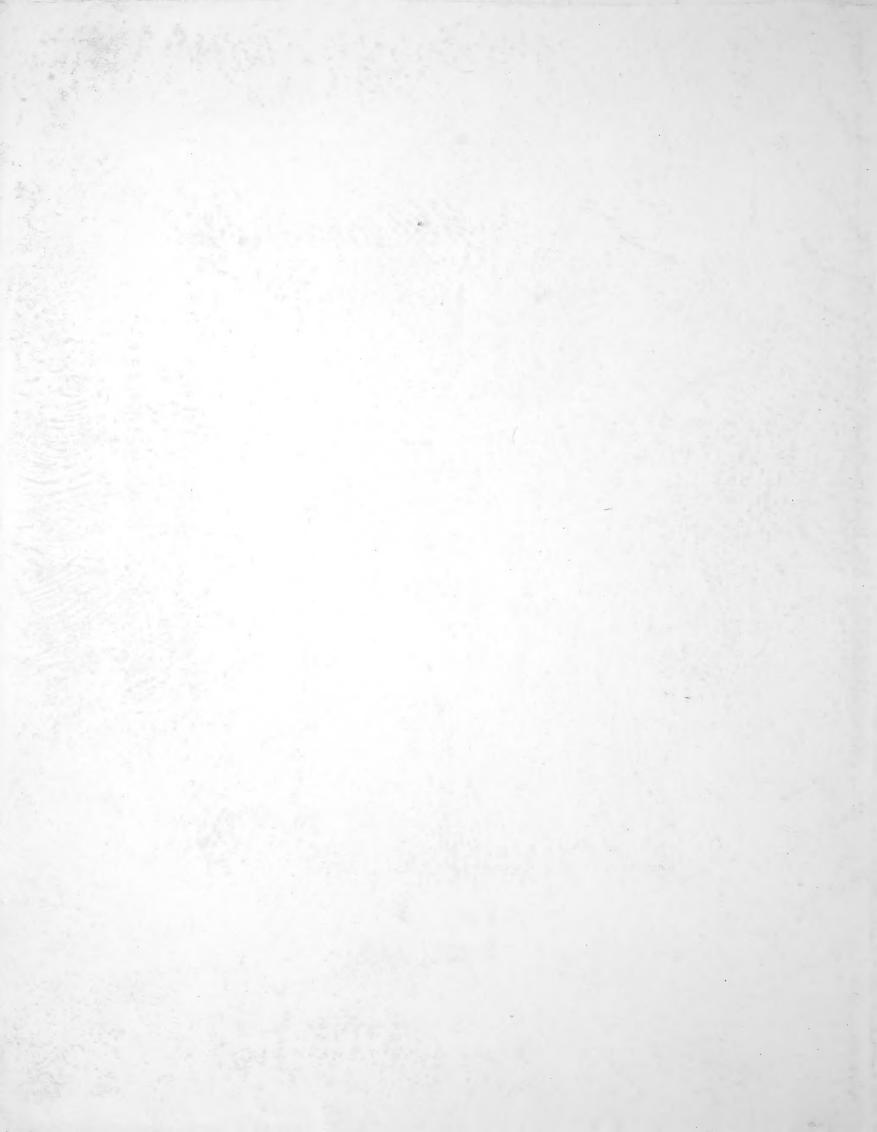
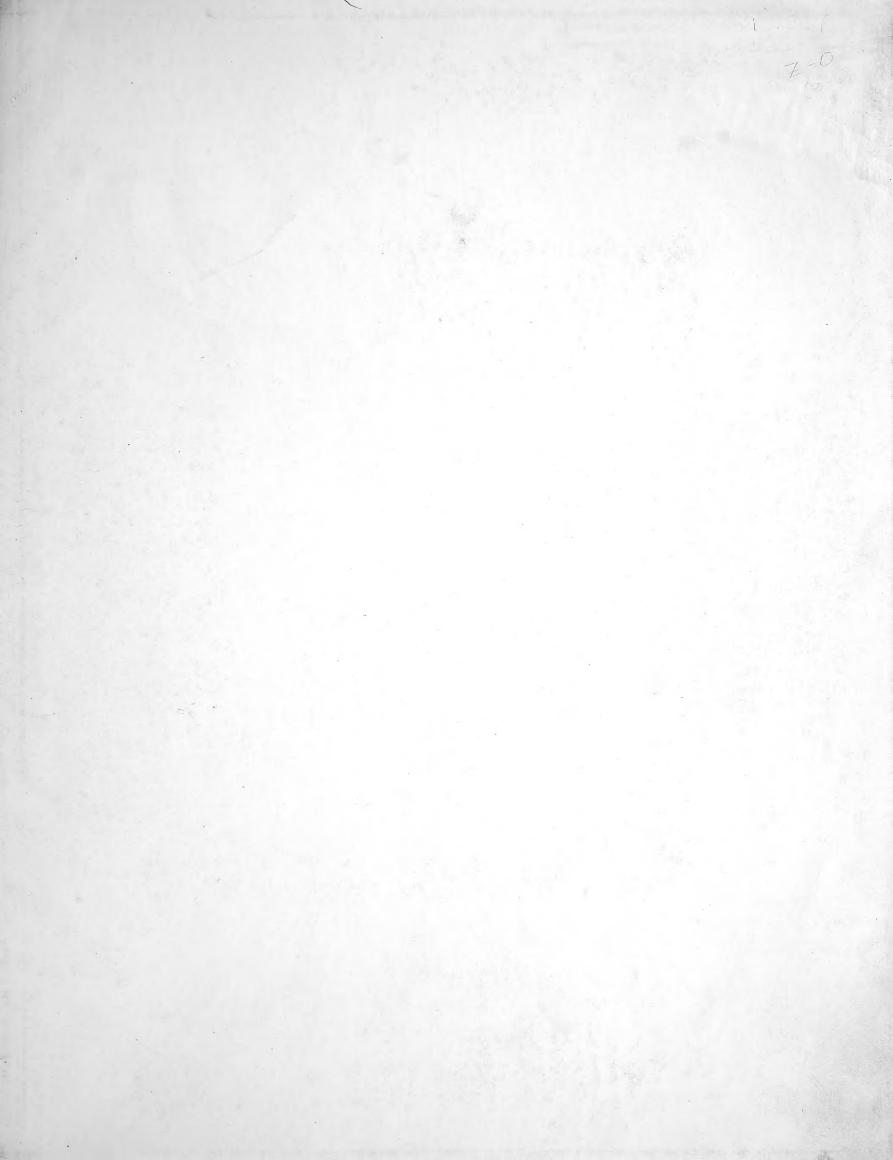
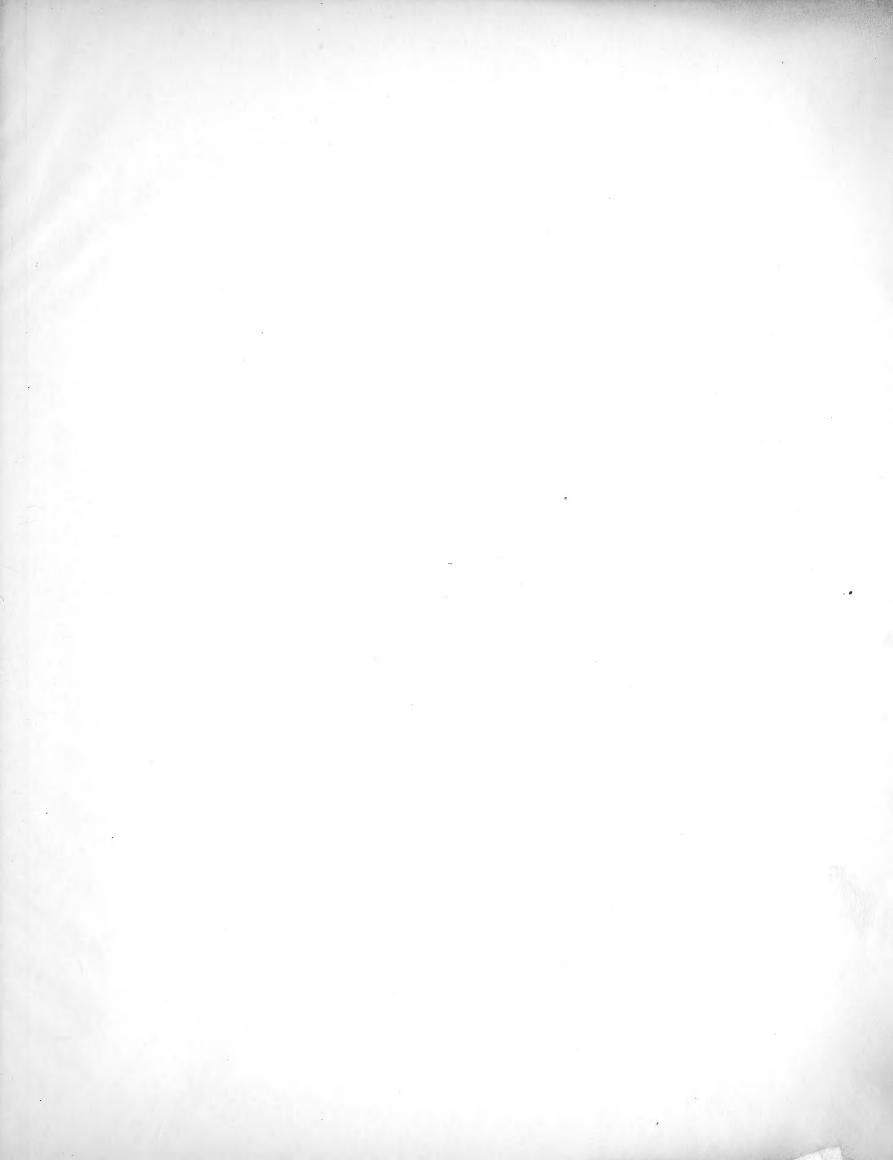
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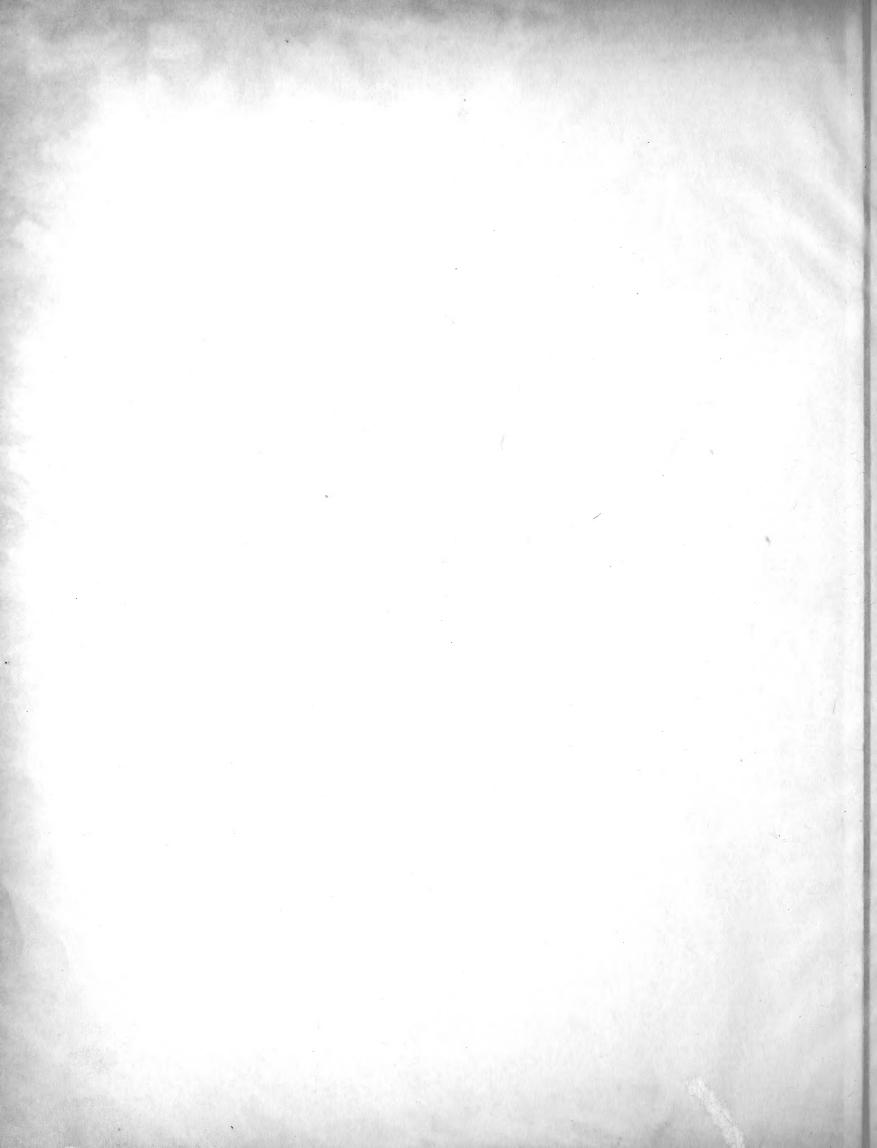
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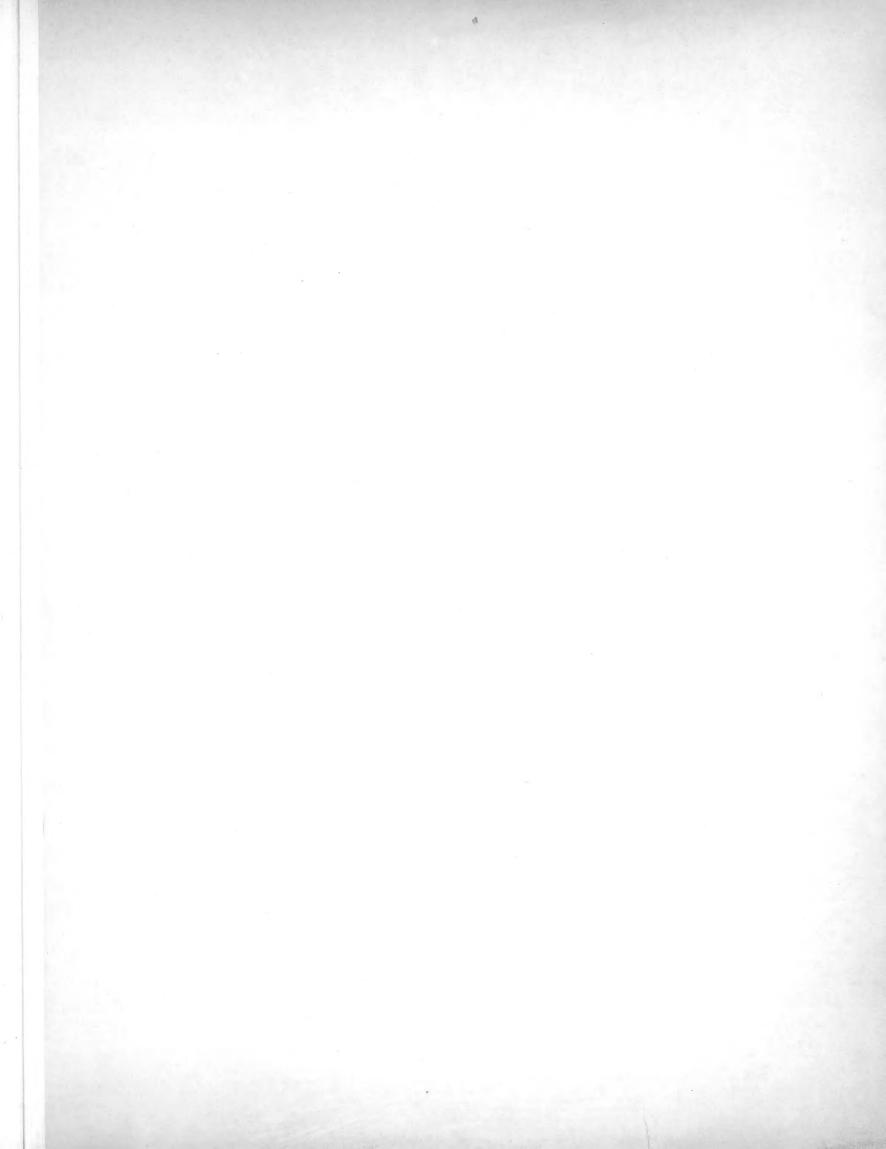


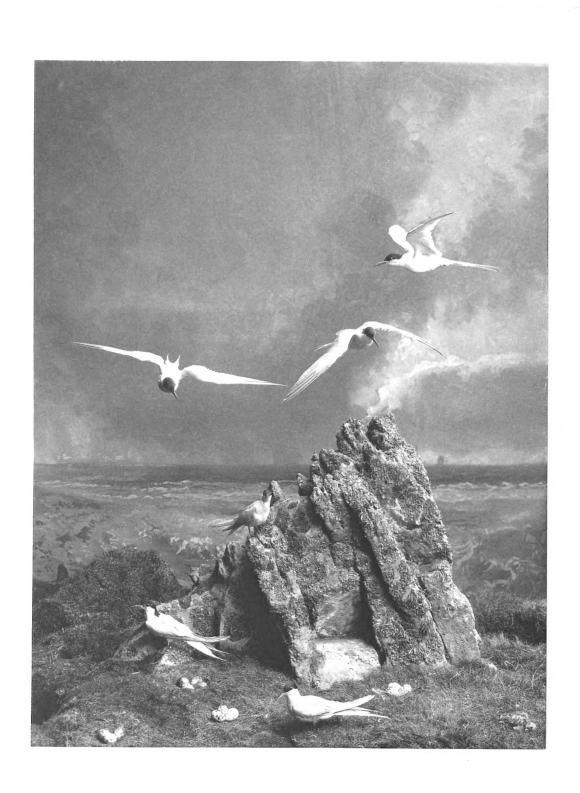














The Roseate Tern

(Sterna Dougalli) MONTAGU.

MALES, FEMALE, NEST, AND EGGS.

The Arctic Tern

(Sterna macrura) Naumann.

MALES, FEMALE, NESTS, EGGS, AND YOUNG.

HIS is the only instance of two species being placed together in one case, but as they were found breeding together they have been thus preserved. Few Museums are the proud possessors of the Roseate Tern with its nest and eggs, as they are exceedingly rare. The Arctic Tern, however, is a very abundant species, and in some parts of our coast it breeds in countless numbers. In the picture there is little that will separate the two species, but they are really very different.

The Roseate Tern owes its name to the delicate pink tinge on the under parts, but which, after death, unfortunately fades away on exposure to light, although it is still traceable in our specimens. The other distinctive characters are its lighter colour, black beak, and white streamers; the eggs are more pointed, and, so far as the Curator has seen, they are more constant in colour and easily distinguished from those of the Arctic Tern.

The Arctic Tern has a dull red beak, pearl-grey under parts, and the outer web of the streamers dark grey. The eggs are more obtuse and vary exceedingly in colour and markings. The nests of both species are mere hollows in the turf, lined in some instances with grey Lichen which abounds on the rocks. They were cut out and brought away intact.

The rockwork is a faithful copy of the Felstone in the original habitat, and is partly covered with various species of Lichen from the same locality.

Collected by Dr. W. H. Dobie and the Curator, 1893.

KEY.

ROSEATE.

ROSEATE.

ARCTIC.

ROSEATE.

ARCTIC.

ROSEATE NEST AND EGGS.

ARCTIC NEST AND EGGS.

ARCTIC NEST AND EGGS.

ARCTIC YOUNG.

ARCTIC NEST AND EGGS.

ARCTIC.



TWENTY-FIVE PHOTOGRAPHS

(Printed in Platinotype)

BY

G. Watmough Webster, f.c.s.,

OF THE

Life-History Groups of Birds

IN THE

GROSVENOR MUSEUM, CHESTER,

MOUNTED AND PREPARED BY

THE CURATOR, R. NEWSTEAD, F.E.S.

STUDIO:

33, BRIDGE STREET ROW,

CHESTER.



225431



(3, CQ)

CHESTER:
G. R. GRIFFIIII, PRINIER,
GROSVENOR STREET.

HIS GRACE THE DUKE OF WESTMINSTER, K.G.,

WHO

BY HIS SYMPATHETIC INTEREST, HIS SUGGESTIVE COUNSEL, AND ${\rm HIS} \ \ {\rm GENEROUS} \ \ {\rm HELP},$

SO AIDED THE SUSTAINED EFFORTS OF AN EARNEST BAND OF WORKERS

AND TO MAKE IT POSSIBLE THAT IT SHOULD CONTAIN,

AMONGST OTHER PRECIOUS OBJECTS ILLUSTRATIVE OF THE LOCAL HISTORY

AND THE FAUNA AND FLORA OF THE DISTRICT,

THE BEAUTIFUL EXAMPLES OF TAXIDERMY

(THE WORK OF THE CURATOR, MR. R. NEWSTEAD, F.E.S.) HERE POURTRAYED,

THIS COLLECTION OF PHOTOGRAPHS IS, BY PERMISSION, $\mbox{RESPECTFULLY DEDICATED},$

BY THEIR AUTHOR,

G. WATMOUGH WEBSTER.

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PREFACE.

THESE Photographs require few words of introduction, pourtraying, as they evidently do, examples of the highest type of excellence which scientific and artistic Taxidermy has yet attained. When in the early part of this century, Waterton wrote:—

"Were you to pay as much attention to birds as the Sculptor does to the human frame, you would immediately "see on entering a museum that the specimens are not well done that which was once alive has probably "been stretched, stuffed, stiffened, and wired by the hands of a common clown. Consider likewise how the plumage "must have been distorted by too much stretching or drying, and, perhaps, sullied or, at least, deranged by the "pressure of a coarse and heavy hand—plumage which, ere life had fled within it, was accustomed to be touched "by nothing rougher than the dew of heaven, and the pure and gentle breath of air;"

or again :-

"If you wish to be in Ornithology what Michael Angelo was in Sculpture, you must apply to profound study "and your own genius to assist you. You must have a complete knowledge of Ornithology Anatomy. You must "pay close attention to the form and attitude of the bird. You must know exactly the proportion each curve, "or extension, or contraction, or expansion of any particular part bears to the rest of the body. In a word you "must possess Promethean boldness, and bring down fire and animation, as it were, into your preserved specimen;"

most of his readers would look upon his words as those of an impractical enthusiast. Indeed it is only within the last decade or two that many museum authorities have awakened to the fact that the "bird-stuffer," so familiar to all, has had his day; that a time has come when, if museum specimens are to possess any real educational value, they must be dealt with in a manner far beyond that of mere dexterous "stuffing." Every feather must lie in its place as in life; every contour, every curve be shown as nature would give them; no trace of manipulation be discovered over the whole framework. These now are elementary requirements only; the next step has been to get beyond the interminable cases of stuffed ornithological specimens placed haphazard, each perched on a piece of wood, one of a lot purchased by the hundred or the thousand. The New Taxidermist arranges each of his specimens in a different manner, not contenting himself with representing it at rest, the very opposite condition to that mentally associated with denizens of the air; he places his specimens in every variety of attitude assumed in life, choosing as far as possible the most characteristic pose for each. There, indeed, has been a vast improvement; but a few of the more skilled have not permitted themselves to rest at this point; the Museums of South Kensington, Brighton, Leicester, &c., and that of the Chester Society of Natural Science, in the Grosvenor Museum in that City, are exemplars of our modern and most valuable way of dealing with feathered and other specimens in museums. The bird is first arranged with anatomical correctness, and placed perching or flying, soaring or alighting, preening its wings, carrying its prey, nesting, and so on; and actually appears to be arrested instantaneously in midst of active volition, cunningly devised hidden supports aiding the illusion. But, beyond this, the appearance of verisimilitude to life is aided by associating with the bird all the natural accompaniments of rock, trees, grass, shingle, or other objects suitable to what may have been its original habitat. It is not possible to conceive this artistic, scientific treatment being more cleverly executed than it has been by Mr. Newstead, the Curator of the Grosvenor Museum, in the specimens here reproduced by the camera. I am indebted to him entirely for the clear and concise descriptions to be found in the accompanying letterpress. To render these photographic transcripts as life-like as possible, the heavy vertical lines of the show-case had to be eliminated, and in every instance but one the further addition of suggestions of foliage, of clouds, or of such other surroundings as would be natural to the groups has been carried out; and thus, it is hoped, as close an approach to a representation of real bird-life and its habitats as could be achieved has been carried out in these Photographs of the Bird-Groups at the Grosvenor Museum, Chester.

G. WATMOUGH WEBSTER.

THE STUDIO,

33, BRIDGE STREET ROW,
CHESTER.

February, 1895.



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The Ring-Ouzel

(Turdus torquatus) LINNÆUS.

MALE, FEMALE, NEST, AND EGGS.

VERY local species. In our district it frequents the moors and mountains of Wales. It is very closely allied to the Blackbird, but easily distinguished by its broad dusky-white gorget, clearly shown in the female standing amongst the heather, near to her nest with its five eggs.

The birds (the actual parents of the nest) were taken near Moel Fammau, and presented by Col. B. G. Davies-Cooke.

The white cottony heads amongst the heather are those of the graceful Cotton-Grass (Eriophorum).







The Stonechat

(Pratincola rubicola) LINNÆUS.

MALE, FEMALE, NEST, AND EGGS.

OCALLY this species is often confounded with the Whinchat, a closely-allied but much commoner species.

The nest, built on the ground, is well concealed beneath the short stunted gorse (Ulex) and grass. The eggs, four in number, are pale bluish, with a zone of rust-coloured spots on the large end. The male is in the attitude of alighting on the gorse with a grub in its mouth.

 $\label{eq:All-the-material-was} All \ \ the \ \ material \ \ was \ \ collected \ \ at \ \ Colwyn \ \ Bay, \ \ and \ \ presented \ \ by$ $\ Miss \ \ Clogstoun.$





.



The Redbreast

(Erithacus rubecula) Linnæus.

MALE, FEMALE, NEST, AND EGGS.

THE extraordinary sites selected by these birds for their nests are well known.

This nest is built in an old meat-tin, partly hidden by grass and dead leaves; it contains three eggs, which are almost white.

The male on the dead dock (Rumex) above the nest is in very good plumage; but the female, from her greater exertions in nest building (?) is somewhat ragged and out of condition.

Collected near Chester, and presented by Miss C. E. Tomlin and Mr. R. Newstead, Senr.







Golden-Crested Wren

(Regulus cristatus) K. L. Koch.

MALE, FEMALE, NEST, AND EGGS.

THE nest of this, the smallest of British birds, is so completely hidden beneath the yew branch (Taxus baccata) as to be scarcely seen; yet on examination it is found to be carefully and securely suspended to the small branchlets with thick ropes formed of moss and spiders' webs cleverly woven together, the whole forming a wonderful piece of bird architecture.

The upper specimen is the male, with its golden crest fully expanded. The pale yellow crest of the female is also shown. Both birds have the power of opening or closing the crest at will.

The nest is $in \ situ$ in the original branch, which has been carefully preserved and coloured.

The specimens were collected in Cheshire by the Curator.







Long-Tailed Titmouse

(Acredula caudata) Linnæus.

MALE, FEMALE, NEST, AND EGGS.

O British bird's nest can surpass the nest of this species, either in design or excellency of workmanship.

This nest is *in situ* in a blackthorn bush and had no other protection; it was built very early in the spring, just as the buds were bursting. These latter have been carefully reproduced and the surroundings preserved.

Presented by Messrs. Bateman, Smith, & Newstead.







The Great Titmouse

(Parus major) LINNÆUS.

MALE, FEMALE, NEST, AND EGGS.

NE often hears of these birds building in curious situations, such as a pump in constant use, or a letter box, &c.

In this instance the birds have selected a deserted beehive, a portion of which has been cut away to show the nest with its nine eggs. It is a very curious nest, inasmuch as it covers the whole floor of the hive, eleven inches in diameter. The use of such an amount of material is not clearly seen, unless the birds were wishful to carpet the whole of their spacious dwelling. Access was gained to the hive through the hole used by the bees, which is opposite to the male bird flying with a caterpillar in its mouth.

Collected near Chester, and presented by Mr. S. J. R. Dickson.







The Tree-Creeper

(Certhia familiaris) LINNÆUS.

MALE, FEMALE, NEST, AND EGGS.

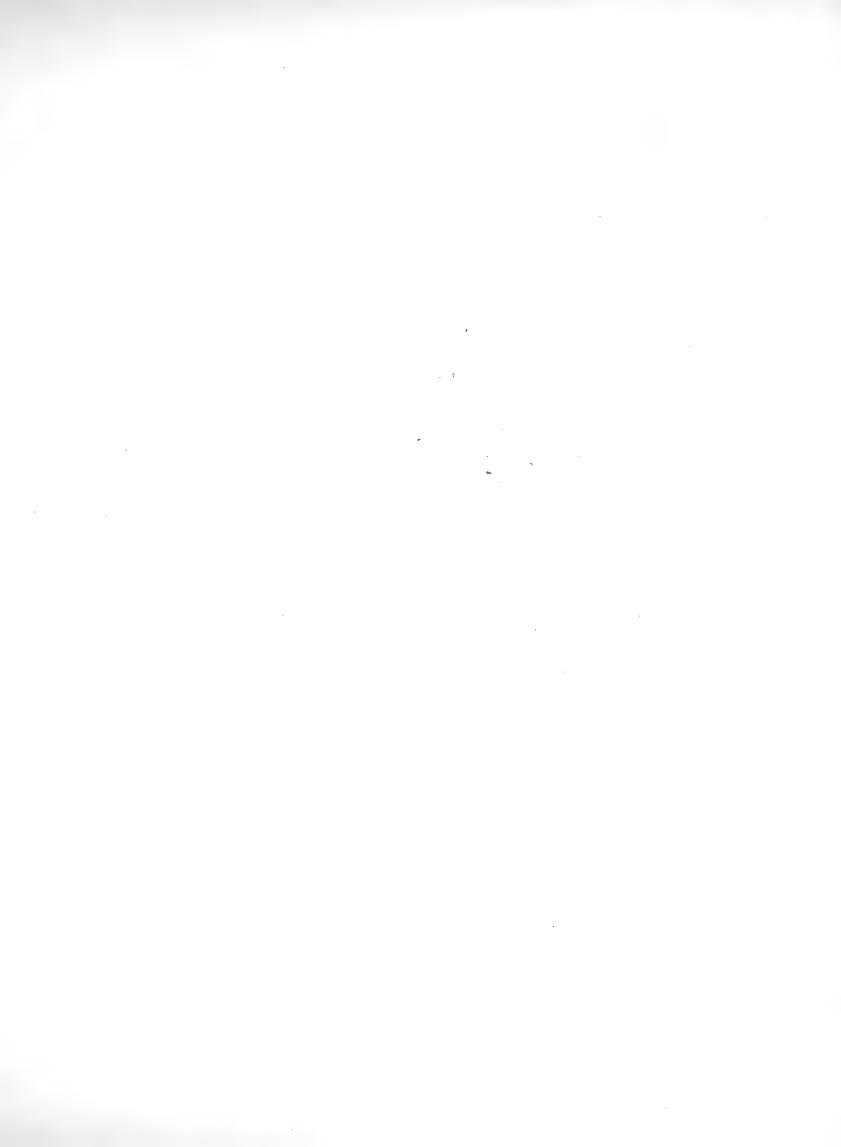
FAMILIAR species, frequenting our gardens in winter, at which period it is more readily seen. They generally climb the trees in a spiral direction, and can readily hang beneath a horizontal branch, the stiff tail-feathers being firmly pressed against the bark during the time.

The nest in situ, quite a typical one, is built between the partially-detached bark and the trunk of a willow tree; it is chiefly composed of strips of bark from the willow tree, and lined with dark feathers, probably to avoid detection. The pure white eggs with pink spots are very like those of the Great Tit (Parus major).

Two views are shown: the exterior with the male and female; the interior with the nest and eggs.

Collected at Ince, Cheshire, and presented by Mr. R. Newstead, Senr.





The Swallow

(Hirundo rustica) LINNÆUS.

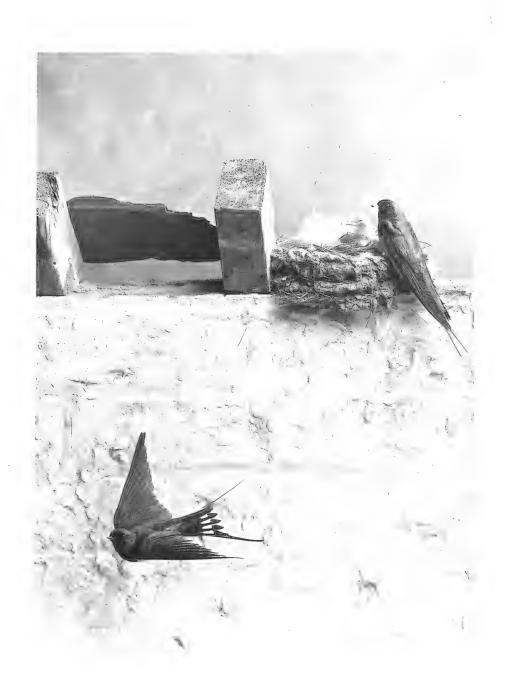
MALE, FEMALE, NEST, AND EGGS.

THE long graceful streamers of the tail serve as an unfailing character by which to separate this species from its congeners. The adult male on flight has the streamers well developed, and is probably a very old bird.

The artificial brickwork, &c., is a section of the interior of a shippon—a favourite nesting place of these birds. The nest, composed of mud and a little hay, is beautifully lined with feathers; the latter being carefully placed with their convex side outwards, and so arranged as to project an inch or more above the margin of mud forming the exterior of the nest.

Unlike the House-Martin, this species always places its nest (which has an open top) on some projecting shelf or platform.

Collected and presented by Mr. A. O. Walker, F.L.S., and the Curator.



6.





The House-Martin

(Chelidon urbica) LINNÆUS.

MALE, FEMALE, NEST, AND EGGS.

THIS species is easily recognised by its conspicuous white rump, which is clearly seen when the bird is flying, and which acts as a capital recognition mark, and readily separates it from the other British *Hirundinida*.

The nest, composed of mud lined with a little grass and feathers, is fixed to the wall beneath some projecting masonry. The female is carrying a feather in her beak; her partner is clinging to the side of the nest. The pure white eggs cannot be shown owing to the depth of the nest.

The brickwork and stone coping are both reproductions—the former in coloured plaster, the other in papier maché.

Presented by Mr. R. NEWSTEAD, SENR.







The Chaffinch

(Fringilla cælebs) Linnæus.

MALE, FEMALE, NEST, AND EGGS.

The the top of the elder stump on the right is a beautiful nest of this species, containing five eggs. The site chosen for the nest is certainly an abnormal one, but nevertheless of great interest; and although quite exposed it is not by any means easy to see. In the first place the nest is almost of the same diameter as the main stem; the colour, too, harmonises very well, and, as if to imitate the surroundings more closely, the birds have carefully decorated the outside with numerous fragments of the rotten wood from the stump. The nest is the natural distance from the ground; in the original habitat there was another stump in close proximity and a little to the right of it, but it afforded little or no protection, and could not be included here.

The upper specimen is the male.

Presented by Dr. H. Dobie and Mr. R. Newstead, Senr.







The Hawfinch

(Coccothnaustes vulgaris) PALLAS.

MALE, FEMALE, NEST, EGGS, AND YOUNG.

WING to its very retiring habits, this species is rarely seen. It has a most powerful beak, with which it can readily crush hard cherry-stones, &c., and extract the kernels.

The nest in situ in a branch of Cryptomaria Japonica, was about twenty-five feet from the ground; it is composed of small sticks and grass, and lined with root-fibres and a little hair. The eggs, four in number, are pale-bluish grey, beautifully marbled with grey brown and dark purple.

The female is feeding a young one with a large caterpillar. The male, near the nest, is partly hidden by the branches.

All the specimens were collected at Ince, near Chester, by Mr. R. Newstead, Senr., and by him presented to the Museum.

N.B.—As these birds produce but one brood in a season, some Naturalists may object to the eggs and young being placed together. They have been thus arranged to economise space.







The Magpie

(Pica rustica) Scopoli.

MALE, FEMALE, NEST, AND EGGS.

THE large-domed nest in the topmost branch of a tall oak tree is chiefly composed of thorn sticks and brambles cemented together below with a thick layer of mud, and lined with root fibres. On cutting this nest from the tree it accidentally fell to the ground (some thirty-five feet) and rolled part of the way down a steep enbankment; except the loss of a few sticks it was not in the least injured. This clearly shows how well the structure is put together. The nest contains six eggs, which, owing to its great depth, cannot be shown.

Collected at Nant-y-Glyn, Colwyn Bay, and presented by Mr. A. O. Walker, F.L.S.







The Skylark

(Alauda arvensis) LINNÆUS.

MALE, FEMALE, NEST, AND EGGS.

HETHER from its familiar associations with man or not, this group has been very much admired; it certainly makes a pretty picture.

The female, crouching in the grass, is watching her companion ascending in the air. The remainder speaks for itself.

It is the first group that was mounted by the Curator.

Collected in Cheshire, and presented by Mr. A. O. WALKER, F.L.S.





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The Swift

(Cypselus apus) LINNÆUS.

MALE, FEMALE, NEST, EGGS, AND YOUNG.

ASILY recognised from any of the Swallow tribe by its long sickle-shaped wings and its uniform bronzy blackish-brown colour. Formerly these birds were classed with the Swallows; their nearest allies now are the Humming-birds.

The nests are in situ on the actual rafters on which they were built; the slates are cut away that the former may be seen. The section of wall, &c., is a reproduction in coloured plaster. The nest containing the egg is a typical one, composed of a very thin shell of grass stems and a few feathers, firmly cemented together by the secretions of the bird.

The other nest is that of a House-Sparrow (which the Swifts had usurped) and which, when found, contained two addled eggs of the Sparrow carefully hidden an inch or more beneath the young Swifts.





The Long-Eared Owl

(Asio otus) LINNÆUS.

YOUNG IN DOWN.

THESE grotesque little fellows, modelled from life, make a very interesting group. The specimen on the left, with its wings so curiously spread, is assuming its terrifying attitude, and has often been mistaken for an old bird. The Curator is of opinion that this curious character has not hitherto been noticed in the young of this species.

The specimens were taken from their nest in a fir tree at Saughall, near Chester, and afterwards purchased for the Museum.







The Common Buzzard

(Buteo vulgaris) LEACH.

THIS noble species has of late years become very scarce, and is only occasionally met with in our district.

The specimen, an exceptionally fine female, measuring thirty-six inches in expanse of wing, was killed on the Eaton Estate, and presented by His Grace The Duke of Westminster, K.G. The bird is represented carrying off a nearly full-grown rat.

The rockwork is a reproduction of the local Trias or Red-sandstone, and is chiefly modelled in papier-maché.







The Kestrel

(Falco tinnunculus) LINNÆUS.

MALE, FEMALE, NEST, AND YOUNG.

O the Agriculturist this species is one of the most useful of all our British birds; its food at all times consisting mainly of the Common Field Vole (Arvicola agressis). The nest affords abundant proof of their usefulness, for the interstices between the sticks are filled with fur from many scores of Field Voles; the remains of a Blackbird being the only exception. The nest (an old one of the Magpie) has had the front portion of the dome pulled away by the Kestrels, to admit of easy access to their young. It is very rarely that these birds build a nest of their own. The upper specimen is an adult male; the nest of five full-fledged young ones differ very little from the adult female which is crouching at the edge of the nest.

Collected on the Eaton Estate, and presented by Mr. R. J. SMITH.







The Kestrel

(F. tinnunculus).

A NEST OF THREE YOUNG ONES IN THE DOWN, carefully modelled from Life.

THIS group has been acknowledged by experts to be one of the finest pieces of the Taxidermist's art in Europe.

Taken at Oakmere, Cheshire, and presented by Mr. A. O. WALKER, F.L.S.



/ .



Sparrow Hawk

(Accipiter nisus) LINNÆUS.

MALE, FEMALE, NEST AND EGGS.

THE male of this species is much smaller than the female, although it does not appear so when flying. The former is carrying a small bird in its talons, the female waiting at the edge of the nest to receive it. The birds are the actual parents of the nest and eggs. They were collected on the Eaton Estate, and presented by His Grace the Duke of Westminster, K.G.

The nest in situ in a branch of Scotch fir, is of considerable interest, being decorated externally with down from the parent birds. When freshly cut from the tree the branches were covered in parts with the white cottony material secreted by the Pine Aphis (Chermes pini, Koch). So striking was the resemblance between the white patches of down on the nest and the "cottony material" on the fir branches, that it seemed as if the nest had been intentionally decorated to simulate the natural surroundings.







The Heron

(Ardea cinerea) LINNÆUS.

MALE, FEMALE, NEST, YOUNG, AND BROKEN EGG.

E are deeply indebted to His Grace the Duke of Westminster, K.G., for this exceedingly interesting group of birds. They were taken in 1888 from the Heronry at Eaton Hall, which is the largest in Cheshire or North Wales, and fortunately is carefully preserved.

The nest, composed of large sticks and lined with smaller ones and stems of various plants, is in the topmost branch of a willow tree, and was between 40 and 50 feet from the ground. It contains its rightful occupants, e.g., the four young ones that were hatched in it. They are of different sizes, however, which is remarkable; but as they were taken at the same time they must have been hatched at different periods. [See also "Proceedings of the Chester Society of Natural Science," Part IV., p. 227]. Their attitudes are very grotesque, but they are faithfully preserved; all being carefully modelled from life.

The upper specimen is the female; it has an unusually long crest, and bears a greater similarity to the male than is usually the case.







The Sheld or Burrow-Duck

(Tadorna cornuta) S. G. GMELIN.

MALE, FEMALE, NEST, AND EGGS.

THE female of this handsome species is represented going to her nest in a rabbit-burrow. The nest shown in section at the end of the sand-bank is three feet from the entrance to the burrow, and is entirely composed of down and feathers from the breast of the female. It contains seven cream-coloured eggs, which cannot, unfortunately, be shown in the picture. The burrow is but a little over 6 inches in diameter; the nest cavity being 16 inches in its widest part. The original habitat has been carefully reproduced in every detail, e.g., length of burrow, nest cavity, sand-bank, and the beautiful Marram Grass (Elymus arenarius) peculiar to our sand-hills and coasts.

Collected on the Warren at Talacre by kind permission, and presented by Sir Pyers Mostyn.

Many pairs of these birds breed annually in the above locality; always selecting a rabbit-burrow to nest in.







The Corn-Crake or Land-Rail

(Crex pratensis) BECHSTEIN.

MALE, FEMALE, NEST, BROKEN EGG, AND YOUNG.

ORE frequently heard than seen, owing to its exceedingly cautious habits. Rarely indeed, except when flushed by a dog, are these birds seen on the wing. They run very rapidly from place to place in a creeping position, holding the body and head very low, and in this manner thread their way through the grass, &c., almost entirely concealed. (See male). The female is brooding her five young ones, covered with brownish-black down, which they retain for a considerable time after hatching.

Collected in Cheshire, and presented by Mr. A. O. Walker, F.L.S., and Mr. R. Newstead, Senr.







Lapwing or Peewit

(Vanellus vulgaris) BECHSTEIN.

MALE, FEMALE, NEST, EGGS, AND YOUNG.

THE long and broadly rounded primaries of this species give these birds their peculiar-shaped wings. The non-naturalist would scarcely imagine that the female, which is standing on the meadow-grass, had a wing-expansion equal to that of the male; yet such is the case. The only appreciable difference between the sexes is that the female generally has a smaller crest and is not so bright in colour. Crouching beneath some overhanging grass, in the foreground on the left, is a young bird in down, a few days old. The nest is a mere hollow lined with a few blades of grass and some very short rushes collected from numerous stumps of the same, which had been inadvertently pulled up by cattle and scattered over the meadow land. The latter, from their reddish-brown bases, rendered it much more difficult to find the eggs.

Collected on the Eaton Estate, and presented by Mr. R. J. SMITH.







The Little Tern

(Sterna minuta) LINNÆUS.

MALE, FEMALE, NEST, EGGS, AND YOUNG.

TWO or three isolated colonies of this, the smallest of British Terns, breed on the North Wales Coast. The eggs are laid in small hollows scratched out of the bare shingle, usually just above high-water mark. In a few instances their nests are decorated with fragments of shells, but these are uncommon.

Two nests are shown in the foreground: one with three eggs; the other with one perfect and one broken egg and a newly-hatched downy chick. All are difficult to recognise amongst the shingle, &c., of the sea beach, and afford most interesting examples of protective resemblance.

The specimens were collected on the North Wales Coast and presented by Dr. W. H. Dobie. The large stones and boulders are *papier-maché* models of the originals. The rest of the material is from the original habitat.



Class





