

THE BIRD BOOK

UC-NRLF

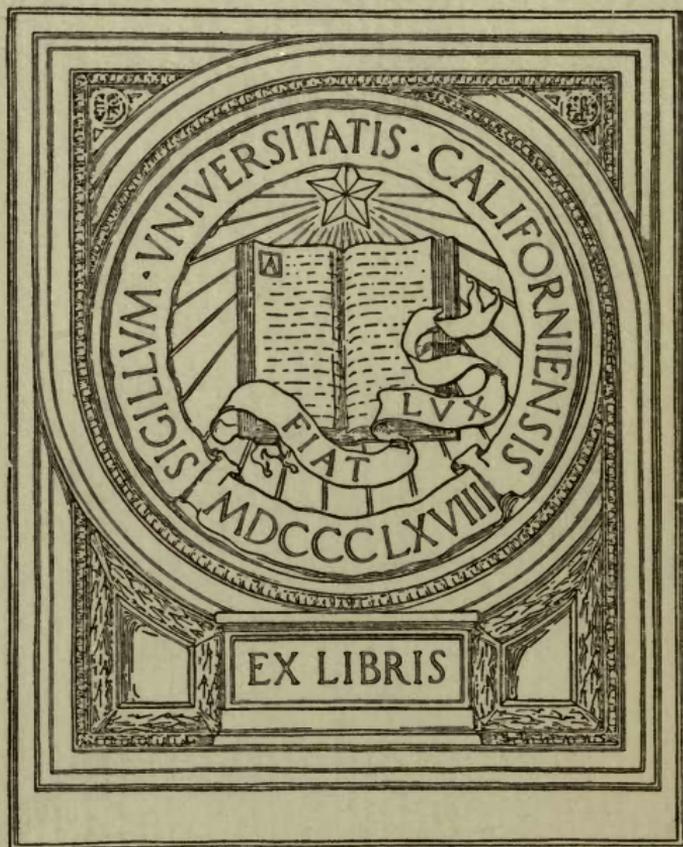


SD 43 247



BY A. J. R. ROBERTS

GIFT OF
A. F. Morrison



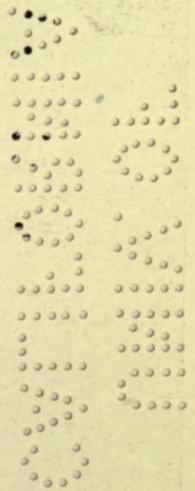
BIOLOGY
LIBRARY

93

THE COUNTRY HANDBOOKS—V

EDITED BY HARRY ROBERTS

The Bird Book

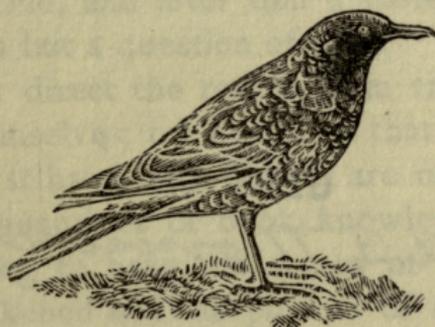




A YOUNG KINGFISHER'S FIRST VIGIL.

The Bird Book

By A. J. R. Roberts



John Lane, The Bodley Head
London and New York MDCCCIII

QL676

R6

BIOLOGY
LIBRARY

The Bird Book
By A. J. R. Roberts

GIFT OF

A. F. Morrison

TO THE
LIBRARY OF

104

Preface

THE fact that this little volume is one of a series of practical country hand-books proclaims its object. Its endeavour is to enable the reader to recognise some of the common birds of the country-side, and if it succeeds in this, it will have achieved much. Knowledge of a few species is sure to kindle a love of birdkind, and after that a more extensive knowledge is but a question of time. The writer would rather direct the reader from the book to the birds themselves, for he knows that the lessons learned at first hand from Nature are of far more worth than quantities of book knowledge. It is no small thing to have the senses of seeing and hearing quickened and the powers of observation increased, yet this is what Nature is ever ready to do for those who love and study her.

“And Nature the Old Nurse took
The child upon her knee,
Saying, here is a story book,
Thy father hath written for thee.

“And whenever the way was long,
Or his heart began to fail,
She would sing a more wonderful song,
Or tell a more wonderful tale.”

One man may take a walk and scarcely see a bird; another, with him, sees or hears, perhaps,

Preface

five and twenty species. This power of recognising one's feathered friends cannot fail to increase the pleasure of any country walk ; but, in order to obtain it, some book knowledge is indispensable and this volume endeavours to supply it for the beginner in a form which, it is hoped, will be found useful.

The birds are classified according to the localities in which they are most commonly to be found, and though, of course, it is impossible in so limited a space to introduce the reader to more than a few species, the writer hopes that enough has been said to enable him to recognise these. Concerning these few even, it has been necessary to omit much that is interesting. But such a classification has this disadvantage. Birds are by no means confined to particular localities, and many species may be met with equal frequency by the hedgerow or in the woodlands ; in the marshes or by the riverside.

In the description of bird's plumage and eggs the writer has, to ensure accuracy, borrowed largely from the works of Messrs Bowler Sharpe and Kearton, and in the treatment of the problem of flight in the opening chapter he has been influenced by the Duke of Argyll's excellent chapter in the "Reign of Law," entitled "Contrivance a Necessity," which, though read several years ago, has left a very distinct impression on his mind.

Preface

In order to convey to the reader some idea of the size of birds, a list of British Birds, exclusive of rare stragglers, will be found at the end of the volume. After the name of the bird are figures representing its length in inches, and the letters R, S, or W to show if it be resident or summer or winter visitor. The classification is that of Lieutenant-Colonel Irby.

Contents

	<i>Page</i>
STRUCTURE AND FLIGHT	1
AROUND THE HOUSE	12
BIRDS OF THE HEDGEROW	23
BIRDS OF THE FIELD	34
WOODLAND BIRDS	47
BY THE RIVERSIDE	60
BY MARSH AND MERE	73
MOORLAND BIRDS	87
BIRDS OF THE SEA-SHORE	99
ALONG THE ROCK-BOUND COAST	110
LIST OF BRITISH BIRDS	124
INDEX	131

Illustrations

A YOUNG KINGFISHER'S FIRST VIGIL	Frontispiece
<i>From a photograph by A. J. R. Roberts.</i>	
GULLS BREAKFASTING—A STUDY OF FLIGHT	Facing page 3
<i>From a photograph by J. C. Douglas.</i>	
THE GREAT AUK (ADULTS AND YOUNG BIRDS IN FIRST PLUMAGE)	” ” 7
<i>From a photograph by J. Edwards.</i>	
EGG OF GREAT AUK (NATURAL SIZE), SCRIBBLED FORM	” ” 10
<i>From a photograph by J. Edwards.</i>	
SONG THRUSH CRACKING A SNAIL IN THE GARDEN	” ” 14
<i>From a photograph by J. T. Newman.</i>	
YOUNG BLACKBIRDS	” ” 21
<i>From a photograph by J. T. Newman.</i>	
A NIGHTINGALE'S NEST	” ” 28
<i>From a photograph by A. J. R. Roberts.</i>	
YOUNG JAYS	” ” 50
<i>From a photograph by J. T. Newman.</i>	
YOUNG BLUE TITS	” ” 55
<i>From a photograph by J. T. Newman.</i>	

Illustrations

NUTHATCH AT WORK	Facing page	56
<i>From a photograph by J. T. Newman.</i>		
YOUNG BULLFINCHES	" "	58
<i>From a photograph by A. J. R. Roberts.</i>		
REEDWARBLER'S NEST	" "	65
<i>From a photograph by A. J. R. Roberts.</i>		
YOUNG HERONS IN NEST, PLACED IN TOPMOST BRANCHES OF A FIR TREE, 65 FEET ABOVE THE GROUND	" "	71
<i>From a photograph by J. T. Newman.</i>		
A MOORHEN'S NEST	" "	74
<i>From a photograph by A. J. R. Roberts.</i>		
BLACKHEADED GULLS IN SUMMER	" "	80
<i>From a photograph by T. Tart.</i>		
WILD DUCKS	" "	81
<i>From a photograph by J. C. Douglas.</i>		
DOTTERELS (FROM STUFFED SPECIMENS)	" "	84
<i>From a photograph by J. Edwards.</i>		
LESSER TERN'S EGGS	" "	102
<i>From a photograph by A. J. R. Roberts.</i>		
KITTIWAKES ON THEIR NESTS	" "	108
<i>From a photograph by A. J. R. Roberts.</i>		

Illustrations

GUILLEMOT ON HER EGG Facing page 112
<i>From a photograph by A. J. R. Roberts.</i>	
YOUNG HERRING GULLS	„ „ 114
<i>From a photograph by A. J. R. Roberts.</i>	
A GROUP OF PUFFINS	„ „ 116
<i>From a photograph by A. J. R. Roberts.</i>	
RAZORBILLS	„ „ 119
<i>From a photograph by A. J. R. Roberts.</i>	
YOUNG CORMORANTS, BLACKSKINNED AND NAKED	„ „ 122
<i>From a photograph by A. J. R. Roberts.</i>	

The
BIRD BOOK

CHAPTER I.—*Structure and Flight*

SOME very practical-minded man has tersely defined a bird as “an organism round a stomach,” and it would be difficult to deny that the gaining of its daily food is the principal object a bird has in view, even if at a certain period of the year it becomes secondary to the instinct of propagating its own species. But in gaining their livelihood birds are unconsciously carrying out part of a great, far-reaching scheme and help to preserve the balance of Nature. They prey upon and consequently prevent the undue multiplication of insects, which, if allowed to increase without check, would ravage and finally kill all trees. These in their turn would be unable to perform their purifying functions on the air which, we must suppose, would soon become unfit for mankind to breathe.

And how does man show his gratitude for such services? In general he persecutes his benefactors for taking toll of the fruit, which, but for them, he would be unable to cultivate and, still worse, he has practically exterminated some of the more brightly coloured species to gratify vanity.

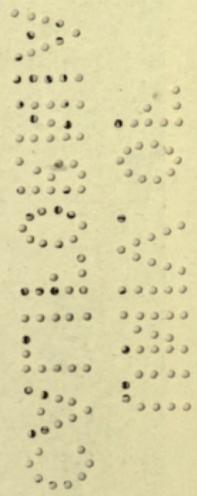
The Bird Book

A plea for the birds on the ground of usefulness will, I trust, not be out of place in a book which aims at enabling many to recognise their feathered friends whom to know is to love. Moreover, many state that the bird's attack on fruit is solely owing to thirst and maintain that if a small pond were provided in fruit gardens, the fruit would be left untouched. The scheme is, at least, worth a trial.

But, returning to the definition with which we started, one of the first things we notice about bird-life is the variety of organism. Our interest and admiration are aroused as we see how completely Nature has furnished each family with the structure most suited to the successful pursuit of its particular prey. The long legs of the waders, the webbed feet of the swimmers, whose legs are placed so far back as to render the birds positively awkward on land, the wonderful vision of the birds of prey, the hard bills of seed-eating birds and the soft bills of those that live on insects, are but a few cases in point.

The Woodpecker affords one of the most striking examples of the way in which the whole structure is made subservient to the object of procuring food. His prey lies concealed behind the bark of ancient, decaying trees. Consequently he is furnished not only with a powerful beak, with which to drill and prise off the bark; but with a tongue capable of being extended to a

UNIVERSITY OF MICHIGAN LIBRARY





GULLS BREAKFASTING — A STUDY OF FLIGHT

PLATE X

Structure and Flight

great length, and glands to keep it well covered with a sticky substance, which prevents the escape of any insect with which it comes into contact. Those who have watched a Green Woodpecker enjoying himself at an ant-hill will admit how effective such a provision is.

The body, too, is splendidly fitted for climbing in search of food. The legs are short and powerful and the toes are arranged in a manner not less striking than convenient. Two point forwards and two back. The tail, moreover, is composed of stiff feathers which are pressed against the tree and form an additional support to the climber.

Even more wonderful, perhaps, are the delicate contrivances by which the sight of birds is regulated. Most of us have often seen a Kestrel hovering over a field searching for mice and then swooping down like an arrow on its prey, but how often do we realise that his eyesight changes during the swift transit? From being telescopic it becomes microscopic, and without the change the bird would dash itself on the ground. Yet this regulation, so important for the bird's preservation, is accomplished merely by the relaxation of certain muscles attached to bony plates at the back of the eyeball. While the bird is hovering at some height above the ground these plates are pressed against the eye, causing it to become more convex, in other words, making the sight telescopic. When nearing the ground such sight

The Bird Book

would be useless and accordingly it is altered by a contrivance as simple as it is effective. It would be easy to multiply instances, did space permit, but it is better to leave the discovery of such contrivances to the reader, for one of the chief interests in the study of bird-life is to find out the special mission of each species and observe how wonderfully each is armed for the fulfilment of its task.

We must now turn our attention to flight, which, though not peculiar to birds, forms, nevertheless, their chief characteristic. Owing to the nature of their food, birds have to search greater areas than mammals and consequently flight becomes a necessity. Moreover, their food, especially insect food, is not always to be found in the same country all the year round, a fact which brings us at once face to face with the question of migration, one of the most fascinating and difficult of all problems connected with bird-life. Gilbert White could not quite rid himself of the notion that Swallows hibernated at the bottom of ponds, but now the countries in which most of our summer visitors spend the winter, and some of the main routes by which they travel, are well known, and we are learning something of the immense speed they attain and the height at which they fly. From Heligoland to Egypt in a night sounds very romantic, yet we have it on good authority that some birds accomplish this feat, and that some of

Structure and Flight

our winter migrants from Norway rise to such a height that England becomes visible ere they are out of sight of the land they left. And this journey across the North Sea is made (every autumn) by vast numbers of so frail a creature as the Golden Crested Wren, the smallest of British birds. It is true that numbers sink exhausted on the rigging of fishing boats and many are doubtless drowned, but that makes the fact that so many are successful none the less wonderful.

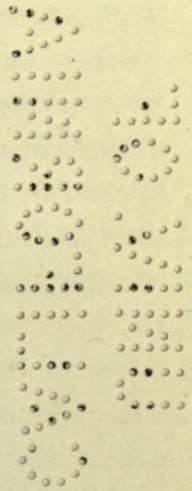
Let us look at the principles of flight, which are now occupying the attention of man to a hitherto unparalleled extent. Nature overcomes the difficulties by conforming to law, and in this connection there are three great laws of which we must take note. The first is the law of gravitation; the second, that the air offers resistance to any body passing through it; and the third, that every force has an equal and opposite reaction.

By certain contrivances, these laws, apparently hostile to flight, are, as it were, conquered by obedience and actually made to assist it. The law of gravitation is a statement of the tendency of a body towards the centre of the earth, surely a serious obstacle to aerial navigation. There is a popular impression that prior to flight a bird inflates itself with air until it becomes as light as the element in which it flies, but a moment's thought will show the fallacy of such an idea. If the bird were as light as air, it would float as helplessly as

The Bird Book

a balloon whither every current carried it. The wings would be useless, for there would be no fulcrum from which they could act. Weight supplies this fulcrum and at the same time gives momentum, thus enabling a high speed to be maintained for a considerable time. But the weight must be proportionate to the area of the wings, and this calls for a nice adjustment. Take the case of the Razorbill, a diving sea-bird. The adjustment is here pushed almost to its extreme limit, for the wings have to serve a double purpose; they are used as fins or flippers in swimming under water as well as for flight. The area has therefore to be reduced to a minimum to be used with effect in the water, and yet it must be just large enough to enable the bird to fly. The body is proportionately very heavy and the bird has the greatest difficulty in rising from the sea when it is calm and there is little or no wind to rise against. The bird cannot indeed turn and wheel with the ease and grace of a Swallow, but where is the need? The ocean is its home, and there, at least, is almost limitless space for the Razorbills to go on their way rejoicing.

In a practical handbook on British Birds any remarks on the Great Auk may well seem out of place, but its history well illustrates the nemesis that overtakes any flagrant violation of the principles of flight. The Great Auk is (or, rather, was) in every particular except the wing a Razor-





THE GREAT AUK

(Adult and young bird in first plumage)

Structure and Flight

bill on a very much larger scale. It is as if the Razorbill's wings had been fitted on to a bird nearly twice as long, and many times as heavy as the bird for which they were intended. The Auk's wing was merely a flipper. Ages ago, doubtless, the Great Auk could fly, but through long disuse the wing gradually degenerated. Flight was sacrificed for increased proficiency in swimming under water.

Under these circumstances the bird fell an easy prey to fishermen, who used to salt down the bodies for food; and so indiscriminate was the slaughter that by the beginning of the nineteenth century the Great Auk had already become a rarity, while in 1844 the last specimens were obtained off Iceland. Incidentally its extinction was hastened by the submarine eruption of one of its few remaining breeding haunts—the Geirfugla-sker—in 1830, but there is every reason to suppose that it would have survived that disaster had collectors given it the chance. Many have hoped that the Great Auk will yet be found in some remote northern island home, and many have sought for it carefully and long, but with every passing year the probability merges more and more into the certainty that the only memorials of this kind are some 79 skins or mounted specimens in various museums and about 74 eggs. Seldom, indeed, do the former come into the market, but the strength of the desire to

The Bird Book

possess a Great Auk's egg may be judged from the fact that several hundred pounds have often been paid in order to gratify it.

But we digress. We have seen that weight gives momentum, and momentum obviously helps to overcome the resistance of the air which, in its turn, is used to combat the tendency of gravitation. It is this resistance of the air to a sufficiently vigorous beat of the wing that enables the bird to get enough leverage to raise itself in the air, though the upward beat of the wing would, but for a special contrivance, neutralise the effect of the downward, and flight would be impossible.

This contrivance is two-fold. The wing is curved, not flat, and as the upward beat is made with the convex side, it encounters little resistance from the air compared with the downward beat with the concave side—a difference which may easily be tested by first pushing and then pulling an open umbrella through the air. Secondly, the feathers *under-lap*, and so, in the downward beat, become locked together in full resistance to the air, while they separate on the upward beat, allowing the air to escape between them.

So far, however, our imaginary bird would only be able to rise perpendicularly, and now the third law comes into operation. The whole wing, as indeed each feather, is formed with the anterior

Structure and Flight

edge stiff, the posterior yielding ; hence, with the beat of the wing, almost all the imprisoned air escapes backwards, and in compliance with the law, there must be an equal force acting in the opposite direction, and this urges the bird forward. It is the same principle as that which enables a boat to "tack."

We may here note, in passing, another point of similarity between the structure of a bird and a boat. The skeleton or framework is made as light as possible, consistent with strength, and the heaviest bone in the bird's body is the breast bone, which corresponds in position and function to the keel of the boat.

Such, in brief, are the principles which govern flight. We have already seen what possibilities there are of variation in structure to suit the habits of different birds, and the comparison of a Swift, which can, when travelling at upwards of a hundred miles an hour, deviate from its course to snap up the minutest insect, with a Puffin, which has difficulty in starting flight at all, is sufficient to prove that this province of bird-life is equally subject to modification.

We now notice that all swift fliers have sharp-pointed wings. Compare for a moment a Peregrine Falcon with an Owl. The former overtakes and strikes down his prey ; speed is essential. Not so the Owl ; he sails noiselessly along and drops on his prey unawares. The Peregrine's wing

The Bird Book

is pointed; that of the Owl is comparatively round. With the pointed wing all the air must of necessity escape backwards, and the maximum result is gained from each beat. But a considerable portion of air must escape at the end of a rounded wing, and bring into being a force acting at right angles to the line of flight, which has, of course, an ill effect on speed.

Another variation is apparent in many ocean birds, such as the Albatross or our own Gannet, which spend day after day upon the wing out of sight of land. They even appear to sleep while flying, and their wings are very long and comparatively narrow. Consequently a small movement at the shoulder means considerable movement at the tip. The wing is to all intents and purposes a long lever, giving the bird all the advantages of such a tool, and though the muscular exertion needed is particularly tense while it lasts, it is more than repaid by the results.

We have all noticed the ease with which Seagulls fly against the wind when it is blowing half a gale. There appears little or no exertion, the wings are not even fully extended, for the pressure of the air on the wings obviates the necessity for any except an occasional beat.

One other bird we must mention in conclusion, which invariably uses whatever wind there is, for it performs the most difficult of all aerial feats. The Kestrel or Windhover has the power of



EGG OF GREAT AUK (NATURAL SIZE). "SCRIBBLED" FORM

1000

1000

Structure and Flight

remaining stationary. An equilibrium of forces has to be maintained and so the area of wing exposed has to be regulated according to the strength of the wind. The wings must strike the air with sufficient force to resist gravity, and the resulting forward movement has to be neutralised by the angle at which the body is inclined. The forward movement is, in other words, made to act upwards against and with the wing-beat in resistance to gravitation.

This most accomplished aeronaut is constantly to be seen performing this feat of hovering over many an English field, and despite the severe, though unmerited, treatment he receives at the hands of many a gamekeeper, long may he continue to do.

CHAPTER II.—*Around the House*

ONE does not instinctively, perhaps, turn to the immediate neighbourhood of man to find a special haunt of birds, yet for all that bird-life is there to be found in profusion although it may not be of a very rare kind. The feathered population is well aware of the fact that where man is, food can be found in plenty, and they are quick to recognise and take advantage of any encouragement that may be given them. A little food thrown out of the window during the hard days of winter will not be without its effect on the chorus of song in the spring, besides the opportunity it affords of watching at close quarters those that partake of the meal. Before me, as I write, is a cocoanut shell containing meat fat, suspended from a branch, and on it a Blue Tit is performing some of the prettiest of acrobatic feats. All members of the Tit family are fond of fat or suet, and the simple expedient of hanging it up at once prevents it being speedily devoured by birds for whom it is not intended, and forces the Tits to show off their agility and grace.

A special interest attaches to all birds that can be persuaded to nest in the garden, for it is then easier to watch the progress made. The eaves of the house itself are favourite nesting-places of several

Around the House

species, first and foremost of which is the ubiquitous House Sparrow. There is something truly Anglo-Saxon about him, for, like our race, he above all other birds has obeyed the command to "multiply and replenish the earth." Wherever he goes he flourishes, often, it is to be feared, at the expense of other and rarer birds.

There always appears to me to be a difference between the country-bred Sparrow and his sooty town relatives, who hop unconcernedly about among the horse's hoofs in the cabstand, or coolly avoid the wheels of an approaching hansom in the nick of time. They are cheery, companionable little birds, and I have often enjoyed listening to them as they assembled by hundreds to roost in the ivy outside my college rooms. Such a to-do they made of it, such a chatter; all seemed talking at once, none listening. Perhaps it was a general thanksgiving for their preservation from college cats. I cannot tell. Certainly they made no secret of the fact that they had such comfortable quarters, and a Barn Owl was fully aware of it, for sometimes at night when I have heard a commotion, I have looked out and have seen him, by the light of the gas lamp, beating the ivy, and no doubt making a nice little meal off the inmates.

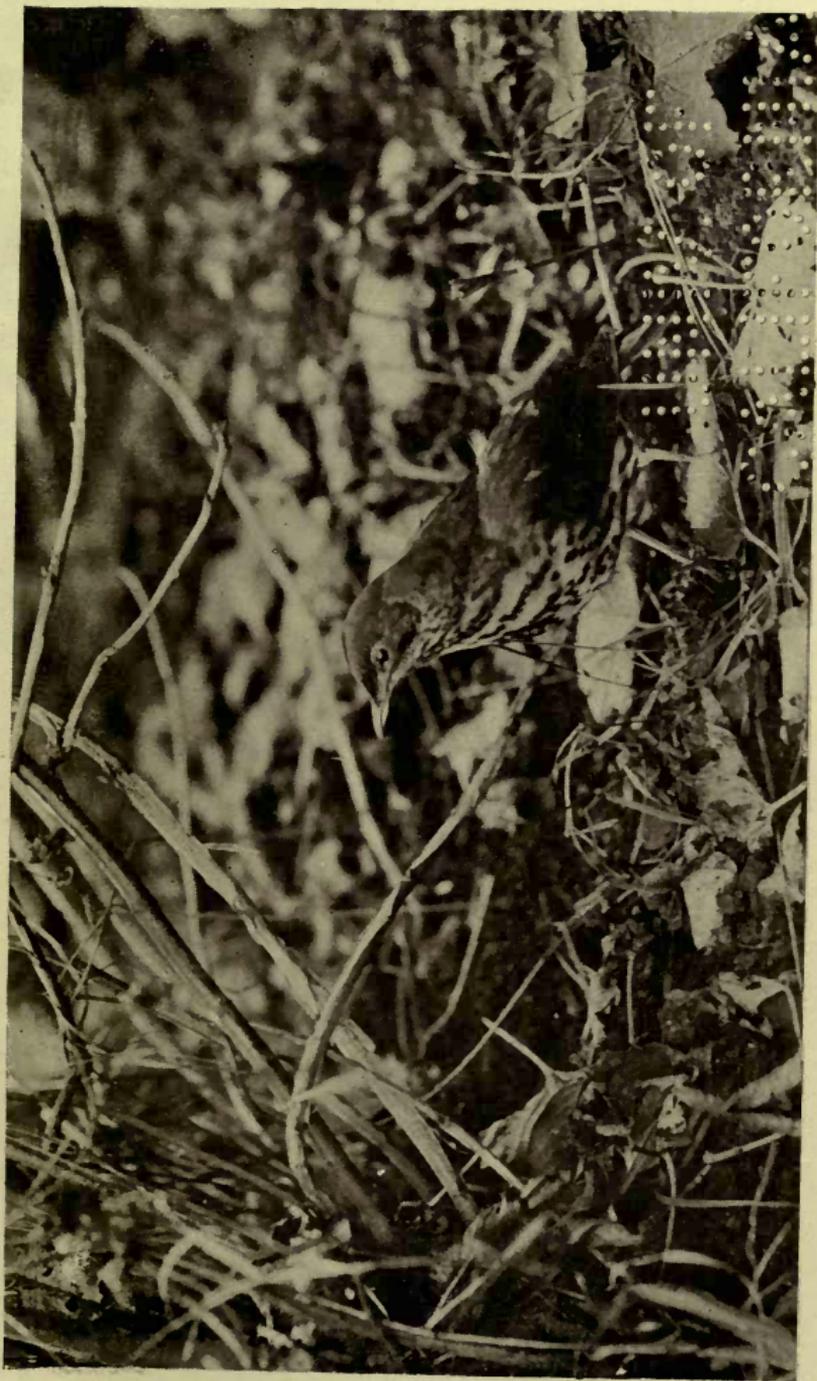
Everyone knows the Sparrow and his untidy nest, but it may be news to some that the housing question is apparently becoming serious even with them. At any rate, a friend of mine told me that

The Bird Book

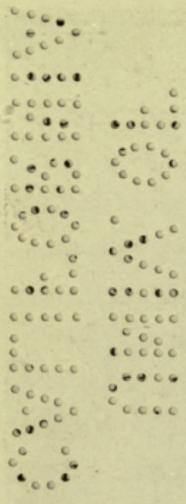
some up-to-date Sparrows in Mile End had adopted the flat system. There were no less than four nests in one erection, and a family was successfully reared in each storey!

Another nester among the eaves is the Starling, no less interesting, if somewhat more shy, than the Sparrow. A hole running right up under the roof is almost sure to tempt him, and when once he has taken up his abode, he returns faithfully to it year after year. It would be difficult to imagine a more greedy or noisy brood than his, yet he appears to undertake his housekeeping duties with a light heart, and no sooner is one lot off his hands than he begins to think of another. Both birds are kept busy in a vain attempt to satisfy the young. The lawn and neighbouring fields are ransacked for worms and grubs, and constant journeys have to be made to and from the nest, each arrival of a parent bird serving as a signal for an outburst of squealing on the part of the family. One would think they must be glad when the approach of winter puts an end to their arduous labours, and young and old fly off to join the vast flocks which assemble in the fields, take rides on the backs of sheep, and help the Rooks and Jackdaws account for a prodigious number of grubs injurious to the farmer.

As a songster the Starling is not great. Perhaps he is too closely related to the Crows for



SONG SPARROW CRACKING A SNAIL IN THE GARDEN



Around the House

one to expect much musical talent, yet it is pleasing enough to see two or three on a frosty morning sitting on a chimney-pot, with heads well thrown back and throats distended, their wings drooped and quivering loosely at their sides, and to hear their incessant liquid chatter, punctuated every now and then by a high whistle. They have, too, quite a reputation as mimics, and the most practised ornithologist must sometimes be deceived by their perfect imitation of the notes of other birds.

Even more welcome than either Starling or Sparrow are the dainty House Martins, whose mud homes just under the roof adhere so wonderfully to the walls. It is a pretty sight to see them clinging to the wall with their white stockinged feet, discussing where the first piece of mud shall be placed, but, for some reason or other, the spot chosen often proves unsatisfactory, and others are tried, till a mud line is drawn horizontally on the wall ere the proper start is made. The birds spend the earlier part of the morning in building, and give up the rest of the day to the dissipation of chasing flies in company with the Swallows, thus wisely allowing their morning's work time to dry and harden ere attempting to add another layer. A small space is left at the top as an entrance hole, and unless, as is frequently the case, a pair of lazy Sparrows eject the rightful owners and appropriate their

The Bird Book

work, the nest is completed with a lining of hay and a few feathers. Four or five white eggs are laid, and during incubation the female is assiduously fed by her mate, who clings to the nest, so that one can frequently see her head peep out to take the dainty morsel from his beak, and hear her prettily twitter her thanks.

Roughly speaking, the House Martin is white below and blue-black above except for a white patch above the tail by which it may easily be distinguished from the Swallow. Indeed in certain lights and positions this is the only part visible and the birds look like silvery-white balls floating mysteriously about. The tail, too, lacks those characteristic spindle feathers which impart such grace to all the Swallow's movements.

The latter prefers an outhouse, barn or lincay in which to rear its brood, building its nest on a beam or against a convenient rafter. The structure differs in shape though not in composition from that of the Martin, being so flat as to resemble a saucer rather than a cup, yet it serves well enough to contain the five or six long, white, tapering eggs marked with reddish-brown.

The regularity with which these birds return to their old haunts after spending the winter in the South, is truly wonderful. The Swallows generally arrive before their confrères, and my note-book gives April 4th and 6th as the dates of seeing the first bird in 1900 and 1901 respectively.

Around the House

Probably the main body arrived within the next ten days, followed closely by the House and Sand Martins. Nesting operations rarely begin before May, and towards the end of June the first brood of Martins may be seen hob-nobbing with the young Swallows, while their parents are busy with the second. Towards the end of September or in the first week of October, if the season be fine, they begin to think of departure. Companies, large and small, collect on the telegraph wires or some convenient roof-top and loiter on for a day or two as if loth to leave us, until suddenly one morning we awake to the fact that they have gone.

One of the last to arrive and the first to go of summer visitors is the Swift, which, in spite of superficial resemblance to the Swallow tribe really belongs to a totally different order of birds. It is a Picarian not a Passerine bird, but we need not enter into the anatomical differences here, merely remarking that the four toes all point forwards. Its colouring is uniformly blackish brown save for a white chin-patch, and this, combined with its long scythe-like wings and extraordinary powers of flight, render it almost impossible for any one to mistake it even at a great distance.

The habits of the Swifts resemble those of the Swallow tribe, for their food consists of insects, taken on the wing, though generally at a greater altitude. Tireless as the Swallow seems to be, it is not so exclusively a bird of the air as the Swift,

The Bird Book

which never voluntarily alights on the ground even to secure the materials for its scanty nest. This is always placed in such a position that the bird can shuffle to the opening and launch forth at once into the air, and consequently the favourite site is under the roof of some building, though occasionally a crevice either in a cliff or tower is used.

The nest is an untidy collection of a few straws and feathers, often cemented by the bird's saliva, and sometimes the two pure white eggs of an elongated oval shape are deposited on an accumulation of dust and cobweb. Occasionally three or even four eggs are found, but it may be doubted whether they are the production of one bird, for Swifts are gregarious in their nesting habits, and a large colony is often sheltered by one roof.

Broad daylight seems no actual inconvenience to them, for they may frequently be seen at mid-day high up in the sky, wheeling in wide circles on apparently motionless wings; but it is towards evening that they become most active. They then issue from their holes, and in companies of ten or a dozen career madly along the street or round the buildings in which their nests are situated, screaming vigorously in chorus, evidently realising to the full all "the wild joys of living."

There is one other bird which earns its living by taking toll of all sorts of winged insects, less common, perhaps, than the Swift, yet to be seen

Around the House

in many a garden, sitting motionless on some post, railing, dead branch, or possibly on the tennis net, till spying a fly, it makes a short excursion, catches it daintily and returns to the same perch to watch for another. Tame yet unobtrusive, quiet both in colouring and habits, the Spotted Flycatcher will always be a favourite with bird lovers, owing to its pretty, taking ways. It is one of the latest, if not the latest, of summer migrants, arriving about the second week in May, but it wastes no time in beginning to build. A variety of sites are chosen; indeed, any sheltered spot seems to suit, be it a hole in a wall, an ivy-covered tree, a branch of a fruit tree trained against a wall, trellis work, or among the "growers" of an elm tree. In all these and many similar positions the nest may be found, somewhat loosely, yet tidily made of almost any material that comes most handy. Four or five eggs are laid, of greenish or greyish ground colour, handsomely marked with reddish brown blotches, which sometimes completely hide the underlying tint.

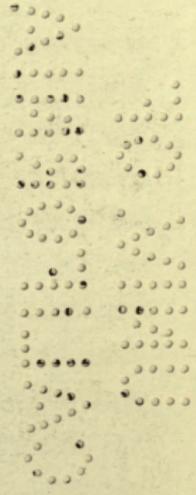
Near the nest the male bird is sure to have some favourite perch commanding an open space, where he sits, on the *qui vive*, occasionally uttering a sharp call-note, accompanied by a flirt of the tail, and his whitish breast, streaked sparingly with brown, forms a pretty contrast to the dark background of the shrubbery.

The very mention of the word shrubbery calls

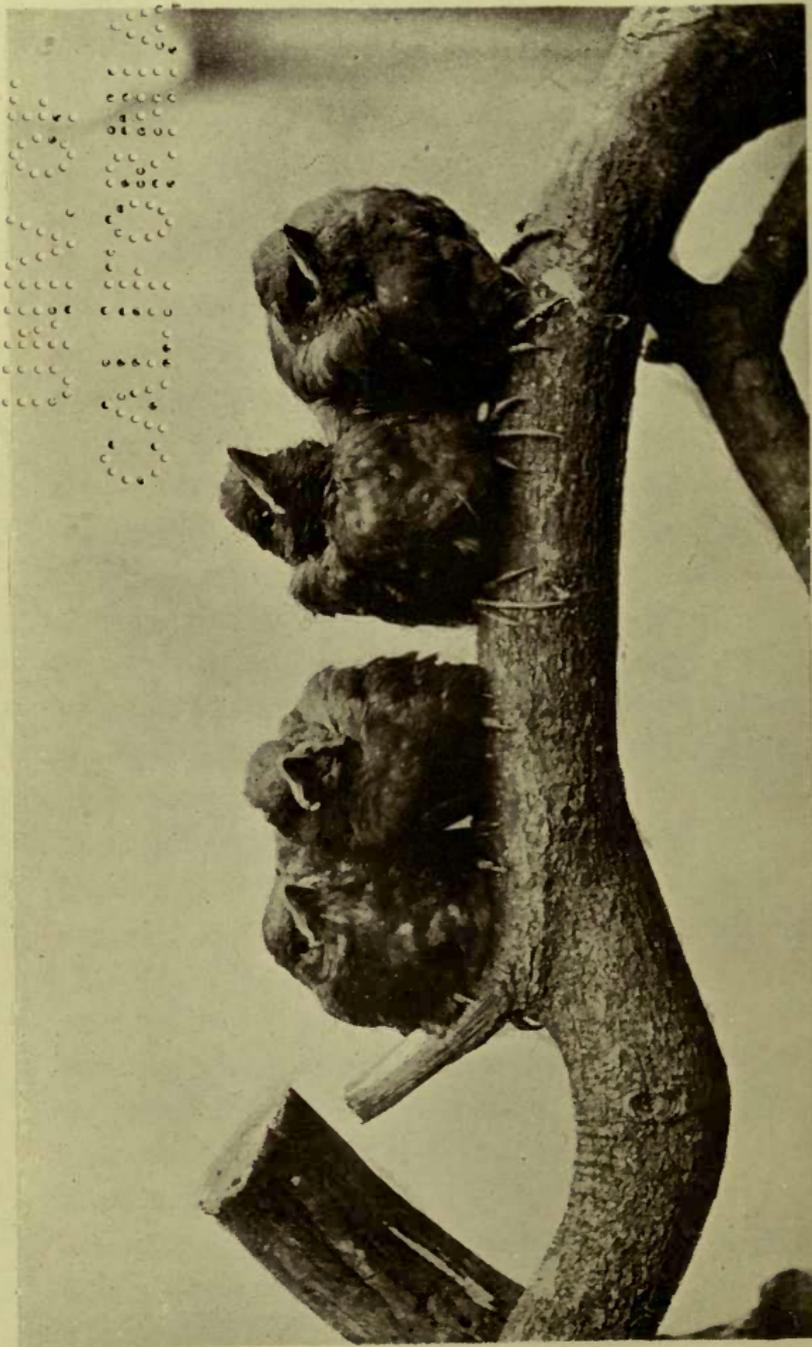
The Bird Book

a host of other birds to mind. How the Blackbirds and Thrushes delight in them! How familiar is the rustling of dead leaves as the birds hop about! How familiar, too, is the tap-tapping of the Thrush as he batters some unfortunate snail on his favourite stone! The shrubbery forms the base of all his operations. Thence he sallies forth on to the lawn with a few rapid hops, and stands listening intently. Suddenly he makes a dash at a worm, which no human eye could detect, and there ensues a spirited tug of war, of which the worm seldom, if ever, gets the better. It is hauled from its retreat and left to wriggle on the grass, while the Thrush looks around to see if he is watched. The next proceeding is to break it up for its young, or, if it does not happen to be the nesting season, the worm receives even shorter shrift still.

Equally familiar are the cock Blackbird, with his bright orange bill, and his dingier brown spouse, sweeping down to the lawn and gracefully raising their tails as they alight. Except during the nesting season the Blackbird is a shy, retiring bird, skulking among thick bushes, and betaking himself, for the most part, to the hedges as the winter draws near. But at least a pair remain faithful to the shrubbery, which affords a welcome cover, especially if they are accustomed to be fed from the windows when snow is on the ground.



100-100-100



YOUNG BLACKBIRDS

Around the House

Well known to man, bird and beast alike is their loud chattering alarm note, "spink! spink! spink!" which causes the rabbits, if they are out feeding, to prick up their ears, or sends them scuttling to their holes. Familiar, too, are its flute-like notes, though some have difficulty at first in distinguishing them from those of the Thrush. The difference is, however, well marked and easy to master, for the Thrush begins to sing earlier in the year than his rival. That is the time to learn his wild, loud notes, and, when the Blackbird tunes up, there will then be no danger of mistaking his mellower tones.

The modest little Hedge Sparrow creeps quietly about the flower beds, uttering a "cheeping" note, or ascends to the top of a shrub to warble forth a pleasing, if short and feeble song. It is easy enough to overlook its efforts in the springtime, when more beautiful songsters are in full chorus, but it deserves our gratitude for enlivening the dull winter months with its cheery trill.

The nest and four or five turquoise blue eggs, when artistically set off by a lining of red cow-hair, form one of the most beautiful sights of the kind—a sight often to be seen in a yew hedge or thick shrub, a gorse bush, or even a bundle of faggots, for such are some of the situations commonly chosen by this unobtrusive little builder. In a framework of twigs and roots the

The Bird Book

structure of moss and dry grass takes a perfectly cup-shaped form, and is neatly lined with wool, hair, and sometimes a few feathers.

Closely allied to the Hedge Sparrow is a bird, without some reference to which this chapter would be incomplete, for in all probability no bird is more familiar or so generally loved as the Robin. The bold assurance with which he treats mankind has won for him a regard that no other bird possesses. There is one before me as I write, hopping jauntily about the lawn with an air of proprietorship, willing, nay, almost anxious, to fight to defend his preserves. The appearance of another Robin is but a challenge to combat, for, truth to tell, he is a pugnacious little fellow, and like the old Teutons, probably boasts of the distance at which he is able to keep his neighbours. At present the one before me is monarch of all he surveys. Sic Requiescat!

CHAPTER III. — *Birds of the Hedgerow*

IT would be difficult to assign to the Hedgerow many species of birds that are not frequently met with elsewhere, yet he who neglects it on that account will miss quite an appreciable element in bird life. And if by the term Hedgerow we mean not only the hedges that divide one field from another, but also those that border the roads and grassy lanes, we shall at once touch upon one of the best of bird haunts.

I have before my mind's eye a wide, grassy lane, only ten or eleven miles from London, bordered by thick hedges, shaded by many an oak, and encroached upon by large bramble patches and dense, wild-rose bushes. It is a little paradise for birds, especially beloved by Nightingales and the Warblers, whose food must exist there in plenty.

So thick is the cover that practically the only way to find nests is to beat the bushes gently with a stick as one slowly walks along, and to listen for the flutter of wings as the birds leave their eggs. In this way many a Hedge Sparrow's, many a Whitethroat's nest comes to light, while here and there we find the still more fragile structure of the Lesser Whitethroat, easily distinguishable by its smaller size and the five or six small, pale creamy

The Bird Book

eggs spotted with greenish or umber brown, forming a zone round the larger end. Those of the Whitethroat are brownish white, thickly marked over with olive brown, with underlying spots of violet grey, but the contrast is not nearly as pronounced as in the Lesser Whitethroat. The birds themselves are not so easily recognised, especially as they are difficult to observe. Skulking about in thick bushes and undergrowth, examining each leaf in search of insects, is quite a feature of the Warblers, and the Lesser Whitethroat is no exception. The Whitethroat does, indeed, show himself more often, but he is always on the move, now settling on the top of the hedge, frequently uttering his scolding note, now fluttering into the air like a Tit Lark and singing as he descends, only to disappear with a flick of the tail on the other side of the hedge. The difference in size between the birds is not so marked as to be a guide to recognition, but the Whitethroat is REDDISH BROWN on the back and the Lesser Whitethroat BLUISH GREY, suffused with brown on the wings.

Here and there are beds of nettles and these are always worth looking through, for down among the stems, either on the ground or just above it, supported perhaps by some dead branch, the Nightingale places its nest. The structure, composed chiefly of dead leaves and grasses, is deep and cup-shaped, neatly finished off inside with fine grasses or rootlets, occasionally with horse-hair.

Birds of the Hedgerow

Two varieties of eggs are commonly met with, olive brown and olive green and a third of bluish green is sometimes though rarely found.

Curiously enough the male Nightingales arrive a few days before the females, and their rich liquid notes are to be heard all day long in the woods and thickets. No words of mine can describe their song. I have stood immediately beneath a branch on which one of these birds has been singing and listened with a kind of reverent awe to the deep full notes which proceed from so slender and fragile a creature. The characteristic notes with which it begins might be rendered by the words "choog, choog, choog," and then follows a flow of music that can only be compared to water bursting from the flood-gates that held it. One watches the quivering distended throat, and marvels. Little wonder that Nature protects such a songster with modest colouring, for it is a russet brown above, becoming more rufous on the lower back and tail, while the under parts are buffish white.

Until quite recently the Nightingale and Robin, to which it is closely allied, were classified by naturalists among the Warblers, but their affinity to the Thrushes has at last been vindicated, owing chiefly to the spotted character of the young.

Among the nettles, too, the Chiff-chaff often builds his home; at least he did in this lane, and the nest matches its surroundings so closely as to defy any but an experienced eye. Dead grass and

The Bird Book

withered leaves are woven into an oval-shaped, domed structure, having the entrance hole at the side near the top. The interior is cosily lined with hair and feathers and contains from five to seven eggs, white, and somewhat sparsely spotted with dark or purplish brown. This little Warbler is one of the first to arrive and soon makes his presence known by his constant cry, "chiff-chaff, chiff-chaff," uttered from the top of some tree, as he scours the tiny branches for food, after the fashion of a Tit.

Passing on, we are likely to discover the nests of the Black-cap and Garden Warbler—even more airily built than that of the Whitethroat and well concealed in some bramble bush. The nest and eggs of both are very similar, but the birds can readily be distinguished by the black crown of the male (rufous brown in the female) Black-cap. Otherwise they are much the same in size, build, and colouring, brown above and whitish below. Both share the habit common to all Warblers of anxiously fluttering round and scolding when any intruder is at the nest, so there is little likelihood of confusing their eggs.

The most usual type of egg is pale olive brown or stone colour, clouded with darker olive and marked with a few blackish brown spots and streaks. In general it may be said that the marking of those of the Garden Warbler is a little bolder and coarser. The Black-cap is one of the

Birds of the Hedgerow

most beautiful songsters that visit our shores and in some people's estimation surpasses the Nightingale. Certainly its song is more sustained, but in my opinion its notes lack the fulness and depth so characteristic of the latter bird.

Another little denizen of the lane is the Long-tailed Tit. Birdland has few prettier sights to show than a family of these little birds working a hedgerow in winter, playing a kind of follow-my-leader game, flying from tree to tree or bush to bush in Indian file with rapid undulating flight and making quite a respectable appearance as regards numbers. Though closely related to the other Tits, they are distinguished by having the tail longer than the wing and also by their colouring, which is black and rose colour above and whitish tinged with light rose below. The head, too, is dullish white marked with broad black eyebrows extending along the sides of the crown.

But its architectural skill is, perhaps, its chief claim to distinction. The nest is a truly exquisite structure, rivalling, if it does not surpass, the most beautiful homes of the Gold Crest, the Chaffinch or the Reed Warbler. It is large, compared with the size of the tiny builders, domed, having the entrance hole at the side near the top, beautifully soft, yet firmly knit, composed principally of moss, wool and spider's web, strengthened with a few grasses and plentifully adorned with lichens and thickly lined with feathers.

The Bird Book

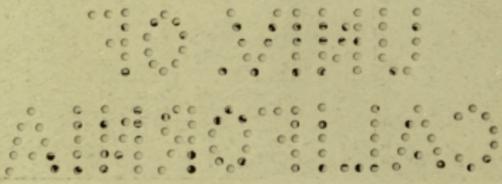
The little proprietors choose a variety of sights, showing, perhaps, a preference for gorse, yet not despising holly or thorn hedges, a few feet from the ground, so that detection seems inevitable, and at other times they place it high in the fork of some lichen-covered tree, where it harmonises well with its surroundings.

I have frequently sat for hours at a stretch within a few feet of the nest, watching the tiny builders at work. Their industry is remarkable, yet so infinitesimal are the pieces added that I have invariably failed to notice any increase after three or four hours' work. Both birds go in quest of material, flitting from bush to bush, sometimes journeying a considerable distance, yet always keeping close to each other, continually calling to and answering each other with their peculiar low, lover-like "churr." On returning to the nest with the results of their forage, one waits outside while the other enters and disposes of the material, shaping the interior by turning round and round, pressing its breast against the walls, its presence alone indicated by an occasional heave which visibly shakes the whole structure.

The bird then hops out and turns to toilet operations, while its mate enters and goes through the same performance, or, if the nest is still cup-shaped, stretches its head over the sides and arranges its material so as to heighten the walls. To complete the lining the little builders



A NIGHTINGALE'S NEST



Birds of the Hedgerow

often have to fly to the nearest copse, where there are usually plenty of Pheasants' feathers, and the number of their journeys may be imagined when we hear that Gould counted no less than 2000 feathers in the lining of a single nest !

Perhaps more exclusively a bird of the hedgerow than any yet mentioned is the Red-Backed Shrike, commonly known as the Butcher Bird, owing to its curious habit of impaling large-bodied insects and even small birds on thorns close by its nest. While its hooked beak, with a prominent notch or tooth, gives it the appearance of a small Falconet, its habits remind one of the Flycatcher. It undoubtedly has its favourite perches, from which it descends on some beetle or mouse, and to which it returns after a capture. Consequently, it is frequently seen on telegraph wires, especially if there happen to be a thorn hedge in the neighbourhood, which fulfils all the requirements for both nest and "larder." The male is an exceedingly handsome bird. The head is grey, with a black stripe running from the base of the beak, through the eyes, as far the ear-coverts. The back is bright reddish brown, giving place to reddish grey above the tail. The under parts have a rosy tinge. Everything combines to make him a striking object as he sits on the outside of a hedge, but the female is by no means so conspicuous. The grey on the head is duller and

The Bird Book

washed with brown, the eye stripe is whitish yellow, the back is a rusty brown, while the under parts are whitish barred with greyish brown.

The Butcher Bird arrives in May, and confines itself chiefly to the south of England, though even here it is local. To the north-west of London and around Cambridge it is plentiful enough, but is quite a rarity in Devon and Cornwall. The nest is rather large for the size of the bird, somewhat resembling a small Black-bird's from the outside, but is lined with fine grass, wool, and a little hair. One is rather at a loss to account for the fact that two varieties of eggs occur with equal frequency in the same districts, yet so it is. One is of creamy white ground colour, marked with clearly defined rufous spots, and also underlying spots of violet grey. The other variety is greenish white, with brown markings and underlying spots of the same tint as in the first, and in both the spots tend to form a ring round the larger end.

But let us leave so favoured a spot as the lane I have attempted to describe and turn to the ordinary roadside hedge bank. There is no dearth of bird life here. Neatly hidden in the bank is a Robin's nest with five creamy eggs speckled with reddish brown. The parent birds hang around anxiously, but our attention is attracted by a rustling sound, and we see a little brown Wren threading its way

Birds of the Hedgerow

through the densest undergrowth with mouse-like agility. Presently it flies out, its beak full of moss, which, however, seems in no way to hinder the flow of rippling song. It crosses the road, alights in the hedge, runs along and suddenly disappears. Soon it flies out, but there is no moss in its beak, and, on reaching the spot, we see a beautiful little domed nest, made of leaves, moss and bents, with a perfectly round entrance hole near the top. Later on it may be lined with feathers, and contain six or more white eggs faintly speckled with red, but we cannot be sure, for the male has a habit of passing the time by building "cock's nests," and so keeping himself out of mischief while the female is sitting. These nests are never lined, and apparently serve no useful purpose, except that of distracting the attention from the real nest. Members of the Tit family may often be found cosily quartered in them, but only once have I seen a "cock's nest" occupied at night by its rightful owner.

A little further on we stop before an ivy-covered tree. A pair of Chaffinches are flitting restlessly about. Spink! spink! Why *will* we not move on? Spink! spink! We have already noticed the Chaffinch as one of the most accomplished architects, and his nest might escape detection more often than it does, if the parent birds would forego the habit of playing hide and seek with the passer-by, and not cry out as soon as he

The Bird Book

is "warm." Ah! there is the nest, neatly concealed by the ivy and supported by a branch which it closely resembles. It is beautifully compact, woven of moss and dry grasses, decked with lichens, and lined with hair and feathers.

The male is much more brightly coloured than his mate. Picture him if you can thus: his head and nape bluish, back chestnut brown, giving place to a beautiful green above the tail. The under parts are "pale vinous red," while a white band across the wing sets off the whole. At last we move on, and he gives vent to his relief with his cheery trilling love-song, while his soberly coloured spouse returns to the nest to admire her eggs before commencing the more serious task of sitting.

By many a roadside the Yellow Hammer is quite a feature. He sits stolidly on the telegraph wires or on the top of the hedge, and occasionally utters a harsh note, varied by his well-known song, "Å little bit of bréad ańd nō—cheese." Stolidity is a characteristic of the Bunting family, and we are able to get very close to a fine male bird. He signifies his uneasiness by frequent flirts of the tail and moves his head from side to side, but apparently cannot quite reconcile himself to the effort of flight. His head and underparts are yellow, streaked with blackish brown at the flanks, and the back is bright reddish brown, but

Birds of the Hedgerow

presents a streaked appearance as the feathers have black centres.

The female is a close sitter, and no doubt is anxiously watching us from her nest. A short search results in its discovery. She flies out from the bank where her nest is placed in a hollow, concealed by a tuft of long grass. Occasionally the Yellow Hammer builds in a thick black thorn bush near the ground or in gorse, but usually the nest is found on the ground itself, made of dry grass, roots, and a little moss, lined with fine grass and horse hair.

The eggs, too, are characteristic of the Bunting family, for the stone-grey ground colour is curiously scribbled over with black markings.

While we take note of all this, the male wakens up somewhat, but we have to leave him and the hedgerow for the field, though until we are out of earshot we can hear our little friend repeating his refrain—

“ A little bit of bread and nō—chēese.”

CHAPTER IV.—*Birds of the Field*

IT seems the most natural course to regard the fields as constituting one of the great feeding grounds of bird kind, for the species that build their nests in them are few, compared with those that resort thither to obtain a large proportion of their food, while in winter they are the rendezvous of those vast assemblages of birds which then form the most noticeable feature of bird-life. This tendency to flock together strikes us as being unreasonable at a time when food is naturally scarce, until we reflect that it is also just the time when their enemies are most active, and realise that it is a defensive measure.

Everyone must have watched the huge coveys of Starlings noisily quartering the fields in search of grubs, working as if life itself depended on their haste, jostling each other, squabbling out of jealousy, hopping into the air and sparring at each other, and then, as if suddenly remembering that life is too short to quarrel, resuming the all-important task of bread-winning with increased vigour.

The Rooks pursue a similar object in a much more dignified way. Though even more gregarious than the Starlings, they believe in giving each other plenty of elbow-room, and extend in open order all over the field; each bird stalking

Birds of the Field

solemnly about on its own quest, and signifying its success by an occasional "caw." How corporate a community is the Rookery, and how highly organised! The birds nest together in a few neighbouring trees, and become so attached to their home, that only the most persistent persecution will drive them away. They adjourn to a field to feed together, and even post sentries on the nearest trees to give warning of any approaching danger. If we could only understand their language, what might we not learn? True, it is unmistakable enough when we ascend the trees to their nests, but if we could only hear the talk that goes on as they return in the evening and hold a parliament before settling down to roost!

Towards the end of February the birds begin to repair their old nests, strengthening the framework with fresh sticks, mud and bits of turf, where the winter storms have wrought much havoc. The centre of the nest is cup-shaped, lined with grass, and much more neatly finished off than the rough exterior would lead one to expect.

To most people the Rook is a "Crow," I suppose on account of his blackness, but there is no real difficulty in distinguishing the one from the other. The difference in size—for the crow is the larger bird—is not, indeed, sufficiently great to be readily appreciable, even if the birds are together, but the greyish white patch of bare skin

The Bird Book

at the base of the beak at once reveals the Rook's identity. If another guide to recognition is required, it may be found in the fact that, while the Rook is gregarious, the Crow is usually found hunting in couples, for it probably pairs for life.

It has already been stated that the bulk of the Rook's food consists of grubs, yet he is practically omnivorous. Nothing seems to come amiss, be it grain, fruit or flesh. If the grubs fail owing to frost or drought, he will prey upon young birds, steal the eggs of those birds which nest in the open, or play the part of scavenger on the seashore. But what the Rook is by necessity, the Carrion Crow is by profession, and consequently he is not exactly regarded with favour by the gamekeeper, if we may judge by the array of heads we so frequently see nailed up as trophies. Considering this treatment, it is not surprising that the Crow is a somewhat uncommon bird, though in Hertfordshire and some parts of Middlesex it appears in considerable numbers. Elsewhere it is on the rocky coasts that I have met with it most frequently, and there it nests after the manner of a Raven, of which bird it is indeed a miniature.

In the former districts the pair usually selected some tall isolated tree, either in a field or hedge, and built their nest high up in a fork of the main stem, or occasionally at the extremity of some branch, in such a position that the sitting bird could command an extensive view of the surround-

Birds of the Field

ing country. The nest is similarly, though less tidily made, to that of the Rook, and the lining is a rare collection of such odds and ends as cow and horse hair, wool, grasses, rags, paper and string. There is a great similarity in the eggs of all the Crow family. In general the ground colour is green or greenish blue, mottled or clouded with darker green, and spotted with brownish black. Those of the Crow may be distinguished from the Rooks by their larger size and, usually, deeper ground colour.

Another familiar figure in the fields during winter is the Lapwing, for then a partial migration takes place. Vast battalions of these birds make their way southward from the moors in Scotland and the north of England, and quite swamp the few that remain faithful to the south throughout the year. It is a fine sight to see a large flock on the wing, now densely packed, now extending into a long quivering wavy line, wheeling to right or left, following the example of their leader with the regularity of well-drilled troops. Especially fine is the sight, if the sun is shining brightly and there is a dark snowcloud for a background; then their manœuvres are little short of magical. At one moment the birds appear black, the next at the command of their leader they turn and disappear from view, anon reappearing gleaming white in the sunlight, standing out in the strongest contrast to the heavy clouds.

The Bird Book

Towards evening they become especially active and make for the marshes and mudflats of tidal rivers or for the seashore, where they feed for a considerable part of the night. At such times they are difficult to approach, and to know them truly one must visit them in their nesting haunts. They breed in small and large colonies almost wherever there is suitable open or marshy country, and I have met with them in small numbers quite close to London nesting in the grass pastures. Even here the eggs were rather difficult to discover for their dirty olive green colour, blotched with blackish brown, harmonises wonderfully with the surroundings, while of nest there is scarcely any. A slight depression is scantily lined with grass and four eggs are laid with the small ends all pointed towards the centre. In this way they occupy the least space and well the bird knows it, for if they are touched and their position altered the female always rearranges them on her return to the nest.

In the general winter gathering of the clans the Thrush family too is well represented, for besides the inevitable Blackbird and Song Thrush, family parties of Missel Thrushes congregate, and if the weather be cold, Fieldfares and Redwings make their way south, and spread over the country in vast numbers.

At this time the Missel Thrushes are very shy, keeping well out in the middle of large fields,

Birds of the Field

and taking flight on the first approach of man, the white feathers beneath their wings making them conspicuous as they rise one after the other. In the nesting season, however, they are bold enough, and I have frequently seen them attack and drive away a Kestrel or Jackdaw that ventured too near their young. They begin to build so early and set to work so quietly that they attract but little notice, and before the cold March winds have ceased to blow the nest is completed, and four bluish green eggs, speckled with reddish brown, are laid. It is constructed after the usual Thrush method—first a rough, cup-shaped framework of bents, moss and wool; then a lining of mud is added, and the interior is finally finished off neatly with a second lining of fine grasses. Placed high up in a fork of some tall tree the nest is to an unpractised eye difficult to discover, especially if the builders have decked it with lichen. A certain slovenliness, however, often betrays its whereabouts. Long stalks of grass left hanging loose, bits of wool insecurely fastened and rendered yet more untidy by the wind, catch the eye, and the owner's secret is disclosed. Some apparently trust to inaccessibility for safety, making no attempt to conceal their nest, while others resort to orchards, building low down in the fork of an apple tree with a trust that boy nature too often fails to justify.

The Missel is easily distinguished from the

The Bird Book

Song Thrush by its greater size and its paler plumage. The breast lacks the beautiful yellow tinge that characterises the smaller bird, and the spots are larger and bolder. A further distinction is afforded by its voice. No one, who has once heard its harsh alarm cry, tr-r-r-r-r, tr-r-r-r-r, can possibly mistake it afterwards; but, despite the more familiar, unmusical cry, it has a song, often uttered in the winter months when it is supposed to indicate a coming storm. Its clarion notes are wilder than those of the Song Thrush, and may be heard all over the country side.

All these birds are of immense service to the farmer, freeing his fields of numberless grubs, which are injurious to his crops. But the farmer has enemies other than grubs, and of such the field-mouse is not the least destructive. Here again the birds are his best friends. All day long the Kestrel is on the watch, hovering now over one spot and now another. A mouse, keeping perfectly still, on the bare earth would probably escape the notice of most human eyes, but it rarely gives the Kestrel such a favourable opportunity. It forms tunnels and galleries among the grass stems, in order to move above ground without being completely exposed, but even there the Hawk seems to detect the slightest movement.

We cannot wonder that such a hunted creature is timid, for even at night it cannot venture forth

Birds of the Field

in safety. The Owl is probably a more deadly enemy than the Kestrel, dropping noiselessly and unerringly on its prey. If we marvel at the Kestrel's power of sight, what shall we say of that of the Owl, which pursues the same quarry in the dark?

Some years ago when corn was threshed with the flail, mice became such a pest that almost every barn had its Owl. More recently, however, they have been subject to much persecution, and their ranks are terribly thinned. Fortunately, there is proof positive for anyone willing to be convinced that the Owl really does far more good than harm. The bird has the habit of casting up all the more indigestible parts of its food in "pellets," and an examination of these establishes the bird's innocence. *The Zoologist* for May 1897, giving the result of the investigation of 54 pellets, states that they contained bones of 8 sparrows, 1 blue tit, 1 rat, 14 house-mice, 1 water vole, 60 field voles, 3 bank voles, 49 shrews, 3 water shrews, and 1 lesser shrew. Another feature of these pellets is the presence of the burnished wing-cases of various beetles, and this together with the account quoted should give a fair insight into the bird's real diet.

The habit of hovering already referred to is practically peculiar to the Kestrel. No other bird sustains the feat for so long a time, and this at once distinguishes it from the Sparrow Hawk,

The Bird Book

which hunts in a very different way. It sits on some exposed branch from which it can readily observe and sail down on its prey, or it glides along a hedgerow, skimming over the top when it reaches the end, then tries another, hoping to pick up some small bird that has the temerity to sit on the outermost branches. The Sparrow Hawk belongs to the so-called "ignoble" section of its tribe, for its wings are blunt, and it has, therefore, no powers of speed to enable it to give chase as do the Peregrine and the Merlin. Notwithstanding this, it is for its size one of the boldest of birds, and does not hesitate, when hungry, to enter a farmyard and carry off a young chicken. Certainly the gamekeeper has more justification for the war he wages on it than for his persecution of the Owl, for the coveys of young partridges and grouse, and even the young pheasants more directly under his care doubtless contribute towards the support of the Sparrow Hawk's family.

The mention of the Partridge brings us to those birds that may more truly be termed the residents of the field. Probably the Partridge is known to most people chiefly from its dinner-table aspect, or from the sportsman's point of view, but this must not concern us here. Unlike its more brilliant polygamous relative, the Pheasant, this bird has a distinct family life, until September 1st. The Pheasant is a notoriously bad parent and the keeper

Birds of the Field

has to collect the eggs and hatch them under a fowl. The Partridge, however, shows strongly developed parental instincts, and I was fortunate enough to witness a charming example of it not long ago. Getting over a stile at a corner of a field I flushed a large covey of some two dozen birds—the amalgamation of two families. The young were not strong fliers and, as if by some pre-arranged plan, one parent bird wheeled off with all the young over a hedge, while the other three dropped down in front of me as if shot, and, feigning disablement, fluttered along before me the whole length of the field. It is said that the French Species or Redlegged Partridge is teaching our English bird bad habits as regards running, when it ought, from the gunner's point of view, to rise. However this may be, it has a fairly near relative that trusts to its legs rather than its wings for everything save migration. Indeed, it is a source of wonder how the Corncrake can sustain such a prolonged flight as it is then forced to take. So skulking are its habits that many, to whom its craking voice is familiar enough, have very hazy notions of the bird itself. Head, neck, back and tail are reddish-brown streaked longitudinally with dusky black. The underparts are pale yellowish brown or light buff-barred at the sides with two shades of reddish brown.

The nest, whether placed in a field of long

The Bird Book

grass, clover or standing corn, is always well concealed, and, as the bird sometimes lays very late and sits closely, it is not uncommon for individual birds to be decapitated by the mowing machine. From seven to ten eggs are laid, light buff speckled and blotched with reddish brown and ash grey.

It is seldom that any nest placed on the ground is easy to find, and most people imagine that the Skylark has reached the acme of perfection in the art of concealment. Certainly the nest is a difficult one to discover, but a systematic search is usually successful. One of the best methods is to get a friend to help you to drag a rope over a rough pasture field and carefully mark the spot from which the sitting bird rises. A rather more lengthy proceeding is to watch the birds through a telescope. The nest, usually approached by a "run," which sometimes leads to its detection, is built of grasses with a scanty lining of rootlets and horse-hair. The four or five eggs are of a dirty white ground colour, often entirely clouded over by spots of olive brown and underlying markings of greyish brown. The Skylark itself is too general a favourite to need description. Everyone must have listened again and again to its song in the springtime and watched the singer soar on quivering wings till it became a mere speck against the blue sky. Yet all the while its notes can be heard with perfect

Birds of the Field

distinctness and the practised ear can detect snatches from the songs of other birds reproduced with striking exactness.

Intermediate between the Larks and Warblers is a family which includes the Wagtails and Pipits. Two of the latter species, the Tree Pipit and the Meadow Pipit call for our attention here. Their plumage is streaked after the manner of a Lark, and the similarity between the two birds renders their identification somewhat difficult for a beginner. The unfailing test is furnished by the hind claw. That of the Tree Pipit is curved and shorter than the hind toe, while the Meadow Pipit's is longer than the toe and nearly straight. As it would be somewhat futile to command the birds to stand at attention and present toes, the field naturalist needs some rather more visible sign. The Meadow Pipit is smaller and not so brightly coloured as its relative, but *the* great guide to recognition is to be found in their habits. The Tree Pipit, as its name implies, prefers the woodland districts, and from some favourite perch launches itself into the air, mounting and falling in the most graceful manner, uttering its song the while. In Middlesex a favourite nesting place was furnished by the railway embankments, and the male birds were fond of sitting on the telegraph wires overhead whence they could perform their aerial evolutions. The Meadow Pipit on the other hand is a lover of the open, spending the greater part

The Bird Book

of its time on the ground, nesting under a tuft of grass or heather in the fields, on the hillsides or the moors. The eggs are of a French grey ground colour thickly dotted over with light or dusky brown and differ largely from those of the Tree Pipit. The latter are difficult to describe, for they vary from a purplish or pinkish red to a stone grey ground colour and are marked with minute dots or bold blotches, sometimes collecting in a ring at the larger end.

Though they are said to eat worms and even grain when driven by hunger, both species feed chiefly on insects, which are captured sometimes in the air after the manner of a Flycatcher but more often after the fashion of Wagtails, which they resemble in the curious "dipping" motion of the tail. Hence they are often to be seen running about the pasture fields, following the grazing cattle, and making a meal off the flies that those animals invariably attract. In the winter the Meadow Pipit resorts largely to the saltings of the seashore or betakes itself to the turnip fields, and so strong is their scent that most sporting dogs "point" them. The gunner, who is on the *qui vive* for a Partridge, is startled to see an insignificant little bird rise with a flutter from the ground almost beneath his feet and drop into cover again a few yards further on, or circle around uttering a "peeping" note. On such occasions they attract attention which may be natural, but certainly is not historical.

CHAPTER V.—*Woodland Birds*

WE have already seen that many birds are by no means averse to man as a near neighbour, owing to the abundance of food he consciously, or unconsciously, provides, and the same feature is noticeable in connection with the woods. The small coppice close by a village is far more prolific in bird-life than the dense wood, stretching maybe for miles, remote from any human habitation. In the latter not only are individual birds less frequent, but the variety of species is more limited. The Crow tribe is much in evidence. Indeed, the hoarse rattle of the Magpie and the Jay's harsh scream seem the most fitting sounds to break the silence of the woods, while the mocking laugh of the Woodpecker has something startling and uncanny about it. Still more noticeable is this dearth of life in winter, when, bereft of leaves, the woodlands assume a totally different character, and their stillness becomes well-nigh oppressive. The silence can almost be felt. You wander along some woodland path and imagine yourself to be the only living creature near; you start at the rustle of the red-brown carpet of dead leaves or the snapping of a twig beneath your foot. Your ears are strained to catch the slightest sound, when suddenly you stumble upon a troop

The Bird Book

of small birds, journeying together through the woods. The silence is broken by the loud, cheery note of the Nuthatch, which is quickly espied running nimbly up and down the larger boughs, stopping to tap vigorously here and there, followed by a suite of Tits, Treecreepers and perhaps a Gold-crest. Let us suppose that we are watching such a procession. Placing ourselves in the line of route, they pass close by us and, if we keep still, apparently ignore our presence. This power of keeping still is the great secret of observing birds; indeed, it is one of the axioms of successful field study, the key that alone can unlock many a woodland mystery. While keeping still I have seen birds settle on the ground within a yard of me and behave as if quite unconscious of observation.

Of the birds we are watching, the Nuthatch first claims our attention, and immediately becomes a warm favourite, for he is a fascinating and whole-hearted little bird—the very soul of energy and activity. There is an abandon in all his movements, and when he has discovered his prey lurking beneath the bark, he works with feverish haste till it is dislodged, literally converting himself into a living hammer. Body, neck and head are kept rigid, and, swinging from his powerful legs, he brings down his bill unerringly with all the force of which he is capable, making a loud tapping noise, which can be heard at a considerable distance.

Woodland Birds

It seems a matter of indifference to him whether his head is uppermost or not, whether he is above a branch or beneath it; the law of gravitation appears for once to be at fault. Such behaviour might well lead the beginner to suppose him to be a Woodpecker, but the arrangement of the toes proves that he is a true percher. Three point forwards and one back, while those of the Woodpecker are evenly distributed. A further distinction lies in the fact that the Nuthatch makes no use of his tail while climbing, and the feathers are consequently soft and pliant.

In colouring, too, he is quite different. From the crown of his head to the tip of the centre tail feathers he is uniformly slate-blue above, while the underparts deepen from an ashy grey under the chin and throat to a light fawn colour on the breast, which, in its turn, gives place to chestnut at the flanks. The contrast is heightened by a black eye-stripe which extends from the beak some distance down the neck.

The nest is always placed in a hole, generally in the trunk of the tree, sometimes in a large bough and occasionally in a wall, and if the entrance hole is too large to suit the bird's taste, he plasters it up with mud till it is the right size. Apart from this curious habit, the building operations are not elaborate. A few leaves, flakes of bark or chips, when the bird has to enlarge the hole, are the only materials used, and on this rough litter the

The Bird Book

female lays from six to eight white eggs marked with dark red on the larger end.

But we must turn from the Nuthatch to his suite. His vigorous tap-tapping frightens the insects lurking behind the bark and they come running out only to fall victims to the Tree-creepers and Tits, which thus secure the leavings of his feast.

Both in colouring and character the Tree-creeper is the antithesis of the Nuthatch. Viewed from a little distance it appears sombre-brown, not easily distinguishable from the tree, up which it climbs with somewhat jerky motions. On closer inspection, however, it proves to be dark brown tinged with golden-buff, streaked with paler brown and ashy-grey on head and back. This gives place to orange-tawny on the rump and upper tail coverts, while the underparts are white, more or less soiled from contact with the trees.

Modest, retiring and delicate as the Nuthatch is gay, bold and sturdy, the Creeper always attempts to keep the tree between himself and any possible observer, only betraying his presence by occasionally craning his head round to see if the coast is clear. When unconscious of observation he ascends the tree systematically and spirally, working his way to the extreme ends of the branches, pausing here and there to extract some tit-bit from a fissure in the bark—a task for



YOUNG JAYS

Woodland Birds

which his long, slender, decurved beak is peculiarly adapted.

The nest is sometimes placed in a hole, but according to my experience, much more frequently behind some partially dislodged piece of bark, the materials used being slender twigs, dead grass, sometimes little chips of decayed wood, wool, moss and feathers. Five or six eggs are usually laid, but as many as nine have been found.

The Treecreeper is always an interesting bird to watch, but on one occasion I was especially amused at an attempt at deception on the part of one engaged in building. Noticing that the bird held some material in its beak, I waited for it to show me where its nest was situated, but this, apparently, was just what it did not wish to do. The Creeper continued climbing for perhaps eight feet, crying out from time to time with rather an anxious ring in its long-drawn note. Then it flew to another tree, which it climbed in a similar, aimless sort of way, then to another and yet another. Seemingly the limit of its patience was reached, for at last it lit on the tree, where I had already suspected its nest to be. About ten feet from the ground the bark had been partially torn away, forming a very attractive site. The bird mounted steadily towards it, till, with a sudden side-long dart, it disappeared behind the bark. When the fresh bit of material was disposed of to its taste, with one quick movement it was out of its hole

The Bird Book

and quite a foot to one side, continuing to climb as if nothing unusual had happened, till, judging the deception complete, it flew off in search of more material.

The Tits, however, form the bulk of the procession we are watching. Four species are frequently met with and we should be able to distinguish them at a glance. The Great Tit is at once marked off from his fellows by his superior size. He is a cheerful individual, making the woods ring with his bell-like, see-saw note and dresses to suit his character in a sprightly yellow waistcoat, divided in the middle by a broad, black, velvety band. The crown of the head is jet black, the cheeks white, and the general colouring of the back and wings bluish green.

The Blue Tit is marked on a similar pattern, but not so audaciously. The black line running down the chest and stomach is almost wanting, while the black crown has been exchanged for one of a beautiful cerulean blue. The two birds that really are in danger of being confused are the Coal and Marsh Tits, but these distinctions may be looked out for. The Coal Tit has a patch of white at the back of the neck and white cheeks outlined, though not very distinctly, with a black border. The crown of the Marsh Tit is entirely black, extending down to the nape of the neck; the cheeks are whitish yellow and gradually merge into the colour of the breast. Moreover, its back is

Woodland Birds

decidedly brown; that of the Coal Tit is greenish olive. The nests of all four species are rather loosely-made structures of moss, wool and hair, lined with feathers, and placed in holes, either in a tree or a wall. The Great and Blue Tits are, however, by no means particular, showing quite a penchant for lamp-posts, and they have, on occasion, patronised letter-boxes, pumps, gateposts, shutes, and other out of the way places.

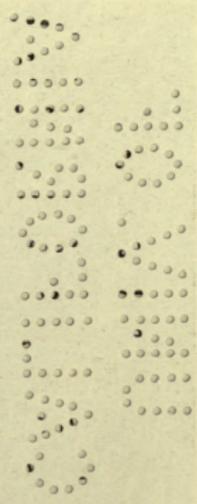
For some reason or other the eggs of almost all birds that nest in holes are pure white or, at most, white spotted with red, the Tits' being among the latter. It is easy to explain the coloration of some species of eggs, the Plover's for example, on the ground that it is protective. For eggs in holes protective colouring is, of course, unnecessary, and that, I suppose, accounts for the complete absence of pigment. When there is no longer any use for a thing Nature slowly but surely takes it away. Still, protection is not the only consideration regulating the colour and marking of eggs. Those of the Thrush, for instance, are most conspicuous as they lie in the nest, and there could hardly be a greater contrast than that formed by the white eggs of the Woodpigeon and the dark platform of twigs on which they are laid. Obviously, the theory of protection does not hold good here, but we have not space for mere conjecture.

What a change comes over the woodlands with

The Bird Book

the advent of spring, when the trees begin to put forth their fresh green leaves! The companies of birds break up, and each pair begins to think of setting up house. The Summer Migrants gradually return to their old haunts. Chaffinches utter their joyous love songs, and the more stolid Greenfinches call each other by the Christian name, "Jo-ey, Jo-ey." The woodlands are alive with music; Blackbirds, Thrushes, Wrens and Robins join in chorus with the Nightingales and Blackcaps, and all the meaner songsters give of their best. Above all there rings out every now and again the loud laugh of the Green Woodpecker, or we may hear his tapping, as he drills a hole for his nest in some decaying tree. So engrossed is he in his task, that we may creep up quietly, and watch him at work, without his being aware of our presence. In general, however, he is an extremely shy bird, and, conscious perhaps of his brilliant plumage, he quickly slips round to the opposite side of the tree on the approach of a would-be observer, who, after cautiously stealing to the spot, is often mortified to hear a mocking laugh proceed from another tree a few hundred yards away.

The colouring of the Green Woodpecker, though so brilliant that it gives the bird an almost foreign appearance, harmonises to a far greater degree with its surroundings than would be expected. Its back is olive green and the folded





YOUNG BLUE TITS

Woodland Birds

wings hide a patch of peculiarly vivid yellow on the rump, which, however, makes the bird a conspicuous object as it flies from tree to tree with its curious undulating flight. The crown is crimson, and the male has a broad moustachial stripe of the same colour, that serves to distinguish it from the female, in whose case the stripe is black.

The Green Woodpecker is quite a common bird in well-wooded districts of the south of England, where old decaying trees form never-failing storehouses of their food. From Yorkshire northwards they become increasingly rare, and from Ireland only three records are forthcoming.

Two other species are indigenous to this country, both belonging to the Pied Woodpeckers. As the name implies, their general colouring is black and white, but a marked difference in their size prevents confusion. Accordingly, they are known as the Great and Lesser Spotted Woodpeckers, but many people object to the terminology on the ground that it is cumbrous, and would substitute the names "Spotted" and "Barred" Woodpeckers respectively. The male birds of both species are adorned with a handsome crimson crown, which is denied to the opposite sex, though the female Lesser Spotted Woodpecker is to some extent compensated by a crown of brownish yellow. That

The Bird Book

of the female Great Spotted Woodpecker is black.

The nesting habits of the three species are similar. A hole is bored with beautiful regularity through the hard outer case of a decaying tree; then the tunnel turns downwards and widens out into a chamber at distances varying, according to the species, from six to twenty inches below the entrance hole. No nest is made unless the litter of powdered wood and chips at the bottom of the chamber is worthy of the name, and the same hole, if not appropriated by starlings, often does duty for more than one year. The eggs, from four to eight in number, are glossy white, and the species may easily be determined by their respective size. Identification is rendered still more certain by the probability of seeing the parent birds.

I was once fortunate enough to see a Great Spotted Woodpecker working at its hole not six feet above my head, quite unconscious of my presence. It was enlarging the entrance hole, and the blows of its beak were so rapidly delivered as almost to make one continuous sound. Another nest which I found within nine miles of London contained young ones, and here at least the old birds had not removed the chips from the foot of the tree, as they are said to do, from fear of these leading to its discovery.

On my climbing to the nest, the young began



NUTHATCH AT WORK

THE UNIVERSITY OF CHICAGO

LIBRARY

1900

Woodland Birds

a tremulous squealing, which reminded me very much of young Kingfishers, while the parents flew around in a state of excitement, uttering their sharp, angry, alarm cries. As soon as I withdrew a little distance both birds overcame their natural shyness, quickly alighting on the tree, and the female soon entered the nest to quiet her noisy progeny.

The thick blackthorn hedge bounding the wood is usually well tenanted, for the birds seem to prefer light and air to the quieter and darker recesses of the wood. Here Greenfinches' nests are found in plenty, loosely built of twigs, roots and moss, lined with horsehair and a few feathers, and the birds themselves are easily recognised by their stout build and general colouring—olive yellow above and light yellowish green beneath. The most noticeable feature in their plumage, however, is afforded by the bright yellow bar on the wings, formed by the yellow outer webs of the primary feathers.

Most of the finches, the Greenfinches included, assemble in bands during the winter, and frequent the neighbourhood of farmyards or stubble fields. To this generality the Bullfinch is an exception, for these birds are almost invariably found in pairs, the male remaining true to his spouse throughout the winter months. It is then a common sight to see them searching the hedgerows for berries, flitting along one after the other, rendered conspicuous

The Bird Book

for the moment by the white band above their tails, and continually calling to each other with a low, piping note.

Everyone knows the jet-black head, the bluish grey back and red breast of the male, but the female differs considerably. Her back is brown, the hind neck ashy grey, and the breast and underparts a dirty brown.

The Bullfinch's nesting habits, too, are rather different to those of its relations, for the nest, placed in the hedge or some thick bush within the wood, is built of twigs and beautifully lined with roots.

In similar situations in most of the copses in the south of England, the Turtle Dove is sure to be found nesting, and it is no very difficult task to catch a glimpse of the bird, for, as incubation progresses, it sits pretty closely. Long before it is seen, however, its presence is made known by its soft, "purring" note, resembling the words "tur-r-r, tur-r-r" often repeated, and stands in no danger of being mistaken for the "coo" of the Woodpigeon. Its nest is similar to that of the latter bird, though constructed of finer twigs, and when disturbed, the female leaves her two white eggs without demonstration. Very different is the conduct of the Woodpigeon, which leaves its nest with a loud clatter, crashing through the smaller branches, and strikes its wings smartly together



YOUNG BULLFINCHES

Woodland Birds

above the back, when at length it has risen above the trees—a sure indication to the gamekeeper that his presence is needed in the wood.

Some keepers are so severe on the feathered denizens of the woods under their care that the bird lover finds no pleasure in a walk through his over-preserved plantations. Here and there he may see a Woodpigeon, for the keeper knows the value of such birds in warning him of intruders, but bird life is chiefly conspicuous by its absence. All song is hushed, and only the loud crow of the Pheasant, accompanied by a rapid whirring of wings, strikes the ear. In such woods the pole trap is but too common a sight. Knowing the habit of birds of prey of perching on an eminence, the keeper sets up a stake in an open space in the wood, and places a gin on the top. Only the other day I found such an one, in which a fine specimen of a Tawny Owl was hanging head downwards, its lacerated legs bearing witness to its painful and lingering death, while, suspended from a branch near by, were two Sparrow Hawks and a Jay. If British wild birds must be sacrificed in the interests of “sport,” it is surely not too much to ask that the destruction should be carried out in a reasonably humane manner.

CHAPTER VI.—*By the Riverside*

IT always seems to me that a complete harmony exists between any species of bird and the district it naturally inhabits, though whether it is the spirit of the scene that is embodied in the bird, or whether it is the bird that helps to give the scene its special character in my mind, I cannot say. Perhaps both combine; at any rate there the impression is, and some birds, of course, convey it more strongly than others. I cannot think of a Dipper, for instance, without picturing a river such as our Devonshire Lyn—if there be another such—splashing merrily against the huge moss-grown boulders that strew its bed, rushing round those it cannot get over in its impetuous haste to reach the sea, and here and there swirling aside into some deep dark pool, where the trout lie under the shadow of the overhanging trees. Every scene has its own characteristic birds, and we must know our river before we can tell what birds to expect beside it.

In the east of England there are several rivers that meander peacefully along, with a tow-path for company, fringed with rows of pollarded willows, and passing now and then by large osier beds and clumps of tall, waving reeds. The willows form a small avian paradise, for even the most critical Treecreeper can have no difficulty in

By the Riverside

finding a hole to suit its nesting requirements, while the number of Pied Wagtails and Tree Sparrows that are safely housed in them is astonishing. In some parts of the Cam, indeed, it is hard to find a willow that has not one or more nests of the Tree Sparrow, placed far down in some hole or crevice. Few and far between are the holes which will admit even a boy's hand, and the five or six eggs generally remain undisturbed. Judging by the numbers successfully reared there, it comes as no surprise to me to hear that the Tree Sparrow is extending its range in England, for as yet it is a decidedly local bird, apart from the eastern counties.

The casual observer would most likely mistake it for a House Sparrow, but the bird lover at once notices the difference. The Tree Sparrow is a smaller and more elegant bird, having a uniform chocolate brown crown, not ashy grey as the House Sparrow, and further, both sexes have the black patch on the throat, which distinguishes the male from the female House Sparrow.

Its nesting habits, as I have already hinted, are different, and the nest itself is a much more finished structure than the accumulation of straws and feathers the House Sparrow calls its home. Even the entrance hole and the tunnel leading to the nest are sometimes neatly lined with hay, but the proceeding generally leads to the discovery of the nest.

The Bird Book

The Pied Wagtail, too, utilises the hollows near the crown of the pollard, and the nest is generally concealed behind some tuft of grass or small plant, which has taken root in the debris collected there. Other favourite nesting-places are holes in banks, in ivy growing against walls and trees, on ledges of rock, and I have found the nest in ornamental flower pots, snugly tucked away in a hollow scraped out in the soil at the roots of a flowering geranium! The bird itself is the personification of grace, and enhances any lawn it may chance to frequent, for it is a very pretty sight as it runs along the grass, continually nodding its head and flirting its long tail, now darting swiftly aside after some insect, and now springing into the air to effect the capture.

The Wagtails are the smallest birds that walk, the Thrushes the largest that hop. Their flight, too, is peculiar, for the birds proceed by a series of undulations, rising with a few rapid beats of the wing, and almost closing them as they sink, accompanying each dip with the utterance of their call-note, which is well rendered by the words "chiz-zit." This method of flight is shared by the Green Wood-pecker, but I am unable to give any reason for the peculiarity.

The name of Pied Wagtail is one of the most appropriate given to any bird, for the crown of the head, the back and the tail, with the exception of the two outermost feathers, are black; the fore-

By the Riverside

head and cheeks are white; the chin, throat, sides and flanks are black, while the rest of the underparts are white. The second part of the name is equally merited.

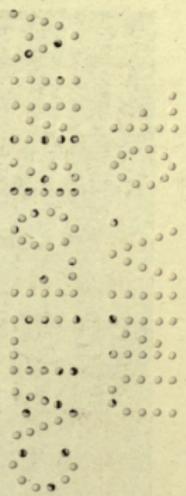
For some reason this Wagtail is a great favourite with the Cuckoo, and often has the doubtful privilege of rearing the latter's offspring. The disparity in their respective eggs is not so great as one would suppose, for the Cuckoo lays an exceedingly small egg considering its size, and one which sometimes bears a singularly close resemblance to those of the Wagtail — bluish white, minutely spotted all over with dots of purplish brown. One of the characteristics of the Cuckoo's egg is its extreme variableness, since even blue ones have been found in the nests of the Redstart and Pied Flycatcher, which lay blue eggs. There is every reason to suppose that the Cuckoo that lays these was itself hatched from a blue egg, and continues to lay eggs of this colour, choosing nests of such birds as lay blue eggs in which to deposit its own. Sometimes, however, a Cuckoo's egg is found with others to which it does not bear the slightest resemblance, but the conclusion is that at the time of laying the bird had not found a suitable nest in which to drop it. The egg is first laid on the ground, and then carried in the beak to the nest, where it is to be hatched by proxy; and the fact that birds have been shot while thus carrying their eggs has

The Bird Book

given rise to the belief that they suck eggs to keep their voices clear!

On one occasion I saw a Cuckoo's egg in a Robin's nest, which not only contained no other eggs, but apparently was not completed, and there were signs that the presence of the mysterious egg had caused the Robins to desert. Sometimes two Cuckoos' eggs are found in the same nest. It is, of course, impossible to say whether they are laid by the same bird, but it would, however, be interesting to see the duel between the two young birds for sole possession, after the rightful inmates had been ejected, as it is hard to suppose they would live amicably together.

Many fallacies concerning the Cuckoo have been cleared up of recent years, but there are still many points on which the bird baffles inquiry. How many eggs does it lay? A well-known authority states that a single bird can produce from seventeen to twenty-two, though it is difficult to see what are his grounds for the assertion. Others give the number as five. One thing, at any rate, is certain; the males greatly outnumber the females in this country, and the bird is polyandrous. The cry of the female is different to that of the male, which alone "tells his name to the hills around." That of the female is a peculiar gurgling sound, unlike that of any other British bird, and, when uttered, sets all the males in the neighbourhood calling. How familiar the sound





REED WARBLER'S NEST

By the Riverside

is ! but the birds keep well out of sight as a rule, and many people have curious notions of its appearance. A country lad once brought me a Woodpigeon, saying that he had shot a Cuckoo, though in justice to him it should be said that neither bird is common in his particular district. The Cuckoo bears a striking resemblance to the Sparrow Hawk, both in colouring and in flight, and this, if sometimes an advantage, doubtless earns him many a mobbing. Above it is a uniform leaden grey, while the underparts are pale ash grey, giving place to white on the lower breast. The whole under surface is marked with wavy, transverse bars of black. The young birds differ entirely in colouring from the old, being dark brown above, barred with rufous; buffy white, barred with blackish brown beneath. The old Cuckoos take their leave of us in July, but the young are not then sufficiently matured to make the journey and stay on till the end of August or even till mid-September, though how they find their way to their winter quarters without the assistance of the old ones is a mystery, but it is one that is shared by several other birds.

Among the various species victimised by the Cuckoo are the Meadow and Tree Pipits, the Pied and Yellow Wagtails, the Skylark, the Hedge Sparrow and Robin, the Sedge and even the Reed Warbler. This last seems a remarkable choice, but it is nevertheless a frequent one. The nest,

The Bird Book

slung in the reeds or in osiers, seems far too fragile a structure to support a young Cuckoo when it is nearly fledged, and it must get well flattened down, for the cup-shaped interior is purposely made deep in order to prevent the eggs from rolling out when it sways with the reeds in the wind. It does, however, prove equal to the strain, a fact that increases our wonder at the architectural capacity of the builders. Generally the nest is woven around three reeds but sometimes is supported by only two, and is composed of dry grass and roots with a little wool or willow down. The eggs are greenish white thickly blotched with greenish brown.

The Reed Warbler is found chiefly in the Eastern counties and the South of England, breeding plentifully in the Thames valley, but becomes rarer towards the south-west and north. Like other Warblers it is not easily observed, for it skulks among the reed beds, seldom coming into the open, though its song is quite a feature in the riverside chorus of the districts that it frequents. When the nest is built in osiers the bird is more often seen, and one cannot fail to be struck with its gymnastic feats as it climbs about, sometimes grasping an upright stem with each foot and holding its body perpendicularly between them no matter how they sway.

It shares with the Sedge Warbler the habit of singing far on into the night, but its notes are less

By the Riverside

harsh and not altogether unmusical. Apart from song, there are some very distinct differences between these birds though at first sight they bear a certain resemblance to each other. The Reed Warbler is pale brown above, with a tinge of chestnut on the rump; the chin and throat are white, the breast and underparts cream-coloured. The Sedge Warbler appears to be a shorter and more stoutly built bird, and can easily be distinguished from its ally by a clearly defined, yellowish white eyebrow and its streaked back, for the russet brown feathers have dusky brown centres. Its nest, too, is always supported, never suspended, and placed in thick, coarse, climbing plants, in brambles or other bushes, generally not far from the ground and always in the neighbourhood of water. Somewhat loosely constructed of grass and coarse bents and lined with horse-hair, it contains five or six eggs, which stand in no danger of being confused with the Reed Warbler's. Their ground colour is pale amber brown, mottled with darker brown and often marked with a few short hair-like black lines at the larger end.

One more bird claims our attention before we leave those East Anglian rivers—the Reed Bunting—for though it is generally distributed throughout the British Islands, breeding in all suitable places, the conditions of the East of England are such that it is especially common there. The sluggish rivers and the fen districts, with

The Bird Book

large beds of osiers, reeds and sedge, are just the places it delights to frequent, and in such the male is a very conspicuous bird, owing to its handsome black head, strikingly set off by a broad white collar, and its habit of uttering its twittering song from the top of a bulrush. Its back is rufous, streaked with black; the under surface of the body is white, striped with black on the sides and flanks. The female differs from the male in having the head brown, the collar dusky-brown instead of white, and the sides of the body streaked with dusky-brown instead of black. The nest is generally placed near the ground among long grass, nettles or sedges, at no great distance from water and made of dried grass and moss, with a lining of finer grass and hair. It is impossible not to recognise the eggs as those of the Bunting family, though the "writing" marks are shorter and thicker than is the case with the Yellow Hammer's. The ground colour is stone brown or clay colour and the bold handsome markings a rich purplish brown.

I have in mind another river very different to the narrow, sluggish, East Anglian ones. Its source is up on the moor, and for several miles the stream alternates between shallow rapids and deep swirling pools. This part is especially the home of the Dipper, a stoutly built, dark-brown little bird, with white throat and chestnut breast. It sits complacently on some stone, past which the

By the Riverside

waters rush in confusion, while now and then you may see it walk to the edge and then suddenly disappear in search of food at the bottom of the stream.

The resemblance it bears to the Wren has often been commented on and not without reason, for the stubby tail, the short, rounded wings and rapid, whirring flight all point to its affinity, and, further, its nest is just that of the Wren repeated on a large scale. It is placed under some overhanging bank and in such positions is very difficult to find, for the moss, of which the exterior is made, harmonises well with its surroundings and the entrance hole is generally so low that it cannot be seen except from below. Sometimes it is placed in holes in the masonry of bridges or in walls.

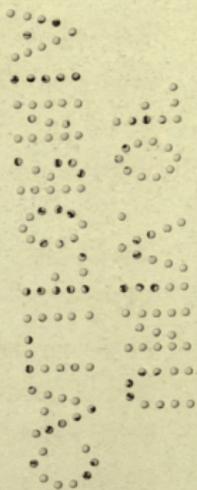
The courtship of these birds takes place early in the year, and I well remember being a witness to it on a pretty Devonshire stream early in January. There were half a dozen birds—an unusually large number to see together—excitedly chasing each other up stream and down, calling with their sharp “chit, chit” and suddenly settling on boulders apparently without any previous slackening of their speed. The occasion, too, was memorable to me as the first on which I had heard their song. This resembled the bubbling song of the Wren and, though rather harsher, was in perfect accord with the rippling music of the stream. The Dippers nest early and I have found

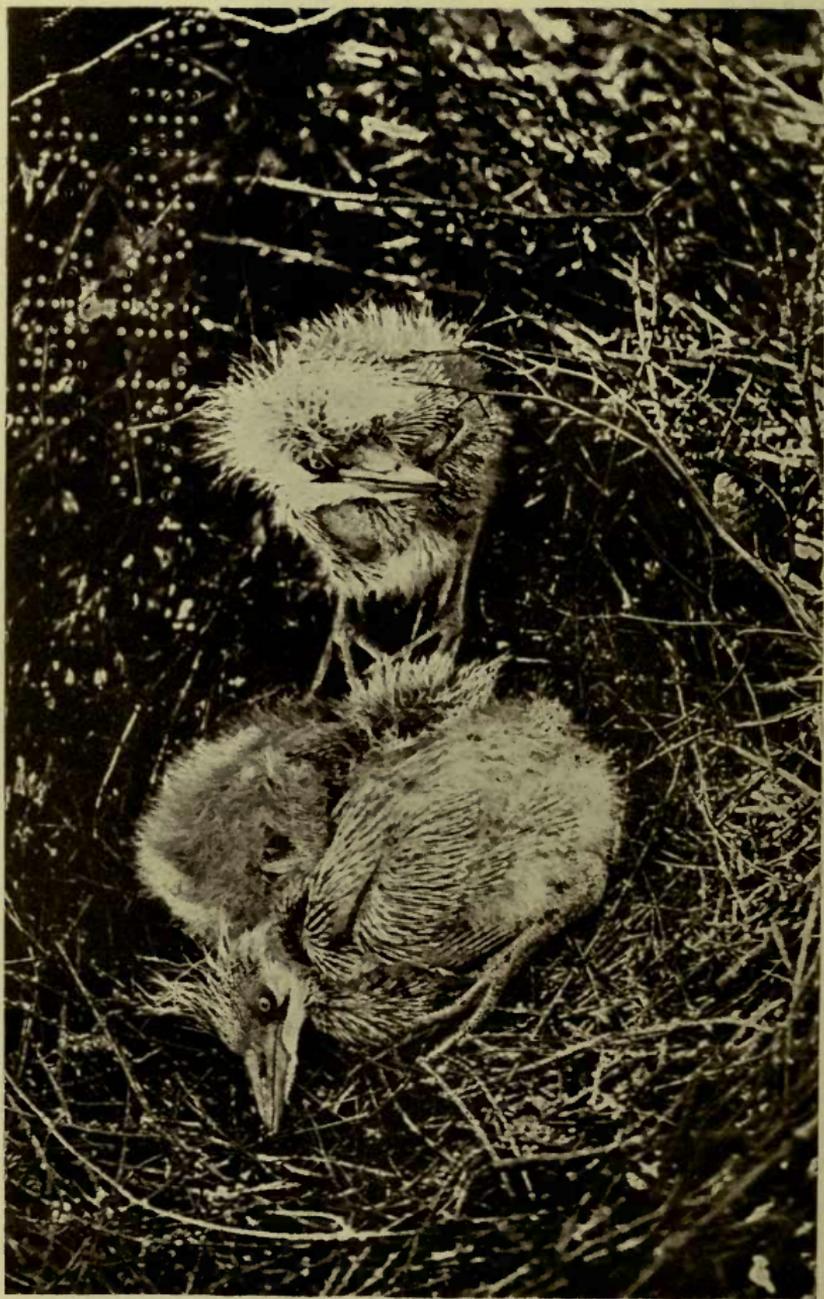
The Bird Book

young ones more than once by the second week in April, little black-skinned, naked creatures, which can hardly be called beautiful.

Here and there the river passes through meadows, cutting its way deep through the sandy soil, and in the banks, colonies of Sand Martins have their nests. They are smaller than House Martins and may be recognised at once by being sandy-brown instead of black on the back. The nests are placed in small chambers at the end of tunnels scraped out by the birds and from four to six white eggs are laid on a small accumulation of straw and feathers.

The tide of this river flows up for about seven miles and the upper reaches of the tidal portion are the haunt of many a Kingfisher. Beautifully wooded hills fall abruptly to the very edge of the river and many a tree stretches out its boughs well over the water. On these the Kingfishers sit, watching for fish beneath them, or fly swiftly like some blue flash of light to a more exposed perch. There is no need to describe the Kingfisher even if words could describe his brilliant, prismatic hues, for he is well known and there is no possibility of mistaking him for any other bird. As far as my experience goes, I believe the bird is again on the increase, and not long ago I had the pleasure of seeing one on a small pond, not five miles from Charing Cross, a pond which, I am told, he has frequented for years.





YOUNG HERONS IN NEST, PLACED IN TOPMOST BRANCHES OF A FIR-TREE,
65 FEET ABOVE THE GROUND

By the Riverside

In autumn there is a considerable increase in the numbers on the larger rivers, caused by the return of those birds, which have nested by side streams and out-of-the-way places, bringing their young with them. They are, however, quarrelsome, and each tries to keep a considerable portion of river as its own special preserve. While nesting the bird keeps well out of sight, and though I spent a considerable time in the neighbourhood of two nests last year, I only saw a parent bird on one occasion. The Kingfisher bores a tunnel of varying length, sometimes as much as four feet, in some bank, and in a chamber at the end the female lays six or seven glossy white eggs. As time goes on the hole gets well marked with fish-bones and the birds' excretions. One of the nests I found was only eighteen inches in, and, by enlarging the entrance hole a little, sufficient light was admitted to enable me to see the old bird sitting with her black young ones gathered around her. The enlarged hole seemed in no way to trouble her, and was soon littered with fish bones, but it enabled me on several subsequent occasions to observe the progress made by the young, one of which figures in our illustration.

Here, too, the Herons stand solemnly and patiently in the water, waiting for some fish to come within striking distance of their strong spear-like beaks, but they take flight at our approach with slow, heavy beats of the wing. Along the banks

The Bird Book

the common Sandpiper runs in search of food, his short tail as constantly on the move as that of the Grey Wagtail near by him. Indeed, to watch him, you might think that the latter half of his body had only a bowing acquaintance with the other part, for the movement seems to commence midway down the spine. His white underparts alone reveal his presence, for his mottled brown back is practically invisible against the mud. Now he takes flight and skims along just above the water, calling "tee, tee, tee, tee, tee," rapidly to his mate to join him, and she suddenly leaves the mud close by us, where she had hitherto escaped our notice. In the evening they become more noisy, banding together and racing along repeating "tee, tee, tee, tee, tee" at intervals indefinitely, the sound being carried to us with faithful exactitude over the water long after the birds have passed out of sight in the deepening twilight.

CHAPTER VII.—*By Marsh and Mere*

THE class of birds we have now to consider is that which least of all can flourish in the neighbourhood of mankind. The advance of cultivation, the draining of the fens and reclaiming of marsh land have driven many species from our shores altogether, and some, which used to breed with us regularly, now only pay us occasional visits, to call forth a small army of local gunners from the neighbourhood it is unfortunate enough to select. The once familiar Bittern, “booming in the sedgy shallow,” and many others are seldom given the opportunity of nesting with us, even if they desired to do so. But while all bird lovers bewail their loss, there is enough to occupy their attention in those that remain, and every means should be taken to protect these from sharing a like fate.

To the commonest of our marsh birds the foregoing remarks scarcely apply, for when a continued frost renders it impossible to find sustenance by the water, the Moorhens pluck up sufficient courage to enter a farmyard and partake of the food thrown to the ducks and fowls.

They readily become tame then, if shown a little encouragement, and will come to feed on the lawn

The Bird Book

in front of the windows, provided that the pond they frequent is near by. Under other conditions the bird is timid enough, retiring to the shelter of some friendly reeds immediately danger appears, and so lightly does it sit that it is one of the rarest things to see the bird on its nest, probably because it knows that the eggs harmonise with the ready surroundings far better than its own dark plumage.

As soon as the intruder approaches it slips noiselessly off its nest and dives, scarcely making a ripple on the water. Then it hides, sometimes crawling up a water-rat's hole, or at others keeping its body submerged, just protruding its beak above water, amongst a floating mass of tangled reeds, and so completely does it trust to its colouring to escape notice, that it will often remain quite still and allow itself to be caught by the hand. Though it has not webbed feet, it can swim and dive well, using its wings to propel it under water, and many an exciting chase has it given us, when, as boys, we used to pursue it merely for the fun of catching it.

Despite all this, it is not very difficult to become well acquainted with the Moorhen, for in the course of a walk beside almost any sluggish stream, fringed with reeds, you are sure to meet with several. Even small ponds, where weed is plentiful, can generally boast a pair of birds, or at least the numerous tracks, intersecting the "frog's



A MOORHEN'S NEST

By Marsh and Mere

bite" in all directions, testify to their frequent visits.

Evening is, perhaps, the best time to see them, for then they come out to feed on the neighbouring meadowland, walking daintily about in search of seeds, insects, and tender shoots, constantly erecting their short tails and showing a conspicuous, triangular mark of white beneath. During the daytime they keep nearer to cover, but, as you go quietly along, you will probably hear a curious sound, half crowing, half clucking, proceeding from the reeds ahead of you, and, if you wait a while, you may see the bird swim across from one bank to the other, nodding its head at every stroke, solicitously convoying a little fleet of black downy young ones.

The nest is made of flags and rushes plaited neatly together, placed usually among the reeds bordering a pond, lake or river, but occasionally situated in a bush or tree a few feet above the water, and contains from six to ten eggs, of rusty buff ground colour, spotted and speckled with reddish brown. Several of these nests are constructed in which the Moorhen never intends to lay eggs, but uses them as convenient roosting places for its young when they leave the nest, a proceeding which takes place not many hours after they emerge from the shell.

The Coot is best described as a Moorhen on a larger scale, but is cindery grey, not olive brown,

The Bird Book

on the back, and has the further distinction of a white shield on the forehead, since that of the Waterhen is a deep lake-red. Though its habits are very similar to those of the Moorhen, the Coot is not to be found on the small ponds to which its relative resorts, but frequents broad sheets of water, lakes and reservoirs. It has, too, made a step in advance of the Moorhen in the direction of webbed feet, since the toes, though not joined together by web as is the case with a Duck, are supplemented on either side with wide scalop-shaped lobes.

The bird builds its nest in the same kind of situation, and lays the same type of egg as the Moorhen, though it is, of course, larger and differs in being speckled with small blackish spots.

In some of the low-lying swampy meadow land of the Eastern Counties may be found colonies of Snipe and Redshank nesting together. As you approach their haunt the birds rise and circle high overhead, filling the air with their sounds. The peculiar "drumming" of the Snipe is, perhaps, the most noticeable, for it is unlike any other in bird-land, and may not inaptly be compared to the bleating of a goat. The way in which it is produced affords a subject for even the keenest observers to disagree upon. It is generally, if not invariably, heard while the bird is descending with rapidly vibrating wings, and many assert that

By Marsh and Mere

herein lies the cause of the sound. Others attribute it to the rush of air through the outstretched tail-feathers, and some, among whom is Mr Howard Saunders, think that it is a vocal achievement, though even he confesses that he is completely puzzled by it. Redshank dart past you or beat slowly up against the wind, uttering their plaintive whistling notes at intervals. Occasionally a bird settles on a post, if there chance to be one at hand, the better to watch the intruder, and to one accustomed to see the Redshank only on the seashore, stalking over the mudflats or wading into the pools, this perching habit of the nesting season is particularly striking.

Both Snipe and Redshank sit lightly, and will employ all manner of strategy to distract your attention from their young. Their nests are placed on the ground, usually well-hidden in some clump of long grass or rushes, and there is a close resemblance between the four pyriform eggs of the Snipe and those of the Redshank. Both vary in ground colour from stone grey to a warm clay brown; both are heavily blotched and spotted, especially at the larger end, with rich blackish brown; but those of the Redshank are slightly the larger.

There is, however, little likelihood of confusing the birds, differing as they do, both in shape and colouring. The Snipe's long, straight bill is perhaps its most conspicuous feature, being almost

The Bird Book

twice the length of that of the Redshank. Its plumage above is black, mottled with brown, but four distinct lines of brown feathers, edged with buff, running longitudinally down the back, are readily seen. The crown of the head is blackish brown, divided in the centre by a line of buffish brown, and another band of the same colour commences at the base of the beak and passes over the eye. The underparts are white.

Throughout the daytime the Snipe skulks in its marshy retreats, only taking wing when its haunts are invaded, and then it rises with a harsh scream of alarm and makes off with wonderfully rapid zig-zag flight till it supposes itself to be out of danger. This peculiar flight ensures the bird's recognition. The Redshank, as it rises, displays a white patch on the lower back and tail, which relieves its somewhat uniform colouring, for it is greyish brown streaked with black on the upper surface, and greyish white streaked with brownish black below.

The small ponds, the reservoirs, and the swampy meadow lands do not, however, fulfil all the conditions of marsh and mere, and, in order to know the birds with which this chapter deals, a visit must be paid to Broadland, with its large sheets of water, its deep fringes of tall, rustling reeds, and its attendant swamps of thick, tangled rushes. King of the waters is the Great Crested Grebe, a bird readily distinguished by the ease and grace

By Marsh and Mere

with which it swims and by its well developed crest and tippet or ruff. On one of the larger "Broads," not long ago, I saw at least a dozen of these birds, and heard them calling to each other with a hoarse kind of croak. A short search in a large bed of reeds, near which a pair were swimming, resulted in the discovery of a nest, whereon the hoarse croak of the birds at once changed to sharp cries of alarm—"kek-kek, kek-kek." In their anxiety they gradually approached us, continually diving and each time re-appearing a little nearer. Their elongated, boat-like bodies seemed to encounter the minimum of resistance from the water, in which, indeed, they appeared as much at home as most birds are in the air. It would be difficult to describe *how* they dive. To the most casual glance they seem to simply duck their heads beneath the surface and disappear. The most careful observation reveals no more. There is no effort, no splash, hardly a ripple to mark the spot where once they were.

The crown of the head and divided crest is dusky, the cheeks are whitish, and round the upper neck is a tippet of dark, rust-red feathers, which is perhaps the distinguishing feature of the bird. For the rest, the upper surface is dark brown, the under silvery white turning to chestnut on the sides and flanks. The female is rather smaller, and her crest is less developed.

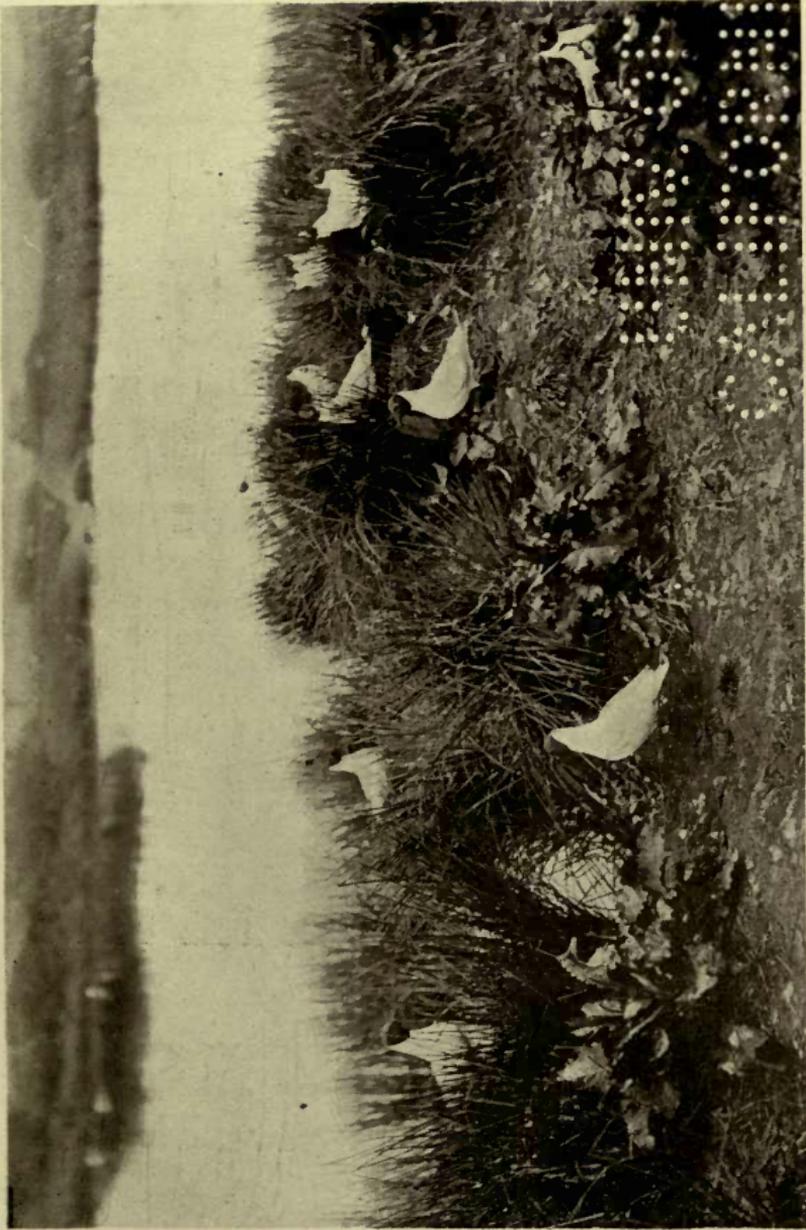
The nest we found was, to all appearance, a

The Bird Book

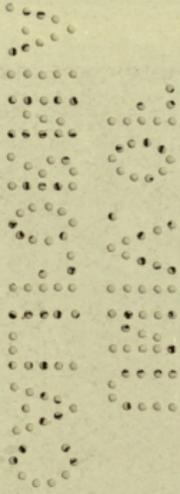
floating mass of sodden water-weeds, carelessly anchored among the reeds, for the eggs were completely hidden from view. When first laid they are white, tinted with pale green, but in a very short time become soiled and stained to a dirty yellow, or even a deep brown colour. Mr Seebohm says that the bird only covers its eggs after incubation has commenced, and that the object is, therefore, to protect them from cold rather than from their enemies. This may be so in the majority of cases, but, with regard to one nest I found with the eggs covered up, I am convinced that the bird had not commenced to sit, and, from the extreme cleanliness of one of the three eggs, I feel sure it had been laid that very morning.

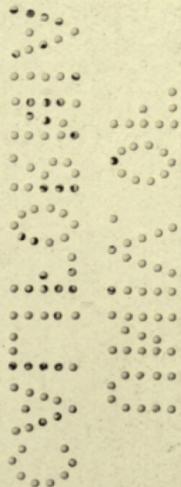
Their worst enemies, presumably, are Crows, but in a large bed of tall reeds there is little fear that the eggs will be discovered by these winged marauders. Moorhens are much more frequently victimised, and in districts where Crows are plentiful I have noticed that both they and Coots often bend the reeds so as to form a screen above their nests in order, no doubt, to guard against this particular danger.

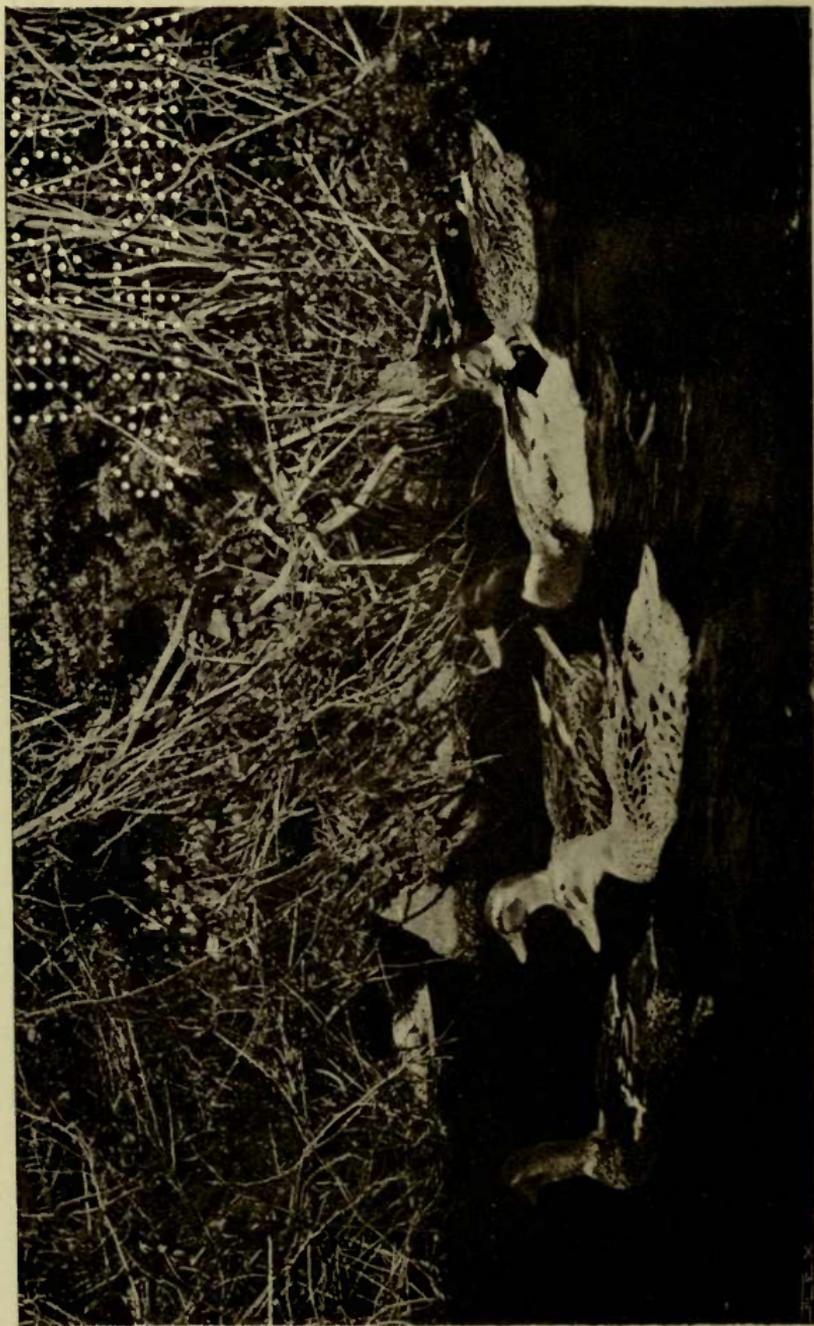
More generally distributed throughout the British Isles, because it frequents smaller sheets of water than the Great Crested Grebe, is the Dabchick or Little Grebe, but nowhere can it be considered to form a striking feature of the bird



BLACK-HEADED GULLS IN SUMMER







WILD DUCKS

By Marsh and Mere

life of the neighbourhood, for it is an exceedingly difficult bird to observe, and might bring up its young ones on a pond without its presence being even suspected. As you approach its haunt the Dabchick disappears under the surface of the water, without so much as a ripple, and swims to the shelter of some water plants, where its detection is almost impossible, for there is nothing to catch the eye in its sombre plumage. It is dark brown above with a greenish sheen; the cheeks, throat and sides of the neck are reddish brown and the underparts are white. The nest, like that of its relation, is merely a mass of weed, in some cases floating, but where possible reaching down to the bottom. From four to six eggs are laid, rough shelled and white at first, but soon change to a dirty yellow from contact with the decaying weed. Each time the bird leaves the nest, unless suddenly startled from it, the eggs are carefully covered up and the chances of their being discovered materially reduced.

On a "Broad" not far from the one tenanted by the Grebes, a large colony of Black-headed Gulls were nesting, and such a clamour they made over the business that it was impossible not to be aware of their presence. As our boat approached their cries were redoubled, and the birds, leaving their nests, flew to meet us, but did not, I fear, give us a very cordial welcome, and, after vain expostulations, the majority alighted on

The Bird Book

the water, while some settled on some small trees in the immediate neighbourhood.

Scoulton Mere, in Norfolk, is one of the most famous of its haunts, for thousands of birds nest there annually, and are said to have done so for upwards of three hundred years. The nests are usually placed on the ground, in some tuft of grass or rushes, but sometimes they are mere floating rafts carelessly anchored among the reeds. Two or three eggs are laid, which vary considerably, the most typical being those of a dark olive ground colour, spotted and blotched with black or brown.

The name Black-headed Gull is misleading, for the colouring of the head and part of the throat is a decided brown, and this is only worn during the summer. The spring moult takes place about the beginning of March and in August the brown feathers on the head are gradually replaced by white, till only a little patch of grey by the ear is left. It is a dangerous thing to lay down hard and fast rules for the feathered world, and to this, as to almost every other, there are exceptions, for on January 11th of the present year I saw amongst a large flock of these Gulls two individuals which either had not lost, or had even then regained, their summer plumage. Apart from the head, the plumage is pearly grey above and white beneath.

But besides the Gulls and Grebes, Broadland is rich in bird life. Numbers of Coot

By Marsh and Mere

chase one another from the reeds, splashing over the water or swim sedately out in the middle, and several species of Duck find sufficient shelter in the wide reed-beds to bring up their families undisturbed. The Wild Duck, from which the farmyard variety is derived, is by far the commonest fresh-water Duck and must be well known to everyone. There can be no need to describe the velvet-like head and the prismatic hues of the wing-bar of the Mallard, or the more sober colours of his spouse. They are very careful in choosing the site for their nests, especially in districts where foxes are plentiful, and consequently they have been found in a variety of strange places, not the least frequent being the crown of a pollarded willow. Perhaps the most usual place is among the rushes on a river-bank, and the nest is little more than a lining of down taken from the bird's own breast. From eight to twelve or fourteen eggs of greenish white are laid, and these the female carefully covers with down when voluntarily leaving the nest.

This down is the distinguishing feature of the nests of many species of Duck, for there is but little difference to be seen in the eggs, and collectors have to take some of the down in order to prove their identity. That of the Wild Duck is light brown, tipped with white, but it is mixed with several pure white plumes.

The Duck family forms a most interesting study

The Bird Book

in itself and a book might easily be devoted to it; but apart from the common Wild Duck and the Teal—the smallest of British Ducks—no species is distributed very generally over Great Britain. The Garganey and Pochard may be found in Norfolk; the Eider and the Wigeon in the North of Scotland; so it seems best in a book of this kind to leave to the reader the task of gaining information from text books about the particular species of Duck in which he is interested.

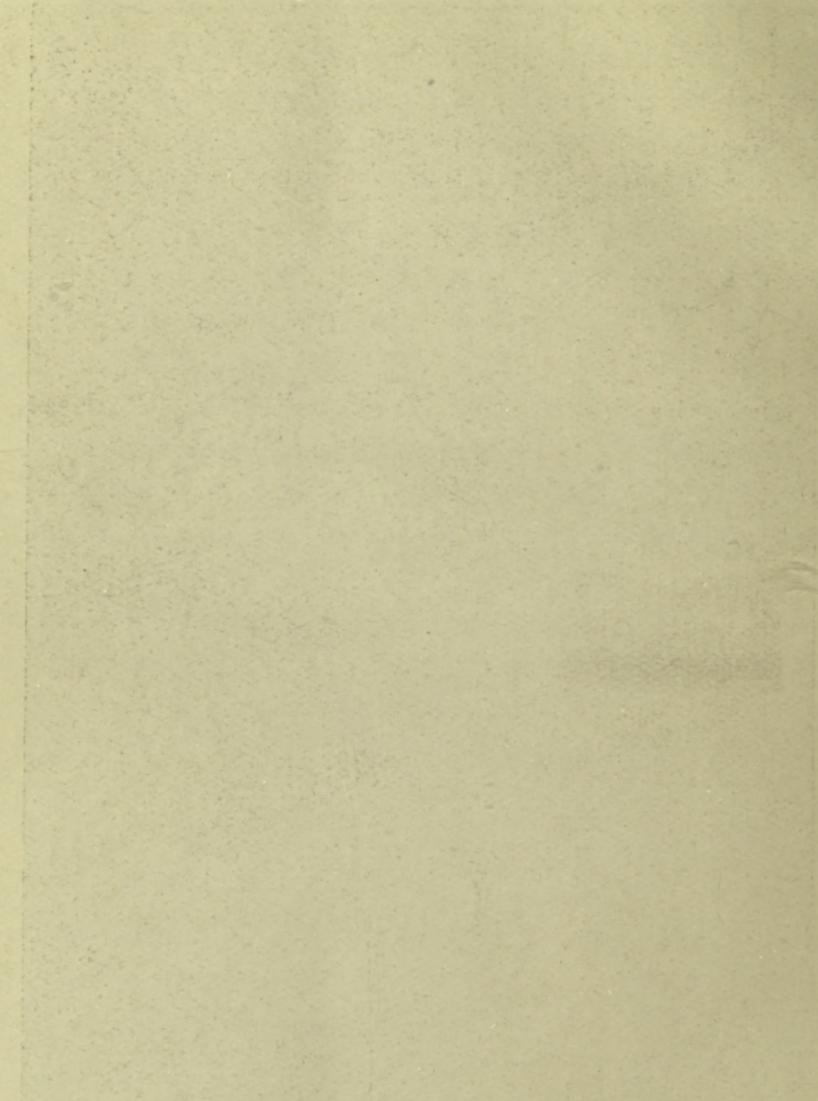
In the sedgy retreats of the fen country the Water Rail is most at home, though it is said to nest in nearly every county in England, Scotland and Ireland. Like most of the marsh birds it is shy and skulking, and prefers to use its legs rather than its wings, twisting and turning through the densest undergrowth—a task for which its slender, compressed body is peculiarly well adapted. Consequently it is seldom indeed that you get a chance of observing it, for the bird does not advertise its presence like the Corncrake, nor does it appear in the open as much as the Moorhen, to which birds it is closely related. Its bill is longer and more slender than the Crane's and it has not the shield of the Waterhen. The general colouring above is olive or reddish brown, each feather having a black longitudinal centre; beneath it is leaden grey, which gives place on the sides and flanks to a deep, slaty grey, barred with white.

The nest and six or seven eggs are similar to



DOTTERELS

(From stuffed specimens)



THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

CHICAGO, ILL.

1954

By Marsh and Mere

those of both Moorhen and Corncrake, but are smaller and speckled rather more sparingly with reddish spots on a creamy white ground colour. In addition there are clearly defined underlying markings of lilac grey. The smaller size of the eggs will prevent their being confused with those of the Moorhen, while the situation of the nest should ensure its being distinguished from the Corncrake's.

Some reference ought, perhaps, to be made here to the Divers, for, though by no means common, and restricted in their range during the nesting season to the North of Scotland and a few lakes in Ireland, it is in them that the peculiar development for swimming and diving reaches its extreme form. Their whole lives are spent on the water, and their legs are placed so far back, to give them the greatest perfection in swimming, that it is a physical impossibility for the birds to stand upright on land.

Their two eggs are laid in a slight depression in the ground not many feet from the water, and as incubation proceeds two well-marked tracks are formed by the birds, one leading from the water to the nest, the other from the nest to the water. Both male and female share in the duties of hatching the eggs, and as one bird pushes its way up one track, its mate leaves the eggs and slides down the other to the water.

Two species are known to breed with us,

The Bird Book

the Black-throated and the Red-throated Divers. The Great Northern Diver is chiefly known as a winter visitor, though an instance of its breeding in the Shetlands has been recorded. The diving powers of this bird are indeed remarkable, since it is no uncommon thing for the bird to swim four or five hundred yards under water, and so speedily can it submerge its body that it is an exceedingly difficult bird to shoot. Those who have attempted the task assert that it is useless to fire when the bird's head is turned in the direction of the gunner, for on seeing the flash it dives and is out of harm's way before the shot can reach it. Thus wonderfully has Nature equipped them for the aquatic life they have to lead.

CHAPTER VIII.—*Moorland Birds*

IT will be convenient to extend the term “Moorland” in order to include not only the moors, strictly so called, of Scotland and the North, but also the wide, open commons, heaths and downs of the South of England, for it does not fall to everyone’s lot to study bird-life in so favoured a district as the North of Scotland. On the heaths and commons one of the most familiar birds is the Stonechat, that little bird which so delights to sit on the top of a gorse-bush and call “u-tick, u-tick,” as if two stones were being struck sharply together, and which flits from bush to bush in the breeding season, “making believe” that it has a nest at the foot of each one. And so it leads you on till, hot, exhausted, and pricked by the gorse, you give up the search, while the nest in all probability is not in the gorse at all, but safely concealed behind a tuft of grass thirty yards away.

Both birds join in this one-sided game of hide-and-seek, but the male can easily be distinguished by his jet-black head and the large patches of white at the side of the neck, which almost form a collar. The rest of the colouring above is blackish, the feathers being generally edged with brown, but a large white wing-patch at once relieves it of any suggestion of dinginess, while

The Bird Book

the breast is a rich, dark rust colour. The female is altogether duller and her head is brown instead of black.

There is something in the favourite attitude of these birds indicative of character, which enables you to distinguish them from their relative the Whinchat, even when you cannot see the colouring. It is not easy to define, though quite apparent to the eye. The Stonechat sits squarely on a bramble with its tail cocked jauntily at an angle, somewhat after the fashion of a House Sparrow on the ground, while the Whinchat perches daintily, its tail continuing the line of the back.

There are, however, more striking differences than the one I have tried to describe. Though sometimes found on the heath, the Whinchat is far more frequently a habitant of the meadows, where they may be seen throughout the early summer flitting about in the neighbourhood of their nest, settling now on a thistle-head, and now on a tall buttercup stalk, which nods gracefully beneath its burden. As they fly, a white patch on the upper half of the tail is conspicuous, and this alone is sufficient to reveal its possessor's identity. Moreover, the upper surface of the bird is coloured with two shades of brown, the black head and white collar of the Stonechat are absent, and the underparts are light chestnut, gradually fading to pale buff on the lower breast.

Moorland Birds

The nesting habits of both species are very similar, for the females sit lightly and endeavour to attract the intruder from the nest, which is usually well concealed. The materials used are roots, moss and dry grass for the framework, horse hair, feathers and finer grass for the lining, but the Whinchat is the more finished architect of the two, and makes a much neater nest. The eggs of the latter bird are a beautiful greenish-blue, faintly speckled with a zone of reddish-brown spots at the larger end. Those of the Stonechat may be distinguished by their paler ground colour and more clearly defined markings.

It is rather curious that of these two species, so closely resembling each other in habits and living on insect food, one, the Whinchat, is entirely a summer migrant, while the other is to a large extent resident. Another migrant of the same family, the Wheatear, breeds in the greatest numbers in the North of England and Scotland, and he, too, is a lover of the open downs, especially those bordering on the sea. Large numbers are seen along the south coasts in spring and autumn, mostly on migration, but several pairs settle down to breed. On the shingly stretches of coast between Dover and Hastings they are said to appropriate every tin washed up by the sea as nesting-places, and on the downs I have found them occupying rabbit burrows; while in their northern home, they seem to build principally in

The Bird Book

holes in walls or peat-stacks or under large stones projecting from the steep hillsides.

Like so many of its relations, the Wheatear has a patch of white above the tail, and in his case it is exceptionally large and attracts the eye immediately the bird takes wing. The male is a very handsome, engaging bird, bluish-grey above with a black eyestripe or band running from the base of the beak to the ear-coverts. Chin and throat are dull white, which turns to pale cream colour on the breast. Once again the female has not the same share of good looks, being much browner on the upper parts. The birds have a habit of perching on any unevenness of the ground, such as a clod of earth or a stone, and flying from one such eminence to another before you for some distance, and then suddenly returning to the very spot from which they were first disturbed.

In a ramble over the downs we may be fortunate enough to flush a Nightjar from its eggs, one cannot say nest, for it makes none. The bird sits so closely and matches its surroundings so well that it is almost impossible to see the bird before it makes off, unless, of course, you have previously found the eggs and know where to look.

Many birds that nest on the ground trust to escape notice owing to the resemblance their plumage bears to their environment, and will allow you to approach within a few feet of them, pro-

Moorland Birds

vided that you do not catch their eye. Immediately they see that you see them, they are off. Not long ago when wishing to photograph a Partridge sitting on its nest in the middle of a plain grass field, I tested this theory. Fixing my eyes on a spot some little distance to one side of her, I approached quietly and the bird allowed me to set up my camera, take her picture and depart, without appearing much disturbed. Shakespeare tells us that men used to find Woodcock by their large black eyes and then shoot them with cross-bows, while sitting. Whether the Nightjar recognises the fact that its eyes may betray it, or whether it is on account of its nocturnal habits and its dislike of the glare of broad daylight, certain it is that whenever one does see the bird sitting, its eyes are almost invariably closed.

It is well nigh impossible to give an accurate impression of the bird in words, for its upper surface is such a mixture of brown, black, rusty red and white, wonderfully diversified, but presenting the appearance of being streaked longitudinally from head to tail. The breast is similarly coloured to the back, but this gives place on the abdomen to fulvous, barred with blackish-brown.

It is not hard to understand that such a bird would harmonise closely with its favourite surroundings of dead bracken or even with the bare ground. When sitting, it resembles some decay-

The Bird Book

ing branch, for it is long compared with its breadth, the tail being equal to the body in length. But it is on the wing that the Nightjar is seen to the greatest advantage. In the long twilight of a summer's evening they venture forth and "hawk" for moths and beetles, destroying large numbers of cockchafers, or play together round some tall tree, performing the most graceful evolutions. If they chance to alight, they have the curious habit of sitting lengthwise on the bough, and are thus much less conspicuous, while every now and then they utter their peculiar "churring" note.

On many of our commons there are large clumps of golden bloomed gorse, outside which the rabbits frisk and feed in the evening, and we cannot pass them by without some reference to the Linnet, which constantly enlivens them with his pretty song and continual twitter. The gorse is quite his favourite nesting-place, and while the female is sitting, the song of the male is heard at its best, delivered from some prickly elevation whose golden blossoms serve by contrast to heighten the crimson on his breast and forehead. The back is reddish-brown streaked with black, and the lower breast is dull, buffy white. The female is browner than her consort and lacks the crimson on head and breast. Their nest is cup-shaped, built of moss, fine twigs and grass, lined with hair, sheep's wool and a few feathers. From four to six eggs are laid, of pale, bluish ground colour,

Moorland Birds

with rufous spots on the larger end. In winter the birds collect in little flocks, feeding on the stubble or open ground, and at this time of the year the plumage is duller and the crimson on the breast is obscured by broad edgings to the feathers. As spring approaches these edgings gradually wear off, till the crimson alone remains, a process which may be observed in many other birds, taking the place of a spring moult.

In some parts of Norfolk there are wide, undulating stretches, unconfined by hedges, the summits of the hills being crowned by woods of tall, dark Scotch firs, where Long-Eared Owls nest and strew the ground beneath with their pellets. The soil is sandy and sterile, supporting a scanty crop of poor grass, with here and there a tuft of stunted bracken, while the surface of the ground is littered with flinty stones. Such is the home of the Stone Curlew or Norfolk Plover, a relative of the Great Bustard, which became extinct as a resident in this country during the second half of the last century. Of late years an attempt has been made to reinstate this noble bird; may it meet with the success it deserves.

The name Stone "Curlew" is very misleading, for, apart from a certain similarity in general colour and marking, this bird and the Curlew have nothing in common, and its true position is

The Bird Book

intermediary between the Bustards and Plovers, having several points in common with each. It is chiefly a summer visitor to this country, breeding in several of the southern counties east of Dorset, most frequently, however, in Norfolk, Suffolk, and on the shingly coast of Kent and Sussex, but some pairs pass the winter in the south of Devonshire and Cornwall.

Owing to its extreme shyness it is a difficult bird to observe, even for those who are acquainted with its habits, while the colouring of both bird and eggs renders them exceedingly likely to escape the notice of anyone not specially on the look-out for them. The upper surface is light brown, streaked with black, the markings on the head and neck being narrower than those on the back. A light-coloured streak runs from the beak under the eye, which is very large, with a golden-yellow iris. Chin and throat are white, the front of the neck and breast very light brown streaked with blackish-brown, the lower parts white, also streaked with brown.

The Stone Curlew has exceptional powers of running, but when hard pressed will lie down with its neck extended along the ground, evidently trusting to the concealment afforded by the resemblance of its plumage to its surroundings. It is in the evening that these birds become most active, and their loud shrill cries uttered as they fly around have gained them the name of

Moorland Birds

Whistling Plover. Their two eggs might easily be overlooked, so similar are they to the stones which surround them, for they are either dark or light stone colour, blotched and streaked with blackish-brown, and it often happens that the two eggs laid by the same bird differ widely from each other.

The heather-clad moors of the north are the home of many birds which do not nest in the south of England, or only do so sparingly on the forests of Dartmoor and Exmoor. Of these, the Red Grouse has the first claim to our attention, not on account of its general prevalence, still less because of its intimate connection with the 12th of August, but because it is the only bird indigenous to the British Islands alone. Its general appearance above is reddish-brown speckled and barred with black, but as the bird is so well known, and as there are so many variations and so many annual changes of plumage, I shall not attempt to describe it. A peculiarity of the Red Grouse, however, is that the male and female moult at different times of the year—the male in autumn and winter, the female in summer and autumn. It nests among the heather, laying from five to nine eggs of dirty white ground colour, blotched and spotted with umber-brown. On the summits of the most mountainous districts of Scotland, above the range of heather, the Grouse is replaced by the Ptarmigan, a bird chiefly noticeable for the fact that in the win-

The Bird Book

ter it dons a white plumage in order to harmonise with the surrounding snow.

Always associated with the moors in the breeding season is the Curlew, a bird whose actions on the ground are singularly difficult to study owing to its extreme wariness. Immediately an intruder approaches their nesting haunts, the birds rise and circle high in the air overhead, uttering their wild cries. Even at this distance their outstretched necks and long beaks make them easily recognisable, while as they rise, you may catch sight of the large white patch on the lower back and rump. The plumage above is brown, becoming rather more ashy on the neck, with long black centres to the feathers, which thus present a striped appearance; the under parts are white, streaked with brown. The nest is a mere depression in the ground lined with dead grass or leaves, containing, generally, four eggs, which vary from olive green to brownish buff in ground colour, and are spotted with dark green and blackish-brown.

In the autumn, when their nesting duties are over, large numbers fly off to the sea-shore, where it is, indeed, possible to lie and watch them through field-glasses, stalking solemnly about like Herons, probing the soft sand and mud with their long curved beaks in search of food. The majority of the birds are immature, but in any case the winter plumage of the adults is much paler and

Moorland Birds

less heavily striped than that worn in their courting days.

The Golden Plover is another conspicuous inhabitant of the heather during the summer months, for he almost invariably advertises his presence with a whistling note, "tliii," then, flying to meet the observer, he puts aside a good deal of his natural shyness, settling close by and watching him from some hummock of ground. He is a handsome bird at all seasons, with his black back profusely spotted with golden yellow and ashy-white, notch-like markings, but his under surface is subject to considerable change, being white in winter and black during the breeding season.

The Golden Plover nests sparingly on the high moors and boggy places of Devon and Somerset, but it is in Scotland that his real home lies. The bands that rove along the sea-shore in winter return thither to breed, scattering in pairs over the moors, for they are not so gregarious in their nesting habits as the Lapwing. A hollow is scantily lined with dry grass or heather tops, and four pear-shaped eggs of yellowish stone colour, spotted and blotched with umber-brown and blackish-brown, are laid. They are somewhat larger than those of the Lapwing, and have not their olive tinge, but the presence of the birds prevents any confusion. As you get near a Peewit's nest the owners are sure to wheel and swerve overhead, with their curious uncertain

The Bird Book

flight, calling plaintively and using every endeavour to attract your attention from their eggs. They settle near by, and rise again with ostentatious swishing of wings, pretending that they have just left their nests, and afford ample opportunity for observing their green backs with purplish-red reflections, their white breast with its black gorget, and their long, up-turned crests.

The falcon of the moors is the Merlin, who delights in the wide open spaces, where he can chase down his quarry, be it Thrush, Lark, or Twite. The female bird is rather larger, able to strike down a Plover or Pigeon, and is easily distinguished by her brown plumage, for that of the male is slaty-blue above. In this feature they resemble the Sparrow Hawk and Harriers, and like the latter, nest upon the ground among the heather. From three to five eggs are laid—creamy-white, but so thickly blotched over with dark reddish-brown, that little of the ground colour is visible, and so closely resembling the darker varieties of Kestrels' eggs that it would be impossible to distinguish them, apart from the situation of the nest and the appearance of the birds.

It is rather curious that a general migration should take place from the moorlands to the seashore in the winter, yet so it is, and the Merlin is no exception. There he may then be seen raiding the flocks of Dunlin, and thither we must follow him.

CHAPTER IX.—*Birds of the Sea-Shore*

IT is a bright, frosty morning early in January. The sky is almost cloudless, though a haze hangs thickly on the horizon, obscuring the distant hills and cliffs. It is almost low water, and a wide belt of sand, left uncovered, rises gently till about a quarter of a mile from the sea it ends in a barrier of sand-dunes, at once crowned and held together by rushes, effectually enforcing its command on the waves, "Thus far and no further!"

The tide is, however, rising, and the waves struggle shorewards against a stiff easterly wind, which catches the crests of the breakers, causing the manes of the miniature "white horses" to trail yards behind them.

A few Herring Gulls sail swiftly along just above the waves. Theirs is the very poetry of motion; no effort, only an occasional adjustment of the angle at which the wing is held. Another slight change, almost imperceptible to the eye, and the bird rises with a graceful curve into the air, wheels and swoops down, gathering the necessary impetus for the return journey. Very different is the laboured flapping of the Cormorant as he passes us flying just above the waves with his long neck outstretched.

The Bird Book

In front of us is a Ringed Plover, running nimbly out after a receding wave, stooping daintily to pick up some morsel, then retreating to escape a wetting, as the next comes in. He is a pretty little bird, light brown above and white below, except for a broad black collar across the foreneck. The crown of the head is pale brown, separated from the white frontal band by a broad band of black. His short bill is orange, tipped with black; legs and feet are the same colour. Such is his portrait, but it is hard to convey in words the impression of sprightliness and grace he leaves upon our minds.

As we approach the estuary bird-life becomes more plentiful. A spit of sand running out into the sea is occupied by a flock of Gulls, which apparently have fed well, for they stand complacently preening their feathers. Even at this distance a pair of Great Blackbacked Gulls are conspicuous among their fellows owing to their size, and we are able to recognise the immature Herring Gulls by their mottled brown plumage.

Near by is a flock of Dunlin, a little silvery line on the sand. The Gulls look giants beside them. Now they rise as one bird and fly with amazing swiftness, their white underparts flashing in the sunlight at one moment; the next, their brown backs are towards us, and the birds are hardly visible till they wheel again.

Rocks now begin to show through the surface of

Birds of the Sea-Shore

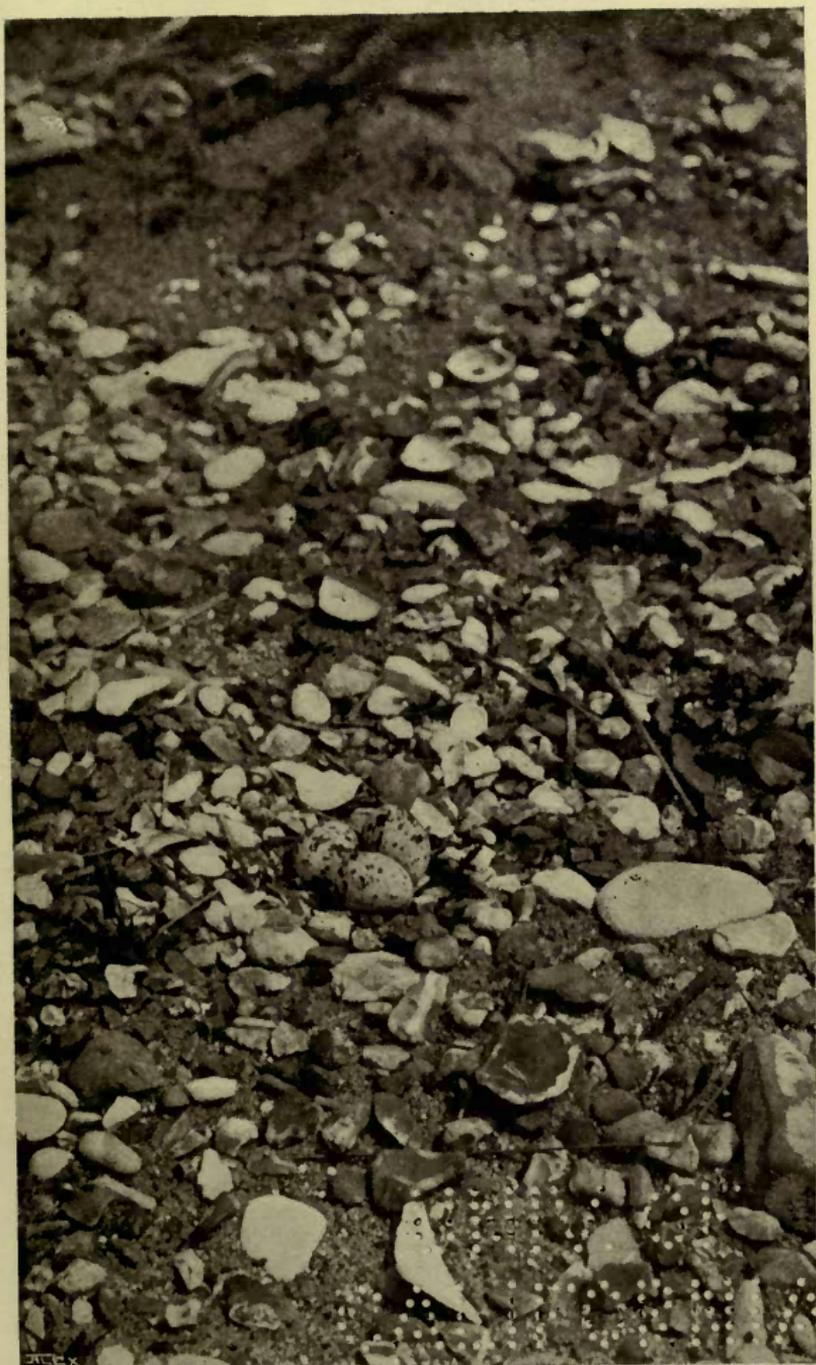
the sand, and here and there are stretches of large pebbles, grown over and bound together by beds of mussels so closely that large pools of water remain when the tide has receded, and around them numbers of birds are feeding. Their tremulous whistling reaches us, and so deceptive is the sound, that we could easily imagine the birds were within a few yards of us. They will not allow a close approach, for a few Curlews, more wary, perhaps, than any other shore-birds, start up, uttering their penetrating alarm note, "gurleek, gurleek," till they impart their fears to the Gulls and Oystercatchers, and they, too, take flight.

What a bold contrast of colour these Oystercatchers present!—black, white and orange in the closest juxtaposition. The fisherman's name for them—Sea-pie—is no misnomer. Some still remain standing on the larger stones, despite the Curlew's warning, and allow us to approach almost within a gunshot. The orange-coloured bill is long, straight, and shaped like a vertical wedge, eminently suitable for prising open mussels, or dislodging limpets from the rocks. The head, neck and back are black, as also are the wings, with the exception of a broad white slanting bar, which is, however, not visible until the bird takes flight. The lower part of the back, the upper half of the tail, and the underparts are white, while the tail is terminated with a broad band of black.

The Bird Book

Now these, too, take wing, and apparently we are left to cross the pebbles without feathered company. But as we go, here a Ringed Plover and there a Dunlin, invisible till they take wing, start up and fly off whistling their alarm. We reach the edge of the river and have to make our way across a mud-flat—an ideal feeding-ground, to judge by the number of birds that are usually to be found there. It is intersected by hundreds of tiny little ditches in which curlews are busily feeding, now and then raising their heads to look around for danger, taking good care not to allow us to approach. Here, too, are flocks of Dunlin. It is only by bending ourselves almost double and walking like beach-combers that we can get within a few yards of them. Even the wary little Ringed Plover will sometimes allow himself to be duped in this way.

At this time of the year the Dunlin is by far the commonest bird on our shores. Large numbers come from the north, and those that breed on moors in the neighbourhood frequent the shore in winter, exchanging their brighter summer plumage for one more suited to the colder season—when their general colouring above is ashy-brown, some of the feathers having indistinct, black centres. On the wing-coverts these black centres are more pronounced. The larger series of the coverts are tipped with white, and so form a distinct wing-band. The head and neck



LESSER TERN'S EGGS

THE UNIVERSITY OF CHICAGO
LIBRARY

Birds of the Sea-Shore

are similarly coloured to the back, each feather having a tiny black centre. Over the eye is a whitish eyebrow; the cheeks, throat and underparts are white, and lack the large black horse-shoe patch, so conspicuous in the summer plumage. The lower throat and chest is light ashy and has the same streaky appearance as the back owing to the black centres to the feathers. The bill is fairly long, slender and black, as also are the legs and feet.

On these mud-flats, too, the Redshank is a familiar figure. Small flocks stalk about in company, wade into the shallow water or rest pensively on one leg, keeping a sharp lookout the while, but as we have already made their acquaintance at their nesting haunts by the marshes, there is no need for further description here.

Such are some of the birds that are frequently to be found on our southern coasts in winter. The wide stretches of mud and sand left uncovered by the tide are their feeding-grounds—and when driven off by the rising water they collect in flocks at various points on the beach and sit patiently preening their feathers, waiting till the tide ebbs once more. But where and how do they nest? The Curlews retire to the moors, the winter migrants to their northern homes. Most of the Redshank betake themselves to the marshes. But what of the remainder, the Oystercatchers and the Ringed Plovers? These breed

The Bird Book

on almost all the suitable stretches of sand and shingle just above high water mark around our coasts. On the south coast especially, where the sea has for many years been retreating, there are large waste stretches of shingle, where these and many other rarer birds rear their young. Here the Kentish Plover still holds out despite the ravages of the collector, and the Stone Curlew utters his loud, plaintive whistle as evening draws in. Colonies of both Common Tern and Lesser Tern are settled at intervals along the beach, while here and there the eggs of Redshank and Oystercatcher may be found.

In general appearance Terns are Gulls in miniature. There are, however, marked differences in structure, and though in some cases it may be difficult to say where the Tern ends and the Gull begins, science has classified them as two sub-families of the family Laridæ. A description of the difference in the shape of the bills does not appeal to the imagination, but the bird-lover will have little difficulty in recognising the Tern by its long, narrow, pointed wings and forked tail. The Lesser Tern is pearly-grey above and pure white on the rump, tail and underparts. The crown of the head is black. One would think that a flock of birds of such plumage would be conspicuous even at a distance, but a friend and I, visiting the Norfolk coast early in June, found it far otherwise.

Birds of the Sea-Shore

Even when we arrived at a spit of shingle, where their nests obviously were, and the excited birds were hovering over our heads uttering sharp, angry alarm cries, we could not fail to notice how their pure white underparts rendered them inconspicuous against the brilliant light of the June sky, while if they flew low, the light on their pearly plumage was but a degree less sparkling than the ripples on the sea.

We did not, however, strike on the colony at once. Our way lay along the narrowish ribbon of shingle that separates the sea from the low-lying reclaimed pasture land. Numbers of Ringed Plovers started up in front of us and flew anxiously around, but we were not to be detained by such accomplished will-o'-the-wisps. By the beginning of June the young birds are mostly hatched out and they are, if anything, harder to find than the eggs. The parent birds are consummate actors and use every device to attract the intruder from their young. Now, apparently, a wing is broken, now a leg, and the birds stumble along as if at their last gasp. Sometimes they even feign death but revive with wonderful alacrity if an attempt is made to catch them. The only thing certain is that the eggs or young are not in the direction the bird is trying to indicate. After walking three miles our hopes were raised by the sight of a Lesser Tern, and a mile or so further on we suddenly came on the object of our search. A

The Bird Book

colony was found; the next business was to find the nests—or rather the eggs, for the nesting materials are of the slightest, and the way in which these eggs match their stony surroundings must be seen to be appreciated. When the first, containing three eggs, had been discovered, our eyes knew instinctively what to look for, and before long we found perhaps a dozen. Clutches of two and three eggs appeared equally plentiful, and while in some cases they were laid in a slight hollow of the shingle without any attempt at a nest, in others a few bits of broken shell had been collected, and some birds had even gathered pieces of driftwood. The eggs were greyish stone colour, with black spots scattered more or less evenly all over, and were distinctly marked with underlying grey blotches. The ground colour is, however, subject to much variation, being sometimes a clay-brown, and the spots occasionally form a zone round the egg.

During the search and the process of photographing some of the eggs, the parent birds hovered overhead, uttering their peculiarly sharp, angry cries, and the most casual glance was sufficient to show the difference between these birds and their larger relations the Common Tern. It is scarcely possible not to be struck with the quickness and agility of their motions, and before we left an interesting incident occurred, which fully called it into play. The nests were for the

Birds of the Sea-Shore

most part close together and we had strayed somewhat away from them. The birds, however, had not returned to their eggs, and a Herring Gull, thinking he saw an opportunity to snatch a meal, swooped down and settled by some eggs, whose likeness to the stones evidently presented little difficulty to his eye. Before he could do any damage, however, all the Terns in the colony banded together, mobbed him and drove him off, pursuing him, as he beat an undignified retreat, with cries of indignation and triumph.

While hunting for Lesser Terns' nests, we were fortunate enough to find the four eggs of a Ringed Plover, placed in a hollow scraped out of the shingle and arranged in the unmistakable Plover fashion—small ends inwards. Though resembling some of the Terns' eggs in colour and marking, they were easily distinguishable by their pear-like shape. The Tern's eggs are more nearly oval, and it must be seldom indeed that that bird lays as many as four. North of the Humber these species gradually yield to the Arctic and Sandwich Terns, which breed on the Farne Islands, and various suitable spots along the coast of Scotland.

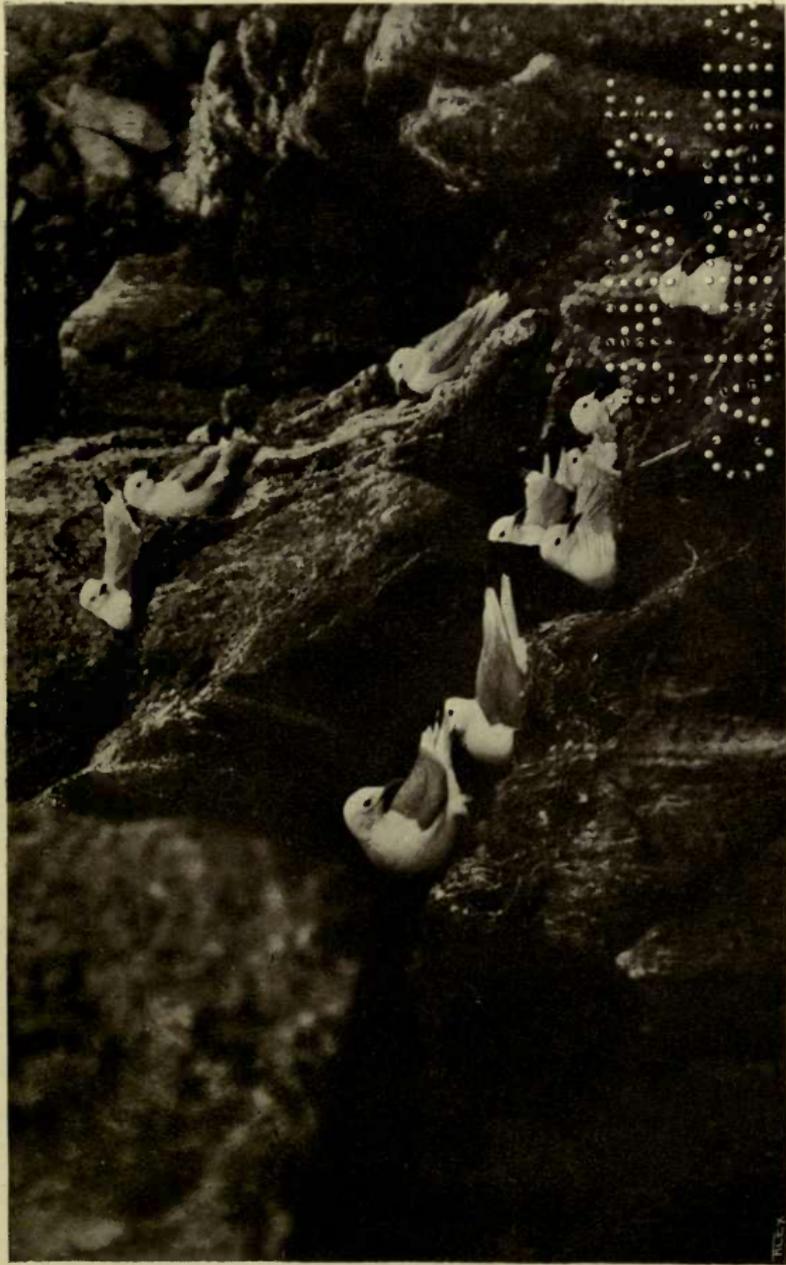
These northern shores are perhaps more favoured by birdkind during autumn and winter than the southern, though certain spots on the East Anglian coast, lying on the line of the migrations, must closely approach them. Dunlin, of course,

The Bird Book

abound, and the little "wide-awake" Ringed Plover mingles largely in their flocks, busying himself in acting sentinel and watching over the safety of the whole party. Small flocks of Redshank fly swiftly up the "loughs" to feed inland and return to the shore as the tide recedes. Bands of Golden Plover rove along, whistling as they go, and occasionally a lonely Greenshank is seen. He is rather larger than the Redshank and, apart from the colour of his legs, which gives him his name, he may be distinguished by his up-turned bill. Here are Godwit, and there the grey-coloured Knot, familiar enough to shore-shooters, but the mystery of its nesting habits is not yet thoroughly solved.

A few hundred yards out to sea are large flocks of diving duck of varied plumage; some are Goldeneyes, some are pure white, and numbers no doubt are hybrids. There they sit and sleep or preen their feathers, waiting for darkness to fall and the time arrives for them to fly to feed on some stubble field. Well do the gunners know this habit. They know, too, that the duck pass up some particular gully at no great height above the cliffs, and many an unsuspecting bird forfeits its life to pay toll for the passage of the rest.

Hooded Crows prowl along in search of food cast up by the sea, be it fish or fowl; nothing seems to come amiss. Carrion Crows, too, seem



KITTIWAKES ON THEIR NESTS



Birds of the Sea-Shore

to find the shore safer than the grouse moors after the shooting season has commenced, and join in the work of scavenging. You cannot confuse the two species, for the Hooded Crow is easily distinguished by its dark slaty-grey nape, back, and underparts, even at a distance, and it seldom allows anyone to steal on it unawares. At the least attempt they make off with a hoarse croak of derision, which mingles not unpleasantly with the whistling notes of the shore-birds, and all seems perfectly in keeping with the flat, open, wind-swept sea-board and the never ceasing monotone of the surf.

NOTE.—The illustration of the Dotterels, facing page 84, serves well to give the reader a general idea of the shape of many of the shore birds—especially of the Plover family, to which indeed they belong. The Dotterel is a summer migrant and used to breed on the Cumberland hills, but the demand for its feathers for fly-fishing has practically if not entirely banished it from that locality. It still holds out in some of the mountain ranges of Scotland.

CHAPTER X.—*Along the Rock-bound Coast.*

IN few departments of ornithology have greater strides been made during the last few years than in the study of sea-birds in their breeding haunts, and few, perhaps, offer greater attraction to the bird lover. There is something peculiarly fascinating in sitting on a ledge half-way down some precipitous cliff, a solid wall of rock above and below, against which the waves dash with tremendous power, only to be thrown back in clouds of spray. On every hand the birds occupy each tiny ledge, sublimely indifferent to their romantic surroundings and caring only to preserve their eggs from the gulls, which sail slowly along on motionless wings, ever on the watch for some unguarded treasure.

Guillemots, Razorbills and Kittiwakes in hundreds maintain a constant indescribable clamour, whose effect is heightened by the thunderous undertone of the surf. The air, too, is confused with the rapid whirring of wings, for Guillemots and Razorbills form a never ending stream journeying to and from the sea, their feet stretched out like black paddles on either side of the tail. A loosened stone falls, disturbing a colony of Kittiwakes immediately below, and a pearly grey and

Along the Rock-bound Coast

white cloud of birds sails out, dissolves into a hundred shimmering units, each of which suddenly wheels and returns to its nest, indignantly expostulating, "Kitti-wa-ake, kitti-wa-ake." One watches, almost bewildered; the ears are deafened and the eyes refuse to convey to the brain any distinct impression of the constantly-changing scene.

Many of the sea-birds are ocean nomads during the greater part of the year, following the fish and living oftentimes far out of sight of land, to which they only repair for nesting purposes. The spots they then favour are the most precipitous parts of the coast, and a visit to one of their nurseries affords, perhaps, the most impressive sight birdland has to offer. The amount of bird life comes to one as a revelation—earth, air and sea literally teem with countless thousands, chiefly Guillemots, Razorbills and Puffins.

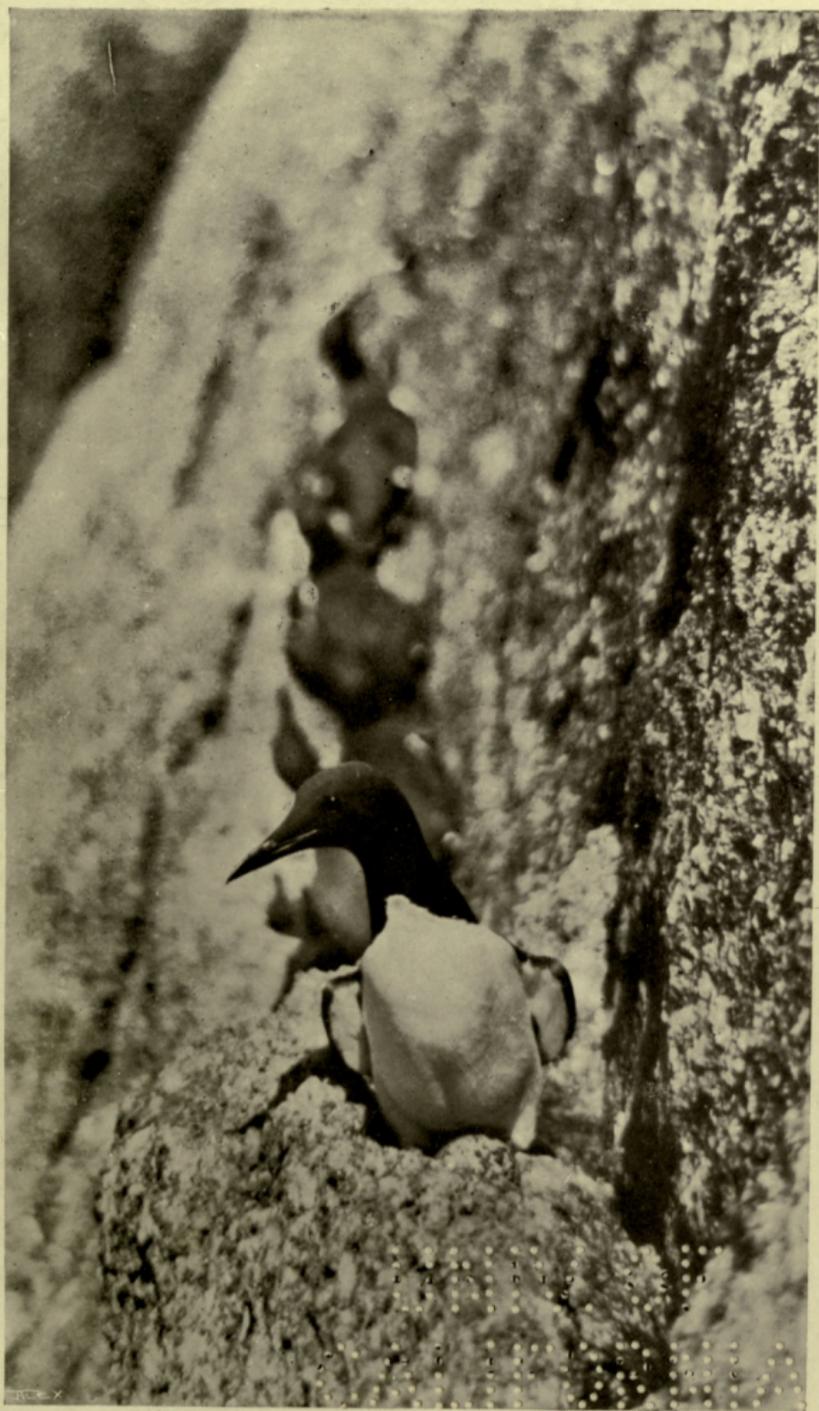
Lundy Island, in the Bristol Channel, is certainly one of the best breeding stations in the South of England, and I may perhaps be pardoned if I describe the birds as I found them there. On the most precipitous cliffs Guillemots and Kittiwakes were breeding, the former laying their single egg on the benches of rock, while here and there colonies of the latter were to be found, their closely matted nests of seaweed occupying almost all the available ledges, which in some cases were so narrow as to make one wonder why the nests did not slide off.

The Bird Book

Just off the island are some large stacks of rock, some two hundred feet high, on whose broad benches, or comparatively flat summits, hundreds of Guillemots nest together and present a curious sight. Their necks are long, closely feathered, and almost continually moving, so that when a number of birds are watching an intruder, first with one eye and then the other, twisting and turning their necks in the most extraordinary manner, their whole appearance is remarkably suggestive of a like number of snakes.

On the ledges the birds sit with their breasts to the wall of rock, for the drab brown colouring on the head, neck and back is, of course, much less conspicuous than their white breasts would be. The brooding bird sits with the egg between its legs, while a portion of the stomach is bared of feathers for its reception. When suddenly disturbed they hurriedly take flight, often kicking their eggs off the ledges as they go, whence they may have a fall of several hundred feet before being shattered on the rocks beneath.

Probably the eggs of no species of bird vary so much, both in ground colour and marking, as those of the Guillemot. Some are cream-coloured, scrawled all over with zig-zag markings of brown; some are almost white, mottled with marble-like markings; others are covered with large blotches of black; yet I think it may be said that the most usual type is deep blue or bluish-green, marked



GUILLEMOT ON HER EGG

THE
UNIVERSITY OF CHICAGO
PRESS

Along the Rock-bound Coast

with black blotches or streaks. They are, however, always to be distinguished by their peculiar shape—a wonderful provision on Nature's part for their safety. The bird deposits it in a most haphazard way on the bare rock, but, owing to its pearl-like form, it can only roll in a circle. Many of the positions in which they are placed are, however, so precarious as not to admit of this manœuvre, and numbers are doubtless destroyed by gusts of wind each year.

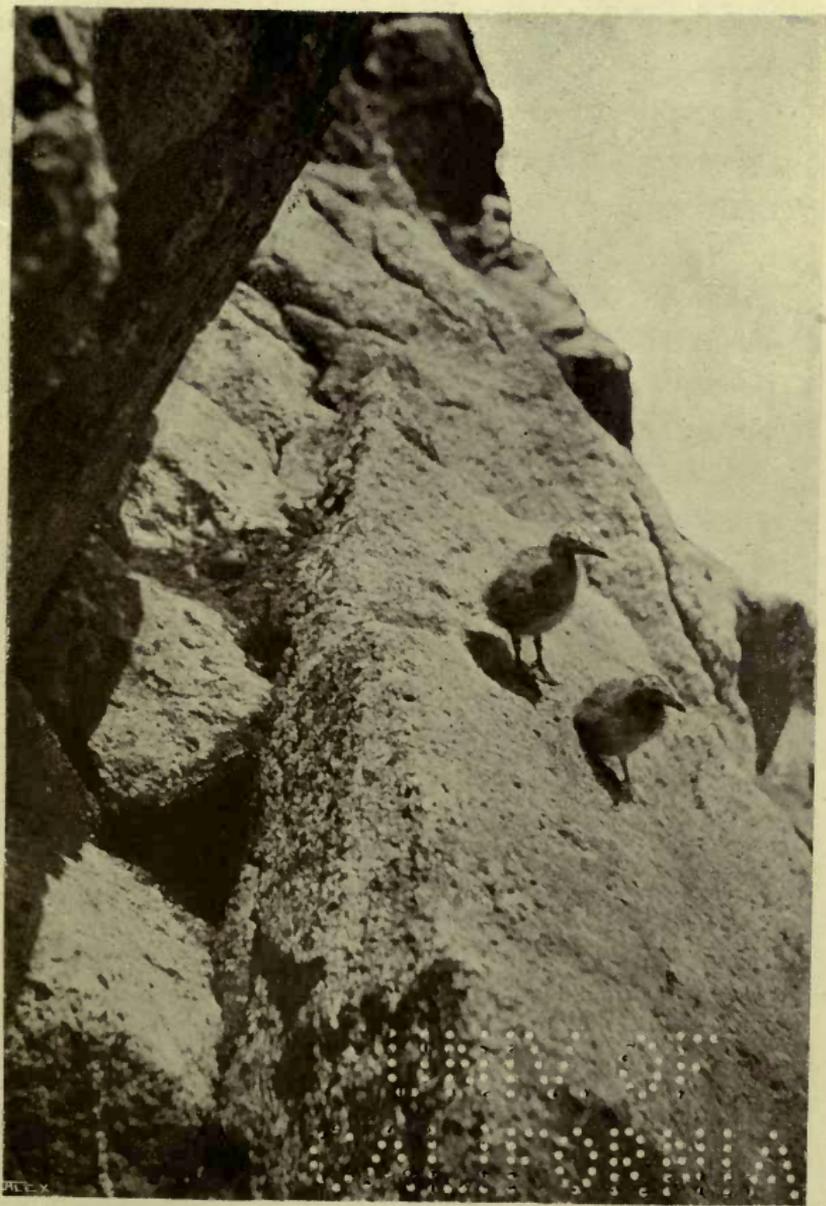
Further along the coast a steep slope, covered with bracken, runs down from the top of the island to within two hundred feet of the sea, when it falls sheer. Here and there huge piles of granite break through the surface, and, owing to the number of nooks and corners they afford, are generally tenanted by a colony of Gulls. Some colonies are of Herring Gulls, others of Lesser Black-backed Gulls exclusively, but in some cases these birds breed together, when the identification of their eggs becomes very difficult. Those of both species vary considerably, being olive green or olive brown, marked with dark brown and grey; and though some profess to be able to distinguish those of the Herring Gull by their larger size and paler ground colour, my experience is that the only way to be certain is to see the parent birds. There can be no excuse for mistaking these, for the adult Herring Gull is at once distinguished by the pale grey colour on the back and wings, as

The Bird Book

opposed to the dark purplish-black of the Lesser Blackbacked Gull. Head, neck, tail and underparts of both birds are pure white. When the young birds are hatched, confusion becomes worse confounded, for the little fluffy creatures, with spotted heads, soon leave their nests, and wander about exploring the world into which they have just come.

Towards the northern end of the island the clothing of bracken gives place to close, springy turf, and here the soil is literally honeycombed with burrows. Puffins stand on guard outside each and take flight at our approach, whilst others scurry out of their holes, almost brushing against our legs, oftentimes colliding with some boulder in their unwieldy haste, and, after turning a few somersaults, fly on to join the birds which form a living circle, whose diameter stretches a quarter of a mile out to sea.

Beyond the green is a litter of huge boulders, tumbled on top of each other, as if the Titans had been playing pitch and toss with them and had left off in the middle of a game. On these boulders are thousands of birds; hundreds fly off, but their places are almost immediately filled by others. Razorbills, grunting angrily, scramble out of the crannies and join the Puffins. All is motion; we gaze down at the sea and as far as the eye can reach, countless specks of black are seen bobbing up and down on the waves or suddenly



YOUNG HERRING GULLS

THE UNIVERSITY OF CHICAGO
LIBRARY

PRINTED IN U.S.A.

Along the Rock-bound Coast

disappearing in quest of fish, and reappearing as suddenly where we least expect them.

We half conceal ourselves among the boulders, and gradually the turmoil ceases. Puffins and Razorbills settle close to us, but we keep quite still and they pay no heed. Some re-enter their holes—how they can distinguish their own is a marvel—and some sit basking in the sunshine. Now they are joined by others from the sea, holding crosswise in their beaks three, four or even five small fish, whose heads and tails hang limply down on either side. Can they be caught all at once, or if not, how does the bird catch such slippery customers in their own element, while its beak is already almost full?

The attitudes the Puffins assume make it difficult to abstain from laughing, for now they put on the quaintest parsonical airs and, at the next moment, quarrel for no apparent reason, each bird laying hold of the other with its beak and straining and struggling till one or both topple off the rock. Then they strut solemnly to their holes where, some three or four feet down, is a white egg, about the size of a fowl's—faintly marked with violet; or, perhaps, there is a young bird—such a pretty soft ball of long black down with a large white patch on the stomach.

Razorbills are not even as particular as Puffins, since almost any hole or cranny gives it sufficient excuse to deposit a large whitish egg more or less

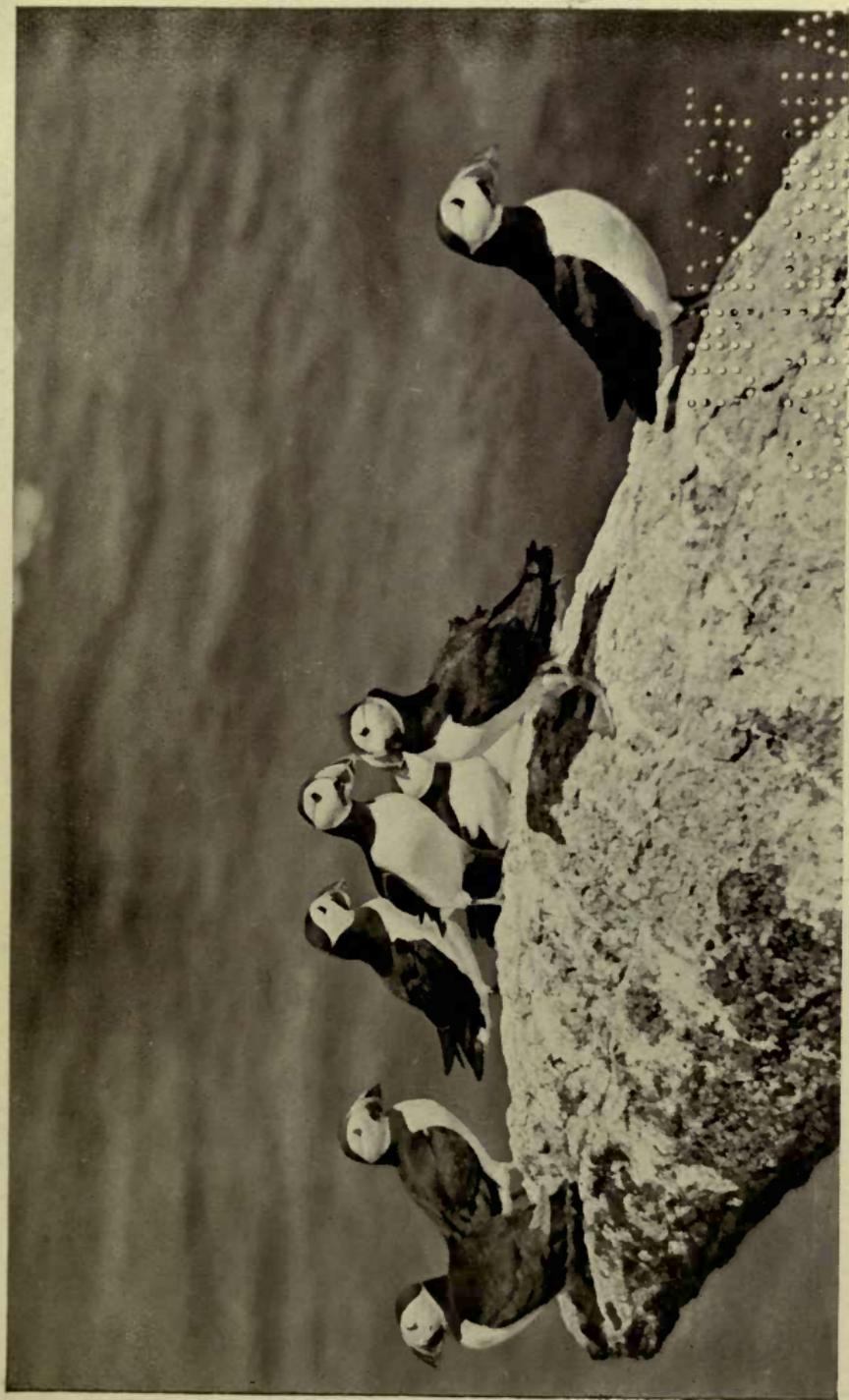
The Bird Book

covered with rusty brown or black markings. It is hardly possible to confuse these birds with Guillemots after a slight acquaintance with them, for, though similarly marked, their plumage is black, not brown above, and the bill, high, flat and much decurved at the end, is further distinguished by a white line which traverses both mandibles. Another white stripe runs from the base of the beak to the eye.

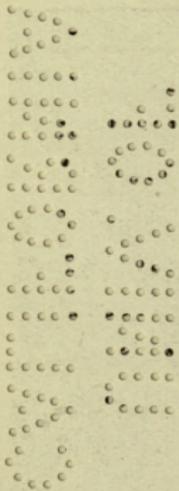
Long before the young birds are able to take care of themselves they are conveyed to the water, where the rest of the year is to be spent, and it goes ill with them if heavy storms arise within the first few weeks of their career.

It is easy enough to spend hours watching these interesting birds at such close quarters, but we must turn our attention to a broad shelf of rock, where a few pairs of Gannets have their nests—huge accumulations of seaweed. They still cling fondly to the spot where their ancestors nested, though sadly diminished in numbers since the granite was quarried for the Thames embankment, still more since the days of Edward II., for, when that King gave the island to Despenser, the Gannet Stone figures as a “certain rock, with two places near it, where Gannets settle and breed worth in ordinary years sixty-six shillings and eight pence.”

As we approach they fly out, showing a vast stretch of white wings strikingly tipped with



A GROUP OF PUFFINS



V. CHOCOLATE LINDT

Along the Rock-bound Coast

black, and we can mark their long, straight, powerful bills and buff heads, ere they get too far out to sea. What a sight it is to see them fishing! They sail quietly along, hovering maybe over a shoal of mackerel, at a considerable height, watching for a victim to come near the surface, when they plunge into the sea like an arrow, not even troubling to close their wings. Small chance for any fish that encounters the terrific thrust of their bills!

Equally interesting and certainly no less successful a fisher is the Cormorant. Off the coast of Northumberland in winter I have seen one or two employing the same tactics as the Gannet, but generally he dives for his prey, staying under water for the greater part of a minute and re-appearing as fresh as ever, perhaps holding a fish in his hooked beak and giving it a toss in the air preparatory to swallowing it head foremost.

A colony of these somewhat ungainly black birds are nesting not far from the Gannets and make a striking contrast. Some are still sitting on their eggs, three in number, which are so coated with lime that we should scarcely dream that the colour underneath is a beautiful pale green. Others are feeding their young, and some, sitting bolt upright, with wings outstretched and quivering, are endeavouring to digest a heavy repast.

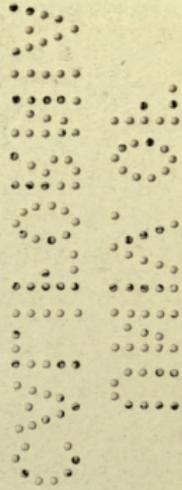
The young ones in the various nests are in every stage of development: some just hatched,

The Bird Book

shiny, black-skinned and naked, have scarcely strength enough to hold up their heads; while others, covered with thick, close down resembling fur, scramble away at our approach, half running, half flying.

The Cormorant's aversion to any fish that is not perfectly fresh is well known, and, as it catches more than it possibly can consume, the accumulation of remnants decaying in the hot sun soon becomes offensive to the nostrils. What it is like by the time the young are ready to fly, may be left to the imagination, for they do not appear to mature rapidly. In the case of a Shag's nest which I found recently, the young remained at the nest for a whole month to my knowledge, and it might have been longer. These birds closely resemble the Cormorant, but are rather smaller and decidedly more handsome. The green metallic sheen on their plumage has earned them the name of Green Cormorant, and a crest of feathers, which point forward, still further enhances the bird's appearance. Generally the Shag breeds in caves, but my experience has only been with those whose nests are in the precipitous gullies which indent the western side of Lundy, exposed to the full force of the Atlantic.

One of the most interesting of sea-birds, certainly one of the most difficult to observe, is the Manx Shearwater, for it is mostly nocturnal in its habits. On making the passage to Lundy, how-





RAZORBILLS

Along the Rock-bound Coast

ever, we frequently saw small parties of these birds sitting on the water in company with Guillemots, Razorbills and Gulls, apparently where fish attracted them; others raced along the hollows between the waves as if their wings could never tire. It is at dusk, however, that they become most active, issuing from their nesting burrows and behaving, as far as one could judge, after the manner of Swifts, except that their cries were inexpressibly more weird, and on foggy nights they were unusually noisy. At one moment we heard them just above our heads, at the next the cry seemed to come to us from a quarter of a mile away, "Kok, kok, kok-a-kow, kok-a-kow, kok-kok."

Their nesting burrows were situated just under the brow of some loose-faced cliffs, and, in some cases at least, had an exit at the top. About three or four feet down was a chamber excavated by the bird, and the nest itself was nothing but a few scraps of dry bracken. Some of the holes that we examined contained a smooth white egg, others a young bird resembling a young Puffin, except for a curious tuft on the head, but in every case we found the parent bird at home, and they required careful handling as some scars on our hands testified for many a day. The colouring, black above and white below, with transverse bars of grey and white at the sides of the neck, though not striking in itself, gave a beautifully sleek and

The Bird Book

clean appearance to the birds, and there is something especially fascinating in examining a somewhat unfamiliar bird under such circumstances. When at length we did release our captives, they seemed only too glad to scramble back into their burrows.

I suppose it is inevitable that where such numbers of birds congregate, their enemies, feathered and otherwise, should be fairly numerous, and Lundy certainly has its share of Hawks. I have never actually seen them stoop at the sea-fowl, but there is no reason to suppose that they do not do so. This abundant food supply, however, is of short duration, for by the middle of August not a Guillemot, Razorbill or Puffin is to be seen on the island. The birds, accompanied by their young, are floating with boat-like ease on the waves, and dive simultaneously if we attempt to approach them. In September they get their winter plumage, which in the Guillemot differs from the summer coat in having the throat and cheeks white.

Whether it is on account of this food supply, or of the rugged and precipitous nature of its cliffs, Lundy can still boast of some Peregrine Falcons, and the young that are sometimes taken there, are, I am told, famous in the hawking world for their dash and spirit. They can never become numerous there, for the parents drive away their young when the latter are able to hunt for themselves.

Along the Rock-bound Coast

The Peregrine's powers on the wing are remarkable, and a friend of mine at Lundy saw a striking exhibition of them. The Falcon was flying leisurely seawards, followed by some half-dozen clamouring Crows, of whom he took not the slightest notice. They were, however, persistent in their efforts to mob him, and one, bolder than the rest, flew at him. The Peregrine rose in the air, made one swift stoop, and the Crow fell headlong into the sea. The lesson was repeated, whereon the Crows thought that discretion was, after all, the better part of valour, and returned hurriedly to the island.

The Peregrine is bluish-grey, barred with black above, the head being blackish, barred with grey. Its underparts are white, inclining to fawn colour on the breast, and marked with black, except on the chin and throat. The bird is, however, unmistakable owing to its size, its sharp-pointed wings and rapid flight.

Buzzards are rather more plentiful, and may frequently be seen wheeling majestically in wide circles high in the air, or sailing along the cliffs. Their comparatively rounded wings and the separation of the primaries are quite noticeable at a distance, having all the appearance of fingers. The general colouring above is ashy brown, streaked narrowly with white on the forehead, sides of the face and nape, while the underparts are yellowish-white, clouded with brown on the

The Bird Book

breast, sides and thighs. Unlike the Peregrine, it makes a substantial nest, laying three or four eggs of pale greenish-white, marked with rufous-brown.

Unfortunately the Buzzard is the subject of much persecution, and is becoming everywhere rarer, a fact which is the more to be deplored as the persecution is based on a mistaken notion of the bird's food, for like that of the Barn Owl, its bill of fare consists almost entirely of small vermin, and consequently the Buzzard ought to be rigorously protected.

Another inhabitant of the cliffs is the Raven: with regard to Lundy I fear I ought to use the past tense, for the birds there unfortunately partook of some poisoned mutton that had been provided for the benefit of the crows. I saw two nests which were being repaired when the fatal mistake occurred, and one was two or three feet high, the result of several years' accumulation of sticks and heather stalks.

The Raven, possessing all the instincts of the Crow, is as much more destructive as he is larger and more powerful, and consequently he, too, is the victim of persistent shooting and trapping, yearly becoming rarer and rarer. Certainly in his case there is such a tale of misdeeds as may be held to justify the persecution, but it would be a source of grief to all bird-lovers if so fine a bird were to be exterminated. He still holds out in



YOUNG CORMORANTS, BLACKSKINNED AND NAKED

1900

1900

Along the Rock-bound Coast

the wilder moorland districts of England, Scotland and Wales, but like the Peregrine is being driven to take refuge on the precipitous parts of the coast.

The Peregrine is said to be decidedly increasing in numbers, and many a landowner is protecting these and other species rarer still, which nest on his ground at no inconsiderable expense. The great enemy of these birds is the professional collector, but the eggs would not be taken if there were no market for them. Love and knowledge of bird life is assuredly growing, so may we not hope that the public may yet awake to the fact that the birds are a national possession of inestimable value, and take means to prevent the irreparable loss involved in the extinction of the many threatened species, ere it becomes too late?

List of British Birds

ORDER PASSERES.

Fam. Turdidæ.

- Missel Thrush, 11 in. R
 Song Thrush, 9 in. R
 Redwing, $8\frac{3}{4}$ in. W
 Fieldfare, 10 in. W
 Blackbird, 10 in. R
 Ring Ouzel, 11 in. S
 Wheatear, 6 in. S
 Whinchat, 5 in. S
 Stonechat, $5\frac{1}{4}$ in. R
 Redstart, $5\frac{1}{4}$ in. S
 Black Redstart, $5\frac{3}{4}$ in. W
 Robin, $5\frac{3}{4}$ in. R
 Nightingale, $6\frac{3}{8}$ in. S
 Hedge Sparrow, $5\frac{1}{2}$ in. R
 Whitethroat, $5\frac{1}{2}$ in. S
 Lesser Whitethroat, $5\frac{1}{4}$ in.
 S
 Garden Warbler, $5\frac{7}{8}$ in.
 S
 Blackcap, male $5\frac{3}{4}$, fem.
 $6\frac{1}{4}$ in. S
 Dartford Warbler, 5 in.
 R
 Reed Warbler, $5\frac{1}{2}$ in. S
 Marsh Warbler, $5\frac{1}{4}$ in. S
 Sedge Warbler, $4\frac{3}{4}$ in. S
 Grasshopper Warbler, $5\frac{1}{2}$
 in. S
 Chiffchaff, $4\frac{3}{4}$ in. S
 Willow Warbler, 5 in. S

- Wood Warbler, $5\frac{1}{4}$ in. S
 Gold-crested Wren, $3\frac{1}{2}$ in.
 R

Fam. Paridæ.

- Long Tailed Tit, $5\frac{1}{2}$ in.
 (tail $3\frac{1}{2}$). R
 Great Tit, 6 in. R
 Blue Tit, $4\frac{1}{2}$ in. R
 Coal Tit, $4\frac{1}{4}$ in. R
 Marsh Tit, $4\frac{1}{2}$ in. R
 Crested Tit, $4\frac{1}{4}$ in. R

Fam. Panuridæ.

- Bearded Reedling, 6 in.
 R

Fam. Sittidæ.

- Nuthatch, $5\frac{1}{2}$ in. R

Fem. Certhiudæ.

- Treecreeper, 5 in. R

Fam. Troglodytidæ.

- Wren, 4 in. R

Fam. Cinclidæ.

- Dipper, 7 in. R

Fam. Oriolidæ.

- Golden Oriole, 9 in. S

Fam. Sturnidæ.

- Starling, $8\frac{1}{2}$ in. R

Fam. Corvidæ.

- Chough, 14-17 in. R

List of British Birds

Jay, 14 in. R	Lesser Redpoll, 4½ in. R
Magpie, 16-18 in. R	Twite, 5 in. R
Jackdaw, 14 in. R	Bullfinch, 6 in. R
Raven, 24 in. R	Crossbill, 6 in. R
Carrion Crow, 19 in. R	Corn Bunting, 7 in. R
Hooded Crow, 18-19 in. R	Yellow Hammer, 6½ in. R

Rook, 18 in. R	Cirl Bunting, 6 in. R
	Reed Bunting, 6 in. R
	Snow Bunting, 6½ in. W

Fam. Laniidae.

Great Grey Shrike, 9 in. W	<i>Fam. Motacillidae.</i>
----------------------------	---------------------------

Red Backed Shrike, 7½ in. S	White Wagtail, 7 in. S
	Pied Wagtail, 7 in. S and R

Fam. Ampelidae.

Waxwing, 8 in. W	Grey Wagtail, 7 in. R and W
------------------	-----------------------------

Fam. Muscicapidae.

Spotted Flycatcher, 5½ in. S	Yellow Wagtail, 6½ in. S
	Tree Pipit, 6½ in. S
Pied Flycatcher, 5 in. S	Meadow Pipit, 5½ in. R
	Rock Pipit, 6½ in. R

Fam. Hirundinidae.

Swallow, 8½ in. S	<i>Fam. Alandidae.</i>
Martin, 4¾ in. S	Sky Lark, 7¼ in. R
Sand Martin, 4¾ in. S	Wood Lark, 6 in. R
	Shore Lark, 7 in. W

Fam. Fringillidae.

Greenfinch, 6 in. R	ORDER PICARIAE.
Hawfinch, 7 in. R	<i>Fam. Cypselidae.</i>
Goldfinch, 5 in. R	Swift, 7½ in. S
Siskin, 4½ in. R	<i>Fam. Caprimulgidae.</i>
House Sparrow, 6 in. R	Nightjar, 10½ in. S
Tree Sparrow, 5½ in. R	<i>Fam. Picidae.</i>
Chaffinch, 6 in. R	Great Spotted Woodpecker, 9½ in. R
Brambling, 6½ in. W	
Linnet, 5½-6 in. R	
Mealy Redpoll, 5 in. W	

The Bird Book

Lesser Spotted Wood-
pecker, $5\frac{3}{4}$ in. R
Green Woodpecker, 13-14
in. R
Wryneck, 7 in. S

Fam. Alcedinidae.

Kingfisher, $7\frac{1}{2}$ in. R

Fam. Upupidae.

Hoopoe, 10-12 in. S

Fam. Cuculidae.

Cuckoo, 14 in. S

ORDER STRINGES.

Fam. Strigidae.

Barn Owl, 14 in. R

Long-Eared Owl, 14 in.
R

Short-Eared Owl, 14-16 $\frac{1}{2}$
in. W and R

Tawny Owl, 18-19 in.
R

ORDER

ACCIPITRES.

Fam. Falconidae.

Marsh Harrier, 21-23 in.
R once

Hen Harrier, 21 $\frac{1}{2}$ in. R

Montagu's Harrier, 18-19
in. S

Common Buzzard, 20-23
in. R

Rough-Legged Buzzard,
23-26 in. W

Golden Eagle, 32-36 in. R
White-Tailed Eagle, 28-
34 in. R

Goshawk, male 19, fem.
23-24 in. Casual visitor

Sparrow Hawk, male 12,
fem. 15 in. R

Red Kite, 24 in. R

Honey Buzzard, 22-25
in. S

Peregrine Falcon, 15-20
in. R

Hobby, 12-14 in. S

Merlin, 12 in. R

Kestrel, 13-15 in. R

Osprey, 23 in. S

ORDER

STEGANOPODES.

Fam. Pelecanidae.

Cormorant, 36 in. R

Shag, 27 in. R

Gannet, 30 in. R

ORDER

HERODIONES.

Fam. Ardeidae.

Common Heron, 36 in.
R

Little Bittern, 12 in. S

Bittern, 28-29 in. W

ORDER ANSERES.

Fam. Anatidae.

Grey Lag Goose, 35 in. R

List of British Birds

White Fronted Goose, 27 in. W
 Bean Goose, 34 in. W
 Pink Footed Goose, 28 in. W

Stock Dove, 13 in. R
 Rock Dove, 13 in. R
 Turtle Dove, 11½ in. S

Brent Goose, 23-24 in. W
 Bernacle Goose, 25 in. W
 Mute Swan, 60 in. W
 Whooper Swan, 60 in. W
 Sheldrake, 25-26 in. R
 Wild Duck, 21 in. R
 Gadwall, 20 in. W and R
 Shoveller, 20 in. R

ORDER GALLINAE.

Fam. Tetraonidae.

Capercaillie, male 36, fem. 26 in. R
 Black Grouse, male 22 in., fem. 15 in. R
 Red Grouse, 14-15 in. R
 Ptarmigan, 15 in. R

Fam. Phasianidae.

Pheasant, about 36 in. R
 Partridge, 12½ in. R
 Red Legged Partridge, 14 in. R
 Quail, 7 in. S

Pintail, 24-28 in. W
 Teal, 13-15 in. R
 Garganey, 15-16 in. W
 Wigeon, 20 in. W and R
 Pochard, 17-19 in. W and R

Tufted Duck, 17 in. W and R

ORDER FULICARIAE.

Fam. Rallidae.

Corn Crake, 10½ in. S
 Spotted Crake, 8½ in. S
 Water Rail, 10 in. R
 Moorhen, 13 in. R
 Coot, 16 in. R

Scaup, 18 in. W
 Goldeneye, 16-19 in. W
 Long Tailed Duck, 16 in. W

Common Eider, 25 in. R
 Scoter, 21 in. W
 Velvet Scoter, 21 in. W
 Surf Scoter, 21 in. W
 Goosander, 26 in. W

Red Breasted Merganser, 22-24 in. R and W
 Smew, 14-17 in. W

ORDER ALECTORIDES.

Fam. Otidae.

ORDER COLUMBAE. Great Bustard, male 45, fem. 36 in. Irreg. visitor
Fam. Columbidae.
 Ring Dove, 16-17 in. R

The Bird Book

- Little Bustard, 16-17 in. Rare W visitor
- Green Sandpiper, 9½ in. Visitor
- Wood Sandpiper, 7½ in. On passage
- Common Sandpiper, 7½ in. S
- Redshank, 10-11 in. R
- Greenshank, 13-14 in. S rarely W
- Bartailed Godwit, 15-16 in. W
- Blacktailed Godwit, 16-20 in. On migration
- Curlew, 21-26 in. R
- Whimbrel, 16-18 in. R and on passage
- ORDER LIMICOLAE.
- Fam. Charadriidae.*
- Stone Curlew, 16 in. S and R
- Cream Coloured Courser, 10 in. Irreg. visitor
- Golden Plover, 9 in. R
- Grey Plover, 10-12 in. W
- Dotterel, 9 in. S
- Ring Plover, 7 in. R
- Kentish Plover, 6½ in. S
- Lapwing, 13 in. R
- Oystercatcher, 16 in. R
- Turnstone, 9½ in. W
- Fam. Scotopacidæ.*
- Avocet, 18 in. Visitor
- Grey Phalarope, 8 in. W
- Red-necked Phalarope, 7 in. W and R
- Woodcock, 13 in. W and R
- Common Snipe, 10½ in. R
- Jack Snipe, 7½ in. W
- Sanderling, 8 in. W
- Knot, 10 in. W
- Dunlin, 8 in. R
- Purple Sandpiper, 8 in. W
- Little Stint, 6 in. On passage
- Ruff, male 12½, fem. 10½ in. W
- Black Tern, 10 in. On migration
- Sandwich Tern, 15 in. S
- Roseate Tern, 15-17 in. S
- Arctic Tern, 15 in. S
- Common Tern, 14 in. S
- Little Tern, 8½ in. S
- Little Gull, 10-11 in. W
- Black-headed Gull, 15-16 in. R
- Common Gull, 18 in. R
- Herring Gull, 22-24 in. R
- Lesser Black-backed Gull, 21-23 in. R
- Great Black-backed Gull, 26-33 in. R

List of British Birds

<p>Glaucous Gull, 26-33 in. W</p> <p>Kittiwake, 15 in. R</p> <p>Great Skua, 24-25 in. R</p> <p>Twist-tailed Skua, 21 in. W</p> <p>Richardson's Skua, 20 in. R</p> <p>Long-tailed Skua, 22½ in. W</p>	<p>Black-throated Diver, 25 in. R</p> <p>Red-throated Diver, 21-23 in. R</p> <p style="text-align: center;"><i>Fam. Podicipedidae.</i></p> <p>Great Crested Grebe, 20-24 in. R</p> <p>Red-necked Grebe, 16½ in. W</p> <p>Little Grebe, 8-9 in. R</p>
--	--

ORDER PYGOPODES.

Fam. Alcidae.

Razorbill, 17 in. R	
Common Guillemot, 18 in. R	
Black Guillemot, 14 in. R	
Little Auk, 8½ in. W	
Puffin, 12 in. R	

Fam. Colymbidae.

Great Northern Diver, 30-33 in. W	
-----------------------------------	--

ORDER TUBINARES.

Fam. Procellariidae.

Fulmar, 19 in. R	
Manx Shearwater, 13-14 in. R	
Storm Petrel, 5½ in. R	
Forked-tailed Petrel, 7¼ in. R	

The classification followed in this list is that of Lieut.-Colonel Howard Irby. The figures after the names of the birds denote their length in inches, while the letters R., S. and W. stand for Resident, Summer Visitor and Winter Visitor respectively.

Index

- ALBATROSS—wing of, 10.
AUK, GREAT—6, 7.
- BIRDS—
flight of, 4-10.
usefulness of, 1.
- BLACKBIRD—
alarm note of, 20.
habits of, 19.
song of, 20.
- BLACKCAP—
described, 25.
nest and eggs of, 25.
song of, 26.
- BULLFINCH—
male and female described,
58.
habits of, 57.
nest of, 58.
note of, 58.
- BUNTING, REED—
described, 68.
haunts of, 67.
nest and eggs of, 68.
- BUSTARD, GREAT—93.
- BUZZARD—
description of, 121.
food of, 122.
nest and eggs of, 122.
- CHAFFINCH—
anxiety for nest, 30.
described, 31.
nest of, 31.
- CHIFF-CHAFF—
nest and eggs of, 24, 25.
note of, 25.
- COOT—
compared with Moorhen,
75, 76.
nest and eggs of, 76.
- CORMORANT—
eggs of, 117.
food of, 118.
method of fishing, 117.
nesting colony of, 117.
young of, 108.
- CORMORANT, GREEN—*see* Shag,
118.
- CORNCRAKE—
described, 43.
habits of, 43.
nest and eggs of, 44.
- CROW, CARRION—
and water-birds, 80.
distinguished from Rook, 35.
food of, 36.
nesting habits of, 36, 37.
range of, 36.
- CROW, HOODED—
distinguished from Carrion
Crow, 109.
on the sea-shore, 108.
- CUCKOO—
description of, 65.
likeness to Sparrow Hawk,
65.
method of depositing eggs,
63.
note of female, 64.
number of eggs of, 64.
species victimised by, 65.
variable eggs of, 63.
young of, 65.
- CURLEW—
alarm note of, 101.
described, 96.
habits of, 96.
in winter, 96, 101.
nest and eggs of, 96.
- CURLEW, STONE—
classification of, 93.

Index

- CURLEW, STONE**—*continued.*
description of, 94.
eggs of, 95.
habitat of, 93.
habits of, 94.
- DABCHICK**—*see* Grebe, Little, 81.
- DIPPER**—
courtship of, 69.
described, 68.
haunt of, 60, 68.
nest of, 69.
resemblance to Wren, 69.
young of, 70.
- DIVER**—
nest and eggs of, 85.
peculiar development of, 85.
- DIVER, BLACK-THROATED**, 86.
,, **GREAT NORTHERN**, 86.
,, **RED-THROATED**, 86.
- DOTTERELL**—109.
- DOVE, RING**—*see* Pigeon, Wood, 58.
- DOVE, TURTLE**—
nesting habits of, 58.
note of, 58.
- DUCK**—feeding habits of, 108.
- DUCK, WILD**—
down of, 83.
eggs of, 83.
sites of nest, 83.
- DUNLIN**—
flock of, 100.
winter plumage of, 102.
- EGGS**—coloration of, 53.
- EYES**—
betraying presence of birds, 91.
of Kestrel, 3.
- FALCON, PEREGRINE**—
at Lundy, 120.
description of, 121.
- FALCON, PEREGRINE**—*continued.*
encounter with crows, 121.
wing of, 9.
- FLYCATCHER, SPOTTED**—
described, 18.
eggs of, 18.
nesting sites of, 18.
- GANNET**—
described, 116, 117.
flight of, 116.
method of fishing, 117.
nesting colony of, 116.
wing of, 8, 9.
- GREBE, GREAT CRESTED**—
cry of, 79.
described, 79.
eggs of, 80.
habits of, 79, 80.
nest of, 80.
- GREBE, LITTLE**—
description of, 81.
eggs of, 81.
habits of, 81.
nest of, 81.
- GREENFINCH**—
described, 57.
nest of, 57.
- GROUSE, RED**—
eggs of, 95.
moulting peculiarity, 95.
- GUILLEMOT**—
described, 112.
eggs of, 112.
nesting habits of, 111, 112.
winter plumage of, 120.
- GULL, BLACK-HEADED**—
eggs of, 82.
moulting of, 82.
nesting colony of, 81, 82.
- GULL, GREAT BLACK-BACKED**—
100.
- GULL, HERRING**—
and Lesser Tern, 107.
described, 113, 114.

Index

- GULL, HERRING**—*continued.*
eggs of, 113.
flight of, 99.
immature, 100.
nesting place, 113.
- GULL, LESSER BLACK-BACKED**—
described and distinguished
from Herring Gull, 113,
114.
eggs, 113.
nesting colony of, 113.
- HAWK, SPARROW**—
distinguished from Kestrel,
41.
habits of, 42.
method of hunting, 42.
resemblance to Cuckoo, 65.
wing of, 42.
- HERON**—haunt of, 71.
- KESTREL**—
distinguished from Sparrow
Hawk, 41.
flight of, 10, 11.
sight of, 3, 40.
usefulness of, 40.
- KINGFISHER**—
autumnal increase on large
rivers, 71.
haunt of, 70.
nest of, 71.
young of, 71.
- KITTIWAKE**—
nesting colonies of, 110, 111.
- KNOT**—in winter, 108.
- LAPWING**—
behaviour of, when disturbed
from nest, 97, 98.
eggs of, 38.
flight of, 37.
migration of, 37.
- LINNET**—
described, 92.
- LINNET**—*continued.*
eggs of, 92.
moulting of, 93.
nest of, 92.
- LUNDY ISLAND**, 111.
- MARTIN, HOUSE**—
described, 15.
eggs of, 15.
nests of, 14, 15.
- MARTIN, SAND**—
compared with House Mar-
tin, 70.
nesting habits, 70.
- MERLIN**—
described, 98.
eggs of, 98.
in winter, 98.
- MOORHEN**—
habits of, 73, 74.
nest and eggs, 75.
- NIGHTINGALE**—
classification of, 24.
described, 24.
eggs of, 24.
nest of, 23.
song of, 24.
- NIGHTJAR**—
coloration of, 91.
flight of, 92.
habits of, 91, 92.
note of, 92.
resemblance to surroundings,
90.
- NUTHATCH**—
classified, 49.
described, 49.
habits of, 48.
nest and eggs of, 49.
- OWL**—
flight of, 9.
pellets of, 41.
sight of, 41.

Index

- OWL—*continued.*
usefulness of, 41.
- OWL, BARN, 41.
,, LONG-EARED, 93.
,, TAWNY, 59.
- OYSTERCATCHER—
described, 101.
nesting place, 104.
- PARTRIDGE—
and photographer, 91.
parental instincts of, 43.
- PARTRIDGE, RED-LEGGED—
habits of, 43.
- PEE WIT—*see* Lapwing.
- PHEASANT—
contrasted with Partridge, 42.
crowing of, 59.
- PIGEON, WOOD—conduct when
disturbed, 58, 59.
- PIPIT, MEADOW—
eggs of, 46.
food of, 46.
habits of, 46.
habitat of, 45.
- PIPIT, TREE—
distinguished from Meadow
Pipit, 45.
eggs of, 46.
food of, 46.
habitat of, 45.
habits of, 45, 46.
- PLOVER, GOLDEN—
described, 97.
habits of, 97.
nest and eggs of, 97.
note of, 97.
- PLOVER, GREEN—*see* Lapwing.
,, KENTISH—
nesting place of, 104.
- PLOVER, NORFOLK OR GREAT—
see Curlew, Stone.
- PLOVER, RINGED—
and Dunlin, 108.
described, 100.
- PLOVER, RINGED—*continued.*
devices of, 105.
eggs of, 107.
nesting place, 104.
- POLE TRAP, 59.
- PTARMIGAN, 95.
- PUFFIN—
attitudes of, 115.
egg of, 115.
nesting colony of, 114.
young of, 115.
- RAIL, LAND—*see* Corn Crake.
,, WATER—
described, 84.
habits of, 84.
nest and eggs of, 85.
- RAVEN—
habitat of, 122, 123.
nest of, 122.
- RAZORBILL—
distinguished from Guillemot, 116.
egg of, 116.
nesting habits, 115.
wing adjustment of, 6.
- REDSHANK—
described, 78.
in winter, 103.
nest and eggs, 77.
nesting habits, 77.
- ROBIN—
classification of, 24.
eggs of, 29.
pugnacity of, 21.
- ROOK—
distinguished from Crow, 35.
food of, 36.
nest and eggs of, 35.
- ROOKERY—life of, 35.
- SANDPIPER—
described, 72.
note of, 72.
- SEABIRDS—nursery of, 111.

Index

- SHAG—distinguished from Cormorant, 118.
- SHEARWATER, MANX—
cry of, 119.
described, 119.
habits of, 118, 119.
nest and egg of, 119.
young of, 119.
- SHRIKE, RED-BACKED—
described, 28.
habits of, 28.
larder of, 28.
nest of, 29.
range of, 29.
varieties of eggs of, 29.
- SKYLARK—
eggs of, 44.
nest of, 44.
song of, 44.
- SNIFE—
described, 77, 78.
drumming of, 76.
flight of, 78.
nest and eggs, 77.
nesting habits, 77.
- SPARROW, HEDGE—
nest and eggs of, 20.
song of, 20.
- SPARROW, HOUSE—
contrasted with Tree Sparrow, 61.
habits, 12.
- SPARROW, TREE—
contrasted with House Sparrow, 61.
nesting habits, 61.
range of, 61.
- STARLING—
nesting habits of, 13.
song of, 14.
winter habits of, 34.
- STONECHAT—
described, 87.
distinguished from Whinchat, 88.
- STONECHAT—*continued.*
eggs of, 89.
habits of, 87.
nest of, 89.
note of, 87.
- SWALLOW—
arrival and departure of, 15, 16.
distinguished from House Martin, 15.
nest and eggs of, 15.
- SWIFT—
classification of, 16.
description of, 16.
flight of, 16.
habits of, 16, 17.
nest and eggs of, 17.
- TERN, ARCTIC—range of, 107.
- TERN, COMMON—
colonies of, 104.
- TERN, LESSER—
attack on herring gull, 107.
colonies of, 104.
described, 104, 105.
distinguished from Common Tern, 106.
eggs of, 106.
- TERN, SANDWICH—
range of, 107.
- THRUSH—method of building nest, 39.
- THRUSH, MISSEL—
alarm cry of, 40.
distinguished from Song Thrush, 40.
habits of, 39.
nest and eggs of, 39.
song of, 40.
- THRUSH, SONG—
catching worms, 12.
- TIT, BLUE—described, 52.
nesting sites of, 53.
nest and eggs of, 53.

Index

- TIT, COAL**—distinguished from Marsh Tit, 52.
- TIT, GREAT**—
described, 52.
nest and eggs of, 53.
nesting site of, 53.
- TIT, LONG-TAILED**—
described, 26.
habits of, 26, 27.
industry of, 27.
method of building, 27.
nest of, 26.
site of nest, 27.
- TIT, MARSH**—distinguished from Coal Tit, 52.
- TREECREEPER**—
attempt at description, 51.
described, 50.
habits of, 50.
nest and eggs of, 51.
- WAGTAIL, PIED**—
described, 62, 63.
eggs, compared with Cuckoo's, 63.
flight of, 62.
nesting sites of, 62.
note of, 62.
victim of Cuckoo, 63.
- WARBLER, GARDEN**—
described, 25.
nest and eggs of, 25.
- WARBLER, REED**—
described, 67.
habits of, 66.
nest and eggs of, 66.
range of, 66.
- WARBLER, SEDGE**—
described, 67.
eggs of, 67.
- WARBLER, SEDGE**—*continued.*
nest of, 67.
- WHEATEAR**—description of, 90.
migration of, 89.
nesting sites of, 89.
- WHINCHAT**—
distinguished from Stonechat, 88.
eggs of, 89.
nesting habits of, 89.
- WHITETHROAT**—
described, 23.
eggs of, 23.
habits of, 23.
- WHITETHROAT, LESSER**—
described, 23.
eggs of, 22.
- WOODPECKER**—
nesting habits of, 56.
structure of, 2, 3.
- WOODPECKER, GREAT SPOTTED**—
described, 55.
young of, 56.
- WOODPECKER, GREEN**—
described, 54.
habits of, 54.
range of, 55.
- WOODPECKER, LESSER SPOTTED**—
described, 55.
- WREN**—
eggs of, 30.
habits of, 30.
nest of, 30.
- YELLOW HAMMER**—
described, 31.
eggs of, 32.
habits of, 31.
nest of, 32.
nesting sites of, 32.
song of, 31.

UNIFORM WITH THIS VOLUME

The Country Handbooks

*A Series of Illustrated Practical Handbooks
dealing with Country Life, suitable for the
Pocket or Knapsack*

Under the General Editorship of
HARRY ROBERTS

Price 3s. net, bound in Limp Cloth. Price \$1.00 net.

Price 4s. net, bound in Limp Leather. Price \$1.20 net.

*Vol. I.—THE TRAMP'S HANDBOOK. For the use
of Travellers, Soldiers, Cyclists, and lovers of the Country.
By Harry Roberts.*

*A volume written in defence of vagabondage, containing much
valuable advice to the amateur gypsy, traveller, or cyclist, as to
camping-out, cooking, &c.*

Vol. II.—THE MOTOR BOOK. By R. J. Mecedry.

*An invaluable handbook that should find a place in the library
of every motorist, or even in the car itself.*

Vol. III.—THE BIRD BOOK. By A. J. R. Roberts.

*A guide to the study of bird life, with hints as to recognising
various species by their flight or their note.*

*Vol. IV.—THE STILL ROOM. By Mrs Charles
Roundell.*

*A book full of information upon all subjects pertaining to pre-
serving, pickling, bottling, distilling, &c.; with many useful hints
upon the dairy.*

Vol. V.—THE TREE BOOK. By Mary Rowles Jarvis.

*Containing varied and useful information relating to forests,
together with a special chapter on Practical Forestry.*

*Vol. VI.—THE WOMAN OUT OF DOORS. By M^{rs} M^{rs} M^{rs}
Muriel Dowie.*

*Vol. VII.—THE HORSEMAN'S HANDBOOK. By
William Foster.*

*Vol. VIII.—THE FISHERMAN'S HANDBOOK. By
Edgar S. Shrubsole.*

An Eight-page Prospectus Post Free on Application.

BOOKS FOR THE GARDENER

HANDBOOKS
of Practical Gardening

Under the General Editorship of
HARRY ROBERTS

Price 2s. 6d. net. Crown 8vo. Cloth. Illustrated. Price \$1.00 net.

VOL.

- I. THE BOOK OF ASPARAGUS. By C. ILOTT, F.R.H.S.
- II. THE BOOK OF THE GREENHOUSE. By J. C. TALLACK, F.R.H.S.
- III. THE BOOK OF THE GRAPE. By H. W. WARD, F.R.H.S.
- IV. THE BOOK OF OLD-FASHIONED FLOWERS. By HARRY ROBERTS.
- V. THE BOOK OF BULBS. By S. ARNOTT, F.R.H.S.
- VI. THE BOOK OF THE APPLE. By H. H. THOMAS.
- VII. THE BOOK OF VEGETABLES. By G. WYTHES, V.M.N.
- VIII. THE BOOK OF ORCHIDS. By W. H. WHITE, F.R.H.S.
- IX. THE BOOK OF THE STRAWBERRY. By E. BECKETT, F.R.H.S.
- X. THE BOOK OF CLIMBING PLANTS. By S. ARNOTT, F.R.H.S.
- XI. THE BOOK OF PEARS AND PLUMS. By the Rev. E. BARTRUM, D.D.
- XII. THE BOOK OF HERBS. By Lady ROSALIND NORTH-COTE.
- XIII. THE BOOK OF THE WILD GARDEN. By S. W. FITZHERBERT.
- XIV. THE BOOK OF THE HONEY BEE. By C. HARRISON.
- XV. THE BOOK OF SHRUBS. By G. GORDON, V.M.H.
- XVI. THE BOOK OF THE DAFFODIL. By the Rev. S. E. BOURNE.
- XVII. THE BOOK OF THE LILY. By W. GOLDRING.
- XVIII. THE BOOK OF TOPIARY. By W. GIBSON and CHARLES H. CURTIS.
- XIX. THE BOOK OF TOWN AND WINDOW GARDENING. By Mrs F. A. BARDSWELL.
- XX. THE BOOK OF RARER VEGETABLES. By GEORGE WYTHES.
- XXI. THE BOOK OF THE IRIS.
- XXII. THE BOOK OF GARDEN FURNITURE.

** *Any of the above volumes will be sent post free by a bookseller on receipt of a postal order for two shillings and ninepence.*

BOOKS ABOUT GARDENS

BY HARRY ROBERTS

THE CHRONICLE OF A CORNISH GARDEN. With Seven Illustrations of an Ideal Garden by F. L. B. GRIGGS. Price 5s. net. Crown 8vo. Price \$1.50 net.

The Literary World.—"The Chronicle is written in a frank, unaffected style, and will suggest useful ideas to other garden lovers."

The Bookman.—"It is written with grace and knowledge, and pleases as well as teaches."

BY MRS LESLIE WILLIAMS

A GARDEN IN THE SUBURBS. With Eight Illustrations. Price 5s. net. Crown 8vo. Price \$1.25 net.

The Westminster Gazette.—"The writer knows her subjects and conveys her facts in an interesting manner. . . . the number of hints which she gives about the buying of plants are especially valuable. . . ."

BY THE REV. CANON ELLACOMBE

IN MY VICARAGE GARDEN AND ELSEWHERE. With a Photogravure Frontispiece of the Author. Price 5s. net. Crown 8vo. Price \$1.50 net.

The Daily Chronicle.—"One is not often fortunate enough to come upon a scholar in a flower garden, but Canon Ellacombe has a quality of his own."

The Academy.—"Canon Ellacombe writes of gardens as one who knows, and his latest book has a practical value. He deals with his subject in a manner which indicates close observation and genuine love."

BY MRS MILNE-HOME

STRAY LEAVES FROM A BORDER GARDEN. With Eight Illustrations by F. L. B. GRIGGS. Price 5s. net. Crown 8vo. Price \$1.50 net.

The Daily Chronicle.—"It is just the sort of book to read as one swings in a hammock 'underneath the bough' in the delightful summer afternoons."

The Daily News.—"The garden thread runs through it all, and it is a charming book with plenty of hints to be picked up."

TWO ILLUSTRATED CLASSICS

By GILBERT WHITE

THE NATURAL HISTORY OF SELBORNE. Edited, with Introduction, by GRANT ALLEN. With upwards of 200 Illustrations by EDMUND H. NEW.

Price 5s. net. Crown 8vo. Price \$1.50 net.

"The attraction lies chiefly in finding the masterpiece so admirably illustrated by Mr Edmund H. New. In black and white line work of this class he has no equal."—*Country Life*.

"Mr Edmund New's drawings are not merely artistic, but full of the poetry of association."—*Speaker*.

"We have never seen this book in a more agreeable or appropriate form."—*St James's Gazette*.

By IZAAK WALTON AND CHARLES COTTON

THE COMPLEAT ANGLER. Edited, with an Introduction, by RICHARD LE GALLIENNE. With Photogravure Portraits of Walton and Cotton, and over 250 Illustrations and Cover-design by EDMUND H. NEW.

Price 15s. net. Fcap. 4to. Price \$6.00 net.

"A delightful edition, charmingly illustrated."—*Punch*.

"Of Mr Edmund H. New's illustrations we cannot speak too highly. We have never seen better."—*Spectator*.

"One of the best editions; one, we cannot help thinking, that Walton himself would have preferred."—*Daily Chronicle*.

"A beautiful edition of Isaac Walton's immortal work. The great charm of the new edition is Mr New's illustrations. They are beautiful reproductions of surface sketches which are in complete harmony with the spirit of Arcadian peace, characteristic of the grand old angler's pages."—*The Pall Mall Gazette*.

"This is the most delightful form that 'The Compleat Angler' has ever taken."—*The Globe*.

A BOOK ON DOGS

By CHARLES HENRY LANE

ALL ABOUT DOGS. A Book for Doggy People. With 85 full-page Illustrations (including nearly 70 champions) by R. H. MOORE.

Price 7s. 6d. net. Demy 8vo. Price \$2.50 net.

"One of the most interesting contributions to the literature of the day."—*Daily Chronicle*.

"Mr Lane's book is worthy of a place on the shelves of any sporting library."—*Outlook*.

"A most interesting, indeed, an entirely fascinating book."—*St James's Gazette*.

"A mine of information."—*Fur and Feather*.

"To be read from cover to cover."—*Country Gentleman*.

"The 'points,' in competitions, are set forth as becomes a practised judge; the remarks on treatment and disease are practical and brief; the illustrations are good and spirited."—*Athenæum*.

"Every breed is taken and described on a plan that is full and satisfactory, while the Doggy Stories will tickle everybody's palate!"—*Sportsman*.

"The advice he gives to exhibitors is invaluable, coming from one *who has almost an unrivalled record as a judge*. Dog lovers of every degree should hasten to possess themselves of this excellent handbook."—*Pall Mall Gazette*.

"C. H. Lane, whose knowledge of dogs is extensive and peculiar, has written a book about dogs which is *absolutely the most fascinating we have ever read*. Everyone who loves dogs should treat himself, or herself, to a copy of this excellent volume!"—*Star*.

"With this book as a guide the uninitiated cannot go far wrong and even the specialist may learn."—*Echo*.

JOHN LANE, PUBLISHER, LONDON & NEW YORK

"ONE & ALL" SEEDS &

MANURES



THE GARDENER'S ASSISTANT IN TROUBLE

CATALOGUES & SAMPLES FREE FROM THE
AGRICULTURAL & HORTICULTURAL ASSO^C LTD LONDON,
OR ANY OF THEIR
AGENTS.

Edward Owen Greening
MANAGING DIRECTOR

"ONE & ALL GARDENING"

*A most useful book for Amateur Gardeners.
200 pages profusely Illustrated.*

PUBLISHED ANNUALLY, PRICE 2d.

EDITED BY

EDWARD OWEN GREENING.

PUBLISHED AT 92 LONG ACRE, W.C.
FOR SALE AT ALL BOOKSTALLS, NEWSAGENTS, ETC.

BOOKS FOR AND ABOUT GARDENS

IN A TUSCAN GARDEN. With numerous
Illustrations reproduced from Photographs.

Price 5s. net. Crown 8vo. Price \$1.50 net.

BY THE REV. CANON ELLACOMBE

IN MY VICARAGE GARDEN AND
ELSEWHERE. With a Photogravure
Frontispiece of the Author.

Price 5s. net. Crown 8vo. Price \$1.50 net.

BY FORBES WATSON

FLOWERS AND GARDENS: Notes on
Plant Beauty. Edited, with an Introduction, by
Rev. CANON ELLACOMBE. With a Portrait of
the Author.

Price 5s. net. Crown 8vo. Price \$1.50 net.

BY "E. V. B."

SEVEN GARDENS AND A PALACE.
With Illustrations by ARTHUR GORDON and F.
L. GRIGGS.

Price 5s. net. Crown 8vo. Price \$1.50 net.
[Third Edition.]

BY JOHN BUCHAN

MUSA PISCATRIX. With Six full-page
Etchings by E. PHILIP PIMLOTT.

Price 5s. net. Crown 8vo. Price \$1.50.

BOOKS BY HELEN MILMAN

MY KALENDAR OF COUNTRY DELIGHTS. With 12 full-page Illustrations by DONALD MAXWELL.

Price 5s. net. Crown 8vo. Price \$1.25 net.

IN THE GARDEN OF PEACE. With 24 Illustrations by EDMUND H. NEW.

Price 5s. net. Crown 8vo. Price \$1.50.

[*Third Edition.*]

OUTSIDE THE GARDEN. With 10 full-page and 20 smaller Illustrations, and a Cover-design by EDMUND H. NEW.

Price 5s. net. Crown 8vo. Price \$1.50.

FROM THE HEART OF THE ROSE: Letters on Things Natural, Things Serious, Things Frivolous. With a Cover-design by EDMUND H. NEW.

Price 5s. net. Crown 8vo. Price \$1.50 net.

MY ROSES, AND HOW I GREW THEM. With Illustrations and Cover-design by EDMUND H. NEW.

Price 1s. 6d. net. Crown 8vo. Price 75 cents.

[*Third Edition.*]

BY FRANCIS BACON

OF GARDENS: an Essay. Edited, with Introduction, by HELEN MILMAN (Mrs CALDWELL CROFTON), and Frontispiece and Cover-design by EDMUND H. NEW.

Price 2s. 6d. net. Demy 16mo. Price 50 cents net.

THIS BOOK IS DUE ON THE LAST DATE
STAMPED BELOW

AN INITIAL FINE OF 25 CENTS

WILL BE ASSESSED FOR FAILURE TO RETURN
THIS BOOK ON THE DATE DUE. THE PENALTY
WILL INCREASE TO 50 CENTS ON THE FOURTH
DAY AND TO \$1.00 ON THE SEVENTH DAY
OVERDUE.

BIOLOGY LIBRARY

JAN 28 1942

Feb. 11

~~NOV 5 1973~~

M95617

QL676
R6
Biol.
Libr.

THE UNIVERSITY OF CALIFORNIA LIBRARY

