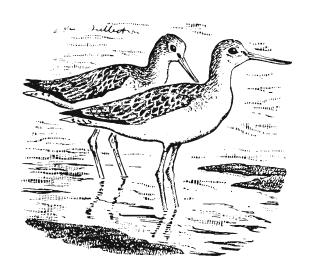
SCOTTISH BIRDS



The Journal of The Scottish Ornithologists' Club

Vol. 2 No. 1

Spring 1962

THE SCOTTISH ORNITHOLOGISTS' CLUB

THE Scottish Ornithologists' Club was founded in 1936 and membership is open to all interested in Scottish ornithology. Meetings are held during the winter months in Aberdeen, Dumfries, Dundee, Edinburgh, Glasgow and St Andrews, at which lectures by prominent ornithologists are given and films exhibited. Excursions are organised in the summer to places of ornithological interest.

The aims and objects of the Club are to (a) encourage and direct the study of Scottish Ornithology in all its branches; (b) co-ordinate the efforts of Scottish Ornithologists and encourage co-operation between field and indoor worker; (c) encourage ornithological research in Scotland in co-operation with other organisations; (d) hold meetings at centres to be arranged at which Lectures are given, films exhibited, and discussions held; and (e) publish or arrange for the publication of statistics and information with regard to Scottish ornithology.

There are no entry fees for Membership. The Annual subscription is 25/-; or 7/6 in the case of Members under twenty-one years of age or in the case of University undergraduates who satisfy the Council of their status as such at the time at which their subscriptions fall due in any year. Joint membership is available to married couples at an annual subscription of 40/-. "Scottish Birds" is issued free to members, but Joint members will receive only one copy between them.

The affairs of the Club are controlled by a Council composed of the Hon. Presidents, the President, the Vice-President, the Hon. Treasurer, the Editor and Business Editor of "Scottish Birds," the Hon. Treasurer of the House Fabric Fund, one Representative of each Branch Committee appointed annually by the Branch, and ten other Members of the Club elected at an Annual General Meeting. Two of the last named retire annually by rotation and shall not be eligible for re-election for one year.

A Scottish Bird Records' Committee, appointed by the Council, produce an annual Report on "Ornithological Changes in Scotland,"

An official tie with small white Crested Tits embroidered on it can be obtained in dark green or in navy blue by Members only from Messrs R. W. Forsyth Ltd., Princes Street, Edinburgh, or 5 Renfield Street, Glasgow, C.2 at a cost of 16s 9d post extra. A small brooch in silver and blue can be obtained for the use of Members of the Club. Price 2s 6d each from the Secretary, or from Hon. Branch Secretaries.

Forms of application for Membership, copy of the Club Constitution, and other literature is obtainable from the Club Secretary, Mrs George Waterston, Scottish Centre for Ornithology and Bird Protection, 21 Regent Terrace, Edinburgh 7. (Tel. Waverley 6042).

CLUB-ROOM AND LIBRARY

The Club-room and Library at 21 Regent Terrace, Edinburgh 7, will be available to Members during office hours, and on Wednesday evenings from 7 to 10 p.m. Members may use the Reference Library and borrow books from the Duplicate Section. Facilities for making teas or coffee are available at a nominal charge and Members may bring guests by arrangement. The Aldis 2" x 2" slide projector and screen may be used for the informal showing of slides at a charge of 2s 6d per night to cover the replacement of bulbs.

NOTICE TO CONTRIBUTORS

All contributions should be sent to Andrew T. Macmillan, 66 Spylaw Bank Road, Edinburgh 13. Attention to the following points greatly simplifies production of the journal and is much appreciated.

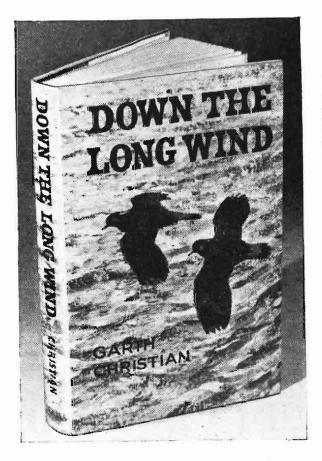
- 1. Papers should if possible be typed with double spacing. All contributions should be on one side of the paper only.
- 2. Topical material for Current Notes should reach the Editors by the end of March, June, September and December, at which time they begin to compile this section. All other notes should be sent promptly but important items can be fitted in until a month or so after these dates.
- 3. Proofs will normally be sent to authors of papers, but not of shorter items. Such proofs should be returned without delay. If alterations are made at this stage it may be necessary to ask the author to bear the cost.
- 4. Authors of full-length papers who want copies for their own use MUST ASK FOR THESE when returning the proofs. If requested we will supply 25 free copies of the issue in which the paper is published. Reprints can be obtained but a charge will be made for these.
- 5. Particular care should be taken to avoid mistakes in lists of references and to lay them out in the following way, italics being indicated where appropriate by underlining.

EGGELING, W. J. 1960. The Isle of May. Edinburgh and London. Dick, G. & Potter, J. 1960. Goshawk in East Stirling. Scot. Birds 1:329.

- 6. English names should follow The Handbook of British Birds with the alterations detailed in British Birds in January 1953 (46:2-3) and January 1956 (49:5). Initial capitals are used for names of species (e.g. Blue Tit, Long-tailed Tit) but not for group names (e.g. diving ducks, tits). Scientific names should be used sparingly (see editorial Scottish Birds 2:1-3) and follow the 1952 B.O.U. Check-List of the Birds of Great Britain and Ireland with the changes recommended in 1956 by the Taxonomic Sub-Committee (Ibis 98:158-68), and the 1957 decisions of the International Commission on Zoological Nomenclature (Ibis 99:369). When used with the English names they should follow them, underlined to indicate italics, and with no surrounding brackets.
- 7. Dates should normally be in the form "1st January 1962", with no commas round the year. Old fashioned conventions should be avoided—e.g. use Arabic numerals rather than Roman, and avoid unnecessary full stops after abbreviations such as "Dr" and "St".
- 8. Tables must be designed to fit into the page, preferably not side-ways, and be self-explanatory.
- 9. Headings and sub-headings should not be underlined as this may lead the printer to use the wrong type.
- 10. Illustrations of any kind are welcomed. Drawings and figures should be up to twice the size they will finally appear, and on separate sheets from the text. They should be in Indian ink on good quality paper, with neat lettering by a skilled draughtsman. Photographs should either have a Scottish interest or illustrate contributions. They should be sharp and clear, with good contrast, and preferably large glossy prints.

This book represents a landmark in the history of bird study, bringing us up-to-date in an absorbing manner . . .

DOWN THE LONG WIND



by GARTH CHRISTIAN

This book-a study of bird migrationhas been written primarily general reader of all ages who, year by year, watches with excitement the great tlocks of wild birds flying with purpose out of the cloudy distance down the long wind. Here, indeed, in a material age of specialization, is a brilliant study which will be wel-comed by the am-ateur bird-watcher, the schoolboy naturalist and the armchair enthusiast. It will also satisfy the needs of the professional ornithologist who seeks an up-todate account of the movemigratory ments of the lapwing and nightjar, the thrush tribe, the swallow and a host of other common

With maps, diagrams and photographs (25 of them by Eric Hosking)
Jacket design by Peter Scott

21s

From All Booksellers

or in case of difficulty at 22s 6d by post from GEORGE NEWNES Ltd., Tower House, Southampton Street, London, W.C.2.

NEWNES

SCOTTISH BIRDS

THE JOURNAL OF THE SCOTTISH ORNITHOLOGISTS' CLUB



Vol. 2 No. 1

Spring 1962

Edited by A. T. Macmillan with the assistance of D. G. Andrew and T. C. Smout, Business Editor, Arthur J. Smith, Cover design (Greenshanks) by Len Fullerton.

Published quarterly.

Editorial

WITH this number of Scottish Birds we start Volume 2. Since it was launched some three and a half years ago Scottish Birds has been edited by Professor M. F. M. Meiklejohn who has been responsible for both the general policies of the journal and the major burden of the detailed work involved in producing it quarter by quarter. Not everyone will realise just how many nights work on each number this entails. Uncertain health in recent months and a growing volume of his own work have unfortunately made it more and more difficult for Professor Meiklejohn to devote the time he would like to give to Scottish Birds, and he has therefore asked that someone else should take over. The Scottish Ornithologists' Club undoubtedly owes a great debt to him for guiding the journal so ably through its pioneering years, and we are glad to know that we may continue to call upon his services in an informal capacity.

In order to strengthen the editorial team we have asked Dr T. C. Smout to join us, and we feel sure that his wide experience of birds in many parts of Europe together with his lively approach to bird-watching, will be a considerable asset to Scottish Birds.

A. T. Macmillan will be the new Editor, and he will be assisted by D. G. Andrew and Dr Smout. The work of planning and compiling each number will be shared in whatever way seems most convenient to allow for holidays and other commitments—this number, for instance, being largely the work of D. G. Andrew—and the intention is to work as a team. Contributions from all parts of the country, however, should be sent to A. T. Macmillan, 66 Spylaw Bank Road, Edinburgh 13. A. J. Smith will continue to deal with the business side of production.

It would be greatly appreciated if all important notes could be sent in promptly, and matters of more passing interest reported quarterly to reach the editors at the end of December, March, June and September. These arrangements will make it much easier to publish each number of the journal on the due date—1st March, June, September and December. Stop Press matters can be accepted until about a month before publication.

In a recent letter to the Editors of British Birds (54:405-8) Dr W. R. P. Bourne has argued that the use of scientific, or Latin, bird names should be abandoned by local journals published in countries with reasonably stable vernacular names. Up to a point we agree with him. The object of using a scientific name is to establish the identity of the bird beyond question for readers. In the past there was so much uncertainty about English names that it could be said that this object was best achieved by the use of scientific names-in spite of the frequent changes which these also undergo to keep pace with new ideas about classification and to keep them in line with the Law of Priority in Zoological Nomenclature. Since British bird-watchers, unlike those in most other parts of the world, are most reluctant to learn these scientific names it has been necessary to give every name twice-once in English, and once in Latin. Arguments for this procedure lose much of their force if there is an acceptable list of standard English names from which one can work. Unfortunately the English names given in the 1952 B.O.U. Check-List of the Birds of Great Britain and Ireland are out of date, and one must look elsewhere for current usage.

We propose to follow British Birds in using the English names given in The Handbook of British Birds with the changes detailed in British Birds in January 1953 (46:2-3) and January 1956 (49:5). This does not cover subsequent additions to the British list—such as the Collared Dove, which was then known as the Collared Turtle Dove—but we do not see this causing any difficulty. For scientific nomenclature we follow the 1952 B.O.U. Check-List, with the changes recommended in 1956 by the Taxonomic Sub-Committee (Ibis 98:158-68), and the 1957 decisions of The International Commission on Zoological Nomenclature (Ibis 99:369).

It is our policy to be sparing in the use of scientific names. We have already abandoned them altogether in Current Notes, and in the Short Notes where a species is not the subject of the note and is only mentioned in passing. In future, where scientific names are not required for clarity we will use them only for some other good reason. We will be guided by the needs of authors. For example, there might be strong arguments for using them if an author requires reprints for distribution to people unfamiliar with the English names and lacking details of our practice which would enable them to look them up. The same considerations may apply to Check-Lists which comment on changes in status over a period. Our audience is, however, mainly an English speaking one, and

we would hope that a universally acceptable list of English names will soon be published so that we can drop the use of Latin names altogether. At the end of each volume, however, we intend to give a complete list of the English and scientific names of all species mentioned.

Plans are in hand for a number of interesting articles, and several papers of major importance are being prepared for coming numbers. We would nonetheless welcome suggestions or contributions, because the quality of *Scottish Birds* must depend largely on the quality of the material offered to us.

An index is now being compiled for Volume 1, and this should greatly simplify the process of looking up records published during the past three and a half years. It is hoped to send it out with the next number, and at the same time details will be given of arrangements for binding Volume 1.

THE SPRING DEPARTURE OF COMMON GULLS LARUS CANUS FROM SCOTLAND

W. R. P. BOURNE and I. J. PATTERSON

Introduction

Common Gulls from Scandinavia are one of the commonest winter visitors to agricultural areas in the northern parts of the British Isles, and the pattern of distribution of the ringing returns suggests that they must migrate across the North Sea (M. C. Radford, Bird Study 7:81). As yet, however, there is remarkably little information about the manner of their migration, except that numbers appear at Fair Isle in overcast or foggy weather associated with E to SE winds ahead of fronts in the North Sea in autumn, adults generally predominating in the main passage in August and early September, and a high proportion of juveniles occurring in the only fall so far recorded in early October (P. Davis & P. Hope Jones, Bird Migration 1:36). There seem to be few previous records of the movements of this species in Scotland in spring, though in England large flocks can sometimes be seen gathering in the fields or flying east calling high overhead by day in late March and early April.

During observations on bird migration with radar in Aberdeenshire in the springs of 1959 and 1960, W.R.P.B. noticed regular NE to NNE departures in the middle of the day of large, bright, high-flying echoes of the sort thought to be caused by moderate-sized flocks of shore or water birds. The passage usually started far inland during the

morning and passed away towards Norway during the afternoon and evening at airspeeds around 30 knots, though since the wind was usually behind the birds they were often travelling much faster, sometimes at 50-60 knots. They moved on a broad front inland, more starting to the south than to the north of Aberdeenshire, and when they reached the coast a proportion normally flew along it before putting out to sea, so that a series of parallel streams of birds went out to sea from the headlands, with fewer birds leaving between them, as in Figure 1. The best view was obtained of the stream leaving Rattray Head at the NE extremity of Aberdeenshire, but a larger stream could be seen going by out at sea which

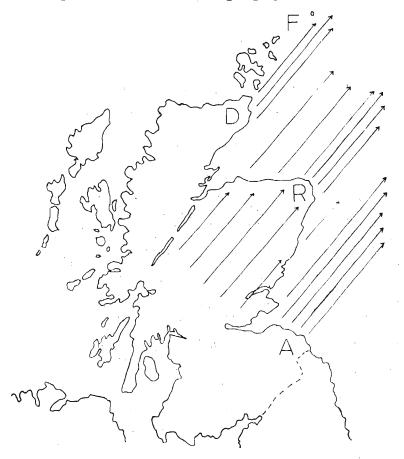


Figure 1. The general pattern of departure of Common Gulls leaving Scotland by day. A, R, D and F are St Abb's, Rattray and Duncansby Heads, and Fair Isle.

must have originated in the Forth area to the south, while when Dr M. T. Myres carried out parallel observations with radar in Shetland in the spring of 1960, he saw the stream from Rattray Head passing by out at sea to the east, sometimes another smaller stream coming from the direction of Duncansby Head in Caithness, and odd birds leaving Orkney and Shetland.

Occasionally a few birds were seen leaving by day in March, but the number was small then. The main diurnal departures occurred during a short period in April, between 11th and 16th April in 1959 and between 5th and 9th April in 1960, and since the only birds which W.R.P.B. managed to see going out to sea by day in Aberdeenshire during this period were Common Gulls, and such a departure was not seen at any other time, the movement was presumably largely composed of this species. It subsequently transpired that I.J.P. and R. McBeath had already collected a series of notes of Common Gull departures from St Abb's Head in Berwickshire at this time in the same and previous years, and had also seen a much more dramatic movement than any witnessed in Aberdeenshire. Since this area lies within the region of departure of the most southerly and largest of the streams seen with radar out at sea we have agreed to publish our observations together.

Acknowledgments

The radar observations were carried out at an R.A.F. Station, and the personnel of the station have been extremely kind in providing all possible facilities for the work, including hospitality in the Officers Mess. The work was financed by a grant spread over three years from the Department of Scientific and Industrial Research, and was carried out under the direction of Dr David Lack, who was himself undertaking similar investigations in East Anglia. We are also grateful to Messrs Dougal G. Andrew and Andrew T. Macmillan, Dr I. C. T. Nisbet and especially Dr David Lack for helpful criticism of a draft of this paper, Mr Peter Davis, Dr W. J. Eggeling and Mr George Waterston for information and access to the Fair Isle and Isle of May Bird Observatory records, and Messrs Dougal G. Andrew and R. McBeath and Dr M. T. Myres for allowing us to incorporate their records.

SUMMARY OF OBSERVATIONS

Previous observations. The only important previous observations of the spring migration of Common Gulls in Scotland appear to be those described by K. Williamson, D. G. Andrew and I. Munro in 1952 (Fair Isle Bird Observatory Bull. 1(7): 6). They report that during the middle of a visit to the Isle of May in early April 1952 they had westerly weather and

saw a high eastwards departure of Common Gulls, and only Common Gulls. Referring to this species, they record: "during the westerly and SW (weather) evening passage was in progress from about 1700 hrs. Birds were first heard passing on the 5th, but were not located for a time, until we realised that they were passing high overhead. Two singles and a group of eight were watched heading out to sea NNE at 1845 hrs, with a force 3 surface wind from the WSW. Next evening parties of five, five and four passed between 1700 and 1900 hrs going NE on a west (force) 3 wind. On the 8th we saw one and seven going NE at 1800 hrs with the wind south, force 2. The weather charts for these evenings show that these gulls were using a cyclonic approach to the Norwegian coast round the base of a depression which was moving from the west towards Shetland. The birds went over quite high, at about 500 ft, and their passage was detected by their call-notes. Perhaps many were leaving the Forth area, and we saw only those crossing the island, where not the slightest deviation was noticeable. On the evening of the 8th, with the surface wind SE but the upper air-mass definitely moving in from the SW, the gulls were flying much higher than usual, at least 700 ft. There was no passage on the 9th, when the North Sea winds were south to SSE.'

Mr Andrew informs us that on returning from this visit he saw a similar NE evening departure from Gladhouse Reservoir near Edinburgh on the evening of 13th April 1952, and again on 1st and 22nd March 1953, 12th March 1955, and 13th January and 24th March 1957. On each occasion only Common Gulls were involved, and on each occasion the movement was noted in the late afternoon, when the departure to the N or NE was in marked contrast to the normal movement in the opposite direction of birds coming in to a local roost. On each occasion his attention was drawn to the departure by a high-pitched "kok" call also heard on the Isle of May which is possibly associated with long-distance movements. He thought that the birds must be starting a trans-North Sea crossing. It is notable that these records occur earlier in the year than those recorded below, but that the birds were departing in the late afternoon, the time when the first passages seen with radar started to come through in early April, though by mid-April the big departures occurred in the middle of the day. Possibly the first birds move rather late in the day, or come from Ireland so that they only reach east Scotland late in the day; or alternatively, perhaps the birds fly high early in the day while fewer observers are out then, so that they are more likely to be seen when more people are out and they are starting to fly low and settle in the late afternoon. In any case, they seem to be moving in larger numbers in April than in March; thus H. Boase recently

reported that on 7th April 1961 300 Common Gulls were seen moving NE in half an hour at Invergowrie, Perthshire, at the time of the main emigration of this species (Scottish Birds 1:499).

Observations in 1957. In this year Mr Andrew saw his last evening departure from Gladhouse Reservoir on 24th March, but an anticyclone then settled over Scandinavia at the end of March and remained there for a week, then being replaced by another anticyclone to the NW of the British Isles for another week. In consequence throughout the first part of April the NE coast of Britain had fine cool weather with at first E to NE and then N to NW winds. During 12th and 13th April the area of high pressure to the NW shifted south, and a ridge followed by a trough associated with the development of a front moved east across the British Isles, the wind backing from NW to S ahead of the trough, then veering to W as it passed. It appears that in this year the main Common Gull departure may have been delayed by contrary winds until the arrival of the trough on 13th April, and then occurred in a rush when the wind at last changed to west behind it.

I.R.P. and R.McB. saw the first flock of Common Gulls pass high over Kirk Hill, St Abb's, on 30th March, and several flocks went east there with cold S to SE force 4 to 5 winds the following day. With a very cold force 6 NE wind on 12th April a stream of Common Gulls followed the cliffs to Float Carr Point, accumulated into a flock of 32 birds there, and then set off high out to sea to the NE in V formation. It seems likely that other birds were grounded inland by the strong contrary wind this day.

The following day, 13th April, is the day when the ridge and trough passed. In Berwickshire the weather was fine and sunny with a light, decreasing wind veering from west to north during the day, so presumably the front had already passed before the observations started. From 0930 hrs flocks of Common Gulls could be seen circling upwards inland, possibly in rising air currents in the unstable polar maritime air behind the front, and then passing out to sea high to the NNE from St Abb's Head lighthouse. A minority of lowerflying birds also went NW up the line of the cliffs. 1261 birds passed in 30 minutes in the middle of the day, and if the rate of passage was as steady as it seemed 17,500 birds could have passed during the period of observation. The main passage ended about 1630 hrs as the wind swung round to north, but two flocks continued to gather on the sea off Shelley till 1830 hrs, about half an hour before sunset, by which time there were about a thousand birds. These then rose and after circling out to sea for about a mile most of them apparently went out NNE after the sun had set.

No further observations were made this year.

Observations in 1958. In this year a watch was kept in Berwickshire by R.McB. on 30th March and 2nd, 3rd, 6th, 8th, 10th, 12th, 13th, and 27th April. No Common Gulls were seen except on 8th April, when a few were present on the headland, where this species is not usually seen.

Observations in 1959. In this year W.R.P.B. carried out observations both visually along the coast and with radar in Aberdeenshire from 27th February until 15th March and again from 5th April to 20th May. The first few birds were seen going out NE on the radar by day after the passage east of a front overnight on 12th March, but then no more were seen until after the gap in observations on 6th April, when a few more were going out again. No birds were seen directly leaving Aberdeenshire during this time, and R.McB. saw no movement at St Abb's Head on 27th and 30th March and 2nd April.

A depression took three days to cross the area after 6th April, moving away on the 10th. Another small NE departure started on the radar in the middle of the day on the 10th, and had become strong by dusk, when it merged with a large evening passerine departure. All next day a strong NE to NNE departure could be seen on the radar in fine clear weather with a rising SW to W wind, and while W.R.P.B. saw no birds leave the Aberdeenshire coast during a 45 minute watch at the height of the passage in the afternoon, I.R.P. saw several parties of Common Gulls go over very high NNE calling in Berwickshire. The passage ended with the approach of a front from the west in the evening, and there was a SE gale and rain as the front passed out east overhead during the night.

By the morning of 12th April the front could be seen on the radar display as a bar of cloud passing away out to sea to the NE, aligned as in the weather map (Figure 2), while in Aberdeenshire the sky was clearing and the wind had died away on the ground. During the morning a small departure was seen to start inland and proceed NE out to sea at about 60 knots until it caught up with the departing front. From the speed of the echoes it would appear that the wind, which had been strong from the SE on the surface ahead of the front, and had died away on the surface behind it, had remained strong and veered SW behind the front at upper levels, and was now assisting the birds. This is confirmed by the 900m upper wind reports for 0600 hrs, the upper wind being 12 knots from 110° ahead of the front at Lerwick, but 25 knots from 220° behind it at Leuchars, the wind speed of 25 knots and their own airspeed of about 30 knots accounting closely enough for the birds' observed groundspeed of about 60 knots.

The passage appeared uniform in appearance and direction

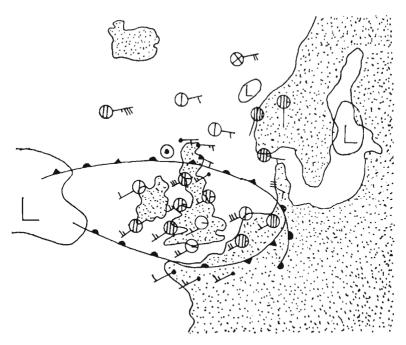


Figure 2. The conditions under which Common Gulls are drifted to Fair Isle in spring, as shown by the weather map for 0600 hrs on 12th April 1959. Birds leaving Britain in fine weather with SW winds behind the northern front flew into the front over the North Sea and were drifted NW to Fair Isle by SE winds under the cloud.

of movement until it approached to within ten miles of the front, and then the echoes started to vary in both brightness and direction. Some eventually disappeared entirely before they reached the cloud, as if they had flown low beneath the radar horizon or settled on the sea, but most continued in directions between north and east until they disappeared from sight among the cloud shadows. Four out of five echoes followed carefully split up as they approached the front, and two of the smaller resulting echoes disappeared before they reached the cloud while another four were watched into the cloud. It was impossible to see what happened under the cloud.

The movement was seen all day as the front disappeared out to sea and the wind increased and swung round to west. A stream of parties of Common Gulls was seen flying north low up the shore at the rate of hundreds of birds per hour in Aberdeenshire during the afternoon, while a few more were seen going NNE very high in Berwickshire by R.McB. There was also an arrival of 120 Common Gulls and no other

species at Fair Isle as the front passed during the day, this being one of the largest arrivals of Common Gulls in spring during the whole period of observation there (P. Davis, Bird Migration 1:42 and personal communication). Presumably birds setting out in fine weather with a SW wind from the coast of Scotland must have started to drift NW when they met the SE wind under the cloud of the front until they reached Fair Isle; unfortunately it was impossible to see what was happening, but the fact that a considerable fall at Fair Isle this day consisted entirely of Common Gulls provides strong evidence that the passage consisted mainly of this species.

The weather remained fine and clear with SW to SSW winds as the low pressure system moved on NE on 13th April, and a very large NE to ENE departure was again seen on the radar during the morning, though no birds could be seen from the ground in Aberdeenshire, and unfortunately there were no observations in Berwickshire. The departure ceased with the onset of a southerly gale ahead of another front approaching from the west during the afternoon, though some traces could still be seen leaving as long as gaps persisted in the cloud. The front passed on north overnight and the weather had cleared to produce another fine still day with SSW to S winds on 14th April. Another large NNE departure developed on the radar during the day, and I.J.P. saw a trickle of parties of Common Gulls pass calling over Berwickshire throughout the day, most flying so high that they were difficult to see. By the evening the wind was backing SE ahead of another depression, and W.R.P.B. found many Common Gulls sitting about on the ground at Rattray Head in Aberdeenshire.

On the morning of 15th April the weather was again fine with a S to SSE wind after the passage of the front during the night, and another NE departure was seen on the radar display. R.McB. saw no movement at St Abb's Head this day, but in Aberdeenshire W.R.P.B. saw two parties of Common Gulls go very high north up the coast during the afternoon, while 140 were recorded at Fair Isle. Another moderate departure was seen on the radar with SW winds on the 16th, though no visible movement was detected in either Aberdeenshire or Berwickshire, and after this only small NE diurnal departures were seen on the radar until observations ended for the season on 20th May, while no more visible departures of Common Gulls were reported anywhere.

Observations in 1960. In this year observations were carried out in Aberdeenshire from 26th February till 31st May, with a gap from 12th to 18th April when little of interest was reported to have happened except possibly on the last two days; Dr M. T. Myres carried out parallel observations in

Shetland in April and May. A few small NE departures were seen in Aberdeenshire in March, especially on 25th March, but no migrants could be seen leaving. I.J.P. visited St Abb's Head only on 21st March this year, when he saw nothing.

The first important departure was seen on the radar on 4th April, earlier than in 1959 when there was a gap in the records at the beginning of April followed by a period of more or less NW winds which appear to be unfavourable for migration. As in 1959 it occurred in fine weather with a SW wind following the clearance of a front to the east, and was terminated by the passage of another front overnight. It could also be seen on the radar in Shetland as it passed on NE during the afternoon, but nothing could be seen from the ground.

The front was clearing to the east by the morning of 5th April, and another movement started in fine weather with a S veering to SSW wind behind it, the first birds plunging straight into the cloud of the front as it passed out of sight. This front had passed further out to sea before the birds reached it than had that of 12th April 1959, and only two Common Gulls reached Fair Isle this time, though there had been a fall of passerines as the front passed during the night, which suggests that Common Gulls do not migrate at night. The passage was seen continuing NE/NNE past Shetland later in the day. On this afternoon a determined attempt was made to see the birds leaving Rattray Head by looking up through binoculars. 32 gulls were seen and heard going out very high in four parties between 1615 and 1645 hrs; most of them were Common Gulls as usual, but there were one or two Black-headed Gulls Larus ridibundus for the first time. Cloud was then beginning to spread from the west as another front approached from the west.

This front passed east overhead on the morning of 6th April, and a small departure left as the weather cleared behind it during the afternoon. The next day was fine and clear with no wind on the ground though SSW winds were reported at 900m and cloud is shown on the weather map (Figure 3). The largest NNE/ENE diurnal departure of the spring was seen on the radar in both Shetland and Aberdeenshire as a ridge passed east during the day, yet no visible migration could be detected at all during another afternoon watch at Rattray Head. A small departure occurred ahead of another front on 8th April, and the last important movement seen in Aberdeenshire this season followed behind it as it passed to the east on the afternoon of the 9th, the echoes disappearing ENE into the cloud as they went out to sea. Common Gulls were heard calling very high overhead as they flew into the cloud, and twenty Common Gulls but no other species reached

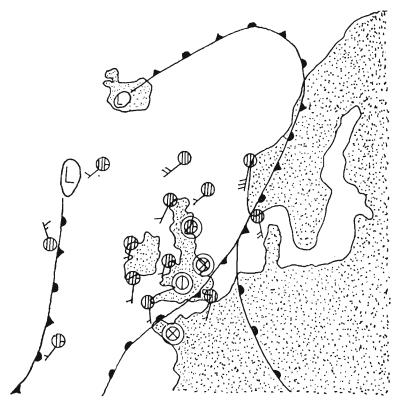


Figure 3. The conditions under which the largest departure of Common Gulls occurred in 1960, as shown by the weather map for 0600 hrs on 7th April. The birds started to leave Scotland when the first front passed east, and departed NNE in very large numbers as the ridge passed during the day. Nothing could be seen from the ground.

Fair Isle as the front passed during the day.

Diurnal departures continued to be seen on the radar in Shetland with a diminishing frequency and density until 24th April, although some were missed in Aberdeenshire owing to the gap in observations there. They then became very sparse and infrequent. No more Common Gulls were seen leaving Aberdeenshire this year.

DISCUSSION

The ringing returns analysed by Dr Radford, the reports of the occurrence and behaviour of Common Gulls at Fair Isle in autumn by Davis and Hope Jones, and visual and radar observations of their spring migrations, can be combined to provide a picture of the movements of the species throughout the year. It prefers to breed near water of some sort

along the coast or inland in NW Europe, and migrates to winter along the coast and in agricultural country with light soils in western Europe. The general trend of its migration is apparently more westerly than that of the Black-headed Gull, which moves mainly SW and S (M. C. Radford, Bird Study in press), and it seems to cross the North Sea in much greater numbers.

The autumn migration seems to involve a prolonged dispersal west starting according to the Fair Isle records by late June, reaching a maximum from mid August to early September, and dying away about mid November, with recurrences after cold weather in winter (the general summary by Davis & Hope Jones is confirmed by a direct inspection of the records). This autumn dispersal is not conspicuous on radar, though scattered arrivals of echoes of the sort thought to be caused by Common Gulls in spring can occasionally be seen coming in west from the sea late in the day throughout the autumn, mainly during periods of easterly winds. These movements are probably composed of a mixture of Common Gulls and other drift migrants from Scandinavia, so that it is impossible to analyse the Common Gull movements separately, as can be done in spring. In any case, the movements are never very prominent on the screen in the way that they are in spring, so that it seems possible that the birds may fly much lower in autumn when the wind is usually against them, so that they do not show up well on the radar; or alternatively that the autumn migration may always be so weak, diffuse and long-drawn-out that individual passages are never strong enough to show up well.

Although during this period of autumn dispersal the birds cannot be identified easily with radar, Davis and Hope Jones have shown that large numbers none the less appear at Fair Isle under much the same conditions as in spring, S to SE winds associated with fog and cloud and the passage of a front east across the North Sea, while the birds can be seen departing again to the south by day when the weather clears. Dr Radford has also shown that the largest number of returns of foreign-ringed Common Gulls come from Scotland and eastern England at this time, the rings tending to be recovered in England, Wales and Ireland later in the winter, and not in Scotland, even on spring passage. Common Gulls other than breeding birds also seem much commoner feeding along the coast and inland in east Scotland in autumn than spring, though they rarely seem to be migrating, and no migrant flocks were seen which could be associated with movements seen with radar. Thus it appears that there must be a considerable slow movement through the area in autumn, which does not show up well on the radar at all. Most of these birds seem to have passed through by November.

On the other hand, Common Gulls other than breeding birds seem rather scarce in Scotland in spring, and there are few ringing recoveries there then. This can now be explained by the radar observations. While some migration may occur at night in March, when it will be swamped by large passerine departures on the radar display, little migration is seen by day except during a relatively short spell in April, and the migration then occurs in a great rush, the birds taking off far inland during spells of fine weather, and going out high overhead to Scandinavia, so that it is extremely difficult to see them except where they are temporarily grounded by bad weather, usually in the form of a front.

On good days this passage was usually well developed by 1000 hrs, and if they were not interrupted the last birds were still moving out to sea at dusk, when they were lost among the evening passerine departures. If they all took off in the morning and only travelled at their airspeed of 30 knots, the last birds crossing the coast some ten hours after the start of the passage would already have travelled 300 miles before they put out to sea, while on days when they were assisted by the wind, as usually seems to be the case, they could have come twice as far. However, the most distant land in Europe in the direction from which they were coming, Ireland, is only 200 to 500 miles away, so that it seems likely that some at least of the big passages must have come from the winter quarters in western Britain and Ireland since the morning, and should reach Scandinavia, and possibly the summer quarters, by the following day. Thus some birds may complete by a single flight within one or two days a journey which may have taken weeks or months in autumn; others which were grounded on the way by bad weather may have taken longer, but in both years for which there are radar results the greater part of the spring passage of this species seems to have passed within about a week.

A general examination of the movements described in the previous section and summarised in the Table suggests that the birds must wait for a particular type of weather before migrating, all the main movements having occurred during disturbed or cyclonic weather in the relatively fine spell which occurs after the passage of a front, as the wind starts to veer SW in the warm sector of a depression behind the warm front and ahead of the succeeding ridge, and before it starts to back SE again behind the ridge and ahead of the next depression, as in Figures 2 and 3. The birds seem to wait for the onset of these conditions before starting to move, and then keep moving until they catch up with the front. They then probably settle and start again another day if they are over land, but are liable to be blown away north by southerly winds under the cloud ahead of the front if they are

over the sea. At least, while fronts were several times seen approaching overland from the west, birds were never seen coming through them, though good passages often occurred after they had passed; while birds were three times seen to fly into fronts at sea to the east, some birds disappearing as if flying low or settling on one occasion, and there was an arrival of Common Gulls at Fair Isle to the north on the two occasions when the fronts passed there in the daytime.

The factor which stimulates the birds to start migrating under suitable weather conditions seems most likely to be the occurrence of a favourable wind, as already postulated for nocturnal migrants seen on radar by W. G. Harper (Proc. Roy. Soc. B 149:484). At least, all the main gull passages seem to have occurred with winds close to SSW. Unlike nocturnal migrants the Common Gulls seem quite prepared to migrate under cloud, which is usually marked behind warm fronts, all the large passages occurring on days when a considerable amount of cloud was shown on the weather maps. Possibly these and other diurnal migrants are less dependant on celestial navigation than nocturnal migrants, which usually seem to move with clear skies, as suggested by Harper. There was a marked variation in the local morning temperature on the days when birds passed; it was usually high, when they were following a simple warm front, but sometimes low, once with a very big passage (Figure 3), probably because the front had already occluded before it crossed the British Isles. Taken at their face value, these observations suggest that temperature as such has little influence on this migration; but the temperature in the area of origin of the passage or at a different time of day may be more important than that which the birds encounter in intermediate areas during the course of their flight.

The character of the spring migration of Common Gulls seems to depend largely on the time of onset of suitable weather conditions in early April. In 1952 and 1960, when a series of depressions followed by SW winds passed early in the month, the birds went out high and fast early in the season and little was seen of them. In 1959, when winds north of west prevailed early in the month, the main passage seems to have occurred later, one or more passages hitting fronts as they went out, so that more birds were seen along the coast and at Fair Isle. In 1957, when more or less NE winds prevailed in early April, visual observations suggest that the birds may have gone out in a great rush when the wind eventually backed to west on the 13th.

A similar slow dispersal in the last half of the year followed by a sudden flight back to the breeding area in spring has been postulated for the Mediterranean Gull Larus melanocephalus by N. Mayaud (Alauda 22:225) and the Slender-

billed Gull Larus genei by C. Erard (Alauda 26:86) and may occur among other allied species. It may occur with the Black-headed Gull, though here the picture is often confused because a number of different populations may pass through the same area at different times; none the less, most Black-headed Gull colonies seem to be occupied suddenly in spring, as if the migration occurs very rapidly. Lesser Black-backed Gulls Larus fuscus also seem to migrate in large numbers during a rather short period in the spring. This subject deserves further study.

SUMMARY

- 1. Large numbers of Common Gulls, and only Common Gulls, were seen visually departing NNE by day from the east coast of Scotland during a short period in April in several different springs. This movement was watched with radar in April 1959 and 1960.
- 2. The birds move on a broad front inland but tend to follow the coast to headlands before putting out to sea. Thus relatively concentrated departures took place from prominent headlands such as St Abb's Head, Rattray Head and Duncansby Head.
- 3. In fine weather most flocks fly too high to be seen. A number of flocks were seen resting on the ground, passing low overhead, or coasting north low along the shore when the weather deteriorated.
- 4. Birds which left land in fine weather were seen to meet a front out at sea on three occasions. On two of these they flew straight into the cloud and were lost to sight. On the third flocks were seen to change direction, break up, and in some cases disappear as if flying low or settling on the sea as they approached the cloud. There was an arrival of Common Gulls, and only Common Gulls, as two of these fronts passed Fair Isle by day, while the third passed by night and brought passerines but no Common Gulls, indicating that the diurnal movements seen with radar must involve mainly Common Gulls, and the nocturnal movements not Common Gulls but passerines.
- 5. Common Gulls appear to disperse slowly from the breeding area, and then return rapidly, probably often by a single flight. In spring they appear to migrate during the spell of fine weather and westerly winds which follows the clearance of an eastwards-moving front. The factor stimulating them to migrate may be the onset of a favourable wind; they often migrate under cloud, and with variable temperatures. If they meet bad weather they try to settle and wait for it to clear, but at sea they are liable to be drifted north by south winds ahead of a front, and may appear at Fair Isle then.

TABLE
Weather and visible movements during main gull departures seen on radar

Time/Dat	e Passa	age	Wind in knots		Eighths	Temp.	Movements noted		
April 195)		900m	Ground	Cloud		Berwick	Aberdeen	Fair Isle
p.m. 10t1	Some	NNE	SW/9	0	7	42	0 .	0	13
a.m. 11tl	Some	NE/NNE	WSW/6	0	Mist	38	some	0	2
a.m. 12tl	Some	NE	S/20	SE/10	Rain	43	some	many	120
a.m. 13tl	Many	NE	SSW/20	SW/10	7	47	?	0	100
a.m. 14tl	Many	NNE	SSW/26	S/3	7	47	some	some	8
a.m. 15tl	Some	NNE	SSE/27	S/5	Rain	47	0	few	140
a.m. 16tl	Some	NE	S/12	SSE/?	Fog	43	υ	0	0
April 1960)								
p.m. 4t1	Few	NNE	S/29	S/10	8	43	÷	0	()
p.m. 5t1	Some	NE	SSW/36	SSW/10	7	53	?	some	2
a.m. 6tl	Few	ENE	SSW/45	SSW/20	7	47	Ē	0	()
a.m. 7th	Many	NNE	SSW/12	0	7	36	7	0	0
a.m. 8t1	Few	NE/ENE	SSW/23	S/10	7	44	ĵ	. 0	1
a.m. 9tl	Some	ENE	SSW725	S/10	Rain	46	P	some	20

Notes. The first passages came through late in the day, so weather readings at 1800 hrs are given for these, and thereafter readings at 0600 hrs. The upper winds are the average of Lerwick to the north and Leuchars to the south, and other readings are from Dyce. Aberdeenshire.

ISLE OF MAY BIRD OBSERVATORY AND FIELD STATION REPORT FOR 1961

PREPARED FOR THE OBSERVATORY COMMITTEE

by W. J. EGGELING, Hon. Secretary, and A. MACDONALD

The Low Light was manned for 196 days between 17th March and 5th November, a gratifying increase on previous years. Both migration seasons were satisfactorily covered but there was once more a dearth of accredited ringers in June and July so that again very few nestlings were ringed.

In the Report for 1960 a field identification of an Arctic Warbler on 26th August 1960 was accepted as providing a new bird for the island's list. However, although the notes taken at the time pointed clearly to this species, the principal observer was not satisfied after an examination of museum skins that it was in fact the bird involved and, accordingly, the record was withdrawn. In 1961 an indubitable Arctic Warbler was identified on 5th-6th September and this now constitutes the first undisputed occurrence. Other notable records for the year include the island's first White-breasted Barn Owls Tyto a. alba-one in June and two others in October; only the second occurrence since 1910 of Bullfinches—on 20th-21st October, two birds of the Northern race P. p. pyrrhula, the third spring occurrence of Shore Larks-two from 25th April until 7th May; and the island's third Yellowbreasted Bunting on 7th October.

A pair of Hedge Sparrows bred for only the second time since 1884 and there was a further appreciable increase in the number of breeding Shags. No Linnets nested and there was no attempt at breeding by any species of tern.

MIGRATION

Spring

The Station was manned from 17th to 22nd March, when a few Song Thrushes and Blackbirds were present, and small numbers of Meadow Pipits were moving. Two Iceland Gulls and a cock Wheatear were seen on 17th, a Yellowhammer on 18th, and a Black Redstart on 20th and 21st. Observers were back on the island on 30th March and the only gaps in spring cover were at 7th-9th April, 2nd-4th May and 25th-29th May. There was little movement in the first week of April but on

the 11th, with light easterly winds dropping to calm with fog, 200 Wheatears, 50 Willow Warblers and 50 Goldcrests, accompanied by a few Chiffchaffs and Redstarts, a Tree Pipit and the first Swallow, were noted. Birds continued to trickle through steadily, amongst them a Hoopoe on the 18th, and the first 2 Blackcaps and a Garden Warbler on the 20th. From then, with the wind south-east, until the 24th, when it moved into the south-west for a day, small numbers of migrants passed through, including on 21st the only Grasshopper Warbler of the year. In the last week of April, although the wind was still easterly, even fewer birds were seen; there was a Pied Flycatcher on 27th, the first Sedge Warbler on 28th, and a Black Redstart and a Quail on the 30th. Two Shore Larks (one trapped), first noted on 25th April, remained until 7th May.

No movements of any real size were recorded in May, when Willow Warbler numbers reached the 20-25 mark only on 6th-7th and 22nd. The first Cuckoo appeared on the 6th and the first Spotted Flycatcher on the 7th. The highest total of Whitethroats was 20 on the 22nd, when 7 Sedge Warblers, 4 Spotted Flycatchers, a Pied Flycatcher and the only Bluethroat of 1961 were noted. There was so significant movement thereafter

Autumn

The Low Light was occupied from 21st July to 5th November, with gaps only at 1st-3rd and 7th-9th August, and 15th-19th and 28th-30th October. Except for a Turtle Dove on 27th-28th July, there was little to record until 10th August, when the incoming party found 20 Willow Warblers and a Pied Flycatcher on the island, and at least 3 Green Sandpipers and a Greenshank. A Great Skua was seen on the 11th, tern movements began to be noticeable on 13th, and the first south-moving Arctic Skua appeared the same day. Passage remained unexciting during the second half of the month, although a Treecreeper was seen on 28th and a fresh south-east wind on the 29th brought in 5 Pied Flycatchers—but not much else.

September opened auspiciously with easterly winds and poor visibility or fog for the first five days: 8 Pied Flycatchers appeared on the 1st and were replaced overnight and again on the 3rd by others; 14 in all were trapped, together with a single Barred Warbler. Arrivals on 4th September (wind north-east, veering south-east) included 75 Wheatears, 4 Whinchats, a Blackcap, 3 Garden Warblers, 12 Whitethroats, 20 Willow Warblers, 5 Goldcrests, 30 Pied Flycatchers, an immature Red-backed Shrike and a Turtle Dove. This movement continued on the 5th, when Whitethroats increased to

30 and Willow Warblers to 120; Pied Flycatchers fell to 25 and Wheatears remained at 75. An Arctic Warbler was seen.

A few more Goldcrests and a Treecreeper (trapped and identified as of the British race C. f. britannica) turned up on the 8th, and the continuing dribble of movement was augmented on 10th-11th by heavy early morning passage of Swallows and House Martins, which reached a peak of over 1,000 of each on 11th and then stopped. Pipits, too, were moving. Another (British) Treecreeper and a Lesser Redpoll were trapped on 14th.

A small influx on 19th September, in fog with light southeast wind, included 6 Redstarts, 8 Pied Flycatchers, a Garden Warbler, a Lesser Whitethroat and 40 Siskins. On the 21st, 500 Swallows and 17 alba Wagtails were recorded, passing over high. There was a Lapland Bunting on 24th (wind between north-west and west) and, unexpectedly, a Yellowbrowed Warbler on 25th (wind west).

The first sizeable arrival of Turdidae was on 30th September (south-east wind, veering south-west), when 40 Song Thrushes, 2 Ring Ouzels, a Fieldfare, a Redwing, 7 Lapland Buntings, 2 Blackcaps, and one each of Treecreeper, Pied Flycatcher, Brambling and Siskin came in. On 3rd October, 120 Song Thrushes, 15 Blackbirds, 6 Redstarts, 6 Blackcaps, 2 Garden Warblers, and a few Willow Warblers and Chiffchaffs were present. On the 4th, the start of a spell of fog and south-east winds which lasted four days, Robin numbers rose from 2 to 20, Skylarks from 4 to 20, and Chaffinches from 20 to 50; a Black Redstart was seen. Over 400 Song Thrushes and more than 100 Blackbirds arrived on the 5th, along with the first Woodcock and 2 Little Stints. On the 7th, a Yellowbreasted Bunting was identified. Most of these birds had gone when the fog lifted on the 8th, but 30 Bramblings and 3 Stonechats came in next day, and 40 and 100 Meadow Pipits were recorded on 11th and 12th, respectively. An increase of Skylarks from 7 to 40 took place on 12th, about 50 Redwings were seen on the 13th, and 2 Long-tailed Tits appeared on 14th.

On 20th October, after an observer-gap from 14th to 19th, the wind veered north-north-east, force 6, and brought a heavy arrival of continental birds with at least 600 exhausted Goldcrests predominating but also small numbers of Blackbirds and Fieldfares, a Blackcap and two Bullfinches (one of which was trapped and found to be Northern). About 50 Redwings arrived on 21st, and next day, in mist and southeast wind, 200 Blackbirds, 150 Redwings, 60 Song Thrushes and 2 Ring Ouzels were logged, along with 25 Chaffinches, 25 Skylarks, 5 Siskins and a Black Redstart. Two more Black Redstarts, a Short-eared Owl and a Yellowhammer were seen

on 24th, and 3 Long-tailed Tits on 27th.

Observers landing on 31st October to close the Station recorded Redwings and Blackbirds moving overhead in mist and light south-east wind. 1st November saw the successful trappings by the Principal Keeper of a party of 11 Long-tailed Tits, a count of 25 Wrens and a brief visit from 5 Grey Lag Geese. Next day, 150 Fieldfares, 100 Redwings and a very late Redstart appeared. There was again considerable Blackbird activity on the 4th (250 recorded as against 12 on 3rd) and a Glaucous Gull was seen. On 5th November, the last day of the season, fully 1,000 Fieldfares, 1,000 Redwings, 500 Blackbirds and 3,000 Starlings, but only a handful of Song Thrushes, were reckoned to have gone by in a day of really heavy passage. Twelve Woodcock were recorded also, and 8 Black Guillemots.

UNUSUAL OCCURRENCES

The following are particularly deserving of notice: -

Manx Shearwater: 9 and 6 respectively on 21st and 22nd July. Only one previous record for July.

Quail: Adult male on 30th April. Sixth occurrence; fifth and earliest in spring.

Woodcock: Single birds, perhaps the same, on 14th and 17th June. First June record.

Whimbrel: 10 on 31st August (unusually many); last bird of autumn on 10th October (exceptionally late).

Bar-tailed Godwit: 1 on 12th-13th September. Seventh occurrence.

Green Sandpiper: Either 3 or 4 on 10th August. Unusually many.

Spotted Redshank: 1 on 24th September. Recorded in only two other years.

Greenshank: 8 occurrences of single birds between 10th August and 1st October. Unusually many.

Little Stint: 2 on 5th October. Recorded in only five other years.

Glaucous Gull: 1 on 4th November. Fourth November occurrence.

Iceland Gull: 2 on 17th March. Recorded in only four other years.

White-breasted Barn Owl: Single birds in June and on 6th and 18th October. The June bird was caught unable to fly on 24th, dying in the afternoon. It had been present for a few days, growing progressively weaker.

Short-eared Owl: Single birds on 11th, 14th and 22nd August. Unusually early dates.

Hoopoe: 1 on 18th April. Seventh occurrence.

Shore Lark: 2 from 25th April to 7th May. Third spring record.

Long-tailed Tit: 2 on 14th October, 3 on 27th October, 11 on 1st November. Recorded in only five other years.

Fieldfare: Single birds on 5th and 9th June. Very late. Ring Ouzel: 10 on 6th April. Unusually many.

Stonechat: 1 on 16th April, 1 on 27th-28th July (a very unusual date), 1 on 24th September, 3 on 9th October (unusually many). More occurrences than has been usual in recent years.

Whinchat: 1 on 19th June. A very late date.

Redstart: 1 on 2nd November. Exceptionally late.

Black Redstart: 1 on 24th July. A very strange date.

Robin: Single birds on 1st June (very late for spring passage), 26th July (second July occurrence), and first week of August (early for autumn passage).

Sedge Warbler: 1 on 22nd July (an early date), 1 on 8th October (a very late date).

Blackcap: 2 on 20th April (early), 1 on 3rd-4th June (late).

Garden Warbler: 1 on 20th April. Again an early date.

Arctic Warbler: 1 on 5th-6th September. First undoubted occurrence.

Goldcrest: Single birds almost daily in August from 10th to 25th (probably only two individuals concerned); exceptionally early. Over 600 on 20th October; exceptionally many.

Starling: 3,000 passing on 5th November. Exceptionally many.

Greenfinch: 1 on 13th-14th June. Very unusual in June. Goldfinch: 1 on 4th November. Recorded in only 7 other years.

Lesser Redpoll: Single birds on 14th and 18th September, 31st October and 1st-3rd November. Only five previous certain autumn occurrences.

Bullfinch: 2 (Northern race) on 20th-21st October. Only two previous occurrences of Bullfinches.

Yellow-breasted Bunting: 1 on 7th October. Third occurence.

Lapland Bunting: 7 on 30th September. Unusually many.

BREEDING POPULATIONS

A pair of Swallows nested in the Naval Hut, raising a single brood. The female then laid in three different nests which she sat on indiscriminately without success. Two pairs of Pied Wagtails were present for part of the summer but it is probable that only one pair bred, raising two broods. The female of this pair, ringed on 28th April and retrapped on 22nd July, was found dead in Portugal on 24th November. For the first time since 1953 no Linnets nested but in partial recompense a pair of Hedge Sparrows raised at least seven young in two broods.

The seabirds had mixed success. No terns at all nested and the 200-300 Puffins which excavated burrows on the East Side again failed to establish themselves. It is difficult to believe that gulls were entirely responsible, since no predation was observed. The Shag population again increased and as 526 nests were counted in the last week of April it is probably safe to conclude that, making allowance for dead ground, at least 550 pairs bred. The area of cliff occupied by Kittiwakes continues to expand; there were 34 nests in the recently formed East Tarbet colony (25 nests in 1960; 18 nests in 1959) and for the first time there was a nest on the Maiden Rocks.

RINGING AND RECOVERIES

The number of birds ringed, 1,666, was much the same as in 1959 and 1960; once again relatively few nestlings were involved. Two species were added to the ringing list—one each of Shore Lark and Bullfinch. Record totals were obtained of Wrens (43), Long-tailed Tits (11) and Treecreepers (5), and second-highest totals for Rock Pipits (100), Kittiwakes (61) and Hedge Sparrows (29). Low totals were those for Linnets (2) and Garden Warblers (9). The large number of Rock Pipits ringed, all but three free-flying, was largely due to the discovery that the Crow Trap is quite irresistible to them if kept freshly dug over and baited with bread crumbs. When in a weedy or grassy state, it catches little.

There were few re-trappings of note. Two of them show that at least one Blackbird and one Song Thrush overwintered from November 1960 until the spring of 1961, the first time that a Song Thrush has been recorded to overwinter since the species was breeding on the May before the Second World War. It is also of interest that a Whitethroat (AB. 12553), ringed on the island on 22nd May when on northward passage, was trapped there again on 6th September, on its way south.

A Fulmar ringed on the island as a breeding adult in 1949, and two others ringed as breeding adults in 1952, were still nesting in 1961. Another indication of the considerable age attained by certain seabirds is given by the first of the following records of birds ringed on the May recovered elsewhere in 1961:—

Recovered

Ringed

пицеи	100000000
Arctic Tern. XL. 304. Ad. 13.7.47. Blackbird. S.86363. Ad. ♂ 10.11.58. Blackbird. R.35619. F.G.♀ 6.4.60. Blackbird. R.35749. F.G.♀ 5.4.60.	Tingvoll, Norway. 12.4.61. Deje, Sweden. 3.4.61.
Whitethroat. AC.13531. F.G. 19.9.61	Chaillevette, France. 4.10.61.
Garden Warbler. J.88614. F.G. 27.8.60.	
Willow Warbler. AB.12974. F.G. 5.9.61.	
Spotted Flycatcher. AB.12563. Ad. 24.5.61.	
Hedge Sparrow. C.64663. Ad. 19.3.58	
Meadow Pipit. AB. 12536. Ad. 10.5.61	Sanlucar de Barrameda, Spain. 21.11.61.
Rock Pipit. C.64161. Pull. 22.5.57. Pied Wagtail. AA.58794. Ad. 9 28.4.61.	(retrapped 22.7.61).
+	Portugal. 24.11.61.

An immature Greater Black-backed Gull, ringed as a young bird on 7.7.60 near Nigg, Ross-shire, was recovered on the May on 31.3.61, dead for some weeks.

MISCELLANEOUS OBSERVATIONS

In 1960 it was estimated that there were probably about 800 rabbits on the Isle of May at midsummer, and certainly not more than 1,000. In 1961 the population was undoubtedly much larger, and in a period of less than three months in late autumn the Principal Keeper accounted for nearly 600, without very noticeably reducing their numbers. In the absence of sheep the rabbits had the grazing to themselves.

In February and March, six more young Grey Seals which had been marked as pups on the Farne Islands the previous November and December, were caught and released on the May. Grey Seal numbers, generally, showed little change. A pup was born at the South End on 25th October, finally taking to the sea towards the end of November.

Major improvements to the Observatory effected during the year were the complete gutting and re-lining of the living room at the Low Light, the interior re-decoration of the whole building, and the erection and furnishing of a new Ringing Hut. The cost of the first of these operations was met by another generous grant from the Helena Howden

Endowment Trust for which the Committee again express their appreciation. The re-decoration of the Low Light was carried out in its entirety by two working parties organized by the Conservation Corps of the Council for Nature, drawn from students and teachers from the Moray House College of Education. They did a first-class job of which they can be justifiably proud, and they left as a parting present some fine new fitted shelving in the kitchen. The Committee, and all who have since used the Observatory, are deeply grateful: the Station is now in better shape and better equipped than ever before. In the latter connection the gift of a pair of naval type 7 x 50 binoculars from Mr Lachlan J. MacInnes is recorded with special thanks.

REVIEWS

The Birds of The British Isles. Vol. X. By David Armitage Bannerman, illustrated by George E. Lodge. Edinburgh, Oliver & Boyd, 1961. Pp. x + 320; 23 colour plates. £3, 3s.

It is almost as unnecessary to comment on the scope and manner of presentation of each successive volume of "Bannerman-Lodge" as it is impossible to continue to find fresh and untried expressions of praise for the author and his work. It is only as we receive and study the later volumes that we begin to realise fully the spirit and determination of the man who in 1953 produced the first chapters of his "authoritative work, planned on original lines, and written in such a manner that it should be readable" and realise, too, how successful he has been

The author continues his practice of inviting contributions from acknowledged authorities on regions, species or taxonomic problems and, as if having profited from previous exercise in the art, casts his editorial net widely and skilfully. The contributed passages have a uniformly high standard of content and provide an interesting and refreshing variety of styles, the elegant and finely polished writing of Dr H. M. S. Blair contrasting with the more exhilarating manner of Professor G. M. Sutton, whose chapter on the Solitary Sandpiper is one of the finest in the book, and with the slightly ostentatious, though masterly, passages by the Nethersole-Thompsons. One short section of outstanding interest, which many will read with envy and not a little regret, is Captain J. H. MacNeile's description of the breeding of the Green Sandpiper in the primaeval forest bogs of Estonia.

The volume begins with the Broad-billed Sandpiper, concerning which Dr Blair gives a great deal of interesting information. Collectors are blamed for its extermination on the sanctuary at Fokstumyren in Norway, but its range appears to be contracting also in Sweden. In North Russia its distribution is still incompletely known, as is that of the Common Sandpiper in south-west Europe. A very attractive and realistic plate of a Wood Sandpiper mobbing from the tip of a spruce accompanies the section on that species, and whereas Desmond Nethersole-Thompson testifies to the regularity with which the Green Sandpiper appears in Inverness-shire during the breeding season, Dr Bannerman is extremely cautious about accepting the record of breeding in that county in 1959.

The chapters on the Greater and Lesser Yellowlegs—Dr Bannerman prefers the time-honoured "Yellowshank"—had been promised by the late Professor Rowan, but have been contributed by his great personal friend Thomas E. Randall, while that on the Greenshank is in its entirety by Mrs Carrie Nethersole-Thompson, who with her husband has the remarkable record of having seen one hundred and seventy-six Greenshanks' nests. The question of the races of the Ringed Plover is discussed at length: it would have been interesting to hear Dr Bannerman's views on the form breeding in Spitsbergen, which is stated in The Handbook to be C. h. hiaticula but which is probably an inter-grade between hiaticula and tundrae, but Spitsbergen is not mentioned at all as being in the breeding range of either. He disagrees with The Handbook by giving specific rank to the Semipalmated Plover, but this is in accordance with Professor Sutton's observations that, although the breeding ranges overlap on Baffin Island, no specimen showing any suggestion of intergradation has yet been collected. The position of the Kentish Plover as a breeding species in Britain is precarious in the extreme, but on the other hand almost a hundred pairs of Little Ringed Plovers were located in 1959, twenty-one years after the first nest was discovered.

The lead of the editor of *The Scottish Naturalist* is followed in retaining a binomial for the British population of the Golden Plover, and the interesting point emerges that Dr Blair describes a behavioural distinction between the two races in Norway. The Nethersole-Thompsons' essay on the breeding behaviour concludes an essentially Scottish chapter. The statement that Jourdain met with the Golden Plover in Spitsbergen requires amplification as this is an interesting record. In 1921 Jourdain saw a pair, of which the male was shot, on Bear Island, and later a second pair which he thought was breeding; there was no subsequent record from either Bear Island or Spitsbergen until 1950 when Lövenskiold

recorded two on the latter. Dr Bannerman does however draw attention to the serious need for an authoritative book on the birds of Spitsbergen—which Dr Lövenskiold promised us years ago.

Dr Blair and the Nethersole-Thompsons again steal the chapter on the Dotterel—ninety-seven nests this time—but with the Black-winged Stilt we find Dr Blair in a new and unexpected habitat. Avocets in Suffolk give contrast in a very Scottish volume, with a full and up to date account by Philip E. Brown, and the Oystercatcher closes the volume, with some of John Buxton's conclusions from his recent enquiry and another series of fine and original observations by Desmond Nethersole-Thompson, vividly interspersed with sex and exclamation marks

A few curiosities which attract attention cannot be ignored entirely. Dr Bannerman treats Scandinavian orthography with a disdain for consistency which would delight the heart of Meinertzhagen or T. E. Lawrence; "fåglar" becomes, at random, "fåglar," "fäglar" or "faglar", and many place names receive similar treatment. A reference on page 190 to a book called "Days with Rarer Birds," attributed to Eliot Howard, provides a puzzle, and what a "Yellow-headed Bunting" (page 228) might be is anyone's guess until the original reference is checked.

The plates by George Lodge are of the usual high standard, but are not intended to be text-book illustrations for identification purposes. There are many persons to whom it would be of interest to know the dates of the individual paintings, and such a list might be included in the final volume, if these are known.

It is gratifying to know that Volume XI is not far from publication, and that the final volume is in active preparation, so we may look forward to an early completion of this magnificent work which comes from a great Scottish publishing house without whose courage and enterprise we might be without some of our finest modern bird books.

I. D. PENNIE.

Down The Long Wind. By Garth Christian. London, Newnes, 1961. Pp. 240; 31 plates; 23 maps. 21s.

Publishers who claim for their books more than the authors intended may do the latter a lasting disservice. Down the Long Wind, A Study in Migration, is a case in point. Written, according to its dust cover, primarily for the general reader of all ages, it is hailed too as a brilliant study which will be welcomed not only by the amateur bird-watcher and schoolboy naturalist but also by the professional ornithologist

seeking an up-to-date account of the migratory movements of a host of British birds.

I cannot agree that this book is the landmark in the history of bird study which its Introduction suggests, nor do I consider that it will be of particular interest to the professional who is within reach of the original papers from which so much of the information has, with full acknowledgment, been drawn. Nevertheless, after having said that, one can welcome Down the Long Wind as providing a clearly presented, very readable, "share this knowledge with me" account of the migrations of many of our birds. It can be recommended unreservedly to the amateur bird-watchers, schoolboy naturalists, armchair enthusiasts and general readers of its blurb, but especially it should be in the hands of school teachers and lecturers—indeed of anyone who is seeking to interest children and others (but especially children) in nature study and biology.

Mr Christian is a conservationist as well as an ornithologist and his book is concerned with many other things besides migration. He sees his birds as living creatures in a natural setting, not as a list of names.

W. J. EGGELING.

BIRD DOCTOR. By Katharine Tottenham. Edinburgh, Nelson, 1961. Pp. 162; 15 photographs. 15s.

In this pleasant, conversational book Mrs Tottenham tells you that the care of sick, wounded and oiled birds, started almost accidentally, has developed with her into a time-absorbing occupation. She now has a bird-larder ready for all emergencies and has treated patients as different as a Magpie and a Ruff. With her, however, all is not simply chat: she has taken the trouble to learn about the anatomy of birds and their physiology, with the result that the book is full of useful tips to those looking after ill birds—to make leg-splints out of quill feathers, for example. She keeps a record of her cases, her failures being as low as twenty per cent. She saves life where she can, but acknowledges the occasional necessity of killing the bird. It is a sad reflection that, while Mrs Tottenham is working so hard to heal creatures, it is her fellow humans that are responsible for most of the casualties.

This book is especially to be recommended to "the local expert" in the country, the man who is always having sick birds brought to him.

M. F. M. Meiklejohn.

SHORT NOTES

LITTLE EGRET IN SHETLAND

On the 11th June 1961 a Little Egret Egretta garzetta was seen by two English boys between Loch Spiggie and Loch Brow, Mainland, Shetland. We had a brief view of it the same evening, it was seen by others on the 12th and on the 13th we had fine views from about fifty yards. It was an all white heron with black legs and yellow feet, black bill with pale base to lower mandible, and no apparent crest. The weather conditions were excellent.

R. J. SMITH, JOHN SWAN, JAMES YOUNG.

(A Little Egret was reported from Orkney on 31st July 1961 and a week thereafter (Scotsman 22nd August). We have not received details of this bird.—Ed.).

MORTALITY AMONG YOUNG PINK-FOOTED GEESE

During November 1961 several cases of exhausted or dying Pink-footed Geese came to my notice. Two such cases were found in Aberlady Bay on 12th November, both of them birds of the year and extremely weak. One, which was caught, succumbed shortly afterwards. Expert post-mortem examination revealed no sign of organic disease or injury though there was considerable wasting. This individual weighed only 2 lb. 10 oz.

It seems possible that we have here an example of "shock disease," first described by Evans and Green (Journal of Wild Life Management, Vol. IV) in their study of the Snowshoe Hare. The condition is thought to follow peak-population years and to be in some way connected with overcrowding on the breeding grounds. The non-viability of the offspring may, however, be delayed until the second or third generation. In view of the apparent increase in the numbers of Pink-feet wintering in this country in recent years, it would be interesting to know whether other observers have come across cases similar to those described above.

W KENNETH RICHMOND.

(Shock-disease is thought to be due to the exhaustion of the adreno-pituitary system under the increasing pressure on food supplies and territories and the consequent disturbance and competition between individuals when population is unduly high. It probably accounts for the well-known fluctuations in vole numbers and possibly also for the explosive migrations of the Arctic Ptarmigan populations in years of peak density. It seems unlikely that migratory birds—and especially geese which are sociable by nature—should be affected by the stresses which produce this disease, but Mr Richmond's suggestion is an interesting one and other observations would be welcome.—Ed.).

A BUZZARD LOST IN EDINBURGH

On 9th November 1961 Mrs McInnes of Northfield, Gilmerton, phoned 21 Regent Terrace to say that she had in her loft a hawk of some kind which she had caught on the South Bridge in Edinburgh. Upon investigation the following day by Mr and Mrs George Waterston and myself the bird proved to be an immature Buzzard, apparently unharmed and in good condition. According to Mrs McInnes, she was walking with a friend down the South Bridge when they saw the bird flying low up the street over the traffic. It tried to land on the roof of a car but slid off on to the pavement. It then took refuge in the doorway of a shop, where it was captured by Mrs McInnes who put it under her coat and took it home on the bus! I took the bird back to Milton Bridge for a feed. Next day it was taken out to Silverburn and released. It flew off strongly and, after circling over the moor, disappeared towards the south. It had been foggy in Edinburgh and this may have accounted for the bird's appearance in such unlikely surroundings.

MARGARET MYLNE.

SPOTTED CRAKE IN MIDLOTHIAN

On 20th July 1957 I flushed a bird from a ditch beside a thick reed-bed at Gladhouse Reservoir, Midlothian. When it first rose (almost at my feet but slightly to my left) my immediate reaction was "juvenile Starling" but it gained eyeheight almost immediately, showing the typical short round wings and long drooped legs of a rail before dropping into the reeds.

It was in view for only a few seconds and the impression given was of an olive-brown (with perhaps darker brown wings) Starling-sized Moorhen. It was much too small for a Water Rail and the short bill ruled out even a three-quarter grown bird of this species. The bird was tentatively identified as a Spotted Crake but, as I had no experience of this or the two smaller crakes, I decided to place the record in square brackets.



PLATE 1. Immature (1st winter) Ivony Gull. Stornoway, November 1961 (see page 34).

Photograph by W. A. J. Cunningham.



PLATE 2. Immature (1st winter) Ivory Gull, Stornoway, November 1961, An enlargement from part of Plate 1. Note the dark winglips, dark markings on the lores and chin, and the spotting on the wings.

Photograph by W. A. J. Cunningham.

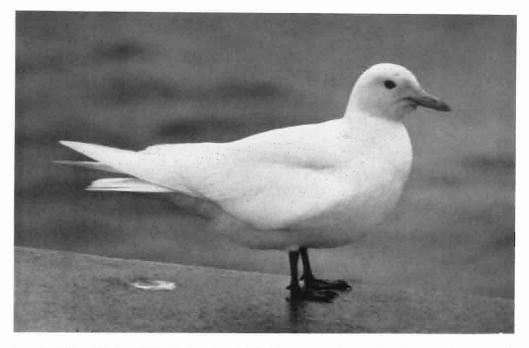


PLATE 3. Adult Ivory Gull. Scalloway, 8th February 1962, Contrast the clean white plumage with the speckled and dirty-faced appearance of the immature bird in Plate 2 (see page 34).

Recently I was able to handle and compare specimens of the Little and Baillon's Crakes and Spotted Crake, Corncrake and Water Rail. The Little and Baillon's are strikingly smaller than the Spotted Crake, being nearer the size of a Greenfinch rather than Starling size. Bauer writes (British Birds 53:521) that the Spotted Crake "looks (and is) considerably heavier, more stockily built and rather rounder-bodied than the nearly always very sleek-looking Little and Baillon's." I am now convinced that the bird I saw was a Spotted Crake.

As the date of the record seems rather early for autumn passage, it seems worth while drawing attention to two published records (*British Birds* 51:78). Dead Spotted Crakes were found in Oxfordshire on 17th July 1957 and in Cheshire on 20th July 1957, possibly having been killed by hitting traffic and a wire respectively.

The Gladhouse bird may have been concerned in a movement that brought over these other birds, though the Editors of *British Birds* imply that the English birds may have been breeding locally. The weather at Gladhouse on 20th July 1957 was "low cloud, rather hazy with a light east wind and occasional thin drizzle."

R. W. J. SMITH.

SHELL STRIPPED FROM COOT'S EGG

At Gladhouse Reservoir, Midlothian, on 11th June 1961 I put a Coot off a clutch of 4 eggs (which had originally been found on 21st May). The eggs were warm but one of them had three-quarters of the shell stripped off, leaving only the small end of the egg covered. The inner membrane was intact and the apparently fully-grown embryo appeared to be alive and healthy. It seems fairly certain that one of the parent Coots was responsible for picking off the shell. I was unable to make any further observations. This seems to be an uncommon behaviour.

R. W. J. SMITH.

IVORY GULLS IN LEWIS AND SHETLAND

About 6th November 1961 an immature Ivory Gull arrived at Stornoway. It consorted with and occasionally attacked the resident Black-headed and Herring Gulls from its own vantage point on the quay wall. There have been old records of this species in the area but this is the first occurrence I have known of within recent times, which is odd considering the prevalence in winter of wandering Glaucous and Iceland Gulls.

I was puzzled at first by the all-white plumage with its stray blackish markings, dark cheeks and chin, black eyes and legs, and the long white primaries with black mirrors projecting beyond the tail with its faint black edge. The short legs gave it a peculiarly dumpy appearance and the bill seemed strangely out of character also, being a little larger than one would have expected for a bird of its size and grey in colour with a lightish-coloured patch on the end of the upper mandible. I did not at any time see it alight on the water and other observers reported on its aggressive behaviour. Nevertheless it allowed me to approach within a few feet to photograph it.

W. A. J. CUNNINGHAM.

(Two photographs of this bird appear elsewhere in this number. The Ivory Gull is the scavenger of the drift-ice fields, and in autumn it moves south no further than is necessary to keep pace with the border zone of the drift-ice belt. It is not, therefore, really surprising that it is so scarce in this country. The tameness and aggressiveness (even to much larger birds) noted by Mr Cunningham are characteristic of the species, as also is its extreme reluctance to settle on water. It has been suggested that this is because of the danger, in the high Arctic, of the water freezing to an ice crust on its feathers.—Ed.).

On 8th February 1962 an Ivory Gull appeared at Blacksness Pier, Scalloway. It was an adult bird in full white plumage (a rather opaque white such as one gets in the drake Eider), with black legs, dark eyes and a rather striking bill—slate-grey at the base and reddish-orange at the tip, this colour extending backwards a short way along the ridge of the bill.

In a fresh wind its flight was a quick but easy gliding motion, with very little of the flapping of the Kittiwakes occasionally flying beside it. It alighted on the water at intervals but never remained there long: it preferred sitting on the edge of the quay—a habit which any photographer would commend and which enabled me to take the photograph reproduced elsewhere in this number. The bird's most constant activity was a recurring patrol of a short length of the quay front above the water breaking against the pier. When fish offal was thrown to it on the quay, its behaviour in relation to the other gulls was bold and assertive, but it generally had to give way to the heavier and much larger Greater Black-backed Gulls.

At the time of writing (11th February) the Ivory Gull is still present and it has been joined by an adult Glaucous Gull.

J. Peterson.

MIGRATING TERNS (Sterna sp.)

Several times during the month of September 1961 I watched inland passage of terns at or near Lochgoin, a moorland reservoir on the Ayrshire-Renfrewshire border. The first occasion was on 2nd September, when a flock of c.50 birds passed over in the evening, heading southward. Later on, about dusk, more terns were heard at the loch, where they appeared to settle for the night. On 23rd September, as I was approaching the loch, I noted 14 terns flying about low over the water. They flocked together after a few minutes, climbed to several hundred feet and moved off south-westward. On 30th September, when making my way in to Lochgoin, 32 terns crossed above the road, flying westward. Two hours later, a flock of c.60 terns arrived at the loch from an easterly direction. They looked as if about to go down on the water and several birds did, in fact, alight momentarily. However, with only a slight pause, the flock went on, climbing and heading south-westward with a westward drift due to the strong south-east wind.

These migrating terns were, on the whole, rather silent; but *kit*, *kit* and *pirre* calls were heard, and they were mainly, perhaps wholly, "Comic" species.

It should be stressed that the foregoing were mere casual week-end observations—which argues that numbers of terms passing in this area at the time may have been quite large.

L. A. URQUHART.

BARN OWLS BREEDING IN SOUTH-EAST SUTHERLAND

Although there are several old records of Barn Owls being shot in East Sutherland, I cannot trace a confirmed breeding record and I was greatly pleased at finding a nest near Golspie last summer. On the evening of 14th July 1961 I was watching the Fulmars which nest on a sandstone sea cliff about fifty feet in height and which has a good deal of whin and scrubby birch growing on its ledges. My attention was attracted by a movement behind a whin bush about half way up the cliff, and on going nearer I had a nice view of an adult Barn Owl as it flew out.

I returned next evening with a rope and climbed down to the ledge where I was delighted to find three well-feathered young Barn Owls, which I ringed. Unfortunately, two of these have already been recovered. One was found injured on a croft in Brora on 17th September and the second was picked up dead near Loth on 19th December.

IAN D. PENNIE.

NOCTURNAL BEHAVIOUR OF BLUE TIT

As I was walking along a quiet street in Prestwick one winter evening after dark my attention was attracted by a noise coming from a nearby street lamp. The sound suggested that part of the lamp was being made to vibrate. I then saw that the unshaded bulb was being struck by a flying object. Had it been summer, I would have thought it to be a large moth, but on closer inspection I found it to be a Blue Tit. It was not being dazzled and colliding with the lighted bulb, but was deliberately flying at it and picking off minute insects—it was a fairly mild evening. The bird, which I was able to see was extremely scruffy and dirty, repeated this unusual performance several times, flying to and from the lamp and returning to the branch of a nearby tree. Each time it alighted it uttered quiet wheezy notes, unlike any I have heard from a Blue Tit before. The date was 15th November 1961, and the time 5 p.m.

R. MACALPINE RAMAGE.

(A recent note (British Birds 54:287) describes the regular use of sodium discharge street lamps for roosting purposes by Blue Tits and also, to a lesser degree, by several other species. There is, however, no mention of the birds using the lamps for any purpose other than roosting.—Ed.).

BLACKBIRD BUILDING MANY NESTS AND REARING BROOD CLOSE BESIDE ROBINS' NEST

In 1959 and 1960 a pair of Robins *Erithacus rubecula* nested successfully in my garage in the north-west suburbs of Glasgow. Perforce I have to leave the door open during the nesting period. This year—the third in succession—I found the Robins nesting late in April. They had chosen a site on top of the back wall of the garage and just under the roof, instead of their former site which was in the angle under the roof at the left end of the side wall. The brood fledged successfully towards the end of May.

Within a week of their going I noticed on several mornings a fair amount of grassy debris on the roof of my car, but it took me a few more days to realise that there were apparently three nests in adjacent shallow niches on top of the side wall and just below the sloping roof. The niches are formed by the roof timbers resting on the side wall of the garage. The nests were near the middle of the wall, and each one was placed in the left angle of its niche. While I was wondering what they meant, a hen Blackbird *Turdus merula* with a large bunch of nesting material in her beak flew past

my head and proceeded to add to the third nest.

Over the next week this bird worked towards the right, building or partly building nine nests (they ranged in completeness from about a third to entirety)—only the last two being sited differently from the others. The first seven occupied the left angle of each niche to the end of the wall, the eighth was beyond these on the same ledge but in the angle under the roof (the counterpart of the 1959 and 1960 nests of the Robins at the other end of the wall), and the ninth nest was just round the corner on top of the doorpost.

One night we had friends to dinner, and I told them that the prevailing epidemic of psychiatric disorder had infected the avian community, and nothing would satisfy them but the sight of this phenomenon of nine nests built by one bird. So out we went about 11 p.m. and in the light of the garage bulb I counted the nests, "One, two, three, four, five, six, seven, eight," and "Goldilocks is on the last," announced my lady guest. And sure enough a pair of beady eyes surveyed us suspiciously from her ultimate creation. For so it proved. She laid four eggs and proceeded to incubate them, and no more nests were made.

But this was not the end of the story. A few days later, while the Blackbird was still sitting, I was working in the garden when a Robin started to forage for worms. With my help it soon collected a supply, and flew into the garage, to emerge without them. The inference was obvious, but in spite of a careful search I could find no nest, so that I hid behind a hamper to see what happened. When it returned the Robin immediately flew to what I had taken for the Blackbird's eighth attempt. I had not looked there because I had assumed, quite wrongly, that two such birds would not nest within nine inches of each other. In the event both broods were successfully reared, and on three occasions I had all four parent birds in the garage at the same time.

My own explanation of this curious behaviour by the hen Blackbird is that the ledge on which she built the first seven nests was too narrow and the angle of the roof above it was too acute as the nests grew: as soon as she became aware of the instability at each nest she deserted it and started on another. Her final nest was on a lower level with no sloping roof impeding her, and on an appreciably broader ledge.

The reason for both Robins and Blackbirds using the garage may be one of simple security, because during recent years we have frequently lost the contents of all our garden nests to hedge-walking cats and Magpies, both of which are common here.

A. STEWART HENDERSON.

(Who says ornithology is dull? Multiple nest-building has

been fairly often recorded in such sites as the rafters of unfinished buildings, the rungs of a ladder hanging on a wall, or even under the three drainage holes of a large flower-pot inverted on the ground (see antea 1: 126 and British Birds 54: 247). The common feature of such sites is that each compartment in which a nest is started is exactly the same as the others. The explanation usually put forward is that the bird is confused and unable to decide which is the correct position. Eggs may be laid and partly incubated in several nests, but a successful outcome is perhaps the exception rather than the rule.—Ed.).

METHOD OF PURSUIT BY A GREAT GREY SHRIKE

On 1st November 1961 I had a close view of an adult Great Grey Shrike in a hawthorn hedge near Lauriston, Kirkcudbrightshire. It took several long flights over neighbouring fields and then I lost sight of it. Shortly afterwards, in failing afternoon light, it re-appeared 40-50 feet up in the sky in determined pursuit of a small bird, apparently a Goldfinch. I watched the pursuit through glasses as it continued up and down the sky for nearly half a mile. The shrike repeatedly circled the small bird, diving towards it at a fairly steep angle. Several times the two birds seemed to be almost in contact, but the small bird succeeded in breaking away although gradually losing height. When last seen the shrike was still in close pursuit and had driven its potential prey almost to ground level. The manner of attack was reminiscent of a Merlin.

A. D. WATSON.

TREE SPARROWS IN NORTH SUTHERLAND

In a small, isolated block of Sitka Spruce at Bighouse, Melvich, on 24th May 1961, Mrs Irene Waterston and I were rather puzzled by a flock of timid and restless little birds, which after careful stalking turned out to be Tree Sparrows. There were about fifteen in the flock, and a careful search showed no sign of nests. Tree Sparrows have never been recorded in North Sutherland before, although they formerly bred in the west and in the east as far up as Helmsdale. A few still breed in Dornoch. An arrival of a similarly sized party of Tree Sparrows on Fair Isle in May 1958 was described in F.I.B.O. Bulletin 4:47-48 and 82-84.

IAN D. PENNIE.

CURRENT NOTES

(Key to initials of observers: A. F. Airey, D. C. Anderson, D. R. Anderson, D. G. Andrew, J. M. S. Arnott, W. Austin, E. Balfour, I. V. Balfour-Paul, J. Ballantyne, P. Banks, Miss K. H. Barr, Miss P. G. Baxter, Mrs S. Beaton, J. A. Begg, W. K. Birrell, H. Boase, I. Boyd, D. E. Bradley, W. Brotherston, R. J. Buxton, B. Campbell, S. J. Clarke, M. Cody, Miss M. H. E. Cuninghame, W. A. J. Cunningham, J. Cuthbert, R. H. Dennis, E. Dicerbo, G. Dick, R. A. Ellis, C. Finlayson, H. Ford, H. G. Ford, I. Ford, T. R. Forsyth, G. Fraser, P. J. Fullagar, T. Gibson, H. Halliday, Mrs A. J. Harrison, M. J. Henderson, W. G. M. Henderson, J. Hoy, Dr D. Jenkins, W. Kirk, Miss H. Knight, S. L. B. Lee, J. Lockerbie, D. G. Long, R. McBeath, D. Macdonald, Mrs M. K. Macduff-Duncan, A. T. Macmillan, Miss E. B. Martin, Prof. M. F. M. Meiklejohn, J. Michie (J. Mi.), A. G. Milligan, J. Murray (J. Mu.), C. E. Palmar, T. Paterson, R. E. F. Peel, Dr I. D. Pennie, W. B. Peterkin, J. Potter, R. M. Ramage, R. Richter, G. S. Ritchie, E. L. Roberts, Miss M. Robertson (M. Ro.), Dr M. Rusk (M. Ru.), P. W. Sandeman, S. Satchel, A. Smith, R. W. J. Smith, Dr T. C. Smout, T. Speed (T. Sd.), T. Spence (T. S.), Miss M. M. Spires, E. Sutherland, J. H. Swan, B. R. Thomson, L. A. Urquhart, G. Waterston, Mrs M. I. Waterston, A. D. Watson, Mrs J. Watson, Dr R. S. Weir, T. Weir, P. Whitelaw, D. R. Wise, Prof. V. C. Wynne-Edwards, Mrs M. H. Young.

Unless otherwise stated, January/March dates refer to 1962 and all others to 1961).

Breeding and Distribution

A Little Grebe was at Blackford Pond, Edinburgh, for several days from at least 8th November, and the observer comments that it is the first she has seen there (M.H.Y.).

An immature Gannet in the very black plumage of a bird of the year was seen standing in a field at Easter Ballat, between Drymen and Aberfoyle, on 24th September. This—the first record for West Stirlingshire—followed severe gales a week earlier (K.H.B.). Immature Gannets are seen every autumn in the vicinity of Tullibody Island, well up the Forth beyond Alloa, and the observer instances one on 1st October 1960 (T.P.).

A Storm Petrel was picked up still alive at Foyers, on Loch Ness, during a gale on 5th December but died the same night (M.Ru.).

In view of the scarcity of breeding records for all three species in Shetland, it is worth recording that single pairs of Wigeon were seen on lochs near Sandness on 26th May and near Whiteness the following day; also on the 26th on the same loch near Sandness were 7 drake and 5 duck Tufted Duck, and on another loch nearby there were 2 ducks and 1 drake Pintail (R.E.F.P.). The first recorded occurrences of Gadwall in Clackmannanshire are of two at Tullibody Island on 5th March 1960 and three on the following day (T.P.). A drake and duck Velvet Scoter were at Longannet, Fife, on 22nd

October and a single bird at Skinflats on the 23rd. This is the first time the observers have seen this species so far up the Forth and the latter record is the first for East Stirlingshire (G.D., J.P.). Three Canada Geese were at the west end of Loch Tummel, North Perthshire, for at least 3 weeks up to the time of writing on 12th November (W.B.P.).

There have been few published observations from Clackmannan and a number of relatively common species have still to be recorded from that county. The following wader records all provide first published occurrences for the county:

Ringed Plover. One at Tullibody Island on 13th April 1952 and 4 at the mouth of the Black Devon on 14th March 1960 seem to be the first definite records, although the species is referred to in both the Statistical Accounts as occurring at Alloa and it is described as "Resident?" in the Geographical Distribution and Status of Birds in Scotland.

Whimbrel. Common every autumn on Clackmannan shore of the Forth.

Black-tailed Godwit. One 12th September 1953, Haugh of Blackgrange, above Cambus; also subsequent records of 10 on Tullibody Island on 21st April 1957, and one in full breeding plumage on 29th April 1961 at the mouth of the Black Devon.

Bar-tailed Godwit. 7 on Alloa Inch on 19th September 1953; also 5 below the mouth of the Black Devon on 13th April 1961

Green Sandpiper. This species has evidently already been recorded in Clackmannan (1936 Scot. Nat. 118) but it is worth recording that it occurs every autumn on Tullibody Island. One was also seen at Orchard Farm (between Alloa and Cambus) on 11th September 1960.

Wood Sandpiper. Single birds seen at Orchard Farm on 11th September and 9th October 1960.

Spotted Redshank. One in full breeding plumage at mouth of Black Devon on 15th April 1961.

Greenshank. Previous records have been published but it may be recorded here that it occurs commonly on the Forth every autumn.

Ruff. Recorded on several occasions between August and October 1960, the first date being 7th August when 3 were seen at Rhind; also seen in 1961—7 at Orchard Farm on 16th August.

(These records all supplied by T.P.).

Another county with unexpected gaps in its official list is Kinross. One such gap is the Jack Snipe, which is in fact a regular winter visitor to Loch Leven. The observer's first

record there is of 2 on 13th October 1956, but on subsequent visits over half a dozen have been recorded (R.W.J.S.).

2(1)

Green Sandpipers now seem to be wintering regularly in Berwickshire. On Bell's Burn, Manderston, near Duns, there were 4 on 22nd September and 1 or 2 regularly present between 2nd October and 20th December 1959, and in the same year there were also single birds at Duns Sewage Farm on 29th/31st January and 6th December. In 1961 two were present at Bell's Burn on several occasions between 8th and 18th November and one was still present on 31st December (S.J.C.). For earlier winter records from the same area, see 1951 Scot. Nat. 195 and Edinburgh Bird Bull. 8:68.

Some indication of the number of Knots in the upper reaches of the Forth was obtained on 26th November, when between 10,000 and 15,000 were seen flying across the river to Longannet at high tide to roost there behind the breakwater (J.B.). The same movement was observed and the numbers roughly checked on 11th December, when wave after wave came over with thousands of birds in each wave (J.H.).

There is no published record of the occurrence of the Arctic Skua in Clackmannan, but in fact it appears that these birds regularly find their way up to the head of the Forth estuary. One was seen at Tullibody Island on 1st October 1960 and there have been subsequent records of 4 on 9th and 2 on 11th August, and 2 on 9th September 1961 at Inch of Ferryton, between Kennetpans and Alloa (T.P.). A summer record of an Arctic Skua in Luce Bay, Wigtownshire, on 18th June is an unusual occurrence for the Solway area (E.L.R.). Inland records of Pomarine Skuas are very scarce, but an immature bird with a broken wing was picked up alive at Dyke Farm, near Moffat, on 30th October. It died two days later (E.D.). This bird may have been blown inland from the Solway, but it seems more likely that it was making the overland crossing from Forth to Solway.

There is no published record of the Greater Black-backed Gull in Clackmannan, but in fact it is found commonly all along the shore of the Forth, and in winter flocks of between 6 and 24 may always be seen at certain favoured places in the Alloa area (T.P.) and many are seen coming in from this direction in the evening to Longannet, where up to 250 of these gulls roost in the winter (J.H.). Twenty years ago a Greater Black-backed Gull was caught on the hill near Dollar. It had gorged itself so thoroughly on caterpillars of the Antler Moth Charaens graminis, of which there was then

a plague, that it was unable to fly (G.D.).

There is further news of the spread of the Collared Doves from their original colony at Covesea Farm, Morayshire (see antea 1:480). Breeding was first proved in the grounds of Gordonstoun estate, three-quarters of a mile from Covesea, in 1960 and 24 birds were counted there in November 1961. The species has also bred in Duffus House grounds since 1960 and 23 birds were counted there in November 1961. This is about 13 miles from Covesea. One pair has been breeding in the village of Duffus adjoining the estate since 1959 (R.R.).

The Barn Owl is a species which seems to be declining seriously in Scotland. It therefore seems worth recording the presence of a single bird at Longannet on 25th February 1961 and on several occasions from December until the time of writing (13th February) (J.H.). All information as to the status of this species will be very welcome.

Further evidence of the spread of the Green Woodpecker is provided by the following records:

Kirkcudbright: The species has been noted in the area at least since 1957 and has nested, probably more widely than has been reported. In 1961 birds have perhaps been rather more in evidence than usual. During October and November there were 2 or 3 in a wood near Loch Stroan; one was seen near Corsock on 25th October and another at Todstone, near Dalry, in early January 1962 (A.D.W.).

Selkirk: On 12th November one was seen in a wood at the mouth

of the Megget at St Mary's Loch (J.B.).

Midlothian: Birds have evidently been present in Mid Calder Wood, between Mid and East Calder, since 1955, as odd birds have been seen and heard there from time to time. One was seen being fed by another in late summer 1956 but no nest has ever been found (H.H., C.F.). At least one has been seen and heard from time to time in woods near Balerno below Dalmahov Hill (A.G.M.).

West Lothian: Two were seen near Livingstone on 20th August (W.K.), and a pair regularly since May on the Dalmeny Estate near Hound Point (T.C.S.).

East Stirling: On 25th December one was seen and heard in a small wood between Denny and Torwood Castle—a particularly valuable record as the observer has visited this wood on many occasions over the past three years and never recorded the bird before (R.A.E.). Harvie-Brown and Cordeaux heard a Green Woodpecker in the same area many years ago but most reprehensibly omitted to note the date ("Birds of Scotland" p. 254)! During the summer of 1958 one was seen and heard at Camelon (R.A.E.).

West Stirling: Mr McLean, the forester at Lennox Castle, reports that a pair of Green Woodpeckers bred in the castle grounds in 1960 and 1961, and possibly also in 1959. In 1961 the nest was 14 feet up

in a beech tree (T.W.).

Great Spotted Woodpeckers, of which the first recorded occurrence for Kinross was given antea 1:497, are probably quite common in the county and have been seen twice at Loch Leven (R.W.J.S.).

In the Geographical Distribution and Status of Birds in Scotland the status of the Blue Tit in the Outer Hebrides is described as "Resident." The same authors later observed (Birds of Scotland 1:128) that there was no satisfactory breeding record for this area, and we can find no evidence that the species has ever even occurred there, until as least

2 and probably 3, or even more, were seen in Stornoway Woods on 7th November (S.L.B.L.). On 18th November one was seen in the same place in company with Goldcrests (M.F.M.M.).

On 30th May 1961, while climbing Foinaven from Strath Dionard, a male Pied Flycatcher was seen amongst sparse rowans at the edge of a burn. It flew from one tree to another down the burn and across the hillside to Loch Dionard. There are no previous records of this species in North Sutherland (I.D.P., G.W., M.I.W.).

With reference to the note on the status of the Crossbill in Wester Ross (antea 1:457) it is recorded that in the east of the county Crossbills are common in the Forestry Commission plantations at Tore, on the Black Isle (M.K.M-D.).

The first record of **Tree Sparrows** in North Sutherland appears elsewhere in this number, and a most interesting companion record is of 4 seen at Durness on 22nd August (R.H.D.). The species also seems to be very scarce in the extreme southwest, and it is interesting to hear of flocks of 10 on 8th October at Moss of Cree, and 50 on 17th December at Ravenstone, near Whithorn, both in Wigtownshire (A.F.A.). Even in the Tweed area there is little detailed evidence as to the Tree Sparrow's distribution, and it seems worth recording that 12 were seen by the Tweed just below Innerleithen, Peeblesshire, on 18th November, and on 17th December there were about 40 at Ettrickbridge in Selkirkshire (J.B.).

Spring 1961 and earlier records

A Grey Lag Goose at Sandness, Shetland (where the species has never bred), on 25th/26th May 1961 is an exceptionally late date for spring migration (R.E.F.P.). Unusual numbers of Rough-legged Buzzards came into this country in the autumn of 1960, and an additional record is of a female found dead at the south end of the Sma' Glen, Perthshire, on 6th November. The skin was preserved and recently shown at a meeting of the S.O.C. Edinburgh Branch. The bird weighed 2 lb 8 oz, as compared with 1 lb 10 oz recorded for an example of the common Buzzard (D.C.A.). On 12th May 1961 a Whimbrel was heard and seen at close quarters by the main road between Selkirk and Ashkirk (B.C., P.B.): there seems to be only one previous record for Selkirkshire (Edinburgh Bird Bull. 5:13).

24th May (1961) seems an early date for a flock of 45 Ravens at a ploughed field by the road at Clickhimin, Lerwick (R.E.F.P.).

Autumn and winter visitors, 1961/62

A Great Northern Diver at Kendoon Loch, near Dalry, Kirk-

cudbrightshire, on 10th November was still in almost complete summer plumage (P.G.B.). On 17th December a Rednecked Grebe was seen off Hound Point, West Lothian (T.C.S.).

Gadwall have again wintered in Edinburgh: a drake and 2 ducks have been present from at least 12th November (when there may also have been two other birds) until the time of writing (2nd March). They are usually to be found at Dunsappie Loch but in frosty or windy weather they move down to the shelter of St Margaret's Loch or the Figgate Pond (D.R.A., D.G.A.). Up to 3 Gadwall have been seen intermittently on Loch Ken during the winter (A.D.W.).

Some indication of the enormous numbers of Wigeon wintering in the south-west of Scotland is given by the following counts, all in Wigtownshire: over 4,000 in Wigtown Bay on 10th October and over 2,000 there on 6th and 20th November; over 2,300 at the south end of Loch Ryan on 14th November; at least 3,000 at the White Loch, Castle Kennedy, on 2nd December, and 6,000 there on 11th December (A.F.A.).

A flock of 140 Pintail in Montrose Basin on 8th November (H.B.) may be unremarkable, but the locality is not mentioned as a wintering area in the Birds of Scotland. The Beauly Firth below Lentran is mentioned as a regular winter haunt, but 136 at Inverness on 4th November (R.H.D.) may represent a different wintering population. A drake Pintail at Duddingston Loch on 14th November is an unusual visitor to the centre of Edinburgh (D.R.A.).

Shoveler are not common on the East Lothian coast, and a drake at Tyninghame on 17th December (R.W.J.S.) and a duck at Aberlady on 6th January (H.F., H.G.F., I.F.) are

worthy of note.

On 26th January between 9,000 and 10,000 Scaup were counted off Seafield, Leith, and this probably represented the total population in the area at the time (D.G.A.). Inland records of this species (except at the Edinburgh town lochs where odd birds appear regularly at Lochend and Duddingston in particular) are as follows: 2 drakes at Loch o' the Lowes, Ayrshire, on 18th September (J.A.B.); one duck at Hule Moss, Berwickshire, on 8th October (S.J.C., M.J.H.); one immature at Lochgoin on 8th October and what was probably the same bird at High Dam from 28th October to 25th November, and a duck at Barr Loch on 12th November—these all in Renfrewshire (L.A.U.); and a first winter drake at Kendoon Loch, near Carsphairn, Kirkcudbrightshire, on 21st December (A.D.W.).

The hard weather in December upset the orderly routine of fresh-water diving ducks such as Pochard. Two drakes were recorded at Tyninghame, East Lothian, on 10th December (R.W.J.S.), and large numbers made their appearance on the sea off Seafield, Leith, during the day. In fact it appears that

the large numbers of Pochard that regularly winter at Duddingston Loch, where they can seldom be seen to do any active feeding, habitually flight down to the sea at night (T.C.S.). The quite exceptional number of 3,170 Pochard was recorded in this area on 23rd January. It is tempting to connect this with the prolonged severe frost both in this country and on the Continent, but it appears that at least the main part of the increase took place in the second and third weeks of January after the hard spell had ended. Numbers had decreased to 1,100 by 23rd February (D.G.A.).

In mid-December numbers of Goldeneye on the Tay Estuary were far below normal (H.B.), but on the Forth there have been the usual large numbers at Seafield and a count of 1,250 was obtained on 7th February (D.G.A.). Two were on Dunsappie Loch, Edinburgh, on 12th and 20th November—a locality where the species has been very rarely recorded (D.R.A., J.B., T.R.F.).

Inland records of Long-tailed Ducks come from Portmore Loch, Peebles-shire, where one was present on 11th and 19th November (D.G.A., R.W.J.S.), and Castle Loch, Mochrum, Wigtownshire, where an immature was seen on 14th December (A.F.A.). Another unusual inland record is of a duck Common Scoter on Loch Ken, Kirkcudbrightshire, on 14th October (L.A.U.).

On 2nd January, after weeks of snow and severe frost, a duck Goosander appeared amongst the Mallard on a small open pool in the ice at St Margaret's Loch, Edinburgh. It came up to within 3 feet of the observer to take the bread thrown to the ducks (D.E.B.). It was still there on the 5th but had gone by the 12th (D.G.A.). What may well have been the same bird was seen at Duddingston on the 18th (D.R.A.)

and at Dunsappie on 2nd March (D.G.A.).

There have been several records of Smew—all from the southern half of Scotland. A drake was at Kilconquhar Loch, Fife, on 19th November (T.G., J.Mi., T.Sd., P.W.); there was a duck at Barr Loch, Renfrewshire, on 13th December (L.A.U.). Smew are now regular winter-visitors to the Loch Ken area of Kirkcudbrightshire, but a party of 4 (one drake and 3 red-heads) on the River Dee on 1st January was the largest number the observer has seen together since 1956; in addition single birds or two together have been seen frequently in late December and throughout January (A.D.W.).

Shelduck have been recorded inland at Hamilton Low Parks, where an immature was seen on 27th August (L.A.U.), and at Hule Moss, Berwickshire, where two (only the second occurrence for the area) flew past heading NNW on 8th October

(S.J.C., M.J.H.).

Six Grey Lag Geese flying south at Easthaven, Angus, on 31st October are mentioned by the observer because there are

very few records of coasting geese in this area (H.B.). Grey Lag in the Loch Ken/Castle Douglas area of Kirkcudbrightshire increased from 400-500 to close on 1,000 in the cold spell in December (A.D.W.), and large numbers are also recorded from Wigtownshire, where 5,000 were counted roosting at the White Loch, Castle Kennedy, on 14th November and over 1,000 on 2nd December (A.F.A.) and again on 2nd January (A.D.W.).

47

On 9th December three geese (species unknown) came down in foggy weather to alight on the ice at Duddingston Loch beside the tame Grey Lag (D.R.A.).

In November the flock of Greenland White-fronted Geese at Loch Ken amounted to at least 500 birds in two main groups. For the second successive year there have been very few first year birds: out of 150 examined on 26th December only one was first year, although a few family parties have been seen in some sections of the flock (A.D.W.).

The Kirkcudbrightshire Bean Geese were first seen by the observer on 19th December, when there were 10, but there may have been a few earlier than this (A.D.W.). On 28th January there were about 125 in the area (E.L.R.) and these numbers had probably been present since 26th December, when an incomplete count suggested a total of over 100 (A.D.W.). This shows a welcome improvement from the 1960/61 winter when the maximum count was only 68.

Unusually large numbers of Pink-footed Geese are reported from Newburgh, Fife, and probably over 8,000 were seen on the observer's farm on two days between Christmas and the New Year (T.S.). Pink-feet do not normally occur amongst the inland goose population in the Solway area, but one has been seen regularly with the Greenland White-Fronts at Loch Ken, and in the same area a few Pink-feet appeared amongst the Grey Lag in December, including at least one small flock which came from the north over Dalry on 29th December (A.D.W.). On 16th December there had been a steady movement of Pink-feet through to the south-west at Gladhouse Reservoir, Midlothian; this was during the only mild spell in a very cold month (D.G.A.).

We have received only one further record of Brent Geese so far this winter (see antea 1:501)—a single bird at Hunterston, Ayrshire, on 12th November (G.F.). There have been several records of Barnacle Geese in odd places: up to 5 have been seen at Newburgh, Fife, in January and there are reports of a flock of 30 in the area; similar numbers are said to have wintered in the same area in 1959/60 and 1960/61, and there are intriguing rumours of a flock of 20 having summered there in 1961 (T.S.). On 2nd January 5 Barnacle Geese were seen flying south at Monreith Bay, Wigtownshire (A.F.A.), and 3 flying westwards over Hamilton Low Parks

on 20th January were independently reported by two observers (J.C., D.R.W.). A single Barnacle Goose has been keeping company with the Pink-feet in the Libberton area in Lanarkshire where it has been seen by many observers during January. The Barnacle Geese roosting at Gladhouse Reservoir, Midlothian, (antea 1:501) were last seen on 25th November, when there were 3 (D.G.A.).

Whooper Swans are widely distributed over Scotland in the winter and the following records have been selected for publication because of the large numbers involved:

Speyside, from Carrbridge to Corrieyairack-150 (23 cygnets) counted on 1st November (R.H.D.).

Torhousekie Marsh, near Wigtown-33 (13 cygnets) feeding in a

stubble field, 18th November (A.F.A.).

Loch Leven—96 (36 cygnets) counted on 19th November (T.W.). Dalreoch, near Auchterarder, Perthshire—over 60 on 17th December (T.S.).

Carstairs, Lanarkshire-92 (13 cygnets) on 16th January (G.W., M.I.W., D.G.A.).

Bewick's Swans are now much scarcer over the whole of Scotland and we have only received the following records:

Dalreoch, near Auchterarder, Perthshire-one with Whoopers on

17th December (T.S.).

Machrihanish, North Argyll—one of a pair, flighting in to a pond with Grey Lag Geese, was inadvertently shot on 29th December. The second bird flew around several times calling to its late companion and then flew off and was not seen in the area again. The shot bird came into the hands of the observer. It weighed 10 lb 12 ozs, On dissection it proved to be a female and the alimentary tract was full of fresh grass blades. The skin was subsequently exhibited at a meetting of the S.O.C. Edinburgh Branch, as also was the peculiar looped wish-bone which is characteristic of this species and of the Whooper Swan, but not of the Mute Swan, nor apparently of the Trumpeter Swan of North Amerca (see Voous, "Atlas of European Birds" p. 49) although this is still officially recognised as conspecific with the Whooper Swan ("Ibis" 98: 159) (D.C.A.).

Carnwath, Lanarkshire-four on a small pool by the River Medwin on 14th January (M.F.M.M., C.E.P.); when flushed, these flew off towards Carstairs, where on 4th February a single Bewick's Swan was seen amongst the Whoopers (C.E.P., J.M.S.A.).

Coldstream, Berwickshire—5 on the Tweed about 5 miles above the town on 18th February (T.C.S.).

Two Buzzards were seen in the Moorfoots above Walkerburn on 22nd October (J.B.), and a single bird was present at Bow of Fife, near Cupar, from 8th to 12th November (G.S.R., M.M.S.).

There have been a number of records of Hen Harriers:

Speyside—single males seen at Boat of Garten on 2nd, and at Aviemore on 5th November (R.H.D.).

Aberdeenshire—female/immature Garlogie. at 23rd (D.G.A.); harriers are said to winter fairly commonly in the county (D.J.).

Midlothian-female/immature near Gladhouse Reservoir on 3rd and

24th December and at Rosebery on 4th February (R.W.J.S.).

Berwickshire—single birds at Hule Moss on 16th July, 13th August

and 17th September (S.J.C., M.J.H., D.G.L.).

Kirkcudbrightshire—two (a male and a female/immature) have frequented lowland country near Loch Ken this winter (A.D.W.). Wigtownshire—male near Wigtown, 27th November (A.F.A.).

A Merlin has been seen on six occasions since October at Aberlady Bay and is evidently wintering there: normally the species is only an occasional winter visitor to the bay (W.K.B.).

A Water Rail (a rare bird in south-east Sutherland) has wintered on the Dornoch Burn; it was first seen on 10th November and was still present on 28th January (D.M.). In Wigtownshire the species is evidently a common winter visitor, and single birds were recorded at White Loch, Castle Kennedy, on 2nd December, and White Loch, Monreith, on 24th January (A.F.A.), and also near Glenluce on 23rd and close to Loch Ryan on 24th December (J.Mu.).

In our last number (antea 1:502) we published some notes on concentrations of Coot recorded this winter, including a count of over 500 at Forfar Loch on 16th October. 445 were still there on 14th November (H.B.). Lochmaben seems to be one of the regular wintering haunts and 250 were counted there on 4th October (A.F.A.). The following concentrations recorded in Wigtownshire may also prove to be more or less normal: 150 at White Loch, Castle Kennedy, on 11th December, and 250 there on 8th January and 6th February; 140 at Soulseat Loch, near Stranraer, on 10th December, 200 there on 8th January and 120 on 6th February; 100 at Loch Magillie in the same area on 6th February (A.F.A.). On the other hand a dense raft of 450-500 Coot on Loch Eye, near Tain, on 11th November is most unusual for Easter Ross, although 200 had been recorded at the same loch on 5th November 1955 (D.M.).

Some impressive figures from Kirkcudbrightshire and Wigtownshire give an idea of the size of the wintering population of Lapwing in south-west Scotland. Over 2,500 were roosting on the Lochar estuary by Ruthwell on 4th October. In the Wigtown area there were over 1,000 on Moss of Cree on 8th October, and in the Baldoon Airfield/Orchardton Bay area there were counts of 1,000 on 6th November and 1,500 or over on 10th December and 2nd February (A.F.A.). Three Lapwing turned up on the Flannans on 18th September (S.L.B.L.).

At Gladhouse Reservoir, Midlothian, there was one Grey Plover on 22nd October; two on the 29th; and one on 5th November (R.W.J.S., D.G.A.).

Baldoon Old Airfield, near Wigtown, must hold one of the largest wintering flocks of Golden Plover in the whole of Scotland. 3,500 were present there on 26th October, and 4,000

or more stayed in the area from early November to the end of December. On 10th December these numbers were increased to 8,000, when a big passage movement north to south down Wigtown Bay brought a further 4,000 Golden Plover temporarily into the area. This movement coincided with a thaw following a spell of hard frost. By 2nd February numbers had fallen to about 1,000 (A.F.A.). In the Stranraer area Golden Plover have been exceptionally numerous this winter (J.Mu.).

On 2nd January over 30 Woodcock were flushed from rough grass at the cliff tops near St Abbs Head, Berwickshire. Inland the countryside was covered with snow and the ground was frozen hard, but on the cliffs the ground was free of snow and quite soft in places. This presumably accounts for the appearance of these birds in such an unlikely place (R.M.).

A single Curlew was feeding with Redshank (see below) on the Broughton playing fields, in the Wardie district of Edinburgh, on 9th January (B.R.T.).

In addition to the records already published (antea 1:502) Black-tailed Godwits have been reported from the following places:

Steinish, Lewis-one on 20th November (M.F.M.M.) and 4th December (W.A.J.C.).

Longannet, Fife-there is a further late record of 3 on 4th November (G.D., J.P.).

Skinflats, Stirling—there are additional records of 15 on 21st August; 19 on the 22nd; and 1 on the 28th (R.A.E.).

A winter record of a Green Sandpiper comes from Greenlaw, Castle Douglas, on 18th February (W.A.). There are further autumn records of a bird of this species at Cameron Reservoir, Fife, on 7th August (R.S.W.), and of a Wood Sandpiper at Spiggie, Shetland, on 7th September (R.H.D.) (see antea 1:503).

On 9th January, shortly after the end of a prolonged spell of very hard frost, 63 Redshank were on Lomond Park and 55 on Broughton playing fields, both in the Wardie district of Edinburgh (B.R.T.). Although only \(^1\) mile from the sea, this is in the middle of a built-up area. It would be interesting to know whether Redshanks regularly visit these fields in such numbers or whether they only do so when their routine is upset by hard weather. Further along the coast at Musselburgh Redshank regularly visit the Loretto playing fields, especially at high tide, but these lie immediately adjacent to the sea. Between 12th and 25th January up to 3 Redshank were regularly seen at St Margaret's Loch, where the water level had been temporarily allowed to drop (D.G.A.).

Autumn records of **Spotted Redshank** additional to those already published (antea 1:503) are as follows:

Skinflats, Stirling-one, 21st August (R.A.E.). Caerlaverock, Dumfries-one. 14th August (E.L.R.).

Late or wintering Greenshank have been recorded from the following localities:

West Lewis-one, 31st October (S.L.B.L.).

Aberlady, East Lothian-one has remained in the bay until at least

the end of January (W.K.B.).

St Andrews, Fife—one at Lawmill Pond (which had been recently drained) from 18th to 23rd November (M.H.E.C.); one on the coast on 16th December (P.G.B.).

Loch Leven, Kinross-one, 3rd November (H.B.).

Ayrshire—one at Barassie, 17th December (L.A.U.), and one in-land at Loch o' the Lowes, New Cumnock, on 1st and 2nd January during very hard weather; it was feeding at the inflow of warmer water from the pits nearby (J.A.B.).

The following autumn records of Ruff are additional to those already published (antea 1:505).

Spiggie. Shetland—four on 7th September (R.H.D.).

West Lewis-one on 15th September (S.L.B.L.).

Skinflats, Stirling-3 on 28th August and 7 on 6th September (R.A.E.) Loch o' the Lowes, Ayrshire—4 on 30th August (I.A.B.).

The following records suggest that there was a minor "wreck" of Phalaropes along the west and north coasts in the autumn of 1961.

Spiggie, Shetland-a Grey Phalarope had been found dead about 4th September (per R.H.D.).

West Lewis—7 on 17th, 2 on 20th and 5 on 22nd September, all seen on the sea and all thought to be Grey Phalaropes (S.L.B.L.).

The Minch—one phalarope (thought to be Grey) flying south on 12th October (R.H.D.).

Sanguhar, Dumfries—one Grey Phalarope on flooded grassland from 25th to 29th October, following heavy rain and severe SW gales (J.L., E.L.R.).

Closeburn, Dumfies—later on 26th October a second Grev Phalarope (visibly a different bird) was seen 12 miles away from the preceding record, also on flooded grassland (E.L.R.).

Islay—on 25th October a phalarope was feeding close in to the shore in Port Ellen bay; a few days later an injured phalarope was picked up on the other side of the island. In neither case was it possible to identify the species (H.K.).

Off the west coast of Lewis there was a marked passage of Pomarine Skuas (a few Great Skuas with them) on 16th and 17th October. Sample counts were made of 9 passing in an hour and 10 in 40 minutes. This was associated with a passage of Kittiwakes (S.L.B.L.). A late Arctic Skua was chasing gulls in mid-Forth at Longannet, Fife, on 4th November (G.D., J.P.), and 2 were seen at Inverness on the same date (R.H.D.).

A Scandinavian Lesser Black-backed Gull L. f. fuscus was sitting on the ice at Harper Rig Reservoir, Midlothian, with other gulls on 7th January (T.C.S.). Single Glaucous Gulls have appeared in Berwickshire at Hule Moss on 24th September (S.J.C., M.J.H., D.G.L.), and at Eyemouth (a first winter bird) on 28th December and 1st January (R.M.).

A Common Tem appeared inland at Hule Moss, Berwickshire, on 9th September, and an unidentified tern was recorded at the same place on the 17th (S.J.C., M.J.H., D.G.L.). A Sandwich Tern at Cult Ness on 3rd November is an unusually late record (G.D., J.P.).

On 21st January over 20 Long-cared Owls were counted in a spinney at the east end of Aberlady Bay, East Lothian-the largest number so far recorded there (W.K.B.).

Kingfishers have been seen singly at Bell's Burn, Manderston, Berwickshire, on 27th December (S.J.C.), and at Baldoon Old Airfield, Wigtown, on 26th October (A.F.A.).

The prolonged hard frost in the second half of December produced several interesting observations of Skylark movement. One was seen dodging through the traffic in Princes Street, Edinburgh, on 29th December (H.F.). On 1st January about 1,500 Skylarks passed north-westwards over Monreith, Wigtownshire, following the east side of Luce Bay (A.F.A.). On 7th January a pronounced south-westward movement of Skylarks was observed over the Cramond/South Queensferry shore and a few were heard over Edinburgh the following day (T.C.S.).

Exceptional numbers of Swallows have been reported lingering into November this winter:

1st-One, Kingoodie, Perth (see Vol. 1: 506).

Four, Monreith, Wigtown (A.F.A.). 2nd—Two flying south, Cult Ness, Fife (G.D., J.P.).

4th—One, Portencross, Ayr (see Vol. 1: 506).

6th-One at Invergowrie, Perth, till this date (H.B.).

8th-Single birds in Edinburgh at Slateford (I.H.S.), and at Morningside (W.B.).

9th-One at Dornoch (D.M.).

About this time at least 2 at Selkirk ("Southern Reporter", 16th November).

12th—One at Elic, Fife (T.Sd.). 13th/15th—One at Lundin Links, Fife (R.S.W.).

16th/18th-At Pittenweem, Pife, two on 16th, one on 17th and three on 18th (T.Sd.).

On 18th September two Swallows and two House Martins were seen on the Flannan Islands (S.L.B.L.). The only late record of House Martins is of a single bird at Portencross, Ayr, on 12th November (G.F.).

A flock of 109 Carrion Crows on the foreshore at Cramond, Midlothian, on 15th November included one apparently pure Hooded Crow and several hybrids (T.C.S.). There was a Hooded Crow at Dowlaw Farm, Coldingham, Berwickshire, on 3rd December (S.J.C.).

On 10th and again on 16th December 12,000 Rooks and Jackdaws were counted gathering in fields south of Wigtown preparatory to flying off north-east across Wigtown Bay to roost somewhere in the Creetown area (A.F.A.).

Jays were noted as being more widespread between October and December in the New Galloway/Dalry area than they have been for several years (A.D.W.).

On 1st January about 750 Fieldfares were observed migrating north-westward up the east side of Luce Bay, Wigtownshire, during a spell of hard frost with 2 inches of snow lying (A.F.A.).

A late Ring Ouzel was feeding near a flock of Fieldfare at Glencorse Reservoir, Midlothian, on 10th November (M.H.Y.). A flock of 10 Ring Ouzels, flushed in the Moorfoot Hills on 8th October, flew around giving an unfamiliar call-note-"Prrrt" —which seemed to serve as a party collection call. The same call had been heard in the same area in thick mist at 4 p.m. on the previous day and probably came from a migrating party of these birds passing over to the south (W.B.).

Stonechats are known to winter commonly in the Solway area, but it seems worth mentioning that on 10th October 10 pairs were seen along a five mile stretch of the coastal road between Monreith and Alticry, Wigtownshire (A.F.A.). One was seen near Carstairs Junction, Lanarkshire, on 16th January (M.I.W.).

There has been a remarkable number of records of Blackcaps this winter:

Stornoway, Lewis—female, 7th November (S.L.B.L.).
Corpach, Fort William, S. Inverness—male at feeding box almost every day from Christmas to time of writing (16th January) (S.B.).
Tore, E. Ross—male killed by cat, 13th November (M.K.M-D.).
Inverness—female eating shortbread put out for other birds at kitchen window-sill, 15th December (E.B.M.).
Gartocharn, Dunbarton—male in woodland fringe on west side of Duncryne Hill on 13th November; a male had been seen here on 29th August and a female on 7th September (T.W.).
Roseneath, Dunbarton—male, 17th December (M.Ro.).
Redhall, Slateford, Edinburgh—male, 15th November (J.H.S.).
Colinton Dell. Edinburgh—male caught when batfowling. 26th November

Colinton Dell, Edinburgh—male caught when batfowling, 26th November—possibly the same individual as in the preceding record; a male and female were caught in this area last winter (see Vol. 1: 434) but this year's bird was unringed (I.V.B-P.).

Edmonstone, Edinburgh—male caught in mistnet (the first the observers had seen of it), 24th December (D.E.B., A.T.M.).

Musselburgh, Midlothian—male at bird table, 28th December to 4th January and again 20th January and after (A.J.H.).

Ayr—female, 4th February (I.B.).
Dalry, Kirkcudbrightshire—male, 24th October—the third successive autumn that Blackcaps have visited the observer's garden, where an apple tree seems to be the main attraction. This year there was no fruit and the bird did not stay (J.W.)

By contrast there have been only two records of late Chiffchaffs: One was seen at Dornoch, Sutherland, on 10th and 17th November, feeding amongst withered weeds beside a

burn (D.M.); and one was seen at Buchlyvie, E. Stirling, on 11th November (D.E.B., M.C., A.T.M., M.F.M.M.). In both cases the dark-coloured legs were noted.

A Goldcrest, very much out of its element, was found at Smoo Lodge, Durness, on 27th August. There are no woods at all in this area. The bird's arrival coincided with a southerly gale which lasted several days (R.J.B.).

Five Yellow Wagtails at Loch o' the Lowes, New Cumnock, Ayrshire, on 30th August, are the first the observer has seen in the district (J.A.B.). One would like to know more about the distribution of this species in the west of Scotland.

Great Grey Shrikes have been much scarcer this winter than last. Single birds were seen at Aviemore and Nethybridge in Speyside in November/early December (R.H.D.); at Glassel, Aberdeenshire, on 25th/26th December (D.G.A.); and at Lauriston, Kirkcudbrightshire, on 1st November (A.D.W.).

Goldfinches have been unusually abundant in the south of England this year (British Birds 54:442), and one gets the impression that in Scotland the species is doing very well. This is probably due to a succession of good breeding seasons and mild winters, but the following records suggest that there has also been some immigration from abroad:

St Kilda—two, 9th November (P.J.F.). The first record for the island. Stornoway, Lewis—3 on 18th November, later seen with 2 other birds which may have been the same species (M.F.M.M.).

Borve, Harris-6 on 20th November. The only previous record which the observer has for the Outer Hebrides is of a single hird at Stornoway

on 22nd January and 9th February 1958 (W.A.J.C.).

Isle Ornsay, Skye—one on 2nd January had probably been present

since the end of November (S.S.).

Dornoch, Sutherland-1 to 3 birds seen on various dates between 24th December and 27th January (D.M.).

Isle of May—one on 4th November, as recorded in the Report else-

where in this number.

In our previous number we commented on exceptional numbers of Siskins and recorded heavy immigration starting on 12th October (antea 1:508). Further evidence of abundance is provided by the following records, from which it also appears that the immigration from abroad started earlier than had been indicated:

Orkney-first seen 29th September, when 25-30 at Binscarth Plantation and at least 200 in St Ola; on 1st October there were 30-40 in the natural wood of Berriedale on Hoy; on 4th October 20 were feeding on meadow sweet at Stennady, Finstown; on 8th October parties of Siskins were to be found all over Mainland, including one flock of over 200. On 11th October the observer went out for four days to the uninhabited island of Auskerry. The rush of migrants had ended, but there were many dead Siskins and a small number of live ones desperately striving to find food. A few stragglers have been seen in Orkney throughout the first half of November (E.B.).

St Kilda-single birds seen twice, 12th November (P.J.F.). These are

first records for the island.

Steinish, Stornoway—male in stubble field, 17th November; 3 feeding on ragwort seeds the following day (M.F.M.M.).

Speyside—very numerous, the maximum count being of over 350 at Inshriach on 1st November (R.H.D.).

Gregness, Kincardineshire-big arrival of small passerines on 5th October, including many Siskins (A.S.). 4 seen there the following day (V.C.W-E.).

Aberdeenshire—4 at Mains of Slains Farm on 7th October (E.S.). 6 above the Bridge of Don on 8th October were the first recorded by the observer within the City of Aberdeen; on the same day two flocks totalling over 100 birds were feeding on old flower heads of meadow sweet and other plants at Murcar. In Deeside, mixed flocks totalling over 100 Siskins and Redpolls were seen near Dinnet on 22nd October, and another mixed flock of 100-150 was seen in Glen Muick, near Ballater, on 12th November. The observer has never seen so many Siskins during the 15 years he has lived in this area, and only once in the past 10 years has he seen as many as 50 in a flock (V.C.W-E.).

Lawers, Perthshire-150 feeding on seed heads of bushes sticking up

through thick snow, 25th November (P.W.S.).
Drymen, Stirling—flock of at least 100, 30th October (W.G.M.H.). Isle of May-the first influx was of 40 birds on 19th September (see Report elsewhere in this number).

Wigtownshire-small flocks have been seen regularly in various places from October onwards, with a maximum of 70 near Wigtown on

25th November (A.F.A.).

The first two Twite of the winter were recorded at Cult Ness, Fife, on 2nd November (G.D., J.P.).

Redpolls also seem to have been numerous this autumne.g. 200 at Boat of Garten, Speyside, on 24th November (R.H.D.)—but there is nothing to suggest any large scale immigrations from the continent. The Isle of May Report published elsewhere in this number records 3 Redpolls during the autumn season, but these were all identified as Lessers. A Redpoll seen in Stornoway on 7th December may have belonged to one of the other races of Carduelis flammea (W.A.J.C.).

Northern Bullfinches P. p. pyrrhula have been trapped at the Scottish Observatories this autumn, and there have been several reports from the mainland of birds thought to belong to this race. 2 cocks and 3 hens near Stormont Loch, Angus, on 14th November seemed to show the clear blue grey backs and bright rosy red breasts of the Northern race (H.B.). and 6 cocks near Boat of Garten, Speyside, on 15th January were also thought to be this race (R.H.D.). Some of the large flock at Gladhouse Reservoir, Midlothian, (antea 1:508) were thought by D.G.A. and R.W.J.S. to be of the Northern race, but 16 (including only 3 cocks) were caught in mistnets on 18th November and all were within the measurements range of British birds. In the net the cocks looked quite bright but they became duller as one looked more closely (D.E.B., M.C., A.T.M.). It is just possible that only British birds were caught because the Northern birds are said to keep more to the treetops and so may have avoided capture, but it is clear that sight identifications of this race require very great caution. Light conditions can be most misleading, especially on days when there is no sun to throw heavy shadows.

There have been the following records of substantial flocks of Snow Buntings:

Cairngorms-80 to 100 in the Cairngorm/Ben Macdhui area in December (R.H.D.).

Buddon Burn, Monifieth, Angus-two flocks each of about 200 birds arrived from the east on 17th November and turned to the north or

Longannet, Fife—2(X) arrived on 11th February (I.H.).
Swanston, Midlothian—150 on 11th January (H.F.).
Midlothian/Peebles—75 at Gladhouse Reservoir on 24th December (R.W.J.S.) and 100 at Portmore on the 30th (D.G.A.).

St Mary's Loch, Selkirk-130 on 17th December (J.B.). Eaglesham, Renfrewshire-100 on 25th December (L.A.U.).

The only acceptable record of Lapland Buntings this winter was of a flock of 14 seen in a field near Gullane, East Lothian, on 7th January (W.K.B.).

Plumage and structural abnormalities

A pale oatmeal-coloured Grey Lag Goose was seen amongst a flock of at least 1,000 near Dunragit, Wigtownshire, on 2nd January (A.D.W.). On 8th January a similarly coloured Pink-footed Goose was seen in a large flock at Newburgh, Fife (T.S.). An apparently adult Whooper Swan at Loch Ken, Kirkcudbrightshire, on 26th January had the normally yellow patch on the bill of a pale pink colour (A.D.W.).

One of two Woodcock flushed at Manderston, Berwickshire, on 31st December had very conspicuous white underparts (S.J.C.).

What the observer considered to be an albino Herring Gull was present in Stornoway harbour on 18th November. At a distance it looked all white and was at first mistaken for a Glaucous Gull. At close quarters the mantle and wings were seen to be of a very pale grey and the wing-tips were medium grey, bearing exactly the same pattern of "mirrors" as in the Herring Gull. Legs were pink (M.F.M.M.). What was probably the same bird had been seen in the same place by M.Ru. on 18th February 1961.

A Starling with a curved beak about 3 inches long was seen at Prestwick on 30th November (R.M.R.).

Miscellaneous observations

A salmon was found in the eyrie of a pair of Golden Eagles in Lewis in 1961 (W.A.J.C.). Another curious food item was a dead Hare on which a Long-eared Owl was feeding near Boat of Garten, Speyside, on 9th November (R.H.D.).

At Cramond, Midlothian, where the woods come down to the high tide line, Blue and Great Tits regularly come down to pick over the seaweed (T.C.S.).

A brood of 3 young Greenfinches at New Cumnock, Ayrshire, did not fledge until 13th September—an unusually late date (J.A.B.).

Corrections

The Manx Shearwater recorded inland at Dalry (antea 1: 495) was found on 15th, not 16th, September. It was successfully kept alive, mainly on chopped herring, until 2nd October, when it was released at Balcary Bay (A.D.W.).

In view of a conflicting claim that the bird concerned was a Smew, the observers have agreed that the Black-necked Grebe recorded from the River Endrick (antea 1:436) should be withdrawn.

The Greenshank at Hamilton (antea 1:503) was recorded on 29th August, not 29th September (D.R.W.).

OFFICIAL SECTION

THE SCOTTISH ORNITHOLOGISTS' CLUB

SUMMER EXCURSIONS

Members are reminded that they may attend Excursions of Branches other than their own if they wish to do so.

ABERDEEN

Sunday 13th May

GLENTANAR (subject to permission being granted)—Leader, Mr C. Murray. Meet Bridge of Ess 10.30 a.m. Bring picnic lunch and tea.

Saturday and Sunday 2nd/3rd June

LOCH GARTEN AREA—Leader, to be announced later. Meet Loch Garten 6 p.m. on Saturday 2nd. Members to make own arrangements for overnight accommodation.

Sunday 17th June

FOWLSHEUGH CLIFFS (by boat from Stonehaven)-Leader, Dr G. Dunnet, Meet Stonehaven Harbour 2 p.m. Bring pienic tea.

Sunday 1st July

BEN a' BHUIRD (for Dotterel)—Leader, Miss E. A. Garden, Meet Allt Dourie Cottage, Invercauld (subject to permission being granted) 10 a.m. Bring picnic lunch and tea.

Sunday 4th November

LOCH OF STRATHBEG (large concentration of wildfowl, including Whooper Swans)—Leader, Miss E. A. Garden. Meet south end of loch 10.30 a.m. Bring picnic lunch and tea.

Members wishing to attend Glentanar Excursion, please notify Mr C. Murray, 20 Ivanhoe Road, Garthdee, Aberdeen, one week in advance.

For all other Excursions, please notify Miss E. A. Garden, Eider Cottage, Newburgh (Tel. Newburgh 615) one week in advance. All transport will be by private cars, so will Members with spare seats please notify Mr Murray or Miss Garden, depending on Excursion. Expenses will be shared.

DUMFRIES

Members to make own arrangements for transport. Picnic lunch and tea to be taken to Bass Rock, picnic tea only on other Excursions.

Saturday 5th May

ORROLAND BAY, KIRKCUDBRIGHTSHIRE—Leaders, Mr H. M. Russell and Mr Donald Watson. Meet Ewart Library 1.30 p.m. or rendezvous Dundrennan Post Office 2.45 p.m.

Saturday 2nd June

DRUMLANRIG WOODS—Leaders, Mr J. Maxwell and Mr J. Young. Meet Ewart Library 1.30 p.m. or rendezvous Queen's Drive, Drumlanrig 2.15 p.m.

Sunday 15th July

BASS ROCK (by kind permission of Sir Hew Hamilton-Dalrymple, Bart.)—Leader, Mr R. T. Smith. Meet Ewart Library 9 a.m. or rendezvous at North Berwick Harbour at 12.15 p.m.

Saturday 25th August

ARBIGLAND SHORE—Leaders, Mr E. L. Roberts and Mr R. T. Smith, Meet Ewart Libray 1.30 p.m. or rendezvous at Carsethorn 2.15 p.m.

DUNDEE

When private cars are to be used, applications for all Excursions should be made one week in advance to Mr Jack Scobie, 11 Nevill Street, Dundee (Tel. Dundee 86209).

Sunday 25th March

LINTRATHEN AND KINNORDIE LOCHS—Meet City Square 10 a.m. Transport by private cars. Bring picnic lunch and tea.

Sunday 27th May

NORTH ESK AND AUTHMITHIE—Meet City Square 10 a.m. Transport by private cars, Bring picnic lunch and tea.

Sunday 24th June

CAIRNGORMS (for Dotterel)—Members will be restricted to cars available. Arrangements will be made known later.

Sunday 15th July

ISLE OF MAY-Number limited to 12. Leave on 10 a.m. Tay Ferry. Transport by private cars. Bring picnic lunch and tea.

Sunday 23rd September

EDEN ESTUARY (GUARDBRIDGE TO ST ANDREWS)—Meet Tay Ferries 9.45 a.m. Transport by bus. Bring picnic lunch

EDINBURGH

Times of buses and trains should be checked with Summer Timetables. Costs may also be subject to alteration. Private hire buses will only be provided at charges shown on condition that a minimum of 30 attend. Anyone unable to attend, having booked a seat, may be required to pay the fare unless one week's notice is given.

Saturday 5th May

ABERLADY BAY NATURE RESERVE (Spring Migrants)—Leaders, Mr W. K. Birrell and others. Meet Timber Bridge 2.30 p.m. Bring picnic tea (S.M.T. bus leaves Edinburgh Bus Station at approx. 1.40 p.m.)

Saturday 12th May

HARPER RIG TO WEST LINTON (Moorland Walk)—Leader, Mr W. Brotherston, Wilson's (Carnwath) Bus leaves Castle Terrace 12.45 p.m. Bring picnic tea.

Saturday 26th May

PARADISE WOODS, DUNS—Leader, Mr William Murray. Private cars will be used and those attending are asked to state if they require a seat, or the number of spare seats in their cars, Expenses will be shared. Meet at Bridge over Whiteadder, Cumledge Mills, 2.30 p.m. Applications by 19th May to Miss Olive Thompson, 52 Inverleith Row, Edinburgh 3. Bring picnic tea.

Sunday 3rd June

THE HIRSEL, COLDSTREAM (by kind permission of the Earl of Home)—Limited number. Applications by 26th May to Mr A. T. Macmillan, 66 Spylaw Bank Road, Edinburgh 13. Leader at the Hirsel, Major the Hon. Henry Douglas Home. Private bus leaves Waverley Bridge 11 a.m. returning approx. 7 p.m. Bring picnic tea. Cost: Bus approx. 8s.

Saturday 16th June

ISLE OF MAY—Number limited to 12. Applications by 9th June to Mr Alastair Macdonald, Hadley Court, Haddington (Tel. Haddington 3204). Train to Anstruther leaves Waverley Station 9.10 a.m. Boat leaves Harbour 11.40 a.m. prompt. Return train leaves Anstruther 6 p.m. Bring picnic lunch and tea. Cost: Day Return rail ticket 12s 6d; boat approx. 9s.

Sunday 1st July

FARNE ISLANDS—Limited number. Applications by 23rd June to Miss Olive Thompson, 52 Inverleith Row, Edinburgh 3. Private bus leaves Waverley Bridge 9 a.m., arriving Seahouses 12.30 p.m. Boats leave Harbour on arrival, Bring picnic lunch. Costs: bus approx. 11s; boat approx. 11s. High tea will be arranged for those who apply for it. It is regretted that as places in the boats are limited to the number of seats in the bus, applications from those wishing to travel by private cars cannot be accepted.

Saturday 14th July

FIDRA AND FORTH ISLANDS (by kind permission of the R.S.P.B.)—Number limited to 12. Applications by 7th July to Mr Michael Robson, Little Bellwood, Glencorse, Penicuik (Tel. Penicuik 386). Boats leave North Berwick Harbour 2.30 p.m. and return approx 7 p.m. Bring picnic tea. Cost: boat approx. 8s. N.B. If weather is uncertain, it is advisable to check with the leader on the morning of Excursion in case of cancellation.

Saturday 28th July

BASS ROCK (by kind permission of Sir Hew Hamilton-Dalrymple, Bart.)—Applications by 21st July to Mr John King, 103 Marchmont Road, Edinburgh 9 (Tel. MOR 2671). Boats leave North Berwick Harbour 2.30 p.m. and return approx. 7 p.m. Bring picnic tea. Cost: boat approx. 8s. Tickets must be obtained at the Harbour Office before embarking. Please note that car parking is no longer permitted at the Harbour, so Members should allow time for finding a parking place elsewhere. N.B. If weather is uncertain, it is advisable to check with the leader on the morning of the Excursion in case landing is impossible. in case landing is impossible.

Saturday 15th September

ABERLADY BAY NATURE RESERVE (Autumn Migrants)—Leaders, Mr W. K. Birrell and others. Arrangements as for 5th May.

GLASGOW

Saturday 28th April

HAMILTON BIRD SANCTUARY (by kind permission of the Town Council of the Burgh of Hamilton)—Leader, Mr D. Stalker. Meet at gates leading to Municipal Golf Course at 2 p.m.

Sunday 3rd June

THE HIRSEL, COLDSTREAM (by kind permission of the Earl of Home)-Limited number. Joint Excursion with Edinburgh Branch. For applications and arrangements, see under Edinburgh Excursions. Own arrangements to be made for travel to Edinburgh.

Wednesday 6th June

BARR MEADOWS, RENFREWSHIRE-Leader, Mr G. H. Acklam. Meet at Lochwinnoch Station Yard at 6.30 p.m.

Saturday 9th June

LITTLE CUMBRAE (by kind permission of Little Cumbrae Estates Ltd.)—Leader, Miss W. U. Flower. Boat leaves Fairlie Pier 11.30 a.m. Fare approx. 4s. Bring picnic lunch and tea. Applications by 26th May to Mr G. L. A. Patrick, 11 Knollpark Drive, Clarkston, Glasgow. N.B. Members participating in this Excursion will be expected to sign an appropriate members that they have need and appropriate that they have need and appropriate the control of the control pected to sign an acknowledgment that they have read and agree to the conditions stated below:-

"The permission to visit Little Cumbrae is granted on condition that the company does not warrant the safety of the premises and is under no obligation to protect you from injury or damage by reason of the state of the premises. By entering the premises you

will be deemed to have accepted these conditions."

Wednesday 13th June

HORSE ISLAND (by kind permission of the R.S.P.B.)-Leader, Mr G. Fraser. Boat leaves Ardrossan Harbour 6.30 p.m. Fare approx. 4s. Applications by 26th May to Mr G. L. A. Patrick, 11 Knollpark Drive, Clarkston, Glasgow.

Saturday, 16th June

LUSS ISLANDS, LOCH LOMOND (by kind permission of Sir Iver Colquhoun, Bart.)—Leader, Mr G. Patrick. Service bus via Balloch to Luss, alight at Bandry Bay ½ mile south of Luss. Ferry boat leaves 1 p.m. returning 5.30 p.m. Fare approx. 4s. Bring picnic tea. Applications by 2nd June to Mr G. L. A. Patrick, 11 Knollpark Drive, Clarkston, Glasgow

Saturday 23rd June

HORSE ISLAND (by kind permission of the R.S.P.B.)—Leader, Mr G. Fraser. Boat leaves Ardrossan Harbour 2 p.m. Fare approx. 4s. Bring picnic tea. Applications by 9th June to Mr G. L. A. Patrick, 11 Knollpark Drive, Clarkston, Glasgow.

Sunday 1st July

EAST FLANDERS MOSS—Leader, Mr B. Weld. Meet at Easter Polder Farm, near Kippen, 10:30 a.m. Bring picnic lunch and tea. (N.B. The main object of this Excursion is the ringing of Lesser Black-backed Gulls. The going is very hard, there being no shelter and little or no dry ground).

Sunday 16th September

HAMILTON BIRD SANCTUARY (by kind permission of the Town Council of the Burgh of Hamilton)—Leader, Mr M. Forrester. Arrangements as for 28th April.

ST ANDREWS

Applications for all Excursions should be made to Miss M. M. Spires, 2 Howard Place, St Andrews (Tel. 852), not later than ten days before each Excursion. Transport will then be arranged.

Saturday 26th May

KILCONQUHAR LOCH (by kind permission of the Nairn Estates)— Leave St Andrews Bus Station 2 p.m. Bring picnic tea.

Saturday 2nd June

LINDORES LOCH-Leave St Andrews Bus Station 2 p.m.

Sunday 10th June

I.OCII LEVEN—Leave St Andrews Bus Station 10 a.m. Boats leave the Sluices, Scotlandwell, for St Serf's Island at 11 a.m. Bring picnic lunch and tea.

Saturday 7th July

TENTSMUIR (by kind permission of Mrs Purvis)—Leave St Andrews Bus Station at 2 p.m. Bring picnic tea.

WEEKEND EXCURSION TO AVIEMORE

Arrangements have again been made with Mrs Grant, The Dell Hotel, Rothiemurchus, Aviemore (Tel. Aviemore 216) for a weekend Excursion to Speyside.

Accommodation for up to twenty Members has been reserved for the weekend 11th to 13th May at inclusive terms of 55s per person, as follows: bed on Friday 11th; breakfast, packed lunch, dinner and bed on Saturday 12th; breakfast and packed lunch on Sunday 13th.

Members wishing to come on this Excursion should book direct with Mrs Grant, mentioning that they are Members of the Club, and are asked to send her confirmation of their booking once it is made, and also to inform her if they require dinner on Friday evening (extra). Members may bring guests. Arrangements for transport by private cars should be made with Branch Secretaries. Thermos flasks should be brought.

CLUB LIBRARY

Members are reminded that the Club has a growing Library of bird books which is available for reference and study, and which also includes a Lending Section, and it is hoped that the fullest use will be made of this. While the Library is not yet comprehensive, during the past year the Library Fund has been used for the purchase of books to fill important gaps; this Fund is built up, firstly, by means of a small grant from the General Funds of the Club, and also by the profits from sales through the Book Agency. As this Fund is not a large one, the number of books we can purchase is naturally limited.

For this reason we wish to thank the many people who have so generously donated books, journals and reprints to the Library. Many of these we did not have, others have been used to increase the scope of the Lending Section, Members are therefore invited to donate any bird books which they do not require and we will be glad to accept them, with the provision that, should we already have them in duplicate, we may be allowed to dispose of them and use the profit for purchasing the scarcer books. We also intend to publish from time to time a list of books we do not have in the Library; these will include certain of the older books on Scotland which will be of great value for a broader study of changes in populations and conditions which have affected our bird life. A preliminary list is given below:

Books wanted:

BRITISH ASSOCIATION. 1912. Handbook and Guide to Dundee and District; containing an article by James B. Corr, on the Birds of the Estuary of the Tay. (Dundee).

BRUCE, G. 1895. The Land Birds in and around St Andrews. (8vo Dun-

FISHER, James. 1956. Rockall. (Bles. London). GRANT, Elizabeth. 1899. Memoirs of a Highland Lady. (Murray. Edinburgh).

GRAY, J. 1959. How Animals Move. (Pelican A 454).

HUDSON, W. H. 1923. Rare, Lost and Vanishing Birds. (Dent. London). HUNTER, D. G. 1934. Bird Notes in Angus and the Far North. (Arbroath).

IACK, David. 1947. Darwin's Finches. (Cambridge University Press). LACK, David. 1956. Swifts in a Tower. (Methuen, London). MATTHEWS, G. V. T. 1955. Bird Navigation. (Cambridge University

MARTIN, Martin, 1698 (or later Editions). A Late Voyage to St Kilda

(London).
PENNANT, T. 1772 (or later Editions). A Tour in Scotland and Voyage to the Outer Hebrides. (London).

PENNANT, T. 1777. Caledonian Zoology, in John Lightfoot's Flora Scot-

SERVICE, Robert, 1902. A Vertebrate Zoology of Kirkcudbrightshire, in Maxwell's Guide to the Stewartry of Kirkcudbrightshire.

SHAW, Rev. Lauchlan. 1775. History of the Province of Moray.

STEWART, Malcolm. 1933. Ronay, a description of the islands of North Rona and Sula Sgeir together with their geography, topography, history and natural history, to which is appended a short account of the Seven Hunters or Flannan Islands. (Oxford).

THORNTON, Thomas. 1804 (or 1896). A Sporting Tour through the Northern Parts of England and ... Highlands of Scotland (London).

Journals wanted:

Annals of Scottish Natural History. A bound volume for 1908. History of the Berwickshire Naturalists' Club. 1831 et seq.

Proceedings and Transactions of the Natural History Society of Glasgow

(later The Glasgow Naturalist). 1859 et seq.
The Scottish Naturalist, Vol. 1 (1871-2); Vol. 3 (1875-6); Vol. 7 (1883-4); Vol. 8 (1885-6); Vol. 9 (1887-8); Vol. 10 (1889-90); Vol. 11 (1891-2). Proceedings of the First International Ornithological Congress. Vienna 1884; Second, Budapest, 1891; Third, Paris 1900; and Sixth, Copen-

hagen 1926.

CLUB LIBRARIAN

Owing to the volume of work now entailed in organising the Club Library, the Council would be glad to hear from anyone who would be interested in acting as Honorary Librarian to the Club. Some typing ability, knowledge of the literature and of Library procedure would be an asset but are not all essential. The work would include cataloguing books and Journals, selecting books which are required and exploring sources for their purchase, arranging for exchanges with other Libraries and Societies, and other matters connected with the expansion of the Library. Any Member or friend who has some spare time and is inter-ested in books would find this work of great interest and could give invaluable help to the Club. It could be carried out at any time of the day or week and would not necessarily involve regular hours. The Secretary will welcome any enquiries and will be glad to explain more fully the work which is required.

OPERATION OSPREY 1962

The R.S.P.B. will once again require the assistance of volunteer wardens between 1st April and mid-August to guard the Ospreys at Loch Garten and to act as Guides to the public visiting the Observation Post in the Sanctuary area. Wardens will be accommodated at a Base Camp where food, tents and camp equipment will be provided free. Each person is however expected to bring his own sleeping bag and pillow slip. Provided a sufficient number of Wardens are available, preferably for periods of not less than a week at a time, each one will have every third day free of duties. A succession of female cook-caterers will also be required for the period quired for the period.

Anyone wishing to assist should send full details and references as soon as possible to Mr George Waterston, 21 Regent Terrace, Edinburgh 7.

HANDBOOK OF BRITISH BIRDS

The Aberdeen University Field Station at Culterty is in urgent need of a set of five volumes of the Handbook for use at their Ringing Station, These need not be in good condition, The gift of a set from a Member would be greatly appreciated. Contact Dr George Dunnet, Culterty Research Station, Newburgh, Aberdeenshire.

SOLWAY WEEKEND EXCURSION 16th to 18th February 1961

Once again we were lucky with the weather. During the first weekend of the month, a party of members of the London Natural History Society visited Dumfries and had a very wet couple of days. Then, during the second weekend, members of the Edinburgh Natural History Society had to battle with gale force winds, For our own excursion we had a fine bright sunny morning, clouding over in the afternoon on the Saturday; and a cloudy showery mild day on Sunday.

On Friday night, members began to arrive at the County Hotel, Dunfries. We were sorry that the usual Irish contingent was unable to join us this year. After dinner we were entertained by Willie Brotherston with a tape-recording of Pinkfeet at a roost, and by Jim Young with some excellent colour slides of local scenery and birds.

We marshalled on Saturday morning at the Car Park beside the Nith, noting the Lesser Black-backed Gulls which we seem to see there every year. Bobbie Smith led the party of about seventy of us in a long convoy of cars down the road to Bankend and on to East Park where we were taken in charge by Langley Roberts, Warden of the Caerlaverock National Nature Reserve. It was good to hear the Skylarks singing. We walked out over the saltings towards the mouth of the Lochar and got excellent views of some 2000 Barnacle Geese. We then proceeded westwards to Glencaple where we parked on the jetty and had our picnic lunch watching Goosanders floating down the river. Back to Dumfries we took the New Abbey road to Carsethorn to see Scaup and lots of Knots. A fine Grey Plover was also seen.

Willie Austin then directed us over an attractive hill road by Auchenfad and Trostan to Loch Arthur. Several Barn Owls were seen on this route; indeed, over the weekend, at least ten different individuals were noted. Among parties of tits, we observed Willow and Long-tailed. Visits were paid to Milton Loch and Lochrutton before returning to Dumfries.

On Saturday night we all squashed into "Prince Charlie's Lounge" in the Hotel to take part in a "Bird Quiz" devised by Andrew Macmillan who was unfortunately not able to be present. Willie Brotherston and Paul Barbier defeated a local team—Willie Austin and Bobbie Smith, after the latter had beaten a Glasgow team composed of George Patrick and T. D. H. Merrie. More colour slides were shown thereafter.

Sunday saw us setting off in convoy for Castle Douglas via Auchenreoch. At Carlingwark Loch we met up with Donald Watson who acted as our guide from then on. A flock of geese came over from the direction of Kelton—probably Bean Geese which we failed to see later. There were fewer duck than usual on Carlingwark—and no Smew this year. We had a look at the Gelston burn marsh, getting fine views of a Barn Owl hunting; then round by Mid Kelton, across the Bridge of Dee, and up to Glenlochar. Here we turned right and visited an area near Mains of Greenlaw. Among a party of Grey Lags were two fine Snow Geese. We sat in our cars eating our lunch and admiring them. When the geese eventually took to flight we could see that the Snows were considerably smaller than the Grey Lags. The next excitement was a Green Sandpiper which flew over and plummeted into a nearby ditch. While the whole party watched, the bird was flushed and everyone got magnificent views of it as it flew overhead and then dropped down again into another ditch.

Donald Watson then led us on up the west side of Loch Ken to Livingstone, stopping at various vantage points to watch Greenland Whitefronted Geese, Pintail, Shoveler, and a pair of Gadwall. Towards the head of Loch Ken, more Willow Tits were seen. At New Galloway we turned westwards to visit Clatteringshaws Reservoir before going on to Dalry and Bridge of Ken Hotel for tea and the close of the excursion. The total "bag" of species seen by members of the party was 88—so we were all well satisfied.

Our warmest thanks to the Dumfries Branch for yet another memorable weekend.

G. WATERSTON.

"A Real Paradise for Birdwatchers"

THE enormity of the landscapes and the ever recurring contrasts of Icelandic scenery have a unique attraction to tourists and bring them back again year after year. And to the ornithologist, it is a veritable treasure house. It has often been referred to as "a real paradise for birdwatchers" because of its wealth in bird-life. About 70 species nest there and more than 200 have been observed. Most of the birds that flock in Iceland find there a land of peace where they are protected by the unwritten law of kindness; consequently they are tamer there than in most other places.

Although Iceland is not an arctic country some true arctic birds can be studied there such as the Little Auk, the Purple Sandpiper, the Grey Phalarope, Brunnich's Guillemot and the long-tailed duck. The Sea-eagle is still tound there and the famous Iceland Gyr-falcon is not uncommon. A Snowy Owl flapping over a pitch black lava stream is an impressive sight. Even the capital, Reykjavík, has some interesting bird inhabitants. On an islet in the Lake Tjornin, the Arctic Tern breeds in great numbers. Red-necked Phalaropes often flock on the lake which is also alive with ducks of many species. An hour's drive from Reykjavík to the old seat of the Icelandic Parliament at Thingvellir may result in the thrilling sight of the Great Northern Diver which breeds nowhere else in Europe. A flight of half an hour brings the ornithologist to the rich bird cliffs of the Westman Islands. The rocky island, Eldey, off the Reykjavík peninsula, is occupied by about 15,000 pairs of North Atlantic Gannet, the largest single colony of the species in the world. On the cases south of Hofsjokull, is the world's largest breeding colony of the Pinkfooted Goose.

Lake Myvatn in northern Iceland has been called the Mecca of bird watchers. This five mile by eight mile lake, which is also renowned for its unrivalled scenic beauty, has the largest concentration in Europe of breeding ducks. Fifteen species nest there; two of them, the Barrow's Goldeneye and the Harlequin Duck, nest nowhere else in Europe outside Iceland.

The total number of ducks and ducklings on the lake in late summer has been estimated at 140,000. At Myvatn, a unique form of peaceful co-existence between man and bird has developed through the ages. On the idyllic island of Slutnes, in order to look at their eggs, one has to lift some of the ducks from their nests.



For full details of this enchanting country and how to get there, contact ICELANDAIR, 33 St Enoch Square, GLASGOW, C.1 (Tel. CITy 3638). There is a daily service by modern Viscount aircraft and special reduced rates are available for group travel.

BIRD CONSERVATION

THE aim of bird conservation is to promote the richest and most varied bird-life possible. Man's commercial developments often threaten species which require highly specialised habitats; we try to combat this by creating Reserves in such areas.

The Society has assisted with the re-establishment of "lost" indigenous species by creating the right conditions for them to recolonise their old haunts. This was achieved at Havergate by regulating the water-level by artificial means so that Avocets could breed; and in the case of the Ospreys at Loch Garten by preventing human predation in the form of egg-collecting. Experiments are being carried out with nest-boxes for Goldeneye duck in the hope that we may induce this species to breed in Scotland.

A further example of a positive step in bird conservation was the elimination of rats on Fidra where they had decimated the tern colonies on this island. The Society successfully exterminated the rats, and the terns now breed successfully.

The Society was largely instrumental in persuading the Government to ban the use of aldrin, dieldrin, and heptachlor for dressing spring-sown grain, thus reducing the wide-spread damage to birds and wildlife caused by these toxic chemicals.

In 1961, the Society established Reserves at Horse Island (off Ardrossan); and at Inchmickery, Fidra, Lamb, and Eyebroughty in the Firth of Forth. In 1962, further Reserves will be declared.

All these activities cost money. As a bird-watcher we appeal to you to support the work of the Society by becoming a Member at an annual subscription of one guinea (10s if under 21 years of age). This subscription entitles you to copies of the Society's quarterly journal "Bird Notes."

Write now for copy of Prospectus.

THE ROYAL SOCIETY FOR THE PROTECTION OF BIRDS

Scottish Office: 21 Regent Terrace, Edinburgh 7



The Isle of May

W. J. EGGELING

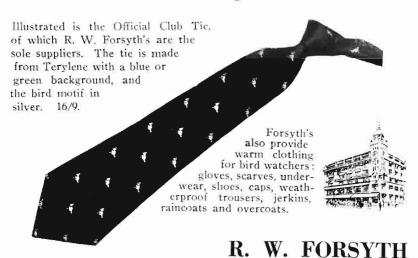
The Isle of May has been renowned for over a century as outstandingly interesting to naturalists, especially as a station for the study of bird migration. Dr Eggeling of the Nature Conservancy has known the Isle since boyhood and writes on all aspects of it with great authority.

Fully illustrated.

30s net

OLIVER & BOYD

The Scottish Ornithologists' Club Tie



R. W. Forsyth Ltd. Princes Street Edinburgh And at Glasgow

Ex-Admiralty

7×50

CANADIAN & U.S. NAVAL

BINOCULARS

Ideally suited to bird-watching require ments, this instrument has many outstanding characteristics which combine to make it one of the world's greatest binoculars. The advanced optical system produces an extraordinary high light transmission, giving maximum performance even under the dullest conditions, Another feature is the wide field of approximately 660 yards at 3 miles, plus an amazing stereoscopic or 3D effect. These binoculars are in perfect condition and are supplied complete with leather case and straps. Current value estimated at £60. Offered under our 5 years' Free Maintenance service at £24





Binoculars, Telescopes and Navigational Equipment.

12x50 JAPANESE BINOCULARS

Centre focussing separate eye adjustment. A small quota of these extremely high quality binoculars are now available. We consider them to be retailing at over \$50.
Supplied complete with teather case & straps £23

6x30 ARMY BINOCULARS An excellent general purpose binocular of good performance, which will stand up to a great deal of rough usage, Cost ap-prox. £20.

C50 PRISMATIC TELESCOPE

Tripod mounted. A heavy instrument of superb per-formance. Estimated cost £120. £9, 15/-

10x70 ROSS BATTLESHIP BINOCULARS

Tripod mounted. Cost over £45