suddenly it plunges into the water and catches it, returning to its perch to swallow it, head first. Flight swift and direct.

*Food*.—Small fish, tadpoles, water-beetles, small crustacea, &c.

*Nest*.—March or April. One brood.

*Site*.—In hole in river-bank made by the bird.

*Materials*.—None; but indigestible pellets of fish-bones cast up by the adults are roughly shaped round the eggs.

*Eggs*.—Six to eight. Pure glossy white, and nearly spherical in shape.

Family *UPUPIDÆ*.HOPOE (*Upupa epops*).

A regular spring migrant in small numbers to our southern and eastern districts. It has nested with us, and doubtless would establish itself as a breeding species if the greed of the collector could be curbed.

*Haunts*.—Pastures, meadows, and well-timbered districts.

*Plumage*.—Crest cinnamon-brown, tipped with black, and fan-shaped when fully erected. Head, shoulders, and under parts cinnamon. Rump white. Wings black, variegated with white bands. Tail black, banded with white about the centre. Bill black, flesh-coloured at the base; long and slightly arched. Legs deep brown. Length  $9\frac{3}{4}$  in. Female slightly smaller; crest and bill also smaller. Young, duller.

*Language*.—A low "hoop-hoop." or "bu-bu."

*Habits*.—It runs about very actively, bobbing its crested head. Flight undulating, and not long sustained. Fond of dusting itself.

*Food*.—Insects and their larvæ, worms, spiders, &c.

*Nest*.—May. One brood.

*Site*.—In a hole in a tree, especially in willows and ashes.

*Materials*.—Twigs, straw, rootlets, and feathers, cemented by an evil-smelling ordure.

*Eggs*.—Five to seven. Pale greenish blue at first, but they soon become stained.

*Family CUCULIDÆ.*

CUCKOO (*Cuculus canorus*).

Migrant; mid-April to August, or September. Generally distributed and abundant. Found everywhere in the country.

*Observation*.—The general appearance of the Cuckoo is distinctly Hawk-like, the long tail and barred under parts much resembling the Sparrow Hawk; but note shorter wings.

*Plumage*.—Upper parts bluish ash-grey. Wings darker, and inner webs barred with white. Tail dark slate-grey with white flecks, and rather long. Throat and breast ash-grey; under parts dull white, transversely barred with dull brown. Bill blackish, with yellow edges; gape wide. Legs yellow. Length  $13\frac{1}{2}$  in. Female similar, but slightly rufous on the breast. Young, upper parts grey, barred with reddish brown.

*Language*.—The well-known "cuckoo," sometimes "cuck-cuck-oo," and more rarely "cuckoo," &c., and ending in an abrupt "cuck." The female utters a curious bubbling kind of noise.

*Habits*.—It is parasitical, laying its eggs on the ground, and conveying them in its beak to the nest of some other bird, which hatches same and acts as foster-parent to the young Cuckoo. When old and strong enough the young Cuckoo at once ejects the rightful tenants of the nest. Flight fairly rapid and direct, but somewhat laboured. It seldom alights on the ground, on which it is awkward, owing to its short legs.

*Food*.—Insects principally; specially fond of hairy caterpillars.

*Nest*.—Upwards of sixty different kinds of British birds have done duty as foster-parents to the young Cuckoo; but most usually the female deposits her egg in the nests of the Meadow Pipit, Reed Warbler, Pied Wagtail, and Hedge Sparrow. Five to eight eggs are said to be laid in a season, though it is rare to find more than one Cuckoo's egg in any nest. The egg is absurdly small for the bird's size, being no larger than a Skylark's. It varies, as a rule, according to the kind of eggs among which it is placed. Usually dull greenish or ruddy white, spotted and mottled with darker shades of the same colours.

## ORDER STRIGES.

## Family STRIGIDÆ.

WHITE OR BARN OWL (*Strix flammea*).

Resident; generally distributed throughout England, Wales, and Ireland, but rare in Scotland.

*Haunts*.—Ruins, church-towers, barns, &c.

*Plumage*.—Upper parts tawny yellow, speckled with grey, white, and blackish. Face (heart-shaped) and under parts white. Bill white. Legs covered with white hair-like feathers. Length 14 in. Like all Owls, it is grotesque and comical in appearance. Female larger and darker above. Young covered with white down; at a later stage they are similar to, though rather darker than, the adults.

*Language*.—A loud weird shriek, resembling "keek." The young make a snoring sound, and snap their beaks.

*Habits*.—The large eye is always a sign of a nocturnal bird, and this Owl is strictly so, sleeping away the day in the umbrageous shelter of some dark place, and sallying forth on noiseless wing at sundown to prey on small mammals, &c. Like other Owls, it casts off the indigestible portions of its food in pellets. Flight buoyant, noiseless, and rapid. It is a most useful bird, and should be protected and not persecuted.

*Food*.—Mice, rats, voles, and moles; also small birds, and insects, and occasionally fish.

*Nest*.—April onwards. Two broods.

*Site*.—In hole in a tree, in church-tower, ruins, barns, and similar places.

*Materials*.—None.

*Eggs*.—Three to six. White, unglossy, and almost spherical in shape. Like other Owls it has a curious habit of laying two or three eggs, and then after incubation has begun it lays another batch, and perhaps another, so that one may find young and more or less incubated eggs in the same nest.

LONG-EARED OWL (*Asio otus*).

Partially migrant. Fairly well distributed in England; common in the pine woods of Scotland, and in Ireland.

*Haunts*.—Woodland districts.

*Observation*.—Distinguish from Tawny Owl by "long ears."

*Plumage*.—Two tufts of feathers on the head (hence Long-eared). Upper parts buffish, speckled and vermiculated with dark brown, ashy, and white. Facial disk yellowish brown with blackish margin. Wings and tail barred with black and grey; under parts buff streaked with black. Bill blackish.

Legs covered with fawn-coloured feathers. Length 15 in. Female, larger and darker. Young, at first covered with yellowish grey down, faintly barred with brown.

*Language*.—Rather a silent bird, but it gives a mellow kind of hoot; also another utterance like the mewling of a cat.

*Habits*.—Flight buoyant and noiseless; when alarmed the tufts are erected. It closely resembles the last, but more arboreal.

*Food*.—Small birds and mammals, moths and beetles.

*Nest*.—February or March. One brood.

*Site*.—Never in holes. Usually it selects an old Crow's or Magpie's nest or squirrel's drey, patches it up, and lines it with feathers and down.

*Eggs*.—Four to six. White, smooth, and nearly spherical in shape.

#### SHORT-EARED OWL (*Asio accipitrinus*).

Resident only in the northern counties, but generally dispersed over the country in autumn and winter. Essentially a ground Owl, inhabiting moors and marshes and open country.

*Plumage*.—Tufts on head much shorter than in preceding species. Upper parts dark buff, broadly streaked and blotched with dark brown. Facial disk buff, streaked with dark brown. Wings barred with brown; under parts dull yellow, streaked with dark brown. Bill black. Legs covered with buff feathers. Length 15 in. Female, larger and darker. Young, much darker above and more tawny below.

*Language*.—A variety of noises; one like the barking of a dog, another a kind of hiss, and another a sharp clicking sound.

*Habits*.—Much resembling the other Owls but less nocturnal, frequenting more open country and living on the ground.

*Food*.—Small mammals and birds; also bats, fish, insects, and reptiles.

*Nest*.—Usually in May. Sometimes later.

*Site*.—On the ground, under a small bush or amongst growing herbage.

*Materials*.—A little dry grass roughly arranged round the eggs.

*Eggs*.—Four to seven or more. White and smooth.

#### TAWNY OR BROWN OWL (*Syrnium aluco*).

Resident. Pretty common in all well-wooded localities; unknown in Ireland.

*Haunts*.—The densest parts of woods (hence Wood Owl).

*Plumage*.—Upper parts reddish brown, mottled, and longitudinally streaked with dark brown; white spots on the wings and scapulars. Facial disk large and complete. Wings long and rounded; under parts reddish white, transversely barred, and longitudinally streaked with dusky brown. Bill whitish. Legs feathered to the claws. Length 16 in. Female, similar, but larger. Young, at first covered with greyish down; later, more rufous than adults.

*Language*.—The familiar "Hoo-hoo, hoo-too-vit," or "che-wick."

*Habits*.—Strictly nocturnal, and much resembling the other Owls. It will defend its nest if necessary.

*Food*.—Small mammals and birds; sometimes insects, and fish.

*Nest*.—In March or April. One brood.

*Site*.—Usually in a hole in a tree; sometimes, though less often, in similar situations to the Barn Owl.

*Materials*.—None.

*Eggs*.—Three to five. White, smooth, glossy, and nearly spherical in shape.

#### LITTLE OWL (*Athene noctua*).

A rare visitor. A good many examples have been procured in most counties, but it is very doubtful whether they are all genuine visitors. It is possible that it may yet become a breeding species.

*Plumage*.—Upper parts brown, with triangular white markings on head, and spotted with white on nape and wings. Tail marked with four white bands. Facial disk ill-developed and greyish; under parts white, streaked with brown. Bill yellow. Legs covered with yellowish white hair-like feathers. Toes covered with bristles. Length 9 in. Female, larger and rather paler.

*Language*.—A monotonous "cu-cu."

*Habits*.—Rather diurnal. It resembles the other Owls very closely, but is, if anything, even more grotesque and comical, and is consequently a favourite pet.

*Food*.—Small birds and mammals, also insects.

*Nidification*.—Breeds in Europe.

#### SNOWY OWL (*Nyctea scandiaca*).

A fairly regular, though not abundant, cold-weather visitor, chiefly to the North.

*Plumage*.—White, spotted, and barred with blackish or dark brown. Bill black. Legs feathered. Length 22 in. Female, larger, and more marked.

*Language*.—A harsh "krau-krau," several times repeated; also a loud "rick-rick-rick."

*Habits*.—Diurnal. Bold and ferocious. Flight powerful. It pursues and seizes its prey much like a Falcon.

*Food*.—Various mammals up to the size of a hare, and birds up to the size of a grouse: also fish.

*Nidification*.—Breeds in circumpolar regions.

## ORDER ACCIPITRES.

### Family FALCONIDÆ.

#### Genus CIRCUS.

#### MARSH HARRIER (*Circus æruginosus*).

Formerly an abundant resident, but now very rare and local. It still breeds very sparingly in Norfolk and some of the southern counties.

*Haunts*.—Moors and marshy places.

*Plumage*.—Head creamy-white, streaked with umber-brown. Back brown. Primaries black, otherwise wings and tail grey; under parts buff, streaked with brown. Bill horn-colour. Cere and legs yellow. Length 21 in. Female larger, and tail and under parts brown. Young, dark chocolate-brown; the male having crown of head buffish white, and the females yellowish nape streaked with brown.

*Language*.—Rather like the Kittiwake's cry.

*Habits*.—It flies low over the ground, swooping down on its prey. It is also said to catch surface-swimming fish.

*Food*.—Small mammals and birds. Fond of eggs, and consequently always shot when possible. It preys to a large extent on young water-fowl of all kinds.

*Nest*.—April or May. One brood.

*Site*.—On the ground, in a swamp amongst reeds.

*Materials*.—Dry grass, reeds, and rushes, lined with finer grass. A large and loose structure.

*Eggs*.—Three to five. Bluish white; sometimes, but unusually, spotted with brown.

#### HEN HARRIER (*Circus cyaneus*).

Resident. Nowadays extremely local and rare.

*Haunts*.—Moorland country.

*Plumage*.—Upper parts, throat, and breast bluish grey. Rump white. Primaries black. Under parts white. Bill dark

horn-colour. Cere and legs yellow. Length 19 in. Female: upper parts reddish brown; under parts pale ruddy yellow, streaked and spotted with yellowish brown. Tail brown, with five darker bars (hence Ringtail). Length 21 in. Young, resemble female, only more rufous.

*Language*.—Resembling the last.

*Habits*.—Flight buoyant, and rather like a Gull's. It methodically quarters the ground, flying low for the purpose, when hunting for its prey.

*Food*.—Small mammals and birds, frogs and snakes.

*Nest*.—May. One brood.

*Site*.—On the ground, usually among heather.

*Materials*.—Sticks, dry grass, bits of heather, lined with dry grass.

*Eggs*.—Four to six. White, faintly suffused with blue; occasionally marked with rusty brown.

#### MONTAGU'S HARRIER (*Circus cineraceus*).

Migrant; April to September. The commonest of the Harriers, but nevertheless rare. Found in suitable localities in the South, south-western counties, and in East Anglia.

*Haunts*.—Open country.

*Observations*.—Of slimmer build, comparatively longer wings, and darker mantle than Hen Harrier. Also note black bands on secondaries, and chestnut markings on under parts.

*Plumage*.—Upper parts bluish grey. Primaries black. Secondaries have three dusky transverse bars. Side tail-feathers barred with reddish orange. Throat and breast ash-grey; under parts greyish white striped with reddish orange. Bill dark horn-colour. Cere and legs yellow. Length 17 in. Female: upper parts generally of a warm brown tint; under parts pale reddish yellow, longitudinally streaked with rusty brown. Length 19 in. Young, chocolate-brown above, and nearly chestnut-brown on the under parts.

*Language*.—A harsh shriek, somewhat like the Kittiwake's cry.

*Habits*.—Very similar to the last.

*Food*.—Small mammals, birds, and reptiles; also eggs and insects.

*Nest*.—May. One brood.

*Site*.—On the ground, under some bush, or amongst heather.

*Materials*.—Sticks, grass, and stalks, lined with fine grass.

*Eggs*.—Four to six. White suffused with blue, occasionally marked with rusty brown.

## Subfamily BUTEO.

COMMON BUZZARD (*Buteo vulgaris*).

Resident. Rare and decreasing. Still found in the West, Wales, and Scotland.

*Haunts*.—Mountains and wild forests.

*Plumage*.—Upper parts dark brown, mottled with darker brown. Wings blackish brown. Tail dark brown, with twelve transverse lighter bars; under parts yellowish white, longitudinally marked with brown. Bill blackish horn-colour. Cere and legs yellow. Length 20 in. Female, altogether lighter; length 22 in. Young, much like female. The plumage of this species varies considerably.

*Language*.—A melancholy kind of mewing.

*Habits*.—Rather sedentary, remaining perched motionless for long periods of time. On the wing somewhat sluggish, but it delights in soaring upwards in a series of graceful gyrations.

*Food*.—Small mammals, beetles, worms, grasshoppers, snakes, and lizards.

*Nest*.—April. One brood.

*Site*.—On some inaccessible ledge on a mountain or sea-cliff, sometimes in a forest-tree.

*Materials*.—Sticks and twigs, lined with wool and green leaves.

*Eggs*.—Two to four. Bluish white, spotted, blotched, and streaked with reddish brown; under markings purplish grey. Rather variable.

ROUGH-LEGGED BUZZARD (*Buteo lagopus*).

Migrant; being an irregular winter visitor.

*Haunts*.—Mountains and waste lands.

*Plumage*.—Head and neck creamy white, streaked with reddish brown; upper parts dark brown, blotched and marked with dull white and rufous. Base of tail white and conspicuous, barred near tip with brown; under parts buffish white barred with brown, more barred on flanks. Bill blackish horn-colour. Feet and cere yellow. Legs feathered to the toes. Length 23 in. Female similar, but larger, 26 in. Young browner above, less white on the tail, and under parts streaked and not barred. Plumage variable.

*Language*.—Like the last.

*Habits*.—Flight more powerful than last, and rather resembling the Eagle's. It is distinct from the last, on account of the white on the tail and feathered legs.

*Food*.—Mammals up to the size of a hare; also birds and reptiles.

*Nidification*.—There is no real evidence that it has nested in Great Britain. Breeds in Northern Europe and Asia.

### GOLDEN EAGLE (*Aquila chrysaëtus*).

Resident only in the Highlands and Western Islands of Scotland; rarely met with in England.

*Haunts*.—Mountainous districts.

*Plumage*.—Head, back of neck, and legs fulvous brown; other parts dark chocolate-brown. Primaries blackish. Tail brownish black, variegated with bars of grey. Bill bluish towards base, otherwise black. Cere partly covered with bristly feathers. Legs feathered to the toes. Length 33 in. Female similar, but larger; length 36 in. Young, brown, with basal half of tail white.

*Language*.—A shrill squealing cry, almost like a bark.

*Habits*.—Flight majestic and powerful, and it is fond of soaring and circling at a great height with outspread wings and tail. It pounces on its prey, but does not usually pursue it.

*Food*.—Hares, rabbits, birds of many kinds up to the size of a grouse; also lambs.

*Nest*.—April. One brood.

*Site*.—On some inaccessible ledge of a mountain; sometimes in a tree.

*Materials*.—Sticks and heather, lined with tufts of grass, &c.

*Eggs*.—Two or three. White suffused with bluish, spotted, blotched, and clouded with ruddy brown, and purplish grey under markings. Variable.

### WHITE-TAILED OR SEA EAGLE (*Haliaëtus albicilla*).

Once a common resident; now rare, and found only breeding sparingly on the sea-coast in Ireland, and on some of the Scottish islands.

*Observation*.—Distinguish from last by white tail.

*Plumage*.—Upper parts brown, lighter on head and neck. Primaries blackish; under parts chocolate-brown. Tail wedge-shaped and white. Bill, cere, and legs yellow. Length 33 in. Female similar, but larger; 36 in. Young, at first covered with greyish white down; later with dark brown, mottled with fulvous brown on mantle and wings. Tail dark brown. Plumage of this species variable.

*Language*.—A loud yelp-like "queek-queek-queek."

*Habits*.—Much like the last, but it feeds more readily on carrion. It pounces on basking fish.

*Food*.—Mammals, birds, especially sea-birds; fish, refuse, and carrion found on the sea-coast.

*Nest*.—April. One brood.

*Site*.—On some inaccessible ledge of the sea-cliffs, or in trees.

*Materials*.—Like the last.

*Eggs*.—Two or three. Dull white, and unmarked.

#### GOSHAWK (*Astur palumbarius*).

A rare visitor, usually occurring in autumn and winter, on the east coasts of Scotland and England. In general appearance like a large Sparrow-Hawk. Length 20 in. Female larger, length 23 in. In language and habits it closely resembles the Sparrow Hawk.

#### SPARROW-HAWK (*Accipiter nisus*).

Resident. Well distributed throughout Great Britain in all well-wooded parts; essentially a woodland bird.

*Plumage*.—Upper parts slate-blue, with white patch on nape. Under parts rufous white, transversely barred with dark brown. Wings short. Tail greyish brown, barred with brownish black. Bill blue; cere greenish yellow. Legs yellow. Length 13 in. Female: upper parts brown, with white spot on nape; under parts greyish white, barred with dark grey. Length 15½ in. Young, at first covered with white down; afterwards much like the female. The plumage of this species varies considerably.

*Language*.—A sharp, shrill cry.

*Habits*.—Fearless and dashing. When seeking its prey it flies quickly along a hedgerow near the ground, dropping down suddenly on some unsuspecting small bird or mammal. It usually feeds on the ground, although it is very arboreal.

*Food*.—Small birds chiefly; also young rabbits, mice, and moles.

*Nest*.—May. One brood.

*Site*.—At the top of some tall fir, or other tree, in a wood.

*Materials*.—Sticks and twigs, lined with moss. It often adapts old Crows', Magpies', and Ring Doves' nests.

*Eggs*.—Four to six. Bluish white, blotched and spotted with reddish brown of various shades.

#### Genus *MILVUS*.

#### KITE (*Milvus ictinus*).

Once a common resident, but nowadays, owing to pitiless persecution, it has become rare, and will probably become

extinct if proper protection is not afforded it. A few pairs breed in Wales and Scotland.

*Haunts*.—Woodland districts near rivers.

*Observation*.—Note pointed wings and forked tail.

*Plumage*.—Head and neck white, streaked with blackish; upper parts reddish brown, feathers having paler edges. Primaries blackish. Tail rufous brown, and very forked; under parts rusty red, streaked longitudinally with brown; under wings whitish, with dark patch conspicuous in flight. Bill horn-colour. Cere and legs yellow. Length 25 in. Female, rather larger and duller; tail not so forked. Young, paler, and more mottled above and below.

*Language*.—A shrill "whew-heh-heh-heh."

*Habits*.—Flight powerful, rapid, and gliding. Fond of soaring at a vast height. The tail is incessantly brought into action, performing the function of a rudder. Although mainly a carrion-eater, it will pounce upon and kill small mammals, birds, &c.

*Food*.—Carrion, garbage, small mammals, birds, reptiles, and fish.

*Nest*.—April or May. One brood.

*Site*.—Usually in some tall tree; occasionally on a ledge of a cliff.

*Materials*.—Sticks and all kinds of rubbish; lined with wool, moss, &c.

*Eggs*.—Two or three. Dull bluish white, spotted and blotched with reddish brown; much like the Buzzard's.

### Genus *PERNIS*.

#### HONEY BUZZARD (*Pernis apivorus*).

Migrant; May to November. Nowadays very rare, and will continue so as long as British collectors give fabulous prices for their skins or eggs.

*Plumage*.—Head ash-grey; upper parts brown. Tail greyish brown, with three dark bands; under parts white, barred and spotted with reddish brown. Feathers of lores close and scale-like. Beak rather feeble, and greyish brown. Cere and legs yellow. Length 20 in. Female, rather larger and browner. Young, rather paler; immature plumage rather variable.

*Language*.—A shrill "kee-kee-kee"; rather silent.

*Habits*.—It is chiefly an insectivorous bird, and the scale-like feathers of the lores are practically impervious to an insect's sting—an admirable provision. It runs more freely than other birds of this family. Flight heavy. In disposition it is sedentary and spiritless.

*Food*.—Chiefly wasps and bees, both in the larval or perfect state; also other kinds of insects, small mammals and birds, reptiles, eggs, and worms.

*Nest*.—May or June. One brood.

*Site*.—Usually in some tall tree; sometimes on a ledge of a cliff.

*Materials*.—Sticks and twigs, lined with green leaves.

*Eggs*.—Two or three. Creamy white, blotched and marked with rich ruddy brown. Variable.

### PEREGRINE FALCON (*Falco peregrinus*).

Resident; rarer than formerly, owing to constant persecution. Found most commonly in Scotland, Wales, and Ireland.

*Haunts*.—Wild sea-cliffs.

*Plumage*.—Upper parts bluish grey, barred with darker grey. Head and moustachial streak black; under parts buffish white, transversely barred with brown. Tail more or less barred with ruddy brown, and tipped with white. Bill bluish, darker at the point; cere and legs yellow. Length 15 in. Female: upper parts tinged with brown, and under parts with reddish; length 18 in. Young: ashy brown on upper parts, with buff margins to feathers; under parts dull white, longitudinally streaked with brown.

*Language*.—A sharp "hek," repeated two or three times.

*Habits*.—This species is the Falcon used for hawking, on account of its remarkably rapid and dashing flight and its fearless nature. It captures its prey by striking it down with its talons.

*Food*.—Birds of various kinds up to the size of a Crow; sometimes small mammals.

*Nest*.—April. One brood.

*Site*.—On some inaccessible ledge on the sea-cliffs; seldom in trees.

*Materials*.—If any—sticks, seaweed, grass, &c.

*Eggs*.—Two to four. Yellowish white, well marked with rich red, orange-brown, and brick-red. Variable.

### HOBBY (*Falco subbuteo*).

Migrant; end of May to September. Very local; found most usually in the southern, western, and midland counties; elsewhere much rarer.

*Haunts*.—Woodland districts.

*Observation*.—In general appearance like a lesser Peregrine.

*Plumage*.—Upper parts bluish black; cheeks and moustache black. Wings long; under parts buffish white, longitudinally

streaked with black. Thighs rusty red. Bill horn-colour, darker at the tip. Legs, cere, and orbits yellow. Length 12 in. Female duller; length 14 in. Young; plumage tinged with rufous.

*Language*.—A shrill cry, somewhat like the Kestrel's

*Habits*.—Much resembles the last, though less dashing. The long pointed wings, exceeding the tail when closed, are always noticeable in flight.

*Food*.—Various kinds of insects chiefly; also small birds like Larks.

*Nest*.—May or June. One brood.

*Site*.—Some old Crow's or Magpie's nest is appropriated.

*Eggs*.—Three or four. Pale ochreous, speckled and dusted with dark red. Very like the Kestrel's.

### MERLIN (*Falco æsalon*).

Resident; fairly well distributed, but rarer in the South; most abundant in Wales, North of England and Scotland; fairly common in Ireland.

*Haunts*.—Moorland and mountainous districts.

*Observations*.—Our smallest Falcon; note absence of moustachial streak.

*Plumage*.—Upper parts slaty grey, with dark shaft to each feather; under parts rufous, longitudinally streaked with dark brown. Broad black bar near tip of tail; tip white. Bill bluish, darker at the tip. Cere and legs yellow. Length 10 in. Female: dark brown above, with dark shafts to each feather; tail dark brown, with six ruddy buff bands, and tipped with buffish white; chin and throat white; under parts white, striped with dark brown; length 12 in. Young resemble female, but more rufous.

*Language*.—A sharp, shrill cry, much like the Kestrel's.

*Habits*.—Courageous and fearless. It flies near the ground with rapid, skimming flight. It is fond of perching on rocks.

*Food*.—Small birds chiefly.

*Nest*.—April or May. One brood.

*Site*.—On the ground among heather, rarely in trees.

*Materials*.—A few sprigs of heather.

*Eggs*.—Four to six. Reddish, well spotted, and marked with brick-red. Much like the Kestrel's, but smaller.

### KESTREL (*Falco tinnunculus*).

Resident. Pretty common everywhere, not seeming to prefer any particular kind of country.

*Plumage*.—Head, lower back, and tail bluish grey. Tail

broadly banded with black and tipped with white; remaining upper parts buffish red, with small, black triangular markings. Wings blackish brown; under parts pale yellowish red, spotted and streaked with dusky. Moustachial streak indistinct. Bill blue. Cere and legs yellow. Length 13 in. Female: upper parts reddish brown, with bluish black transverse bars; wings darker; under parts paler; length 15 in. Young, like female, but paler.

*Language*.—A sharp scream, like “kee-kee-kee.”

*Habits*.—It hovers (hence Windhover) when on the look-out for its prey—a distinctive habit. On spying some quarry, it falls plumb to the ground and seizes it. Wings rather short, but flight is rapid and graceful.

*Food*.—Mice chiefly; also small birds, frogs, and various kinds of insects.

*Nest*.—April. One brood.

*Site*.—Very often in some old Crow's nest, among ruins, or on ledge of sea-cliffs, &c.

*Materials*.—If any—sticks, grass, &c.

*Eggs*.—Four to six. Reddish white, spotted and blotched with brick-red; variable.

### OSPREY (*Pandion haliaëtus*).

As a resident very rare. It appears as a spring and autumn migrant rather more commonly. It may still breed in some favourable spots in Scotland.

*Haunts*.—Sea-coast, estuaries, and inland waters.

*Plumage*.—Head and nape white, streaked with brown. Upper parts dark brown, glossed with purplish. Tail dark brown; under parts white. Band of pale brown spots across breast. Bill blackish horn-colour. Cere and legs lead-colour. Length 22 in. Female: brown marks on breast more distinct; length 24 in. Young: paler above, and tail distinctly barred.

*Language*.—A sharp, shrill cry or scream.

*Habits*.—It hovers much like the Kestrel, and plunges down into the water to take its prey. Flight rapid and graceful.

*Food*.—Fish.

*Nest*.—April or May. One brood.

*Site*.—At the top of some tree, or on some isolated rock; always near water.

*Materials*.—Sticks and turf, lined with wool and moss.

*Eggs*.—Two or three. Creamy white, well blotched with chestnut-red and claret, with purplish underlying markings.

## ORDER STEGANOPODES.

## Family PHALACROCORACIDÆ.

COMMON CORMORANT (*Phalacrocorax carbo*).

Resident. Common throughout our coasts where suitable.

*Haunts*.—Rocky ledges of the cliffs and the sea and some inland stations.

*Plumage*.—Head and neck black, with white filamentary plumes, the feathers of the occiput becoming crest-like in spring. Throat white; gular pouch yellow. Mantle black, glossed with cupreous; rest of plumage black. Conspicuous white patch on the thighs in the breeding season. Bill dark horn-colour. Legs black. Length 36 in. Female similar. Nestlings nude, and bluish black. Young bird, dark brown above and dirty white below, mottled with pale brown.

*Language*.—A harsh guttural cry. Usually very silent.

*Habits*.—On land it progresses awkwardly, owing to the backward position of the legs. It flies rapidly, with neck outstretched like a Duck's. It is an expert swimmer and diver, going down to great depths with incredible rapidity after its finny prey. Very sociable, always nesting in communities. It loves to sit on a rocky ledge, with head erect and half-opened wings, occasionally flapping them. The Cormorant's "rookery" is a most evil abode, reeking and stinking with its excrement and regurgitated fragments of fish.

*Food*.—Fish exclusively.

*Nest*.—April or May. One brood.

*Site*.—On some rocky ledge overlooking the sea, and usually rather inaccessible.

*Materials*.—Sticks and seaweed.

*Eggs*.—Three to five. Pale greenish blue underground, thickly encrusted with a white chalky substance. In shape long and narrow, and rather small for the bird's size.

SHAG (*Phalacrocorax graculus*).

Resident. More local than the last, but met with abundantly in Scotland, Isle of Man, Farne Islands, Channel Islands, and Ireland.

*Haunts*.—Rocky ledges of the sea-coast. More essentially a marine species than the last.

*Observation*.—Distinguish from Cormorant by greener plumage and absence of white throat and thigh patch.

*Plumage*.—Bare skin of face yellow. General plumage dark

green, glossed with purple and bronze. The crest is assumed just before the breeding season, after which it is lost. Bill black. Legs black. Length 27 in. Female similar, but smaller. Young, brownish green above, and mottled with brown below. Nestling, at first nude, then covered to some extent with blackish brown down.

*Language*.—A harsh "kroak-kraik-kroak."

*Habits*.—Generally like the last.

*Food*.—Fish.

*Nest*.—May.

*Site*.—In caves or clefts of rocks, &c.

*Materials*.—Sticks, seaweed, &c.

*Eggs*.—Three to five. Precisely similar to last, but slightly smaller.

### *Family SULIDÆ.*

#### GANNET OR SOLAN GOOSE (*Sula bassana*).

Resident, but coming south in winter. Very local, breeding only in certain localities, *e.g.*, Lundy Island, Farne Islands, certain stations in Scotland, especially the famous Bass Rock, and in Ireland.

*Haunts*.—Ledges of the sea-cliffs and the sea.

*Plumage*.—Generally pure white, tinged with buff on the head and neck. Primaries black; wings long and pointed. Nude skin round base of bill and eye dark blue. Bill large, conical, and horn-colour. Legs black. Length 34 in. Female similar. Young: at first naked and black, then covered with white down; later, blackish brown above, flecked with white; under parts mottled with brown and buff. Adult plumage attained in five or six years.

*Language*.—A harsh "carra, crac-cra."

*Habits*.—Flight rapid and powerful. It swims well, but cannot dive. When fishing it rises to some height and then plunges down with tremendous force into the water to seize some surface-swimming fish. Gregarious in the breeding season.

*Food*.—Fish.

*Nest*.—May. One brood.

*Site*.—On some inaccessible ledge of the sea-cliffs.

*Materials*.—Grass, turf-sods, and seaweed.

*Eggs*.—One. Dull white, chalky substance overlying pale blue shell.

## ORDER HERODIONES.

## Family ARDEIDÆ.

COMMON HERON (*Ardea cinerea*).

Resident. Rather local, but usually met with in the vicinity of water.

*Plumage*.—Crest white, except two long black plumes; upper parts slaty grey. Forehead, cheeks, neck, under parts, and under tail-coverts white. Neck streaked with bluish grey, from which depend long white feathers. Bill and legs long and yellow. Length 36 in. Female smaller, rather duller, and plumes shorter. Young: first covered with greyish brown down above, and white below; later dusky brown above, striped on flanks and breast with blackish.

*Language*.—A hoarse croaking "honk" or "kronk." Rather silent generally.

*Habits*.—Sociable, always breeding in heronries. It loves to stand with the water rippling round its lanky legs, quite motionless, on the look-out for fish, which are speared by the long bill. It rises at first rather clumsily from the ground, but soon assumes a leisurely majestic flight, more rapid than it appears. In flight the legs trail behind—note rounded wings. A shy bird.

*Food*.—Fish, frogs, reptiles, &c., sometimes small mammals and young water-fowl. It is voracious and little comes amiss.

*Nest*.—February or March. Two broods.

*Site*.—At the top of some tree, not far from water; often several nests in one tree. Sometimes on rocks and ruins. Rarely on the ground.

*Materials*.—Sticks, lined with twigs, grass-sods, moss, wool, &c. A bulky structure.

*Eggs*.—Three to five. Uniform greenish blue.

NIGHT HERON (*Nycticorax griseus*).

It may be regarded as an almost annual visitor in spring and autumn. It is possible that, if not molested, it might even breed in southern districts.

*Haunts*.—Marshes and swamps.

*Plumage*.—Crown, nape, back, and scapulars black, washed with green. Neck, wings, and tail lavender-grey. Forehead white; under parts white. Bill rather short and blackish. Legs yellow. Length 23 in. Female smaller.

*Language*.—More silent in the daytime, but at night it utters a melancholy "qua-a" or "waak."

*Habits.*—Very largely nocturnal, spending the day in some retired place. It flies with measured flappings of its rounded wings.

*Food.*—Fish, frogs, snails, and water insects.

*Nidification.*—Breeds in Europe, Asia, and Africa.

#### LITTLE BITTERN (*Ardetta minuta*).

Not infrequently met with in spring and autumn, usually in the southern and eastern districts. It has bred in Norfolk.

*Haunts.*—Marshes and swamps.

*Plumage.*—Crown, nape, and back black, glossed with green. Primaries and tail brownish black. Small wing-coverts, neck, throat, plumes, and under parts vinous buff. Bill yellow. Legs greenish yellow. Length 13 in. Female: rather smaller, and has a browner appearance above, and under parts well streaked with umber-brown.

*Language.*—The male utters a kind of boom, less pronounced than the Common Bittern. The female utters a sharp "gett-gett."

*Habits.*—By day it is a great skulker amongst thick, tangled reed-beds, through which it can run with extraordinary rapidity. It has a curious habit, when seeking concealment, of drawing itself up and pointing its beak upwards, when it harmonizes with its surroundings, and often escapes observation. Except when migrating, it seldom resorts to flight.

*Food.*—Fish, frogs, reptiles, and water insects.

*Nidification.*—Breeds in Europe and Asia.

#### COMMON BITTERN (*Botaurus stellarus*).

Or, more properly, Bittern, since it is now extinct as a breeding species, though it annually visits this country and might, possibly, again breed if it were allowed.

*Haunts.*—Marshes, swamps, and fen-districts.

*Plumage.*—Crown and nape black, otherwise generally buff, barred above and streaked below with black. Feathers of neck long, erectile, and forming a ruff. Bill greenish yellow. Legs green. Length 30 in. Female similar.

*Language.*—A curious booming, somewhat like the bellowing of a bull. It also has a harsh scream.

*Habits.*—Very nocturnal, spending the daytime in dense reed-beds, with which the colouring of the plumage harmonizes. On the wing it is rather like the Heron. Very shy and solitary. It seeks its food by night.

*Food.*—Fish, frogs, small mammals, birds, &c.; little comes amiss.

*Nest*.—March or April.

*Site*.—On the ground in a reed-bed or swamp.

*Materials*.—Sticks, reeds, and rushes.

*Eggs*.—Four. Uniform olive-brown or green.

*Family PLATALEIDÆ.*

SPOONBILL (*Platalea leucorodia*).

Once a breeding species, now only a rare straggler. Distinct on account of its white plumage and curious spatulated bill.

ORDER ANSERES.

*Family ANATIDÆ.*

GREY-LAG GOOSE (*Anser cinereus*).

Once a resident and breeding in East Anglia, now a winter visitor. It still remains to breed in decreasing numbers in the north of Scotland.

*Haunts*.—Marshes and waste lands near the sea.

*Plumage*.—Head, neck, and upper parts greyish brown; rump and wing-coverts bluish grey; under parts dull white with a few dusky spots. Bill flesh-coloured; nail white. Legs flesh-coloured. Length 35 in. Female similar, but smaller. Young darker, and no dusky spots on under parts.

*Language*.—A gaggle, much like the farmyard Goose.

*Habits*.—Gregarious. Flight rapid and powerful, with the neck outstretched; the flock usually flies in wedge-form. Always very shy and wary. Like all the members of this order, it is a good swimmer.

*Food*.—Largely graminivorous. Grain in winter.

*Nest*.—April. One brood.

*Site*.—On the ground, amongst heather or grass.

*Materials*.—Sticks, reeds, grass, and moss. Eggs buried in down from the female's breast.

*Eggs*.—Six to eight or more. Dull yellowish or creamy white.

WHITE-FRONTED GOOSE (*Anser albifrons*).

A winter visitor. Local, but found in suitable localities. More abundant in Ireland.

*Haunts*.—Fenny districts and the like.

*Plumage*.—The most distinguishing feature is the prominent white forehead. Under parts more marked with black than in

Grey-Lag Goose; upper parts brownish ash. Bill orange-yellow; nail white. Legs orange. Length 27 in. Female smaller, and less marked on the breast.

*Language*.—A hoarse laughing kind of "ha-ha," several times repeated.

*Habits*.—Like the last.

*Food*.—Like the last.

*Nidification*.—Breeds in Arctic regions.

#### BEAN GOOSE (*Anser segetum*).

A winter visitor, more especially to Scotland, north and east coasts of England and Ireland.

*Haunts*.—Pastures, wolds, stubbles, &c., near the sea.

*Plumage*.—Generally much like the Grey-Lag, but differing in the black to base and nail of bill, orange in the middle, its darker colour with no bluish grey on the shoulder, and no black markings on the breast. Legs orange-yellow. Length 34 in. Female slightly smaller, but similar.

*Language*.—Much like the Grey-Lag.

*Habits*.—Much like the Grey-Lag.

*Food*.—Grain chiefly, although it is also herbivorous.

*Nidification*.—Breeds in northern regions.

#### PINK-FOOTED GOOSE (*Anser brachyrhynchus*).

A winter visitor, chiefly to the east coast of England and Scotland.

*Haunts*.—As last.

*Plumage*.—Much like the last, but with bluish grey on the shoulder like Grey-Lag. Bill pink in the middle; base, edges, and nail black. Legs pink. Length 28 in. Female similar.

*Language*.—Much like the last.

*Habits*.—Resembling the last.

*Food*.—Grain, clover, trefoil, &c.

*Nidification*.—Breeds in northern regions.

#### BERNACLE GOOSE (*Bernicla leucopsis*).

A winter visitor, occurring chiefly on the western coasts, Scotland, and Ireland.

*Haunts*.—Mud-flats on the sea-coast, but not so maritime as the next.

*Plumage*.—Head, neck, and throat black; forehead, cheeks, and chin white; mantle lavender-grey, barred with black and white; wings and tail blackish; under parts greyish white; whiter on the vent and under tail-coverts. Bill and legs black. Length 25 in. Female slightly smaller.

*Language*.—A harsh cackling.

*Habits.*—Like the other Geese. Feeds at night.

*Food.*—Largely graminivorous, but also animal matters picked up on mud-flats.

*Nidification.*—Probably breeds in Arctic regions.

#### BRENT GOOSE (*Bernicla brenta*).

A winter visitor, chiefly to the north-east of England; but pretty generally distributed in suitable localities.

*Haunts.*—Mud and tidal flats; very maritime.

*Plumage.*—Head, throat, and neck black, white patch on each side of neck; mantle brownish black, with lighter edges; wings, rump, and tail black; under parts slate-grey; tail-coverts white. Bill and legs black. Length 23 in. Female rather smaller.

*Language.*—A loud "cronk" or "honk."

*Habits.*—Resembling the other Geese, but more marine, spending the night on the sea, and coming to shore in the day-time to feed.

*Food.*—Marine plants, wrack-grass, &c., found on oozy mud-flats.

*Nidification.*—Breeds in Northern Europe and Asia.

#### WHOOPER SWAN (*Cygnus musicus*).

A winter visitor, not uncommonly met with on our coasts.

*Plumage.*—White. Bill tipped with black, otherwise lemon-yellow. Legs black. Length 60 in. Female smaller.

*Language.*—Loud, and rather like a trumpet; thus—"who-who."

*Habits.*—Flight strong and powerful, with the long neck outstretched; not of so graceful an appearance as the Mute Swan. It frequents shallow waters, and feeds by thrusting its long neck down to the bottom, where the food is found. A powerful swimmer, like all the Swans.

*Food.*—Aquatic weeds and grass.

*Nidification.*—Breeds in northern regions.

#### BEWICK'S SWAN (*Cygnus bewicki*).

An irregular winter visitor to suitable parts of our coasts.

*Observations.*—Smaller than last, and has greater area of black on bill.

*Plumage.*—White, rather more black on bill than in the last. Length 46 in. Female similar.

*Language.*—A metallic "tong-tong-tong."

*Habits.*—Like the last.

*Food.*—Aquatic plants.

*Nidification.*—Breeds in northern regions.

MUTE SWAN (*Cygnus olor*).

Resident, and common on some of our rivers, lakes, and sheets of water in a more or less domesticated state.

*Plumage*.—White. Bill reddish orange; nail and basal tubercle black. Legs black. Length 60 in. Female smaller, and tubercle less developed. Young (cygnet), greyish brown above, paler below. Bill and legs lead-coloured.

*Language*.—Loud, and like a trumpet.

*Habits*.—Resembling the other Swans.

*Food*.—Aquatic plants and insects and grain.

*Nest*.—April or May. One brood.

*Site*.—On a small island or secluded part of a river or lake-bank.

*Materials*.—Reeds and water-plants piled together into a bulky mass.

*Eggs*.—Three to six. Dull greenish white.

COMMON SHELD-DUCK (*Tadorna cornuta*).

Resident; as a breeding species very local and nowhere common. Found on the east coast, in Wales, some of the southern counties, in Scotland and Ireland.

*Haunts*.—Sandy sea-coasts.

*Observation*.—In appearance this Duck seems like a link between the Geese and Ducks proper.

*Plumage*.—Bill and knob at base of same bright red. Head and upper part of neck dark green, next a pure white collar, then a band of chestnut. Wings white, except part of the secondaries and primaries, which is black; speculum green; scapulars black. Rump, upper tail-coverts and tail-feathers white, the latter tipped with black; under parts white, except breast and belly, which are brown. Legs and feet pink. Length 26 in. Female, minus the knob at the base of bill, and colouring not so bright. Young: head and neck blackish; wings and under parts white; bill flesh-pink; legs and feet lead-colour.

*Language*.—A harsh cry or quack; in the breeding season the male utters a whistling note.

*Habits*.—It walks fairly well, and without the familiar waddle. In flight it somewhat resembles the Geese, rapid and direct, with neck outstretched.

*Food*.—Mollusca and crustacea chiefly, also various marine insects.

*Nest*.—May. One brood.

*Site*.—In an old rabbit-hole, but often in a burrow excavated in a sand-dune by the bird, sometimes as much as six or eight feet in (hence Burrow Duck).

*Materials*.—Dead grass and moss. Eggs buried in the greyish white down from the bird's breast.

*Eggs*.—Seven to twelve. Pure creamy white, smooth, glossy, and roundish in shape.

#### RUDDY SHELD-DUCK (*Tadorna casarca*).

A rare visitor, but it has occurred in large numbers from time to time. In a semi-domesticated state it is often seen on ornamental waters, and is at once attractive on account of its prevailing orange-brown plumage, and its buff head with narrow black collar.

#### MALLARD OR WILD DUCK (*Anas boscas*).

*Resident*. Our commonest Duck, being well distributed throughout Great Britain, and nesting where suitable.

*Haunts*.—Well-watered districts.

*Plumage*.—Head and neck green; white ring round neck. Breast chestnut; speculum green, bordered with white. Rump, upper and under tail-coverts and curled feathers of tail black, remaining tail-feathers grey; flanks and belly dull white. Bill yellowish green. Legs and feet orange-red. Length 24 in. Female smaller, and plumage generally mottled with brown and buff. The male assumes a plumage like the female in May. Young, like the female.

*Language*.—Much resembling the homely "quack" or "quark" of the domesticated Duck.

*Habits*.—It walks awkwardly (waddles), owing to the backward position of the legs. It swims well, and can submerge the body, leaving the bill only projecting above the water, when thoroughly alarmed. It flies rapidly with neck outstretched. It feeds by night, sifting and spattering mud in its specialized laminated bill. Before the young are able to fend for themselves, the male, like all true Ducks, sheds his nuptial plumage, and assumes the mottled garb of the female, and during the moult he is incapable of flight.

*Food*.—Practically omnivorous.

*Nest*.—April or May. One brood.

*Site*.—Among reeds at the side of a lake or river, under some bush; sometimes, though rarely, in a tree, or far from water.

*Materials*.—Grass, rushes, leaves, profusely lined with neutral greyish down from the bird's breast.

*Eggs*.—Eight to twelve. White, slightly tinged with green, smooth-shelled and oval in shape.

GADWALL (*Anas strepera*).

Rather a rare visitor from autumn to spring, remaining to breed in Norfolk, and sparingly in other suitable parts. Like the last, it is a freshwater Duck.

*Observation*.—Smaller, and less brilliantly coloured than last. Note conspicuous white speculum.

*Plumage*.—Head and neck light brown, mottled with darker brown. Back marked with greyish crescentic markings on a darker ground. Greater wing-coverts blackish; median wing-coverts chestnut. Primaries brown; secondaries black and brown; speculum white; rump and upper tail-coverts bluish black. Tail dark brown, edged with paler brown. Breast and belly white, greyer on flanks and vent; under tail-coverts bluish black. Bill lead-colour. Legs and feet orange-yellow. Length 21 in. Female: head and upper neck light brown, spotted with darker brown; upper parts brown, with pale edges; under parts white; speculum white. Young: reddish brown above, speckled with darker brown; speculum white.

*Language*.—Rather like the Mallard's.

*Habits*.—Flight very rapid, the pointed wings being conspicuous. Like the last, it is a night-feeder, and rather a skulker.

*Food*.—Grain, seeds, and various vegetable matters; also tadpoles, small fish, &c.

*Nest*.—May. One brood.

*Site*.—On the ground under a bush, or amongst rushes and sedges near water.

*Materials*.—Grass, leaves, and rushes; lined with down like the Mallard's.

*Eggs*.—Eight to thirteen. Creamy or buffish white.

SHOVELLER (*Spatula clypeata*).

Migrant, coming in the winter. It remains to breed regularly in small numbers in the eastern counties of Scotland, on the east coast of England, and more sparingly in the southern and western counties; not uncommon in Ireland where suitable.

*Haunts*.—Sheltered lakes, &c., not caring so much for open water.

*Plumage*.—Head green; neck and scapulars white. Back dark brown; greater wing-coverts white; secondaries dark brown; speculum green; primaries, rump, and tail-coverts blackish. Breast and belly chestnut; vent white. Bill lead-colour and broadly spatulated. Legs and feet orange-red. Length 20 in. Female mottled with light and dark brown. After summer moult the male assumes the mottled plumage of the female. Young, like female.

*Language*.—Resembles “tuck-tuck.” Usually a very silent bird.

*Habits*.—When taking to flight the wings clap loudly. Fond of floating on the water, dabbling the bill in it and sifting same for food. It also feeds by turning itself upside down like the Mallard.

*Food*.—Small fish, aquatic insects, tadpoles, worms, crustacea, and mollusca; also water-plants, &c.

*Nest*.—April or May. One brood.

*Site*.—Usually near water on the ground among rushes, heather, or other herbage.

*Materials*.—Dry grass and sedges, lined with neutral greyish down tipped with white.

*Eggs*.—Six to ten or more. Pale greenish buff.

#### PINTAIL (*Dafila acuta*).

Migrant, coming in autumn, and usually leaving in April. Breeds occasionally in Scotland and Ireland. In a semi-domestic state it frequently breeds.

*Haunts*.—Estuaries, seashores, and inland waters, preferring shallow waters with muddy bottoms.

*Plumage*.—Head and neck bronze-brown; nape black; conspicuous white stripe down each side of neck. Back and flanks mottled with grey; greater wing-coverts buff; speculum green, bordered with black and white. Tail black; two central feathers much elongated; under tail-coverts black. Breast and belly white. Bill, legs, and feet slaty grey. Length 28 in. Female mottled with brown above, and greyish white below; speculum green. Young, like female.

*Language*.—Silent in the daytime; by night it utters a low quack, and in the love season a pleasing double whistle.

*Habits*.—It feeds with its head below water, and is usually seen in flocks often in company with Wigeon. Flight rapid. It walks gracefully, and with greater ease than most Ducks.

*Food*.—Insects and their larvæ, water-weeds, crustacea, mollusca, &c.

*Nest*.—May or June. One brood.

*Site*.—On the ground amongst herbage near water.

*Materials*.—Dead grass, lined with brown down tipped with white.

*Eggs*.—Seven to ten. Pale buffish green.

#### TEAL (*Querquedula crecca*).

Migrant, coming in autumn and winter. Some remain to nest in suitable localities, though sparingly, in the South. Breeds abundantly in the Orkneys, Scotland, and Ireland.

*Haunts*.—Rivers and open sheets of fresh water, &c.

*Plumage*.—Crown of head and cheeks chestnut; round eye and extending back towards nape a broad green stripe margined with buff; upper parts prettily pencilled in black and white; speculum green and purple. Rump black. Tail brown; fore-chest buff, spotted with blackish; under parts white, buff patch each side of the rump. Flanks vermiculated with black and white. Bill blackish. Legs and feet brownish grey. Length 14 in. Our smallest Duck. Female, mottled with brown. Young, very similar to female.

*Language*.—A short, sharp "quack"; also a soft whistle.

*Habits*.—On taking to wing they rise almost perpendicularly from the water to a fair height, and then shoot off rapidly. Perhaps the tamest of our wild Ducks. It feeds by night.

*Food*.—Insects and their larvæ, seeds of aquatic plants, worms, slugs, mollusca, &c.

*Nest*.—May. One brood.

*Site*.—On the ground among herbage, &c., and usually near water.

*Materials*.—Sedges, reeds, dry grass, leaves, and pieces of heather, lined with brown down, having lighter centre and no white tips.

*Eggs*.—Seven to ten or more. Creamy or buffish white.

#### GARGANEY (*Querquedula circia*).

Migrant, being a spring visitor. Very local and uncommon as a breeding species. It nests sparingly in the Fen and Broad and other suitable districts.

*Observation*.—Distinguish at a distance from Teal by bluish wings and broad white eye-stripe.

*Plumage*.—Forehead, nape, and back dark brown; white stripe commencing just before the eye and extending to back of neck. Cheeks and neck light brown. Wings bluish grey. Speculum green, edged with white bar. Tail brown. Chin black. Breast pale brown, marked with dark crescentic bands. Belly white; under tail-coverts mottled with black and white. Bill black. Legs and feet greyish brown. Length 16 in. Female: smaller, mottled with brown; eye-stripe washed with yellow; speculum duller green between two white bars. Young, like female.

*Language*.—A sharp quack; also another note remotely resembling the noise of the cricket (hence Cricket Teal).

*Habits*.—Closely resembles the last.

*Food*.—Like the last.

*Nest*.—May. One brood.

*Site*.—Amongst rank grass, in reed-beds, &c.

*Materials*.—Dry grass, reeds, leaves, &c., profusely lined with down, differing from the Teal's in being darker and tipped with white.

*Eggs*.—Seven to ten or more. Creamy white. Like the Teal's, but rather larger.

#### WIGEON (*Mareca penelope*).

Migrant, being common in winter. Remaining to breed in small numbers in Scotland and the Orkneys and Shetlands. In England it breeds only in a semi-domesticated state.

*Haunts*.—Usually near the sea, but also inland waters.

*Plumage*.—Forehead creamy white. Chin, neck, and throat chestnut. Mantle vermiculated with grey. Shoulder white, ending with a black bar, to which succeeds a green speculum tipped with black. Wings and tail dark brown. Breast white; under parts grey; flanks pencilled with dark grey. Bill bluish lead-colour. Legs and feet dark brown. Length 18 in. Female: smaller, and mottled with greyish brown above; speculum greyer green; under parts mottled with buffish white. Young, like female.

*Language*.—A shrill whistle of two syllables. The female utters a kind of croak.

*Habits*.—Very shy and wary, and feeding both by day and by night. Like the Ducks already treated, it is a rapid flier, and feeds on the surface, submerging the head and neck. It can also dive, but does not do so from choice. Very gregarious. It grazes much like a Goose.

*Food*.—Aquatic plants, grass, &c.

*Nest*.—May. One brood.

*Site*.—In tuft of rushes, grass, heather, &c.

*Materials*.—Dry grass and reeds, lined with sooty brown down tipped with white.

*Eggs*.—Seven to ten or more. Creamy white, and oval in shape.

#### RED-CRESTED POCHARD (*Fuligula rufina*).

A rare and irregular straggler. Several occurrences are recorded. It may be seen on many ornamental waters in a semi-domesticated state, and is at once distinct on account of its crimson bill and bright chestnut head and erectile crest.

#### POCHARD (*Fuligula ferina*).

Partially resident, being most abundant in winter. Breeds more or less commonly in Norfolk, Lincolnshire, Yorkshire, Lancashire, and Dorsetshire, and in other counties in England, Scotland, and Ireland, where suitable.

*Haunts*.—Chiefly shallow inland waters where bottom is weedy.

*Plumage*.—Head and neck chestnut. Breast and upper back black; upper parts whitish, minutely and wavy lined with black. Speculum grey and indistinct; under parts greyish white. Tail-coverts black. Bill black, with blue band across middle. Legs and feet bluish grey. Length  $19\frac{1}{2}$  in. Female, dull brown on head, neck, and breast, and generally browner than male. Young, like female.

*Language*.—Call-note, a low whistle. Alarm-note, a harsh croak resembling "dun-curre."

*Habits*.—Flight rather heavy, but nevertheless rapid. An excellent diver, and obtaining most of its food in this way.

*Food*.—Vegetable matters principally; also worms, crustacea, mollusca, &c.

*Nest*.—Mid-May. One brood.

*Site*.—Well concealed in aquatic herbage, and always near water.

*Materials*.—Dry grass and sedges, lined with down, somewhat resembling the Mallard's, and also the Tufted Duck's, but browner.

*Eggs*.—Seven to ten or more. Pale greenish buff.

### FERRUGINOUS OR WHITE-EYED DUCK (*Fuligula nyroca*).

An irregular winter and spring visitor. Chiefly observed in the eastern counties.

*Observation*.—Distinct from other Ducks on account of dark sombre plumage and white speculum and eyes.

### TUFTED DUCK (*Fuligula cristata*).

Partially resident, the majority being winter visitors. Breeds in Nottinghamshire, Norfolk, Northumberland, Lancashire, Hants, Sussex, and Yorkshire, and other counties where suitable. Also abundantly in Scotland and Ireland.

*Haunts*.—Small shallow ponds, lakes, &c., where the bottom is weedy.

*Plumage*.—Head, crest, and upper part of neck black, with green and purple reflections; upper parts brownish black; under parts white. Speculum white, bordered with black. Bill slaty grey, with black nail. Legs and feet slate-colour. Length 17 in. Female: dark brown; under parts brownish white; rather smaller. Young, much like female.

*Language*.—A guttural "kurruk."

*Habits*.—Largely a night-feeder. In the daytime it is fond

of floating lazily on the water, preening its feathers. When feeding it dives incessantly.

*Food*.—Vegetable matters principally; also insects, mollusca, &c.

*Nest*.—May. One brood.

*Site*.—Amongst rushes or other aquatic herbage near water.

*Materials*.—Dry grass and sedges, lined with blackish down.

*Eggs*.—Eight to twelve or more. Greenish buff.

### SCAUP-DUCK (*Fuligula marila*).

A common winter visitor to our coast lines. Doubtful if it ever breeds in the British Islands.

*Haunts*.—Oozy flats at the mouth of rivers and the like.

*Plumage*.—Head, neck, and chest black. Mantle minutely vermiculated with greyish brown and white. Speculum white, bordered with greenish black. Rump, wings, and tail brown; under parts white. Bill bluish grey, with black nail. Legs and feet lead-colour. Length 19 in. Female: broad white band at base of bill; head and neck sooty black; under parts dull white; flanks and under tail-coverts mottled with brown. Young, much like female.

*Language*.—A harsh discordant "scaup."

*Habits*.—Gregarious. Flight rapid, and wings quickly vibrated. Except when feeding on mud-flats, it dives for its food.

*Food*.—Mollusca and crustacea chiefly; also various sea-plants.

*Nidification*.—Breeds in Northern Europe.

### GOLDEN-EYE (*Clangula glaucion*).

A common winter visitor; more abundant towards the north. It is possible it may breed in Scotland.

*Haunts*.—Sea and inland waters.

*Plumage*.—Head and neck green, with white spot under the eye. Back black. Neck, scapulars, speculum, and under parts white. Thighs dark brown. Bill bluish black. Legs and feet yellow; webs blackish. Length 19 in. Female: dark brown above, minus white face-spot; under parts white. Young, similar.

*Language*.—Very silent, but it sometimes utters a low croak.

*Habits*.—Flight like last, but even more violent, with the result that the wings produce a whistling kind of sound. Food obtained by diving.

*Food*.—Like the Scaup.

*Nidification*.—Like the Scaup.

LONG-TAILED DUCK (*Harelda glacialis*).

A regular winter visitor, especially to our eastern coasts and to the north. It may possibly breed in the extreme north of these islands.

*Haunts*.—The sea.

*Plumage*.—Head and neck white. Cheeks brownish grey. Back, rump, and tail-feathers—the central pair being much elongated—black. Scapulars elongated, and outer tail-feathers and under parts white. Breast, wing-coverts, and primaries blackish brown. Bill rose-colour; nail and basal portion black. Legs and feet lead-colour; webs blackish. Length 26 in. Female: upper parts dark brown; dull white stripe over eye; under parts white; no long tail-feathers. Young, similar.

*Language*.—A loud, clear "our-o-u-ah."

*Habits*.—Very marine when in these islands. It dives, but takes most of its food from the surface. When swimming, the long tail is held aloft, in its restless and gambolling actions; in flight the tail is depressed.

*Food*.—Mollusca, crustacea, sea-plants, &c.

*Nidification*.—Breeds in Arctic regions.

EIDER DUCK (*Somateria mollissima*).

An uncommon visitor to the more southern coasts; commoner towards the north and in Scotland. Breeds in the Farne Islands and other suitable localities in Scotland.

*Haunts*.—The sea.

*Plumage*.—Crown and forehead black; a white line bisecting the crown and extending to the pale green nape, and divided by another white line proceeding from the green portion on either side of the neck. Cheeks, back, and wing-coverts white. Secondaries yellowish white. Quills, rump, and tail blackish, with white patch on either side of the tail. Breast rosy buff. Belly black. Bill greenish, with wedge of black feathers extending centrally towards nostrils. Legs and feet dull green. Length 23 in. Female, ruddy brown, barred with blackish brown. Young, much like female.

*Language*.—Usually very silent. It utters a moaning cry, like "ah-woe-o-a-woo," much like the Long-tailed Duck. Female utters a harsh croak.

*Habits*.—Gregarious throughout the year. It is a powerful swimmer and expert diver, and flies rapidly at no great elevation above the water. Its food is obtained at the bottom of the sea. The hen bird is tame when sitting, but if rudely disturbed she squirts a stinking fluid over her eggs.

*Food*.—Many kinds of crustacea, sea-weed, &c.

*Nest*.—End of May. One brood.

*Site*.—Amongst coarse herbage, &c., near water.

*Materials*.—Grass, sea-weed, and heather, profusely lined with the celebrated down, which is mouse-brown in colour with whitish centres, and very elastic.

*Eggs*.—Five to eight. Dull greyish green.

#### COMMON OR BLACK SCOTER (*Edemia nigra*).

A common winter visitor to most of our coast-lines; as a breeding species it is rare, nesting sparingly in the extreme north of Scotland. Its proper breeding stations are much further north.

*Haunts*.—The sea.

*Plumage*.—Black, glossy above, but duller below. Bill and protuberance black; central ridge of upper mandible orange-yellow. Legs and feet black. Length 20 in. Female: sooty black above, dark brown below; no protuberance or orange-yellow ridge on upper mandible. Young, like female, but under parts mottled with brown and white.

*Language*.—Male's call-note resembling "tiii-tiii-tiii-tiii." Female utters a harsh grating "re-re-re-re-re."

*Habits*.—The most marine of all Ducks, feeding in deep water. It is an expert diver, and remains under the water for forty or fifty seconds at a time. Gregarious. Flight rapid, and near the surface of the sea.

*Food*.—Mollusca and crustacea chiefly.

*Nest*.—June. One brood.

*Site*.—On some islet, among coarse herbage, &c.

*Materials*.—Grass, twigs, leaves, and moss, lined with down resembling the Mallard's, but darker.

*Eggs*.—Six to nine. Pale greyish buff.

#### VELVET SCOTER (*Edemia fusca*).

A much less common winter visitor than the last. Although essentially marine in habits, it has been observed more commonly on inland freshwater lakes, &c., than the last. It differs from same in its larger size, the white patch behind each eye, and the conspicuous white bar across the wings. In all other respects it closely resembles the Common Scoter.

#### GOOSANDER (*Mergus merganser*).

A not uncommon winter visitor to our coasts, estuaries, and freshwater lakes. Breeds sparingly in the Highlands of Scotland.

*Plumage*.—Head and upper neck dark green; lower neck and under parts white, suffused with pink; upper back and

scapulars black. Wing-coverts white. Primaries ash-brown. Lower back and tail ash-grey. Bill blood-red and serrated. Legs and feet orange-red. Length 26 in. Female, much duller, and head and neck reddish brown; white speculum. Young, much like female.

*Language.*—Male utters a harsh "karr"; also a low whistling kind of cry.

*Habits.*—When swimming it rather reminds one of the Grebes, and is also much like the Cormorant in the way in which it submerges the body. An expert diver, it pursues and captures its finny prey under water, remaining submerged some considerable time.

*Food.*—Fish exclusively.

*Nest.*—May. One brood.

*Site.*—In a hole in a tree-trunk or under rock.

*Materials.*—Dry grass, weeds and moss, lined with greyish white down.

*Eggs.*—Eight to thirteen. Creamy white.

#### RED-BREASTED MERGANSER (*Mergus serrator*).

A common winter visitor on our coast-lines, usually preferring tidal waters. In Scotland, resident and breeding on freshwater lochs. Also breeds in Ireland.

*Observation.*—Distinguish from last by spotted appearance of lower neck, and rather less white in the whole plumage.

*Plumage.*—Head, crest, and upper neck dark green; collar white; a black line running through same on the nape to back, which is also black; outer scapulars white; inner ones black. Rump, flanks, and tail-coverts vermiculated with grey. Speculum white, barred with black. Lower neck pale chestnut, streaked with black; under parts white. Bill red. Legs and feet orange-red. Length 24 in. Female: smaller and duller, somewhat resembling female of last species, but much smaller; head and neck reddish brown; distinct black bar on wings. Young, like female.

*Language.*—Usually very silent. It sometimes utters a harsh kind of "quack."

*Habits.*—Very similar to the last.

*Food.*—Fish.

*Nest.*—May or June. One brood.

*Site.*—On the ground among heather or other coarse herbage, under rocks, &c., near water.

*Materials.*—Heather-sprigs, leaves, and grass, lined with brownish grey down, having rather paler tips and centres.

*Eggs.*—Six to ten or more. Pale olive or buffish grey.

SMEW (*Mergus albellus*).

A winter visitor to our coasts, but much rarer than the two preceding species.

*Haunts*.—The sea, inland freshwater lakes, &c.

*Plumage*.—Forehead, crown, crest, neck, and under parts white; black patch before or below the eye, and greenish black triangular patch on crest. Back black. Scapulars white, edged with black. Lesser wing-coverts white; greater coverts black, barred narrowly twice with white. Quills and tail-feathers brownish black. Flanks finely vermiculated with grey. Bill, legs, and feet lead-colour. Length  $17\frac{1}{2}$  in. Female: much smaller; head reddish brown; nuchal stripe and collar ash-grey; otherwise resembling male. Young, upper parts mottled with grey.

*Habits*.—Very wary and shy. Flight very rapid. An excellent diver, seeking its food under water. Like its two preceding congeners, it is altogether out of its element on land, walking awkwardly owing to the backward position of the legs.

*Food*.—Fish, crustacea, &c.

*Nidification*.—Breeds in Northern Europe and Asia.

## ORDER COLUMBÆ.

## Family COLUMBIDÆ.

RING DOVE OR WOOD PIGEON (*Columba palumbus*).

Resident; common, and found in all well-wooded districts.

*Plumage*.—Upper parts bluish grey; neck emerald-green glossed with violet and green, a white patch (no complete ring) on each side of neck. Wings grey with white bar, conspicuous in flight. Tail dark slaty grey; under parts reddish purple. Bill orange. Legs and feet bright red. Length 17 in. Female, smaller and slightly duller. Young, at first have no white neck patches, and are duller than adults.

*Language*.—The well-known plaintive "coo-roo-coo-coo."

*Habits*.—Flight rapid and direct. When alarmed it dashes off its perch with loud clappings of its wings; on the ground it walks deliberately. In the love season the male shows off before the female, puffing out his feathers, bowing, and raising his tail in a spasmodic manner. At this time it also indulges in parachute-like flights, rising and falling through the air very gracefully. In autumn and winter gregarious. A most voracious feeder. Like all Doves, the callow young are fed on a curdy secretion (Pigeon's milk) brought up from parent's crop; at a later stage on regurgitated food.

*Food*.—Various green stuffs, like turnip-tops, acorns, beech-mast, grain, peas, clover, berries, &c.

*Nest*.—March onwards. An irregular breeder, and has several broods in the year.

*Site*.—Among the smaller branches of some tree or hedge, in tree-fork, &c.

*Materials*.—Twigs and small sticks laid crosswise, like a platform.

*Eggs*.—Two. Pure white and glossy.

### STOCK DOVE (*Columba oenas*).

Resident; less common than the last, being found more especially in the midland, southern, and eastern counties. Much rarer in Scotland and Ireland.

*Haunts*.—Well-wooded districts.

*Plumage*.—Generally much like the last, but about one-third smaller; rather bluer in colouring, and has no white patch on the neck or bars on the wings. Under wing-coverts grey. Bill yellow, red at the base. Legs and feet red. Length  $13\frac{1}{2}$  in. Female, rather smaller and duller. Young, much like female.

*Language*.—A low simple cooing; has been described as a "grunting."

*Habits*.—Very like the last; but, if anything, the flight is lighter and more rapid.

*Food*.—Like the last.

*Nest*.—March onwards. Several broods.

*Site*.—Never in trees like the last; in rabbit-burrows, among gnarled tree-roots, under thick bush, in caves, &c.

*Materials*.—If any, twigs and sticks.

*Eggs*.—Two. Pale creamy white.

### ROCK DOVE (*Columba livia*).

Resident. Its natural home is the sea-cliffs, and is especially common in Scotland, Ireland, and the islands adjoining; found also in suitable districts on many parts of the English coast. This species is the wild form of the domesticated Pigeon.

*Plumage*.—Generally much like the two last-named, but easily distinguished from them by the two black transverse bars on the wings and white rump, the latter very conspicuous in flight. Bill black. Legs and feet red. Length  $12\frac{1}{2}$  in. Female, slightly smaller and duller. Young, still duller.

*Language*.—Identical with the "coo" of the tame Pigeon.

*Habits*.—Much like the others, but never alights on trees.

*Food*.—Like the last two.

*Nest*.—March onwards. Two or three broods.

*Site*.—On the floor or ledge of some gloomy cave.

*Materials*.—A few sticks and straws.

*Eggs*.—Two. White and glossy, and rather smaller and stouter than the Ring Dove's.

#### TURTLE DOVE (*Turtur communis*).

Migrant; April to September. Local; found principally in the southern and western counties, and in Wales; in Scotland and Ireland rare.

*Haunts*.—Woods, plantations, &c.

*Plumage*.—Head and nape ash-colour, tinged with vinous; a patch of black feathers tipped with white on either side of the neck. Neck and breast vinous red. Back ash-brown. Scapulars and wings rusty red with dark centres. Primaries dusky. Secondaries bluish ash; under parts white. Tail tipped with white, conspicuous in flight. Bill brown. Legs and feet red. Female, rather smaller and browner. Young, no white on neck and brownish above.

*Language*.—A soft plaintive sound like "tur-turre."

*Habits*.—Much like the other Doves.

*Food*.—Much like the other Doves.

*Nest*.—May. Two broods.

*Site*.—In hawthorn or small tree, &c., never very high up.

*Materials*.—Slender twigs and small sticks.

*Eggs*.—Two. White suffused with creamy. Much like Stock Dove's, but smaller.

#### ORDER PTEROCLETES.

##### Family PTEROCLIDÆ.

#### PALLAS'S SAND GROUSE (*Syrrhaptes paradoxus*).

This species has visited our islands on several occasions, sometimes in large numbers. It can only be regarded as a rare straggler, as the previous irruptions have been very irregular. It is a curious bird, with a plumage closely assimilating the sandy wastes it inhabits. The central tail-feathers are very long, and the short legs are closely covered with buff feathers extending to the toes.

## ORDER GALLINÆ.

## Family TETRAONIDÆ.

CAPERCAILLIE (*Tetrao urogallus*).

Resident. Found in considerable numbers in the central counties of Scotland. Almost exclusively a bird of the forest.

*Plumage*.—Pendant feathers of throat black. Head and neck dusky; above eyes a bare red skin-patch; upper parts slaty grey. Wing-coverts, rump, and flanks chestnut, finely lined and vermiculated with black and ash. Breast lustrous green; under parts and tail blackish, with some white spots. Bill brownish white. Legs covered with brown hair-like feathers. Length 35 in. Female: much smaller, and generally brown, mottled with black, white, and tawny red; neck and breast brownish red; tail dark red, barred with black, and tipped with white.

*Language*.—Several utterances which are almost impossible to syllabise; they have given as follows:—(1) “pellep” or “peller,” repeated two or three times; (2) “klikop”; (3) “hede.”

*Habits*.—Polygamous, and at mating-time very pugnacious, fighting most desperately for the supremacy of the hens; the male puffs out his plumage and struts about in a most frenzied manner. Flight powerful and rapid. Like its congener the Black Grouse, it perches on trees.

*Food*.—Berries, acorns, &c.; especially the shoots of the Scotch fir and fir-needles.

*Nest*.—May or June. One brood.

*Site*.—In hollow in the ground, among heather or under tree or bush.

*Materials*.—If any, a few pieces of grass.

*Eggs*.—Five to twelve or more. Pale reddish yellow or buffish, spotted and speckled with reddish brown. Like Black Grouse's, only larger.

## BLACK GROUSE (FEMALE, GREY HEN)

(*Tetrao tetrix*).

Resident. Most abundantly met with in Scotland; found also in Devon and Somerset, and in smaller numbers in other suitable parts of England and Wales.

*Haunts*.—Woods, and moors where rushy places abound.

*Plumage*.—Generally black with violet reflections. Bluer on

the neck and rump. White bar on wings. Lower tail-coverts white. Above eye a naked vermilion patch. Tail lyre-shaped. Legs feathered. Length 23 in. Female smaller, chestnut-brown barred with black. Young, like female.

*Language*.—A powerful, harsh, gurgling cry.

*Habits*.—Flight rapid. Polygamous, and in early spring the cocks engage in most desperate combats, the hens looking on. They also show off before the hens, going through many curious antics for their delectation.

*Food*.—Buds and green shoots, seeds, berries, and grain.

*Site*.—Under a bush or among grass, in a slight depression, usually not far from water.

*Materials*.—A little dry grass.

*Eggs*.—Six to ten. Yellowish white, spotted with orange-brown.

### RED GROUSE (*Lagopus scoticus*).

Resident. The only species exclusively British. Abundant in Scotland; found also in the northern counties of England, and in Wales. Rarer in Ireland. Essentially a moorland bird.

*Plumage*.—Variable. Head and neck reddish brown; above eye a naked patch of vermilion; upper parts chestnut-brown barred with black. Breast nearly black, with white tips. Feet and toes covered with grey hair-like feathers. In winter the under parts more or less mottled with white. Length 16 in. Female smaller, and lighter in colour. Young moult completely their first autumn, and assume adult plumage, but they are usually whiter below than the adults.

*Language*.—The male makes a crowing sound, and when alarmed utters a loud "ko-bek." Female makes a croaking noise.

*Habits*.—Strictly monogamous. When alarmed it usually runs some little distance before taking to wing. Flight powerful and rapid. It often feigns injury when the nest or young are in jeopardy. Very seldom perches on trees.

*Food*.—Heather-shoots and shoots of other plants, berries, and grain.

*Nest*.—May. One brood.

*Site*.—In some little hollow in the ground under tuft of heather.

*Materials*.—A few grasses and heather-stalks, perhaps a few feathers.

*Eggs*.—Six to twelve, or more. Yellowish white, clouded, blotched, and spotted with dark umber-brown.

PTARMIGAN (*Lagopus mutus*).

Resident. Unknown in England and Ireland. Fairly common on some of the high moors and mountains of Scotland.

*Plumage*.—Summer: head, breast, and upper parts ash-brown, barred, waved, and pencilled with dusky. Wings, under tail-coverts, and two central tail feathers white. Belly white; outer tail feathers black, more or less tipped with white; over eye a bright vermilion skin-patch. Legs and feet covered with white feathers. Length 15 in. Female, orange-tawny, barred with black. Winter: both sexes pure white; the male having a black line from bill through eye (absent in the female), and outer tail-feathers black.

*Language*.—A harsh croak.

*Habits*.—When alarmed it generally crouches motionless, and usually escapes observation, as the plumage harmonizes with the ground both in summer and winter. Flight somewhat like the Red Grouse's. In winter they congregate, and frequent lower elevations than in summer.

*Food*.—Green shoots and various berries.

*Nest*.—May. One brood.

*Site*.—In a hollow in the ground. Often among stones on a mountain top.

*Materials*.—If any, a few heather-stalks and pieces of grass.

*Eggs*.—Eight to ten, or more. Yellowish white, blotched and spotted with rich dark brown. Much like the Red Grouse's, but less marked.

## Family PHASIANIDÆ.

PHEASANT (*Phasianus colchicus*).

Resident. Common, and found in woods, coming out into the open to feed. Nowadays Pheasant-rearing has assumed such gigantic proportions that many birds are semi-domesticated. A Chinese species—the Ring-necked Pheasant—has been introduced in countless numbers, and these have interbred so much with our wild Pheasant that one rarely finds a true type of British bird. Our Pheasant has no ring at all round the neck.

*Plumage*.—Head and neck radiant with green and purple reflections. Sides of face nude and scarlet, minutely speckled with black; otherwise plumage richly variegated with black, brown, green, purple, red, and yellow. Tail long. Length 36 in. Female, smaller; light brown, marked with darker brown; sides of face feathered.

*Language*.—A loud squawk, like "gurr."

*Habits.*—On the ground it runs very rapidly; when flushed it shoots up with much noise, like a rocket. Flight powerful and rapid. Polygamous; the males fighting for the hens.

*Food.*—Practically omnivorous.

*Nest.*—May. One brood.

*Site.*—In a hollow in the ground, in tuft of grass, under brambles, &c.

*Materials.*—A few dry grasses.

*Eggs.*—Seven to twelve, or more. Olive-brown or olive-green.

#### COMMON OR GREY PARTRIDGE (*Perdix cinerea*).

*Resident.* Abundant in all well-cultivated districts, though more local in Scotland.

*Plumage.*—Grey on neck and fore chest; otherwise generally variegated with grey and reddish brown. Dark chestnut horse-shoe patch on lower breast. Wings marked longitudinally with buff. Bill olive-brown. Legs and feet bluish grey. Length  $12\frac{1}{2}$  in. Female, almost similar, but markings on wings crossed and not longitudinal. Young, like female, but legs yellowish brown.

*Language.*—Call-note, “kee-ash.” Alarm-note, “gug-ug-ug,” somewhat like the Guinea Fowl’s well-known cry.

*Habits.*—Essentially a ground species. In winter they consort in coveys, but they pair off in very early spring. A splendid runner, but when forced to take to the wing it flies rapidly with whirring wings for some distance, then skims along, and soon alights again. The parents often feign injury when the nest or young are in danger. Occasionally two hens share one nest.

*Food.*—Insects, snails, grain, green leaves, &c.

*Nest.*—May. One brood.

*Site.*—In some depression in the ground; under some bush or herbage.

*Materials.*—A few dead grasses and leaves.

*Eggs.*—Eight to twelve, often many more. Olive-brown.

#### RED-LEGGED PARTRIDGE OR FRENCH PARTRIDGE (*Caccabis rufa*).

*Resident.* Common in many parts of England, especially in the eastern counties; unknown in Scotland and Ireland. More partial to uncultivated districts than the last.

*Plumage.*—Throat and cheeks white, bordered by black band. Sides of neck and breast grey, spotted with black; upper parts

reddish ash-colour. Flanks barred with greyish crescentic markings. Tail-feathers chestnut; under parts fawn-colour. Bill, legs, and feet bright red. Length  $13\frac{1}{2}$  in. Female, rather smaller and duller. Young have no grey on throat, and very little black on gorget.

*Language*.—A grating “chuk-chuk-chukar;” but it is said to utter a piping cry.

*Habits*.—Even more of a runner than the last. Very similar to last, but perches more readily on trees or fences, &c., than it.

*Food*.—Insects, seeds, green leaves, &c.

*Nest*.—May. One brood.

*Site*.—In shallow depression in the ground, among thick herbage, &c.

*Materials*.—Dead grasses and leaves.

*Eggs*.—Ten to eighteen. Yellowish white, spotted, usually speckled with dark brown. Shell thick, hard, and minutely pitted.

### QUAIL (*Coturnix communis*).

Migrant for the greater part, coming in spring and departing in October; but some are resident. Found less abundantly nowadays in England than formerly. Fairly common in the west of Scotland; much commoner in Ireland.

*Haunts*.—Both cultivated and uncultivated districts.

*Plumage*.—Generally sand-brown, with buff shafts to feathers. Throat and collar white, margined with black. Fore chest buff. Three parallel, longitudinal yellowish streaks on head; under parts white. Bill, feet, and legs yellowish brown. Length 8 in. Female paler, and minus the crescentic collar on throat; chest more spotted.

*Language*.—Call-note of male, three piping syllables, usually written “click-lik-lik,” or “wet my feet.” Female’s call, a low, musical dissyllable. Alarm-note, much like the Partridge’s.

*Habits*.—An expert runner, spending most of its time on the ground. On the wing it is like a miniature Partridge, flying with rapidly vibrated and whirring wings. Usually monogamous, the males fighting very fiercely at mating time.

*Food*.—Insects, small slugs, seeds, and grain.

*Nest*.—May or June. Two broods sometimes.

*Site*.—In a little hollow scraped in the ground; among growing herbage.

*Materials*.—If any, a few dead grasses.

*Eggs*.—Seven to twelve. Yellowish white, spotted and blotched with umber-brown.

## ORDER FULICARIÆ.

## Family RALLIDÆ.

LANDRAIL OR CORN CRAKE (*Crex pratensis*).

Migrant; April to October. Somewhat local, but otherwise generally distributed throughout the British Isles.

*Haunts*.—Cultivated districts, and very partial to low-lying meadows.

*Plumage*.—Upper parts yellowish brown, with dark centres to feathers; areas above eyes and on cheeks ashy grey. Wing-coverts and quills chestnut. Throat white. Breast buffish. Belly and flanks well barred with brown and buff. Bill, legs, and feet light brown. Length 11 in. Female, slightly smaller; less grey on head, and chestnut on wings. Young, like female. Nestling covered with black down.

*Language*.—The well-known grating "crek-crek," like the noise produced by drawing one's finger-nail across the teeth of a comb.

*Habits*.—It lives on the ground, where, aided by its thin, wedge-shaped body, it proceeds with great celerity through the densest cover, consequently it is far more frequently heard than seen. Always reluctant to take to wing, but if forced to do so it flies clumsily and sluggishly, with dangling legs, and soon drops into cover again. If occasion demands it will feign death. Not aquatic like the Water Rail.

*Food*.—Small snails, worms, slugs, insects, lizards, seeds, &c.

*Nest*.—May or June. One brood.

*Site*.—On the ground, among some kind of growing herbage.

*Materials*.—Dead grass, leaves, and roots, lined with finer grass.

*Eggs*.—Seven to ten. Reddish or buffish white, spotted and blotched somewhat sparingly with red-brown and violet-grey under-markings.

SPOTTED CRAKE (*Porzana maruetta*).

Migrant; March to October. A regular visitor, but very local and uncommon. Breeds in many suitable localities.

*Haunts*.—Marshy and swampy places.

*Observation*.—Distinguish from last by smaller size and generally flecked appearance.

*Plumage*.—Upper parts olive-brown with dark centres, and flecked all over with small white spots. Crown of head dark brown. Eye-stripes and face grey. Breast brown, with white spots. Belly greyish white; flanks barred with brown and

white. Bill yellowish. Legs and feet yellowish green. Length 9 in. Female rather smaller and duller. Young, throat white and spottings less distinct. Nestling covered with lustrous greenish black down.

*Language*.—A loud "kweet" or "whuit."

*Habits*.—Generally much like the last, being most secretive and loth to fly unless positively obliged. The nest is frequently so placed that the parents must swim to it.

*Food*.—Much like the last.

*Nest*.—May or June. One brood.

*Site*.—On boggy ground, in reed-bed or tuft of rushes.

*Materials*.—Sedges, flags, and the like; lined with fine grass.

*Eggs*.—Eight to ten. Olive-buff, spotted and speckled with dark reddish brown, and ash-grey under-markings.

#### LITTLE CRAKE (*Porzana parva*).

A rare visitor, chiefly to the East coast, in spring and autumn. Several examples have been reported from time to time in various counties, but it has not been recorded as found breeding. Although called "Little," it is rather larger than the next species. Generally the plumage is olive-brown above (hence its other name, Olivaceous Gallinule) and slate-grey below. In habits it resembles the other members of this family. Its note is a loud "kik" two or three times repeated.

#### BAILLON'S CRAKE (*Porzana bailloni*).

A rare visitor, usually in spring and autumn, and has been observed in several counties from time to time; it has also been found breeding. It is the smallest of our Crakes, the plumage generally being warm brown, flecked with black and white above and slate-grey below. Its language and habits are much like the last.

#### WATER RAIL (*Rallus aquaticus*).

Partially migrant, but many remain throughout the year in suitable localities. Generally distributed, though local and rather uncommon,

*Haunts*.—Fens, marshes, rivers, &c.

*Observation*.—Distinguish from Land Rail by longer bill, greyer under parts, and dark flanks well barred with white.

*Plumage*.—Upper parts olive-brown, with black streaks to centre of feathers. Cheeks, neck, and breast dull grey. Flanks blackish, distinctly barred with white. Bill red, and longer than in other Crakes. Legs and feet brownish flesh-colour. Length  $10\frac{1}{2}$  in. Female duller, and sometimes barred with white on the wing. Young, more olivaceous above than

adult; dull buffish white below, with speckles on throat and dark brown bars on flanks. Nestling covered with black down.

*Language*.—A harsh cry resembling "creek."

*Habits*.—Shy and elusive, always skulking on the slightest alarm; flies most reluctantly, and with dangling legs. Although not web-footed, it swims and dives with facility. Preferably, however, it runs about with extreme rapidity among the rank dense herbage of its marshy home, and is seldom seen.

*Food*.—Snails, slugs, worms, aquatic plants, &c.

*Nest*.—April onwards. Two broods.

*Site*.—In tufts of sedges or rushes; amongst coarse, rank, aquatic herbage, always well concealed and near water.

*Materials*.—Coarse grass, bits of sedge, reed-leaves.

*Eggs*.—Seven to ten. Creamy white, sparsely speckled and spotted with reddish brown and ash-grey.

#### MOORHEN OR WATER HEN (*Gallinula chloropus*).

Resident. Common throughout the British Isles; wherever there is water and a bit of cover the Moorhen will find a home.

*Plumage*.—Frontal disk bright red; upper parts dark olive-brown. Head, neck, and under parts slate-grey; some white streaks on flanks; margin of pure white on the first primary, and under tail-coverts white and conspicuous. Bill yellow. Legs and feet greenish yellow. Toes long. Length 13 in. Female rather larger and brighter. The feathers of this species are peculiar, giving a somewhat hairy appearance rather than feathery. Young, greyish olive above, and ash-grey below. Bill, frontal disk, and legs dull green. Nestling covered with black down.

*Language*.—Call-note a loud "crek-rek-rek." Alarm-note, "whirro," rather like a frog's croak.

*Habits*.—It runs nimbly on the ground, often using the wings at the same time. It swims and dives well, and, if alarmed, will submerge the body, leaving only the beak above the water. It takes to wing reluctantly, and usually allows its legs to dangle in the water. Both when walking and swimming it bobs its head, and spasmodically jerks its stumpy tail. Pugnacious, and often fights desperately. Usually shy and wary.

*Food*.—Insects and their larvæ; slugs, worms, grass, grain, &c.

*Nest*.—March onwards. Two or three broods.

*Site*.—Among rushes growing in or near water, and in other similar situations; sometimes in hedges and trees.

*Materials*.—Dry grass, reed-leaves, and bits of sedge.

*Eggs*.—Six to ten, or more. Reddish, buffish white, or clay-colour; sparingly spotted and speckled with reddish (almost orange) brown, and greyish under-markings.

COOT (*Fulica atra*).

**Resident.** Generally distributed and fairly common wherever there are sheets of open water and sluggish flowing rivers.

**Plumage.**—Frontal disk white, and always conspicuous (hence Bald Coot); upper parts slate-grey, narrow white bar across wings; under parts sooty black. Bill flesh-colour. Legs green. Feet green and lobate. Length 15 in. Female similar. Young: frontal disk smaller; throat dingy white, and under parts grey. Nestling covered with black down.

**Language.**—A loud, shrill cry like "kow," which may be likened to a dog's bark.

**Habits.**—More thoroughly aquatic than the last, diving a great deal for its food, and by means of its lobate feet able to explore oozy places with ease. Flight fairly powerful, the legs being stretched out behind, Heron-like; otherwise, much resembling the last.

**Food.**—Insects, worms, slugs, aquatic weeds and plants.

**Nest.**—April onwards. Two or three broods.

**Site.**—Among reeds or rushes, and more or less floating on the water.

**Materials.**—Reeds and other aquatic plants, lined with finer materials of a similar kind.

**Eggs.**—Seven to ten, or more. Pale buff or stone-colour, speckled and dotted with dark brown and some grey under-markings.

## ORDER LIMICOLÆ.

Family *ÆDICNEMIDÆ*.STONE CURLEW (*Ædicnemus scolopax*).

Migrant; April to October. Very local, being almost confined (at any rate in the breeding season) to chalk-downs. Found in most of the southern, midland, and eastern counties, being commonest in Norfolk (Norfolk Plover).

**Plumage.**—Irides large and yellow; upper parts mottled with dark and light brown; white bar on wings. Throat and stripe under eye white; under parts buff streaked with dark brown. Bill black at tip; yellowish green at base. Knee-joint rather large (hence Thick-knee). Legs and feet yellow. Length 16 in. Female similar. Young, duller, and more barred on tail. Nestling: mottled with sandy grey and pale brown; black stripe each side of head and down centre of back; legs bluish grey.

**Language.**—A loud tremulous cry, especially at night; rather silent by day.

**Habits.**—Semi-nocturnal, like other of the Limicoline birds. It runs very swiftly. When the nest is in danger the parent at

once quietly runs away, sometimes feigning injury, or squatting motionless where its plumage harmonizes with the ground, and is very difficult to see. The young always do the same, if frightened. Gregarious in winter.

*Food*.—Insects, beetles, worms, and slugs; also mice, frogs, and reptiles.

*Nest*.—May. Probably two broods.

*Site*.—On the ground, among pebbles or stones.

*Materials*.—Perhaps a few grasses.

*Eggs*.—Two. Buff or clay-colour, spotted, streaked, and blotched with dark brown and bluish grey.

### Family CHARADRIIDÆ.

#### DOTTEREL (*Eudromias morinellus*).

Migrant; April to September. Usually observed as a passing migrant. It may still breed, in limited numbers, in the mountains of the Lake District. Breeds fairly commonly on the loneliest mountain-districts of the Highlands.

*Plumage*.—Crown blackish, bordered with white band extending round to the nape; upper parts ash-brown. Tail tipped with white. Throat dull white. Breast ash-brown, with white band below. Flanks chestnut. Belly black. Tail-coverts white. Bill black. Legs and feet dusky green. Length 9 in. Female, rather larger and brighter. Young: crown and upper parts margined with rufous buff; breast mottled with greyish brown; under parts dull white.

*Language*.—Said to be a low, unmusical chirp; very silent.

*Habits*.—On its first arrival it moves about the country in small flocks known as "trips," but soon goes north to breed. It is almost foolishly tame, and its name is probably derived from "dotard."

*Food*.—Insects and their larvæ, beetles, wireworms, &c.

*Nest*.—June. One brood.

*Site*.—On the ground, among short grass growing near a mountain-top.

*Materials*.—None.

*Eggs*.—Three. Yellowish olive, blotched and spotted with brownish black.

#### RINGED PLOVER (*Ægialitis hiaticola*).

Resident. Generally distributed along our coast-lines. A shore-bird, breeding either on pebbly beaches, or among sand-dunes. Sometimes found inland.

*Plumage*.—Band across forehead, lores and gorget black; white band across lower forehead; white stripe over eye.

Collar white; upper parts hair-brown. Outer tail-feathers white; others tipped with white; under parts white. Bill black at tip, yellow towards base. Stilt-like legs and feet orange. Length  $7\frac{3}{4}$  in. Female, less black gorget, and generally duller. Young: dusky brown in place of black areas; no black band on forehead; legs pale yellow. Nestling, covered with down, mottled with fawn and brown.

*Language*.—A plaintive piping like "pooree."

*Habits*.—Sociable, even in breeding season. Runs with great celerity over the pebbles of the shore. Flight swift. Not particularly timid, and when the nest is approached the parents are most solicitous, and often feign injury.

*Food*.—Insects, worms, shrimps, sandhoppers, &c.

*Nest*.—May onwards. Two broods.

*Site*.—On the beach, not far above high-water mark.

*Materials*.—If any, a few grasses; usually the slight cavity is lined with small pebbles and broken shells.

*Eggs*.—Four. Pale stone-, clay-, or cream-colour, neatly spotted with dark brown and grey; pyriform shape, disposed in cavity diagonally, *i.e.*, with the small ends all pointing towards the centre, like the other Plovers'.

#### KENTISH PLOVER (*Ægialitis cantiana*).

Migrant; April to September. Very local, and nowhere common; found in the south and south-eastern counties, and Channel Islands. Very rare in Ireland.

*Observation*.—Distinguish from Ringed Plover by rather smaller size, paler appearance, and absence of black gorget.

*Plumage*.—Forehead, stripe over eye, chin, and under parts white. Top of forehead, and band from base of bill through eye and patch just below scapulars black. Back of head brownish red; upper parts ash-brown. Outer tail-feathers white. Bill, legs, and feet black. Length  $6\frac{3}{4}$  in. Female, no black on forehead, and duller. Young, still duller, and more or less mottled above. Nestling, much like the Ringed Plover.

*Language*.—A sharp whistle, not unlike the Ringed Plover's.

*Habits*.—Much like the Ringed Plover, but exclusively confined to the seashore, whereas the Ringed Plover is found sometimes inland.

*Food*.—Similar to Ringed Plover.

*Nest*.—May. One brood.

*Site*.—On bare ground, among shingle, pebbles, &c.

*Materials*.—None.

*Eggs*.—Three or four. Stone- or drab-colour, spotted and scrawled with black and grey; smaller than Ringed Plover's; much like Little Tern's, but pyriform shape.

GOLDEN PLOVER (*Charadrius pluvialis*).

Resident; though partially migrant. Breeds sparingly in Wales, Devonshire and Somerset, and, more abundantly, in the North of England, Scotland, and Ireland.

*Haunts*.—Moorland districts.

*Plumage*.—Forehead and stripe over eyes white, continued down sides of neck to flanks; upper parts prettily mottled with black, golden, and creamy white; under parts black; axillaries white. Bill, legs, and feet black. Length 11 in. Female similar, but black areas more sooty. In winter, adults lose the black on under parts, which then become whitish, spotted with yellowish brown. Young: upper parts more spotted, and with browner golden; under parts grey. Nestling: upper parts mottled with black, grey, and golden down; under parts greyish white.

*Language*.—A melodious double whistle like “lou-ee, lou-ee,” especially noisy in wet weather. In the love season it utters a trilling whistle like “tirr-pee-you.”

*Habits*.—In winter and when on migration this species is gregarious. Largely a night feeder. It runs well, like all true Plovers. Flight rapid, and when in flocks they wheel about in the air in graceful and regular evolutions.

*Food*.—Insects, worms, slugs, crustacea, &c.

*Nest*.—May. One brood.

*Site*.—On the ground, among heather or grass.

*Materials*.—A few grasses and heather-stalks.

*Eggs*.—Four. Stone-colour or buff, spotted and blotched with deep brown and purplish grey. Large for the bird's size. Pyriform shape.

GREY PLOVER (*Squatarola helvetica*).

A winter visitor; has not been known to breed here. It greatly resembles the Golden Plover, but is rather larger. Axillaries black (not white, as in Golden Plover), and the white tail-coverts are conspicuous in flight. It has a rudimentary hind toe, unlike the Golden Plover. In habits it resembles the Golden Plover, but is exclusively a shore bird. Alarm-note, a plaintive “klee-eep.” Call-note is much like Golden Plover's, but uttered in a higher key.

LAPWING OR PEEWIT (*Vanellus vulgaris*).

Resident; but in winter there is a partial emigration from the North. Well distributed and common. Partial to low hills, sheep pastures, arable and meadow-land.

*Plumage*.—Crown of head and crest greenish black. Stripe over eye and sides of face white. Upper parts cupreous

green. Throat and chest bluish black. Under parts white. Tail white, tipped with black. Tail-coverts chestnut. Bill black. Legs and feet reddish. Length  $12\frac{1}{2}$  in. Female: smaller crest, and duller; in winter both sexes have white throat. Young: no black on throat, and white areas of head buffish. Nestling: covered with down, mottled with buff and black, white below. As with other Plovers, the young are soon able to run after emerging from the egg.

*Language*.—The familiar "Pee-a-wit," often heard by night as well as by day.

*Habits*.—More sociable in winter than in summer. It runs nimbly. When disturbed from the nest, the female slips off her eggs, and runs some distance before taking to wing. The male becomes most excited, and dashes about in the air like a mad thing. The parents may feign death or injury if the eggs or young are in danger. Flight peculiar, being jerky, and the blunt, recurvate wings produce a noise much like a winnowing machine. When showing off to the female, the cock-bird makes a series of false nests by turning himself round on the ground as though on a pivot.

*Food*.—Insects, worms, slugs, &c.

*Nest*.—April. One brood.

*Site*.—On the bare ground, usually unsheltered, sometimes on grass, sometimes on ploughed land.

*Materials*.—A few grasses, bents, and roots.

*Eggs*.—Four. Olive-green, stone-colour, or buffish brown, well spotted and blotched with brownish black. Pyriform shape.

### TURNSTONE (*Streptilas interpres*).

An autumn and winter visitor from circumpolar regions. Considerable numbers spend the winter with us in the South and West.

*Haunts*.—Rocky sea-coasts.

*Plumage*.—Head, neck, breast, and shoulders variegated with black and white. Mantle streaked with chestnut and black, giving "tortoise-shell colouring." Rump white and conspicuous. Tail dark brown; under parts white. Bill black. Legs and feet orange-red. Length 9 in. Female, slightly larger and duller. In autumn both sexes lose much of the chestnut colouring. Young: forehead and cheeks brown, collar dark brown; feathers of back tipped with dingy white.

*Language*.—A clear whistle; also a twittering or chuckling, uttered when on the wing. Usually rather silent.

*Habits*.—When feeding it has a curious habit of turning over stones with its bill, sometimes aided by its breast, to find insects or other small creatures lurking there.

*Food*.—Small crustacea and mollusca, marine insects, &c.

*Nidification*.—Breeds in circumpolar regions. It has been suggested that it may breed in Great Britain, but there is no evidence of it as yet.

### OYSTER-CATCHER (*Hæmatopus ostralegus*).

*Resident*. Met with commonly on our coast-lines, preferably, perhaps, where it is rocky, with stretches of sands. Breeds abundantly in Scotland (sometimes found inland), and elsewhere, in all suitable localities.

*Plumage*.—Head, neck, fore chest, scapulars, and tip of tail black. Upper tail-coverts, great wing-coverts, and under parts pure white. Bill long, chisel-edged, and orange-yellow. Legs and feet flesh-colour. Length 16 in. Female: similar; in autumn and winter the front and sides of neck white. Young: back tinged with ruddy, and other colours duller. Nestling covered with greyish down, tipped with buff and mottled on head and back.

*Language*.—A sharp, shrill whistle, several times repeated.

*Habits*.—Fond of perching motionless on some sea-girt rock. When feeding, it runs along in a trotting manner. Flight rapid, and when flying its pied plumage is conspicuous. It levers off limpets from the rocks at low tide, but it is extremely doubtful whether it can successfully negotiate the bivalves of an oyster, as its name implies. It swims with ease.

*Food*.—Mussels, limpets, whelks, small fish, and crustacea; also marine plants.

*Nest*.—May. One brood.

*Site*.—In depression in shingle, among pebbles, and on rocks not far above high-water mark.

*Materials*.—When on shingle, fragments of pebbles often line the cavity; when on rocks, a few pieces of seaweed, &c.

*Eggs*.—Three or four. Pale clay- or stone-colour, spotted and streaked with blackish brown and greyish brown. Large for the bird's size, and not very pyriform.

### Family SCOLOPACIDÆ.

#### AVOCET (*Recurvirostra avocetta*).

Now a rare straggler only. A few generally put in an appearance in spring on our east coasts, and would, perhaps, breed as it used to years ago, but they are invariably shot. Sometimes observed in autumn.

*Haunts*.—Coast-lines and estuaries.

*Plumage*.—Crown, forehead, sides of head, scapulars, median and tertiary wing-coverts, and some of the primaries black.

Remainder of plumage white. Bill black, long, flattened, and turned up at the point. Legs long, and pale blue. Length 18 in. Female similar, but rather smaller. Young, duller.

*Language*.—A clear "kluit."

*Habits*.—Feeding principally on surface food, it wades through the water, sweeping its curiously upturned bill from side to side much like a man mowing grass with a scythe. It is also a capable swimmer. Usually shy and quiet.

*Food*.—Small crustacea, worms, insects.

*Nidification*.—Breeds in Europe and Africa.

### BLACK-WINGED STILT (*Himantopus candidus*).

An irregular visitor, chiefly to the south and east of England, from Southern Europe. In appearance it much resembles the Avocet in its pied plumage, but has longer legs and a straight bill. Its note is a clear "pee-pee-pee."

### GREY PHALAROPE (*Phalaropus fulicarius*).

An irregular visitor, sometimes appearing in considerable numbers on our south-eastern, south-western, and southern coasts.

*Plumage*.—It has not been observed here in breeding plumage, in which the predominant colouring is chestnut. In autumn and winter the prevailing tint is grey. Back of head black. Forehead, sides of head, throat, and under parts white. Back of neck, secondaries, and back pearl grey. Bill black. Legs and feet yellow. Toes lobed. Length  $7\frac{1}{2}$  in. Female: larger,  $8\frac{1}{4}$  in., and brighter. Young: in winter dress more sandy above, and tawny on breast.

*Language*.—A sharp "tweet."

*Habits*.—A good swimmer, being aided by its lobate toes. Fond of paddling about in shallow water looking for food, and keeping up an incessant twittering.

*Food*.—Small crustacea, marine insects, larvæ, and other small aquatic creatures.

*Nidification*.—Breeds in circumpolar regions.

### RED-NECKED PHALAROPE (*Phalaropus hyperboreus*).

An irregular visitor like last. A miserable remnant still remain to breed in the Shetlands, Orkneys, and outer Hebrides.

*Haunts*.—Brackish waters, freshwater ponds, and the like.

*Plumage*.—Male smaller and duller than female. Head, back of neck, and shoulders ash-grey. Upper parts darker grey, mixed with rufous. White bar on wings. Neck chestnut.

Chin white. Upper breast ash-grey. Under parts white. Bill black. Legs and feet greenish. Toes lobed. Length  $7\frac{1}{2}$  in. In winter: forehead, eye-stripe, throat, sides of neck, breast, and under parts white; feathers of back well margined with chestnut and sometimes with white; most of wing-coverts tipped with white; legs and feet bluish grey. Young: rufous margins to feathers of upper parts. Nestling: covered with yellowish brown down, mottled above with dark brown, and with longitudinal stripes; under parts white.

*Language*.—A low "wit-wit-wit."

*Habits*.—Like the last, it swims well, and floats buoyantly on water. On land it trips nimbly about, reminding one of a Wagtail. Tame in disposition.

*Food*.—Like the last.

*Nest*.—On the ground, among thick grass, in some swampy place.

*Materials*.—A few dry grasses.

*Eggs*.—Four. Pale buff or olive, spotted and blotched with blackish brown. Very pyriform shape.

### WOODCOCK (*Scolopax rusticula*).

Migrant; being most abundant in autumn and winter. A considerable number breed in suitable localities in most countries, but nowhere commonly.

*Haunts*.—Woods, preferably those in the vicinity of damp places.

*Plumage*.—Upper parts rich reddish brown, beautifully mottled, barred, and vermiculated with black. Under parts fawn-brown, delicately barred with dark brown. Bill long and tapering, light brown, darker at tip. Legs and feet yellowish brown. Length  $14\frac{1}{2}$  in. Female similar. Young, more barred on rump and tail-coverts. Nestling: covered with fawn-coloured down, striped all down centre of back with chestnut and bordered with cream-colour; black line through eye.

*Language*.—Two notes—one a sharp and the other a deep kind of whistle.

*Habits*.—Nocturnal, spending the day under some umbrageous bush, coming forth at night with curious zigzagging flight, and probing soft, damp places with its long, sensitive bill for food. Note the backward position of eyes, a provision of Nature enabling the bird to probe in the mud without choking the eyes with it. If danger threatens, the parents will remove their young to a place of safety.

*Food*.—Worms especially; also beetles, insects, small crustacea, &c.

*Nest*.—March or April. One brood.

*Site*.—In a slight hollow, sheltered by long grass, bracken, and the like, in sequestered woods.

*Materials*.—If any, a few leaves, grasses, or fern-fronds.

*Eggs*.—Four. Pale drab-yellow or stone-colour, spotted and blotched rather sparingly with light yellowish brown, umber-brown, and ash-grey. Not very pyriform in shape.

### GREAT SNIPE (*Gallinago major*).

A regular autumn visitor in small numbers—usually young birds. Generally observed in the east and south of England. In appearance it is like a larger edition of the Common Snipe (next described), and in habits much resembles it, but its flight is heavier, slower, and less erratic.

### COMMON SNIPE (*Gallinago cælestis*).

Resident; but many migrants arrive in winter. Fairly well distributed, breeding most abundantly in Norfolk, Suffolk, Lincolnshire, Scotland, and Ireland.

*Haunts*.—Marshy and fenny districts.

*Plumage*.—Upper parts mottled with black and chestnut-brown. Flanks whitish, barred with dusky; under parts white. Bill long and brown, darker at tip. Legs and feet greenish brown. Length  $10\frac{1}{2}$  in. Female similar. Young altogether duller. Nestling covered with chestnut-brown down above, mottled with black and grey; greyish brown below.

*Language*.—The well-known and curious drumming, which may be partly vocal and partly produced by the wings and tail. Also another sharp cry, two or three times repeated, like "scape."

*Habits*.—Feeds like the Woodcock. At pairing time the male practises his curious aerial performances, rising to some considerable height, then hurling himself earthwards with tremendous velocity, all the time drumming or bleating. When flushed, it flies off in a rapid, erratic, zigzagging fashion.

*Food*.—Worms, insects, &c.

*Nest*.—April or May. Sometimes two broods.

*Site*.—Among rank aquatic herbage on boggy land.

*Materials*.—A few leaves and stalks.

*Eggs*.—Four. Pale olive, spotted and blotched with rich dark brown, other shades of brown, and purplish grey. Pyriform shape.

### JACK SNIPE (*Gallinago gallinula*).

A winter visitor, but much less common than the last. Fairly well distributed in suitable places.

*Haunts*.—As last.

*Observation*.—In general appearance much like the last, but smaller.

*Plumage*.—Upper parts mottled with buff, reddish brown, and black, with metallic green and purple reflections. In winter the reddish brown is replaced by a greyish tinge. Neck and breast spotted; under parts white. Bill dusky at tip and lighter at base. Legs and feet grey. Length  $7\frac{1}{2}$  in. Female, slightly larger and duller. Young, no reflections on upper parts.

*Language*.—Much like the last.

*Habits*.—Much like the last.

*Food*.—Much like the last.

*Nidification*.—Breeds in Northern Europe.

### DUNLIN (*Tringa alpina*).

Chiefly migrant; being most commonly met with in autumn and spring. Breeds in considerable numbers in the mountainous districts of the North, also in Cornwall, Wales, south-western counties, Lancashire, and Yorkshire.

*Haunts*.—Shores and tidal rivers when not breeding.

*Plumage*.—Crown of head rufous brown, streaked with black. Mantle chestnut, marked with black. Upper parts ash-grey. Throat and fore-chest greyish white, streaked with black. Lower breast black. Belly white. Bill rather long and black. Legs and feet black. Length  $7\frac{1}{2}$  in. Female rather larger. In winter the adults lose the rufous tinge on upper parts, and become greyish; under parts white; greyish band on chest, and white bar on wings. Young: feathers of head and back with dark centres and rufous margins; chin white; upper breast tawny, streaked with dusky on flanks; belly whitish. Nestling: rufous above and greyish white below; three black streaks on back.

*Language*.—A pleasing little trill, like "trui." Also another note, like "purre."

*Habits*.—In disposition rather confiding. Fond of running nimbly over the sea-shore, stopping every now and then to probe the sand or ooze for food. When flying together in large flocks, often in company with other waders, they look, at one moment, like a dark cloud, at another like a silver one, as they wheel rapidly round and expose the under parts.

*Food*.—Marine insects, worms, and crustacea.

*Nest*.—May. One brood.

*Site*.—On the ground among heather, or in tuft of coarse grass.

*Materials*.—A few leaves and grasses.

*Eggs*.—Four. Greenish or buffish white, well spotted and blotched with two shades of reddish brown and grey. Pyriform shape.

#### LITTLE STINT (*Tringa minuta*).

A visitor in small numbers on migration, usually observed in autumn and again in spring, more particularly on the east coast.

*Haunts*.—Mud- and sandy flats.

*Observation*.—In general appearance like a diminutive Dunlin, without black on lower breast.

*Plumage*.—Upper parts variegated with rufous and black. Throat and upper breast tinged with rufous, and speckled with dark brown; under parts white. Bill, legs, and feet black. Length 6 in. Female similar, but rather larger. In winter upper parts ashy brown, and rufous on throat is lost. Young: feathers above margined with buffish white.

*Language*.—A sharp "wick." When heard in a flock, the noise seems like that of grasshoppers.

*Habits*.—When with us they usually consort in small flocks, sometimes keeping company with Dunlins and Sanderlings. Very tame in disposition.

*Food*.—Aquatic insects, worms, small crustacea and mollusca.

*Nidification*.—Breeds in Northern Europe and Asia.

#### TEMMINCK'S STINT (*Tringa temmincki*).

A more irregular visitor on migration than the Little Stint, which it much resembles in plumage, size, &c. Its call-note is a sharp "ptirr."

#### CURLEW SANDPIPER (*Tringa subarquata*).

An annual visitor on migration in small numbers, chiefly to the east coast.

*Haunts*.—Mud- and sand-flats. Sometimes penetrating inland.

*Plumage*.—Head, neck, and mantle chestnut, streaked and barred with black and grey. Upper tail-coverts buffish white, and barred with black. Quills and tail-feathers ash-grey. Under parts chestnut, barred indistinctly with brown and grey on belly and flanks. Bill, legs, and feet black. Note slightly down-curved bill. Length 8 in. Female similar, but slightly larger. In winter, upper parts ash-brown, mottled with dark and pale brown; under parts and upper tail-coverts white. Young: feathers above edged with buff; tail-coverts white;

throat and breast tinged with buff and streaked with light brown; under parts white.

*Language*.—Like Dunlin, but more prolonged.

*Habits*.—It derives its name from its curved bill, which somewhat resembles the Curlew's. It is usually seen in small flocks, often with Dunlins and other waders, whom it greatly resembles in habits. On the wing the white tail-coverts are conspicuous.

*Food*.—Aquatic insects, small crustacea, worms, &c.

*Nidification*.—Very little is known of its breeding habits, but it probably nests within the Arctic circle.

#### PURPLE SANDPIPER (*Tringa striata*).

An autumn and winter visitor to our coasts. It breeds on the Farøe Islands, and may possibly do so in the extreme north of Scotland, but there is as yet no proof of it.

*Haunts*.—Rocky sea-coasts where there is plenty of seaweed. Occasionally found on inland waters.

*Observation*.—Distinguishable on account of its dark colour, rather short legs (for a wader), and stout figure.

*Plumage*.—Head and neck dusky brown, tinged with grey. Upper parts blackish, with purple reflections and ashy margins. Throat, neck, and breast greyish, with brownish streaks; under parts white. Two of the secondaries white and conspicuous in flight. Bill blackish. Legs and feet ochreous yellow. Length  $8\frac{3}{4}$  in. Female similar, but rather larger. In winter, upper parts sooty; breast dark ash-brown, indistinctly mottled.

*Language*.—A low "whit-whit." Usually very silent.

*Habits*.—With us it is seen in small parties, often with other waders. It swims well, and seeks its food rather after the manner of the Turnstone. Very tame in disposition.

*Food*.—Marine insects, small crustacea, and mollusca.

*Nidification*.—Breeds in Arctic regions.

#### KNOT (*Tringa canutus*).

A regular visitor on migration in autumn and spring, chiefly to the east coast.

*Haunts*.—Sand- and mud-flats.

*Plumage*.—Crown and neck reddish brown, with dark brown streaks. Mantle blackish, the feathers being spotted with chestnut and margined with white. Tail-coverts white, barred with black. Cheeks, throat, and breast chestnut. Flanks and under tail-coverts whitish, mottled with black. Bill, legs, and feet black. Length 10 in. Female similar. In winter, upper parts ash-grey, and under parts white, flecked with grey.

Young: upper feathers narrowly edged with black, followed by a sandy margin; under parts dull buff, spotted with dusky.

*Language*.—Usually very silent. It utters a twittering kind of "twih."

*Habits*.—Generally much like the waders already described.

*Food*.—Small crustacea, mollusca, &c.

*Nidification*.—Little is known of its breeding habits, but it probably breeds within the Arctic Circle.

#### SANDERLING (*Calidris arenaria*).

A regular visitor on migration in autumn and spring, some remaining throughout the winter.

*Haunts*.—Sandy flats.

*Observation*.—At close quarters easily recognisable by the absence of the hind or fourth toe; and in flight by dark shoulders contrasted against the white under parts.

*Plumage*.—Upper parts black, the feathers being spotted with rufous and margined with grey. Wings nearly black. Bases of inner primaries and edge of greater wing-coverts white; outer feathers of tail-coverts white. Sides of head, neck, and upper breast pale chestnut, spotted with dark brown; under parts white. Bill black. Legs and feet dark olive. Length 8 in. Female similar, but slightly larger. In winter, upper parts ash-grey; under parts white. Young: upper parts black, variegated with white and buff; under parts white, with buffish band across chest.

*Language*.—Usually very silent. It utters a low, unmusical "wick."

*Habits*.—Generally it much resembles the other waders described.

*Food*.—Like the last.

*Nidification*.—Breeds in Arctic regions.

#### RUFF (FEMALE, REEVE) (*Machetes pugnax*).

Now extinct as a breeding species. Usually seen on the autumn migration, less often in spring, chiefly on the east coast.

*Haunts*.—Marsh- and fen-districts.

*Plumage*.—Face covered with yellowish caruncles. Tuft of curled feathers on each side of head. An erectile, shield-like ruff round neck, which is variegated with purplish, chestnut, grey, and white. Plumage generally mottled with ash, black, brown, yellowish, and white. Bill brown, darker at tip. Legs and feet yellowish brown. Length 12 in. Plumage very variable. The foregoing is the male's nuptial dress, worn only in May and

June. After moult, the male resembles the female, but is larger. Face feathered, and no ruff and head-tufts; upper parts dark brown, with buff margins; neck and breast buff; other under parts dull white. Young, well margined with buff on upper parts.

*Language*.—A low “tu-whit.”

*Habits*.—Polygamous, fighting most desperately for the hens. Nowadays we see the Ruff only in its winter plumage, and generally in small flocks, on our coasts. Flight rapid.

*Food*.—Insects and their larvæ, worms, small crustacea and mollusca, and vegetable substances.

*Nidification*.—Breeds in Europe.

### COMMON SANDPIPER OR SUMMER SNIPE (*Totanus hypoleucus*).

Migrant; April to September. Fairly common, breeding pretty abundantly in Wales, northern England, and in Scotland and Ireland. Breeds also in other districts, though less commonly.

*Haunts*.—Gravelly margins of lakes, swiftly running mountain-streams, &c.

*Plumage*.—Upper parts bronze-brown, flecked and minutely barred with umber-brown. Three outer pairs of tail-feathers well tipped with white (conspicuous in flight) and barred with black. Chin and under parts white; neck and breast pale ash, streaked with dusky. Bill dark brown, lighter at base. Stilt-like legs and feet greenish grey. Length 8 in. Female, rather smaller and less well-marked. In winter, upper parts more uniform in colour. Young, upper parts margined with buff, and no dark streaks on throat. Nestling: hair-brown above, with black stripe through eye, and another from bill over head and down centre of back; dingy white below; legs and feet greenish.

*Language*.—A pleasant, melodious, tremulous whistle, like “wheet.”

*Habits*.—Restless, always running nimbly along the margin of some stream, or flying rapidly from one point to another. It swims and dives well. If neither flying, running, nor swimming, it stands bobbing its head and jerking its stumpy tail at intervals.

*Food*.—Insects and their larvæ, worms, small crustacea, &c.

*Nest*.—May. One brood.

*Site*.—On shingle and unconcealed, or among grass or rushes at the water's edge.

*Materials*.—A little moss and a few dead grasses or leaves.

*Eggs*.—Four. Reddish buff or yellowish white spotted and

speckled with ruddy dusky brown and grey. Much like Land-rail's, only pyriform shape. Large for the bird's size.

#### WOOD SANDPIPER (*Totanus glareola*).

An irregular visitor, chiefly to our east coasts on autumn and spring migrations. Its nest has been found once or twice, but it can scarcely be regarded as a breeding species.

*Haunts*.—The seashore, and swampy and muddy places inland.

In general appearance it much resembles the next species, but may be distinguished from same by its white axillaries and white shaft to first primary. Its note is a sharp "giff."

#### GREEN SANDPIPER (*Totanus ochropus*).

A not uncommon visitor on spring and autumn migrations. It may occasionally breed here, although there is no proof of it.

*Haunts*.—Inland waters and swamps near woods.

*Observation*.—Distinguished from the last by the blackish axillaries narrowly barred with white, and shaft of first primary dark.

*Plumage*.—Upper parts olive-brown, glossed with green and spotted with white and dusky; under parts white; tail white (conspicuous in flight), central feathers barred with black. Bill dusky and light brown at base. Legs and feet greenish grey. Length  $9\frac{1}{2}$  in. Female, similar to male. Young, less glossed with green above, and less spotted with white, which is dull.

*Language*.—A shrill yelping "tui-tui-tui."

*Habits*.—Very shy and wary. Flight rapid and erratic, and rather like the Snipe's. Usually seen either alone or in pairs.

*Food*.—Insects, worms, freshwater snails, beetles, and small crustacea and mollusca.

*Nidification*.—Breeds in northern Europe.

#### COMMON REDSHANK (*Totanus calidris*).

Resident; well-distributed in all suitable localities, especially on the east coast.

*Haunts*.—Sea-coast, tidal flats, and saltings chiefly, but also found inland.

*Plumage*.—Upper parts ash-brown, streaked and barred with umber. Secondaries dingy white, noticeable in flight; rump white. Tail white, barred with blackish; under parts white, streaked with umber, and zigzagged with umber on flanks. Bill black at tip, otherwise red. Legs and feet orange-red. Length 11 in. Female, slightly larger and more rufous above.

In winter, upper parts dusker, under parts white, flecked only with dark spots. Young: marked with rusty buff on upper parts; under parts dusky, spotted and striped with greyish brown. Nestling: ruddy buff above and paler buff below, black streak through eye, and three stripes down back.

*Language*.—A clear ringing "leero" or "tiu-too-too," several times repeated.

*Habits*.—Flight somewhat heavy and wavering. White band on wings conspicuous. It swims well, and can dive if occasion demands. Food usually obtained by wading. When disturbed on its breeding-grounds it becomes most vociferous and excited.

*Food*.—Marine insects, crustacea, mollusca, and worms.

*Nest*.—April or May. One brood.

*Site*.—In slight depression on the ground, in tuft of rushes, &c., always well-concealed, and not far from water.

*Materials*.—A few grasses and bents.

*Eggs*.—Four. Pale buffish brown or stone-colour, spotted and blotched with rich dark brown, lighter brown and neutral tint underlying. Pyriform shape.

#### SPOTTED OR DUSKY REDSHANK (*Totanus fuscus*).

An uncommon and irregular visitor, chiefly to our east coast, during migration, generally from August to November.

*Haunts*.—Lakes, marshes, and rivers; sometimes found by brackish water.

*Plumage*.—Generally sooty black, the upper parts having white triangular spots; rump and upper tail-coverts white, well barred with black. Bill blackish. Legs and feet purplish red. Length 13 in. Female: rather larger; under parts paler and mottled. In winter, upper parts ash-grey, mottled with white; under parts dull white; axillaries white. Young, browner above, and marked with dusky below.

*Language*.—A loud and clear "chooe." "

*Habits*.—With us usually met with in small parties, and is always most wary and difficult to approach. Like the last, it sometimes perches on trees. Though seeking food by means of wading, it often voluntarily swims, and does so well.

*Food*.—Insects, beetles, worms, small mollusca, &c.

*Nidification*.—Breeds within the Arctic Circle.

#### GREENSHANK (*Totanus canescens*).

An annual but uncommon visitor on spring and autumn migrations. Breeds in some numbers in Scotland and the adjacent islands.

*Haunts*.—Marshes, brackish waters, and mud-flats.

*Plumage*.—Head and neck greyish white streaked with blackish brown; mantle and secondaries almost black, the feathers being edged with grey. Rump and tail-feathers white, the latter barred and mottled with brown; under parts white, streaked and spotted with ash-brown. Bill blackish and slightly curved upwards. Legs and feet olive-green. Length 14 in. Female, similar. In winter, greyer above and pure white below. Young: tinged with rusty above; chest and flanks clouded with blackish grey; legs greenish grey. Nestling: light grey above, mottled with black; black stripe from bill to eye, and black marking on crown of head; dingy white below.

*Language*.—Rather like the Redshank's note, being a loud clear "chee-weet," three or four times repeated.

*Habits*.—Generally much like the Redshank.

*Food*.—Worms, beetles, crustacea, and mollusca; also fish-fry, tadpoles, and small frogs.

*Nest*.—May. One brood.

*Site*.—In a slight depression in the ground, more or less concealed by growing herbage, and generally near water.

*Materials*.—A few grasses or leaves.

*Eggs*.—Four. Stone-colour, spotted with brown, and blotched with purplish grey; very pyriform shape.

#### BAR-TAILED GODWIT (*Limosa lapponica*).

An annual but uncommon visitor on spring and autumn migrations, especially to the east coast.

*Haunts*.—Sandy and muddy sea-shores.

*Plumage*.—Head, neck, and under parts chestnut-red, with some dark streaks; upper parts mottled with brown and black. Rump white, streaked with brown. Tail buffish white, barred with dark brown. Bill long, slightly upcurved and dark brown. Legs and feet blackish. Length  $15\frac{1}{2}$  in. Female, rather larger and less ruddy. In winter, chestnut colouring absent; upper parts ash-grey, striped and barred with brownish grey; under parts white with some dark streaks on neck and breast; rump white; tail-feathers ash-brown, with dark shaft-streaks; long tail-coverts barred. Young: much like adults in winter, but tinged with buff above; dull buff with dusky streaks below.

*Language*.—A loud double whistle-like "eou-ey."

*Habits*.—Sociable, often consorting on their feeding-grounds with other species. No doubt when breeding it is very wary, but with us, at least when it first arrives, it is very tame and confiding. In other respects it much resembles the Sandpipers.

*Food*.—Aquatic insects, worms, crustacea, &c.

*Nidification*.—Breeds in northern Europe.

BLACK-TAILED GODWIT (*Limosa belgica*).

Once a breeding species, now extinct as such, and visiting our east coast chiefly on autumn and spring migrations.

*Haunts*.—Marsh- and fen-districts.

*Observation*.—Distinguish from last by straighter bill and white rump.

*Plumage*.—Head, neck, and breast rufous, with dark shaft-stripes on crown, and blackish bars on breast; chin white; upper parts brown, mottled with black; primaries and secondaries nearly black, with white shafts and bases forming conspicuous white bars in flight; rump white. Tail-feathers white, broadly banded with black; under parts white, barred with dusky brown. Bill nearly straight, and longer than in last. Legs and feet blackish. Length 16 in. Female larger and duller. In winter, ash-brown above, and greyer ash below. Young, almost similar to adults in winter plumage.

*Language*.—Not very loquacious. Its note is a loud "tritte-tue."

*Habits*.—Generally much like the last.

*Food*.—Generally much like the last.

*Nidification*.—Breeds in Europe.

COMMON CURLEW (*Numenius arquata*).

Resident; more numerous on our coast-lines in autumn and winter. Breeds in most of the south-western counties, Wales, north of England, Scotland, and Ireland.

*Haunts*.—Hilly and moorland districts in the breeding season.

*Plumage*.—Generally reddish ash, mottled with dusky; under parts pale brown, streaked with dusky brown; whitish on belly. Tail insignificant, and barred with dark brown and dull white. Bill long, curved down, and dark brown, yellower at base. Legs and feet bluish grey. Length 21 in. Female, rather larger. In winter, plumage paler, and under parts nearly white. Young, similar, but washed with buff below. Nestling: brownish grey above, mottled with sooty black; lighter grey below.

*Language*.—A shrill "curlui" or "cour-lie."

*Habits*.—In disposition very timid, and on the slightest approach of danger is up on the wing flying rapidly, displaying the white triangular rump-patch, and uttering its loud notes. When anxious for its nest it is especially vociferous, and feigns injury to entice the intruder away. Curlews feed at low tide, and as the tide comes in they withdraw inland, flying in wedge-shaped formation. At breeding-time they retire inland to the moors, and remain till nidification is over, leaving the non-breeders behind.

*Food*.—Worms, snails, spiders, berries, and insects when inland; when on the seashore, various small marine creatures, crustacea, &c.

*Nest*.—April or May. One brood.

*Site*.—On the ground in a slight hollow, more or less sheltered by a bunch of heather or tuft of grass.

*Materials*.—A few grasses or leaves.

*Eggs*.—Four. Olive-green, blotched and spotted with dark greenish and reddish brown and grey. Pyriform shape.

### WHIMBREL (*Numenius phæopus*).

A well-distributed though not common visitor to our shores in spring and autumn. Breeds only on the Shetlands and Orkneys.

*Haunts*.—Mountainous and moorland districts.

*Observation*.—In general appearance like a lesser Curlew.

*Plumage*.—Crown of head dark brown, with broad pale streak down middle; upper parts like last, but darker; axillaries white, barred with brown; under parts like last. Bill decurved as last, black at tip, yellowish at base. Legs and feet lead-colour. Length 17 in. Female, rather larger. In winter, paler below; chest and neck only striped, not spotted as in summer. Young: well spotted above with buffish white; rump streaked; axillaries slightly barred. Nestling: buffish white above and below, with two dark stripes along crown, and black markings and mottlings on back.

*Language*.—A clear short whistle, repeated seven or eight times in succession, like "tetty."

*Habits*.—Generally much like the last.

*Food*.—Generally much like the last.

*Nest*.—May or June. One brood.

*Site*.—In slight depression in the ground, sheltered by heather or coarse grass.

*Materials*.—A few heather-stalks, grasses, or leaves.

*Eggs*.—Four. Pale olive-green, spotted and blotched with reddish brown; much like the Curlew's, but smaller.

## ORDER GAVIÆ.

### Family LARIDÆ.

#### Subfamily STERNINÆ.

### BLACK TERN (*Hydrochelidon nigra*).

Once a breeding species; now a passing visitor on spring and autumn migrations chiefly to our eastern and southern coasts and inland waters.

*Plumage*.—Head, neck, breast, and under parts black. Back, wings, and tail slate-grey. Vent white. Bill black. Legs and feet reddish brown. Length  $9\frac{1}{2}$  in. Female: rather paler below, otherwise similar; after moult, forehead, throat, and nape white; under parts white, barred with grey. Young: mottled with brown above; full dress not assumed till the second spring.

*Language*.—A shrill "crik."

*Habits*.—Flight rapid, buoyant, dashing, reminding one of the Swallow's. It catches insects on the wing, and plunges precipitately into the water Gannet-like after surface-swimming fish. Like other Terns, it hovers with bill pointing downwards when looking for food.

*Food*.—Aquatic insects, small fish, &c.

*Nidification*.—Breeds in Europe.

#### SANDWICH TERN (*Sterna cantiaca*).

Migrant; March to September. Local and uncommon. Breeds in some numbers on the Farne Islands, Walney Island, and other districts on the Scotch and Irish coasts.

*Plumage*.—Crown of head black; upper parts pearl-grey. Rump, tail, and under parts white, the breast only being suffused with rose-colour. Bill black, yellow at tip. Legs and feet black. Length 16 in. Female: similar, but smaller; after the moult black head practically lost; feathers at back of head bluish black with white edges, and rosy tinge to breast paler. Young: head and nape white, mottled with brownish black; upper parts like adult, but marked with reddish and blackish brown. Nestling: covered with down; upper parts greyish buff, mottled with greyish black; under parts white.

*Language*.—A harsh grating scream like "kirhitt."

*Habits*.—Like the other Terns it is a dashing and rapid flier, and procures its prey by plunging itself violently into the water, transfixing fish with its bill. Breeds in Terneries, and the nests are usually quite close to one another.

*Food*.—Fish chiefly.

*Nest*.—May or June. One brood.

*Site*.—In a slight hollow scratched in the sand or shingle of the sea-shore, usually quite unsheltered.

*Materials*.—If any, a few bents.

*Eggs*.—Two or three. Warm stone-colour, boldly spotted and blotched with black, deep brown, and grey.

#### ROSEATE TERN (*Sterna dougalli*).

Migrant; April to September. Local, uncommon, and decreasing in numbers. Breeds sparingly on the Farne and

Scilly Islands, on Walney Island, and on some of the Scottish islands.

*Haunts*.—The sea.

*Observation*.—Distinguish from last by slimmer build, and rather longer forked tail and shorter wings.

*Plumage*.—Generally much like the next, but the mantle paler grey, and lower parts suffused with rose-colour. Tail long and very forked. Bill black, orange-red at base. Legs and feet orange-red. Length  $15\frac{1}{2}$  in. Female like male. In winter forehead almost white. Young: crown white, streaked with black; head and nape greyish black, streaked with white; blackish grey band on wings, with white edges; back and wings bluish grey, mottled with greyish black and yellowish white; throat, collar, and under parts white; legs and feet yellow. Nestling: buff above, marked with grey and white; pure white below.

*Language*.—A harsh "crake," if anything, rather more musical than last.

*Habits*.—Closely resembling the other Terns.

*Food*.—Fish.

*Nest*.—June. One brood.

*Site*.—Same as last, and usually on some isolated and uninhabited island.

*Materials*.—Same as last.

*Eggs*.—Two to three. Creamy white, blotched and spotted with dark brown; indistinguishable from the next two species.

### COMMON TERN (*Sterna fluviatilis*).

Migrant; May to September. Well distributed, being found pretty abundantly all round our coast-lines except towards the north, where its place is taken by its near relative the Arctic Tern.

*Observation*.—This bird differs from the Arctic Tern by its slenderer build, whiter under parts, and its dark-tipped but otherwise orange-red bill.

*Plumage*.—Head and nape black; upper parts pearl-grey. Rump and tail white; under parts vinous grey. Bill orange-red, with horn-coloured tip. Legs and feet orange-red. Tail well forked. Length  $14\frac{1}{4}$  in. Female similar. In winter forehead flecked with white; under parts purer white, and bill and feet duller. Young: brownish white forehead; upper parts bluish grey, mottled with greyish brown; brownish grey band on upper wing-coverts; under parts white; legs and feet reddish brown. Nestling: covered with down; yellowish brown above, mottled with black; throat and forehead brown, white below; feet yellow.

*Language*.—A harsh cry, like "cree-cree-cree-ee."

*Habits.*—Its method of fishing is like that of all Terns, *viz.*, precipitating itself into the water to catch surface-swimming fish. On the wing it is an adept at doubling and wheeling most rapidly, almost vying with the Swallow (hence Sea Swallow). It swims well, but is a poor walker. Breeds in Terneries.

*Food.*—Fish, sand-eels, and crustacea.

*Nest.*—May or June. One brood.

*Site.*—In a hollow in the sand or shingle, not far above high-water mark; also on tumbled masses of isolated rocks.

*Materials.*—If any, a few bents.

*Eggs.*—Two or three. Yellowish stone to olive, spotted and blotched with deep brown and grey. Like Arctic Tern's, but less boldly marked.

#### ARCTIC TERN (*Sternus macrura*).

Migrant; May to September. Especially abundant on the northern and western coasts. In the South it breeds on the Scilly Islands, and sparingly at a few places on the southern and eastern coasts. On Walney Island it breeds abundantly, as it also does in Ireland, Scotland, and the Farne Islands.

*Observation.*—Distinguishable from the last by its blood-red bill, greyer under parts, with no vinous suffusion, and the slightly longer tail.

*Plumage.*—Head and nape black; upper parts pearl-grey. Rump and tail white; under parts pale pearl-grey. Bill blood-red. Legs and feet coral-red. Length  $14\frac{1}{2}$  in. Female similar. In winter, forehead flecked with white; under parts whiter, and bright red of the bill and legs loses its brilliancy. Young: these go through several changes between the nestling and fully adult stages; generally they resemble the adults in winter dress, the plumage showing signs of immaturity in its more sombre and mottled effect. Nestling: almost similar to Common Tern.

*Language.*—Like the Common Tern.

*Habits.*—Like the Common Tern.

*Food.*—Like the Common Tern.

*Nest.*—Early June. One brood.

*Site.*—In hollow scooped out by the bird on shingle, not far above high-water mark.

*Materials.*—If any, a few pieces of seaweed or bents.

*Eggs.*—Two or three. In colour, markings, and extent of variety, practically indistinguishable from those of Common Tern; perhaps rather darker and more boldly blotched, but smaller and slightly pyriform.

LITTLE TERN (*Sterna minuta*).

Migrant: May to September. Rather local, and nowhere really abundant, but found breeding almost throughout our coast-lines, where there are flat, sandy or shingly shores.

*Plumage*.—Crown and nape black. Forehead, sides of face, rump, tail, and under parts white; upper parts pearl-grey. Bill reddish yellow, tipped with black. Legs and feet orange-yellow. Length 9 in. Female similar, but slightly smaller. In winter the black head is duller. Young: head and nape suffused with buff, and streaked with black; mantle greyish, with buff tinge, mottled with umber-brown; black loreal patch of adult only indicated in immature birds by a dark line; rump and tail not so pure white as in adult. Nestling: covered with buff down; head black; back grey; under parts whitish fawn.

*Language*.—Similar to the last two species, but thinner and shriller.

*Habits*.—Generally much the same as the last two species.

*Food*.—Generally much the same as the last two species.

*Nest*.—May or June. One brood.

*Site*.—In hollow in shingle, and not far above high-water mark.

*Materials*.—If any, a few grasses or bits of seaweed.

*Eggs*.—Two or three. Like smaller editions of the Common Tern's.

LITTLE GULL (*Larus minutus*).

An irregular visitor from Europe. Occurrences of it are reported almost every year. In general appearance it may be described as a Lesser Black-headed Gull, only the head is really black, and not brown, as in *L. ridibundus*. The black head is the nuptial dress, which, when visiting us, is whitish, more or less streaked with ash-colour. Under sides of wings black and conspicuous in flight. It is about five inches smaller than *L. ridibundus*. Breeds in continental Europe.

BLACK-HEADED GULL (*Larus ridibundus*).

Or, more properly, Brown-headed Gull. Resident: but largely intermigratory. Of late years, increasingly vast hosts of these birds come up the Thames to London, and visit the lake in St. James's Park from autumn until early spring. Well distributed and common throughout our coast-lines where it is fairly flat. It breeds in marshy places near the sea, and often on inland waters. The chief Gulleries are at Scoulton Mere, Norfolk, and on Walney Island; while it also breeds commonly at various other stations north of Yorkshire, but sparingly southwards.

*Plumage*.—Head, nape, and throat chocolate-brown; upper

parts lavender-grey; outer primaries have white centres, and dark margins to inner webs; other parts white, flushed with pink on under parts. Bill, legs, and feet carmine. Length 16 in. Female similar, but rather smaller. In winter the brown head is almost entirely lost. Young: forehead white; head and nape greyish brown; mantle, shoulders, and primaries brownish. It may be four or five years before the bird attains the pure plumage of the adult. Nestling, covered with buffish brown down on upper parts, and yellowish brown on under surface. Head, throat, and back streaked with black.

*Language*.—Always vociferous, and makes a variety of harsh guttural cries, some sounding more or less like a laugh, others somewhat reminding one of the Peewit's call.

*Habits*.—Sociable; nesting in immense numbers close to one another at some Gullery, often inland, and in a boggy situation. In flight it rather reminds one of the Lapwing in the way it dashes about when upset. It runs very well on the ground, although the water is its element, where it floats or paddles along as buoyantly as a cork. It has no diving powers beyond plunging into the water, if it cannot reach its object in any other way. In hard weather it comes inland, and may be seen in meadows or ploughed fields searching for grubs, &c., miles from the sea-coast.

*Food*.—When at the sea, fishes, crustacea, and any kind of animal matter cast up by the tide. In winter it is almost omnivorous.

*Nest*.—April or May. One brood.

*Site*.—In slight hollow on boggy margin of some mere, or on some islet.

*Materials*.—Dead grass, pieces of sedge, and other aquatic vegetable matters.

*Eggs*.—Two to four. Very variable; usually pale greenish or olive-brown, blotched and spotted with dark brown and black, and underlying greyish brown.

### COMMON GULL (*Larus canus*).

Named rather unhappily, since it is not known to nest south of the Border, though it is frequently observed on migration on our coasts, *i.e.*, from autumn to spring. It breeds abundantly in the north of Ireland, and Scotland, and the adjacent islands.

*Observation*.—Distinguish from Kittiwake by white tips to primaries.

*Plumage*.—Mantle French grey; first two primaries black, with white patch near the end. Head, neck, tail, and under parts white. Bill greenish; yellow at the tip. Legs and feet

greenish yellow. Length 18 in. Female similar, but slightly smaller. In winter the plumage is almost exactly like the Black-headed Gull in winter dress. Young: like other Gulls the sign of immaturity is the prevalence of brownish mottling, the primaries and broad band on the tail being dark brown; the under side of the wings is brown mottled. Nestling: covered with grey down, streaked and spotted with black and brown; under parts greyish yellow.

*Language*.—A harsh cry, much like the Black-headed Gull's.

*Habits*.—In autumn and winter gregarious. It nests either near the sea or on some inland waters. It has an easy, graceful flight, but not nearly so dashing as the Tern's. It swims well, but cannot dive beyond merely plunging itself into the water from some height. Like the Black-headed Gull, it forages in the fields for food in winter.

*Food*.—Like the Black-headed Gull.

*Nest*.—April or May. One brood.

*Site*.—Not often on cliffs; usually on low-lying islets in the sea or inland lakes.

*Materials*.—Dry grass, seaweed, turf, heather, and other vegetable débris.

*Eggs*.—Two or three. Olive-brown, spotted and blotched with deep blackish brown and purplish grey. Variable.

### HERRING GULL (*Larus argentatus*).

Resident. Well-distributed and common round all our coast-lines, and breeding in many localities, notably on Lundy Island, on the coasts of Wales, Scotland, and Ireland, at Flamborough, on south and south-western coast-lines, and Channel Islands. For a nesting site it selects precipitous rocks.

*Observation*.—In general appearance like a larger Common Gull.

*Plumage*.—Head, neck, upper back, under parts, upper tail-coverts, and tail white. Back, scapulars, and wing-coverts lavender-grey; scapulars and secondaries tipped with white; outer primaries black, with white tips. Bill yellow. Legs and feet flesh-colour. Length 24 in. Female, similar. In winter, head and neck streaked with grey. Young: upper parts streaked and mottled with brown; under parts first brown, then mottled with greyish brown. Nestling: covered with greyish buff down, mottled with black on head, upper parts, and chest; lighter on under parts.

*Language*.—A noisy kind of yelping; also a cry reminding one of a derisive laugh.

*Habits*.—Gregarious in the breeding season. Flight powerful

and fairly rapid. In disposition quarrelsome and thieving. It beats about the shore at low tide on the look-out for any nasty mess cast up by the sea, and on finding anything a good deal of squabbling and yelping ensues. It will kill young weakly birds, and eats other birds' eggs with avidity. It also catches surface-swimming fish, and may, at times, be seen far inland searching the ploughed land for worms, &c.

*Food.*—Fish usually, but in hard times it is practically omnivorous.

*Nest.*—May. One brood.

*Site.*—On ledges of sea-cliffs, on masses of isolated tumbled rocks, on the ground under some overhanging rock, or some sea-girt islet.

*Materials.*—Grass-sods, seaweed, and other marine plants.

*Eggs.*—Two or three. Olive-brown, spotted and blotched with rich dark umber and greyish brown. Variable.

#### LESSER BLACK-BACKED GULL (*Larus fuscus*).

Resident. Well distributed, but not so abundant as the last. Its chief breeding stations are Lundy Island, Welsh coast, Walney Island, Isle of Man, Cumberland, Westmoreland, Shetlands, Orkneys, and other Scottish islands, Farne Islands, Cornwall, Devonshire, and Channel Islands.

*Plumage.*—Back and wings black, but tipped with white on scapulars and secondaries; the rest pure white. Bill, legs, and feet yellow. Length 21 in. Female, similar. In winter, head and neck streaked with brown. Young: parts white in adult mottled with ashy-brown, and where black in adult mottled with ruddy brown; in fact, it is like the young Herring Gull. Nestling: covered with greyish buff down on upper parts; head, neck, and back marked with brown; under parts paler greyish buff.

*Language.*—A cackling kind of yelp, like the Herring Gull's, but, if anything, scarcely so harsh.

*Habits.*—Closely resembling the Herring Gull.

*Food.*—Like Herring Gull.

*Nest.*—May. One brood.

*Site.*—Like Herring Gull.

*Materials.*—Like Herring Gull.

*Eggs.*—Two or three. Variable, and practically indistinguishable from the Herring Gull's. They are, however, slightly smaller, and exhibit a tendency towards bluish greer in ground colour rather than olive-brown.

GREAT BLACK-BACKED GULL (*Larus maximus*).

Resident ; but also partially migratory, as it is distributed pretty generally round our coasts in winter. Its breeding haunts are fewer than the two last species. It nests in fair numbers on Lundy Island, Scilly Isles, in Cornwall, on the Welsh coast, in Cumberland, and at several stations in Scotland and Ireland.

*Observation*.—Our largest Gull.

*Plumage*.—Bill yellow. Legs and feet flesh-colour, otherwise it is a larger edition of the Lesser Black-backed Gull. Length 30 in.

*Language*.—A loud querulous cackling.

*Habits*.—Generally it resembles the Gulls already mentioned. It is crafty, suspicious, and vigilant. It is a noble bird in appearance, and has a strong powerful flight.

*Food*.—All kinds of animal matters. It devours eggs, and will kill and eat weakly mammals and birds.

*Nest*.—May. One brood.

*Site*.—On the top of some stack of rocks, on the ground on cliff-side, sometimes on the shore.

*Materials*.—Grass, seaweed, &c., with a few feathers and some wool for a lining ; it is ill-compacted and bulky.

*Eggs*.—Two or three. Greyish brown or buff, spotted and blotched with dark brown and grey. Much larger than any other Gull's egg.

GLAUCOUS GULL (*Larus glaucus*).

A winter visitor to the northern parts of these islands. In size it almost equals the last, but it is distinguished from same by its nearly white wings and no black back. Breeds in circumpolar regions.

ICELAND GULL (*Larus leucopterus*).

A straggler in autumn and winter from circumpolar regions. It has very pale wings like the last, which generally it much resembles, but is smaller, being about the size of the Lesser Black-backed Gull.

KITTIWAKE GULL (*Rissa tridactyla*).

Resident. Widely distributed, and abundant in suitable localities. Essentially a sea-bird, it haunts rocky coast-lines where the cliffs are high and precipitous. In Scotland and Ireland it is very abundant, and in England it nests principally on the Farne Islands, at Flamborough, Isle of Man, Lundy Island, Devonshire and Cornwall, and on the Welsh coast.

*Observation.*—Note the blackish tips to wings and distinguish from Common Gull.

*Plumage.*—Mantle dark lavender-grey. Head, neck, rump, upper tail-coverts, tail, and under parts pure white. Scapulars and secondaries tipped with white. Primaries black, tipped with white. Bill greenish yellow. Legs and feet black. Length  $15\frac{1}{2}$  in. Female similar. Our smallest Gull (excluding the stragglers), and distinct, at close quarters, on account of the absence of its hind toe. Young, a row of black marks across secondaries; back and wings brownish black rather than lavender as in adult; wing-coverts mottled with black; tail white, tipped with brownish black. Nestling, covered with dark grey down on the back, otherwise buffish white.

*Language.*—A cry resembling "kitti-ake," hence its trivial name.

*Habits.*—Feeds on surface-swimming fish principally, which it procures in a Tern-like manner. Sociable, and when near their nesting haunts, the cliffs resound with their trisyllabic cries. The young are fed somewhat after the manner of young pigeons. It is a poor walker, but an excellent swimmer, when it rests on the waves like a buoyant cork; it can also dive and swim under water. Flight graceful, gliding, and rapid, and it also has a propensity for hovering.

*Nest.*—In May or June. One brood.

*Site.*—On some inaccessible ledge of the sea-cliffs.

*Materials.*—Seaweed chiefly, and other marine plants; lined with dry grass.

*Eggs.*—Two or three. Stone-colour or brownish, spotted and blotched with dark and light brown and grey.

### *Family STERCORARIIDÆ.*

#### GREAT SKUA (*Megalestris catarrhactes*).

Chiefly known as a visitor in spring and autumn. In these islands it breeds only in the Shetlands. When not breeding it roams over the seas far from land.

*Plumage.*—Upper parts mottled with brown and white. Shafts of quills white and conspicuous in flight; under parts rufous brown. Bill, legs, and feet black. Length 21 in. Female similar. Young much like the adults. Nestling covered with brownish grey down.

*Language.*—A cry resembling "skui," hence Skua.

*Habits.*—Very strong and swift on the wing, and when near its nest it swoops most menacingly round the intruder's head. Very predacious, and prefers rather to rob Gulls of food they

have found rather than find it itself; it will even attack and kill other weakly Gulls.

*Food*.—Fish and animal matters found floating on the sea or purloined from other birds.

*Nest*.—May. One brood.

*Site*.—In hollow in ground on high moorlands.

*Materials*.—Twigs, dry grass, moss, &c.

*Eggs*.—Two. Olive-brown, blotched and spotted with dark brown and greyish brown.

### POMATORHINE SKUA (*Stercorarius pomatorhinus*).

An uncommon autumn and winter visitor on our coast-lines. It is smaller than the last, and is always distinct on account of the two elongated central tail-feathers having their shafts twisted, the result being that the end part of the web stands vertical, and looks in flight as though it had a "bob" to it. Breeds further north than these islands.

### ARCTIC OR RICHARDSON'S SKUA

(*Stercorarius crepidatus*).

The commonest Skua in these islands, being a regular visitor to our coasts in autumn and spring. It breeds in the Shetlands, Orkneys, Sutherland, and Caithness.

*Plumage*.—Crown dusky. Cheeks, neck, and under parts white, suffused with yellow; remaining plumage dusky. Bill horn-colour. Legs and feet black. Length 20 in. Female similar.

*Observations*.—There are two forms of this species, one light (above described), the other dark. As these two varieties interbreed, birds with plumage intermediate between the light and dark forms are found. The young are also subject to some variation in their immature plumage according to the variety to which their parents belong. Nestling covered with sooty-grey down, paler below. These also vary according to the parents.

*Language*.—A cry like "mee" or "mee-awk."

*Habits*.—Generally like the Great Skua, but it is gregarious.

*Food*.—Fish, either caught by itself or robbed from other Gulls. Also preys on wounded birds.

*Nest*.—May or June. One brood.

*Site*.—Like the Great Skua.

*Materials*.—Like the Great Skua.

*Eggs*.—Two. Olive-brown or russet-brown, spotted and blotched with dark brown and grey.

## BUFFON'S OR LONG-TAILED SKUA

*(Stercorarius parasiticus).*

An uncommon and irregular visitor. Usually seen in the North. It is smaller than the last, and has the central tail feathers very long.

## ORDER PYGOPODES.

*Family ALCIDÆ.*RAZORBILL (*Alca torda*).

Resident, though it is a pelagic wanderer all the year except in the breeding season, when it resorts to precipitous cliffs, notably in Scotland, Flamborough, Isle of Wight, on Dorset, Devon, and Cornish coasts, Lundy Island, Isle of Man, and Irish coasts.

*Plumage.*—Upper parts greenish black. Throat deep velvety brown. Secondaries tipped with white; under parts white. Bill axe-shaped, with white stripe from eye to base of culmen. Legs and feet blackish. Length 17 in. Female similar. In winter the green sheen on upper parts is lost, and throat and cheeks are white. Young: like the adult in winter dress; young in down, blackish brown above, dingy white below.

*Language.*—Usually rather silent. It makes several curious noises, which may be compared to those of the Gulls, or to low moanings, or gruntings.

*Habits.*—Eminently sociable, and in the breeding season may be found on the rocky ledges of its home in countless numbers with the Guillemot. It sits on a ledge slightly inclined forwards, owing to the backward position of its legs. At all times pelagic, it may be observed in small companies swimming equally well on the surface or below the water, where it catches fish. Its flight is like the diving Ducks', and, like them, it also flies in line.

*Food.*—Fish and crustacea.

*Nest.*—May. One brood.

*Site.*—In some cranny in the sea-cliffs, or under a rock.

*Materials.*—None.

*Eggs.*—One. Very variable, but less pyriform than the Guillemot's, and seldom with any green colouring. Usually whitish or pale brown, blotched and spotted with rich dark reddish brown and black.

COMMON GUILLEMOT (*Uria troile*).

Resident. Widely distributed and common round our coast-lines, keeping out to sea for the greater part of the year. At breeding time it takes up its position on precipitous cliffs, notably at Flamborough Head, in Scotland (especially the Bass Rock), on the Farne Islands, Isle of Wight, Dorset, Devon, and Cornish coasts, at Scilly and Lundy, and on the Welsh and Irish coasts, &c.

*Observation.*—Distinguish from Razorbill by brown upper parts and slenderer bill.

*Plumage.*—Head, neck, and upper parts chocolate-brown; under parts white. Secondaries tipped with white, forming slight bar. Bill black, pointed, and not shaped like the Razorbill's. Legs and feet blackish. Length 18 in. Female similar, but rather smaller. In winter, throat white. Young: like adults in winter dress; young in down, brownish black above and dingy white below.

*Language.*—A variety of curious and weird noises, some like the moaning of one in pain, others like the mewling of a cat.

*Habits.*—Generally much like the Razorbill. An expert diver, propelling itself through the water with the combined aid of its webbed feet and wings. Owing to its short wings, the flight, though rapid, is somewhat laboured, and the wings are much vibrated. It only properly comes to land to breed, where it is completely out of its element, shuffling along most awkwardly, bowing and bobbing its head the while.

*Food.*—Fish in enormous quantities.

*Nest.*—May. One brood.

*Site.*—On some inaccessible ledge of the sea-cliffs.

*Materials.*—None.

*Eggs.*—One. Large for the bird's size, and acutely pear-shaped. Very variable indeed. Generally bluish green, blotched and streaked with dark reddish brown and black.

BLACK GUILLEMOT (*Uria grylle*).

Best known as a winter visitor, but breeds fairly commonly on the north and west coasts of Scotland and Ireland, and sparingly on Isle of Man.

*Plumage.*—Sooty black. Conspicuous white patch on wing-coverts. Bill black. Legs and feet vermilion-red. Length 14 in. Female similar. In winter, crown white, marked with black. Back barred with black and white; rump and under parts almost white. Young: much like adults in winter dress, though rather whiter; young in down, sooty black.

*Language.*—A low, plaintive kind of piping.

*Habits.*—Generally much like its commoner relative, but not so gregarious.

*Food*.—Fish and crustacea.

*Nest*.—May or June. One brood.

*Site*.—Not, like the Common Guillemot, on ledges, but, like the Razorbill, in fissures in rocks or under rocks.

*Materials*.—None.

*Eggs*.—Two. Like Razorbill's in shape. Bluish or greenish white, blotched and speckled with various shades of brown and ash-grey.

#### LITTLE AUK (*Mergulus alle*).

An irregular winter visitor, sometimes occurring in considerable numbers. It is a circumpolar species. It may be distinguished by its short, stout bill, small white spot over the eye, sooty black upper parts, sooty black throat (which in winter becomes white), and white under parts.

#### PUFFIN (*Fratercula arctica*).

Migrant; April to August. It breeds in immense numbers at various stations all round our coasts, notably in the northern and western isles of Scotland, Bass Rock, Flamborough Head, Farne Islands, Isle of Wight, Dorset, Devon, and Cornish coasts. Scilly Islands, Channel Islands, Lundy Island, on Welsh and Irish coasts, Anglesea, Isle of Man, &c.

*Plumage*.—Sides of face white. Head and upper parts black. Under parts white. Eyelid orange-red; above and below the eye bluish grey areas. Bill blue at base, yellow in the middle, and red at the tip, and adze-shaped. Legs and feet orange-red. Length 12 in. Female similar. In winter the bill is smaller and duller. Young: face and sides of head dusky grey; patch of sooty black in front of eye; young in down, blackish brown.

*Language*.—Usually very silent. It emits a grating kind of noise, like "a-r-r."

*Habits*.—Perhaps our most grotesque bird, with its multi-coloured, toucan-like, and ill-proportioned bill, its plump, compact body, and short legs. Eminently sociable in the breeding season, its nesting holes literally riddling the soft, peaty earth that it usually frequents. On land it waddles awkwardly. It flies rapidly with quickly agitated wings, and swims and dives well. When sitting, the parent will suffer itself to be captured rather than forsake its treasure.

*Food*.—Fish and crustacea.

*Nest*.—May. One brood.

*Site*.—Under rocks, in clefts in rocks, in rabbit-burrows, but usually in a burrow tunnelled by the bird itself in soft, peaty

soil, about three or four feet long, terminated by the nest cavity.

*Materials*.—If any, a few grasses or bents.

*Eggs*.—One. Dull white, spotted very faintly with pale brown and grey. It soon becomes dirtied, and the markings are soon obliterated.

### Family COLYMBIDÆ.

#### GREAT NORTHERN DIVER (*Colymbus glacialis*).

Best known as a winter visitor all round our coasts. It is doubtful if it breeds in these islands, but may do so in some secluded spots on the western isles of Scotland.

*Plumage*.—Head and neck black, glossed with purple on throat and green on neck. Two bands of black, barred with white, on throat. Mantle black, with white spots; under parts white. Bill, legs, and feet black. Length 32 in. Female similar, but smaller. In winter the throat bands are lost. Young: upper parts greyish black, with pale edges; under parts dull white; bill brownish. Young in down, blackish brown above and pale brown below.

*Language*.—It utters a cry like screams or shrieks of insane laughter; also a trumpeting noise.

*Habits*.—Admirably equipped for aquatic life. It swims and dives expertly. It flies well when occasion demands. It comes only to land to breed, where it is extremely awkward, owing to the very backward position of the legs.

*Food*.—Fish and crustacea.

*Nest*.—June. One brood.

*Site*.—On an islet in a fresh-water loch, or at margin of lake.

*Materials*.—Aquatic herbage and moss, untidily heaped together.

*Eggs*.—Two. Dark olive-brown, thinly spotted with deep umber-brown and black.

#### BLACK-THROATED DIVER (*Colymbus arcticus*).

The rarest of the three Divers which visit our coasts in winter. It breeds sparingly in outer Hebrides and some parts of the west coast of Scotland.

*Plumage*.—Crown and nape ash-grey. Upper parts blackish, barred and spotted with white. Throat purplish black, with half collar of white streaks. Sides of neck striped with black and white; under parts white. Bill black. Legs and feet brown. Length 26 in. Female similar, but rather smaller.

In winter, plumage above chiefly ash-brown; throat and under parts white. Young: much like the immature Great Northern Diver, but smaller; young in down blackish brown above, and greyish brown below.

*Language*.—A loud, discordant cry.

*Habits*.—Generally much like the Great Northern Diver, but is less oceanic, and nests farther from the sea.

*Food*.—Fish.

*Nest*.—May. One brood.

*Site*.—Like the Great Northern Diver.

*Materials*.—Like the Great Northern Diver.

*Eggs*.—Two. Like the Great Northern Diver's, but smaller.

#### RED-THROATED DIVER (*Colymbus septentrionalis*).

Fairly common round our coasts in winter. It breeds on the northern and western isles of Scotland, on the mainland, and in west of Ireland.

*Plumage*.—Head, throat, and sides of neck pale grey. Crown and nape slate-grey, streaked with white. Neck striped with black and white; on front of neck a patch of orange-chestnut. Back dusky brown; under parts white, with greyish spots on flanks. Bill, legs, and feet blackish. Length 23 in. Female similar, but smaller. In winter, red on throat lost, and plumage above spotted and streaked with white. Young: feathers of back and wing-coverts edged with white; young in down brownish black above and greyish brown below.

*Language*.—A harsh "kark kakera."

*Habits*.—Similar to the Divers already mentioned.

*Food*.—Similar to the Divers already mentioned.

*Nest*.—May or June. One brood.

*Site*.—On the margin of some secluded tarn or loch.

*Materials*.—If any—a few water-weeds, heather, or bents.

*Eggs*.—Two. Olive-brown, spotted with dark umber-brown. Variable in size.

#### Family PODICIPEDIDÆ.

##### GREAT CRESTED GREBE (*Podiceps cristatus*).

An uncommon and local resident. It breeds on inland waters chiefly in the midland and eastern counties; also in Scotland, Wales, and Ireland.

*Plumage*.—Crown, crest, and ruff dark brown and chestnut. Stripe over eye and cheeks white. Upper parts dark brown. Secondaries white, and conspicuous in flight; under parts silky, silvery white. Bill pinkish. Legs and lobate toes

blackish green. Length 21 in. Female similar, but slightly smaller, and has less developed ruff and crest; both these ornaments are lost in winter. Young have little crest or chestnut colouring. Nestling in down: head, neck, and under parts white; marked on head and neck with blackish brown stripes; upper parts, wings, and flanks brown, striped with blackish brown.

*Language*.—Call-note, a harsh kind of croak. Alarm-note, "kek-kek."

*Habits*.—Essentially aquatic, and is rarely seen on the wing. It flies just above the water with quickly-beating wings, and soon takes to that element again, where it swims powerfully and dives splendidly, literally flying under the water after its finny prey. When alarmed it submerges its body, leaving only the bill above the surface. On leaving its nest, it always covers the eggs with wet weeds.

*Food*.—Fish, crustacea, and frogs.

*Nest*.—May or June. One brood.

*Site*.—In a bed of rushes or reeds. It is a floating nest, moored to some convenient reeds, and the rim only just projects above the surface of the water.

*Materials*.—Pieces of decaying rushes, or reeds, or other aquatic herbage heaped together.

*Eggs*.—Three or four. Pure chalky white when fresh, but they are speedily stained and muddied to a dirty brown. In shape nearly perfectly oval.

#### RED-NECKED GREBE (*Podiceps griseigena*).

A rare winter visitor to our coasts, sometimes appearing in considerable numbers. It has a small, almost black crest, lost in winter; the cheeks and throat are greyish white, and the upper parts dark brown, with conspicuous white patch on the secondaries. Front of neck chestnut-red; under parts silky white. Length 18 in. In general habits, language, and food it resembles the last. It breeds in sub-Arctic regions.

#### SCLAVONIAN GREBE (*Podiceps auritus*).

A not uncommon winter visitor from northern parts, chiefly to Scotland, Ireland, and north and east coasts of England. Some have been observed late in spring in breeding plumage, when it is a handsome bird, with its pale chestnut crest and brownish black ruff. In winter these are absent. Upper parts dark brown; secondaries mainly white. Neck, breast, and flanks chestnut. Belly white. Length 13½ in. In habits and food it resembles the other Grebes. Breeds in sub-Arctic regions.

## EARED OR BLACK-NECKED GREBE

*(Podiceps nigricollis).*

An irregular visitor, usually in spring, to the southern and eastern districts of England. It may possibly breed sometimes in the eastern counties. It is a southern species. In breeding plumage it has a tuft of straw-coloured feathers on the head, and a small ruff. These ornaments are lost in winter. Upper parts dark brown; secondaries white. Breast and belly white; flanks dull chestnut. Length 12 in. In habits and food it resembles the other Grebes.

LITTLE GREBE OR DABCHICK *(Podiceps fluviatilis).*

Resident. Widely distributed in these islands, wherever there are large ponds, lakes, meres, and sluggish-flowing rivers.

*Plumage.*—Head, back of neck, and upper parts dark brown. Cheek, throat, and sides of neck chestnut; under parts greyish white, browner on the flanks. Bill horn-colour. Legs and toes dull green. Length  $9\frac{1}{2}$  in. Female similar, but slightly smaller. In winter the chin is white, and the general appearance is paler. Young: duller than adults, streaked with dusky on sides of head. Nestling: covered with down; black on head, neck, and upper parts, striped with rufous; under parts white.

*Language.*—Usually rather silent. In the breeding season it utters a rapid chattering cry like "weet," many times repeated.

*Habits.*—Exceedingly wary, it at once dives for safety if alarmed, taking, if need be, its young ones down with it under the wings. It dives with wonderful abruptness, pursuing fishes under water with remarkable celerity. It seldom flies, but when it does so it skims along just over the surface of the water with rapidly beating wings. Its nest is moored to some reeds or the like, and only just projects above the water, consequently it is simply steeped in water. The eggs are always covered over with wet weeds by the bird before leaving the nest.

*Nest.*—Early May onwards. Two broods.

*Site.*—Moored among rushes or reeds.

*Materials.*—Rotting aquatic herbage of some kind, piled together and roughly worked into shape.

*Eggs.*—Three to six. Chalky white when newly laid, but they soon become discoloured and muddied to a dirty brown; in shape oval, and more or less equally pointed at either end.

## ORDER TUBINARES.

## Family PROCELLARIIDÆ.

## Subfamily PROCELLARIINÆ.

STORM-PETREL (*Procellaria pelagica*).

Met with fairly commonly on the open seas all round our coasts throughout the year. It breeds in the Channel Islands, Scilly Isles, Lundy Island; also in Scotland and its islands, and in Ireland.

*Plumage*.—Upper parts greyish black. Rump and upper tail-coverts white and conspicuous. Tail tipped with black; under parts sooty black. Bill, legs, and feet black. Length 6 in. Female similar. Young browner. Nestling covered with greyish black down.

*Language*.—Like "ti-tee-ik," several times repeated.

*Habits*.—Our smallest web-footed bird, being little larger than a Sparrow. When seen flying over the sea it reminds one in its flight and white rump of the House Martin. It is an oceanic wanderer, never coming to land of its own free will, except to breed, where it is absolutely helpless, and has to use its wing and hooked beak to help itself along. It is nocturnal to a large extent. When caught, it ejects, through the tubular passage to its nostrils, an oily fluid with which it feeds its young one. When flying it lets its legs dangle, and gives the effect as of paddling. When near the nest a musky odour may always be detected.

*Food*.—Fish, crustacea, mollusca, and various floating fatty and oily matters.

*Nest*.—June. One brood.

*Site*.—In burrows in soft peaty soil; in fissures in rocks, and under rocks.

*Materials*.—If any, a few dead grasses and stalks.

*Eggs*.—One. Large for the bird's size, being about one inch long; white, sometimes faintly freckled with reddish brown. It soon becomes stained to a creamy colour. The shell is of rough texture.

LEACH'S FORK-TAILED PETREL  
(*Oceanodroma leucorhoa*).

Much rarer than the last, but has been found breeding on St. Kilda, the outer Hebrides, and North Rona.

*Plumage*.—Generally much like the last, but distinguishable on account of its rather greyer appearance, forked tail, and larger size (8 in.), being about the size of a Swift.

*Language*.—Like "pewr-wit."

*Habits and Food.*—Generally like the last.

*Nest.*—June. One brood.

*Site.*—Like the last.

*Materials.*—Grass, stalks, or moss.

*Eggs.*—One. White, faintly zoned with rusty red; rough in texture.

*Family PUFFINIDÆ.*

*Subfamily PUFFININÆ.*

GREAT SHEARWATER (*Puffinus gravis*).

A fairly regular visitor to our waters, usually in autumn, more especially to the south-west. The upper parts are ash-brown, the feathers having lighter edges on the mantle; under parts white. Length 19 in. In habits it much resembles the other Petrels; it dives well, and feeds principally upon squid. Its nest and eggs are unknown.

SOOTY SHEARWATER (*Puffinus griseus*).

Occasionally met with in autumn and winter, but rarer than the last. In appearance it is very dark. Length 18 in. Breeds in the Southern Hemisphere.

MANX SHEARWATER (*Puffinus anglorum*).

Resident. Widely distributed, and not uncommon round our coasts, breeding in considerable numbers, chiefly on various islands off the Irish coast, the west coast of England and Wales, and in great numbers at St. Kilda; also on many of the Scottish isles.

*Plumage.*—Head and upper parts sooty black; under parts white. Sides of neck white, mottled with brown. Bill brownish black. Legs and feet yellowish pink. Length 15 in. Female and young similar. Nestling covered with grey down.

*Language.*—Said to resemble "kitty-coo-roo," or "cuck-cuck-ōō."

*Habits.*—Like the Storm-Petrel, it is nocturnal, and has a similar kind of flight, viz., that reminding one of the Swallow tribe. It is a capital diver, and procures food often at great depths. It spends its whole time—except when it comes to land to breed—on the open sea, fair weather and foul. It ejects a green oil.

*Food.*—Fish, cuttlefish, offal, &c.

*Nest.*—May or June. One brood.

*Site*.—In a burrow made by the bird in soft peaty soil ; or in holes in rocks, or under rocks.

*Materials*.—If any, a few dead grasses or stalks.

*Eggs*.—One. Pure white, smooth in texture, and always retaining a peculiar musky odour.

*Subfamily FULMARINÆ.*

FULMAR (*Fulmarus glacialis*).

A rare straggler to our coasts in winter, though it is more commonly met with farther out to sea. It breeds on St. Kilda, and is said to have established itself, as a breeding species, in the Shetlands.

*Observation*.—The largest of our Petrels ; rather Gull-like, but distinguish by nasal tubes.

*Plumage*.—Head, neck, and under parts white. Back and tail grey ; more dusky on the quills. Bill yellow, except nasal tubes, which are olive. Legs and feet yellowish flesh-colour. Length 19 in.

*Language*.—Usually very silent. It utters a cry like “kaka,” and another like “wib-wib-uä-uä.”

*Habits*.—It is rather Gull-like in its appearance and mode of flight. Except when breeding, it spends its whole time on the sea, picking up various floating matters. When captured it vomits an amber-coloured oil, on which the young are fed.

*Food*.—Offal and various fatty and greasy matters found floating in the water.

*Nest*.—May or June. One brood.

*Site*.—On edge of a cliff, or in slight cavity on the cliff-side, &c.

*Materials*.—If any, a slight lining of grass, &c.

*Eggs*.—One. White, with sometimes a few small reddish brown spots. Shell rough, and smells strongly of musk.

# INDEX.

	PAGE		PAGE
Aberdevine ..	40	Astur palumbarius ..	71
Acanthis cannabina ..	43	Athene noctua ..	66
„ flavirostris ..	45	Auk, Little ..	136
„ linaria ..	44	Avocet ..	110
„ rufescens ..	45		
Accentor, Hedge..	19	Bernicla brenta ..	82
„ modularis ..	19	„ leucopsis ..	81
Accipiter nisus ..	71	“Billy-biter” (Blue Tit-	
Acredula caudata ..	21	mouse) ..	24
Acrocephalus aquaticus..	18	Bittern, Common ..	79
„ palustris ..	17	„ Little ..	79
„ phragmitis ..	18	Blackbird..	3
„ streperus ..	16	Blackcap ..	11
Ægialitis cantiana ..	107	Bluethroat, Red Spotted .	9
„ hiaticola ..	106	Botaurus stellaris ..	79
Alauda arborea ..	57	“Bottle Tit” (Long-tailed	
„ arvensis ..	56	Titmouse) ..	21
Alca torda ..	134	Brambling ..	43
Alcedo ispida ..	62	Bullfinch ..	46
Ampelis garrulus ..	34	Bunting, Cirl ..	48
Anas boscas ..	84	„ Common ..	47
„ strepera ..	85	„ Corn ..	47
Anser albifrons ..	80	„ Lapland ..	50
„ brachyrhynchus ..	81	„ Reed ..	49
„ cinereus ..	80	„ Snow ..	50
„ segetum ..	81	„ Yellow ..	48
Anthus obscurus..	32	“Butcher-bird” (Red-	
„ pratensis ..	31	backed Shrike) ..	34
„ trivialis ..	30	Buteo lagopus ..	69
Aquila chrysaëtus ..	70	„ vulgaris ..	69
Ardea cinerea ..	78	Buzzard, Common ..	69
Ardetta minuta ..	79	„ Honey ..	72
Asio accipitrinus..	65	„ Rough-legged ..	69
„ otus ..	64		

	PAGE		PAGE
<i>Caccabis rufa</i> ..	100	Crow, Carrion ..	55
<i>Calcarius lapponicus</i> ..	50	„ Grey ..	55
<i>Calidris arenaria</i> ..	117	„ Hooded ..	55
<i>Capercaillie</i> ..	97	„ Royston ..	55
<i>Caprimulgus europæus</i> ..	58	Cuckoo ..	63
<i>Carduelis elegans</i> ..	39	“Cuckoo's Mate” (Wry-	
<i>Certhia familiaris</i> ..	27	neck) ..	59
Chaffinch ..	42	<i>Cuculus canorus</i> ..	63
<i>Charadrius pluvialis</i> ..	108	Curlew, Common ..	122
<i>Chelidon urbica</i> ..	37	„ Stone ..	105
Chiffchaff ..	14	<i>Cyanecula suecica</i> ..	9
Chough ..	52	<i>Cygnus bewicki</i> ..	82
<i>Chrysomitris spinus</i> ..	40	„ musicus ..	82
<i>Cinclus aquaticus</i> ..	20	„ olor ..	83
<i>Circus æruginosus</i> ..	67	<i>Cypselus apus</i> ..	58
„ cineraceus ..	68		
„ cyaneus ..	67	Dabchick ..	140
<i>Clangula glaucion</i> ..	90	<i>Dafila acuta</i> ..	86
<i>Coccothraustes vulgaris</i> ..	39	<i>Daulias luscinia</i> ..	9
<i>Columba livia</i> ..	95	<i>Dendrocopus major</i> ..	61
„ œnas ..	95	„ minor ..	61
„ palumbus ..	94	Dipper ..	20
<i>Colymbus arcticus</i> ..	137	“Dish-washer” (Pied	
„ glacialis ..	137	Wagtail) ..	28
„ septentrionalis ..	138	Diver, Black-throated ..	137
Coot ..	105	„ Great Northern ..	137
„ “Bald” ..	105	„ Red-throated ..	138
Cormorant, Common ..	76	Dotterel ..	106
<i>Corvus corax</i> ..	54	Dove, Ring ..	94
„ cornix ..	55	„ Rock ..	95
„ corone ..	55	„ Stock ..	95
„ frugilegus ..	56	„ Turtle ..	96
„ monedula ..	53	Duck, Burrow ..	83
<i>Cotile riparia</i> ..	37	„ Common Sheld- ..	83
<i>Coturnix communis</i> ..	101	„ Eider ..	91
Crake, Baillon's ..	103	„ Ferruginous ..	89
„ Corn ..	102	„ Long-tailed ..	91
„ Little ..	103	„ Ruddy Sheld- ..	84
„ Spotted ..	102	„ Scaup ..	90
Creeper, Tree ..	27	„ Tufted ..	89
„ Nettle ..	10	„ White-eyed ..	89
<i>Crex pratensis</i> ..	102	„ Wild ..	84
“Cricket Teal” (Gar-		Dunlin ..	114
ganey) ..	87		
Crossbill, Common ..	46	Eagle, Golden ..	70
„ Two-barred ..	47	„ Sea ..	70

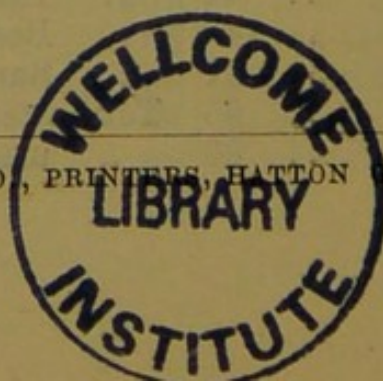
	PAGE		PAGE
Eagle, White-tailed ..	70	Goose, Bernacle ..	81
Emberiza cirrus ..	48	„ Brent ..	82
„ citrinella ..	48	„ Grey Lag ..	80
„ miliaria ..	47	„ Pink-footed ..	81
„ schœniclus ..	49	„ Solan (Gannet) ..	77
Erithacus rubecula ..	9	„ White-fronted ..	80
Eudromias morinellus ..	106	Goshawk ..	71
		“Grass-chat” (Whinchat) ..	6
Falco æsalon ..	74	Grebe, Black-necked ..	140
„ peregrinus ..	73	„ Eared ..	140
„ subbuteo ..	73	„ Great Crested ..	138
„ tinnunculus ..	74	„ Little ..	140
Falcon, Peregrine ..	73	„ Red-necked ..	139
“Felt” (Fieldfare) ..	3	„ Slavonian ..	139
Fieldfare ..	3	Greenfinch ..	38
“Firetail” (Redstart) ..	7	Greenshank ..	120
Flycatcher, Pied ..	36	Greyhen ..	97
„ Spotted ..	35	Grouse, Black ..	97
Fratercula arctica ..	136	„ Red ..	98
Fringilla cœlebs ..	42	„ Pallas's Sand ..	96
„ montifringilla ..	43	Guillemot, Black ..	135
Fulica atra ..	105	„ Common ..	135
Fuligula cristata ..	89	Gull, Black-headed ..	127
„ ferina ..	88	„ Brown-headed ..	127
„ marila ..	90	„ Common ..	128
„ nyroca ..	89	„ Glaucous ..	131
„ rufina ..	88	„ Great Black-backed ..	131
Fulmar ..	143	„ Herring ..	129
Fulmarus glacialis ..	143	„ Iceland ..	131
		„ Kittiwake ..	131
Gadwall ..	85	„ Lesser Black-backed ..	130
Gallinago cœlestis ..	113	„ Little ..	127
„ gallinula ..	113	Hæmatopus ostralegus ..	110
„ major ..	113	Haliaëtus albicilla ..	70
Gallinula chloropus ..	104	Harelda glacialis ..	91
Gallinule, olivaceous ..	103	Harrier, Hen ..	67
Gannet ..	77	„ Marsh ..	67
Garganey ..	87	„ Montagu's ..	68
Garrulus glandarius ..	52	Hawfinch ..	39
Gecinus viridis ..	60	Hawk, Sparrow ..	71
Godwit, Bar-tailed ..	121	Heron, Common ..	78
„ Black-tailed ..	122	„ Night ..	78
Golden-eye ..	90	Himantopus candidus ..	111
Goldfinch ..	39	Hirundo rustica ..	36
Goosander ..	92	Hobby ..	73
Goose, Bean ..	81		

	PAGE		PAGE
"Holm Screech" (Missel Thrush) .. ..	1	Megalestris catarrhactes ..	132
Hoopoe .. ..	62	Merganser, Red-breasted ..	93
Hydrochelidon nigra ..	123	Mergulus alle .. ..	136
Iynx torquilla .. ..	59	Mergus albellus .. ..	94
Jackdaw .. ..	53	"    merganser .. ..	92
Jay .. ..	52	"    serrator .. ..	93
Kestrel .. ..	74	Merlin .. ..	74
Kingfisher .. ..	62	Milvus ictinus .. ..	71
Kite .. ..	71	Moorhen .. ..	104
Knot .. ..	116	Motacilla alba .. ..	28
Lagopus mutus .. ..	99	"    flava .. ..	29
"    scoticus .. ..	98	"    lugubris .. ..	27
Lanius collurio .. ..	34	"    melanope .. ..	28
"    excubitor .. ..	33	"    raii .. ..	30
Lapwing .. ..	108	Muscicapa atricapilla ..	36
Lark, Shore .. ..	57	"    grisola .. ..	35
"    Sky .. ..	56	Nightingale .. ..	9
"    Wood .. ..	57	Nightjar .. ..	58
Larus argentatus .. ..	129	Numenius arquata .. ..	122
"    canus .. ..	128	"    phæopus .. ..	123
"    fuscus .. ..	130	Nuthatch .. ..	25
"    glaucus .. ..	131	Nyctea scandiaca .. ..	66
"    leucopterus .. ..	131	Nycticorax griseus .. ..	78
"    marinus .. ..	131	Oceanodroma leucorrhoa ..	141
"    minutus .. ..	127	Ædemia fusca .. ..	92
"    ridibundus .. ..	127	"    nigra .. ..	92
Ligurinus chloris .. ..	38	Ædicnemus scolopax .. ..	105
Limosa belgica .. ..	122	Oriole, Golden .. ..	33
"    lapponica .. ..	121	Oriolus galbula .. ..	33
Linnet .. ..	43	Osprey .. ..	75
"    Mountain .. ..	45	Otocorys alpestris .. ..	57
Locustella naevia .. ..	18	Ouzel, Ring .. ..	4
"    luscinioides .. ..	19	"    Water .. ..	20
Loxia bifasciata .. ..	47	Owl, Barn .. ..	64
"    curvirostra .. ..	46	"    Brown .. ..	65
Machetes pugnax .. ..	117	"    Little .. ..	66
Magpie .. ..	53	"    Long-eared .. ..	64
Mallard .. ..	84	"    Short-eared .. ..	65
Mareca penelope .. ..	88	"    Snowy .. ..	66
Martin, House .. ..	37	"    Tawny .. ..	65
"    Sand .. ..	37	"    White .. ..	64
		"    Wood .. ..	65
		"Ox-eye" (Great Titmouse) ..	22
		Oyster-catcher .. ..	110

	PAGE		PAGE
<i>Pandion haliaëtus</i> ..	75	<i>Podicipes auritus</i> ..	139
<i>Panurus biarmicus</i> ..	21	„ <i>cristatus</i> ..	138
Partridge, Common ..	100	„ <i>fluviatilis</i> ..	140
„ French ..	100	„ <i>griseigena</i> ..	139
„ Grey ..	100	„ <i>nigricollis</i> ..	140
„ Red-legged ..	100	<i>Porzana bailloni</i> ..	103
<i>Parus ater</i> ..	23	„ <i>maruetta</i> ..	102
„ <i>cæruleus</i> ..	24	„ <i>parva</i> ..	103
„ <i>cristatus</i> ..	24	<i>Pratincola rubetra</i> ..	6
„ <i>major</i> ..	22	„ <i>rubicola</i> ..	7
„ <i>palustris</i> ..	23	<i>Procellaria pelagica</i> ..	141
<i>Passer domesticus</i> ..	41	<i>Ptarmigan</i> ..	99
„ <i>montanus</i> ..	41	<i>Puffin</i> ..	136
<i>Pastor roseus</i> ..	51	<i>Puffinus anglorum</i> ..	142
Peewit ..	108	„ <i>gravis</i> ..	142
<i>Perdix cinerea</i> ..	100	„ <i>griseus</i> ..	142
<i>Pernis apivorus</i> ..	72	<i>Pyrhacorax graculus</i> ..	52
Petrel, Leach's Fork-tailed ..	141	<i>Pyrhula europæa</i> ..	46
Petrel, Storm ..	141	Quail ..	101
<i>Phalacrocorax carbo</i> ..	76	<i>Querquedula circia</i> ..	87
„ <i>graculus</i> ..	76	„ <i>crecca</i> ..	86
Phalarope, Grey ..	111	Rail, Land ..	102
„ Red-necked ..	111	„ Water ..	103
<i>Phalaropus fulicarius</i> ..	111	<i>Rallus aquaticus</i> ..	103
„ <i>hyperboreus</i> ..	111	Raven ..	54
<i>Phasianus colchicus</i> ..	99	Razorbill ..	134
Pheasant ..	99	<i>Recurvirostra avocetta</i> ..	110
<i>Phylloscopus rufus</i> ..	14	Redbreast ..	9
„ <i>sibilatrix</i> ..	16	Redpoll, Lesser ..	45
„ <i>trochilus</i> ..	15	„ Mealy ..	44
<i>Pica rustica</i> ..	53	Redshank, Common ..	119
Pigeon, Wood ..	94	„ Dusky ..	120
Pintail ..	86	„ Spotted ..	120
Pipit, Meadow ..	31	Redstart ..	7
„ Rock ..	32	„ Black ..	8
„ Tree ..	30	Redwing ..	3
<i>Platalea leucorodia</i> ..	80	Reedling, Bearded ..	21
<i>Plectrophenax nivalis</i> ..	50	Reeve ..	117
Plover, Golden ..	108	<i>Regulus cristatus</i> ..	13
„ Grey ..	108	„ <i>ignicapillus</i> ..	14
„ Kentish ..	107	“Ring-tail” (Hen-Harrier) ..	67
„ Norfolk ..	105	<i>Rissa tridactyla</i> ..	131
„ Ringed ..	106	Robin ..	9
Pochard ..	88	Rook ..	56
„ Red-crested ..	88		

	PAGE		PAGE
Ruff .. ..	117	Squatarola helvetica ..	108
Ruticilla phœnicurus ..	7	Starling .. ..	51
„ titys .. ..	8	„ Rose-coloured ..	51
Sanderling .. ..	117	Stercorarius crepidatus ..	133
Sandpiper, Common ..	118	„ parasiticus ..	134
„ Curlew .. ..	115	„ pomatorhinus ..	133
„ Green .. ..	119	Sterna cantiaca .. ..	124
„ Purple .. ..	116	„ dougalli .. ..	124
„ Wood .. ..	119	„ fluviatilis .. ..	125
Saxicola œnanthe .. ..	5	„ macrura .. ..	126
Scolopax rusticula .. ..	112	„ minuta .. ..	127
Scoter, Common, or Black	92	Stilt, Black-winged ..	111
„ Velvet .. ..	92	Stint, Little .. ..	115
“ Sea Swallow ” (Terns) ..	126	„ Temminck's .. ..	115
Shag .. ..	76	Stonechat .. ..	7
Shearwater, Great .. ..	142	“ Storm-cock ” (Missel	
„ Manx .. ..	142	Thrush) .. ..	1
„ Sooty .. ..	142	Strepsilas interpres ..	109
Shoveller .. ..	85	Strix flammea .. ..	64
Shrike, Great Grey .. ..	33	Sturnus vulgaris .. ..	51
„ Red-backed .. ..	34	Sula bassana .. ..	77
“ Shuffle-wing ” (Hedge		Swallow .. ..	36
Sparrow) .. ..	19	Swan, Bewick's .. ..	82
Siskin .. ..	40	„ Mute .. ..	83
Sitta cœsia .. ..	25	„ Whooper .. ..	82
Skua, Arctic .. ..	133	Swift .. ..	58
„ Buffon's .. ..	134	Sylvia atricapilla .. ..	11
„ Great .. ..	132	„ cinerea .. ..	10
„ Long-tailed .. ..	134	„ curruca .. ..	11
„ Pomatorhine .. ..	133	„ hortensis .. ..	12
„ Richardson's .. ..	133	„ undata .. ..	13
Smew .. ..	94	Syrnium aluco .. ..	65
“ Snake-bird ” (Wryneck)	59	Syrrhaptes paradoxus ..	96
Snipe, Common .. ..	113		
„ Great .. ..	113	Tadorna casarca .. ..	84
„ Jack .. ..	113	„ cornuta .. ..	83
„ “ Summer ” (C.		Teal .. ..	86
Sandpiper) .. ..	118	Tern, Arctic .. ..	126
Somateria mollissima ..	91	„ Black .. ..	123
Sparrow, Hedge .. ..	19	„ Common .. ..	125
„ House .. ..	41	„ Little .. ..	127
„ Reed .. ..	49	„ Roseate .. ..	124
„ Tree .. ..	41	„ Sandwich .. ..	124
Spatula clypeata .. ..	85	Tetrao tetrix .. ..	97
Spoonbill .. ..	80	„ urogallus .. ..	97

	PAGE		PAGE
"Thick-knee" (Stone Curlew) ..	105	Vanellus vulgaris ..	108
"Throstle" (Song Thrush) ..	2	Wagtail, Blue-headed ..	29
Thrush, Missel ..	1	" Grey ..	28
" Mistletoe ..	1	" Pied ..	27
" Screech ..	1	" White ..	28
" Song ..	2	" Yellow ..	30
Titlark ..	31	Warbler, Aquatic ..	18
Titmouse, Bearded ..	21	" Dartford ..	13
" Blue ..	24	" Garden ..	12
" Coal ..	23	" Grasshopper ..	18
" Crested ..	24	" Marsh ..	17
" Great ..	22	" Reed ..	16
" Long-tailed ..	21	" Savi's ..	19
" Marsh ..	23	" Sedge ..	18
Totanus calidris ..	119	" Willow ..	15
" canescens ..	120	" Wood ..	16
" fuscus ..	120	Water-hen ..	104
" glareola ..	119	Waxwing ..	34
" hypoleucus ..	118	Wheatear ..	5
" ochropus ..	119	Whimbrel ..	123
Tringa alpina ..	114	Whinchat ..	6
" canutus ..	116	Whitethroat ..	10
" minuta ..	115	" Lesser ..	11
" striata ..	116	Wigeon ..	88
" subarquata ..	115	" Windhover" (Kestrel) ..	74
" temmincki ..	115	Woodcock ..	112
Troglodytes parvulus ..	26	Woodpecker, Great Spotted ..	61
Turdus iliacus ..	3	" Green ..	60
" merula ..	3	" Lesser Spotted ..	61
" musicus ..	2	Wren ..	26
" pilaris ..	3	" Fire-crested ..	14
" torquatus ..	4	" Furze ..	13
" viscivorus ..	1	" Golden-crested ..	13
Turnstone ..	109	" Willow ..	15
Turtur communis ..	96	" Wood ..	16
Twite ..	45	Wryneck ..	59
Upupa epops ..	62	Yellow-hammer ..	48
Uria grylle ..	135		
" troile ..	135		



# Natural History Books

PUBLISHED BY

WEST, NEWMAN & CO.,

54, Hatton Garden, London, E.C.

---

**THE ZOOLOGIST**, the recognized Monthly JOURNAL DEVOTED TO ZOOLOGICAL SUBJECTS. Edited by W. L. DISTANT. Illustrated as subjects require. 1s., postage 1d. (Begun in 1843 by EDWARD NEWMAN.)

Contains original articles, by well-known Naturalists, on every branch of Zoology, notes on the habits and occurrences of Quadrupeds, Birds, Reptiles, Fishes, Molluscs, and Insects; Editorial Gleanings; Notices of New Books.

Communications on Zoology for publication are welcomed from all readers. Subscription for the year, including postage to any part of the world, 12s.

**BIRDSNESTING and BIRD-SKINNING**: A Complete Description of the Nests and Eggs of Birds which Breed in Britain. By EDWARD NEWMAN. Second Edition, with Directions for Collecting and Preservation; and a Chapter on Bird-Skinning. By MILLER CHRISTY. Cloth, fcap 8vo, 1s., postage 2d.

*"Very good indeed, and can be thoroughly recommended."*—Athenæum.

*"A book for the country, and a book for boys—and for girls too. It is cheap, easily understood, and slips into the pocket. Fathers will give it to their sons; and if any squire or clergyman wishes to make an intelligent village boy a small present which will be welcomed, here is the very thing. Altogether it is a capital little handbook."*—Bell's Weekly Messenger.

**THE POCKET-BOOK OF BRITISH BIRDS**, with Description of British Species and Distinguishing Characters; Habits; Food; Language or Song; Nest and Eggs. Fcap 8vo, cloth, gilt tops, 2s. 6d.

**THE ENTOMOLOGIST: A Journal of General Entomology.** Monthly. Edited by RICHARD SOUTH, F.E.S., assisted by Messrs. ADKIN, DISTANT, FITCH, FROHAWK, JACOBY, KIRBY, KIRKALDY, LUCAS, SHARP, and VERRALL. Frequent Woodcuts and occasional Plates. 6d., postage 1d.

Contains original articles, by well known Entomologists, on every branch of the science; notes on the habits and occurrence of Lepidoptera, Coleoptera, Hymenoptera, Diptera, &c.; Proceedings of Societies; Reviews &c. Monthly lists of Duplicates and Desiderata.

Subscription for one year, including postage to any part of the world and all double numbers, 6s.

**THE 'ENTOMOLOGIST' SYNONYMIC LIST of BRITISH LEPIDOPTERA.** By RICHARD SOUTH, F.E.S. Demy 8vo. For Reference only, 6d., postage 1d.; in duplicate (printed on one side only for Labels, and on both sides for Reference), 2s., postage 2d.

**The Exchange List** (containing the whole of the British Lepidoptera complete on a single sheet of note-paper), 1d., post free 1½d.; one penny is sufficient postage for any number of copies.

**THE INSECT HUNTER'S COMPANION.** By the Rev. JOSEPH GREENE, M.A. Fourth Edition. Revised and extended by A. B. FARN. The Chapter on Coleoptera, by EDWARD NEWMAN; on Hymenoptera by FREDERICK SMITH; on Breeding Gallflies by EDWARD A. FITCH. Fcap 8vo, 1s.; postage 2d.

Contains instructions for collecting and preserving Butterflies and Moths, Beetles, Bees, Flies, &c.; where to find Moths and Caterpillars; how to catch; how to bring home without injury; how to kill; how to set; how to find the caterpillars; how to manage; how to feed; how to breed the perfect insects; and numerous similar subjects.

## HINTS on COLLECTING & PRESERVING

PLANTS. BY STANLEY GUITON. Chapters on Collecting and Equipment, Drying, Preserving and Arranging, Mounting, &c. Fully illustrated. Crown 8vo, 64 pp. Price 1s. net. Postage 2d.

*"This admirable little book gives something more than mere hints, being really a full instruction book, giving in every necessary detail the means and methods to be adopted in collecting botanical specimens. . . . With such a wealth of information and advice to be had for one shilling, there is no excuse for miserable examples."*—Nature Study.

*"Useful to schools, or classes, field-naturalists' clubs, or to anyone interested in the collection of specimens of our native flora, or who wishes to prepare and bring or send home specimens from abroad."*—The Field.

*"A neat little shilling volume. The young botanist who follows out all the author's suggestions . . . will turn out good specimens. . . . Distinctly useful, and the worker will very soon modify its elaborate recommendations in accordance with practical experience."*—Journal of Botany.

## Newman's Botanical Drying Paper.

FOR DRYING FLOWERS, FERNS, SEAWEEDS, AND OTHER SPECIMENS FOR THE HERBARIUM.

Preserves Form and Colour, and seldom, if ever, requires a change of sheets. Durable and economical. Used by the Naturalists on board the Arctic ships, on the 'Challenger' expedition, and at various public Herbaria.

*"Combines in a very satisfactory manner the merits of a high degree of absorbence with a reasonable toughness. No doubt, for drying plants, it is the best paper that can be got."*—Nature.

*By far the best paper for drying specimens and plants."*—The late Prof. Babington.

### PRICES ACCORDING TO SIZE.

Size.	Ream.	Quire.
16 × 20 in. . . . .	15s. . . . .	1s. 1d.
18 × 22 in. . . . .	19s. . . . .	1s. 4d.
20 × 24 in. . . . .	23s. . . . .	1s. 9d.
20 × 32 in. . . . .	30s. . . . .	2s. 2d.

*All papers are put up folded: they can be cut in half to order.*

**A FLORA OF THE ISLAND OF JERSEY.**

By L. V. LESTER-GARLAND, M.A., F.L.S. With a list of the plants of the Channel Islands in general, and remarks upon their distribution and geographical affinities. Pp. i-xvi and 1-206. Map. Cloth, gilt. Price 6s., postage 3d.

*"An interesting guide to the flower-life of sunny Jersey."*—Garden.

*"A book which, in addition to its convenient form, is to be recommended for its extremely practical and scientific value."*—Nature.

*"A 'Flora of the Island of Jersey' which we can commend to all visitors to that favoured spot. . . . Very carefully compiled, well printed, and provided with an index of genera."*—Gardeners' Chronicle.

**AN ACCOUNT of the BRITISH HIERACIA.**

By Rev. W. R. LINTON, Vicar of Shirley, Derby. Pp. i-viii and 1-96. Stiff paper cover. Price 4s., postage 2d.

*"Mr. Linton has long made a careful study of the British forms of Hieracium . . . . The book is well printed."*—Journal of Botany.

**ALIEN FLORA OF BRITAIN.** By STEPHEN TROYTE DUNN, B.A. F.L.S., Superintendent Botanical and Afforestation Department, Hongkong. Author of 'Flora of South-west Surrey,' &c. Demy 8vo, cloth extra, 208 pp. + xvi. Price 5s.

The term *Alien* is used to designate any species which, though now spontaneous, originated in Britain through human agency. Cultivated plants are only included when recorded as escapes from, or survivals of, cultivation.

**FLORA OF SOUTH-WEST SURREY. A**

Handy Pocket Field Guide to the Botany of the District. By S. T. DUNN, B.A. Crown 8vo, 3s.; postage 3d.

*"An excellent and portable guide."*—Academy.

*"Most thoroughly done."*—Surrey Times.

WEST, NEWMAN & CO., 54, HATTON GARDEN.

---

WORKS ON AGRICULTURAL ENTOMOLOGY  
by MISS ORMEROD, LL.D.

**HANDBOOK OF INSECTS** Injurious to ORCHARD and BUSH FRUITS. With means of Prevention and Remedy. Demy 8vo, 300 pp., cloth extra, 3s. 6d.; postage 3d. Profusely illustrated.

*"It is a handbook in more than in name, for it ought never to be far from the hand of every grower of fruit. It is a book to be universally recommended and studied."*—Journal Royal Horticultural Society.

*"An immense amount of useful information."*—Times.

*"Of incalculable benefit to growers of fruit."*—Mark Lane Express.

**A TEXT-BOOK OF AGRICULTURAL ENTOMOLOGY**, being a Plain Introduction to the Classification of Insects and Methods of Insect Life, with Means of Prevention of Insect Ravage; suited for the use of agriculturists and agricultural teachers and students. One vol., pp. 238; 164 figures. Crown 8vo, 3s. 6d., postage 3d.

*"An excellent guide, full of sound and practical information, which will be found equally useful for either farmer or gardener in his daily work, or for the teacher or student in the class-room."*—Times.

*"It will no doubt at once take rank as the best introductory treatise on the subject in existence. We recommend it for adoption in every school and class in which attention is given to the teaching of Agriculture."*—Agricultural Gazette.

Third Edition in preparation; with 16 Coloured Plates.

By E. A. ORMEROD & Dr. R. STEWART MACDOUGALL.

**A MANUAL OF REMEDIES AND MEANS** of PREVENTION for ATTACKS of INSECTS on FOOD CROPS, FOREST TREES, and FRUIT. One vol., fully illustrated, with portrait. Demy 8vo, cloth.

This work gives an account of the insects commonly injurious to a serious extent in the British Isles, with means found practically serviceable to prevent or diminish their ravages.

CROWN 8vo, CLOTH, 3s. 6d.

# **Eggs of British Birds,**

---

Being a Supplement to "OUR COUNTRY'S BIRDS."

By W. J. GORDON.

WITH 16 FULL-PAGE COLOURED PLATES

Consisting of 398 Figures of Eggs and a List of British  
Birds past and present.

---

BY THE SAME AUTHOR.

PRICE 6s. EACH.

**OUR COUNTRY'S ANIMALS.**

---

(MAMMALS, REPTILES, & AMPHIBIANS.)

**OUR COUNTRY'S FISHES.**

---

With every Species Illustrated in Colour.

**OUR COUNTRY'S SHELLS.**

---

With 33 full-page Coloured Plates.

**OUR COUNTRY'S FLOWERS.**

---

With 529 Coloured Species.

**OUR COUNTRY'S BIRDS.**

---

With 398 Coloured Figures.

**OUR COUNTRY'S**

---

**BUTTERFLIES & MOTHS.**

---

With 1000 Coloured Specimens.

---

London: SIMPKIN, MARSHALL, HAMILTON, KENT & Co., Ltd.

# MACMILLAN & CO.'S BOOKS ABOUT BIRDS

**BIRDS.** By A. H. EVANS, M.A. Fully Illustrated.  
8vo. 17s. net. (Being Vol. IX. of The Cambridge Natural History).

**BRITISH INLAND BIRDS.** By ANTHONY COLLETT. With Coloured Illustrations by Eric Parker.  
Crown 8vo. [Very shortly.]

**TALES OF THE BIRDS.** By W. WARDE FOWLER. Illustrated. Crown 8vo. 2s. 6d. Cloth elegant, gilt edges. 3s. 6d.

**MORE TALES OF THE BIRDS.** By W. WARDE FOWLER. Illustrated. Crown 8vo. 3s. 6d.

**A YEAR WITH THE BIRDS.** By W. WARDE FOWLER. Illustrated. Crown 8vo. 3s. 6d.

**SUMMER STUDIES OF BIRDS & BOOKS.**  
By W. WARDE FOWLER. Cheaper reissue. Crown 8vo. 3s. 6d.

**OUR RARER BIRDS.** By CHARLES DIXON. With numerous illustrations by Charles Whymper. 8vo. 14s.

MACMILLAN & CO., LTD., LONDON.

---

J. & W. DAVIS, Naturalists, 31-33 Hythe St., Dartford

Telegrams: Davis, Naturalists, Dartford. Nat. Telephone: 108, Dartford.

*Full Illustrated Catalogue of Naturalists' Requisites  
and Appliances, &c., 2d. post free.*

"The Egg Collector's Guide and Calendar," illustrated, interleaved for notes, stiff cover, 1/-.

"Animal, Fish, and Reptile Stuffing," profusely illustrated, price 1/6.

"Data" Books, strongly bound, each page with printed headings, for entering particulars of collections, either Eggs or Skins. 1/- each, postage 2d.

"Bird Stuffing and Mounting," 172 illustrations and working diagrams, price 1/-.

**Birds' Nests, Eggs, and Egg Collecting.** 22 coloured plates of eggs. C. Kearton. 5/-, postage 3d.

**The Naturalists' Quarterly Review** of New Books, Records and Events of Interest in Natural History generally. 2/6 per annum, post free; specimen copy 8d.

"Data" Labels for filling in particulars of Clutches of Eggs. 6d. & 8d. per 100.

**Best White Wadding,** 3d. per sheet; pink do. 4d.

**Label Lists for Eggs,** in graduated type, printed on gummed paper, 3d. Exchange Lists 10d. doz.

# ROWLAND WARD, LTD.



## Practical Naturalists & Artistic Taxidermists.

Designers of Trophies of Natural History, Preservers and Adapters of all Specimens of Animal Life. Natural features of Animals adapted in Original Designs for Decorative purposes and everyday uses. Furriers and Plumassiers and Collectors in Natural History.

### HEAD TROPHIES & HORNS FOR DECORATION.

The preservation and careful artistic treatment of Head Trophies are among the most noted achievements in the "JUNGLE" studios.

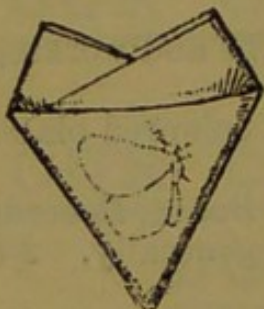


### BIRD-STUFFING & the STUFFING of SMALL ANIMALS,

In the simplest and most inexpensive way, are undertaken by ROWLAND WARD, LTD., with the same rigid attention to the best artistic result as they bestow on the most elaborate and costly designs and combinations of rare specimens.

### HOOFS OF ANIMALS Mounted in New and Original Designs.

"Observations on the Preservation of Hoofs and the Designing of Hoof Trophies," by ROWLAND WARD, F.Z.S. Post free, 2d.



### CABINETS and APPARATUS for ENTOMOLOGISTS. ILLUSTRATED CATALOGUE FOR STAMP.

### FISH MOUNTING A SPECIALITY. BY NEW AND ARTISTIC METHODS.

"THE JUNGLE,"  
167, PICCADILLY, LONDON.

# WATKINS & DONCASTER,

Naturalists and Manufacturers of Naturalists'  
Apparatus and Cabinets.

36, STRAND, LONDON, W.C.

(FIVE DOORS FROM CHARING CROSS.)

Fine specimens of recently taken British Birds' Eggs in stock, or supplied at short notice, with full data.

Almost all species of British Birds' Eggs kept in stock, as per pp. 85-93 of our Catalogue.

A very large stock of Eggs in Clutches, with full data; lists on application.

Taxidermist's Companion, containing eight most useful tools, in pocket-case, 10/6.

All Requisites kept in stock. Artificial Eyes, Tow, Wire, Non-poisonous Preservative Soap (by means of which skins may be preserved in fit condition for stuffing), 1/- per tin; 3/6 per lb. Pure Naphthaline in crystals, 1/6 per lb.

BIRD CALLS.—Snipe, Lark, and Woodcock, 1/-. Wild Duck, 1/3. Wild Fowl and Water Hen, 1/4. Cuckoo and Pigeon, 1/6. Grouse, Partridge, and Magpie, 1/-. Pheasant, 1/6. Hawk, 1/-. Owl, 1/3. Rabbit, 1/3. Mice, 9d.

Wild Birds' Nesting-boxes from 2/- each.

Egg Collector's Set, containing all necessary Drills, Blow-pipes, &c., complete in box, with Label List and Instructions, 3/-. Chip Boxes, 1/6 per gross.

All the most useful Books on British Birds and Birds' Eggs kept in stock.


Suitable Cabinets for Birds' Skins supplied from stock, or to order.

## CABINETS FOR EGGS.

With 4 drawers, 75 divisions,	12/-	;	or with door to lock,	18/-
„ 6 „ 122 „	16/6	;	„ „	23/-
„ 7 „ 202 „	23/-	;	„ „	30/-
„ 8 „ 238 „	30/-	;	„ „	37/-
„ 10 „ 348 „	56/-	;	„ „	63/-

ANY DESCRIPTION OF CABINET MADE TO ORDER.

Birds, Mammals, &c., Preserved and Mounted by First-class Workmen at moderate Prices.

 Our Price List (100 pp.) sent on application.



