

SCOTTISH BIRDS



THE JOURNAL OF THE
SCOTTISH ORNITHOLOGISTS' CLUB

Volume 8 No. 7

AUTUMN 1975

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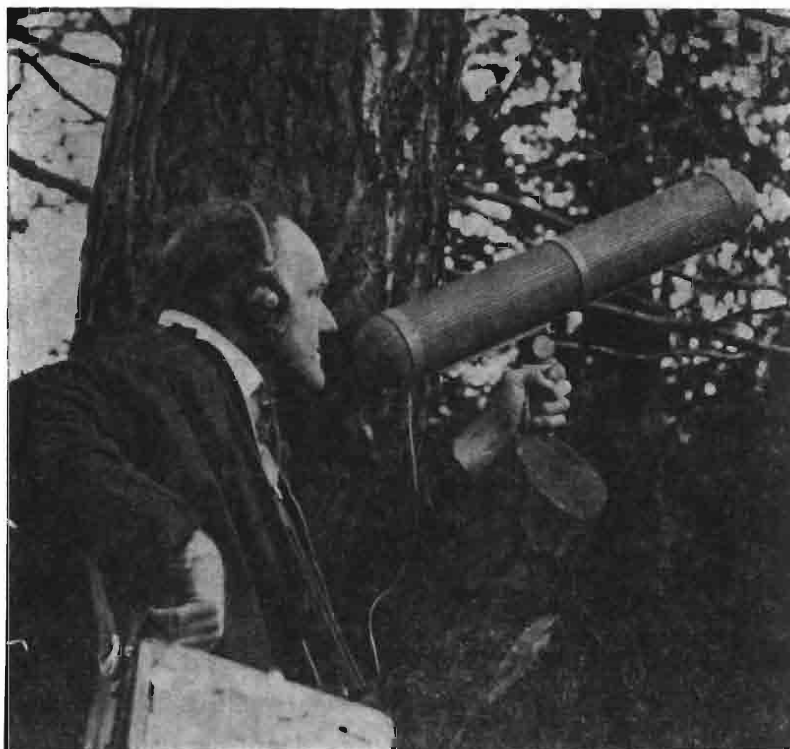
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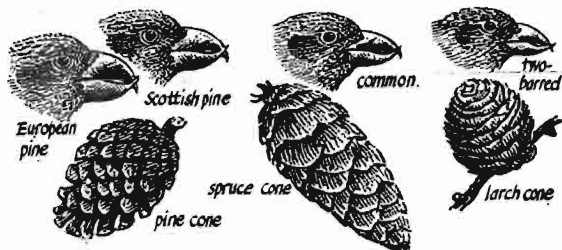
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Vol. 8 No. 7

Autumn 1975

Edited by D. J. Bates

Editorial

Sea Eagles again Earlier this year the Nature Conservancy Council quietly began a project to re-establish the White-tailed or Sea Eagle as a breeding species in Scotland, the first since the RSPB's abortive attempt on Fair Isle in 1968. It may be worth briefly reiterating here the case for its reintroduction.

An alleged fondness for lambs, now thought to be greatly exaggerated if not wholly erroneous, led to its deliberate extermination here earlier this century. Its sedentary habits and diminishing population throughout Europe make natural recolonization unlikely in the foreseeable future. Unlike the Osprey, it has been noted in Britain with declining regularity until it is now one of our very rarest visitors. The European population suffers continuing persecution plus the sterilizing effects of pesticides in recent years. The relatively clean environment of the Highlands makes its re-establishment here of special importance, although the presence of pollutants in the sea and hence in the seabirds that would form the Sea Eagles' chief prey must arouse some concern.

For three or four years eaglets will be brought from Norway to be reared in artificial nests on Rhum National Nature Reserve. On fledging they will be encouraged to forage for dead prey placed near their eyries and later further afield, using similar techniques to those developed on Fair Isle. It is hoped that the first birds will return to breed at their eyries after three-five years, that regular breeding will be established in five-ten years, and that the offspring will disperse to breed in other sites in Scotland after 15-20 years.

The first four young birds, one male and three females, arrived in June. Alas, the male has already died but the others are being liberated during the autumn. It is hoped to obtain another four birds in 1976.

In order to maintain natural behaviour patterns human contact with the birds is being kept to a minimum. Thus in the interests of the birds' welfare sightseers are **not** encouraged.

We wish the NCC and the Sea Eagles every success. Dare we hope that before the end of the century *Iolair mhara* or the

Erne will again grace our Highland sea-cliffs and lochs? Perhaps the twenty-first century will see them following the Golden Eagle south of the border!

Scottish Bird Reports Good progress is being made with the 1974 Bird Report and we still expect it to be published before the Conference in January, if not in December. Next year should see a return to the normal publication schedule with the 1975 Bird Report appearing no later than the autumn number in September.

I am sure most readers would agree that the Bird Reports should be published at the earliest opportunity, in the summer number in June if possible, since their topical interest soon fades. After the delays of recent years I obviously cannot promise this will happen in 1976 but the attempt would still be well worth while. This ambitious project demands, first and foremost, the full and punctual support of every contributor.

If you start putting the bulk of your 1975 notes in order today, resolve to submit them to the local recorders by next week, and send the remainder for the end of the year on the first day in January that you can write with a steady hand, the local recorders can prepare their summaries without delay. Roy Dennis can then compile the species list before his busy season starts in the spring and, if all has gone well, I can send it to the printer in time for the summer issue. I look forward to hearing of the response to this plea at the local recorders' meeting at the Conference in January.

Incidentally, the new regional boundary changes will be discussed at this meeting, but we shall continue to use the old boundaries until further notice.

Local recorders Would contributors please note that the following local recorders have now moved to new addresses:

R. L. McMillan (Perthshire) 44 Durley Dene Crescent, Kintillo, Bridge of Earn, Perthshire;

Dr P. G. Hopkins (Outer Hebrides except St Kilda) 31 Glentool Village, Newton Stewart, Wigtownshire.

Ron Forrester has retired as local recorder for the Clyde area and we would like to thank him for his diligence in this arduous task over the last five years. We welcome Iain Gibson in his place and records for Dunbartonshire, West Stirlingshire, Renfrewshire, Lanarkshire, Ayrshire, Arran and Bute should be sent to Iain at 'Arcadia', The Glen, Howwood, Renfrewshire.

Illustrations Although I have made useful personal contacts with both amateur and professional photographers in the SOC,

editorial appeals for photographic material have so far met with little response.

Perhaps too much emphasis has been put on glossy black-and-white prints. While these are preferable, colour transparencies can also be satisfactory and since the majority of amateur and casual bird photographers nowadays use colour and thus perhaps have felt they were unable to help, it is to them that this appeal is especially directed. Contributors of written material too are asked to bear this in mind, and where papers are concerned, good pictures of habitats can be as valuable as bird pictures.

All SOC members with cameras are urged to offer pictures that may be of interest, especially of rarities. I know from my visits to branch meetings that there are plenty of good pictures about, but as I am unable to discover all this talent for myself I hope the photographers will introduce themselves to me.

There must also be several capable artists as yet unknown to me. Drawings of birds already decorate the annual Bird Report and similar illustrations could be used in most issues. Contributions will be most welcome and should be in Indian ink on good quality paper.

Correction A transcription error occurred in the last issue in G. L. Sandeman's short note *Another Kittiwake movement in the Firth of Forth* (8: 324). In paragraph three, line three, for "Barnton" read "Granton".

Current Literature Recent material of Scottish interest includes :

Breeding of Greylag Geese (*Anser anser*) on the Outer Hebrides. I. Newton and R. H. Kerbes, 1974. *Journal of Animal Ecology* 43: 771-783.

Requests for Information

Current Ornithological Research in Scotland Ian Lyster's paper of this title (7: 228-242) is to be updated. Anybody doing such research on species or topics, especially fieldwork, is asked to send brief details including additions and corrections to the original paper, to I. H. J. Lyster, Royal Scottish Museum, Edinburgh EH1 1JF.

Hawfinches Bob McMillan is preparing a review of the status and distribution in Scotland of this most elusive species. Any unpublished records and any other relevant information or comment should be sent to R. L. McMillan, 44 Durley Dene Crescent, Kintillo, Bridge of Earn, Perthshire.

The birds of Strathbraan 1905 - 74 : a salute to Charles Macintosh

C. J. HENTY

It is daily becoming more apparent that our fauna is always in a state of flux. (Rintoul and Baxter: A Vertebrate Fauna of Forth)

Introduction

It is not easy to find systematic notes on the birds of a restricted area dating before about 1920. It is very rare to get any quantitative account. So I was surprised and delighted to find such a list for Strathbraan, Perthshire, published in a biography of the Dunkeld naturalist Charles Macintosh (Coates 1923). In 1905 Harvie-Brown wrote to Macintosh asking him to survey Strathbraan "to illustrate the comparative richness of the avifauna of a typical Central Perthshire valley, below and on the skirts of the heather zone". Macintosh "at once took up the task with characteristic enthusiasm", he was then sixty-six, and on three days in June and one in July counted birds between Inver and Amulree, going up one side and down the other, a total of 26 miles on foot. I later discovered essentially this account with the identical list (except for a trivial error for Redstart) in *A Fauna of the Tay Basin and Strathmore* (Harvie-Brown 1906, pp. lxi-lxii). Here also were the exact dates: 6th, 7th and 13th June and 13th July.

I decided to repeat Macintosh's survey and made visits in 1973 (22nd June and 3rd and 9th July) and in 1974 (13th, 19th and 23rd June). The validity of comparing counts done by different observers over such a long period of time is discussed later.

My itinerary in 1973/4 was as follows: Inver to Rumbling Bridge (2½ km): Hermitage footpath on north side, road on south side; spruce and pine woods, oakwood, young conifer plantations, birch/oak/alder strips along river, some meadows.

Rumbling Bridge to Trochrie (2 km): roads on north and south sides of river; oak/birch/hazel strips, meadows some rough grazing, some cereals.

Trochrie to Dullator (4 km): road on north side, skirting upland fringe on south side; meadows and rough grazing, birch/alder strips, spruce and pine wood, young conifer plantation, some cereals.

Dullator to Dalreoch (2 km): by river on north side, upland fringe on south; rough grazing, meadows, some ploughed land

and cereals, young conifer plantation, birchwood, oak copse, birch/alder strips.

Dalreoch to Amulree (3 km) : by river on north side, on slopes of south side; rough grazing, stony slopes with grass, heather or bracken, birch/alder/willow strips, pine copse.

The route was chosen to cover a variety of habitats by the easiest paths, as I imagined Macintosh would have done, with no attempt to examine all corners of the area.

I have grouped the results into: 1. passerines and near-passerines requiring trees or scrub; 2. passerines requiring open country; 3. waders; 4. miscellaneous species. This was done to make quantitative comparison easier and eliminate as far as possible any bias due to Macintosh having taken a different type of route to mine.

I should like to make it clear that I do not regard these counts as a complete survey of Strathbraan. Anyone with a detailed knowledge of a locality will be aware of how regular but scarce species can be missed in a few visits. However, taking Macintosh's and my own list together there are probably few species missed altogether. Ring Ouzel* and Sparrowhawk have been recorded for the Dunkeld area but Magpie and Collared Dove may still be absent from Strathbraan.

In analysing the data I have first compared the results for 1973 and 1974 and then, if no reliable differences exist, combined the two years and compared them with 1905. In the few cases of clear differences between 1973 and 1974 I have used that year most resembling Macintosh's data for the long term comparison.

Passerines and near-passerines of scrub and woodland (table 1)

In this section the common species were taken as a set ranked in order of abundance to examine changes in the numerically predominant part of the community in this habitat. Then the relative abundances of individual species were examined.

1973 and 1974 Chaffinch, Willow Warbler and Wren were the commonest species (in that order) in the lists of both years. Of the other common species, quoting the 1973 list first, Black-bird changed from fourth to sixth place, Goldcrest from fifth to ninth, Blue Tit from sixth to fifth, Redpoll was seventh in both years, Song Thrush changed from eighth to fourth, Long-tailed Tit from eighth to nineteenth and Robin from thirteenth to eighth.

*Scientific names are given in an appendix.

Table 1. Passerines and near-passerines of scrub and woodland

| | Relative abundance (% of population) | | |
|--------------------------|--------------------------------------|---------------|---------------|
| | 1905 | 1973 | 1974 |
| | (407 records) | (450 records) | (471 records) |
| Green Woodpecker | 0 | 0.2 | 0 |
| Great Spotted Woodpecker | 0 | 0.2 | 0.4 |
| Jay | 0 | 0.7 | 0.6 |
| Great Tit | 0 | 0.9 | 1.1 |
| Blue Tit | 0 | 5.3 | 7.3 |
| Coal Tit | 0 | 4.4 | 2.6 |
| Long-tailed Tit | 0 | 4.6 | 0.9 |
| Treecreeper | 0 | 1.1 | 1.9 |
| Wren | 1.0 | 8.8 | 10.7 |
| Mistle Thrush | 0.5 | 1.5 | 2.1 |
| Song Thrush | 4.4 | 4.6 | 7.7 |
| Blackbird | 16.7 | 6.6 | 5.8 |
| Whinchat | 1.7 | 1.1 | 0.2 |
| Redstart | 0.2 | 0.7 | 0.2 |
| Robin | 0 | 2.4 | 3.2 |
| Whitethroat | 5.2 | 0.2 | 0.2 |
| Willow Warbler | 33.4 | 14.9 | 15.4 |
| Wood Warbler | 2.0 | 0 | 0 |
| Goldcrest | 0 | 5.8 | 2.8 |
| Spotted Flycatcher | 0 | 2.7 | 0.4 |
| Duncock | 0 | 0.7 | 2.1 |
| Tree Pipit | 2.0 | 0 | 0.4 |
| Greenfinch | 1.0 | 0.9 | 1.1 |
| Siskin | 0 | 1.3 | 1.5 |
| Redpoll | 0 | 5.1 | 3.4 |
| Chaffinch | 24.3 | 18.4 | 23.7 |
| Yellowhammer | 7.4 | 0.9 | 1.3 |
| Reed Bunting | 0 | 3.5 | 2.1 |
| Total % | 99.8 | 97.4 | 97.8 |

Numbers of scarce species not individually analysed for % score—
 Macintosh: Sedge Warbler (1); Henty (1973 total first): Stonechat (0/1),
 Blackcap (0/2), Garden Warbler (0/2), Chiffchaff (1/1), Goldfinch (3/2),
 Linnet (3/0), Bullfinch (2/2).

Taking the eight commonest species in 1974 and comparing their relative positions with those in 1973 there is a significant positive correspondence (Spearman rank correlation +0.75). If the calculation is done on the basis of the nine commonest species in 1973 (this includes Goldcrest and Long-tailed Tit) a similar result is produced (Spearman rank correlation +0.71). Thus on the whole the list of the common species in 1973 is similar to that for 1974. This suggests that the basic method is fairly consistent.

Taking individual species, three criteria were used together for assessing whether apparent changes in relative abundance were reliable: 1. the change in rank must be at least three

positions; 2. the change must be consistent in the three sub-areas of the glen (Inver-Trochrie, Trochrie-Dullator, Dullator-Amulree); 3. the difference between the 1973 and 1974 relative abundances must be large enough so that the result would occur by chance not more than one occasion in fifty (i.e. a probability level of 0.02). Two-tailed chi square tests were used. The significance level was deliberately chosen to be more severe than the usual one-in-twenty probability in order to counteract inflationary effects due to the fact that the observation of one bird is not strictly independent of the observation of another.

In this study the statistics were primarily used to sort out for further discussion those data where there were at least statistically reliable changes. Using the above criteria there have been no reliable changes in the relative abundance of any common species: Long-tailed Tit, Song Thrush and Goldcrest showed inconsistent changes (criterion 2) and the Robin a small and non-significant change in percentage abundance (criterion 3).

Of the less common species only the Spotted Flycatcher showed a statistically reliable difference between 1973 and 1974. For this late nesting species it could be argued that the difference in the dates of the two transects (22 June-9 July versus 13-23 June) coincided with a marked change in its observability. Dr Eggeling tells me that there was probably a real decrease in Spotted Flycatchers in 1974. In either case there are no grounds for arguing that the population 70 years ago was in general lower than in the present decade.

Both from the comparison of the lists of common species ranked in order of abundance and for most individual species it is reasonable to combine the 1973 and 1974 data and to compare the averaged results with Macintosh's count in 1905.

1905 and 1973/4 If the common species in table 1 are listed in order of frequency for both periods it can be seen that Willow Warbler and Chaffinch fill the first two places on both lists though in different order, with Willow Warbler first in 1905. However in the next six places only Blackbird and Song Thrush occur in both lists. Taking the 1905 and 1973/4 lists separately and noting the six commonest species from each of the two lists there is a total of eight species that are common in at least one list. These are: Chaffinch, Willow Warbler, Blackbird, Yellowhammer, Whitethroat, Song Thrush, Wren and Blue Tit.

There is no significant positive correlation between the order of commonness of these species between 1905 and 1973/4 (Spearman rank correlation +0.46). Hence some changes

have occurred since 1905 even amongst the list of common species. Considering only species whose rank position has altered by more than two places we find significant increases since 1905 in Wren, Goldcrest, Coal Tit, Blue Tit, Robin, Redpoll and Reed Bunting. Macintosh did not record Dunnock or Siskin but the increase is not statistically reliable. Significant decreases occur in Yellowhammer, Whitethroat, Wood Warbler and Tree Pipit.

The Willow Warbler situation is equivocal. The 1973 and 1974 results are almost identical but although the species is still abundant its relative abundance is now half that found in 1905. Since no clear general decline has been noted (Parslow 1973) it is conceivable that, as Harvie-Brown (*loc. cit.*) remarked for the Cuckoo, in 1905 an unusual number of Willow Warblers settled in the upper Tay basin but that the transient increase went unnoticed in such a generally common species.

In 1973/4 Robin, Coal Tit and Yellowhammer concentrated in the lower part of Strathbraan. By contrast, Willow Warbler, Reed Bunting and Redpoll occurred mainly in the upper two-thirds, the Reed Bunting not being seen away from marshy or riverside habitats.

Table 2. Open country passerines

| | Relative abundance (% of population) | | |
|--------------|--------------------------------------|-----------------------|----------------------|
| | 1905 (72 records) | 1973 (108 records) | 1974 (98 records) |
| Skylark | 30.6 | 30.6 | 39.8 |
| Wheatear | 6.9 | 1.9 | 3.1 |
| Meadow Pipit | 41.7 | 49.1 | 35.7 |
| Pied Wagtail | 20.8 | 13.9 | 17.3 |
| Grey Wagtail | 0 | 4.6 | 4.1 |
| Total % | 100.0 | 100.1 | 100.0 |

Open country passerines (table 2)

In this small group of Skylark, Meadow Pipit, Pied and Grey Wagtails and Wheatear there are no marked changes between 1973 and 1974 or between 1905 and 1973/4. Macintosh recorded no Grey Wagtails but there is only a ten to one (non-significant) chance against the observed difference happening by random sampling. The Starling has been omitted from this group partly because Macintosh simply records it as "innumerable" and also because its early flocking is so distinctive (see table 4). Nearly all the Starlings were in the upper two-thirds of the glen, as were Skylarks and Meadow Pipits.

Table 3. Waders

| | Relative abundance (% of population) | | |
|------------------|--------------------------------------|-----------------------|-----------------------|
| | 1905 (159 records) | 1973 (413 records) | 1974 (401 records) |
| Oystercatcher | 0 | 6.3 | 10.3 |
| Lapwing | 64.8 | 71.9 | 63.3 |
| Golden Plover | 0 | 0.5 | 0.5 |
| Snipe | 0.8 | 2.4 | 2.0 |
| Woodcock | 0 | 0.5 | 0.8 |
| Curlew | 10.7 | 6.3 | 8.8 |
| Common Sandpiper | 13.8 | 5.8 | 6.0 |
| Redshank | 10.1 | 6.3 | 8.8 |
| Total % | 100.0 | 100.0 | 100.5 |

Waders (table 3)

There are no notable differences between 1973 and 1974. In all counts the Lapwing forms about two thirds of the total wader population but the striking feature is the total absence of the Oystercatcher in 1905. Although still common the Common Sandpiper is significantly less frequent in the 1973/4 list.

All species were markedly more abundant above Trochrie.

Table 4. Miscellaneous species

| | Numbers recorded | | |
|--------------------------|------------------|------|------|
| | 1905 | 1973 | 1974 |
| Mallard | 1 | 14 | 10 |
| Moorhen | 1 | 2 | 4 |
| Lesser Black-backed Gull | 0 | 4 | 0 |
| Black-headed Gull | 0 | 152 | 70 |
| Stock Dove | 0 | 3 | 0 |
| Woodpigeon | 0 | 90 | 107 |
| Cuckoo | 43 | 1 | 6 |
| Swift | 0 | 9 | 11 |
| Swallow | numerous | 40 | 27 |
| House Martin | numerous | 28 | 18 |
| Sand Martin | two colonies | 2 | 1 |
| Dipper | 2 | 6 | 5 |
| Starling | innumerable | 335 | 67 |
| House Sparrow | innumerable | 11 | 21 |

Numbers of other species—Macintosh: Corncrake (5); Henty (1973 total first): Heron (1/1), Goosander (1/3), Buzzard (0/1), Kestrel (3/2), Red Grouse (5/3), Black Grouse (17/1), Partridge (1/4), Pheasant (8/3), Common Gull (1/6), Common Tern (1/4), Carrion Crow (7/5), Rook (2/21), Jackdaw (22/19).

Miscellaneous (table 4)

Woodpigeons and Black-headed Gulls were common in 1973 '4 and not recorded in 1905. Macintosh knew both species

well around Dunkeld and there is no reason to suppose he deliberately omitted them from the Strathbraan notes. Sand Martins and Cuckoos are clearly far less common in the 1973/4 lists. My larger numbers of Mallards and Jackdaws were from encounters with flocks so the apparent differences are not reliable. The apparent fall in House Sparrow numbers since 1905 may be real, although Macintosh may likewise have found only one or two large flocks.

Discussion

There are several reasons that singly or together could account for the observed differences between the 1905 and 1973/4 lists.

1. Different biases in the census methods.
2. Systematic changes in habitat.
3. Short term effects on the particular years so that the censuses are not characteristic of the periods around 1905 and 1973/4.
4. True long term changes in species distribution and numbers.

Macintosh knew Strathbraan well and took a special interest in bird calls (Coates, loc. cit.). This makes it unlikely that he would have missed species that appear, though scarce, only on my list. The larger numbers of waders, game birds, Skylarks and Meadow Pipits in my census suggest that I spent more time in open country. However since the analysis takes such categories separately this possibility has no effect on the significance of the differences already mentioned. In *A Fauna of the Tay Basin and Strathmore* Harvie-Brown mentions that in Macintosh's July list there appeared family parties and that these were given the value of one to keep equivalence with previous encounters with, for example, single singing males. Having made two counts before seeing Harvie-Brown's account I had a different procedure, scoring all adults plus an extra unit for the juveniles. By good chance such clear cut parties were rare in my census and the comparison will not be much biased since I am comparing differences in percentage frequency of a species as a proportion of the total group of species (not actual numbers recorded).

There are no systematic effects ascribable to some species having ceased song. Thus there were fewer Blackbirds in 1973/4 but this is a conspicuous species in other ways and I recorded as many Song Thrushes and more Robins than Macintosh although both species had finished singing. Dr W. J. Eggeling (pers. comm.) confirms for 1973/4 the absence of Wood Warblers and scarcity of Tree Pipits in Strathbraan from observations scattered over the whole spring, whilst of the

other decreased species Yellowhammers are still in song and Whitethroats are quite active and conspicuous late in the breeding season.

Habitat changes have probably been much less in Strathbraan than in many areas since afforestation with conifers started long before 1900. Thus in 1817 Sir Bourlier Wrey, approaching Dunkeld from the west (presumably along Strathbraan), viewed "a whole range of mountains covered with Larch Fir principally and many other trees of infinite variety" (quoted in Anderson 1967, pp 171-172). These were largely mature but Anderson also mentions a report in 1823 of plantations around Dunkeld amounting to 11,000 acres.

Mr H. Boase (pers. comm.) commented on the absence of dramatic habitat changes in this century and I have found conifer stumps in the upper glen that were probably moderately grown plantations in Macintosh's time. Besides this, the present day oakwoods and tall conifer woods were certainly mature or well grown in 1905 whilst other woods of birch and conifer must have been in scrub stage at the turn of the century.

The most important short term effect could be a severe winter that would affect Wren, Robin, Goldcrest, Coal Tit and Blue Tit, a group of species absent or scarce in the 1905 count. There is in fact no clear cut evidence for this. Thus Macintosh documents the excessively severe winter of 1894-95 but this cannot be expected to have any more effect on 1905 than the 1963 winter on 1973. Taking average monthly temperatures for Edinburgh, February 1904 was cold and February 1902 very cold. However there was one cold winter month in 1970 and a very cold one in 1969. Hence the winters immediately before 1905 were only slightly more severe than those before 1973. The same applies to March temperatures. Harvie-Brown frequently remarks on the "almost arctic" springs and early summers of 1902, 1903 and 1904 but it is not clear why these should not also have affected summer migrants. There is no clear and direct evidence that this group of resident species was scarce nationally or regionally at the turn of the century. Only the facts that central Perthshire (e.g. Faskally) averages $\frac{1}{2}$ -1°C less than Edinburgh in monthly winter temperatures, allowing for a more severe effect of nationally moderately cold winters, and that during the period 1860-1890 severe winters were nationally more frequent (Lamb 1965) give support to the hypothesis that weather affected small resident species in Strathbraan at the turn of the century.

There remains a number of cases where change in relative frequency of a species can be ascribed to genuine changes in species abundance independent of habitat changes. These are decreases in Common Sandpiper, Whitethroat, Wood Warbler,

Table 5. Some status changes in Strathbraan 1905-1973/4 compared with status in Perthshire 1906 and Britain to 1973

| | Strathbraan 1905-1973/4 | Perthshire 1906 (Harvie-Brown) | Britain to 1973 (Parslow) |
|-------------------|------------------------------------|---------------------------------------------------------|---------------------------------------------------|
| Oystercatcher | Marked increase | On every <i>main</i> river. | Marked increase in N. Britain. |
| Common Sandpiper | Decrease | Common over whole area. | Local decrease N. Perth (H. Boase). |
| Black-headed Gull | Marked increase | Almost rare in minor valleys. | Probable increase. |
| Woodpigeon | Marked increase | Abundant, not so numerous as formerly. | Great increase 19th century, gradual since. |
| Cuckoo | Probable decrease | In 1905 unusual abundance in all valleys of S.W. Tay. | Widespread decrease England since 1950. |
| Tree Pipit | Decrease | In 1905 <i>less abundant than usual</i> in Strathbraan. | Increase N. Scotland, local decreases in England. |
| Wood Warbler | Decrease | Numbers breed about Dunkeld (Millais). | Decreases in England. |
| Whitethroat | Decrease | Very abundant up to Dunkeld. | Great decrease after 1968. |
| Willow Warbler | Possible decrease | Swarms. Universal in distribution. | Local decreases in S. England. |
| Redpoll | Increase | Occurs Pitlochry and Loch Tay. | Irregular changes - overall increase. |
| Yellowhammer | Decrease | Second in abundance to Chaffinch. | Perhaps general decrease. |
| Reed Bunting | Increase | Somewhat local, visible decrease. | Probable general increase. |

Tree Pipit and Yellowhammer (and probably Sand Martin) and increases in Oystercatcher, Black-headed Gull, Woodpigeon, Reed Bunting and Redpoll. Table 5 shows that many of these cases are local examples of national trends either over much of this century (notably Oystercatcher, Black-headed Gull and Redpoll) or recently (Whitethroat). In addition Mr Boase tells me that the relative decline of Yellowhammer and increase in Reed Bunting is typical of his experience in south-east Perthshire. With comparisons spaced so widely in time it is quite

possible for some species to have changed in, say, 1920-50 and then returned to the previous level; however, there is no direct evidence of this.

It is finally interesting to note that these counts have picked up the dramatic spread of Green and Great Spotted Woodpecker and the loss of Corncrake. By contrast they demonstrate the survival of populations of locally scarce species such as Redstart, Wheatear and Whinchat. However the main use of counting and doing arithmetic is to investigate more systematically the fortunes of fairly common species where changes are usually of degree or extinctions purely local.

Charles Macintosh has been so much part of this investigation that some word of his range of accomplishment seems appropriate. His independence of judgement and breadth of knowledge form a striking contrast to the essentially local sources of his observations. He was very well aware of the partial migrant status around Dunkeld of Pied and Grey Wagtail, Meadow Pipit, Skylark, Song Thrush and Reed Bunting. He recorded in 1905 the first local brood of Goosanders and in 1915 the first winter residence of flocks of Black-headed Gulls. More remarkably he achieved a detailed knowledge of local fungi, mainly after his retirement with pleurisy, and amongst forms requiring microscopical examination discovered several new to Britain and even to science. It is typical of Macintosh's persistence that he bought a good microscope at the end of his working life as a postman during which 32 years his wage never rose above fourteen shillings a week. His work in natural history and his part in a string band continued until his death in 1922.

Acknowledgments

First to the imagination of Harvie-Brown in suggesting and the enthusiasm of Macintosh in carrying out the 1905 census. Mr J. A. Plant and other members of the Meteorological Office at Edinburgh, the SOC staff and Miss Peters of the Nature Conservancy were all most helpful with references. Conversation with the late Mr H. Boase was of the greatest help in putting my results in perspective and Dr W. J. Eggeling was also most encouraging.

Summary

Counts of birds in Strathbraan (Perthshire) are compared for 1905 and 1973/74. Of about 40 species where information is adequate there is good evidence that eleven species are relatively more and eight relatively less frequent in the 1973/4 community. Increases were marked in some species that feed in open agricultural land (Woodpigeon, Black-headed Gull, Oystercatcher) and small resident passerines of scrub and woodland. Most decreases affect long distance migrants (Wood Warbler, Tree Pipit, Whitethroat, Sand Martin, Cuckoo, Common Sandpiper). Reed Bunting seems to have partly replaced Yellowhammer.

Many of the changes are local examples of national trends. It is argued that local changes in habitat have been small and not primarily responsible for the observed changes in abundance of passerines.

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Addendum

In the Discussion I made the point that forestry had a long history in the area. However I did not pursue this aspect of ecological history or extend the discussion to agricultural land. Since that article was written I have inspected the official agricultural statistics for the parish of Little Dunkeld which is essentially the area in which the transects were done.

There is, surprisingly, no increase in the total amount of arable land (1,810 (1905) to 1,430 acres), although there is the expected shift from oats to barley. Sheep show little change in numbers (22,700 to 25,100), but there has been a large increase in cattle (720 to 2,475), probably largely in beef cattle, though the figures are not strictly comparable in detail. There has been little change in the acreage of mowing grass, pasture or rough grazing. The statistics suggest a great decrease in the amount of woodland since 1905 but this is certainly an artefact due to a shift in the method of collecting the figures. Inspection of six-inch and one-inch to the mile Ordnance Survey Maps for 1869, 1907 and the present day show no marked change in the extent of either plantations or scrubby birch woods. One small plantation marked for 1907 is absent from the 1869 and present maps and on the ground the area is covered by very old tree stumps. Hence this range in maps is demonstrably accurate in tracing the recent history of one small and transient plantation and presumably is certainly reliable for the larger areas.

It therefore seems certain that the many changes in relative abundance of both woodland birds and birds of open farmland have taken place in the absence of dramatic changes in land use. The striking changes in local distribution of Oystercatcher, Woodpigeon and Black-headed Gull seem to lag behind the occurrence of the apparently suitable ecological

The breeding birds of Crom Mhin, Loch Lomond

GEOFF SHAW

Introduction

During 1974, the Nature Conservancy Council commissioned a survey of the birds breeding on part of Crom Mhin, a low lying area of wet ground situated on the south-east shore of Loch Lomond, by the mouth of the Endrick Water (fig. 1). The study plot, comprising 21 hectares, was bordered to the north and west by sandy shorelines, and both the eastern and southern boundaries were large drains. At the time of the visits, both of the latter held still water and were largely choked with aquatic vegetation. The entire area was open to grazing by around forty head of cattle, but grazing pressure was concentrated on the drier parts away from the drains.

Two-thirds of the plot was damp and low-lying, being covered by rushes *Juncus effusus* and *Carex* reedswamp on the eastern side. The remaining ground, slightly higher, consisted primarily of grazed *Agrostis/Festuca* grass sward. The higher vegetation layers were virtually absent; a few isolated, small willows *Salix* spp grew in those parts which, presumably, were sufficiently damp and unsound to discourage grazing. On the dry western edge were small thickets of Gorse *Ulex europaeus* and a very few stunted Hawthorns *Crataegus monogyna*. Overall, the simple vegetation structure was consistent with a history of grazing and occasional flooding.

Methods

Census work took place throughout May and June; some 20 hours were spent over six field excursions on mapping birds. The mapping technique used was that described by Williamson (1964) and now employed annually for the Common Bird Census of the British Trust for Ornithology. Only those birds considered to be breeding on the study plot were included in the analysis of the bird community. The area was also much used by transient birds throughout the study period, and the importance of this factor was considered separately (Shaw, 1974).

Results

It was found that 97 pairs of 17 species were breeding on Crom Mhin during the study period, giving a density of 465 pairs per square kilometre (186 pairs per 100 acres). The table

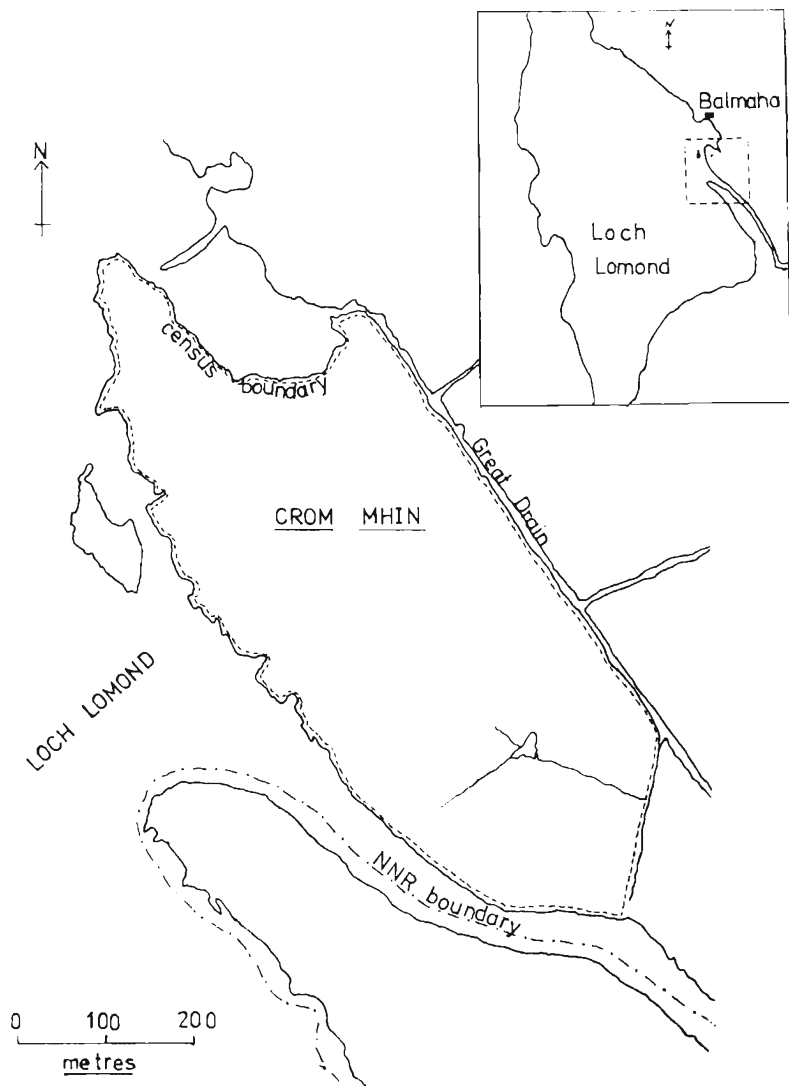


FIG. 1. The south-eastern shore of Loch Lomond, showing the mouth of the Endrick Water and the census area of Crom Mhin.

details the numbers and densities of individual species; fig. 2 shows the relative abundance of each as a percentage of the total number of pairs.

Table. The breeding bird community at Crom Mhin, Loch Lomond in 1974

| | Number of pairs | No. pairs per sq km |
|---------------------|--------------------|------------------------|
| Ducks | | |
| Mallard | 9 | 43.1 |
| Shoveler | 3 | 14.4 |
| Teal | 2 | 9.6 |
| Wigeon | 1 | 4.8 |
| Rails | | |
| Water Rail | 1 | 4.8 |
| Moorhen | 1 | 4.8 |
| Wading birds | | |
| Lapwing | 13 | 62.3 |
| Redshank | 8 | 38.3 |
| Snipe | 5 | 23.9 |
| Curlew | 2 | 9.6 |
| Oystercatcher | 2 | 9.6 |
| Passerines | | |
| Skylark | 19 | 91.0 |
| Reed Bunting | 14 | 67.1 |
| Sedge Warbler | 12 | 57.5 |
| Meadow Pipit | 2 | 9.6 |
| Carrion Crow | 2 | 9.6 |
| Pied Wagtail | 1 | 4.8 |
| Overall | | |
| Community Total | 97 | 464.8 |

Discussion: Community Structure and Habitat

As an area of uniformly structured damp vegetation Crom Mhin provided relatively few feeding niches for birds. Hence the species diversity was low: four species made up 60% of all birds present and six species comprised 77%. The few passerine species (six species or 30% of the total number of species) was a reflection of this uniform habitat. A comparable survey of woodlands might show 80% of the species to be passerines (e.g. Williamson 1974).

The existence of permanently wet ground favours those birds that can enter water and probe wet substrates for food. Wading birds, therefore, comprised 31% of the bird community, as well as representing the greater part of the transients. As a breeding ground for waders the area was exceptionally good, since food availability was not liable to fluctuations in summer droughts. Other probers, including such species as

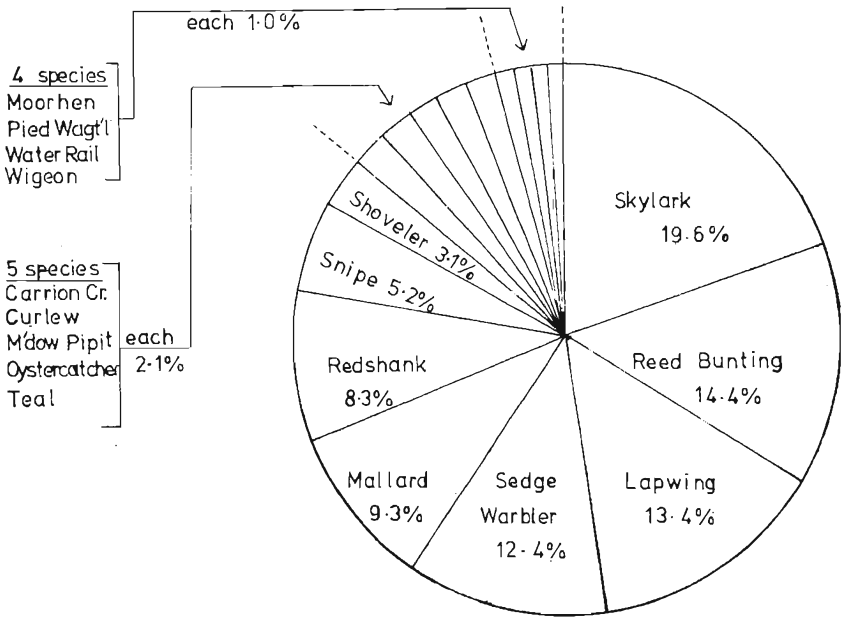


FIG. 2. Relative abundance of species in the breeding bird community at Crom Mhin, Loch Lomond, in 1971.

Starling *Sturnus vulgaris* and several corvids, came into the habitat to feed, increasing in numbers once their own breeding season was past. The small area of standing water supported a breeding duck population equivalent to 15% of the community; all were surface feeders, since the depth of water was nowhere sufficient to allow diving ducks to operate. Even so, in terms of biomass the duck component dominated both passerines and waders.

Passerines

The Skylark *Alauda arvensis* was the dominant species on the plot (fig. 2), totalling about one fifth of all birds present and breeding at a density of 91 pairs/sq km. Voous (1960) gives "natural and cultivated grassland, mainly on not too dry ground" as the habitat of this species. It would seem that Crom Mhin provided near optimum conditions and the density recorded is comparable with the highest published densities—which occurred on wetlands in eastern England (Williamson 1967,

Cadbury 1972). The BTO Common Bird Census has shown up to 61 pairs/sq km on grazed pasture in northern England (Robson and Williamson 1972), falling to less than 20 pairs on a similar unit of arable land.

The scarcity of the Meadow Pipit *Anthus pratensis* compared to the Skylark was perhaps unexpected, as the preferred habitat was specified by Voous as "marshy, rather dry grasslands and meadows . . . where there is an abundance of grass". In Britain the two species co-dominate most grassland habitats (Lack 1935), but there is accumulating evidence that the Skylark appears to be at an advantage on low-lying wet ground, especially where flooding is frequent (Greenhalgh 1971, Williamson, Idle and Mitchell 1973). It may be that the more omnivorous diet of the Skylark enables it to exploit seed stocks on Crom Mhin in the spring, when floods have recently receded, whereas such food would be unavailable to the invertebrate-feeding pipit. By utilizing seeds—possibly *Juncus*—the lark would be able to settle in early spring at a density higher than that expected on grass muir. It would appear that the Meadow Pipit is at a disadvantage in a *Juncus*-dominated habitat, where foliage-feeding invertebrates are very scarce in spring, despite its reported preference for wet ground. Conversely, those passerines that can take seeds may breed at high densities in such habitats. In this context it is interesting that the Reed Bunting *Emberiza schoeniclus* takes a large proportion of its winter diet in seed form. It takes up its breeding territories in early spring, and breeds at a high density on Crom Mhin. The Sedge Warbler *Acrocephalus schoenobaenus* arrives some six weeks later than the foregoing species. By this time, insect food is more plentiful and the birds are able to settle relatively densely despite having a non-gramnivorous diet.

Absent from the area in 1974 were the Whitethroat *Sylvia communis* and the Grasshopper Warbler *Locustella naevia*. Both have bred in the past (J. Mitchell *in litt.*); the crash of the former species is well known, and the latter may be attributable to random variations in a small population. The single pair of Pied Wagtails *Motacilla alba yarrellii* was entirely dependent upon timber washed up by winter floods for a nest site. Two pairs of Carrion Crows *Corvus corone corone* nested.

Non-passerines

Non-passerines formed 30% of pairs breeding on Crom Mhin, and accounted for most of the species diversity (12, or 70%, of 17 species). Of these, the Lapwing *Vanellus vanellus* was a sub-dominant in the bird community (fig. 2), with the Mallard

Anas platyrhynchos and the Redshank *Tringa totanus* being the next most important species.

The Moorhen *Gallinula chloropus* was surprisingly scarce, with only a single pair, while it was good to find the Water Rail *Rallus aquaticus* still successful. Its occupation of Crom Mhin seems well established—there is a record of a pair with chicks in May 1957 (*Scot. Birds* 1: 65). At least 15 pairs of ducks bred; the Mallard nested throughout the rushes, and several females retained their broods in this shelter—as did the Teal *Anas crecca*. No evidence of breeding was obtained for Wigeon *Anas penelope*, although a pair was present in a restricted area of the marsh from early May onwards. The first breeding of this species at Crom Mhin was noted in 1954 (per J. Mitchell).

Three pairs of Shoveler *Anas clypeata* was a high total in so small an area. The species is scarce or absent from much of mainland west Scotland (Yarker and Atkinson-Willes 1971), and the Endrick Mouth must be considered important for the bird in this part of its range. The chasing flights of the drakes was a conspicuous feature of Crom Mhin for a brief period in April and early May.

Of the waders, the high density of the Lapwing was attained because a wide habit tolerance allowed the species to utilize the whole area. By contrast, the Oystercatcher *Haematopus ostralegus* was restricted to the grazed sward and its future presence would appear to be dependent upon the continuance of grazing. Only the Snipe *Gallinago gallinago* was confined entirely to the cover of the rushes, but the two remaining species, Curlew *Numenius arquata* and Redshank, showed a clear preference for this retreat. For the latter species, the mosaic of rushes and sward provided an excellent habitat and the density was high; by comparison, Greenhalgh (1971) recorded 22.5 pairs per sq km on natural saltmarsh in Lancashire, while Cadbury (1972) reported densities between 38 and 62 pairs on the same unit area on the Ouse Washes.

Population density

In relation to other grassland systems, Crom Mhin, with 465 pairs of birds per sq km, holds a rich breeding population. A BTO survey of the Ring Point, situated on the opposite bank of the Endrick Mouth (fig. 1), recorded 270 pairs per sq km on somewhat drier terrain (Williamson, Idle and Mitchell 1973). Robson and Williamson (1972) found 214 pairs per sq km on a substantially grassland farm in Westmorland, while a Dorset dairy farm held 440 pairs per sq km (Williamson 1971). On grass muir the density of birds is considerably lower; Lack (1935) recorded 70 pairs per sq km in Galway and 85 pairs per

sq km in Shetland, and Hope-Jones (1974) estimated 50 pairs per sq km on Welsh moorland before afforestation. Glue (1971) found that density declined during saltmarsh reclamation from 106 pairs per sq km but that it increased to 157 pairs per sq km once non-saline grassland had become established.

Several factors may contribute to the high bird density on Crom Mhin; the presence of cover adjacent to good, permanently wet feeding ground would seem to be important. Most crucial, however, may be the regular flooding, which creates aquatic, semi-aquatic and damp pasture feeding and nesting areas, and provides a regular flushing with nutrients and detritus. These habitat characteristics therefore encouraged both the abundance and the coexistence of ducks, waders and passerines within a relatively small area.

Acknowledgments

I am indebted to the Nature Conservancy Council for commissioning and financing a study of Crom Mhin, and for permitting me to publish the results; a more detailed report is lodged with the Council. Fig. 1 is based upon a map of the Loch Lomond Nature Reserve, published on behalf of the Nature Conservancy by the University of Glasgow (1972). Amongst NCC staff, thanks are due in particular to E. T. Idle (Deputy Regional Officer for South West Scotland) and J. Mitchell (Senior Reserve Warden at Loch Lomond).

It is my pleasure to thank Dr David Bryant, of the University of Stirling, and John Mitchell for their kindness in reading through and commenting upon earlier drafts of this paper.

Summary

A study of a wetland breeding bird community at Crom Mhin, Loch Lomond, recorded 97 pairs breeding on 21 hectares (465 pairs per sq km = 186 pairs per 100 acres). 17 species were present, of which 6 made up 77% population; ducks, waders and passerines were well represented. The Skylark dominated the community and a possible reason for its high density was a competitive advantage in diet. The nature of the habitat was diversified by grazing, impeded drainage, and flooding, with a consequent increase in bird density and diversity over more uniform grassland habitats.

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Isle of May Bird Observatory and Field Station Report for 1974*

Prepared for the Observatory Committee
by J. M. S. ARNOTT, Honorary Secretary

The observatory was manned for a total of 196 days (slightly down on 1973) between 16th March and 30th October, and from 14th to 29th December. Some cover was provided during gaps in Observatory occupation, however, by other observers present on the island.

Migration was fairly low-key in both spring and autumn, with only one big rush in the year which occurred at the end of April, but there was an interesting variety of species, particularly in the autumn. This included Dotterel†, Icterine Warbler, Greenish Warbler, Yellow-breasted Bunting, Rustic Bunting and Little Bunting. No new species for the island was recorded in 1974, but the ringing-list had one first, a Woodpigeon. The highest ringing total for one species (1,350) was not surprisingly for the Puffin, which continued to be the subject of a major research programme. Other activities included the third annual stage of the major cull of gulls in May, which brought down the population of Herring Gulls and Lesser Black-backed Gulls from about 16,000 to about 6,000 birds. Although one pair of Common Terns nested in 1973, the first since the massive increase in gull numbers, there was no tern nest in 1974. A large number (88) of Great Black-backed Gulls was ringed, as well as waders, over the Christmas period.

*Reports from 1958 have been published annually in *Scottish Birds*.

†Scientific names will be found in *The Birds of the Isle of May* by W. J. Eggeling (1974), Special Supplement to *Scottish Birds* volume 8.

Spring Migration

The observatory was manned from 16th March to 6th June except for 20th-26th April and 29th April-3rd May, although there was other observer cover on the island.

March-April There were easterly winds for most of the second half of March producing a steady trickle of birds, mostly thrushes and Meadow Pipits, but including Sparrow-hawks on the 18th and 20th and only the fifth record of a Raven, also on the 18th. Fresh south-east winds and poor visibility brought in the first Wheatear on the 23rd and the following three days of similar conditions saw a moderate fall of migrants, including 170 Meadow Pipits, a Great Grey Shrike, the first Ring Ouzel, thrushes, chats and finches. The first sightings of some early migrants were :

22nd March—first Wheatear
24th March—first Black Redstart
26th March—first Ring Ouzel
11th April—first Chiffchaff
18th April—first Willow Warbler
22nd April—first Swallow
28th April—first Redstart and Spotted Flycatcher
29th April—first Blackcap and Pied Flycatcher

Southerly winds at the end of March saw the departure of most migrants and few arrivals. The first two days of April brought three Woodcocks, some thrushes, Stonechats and Bramblings, and another Great Grey Shrike. Fog came down on the 2nd and settled in for the next eight days, becoming so thick that observation was severely hampered, though the light south-easterly wind was certainly bringing in migrants. Woodcock and Golden Plover were among those seen on the 6th, Siskin on the 7th, and Rook on the 9th. The visibility cleared on the 11th with a small movement, including Chiffchaff, and continued in light easterly airs until the 19th. Among the thrushes, Wheatears and Goldcrests there was the first Willow Warbler and a Black Redstart on the 18th and another Black Redstart on the 19th. After the break in observer cover the 27th was still quiet, but the fresh easterly wind and poor visibility that night and on the 28th brought in a good variety of migrants, including 3 Wrynecks, 10 Ring Ouzels, 30 Wheatears, 30 Robins and a few Dunnocks, wag-tails, Bramblings, and Reed Buntings. The good conditions for receiving migrants continued, and it is unfortunate that once again the Observatory was not manned from 29th April to 3rd May, this time during the biggest fall of the year. Other observers on the island reported over 3,000 Fieldfares on the 30th, together with about 300 Redwings, more than 20 Ring



PLATES 24-27. Unusual nest of Redshank/Snipe (pages 382-383).

Photographs by Alex Tewnton

PLATE 24 (above). The nest with Redshank and Snipe clutches. The four Redshank eggs are in the centre; two of the Snipe eggs are in front and the other two are behind.

PLATE 25 (over). Redshank using bill to manoeuvre eggs under her body.

PLATE 26 (over). The Redshank never succeeded in incubating all eight eggs simultaneously.

PLATE 27 (over). Undisturbed by hide and camera lens, the Redshank drowzes while incubating.







Ouzels and 50 Wheatears. There were also 50 Robins, 30 Dun-nocks, 2 Pied Flycatchers and a Spotted Flycatcher. The only warblers were 6 Willow Warblers.

May The arrivals at the end of April were supplemented for the first two or three days, and then succeeded by a steady trickle of migrants throughout May, a month of generally light winds and good visibility. First sightings of migrants for the year in May included :

1st May—first Whinchat

2nd May—first Grasshopper Warbler

3rd May—first Lesser Whitethroat

11th May—first Whitethroat

12th May—first House Martin

13th May—first Sedge Warbler and Garden Warbler

15th May—first Sand Martin

Almost all the 3,000 Fieldfares departed on the 1st, but about 800 others came in on the 2nd, together with about 500 Blackbirds, and small numbers (under 50) of Song Thrushes, Redwings and Ring Ouzels. Apart from a single Grasshopper Warbler, Willow Warblers (12) were still the only warblers observed in the movement.

The small-scale migration of the rest of the month included the first Lesser Whitethroat on the 3rd, a Corncrake and a Short-eared Owl on the 6th, a Whimbrel on the 7th and a minor fall of Blackcaps, Lesser Whitethroats and Willow Warblers, 4 Redpolls and a Goldfinch on the 9th. The east wind increased to fresh on the 10th bringing in a few Fieldfares, Whinchats and warblers, including 10 Lesser Whitethroats, and also a Cuckoo and only the second spring record of a Greenshank. Another scarce visitor to the May, a Nightingale, with only about a dozen records, turned up on the 12th, as well as 5 Swallows. The Swallow migration continued to the 9th June, with 3 to 10 birds each day, apart from the 20th May with 20. Whitethroats were seen on only nine days in the middle of the month with a maximum number of only 4 in a day. The other warblers continued to trickle through during the month, with single Redstart, Black Redstart and Spotted Flycatcher, 4 Collared Doves and 6 Jackdaws on the 14th, 3 Tree Sparrows on the 16th, and on the 18th a Blue-throat in full song, followed the same day by a Rustic Bunting. The low-key migration throughout May continued into June, petering out after about ten days. Though it is among the least likely months for its occurrence, June saw 3 Manx Shearwaters on the 22nd.

Autumn migration

With the exception of 13th-15th August, there was continuous cover from the 5th of that month to 31st October, the last observers being stormbound for five days.

August The first half of August had light easterly winds for the most part, with clear skies and hot sunshine. There was very little movement, but the 6th saw the arrival of a Dotterel, only the eighth autumn record, and the 7th produced 3 Kestrels. The 9th saw the departure of most of the breeding Puffins. The trickle of migration (Swallows, Wheatears, Willow Warblers, terns, waders) increased on the 14th as the wind went round to the west, with the first returning Goldcrest that day, first Spotted Flycatcher on the 16th, Robin on the 17th, and also on the 17th the first and only Sedge Warbler. Other autumn firsts were:

- 1st August—first Willow Warbler
- 4th August—first Whinchat
- 10th August—first House Martin
- 18th August—first Pied Flycatcher
- 21st August—first Garden Warbler and Whitethroat
- 29th August—first Fieldfare
- 30th August—first Blackcap
- 2nd September—first Sand Martin
- 7th September—first Chiffchaff
- 25th September—first Redwing

A wader count on the 19th showed that the Turnstone numbers had built up to about 300, with 100 Purple Sandpipers, a Whimbrel and under ten each of Curlews, Redshanks and Oystercatchers. From then to near the end of the month there was fine sunny weather with light westerly winds and only a trickle of migration, as in most of the spring. An Arctic Skua was seen on the 22nd, one of only two in August. There was a small movement of 30 Swallows on the 24th, and on the next three days of Willow Warblers, Spotted Flycatchers, Garden Warblers and Wheatears. The 29th brought fresh south-easterly winds and poor visibility, with the arrival in the afternoon of a few Pied Flycatchers, Garden Warblers and a Tree Pipit, the advance guard of a considerable movement. The same weather conditions prevailed for the next four days, and early on the 30th a Wryneck, a Barred Warbler and a Blackcap were seen. Migrants appeared to be coming in again from about 10.00 hours, and the day yielded 2 Wrynecks, 3 Fieldfares, 10 Wheatears, 10 Whinchats, 1 Icterine Warbler, 2 Barred Warblers, 17 Garden Warblers, 15 Pied Flycatchers and a Red-backed Shrike among others. In spite of overnight fog which continued through the next day, most of these migrants appeared to have left by the morning of the 31st, and there were few new arrivals, although these did include a

second Red-backed Shrike, and 2 more Wrynecks, a Woodcock and a Golden Plover.

September With the south-east wind continuing on the 1st, a steady flow of migrants came in again after 12.00, including a Yellow-breasted Bunting, 3 Icterine Warblers, a Green Sandpiper and a few Garden Warblers, Whinchats and Pied Flycatchers. In mid afternoon 4 Wrynecks appeared and at 18.00 there was an influx of at least 10 Pied Flycatchers, more Garden Warblers and a Yellow Wagtail *M. f. flavissima*—a rather scarce visitor to the May in any race. Both the Pied Flycatcher with 25 and the Garden Warbler with 35 had their peak numbers for the year that day. Most of these birds departed on the 2nd, when the visible migration included 150 Swallows, 10 Sand Martins and 3 Swifts. The day also produced 7 Mute Swans, only the seventh record for the island, and a second Yellow-breasted Bunting.

With the wind going round to the west until the 7th, little migration was seen apart from diurnal passage in small numbers (Swallows, Meadow Pipits, Sandwich and "comic" terns, Knots, Golden Plovers), but a strong south-east wind returned that day, followed by a fall of 75 Willow Warblers, 3 Garden Warblers, the first Chiffchaff, a Blackcap and a Barred Warbler, and at sea a Pomarine Skua. For the next fortnight there were generally westerly winds with a trickle of migration, mostly Willow Warblers, Whitethroats, Goldcrests, Meadow Pipits, Siskins, "comic" terns, Manx Shearwaters (singles usually, 14 on the 25th), but also a Wryneck and a Peregrine on the 9th, 2 Lapland Buntings and a Merlin on the 13th, and on the 15th the second record for the May of the Greenish Warbler.

The first 2 Redpolls arrived on the 23rd (20 on the 28th) and 4 Grey Wagtails were seen flying south on that day, as well as 15 Arctic Skuas and a Great Skua. Sea-watching also produced a Red-throated Diver, and 7 Greylag Geese flying south on the 24th. The season's one sighting of Pinkfeet was on the 29th when about 100 were seen and when the first Barnacle was observed. Also at sea there was a Sooty Shearwater on the 25th and 14 Manx Shearwaters and 8 Whooper Swans on the 26th. There was little passerine migration in the variable weather of the last week of the month, though the first Snow Bunting was seen on the 24th, and Redwings started arriving in small numbers (under 20) on the 25th.

October In 1973 October provided the best fall of the year, but October 1974 was a fairly quiet month for the end of the migration, with no unusual numbers, though some unusual species. During the first twelve days there were cold northerly winds bringing through a trickle of Garden Warblers, Chiff-

chaffs, Redstarts, Redpolls, Lesser Whitethroats, Bramblings, Stonechats, Robins, Ring Ouzels and Mistle Thrushes, all in ones, twos or threes, and larger numbers of other thrushes: Fieldfares (up to 220 on the 13th), Song Thrushes (up to 12 on the 2nd), Redwings (up to 200 on the 7th), and Blackbirds (up to 50 on the 10th). However, the month started colourfully with a Bluethroat and a Yellow-browed Warbler on the 1st and an interesting double on the 2nd: a Red-backed Shrike and a Great Grey Shrike. A single Snow Bunting turned up on the 4th, together with a Woodcock and a rather scarce bird on the May, a Spotted Redshank. Although it occurs regularly in the Forth, it is scarcer on the May, with sixteen records, than Yellow-browed Warbler, which turned up on the 8th again, followed by a third bird on the 9th. This has been recorded prior to 1974 on 36 occasions, with up to 5 in a day. A wader count on 9th October produced 27 Oystercatchers, 1 Golden Plover, 179 Turnstones, 26 Curlews, 39 Redshanks, 145 Purple Sandpipers and 2 Dunlins.

With the wind still from the north-west on the 12th a Little Bunting arrived, not recorded on the May since 1959. Waders that day included a Snipe and a Jack Snipe. The wind backed to west on the 13th, with an interesting passage of 75 Hooded Crows and 48 Jackdaws, and the autumn peak figure for Starlings at 240 and Fieldfares at 220. The light westerlies persisted for several days until the 19th, with small numbers of thrushes coming through each day and a few Chiffchaffs, Blackcaps, Bramblings and Goldcrests. On the 19th the wind strengthened towards the gales which marked the end of the month, and the last Swallow went through. There was a Long-eared Owl on the 22nd, and arrivals on the 23rd included a Merlin, 6 Chiffchaffs, 6 Redpolls and a Brambling. There was little movement from then until the 31st, as the wind increased to a strong, lengthy gale from the north, but 10 Twites, 6 Goldfinches and a Tree Sparrow were observed on the 26th, 9 Whooper Swans and a Sooty Shearwater passed on the 28th, and 13 Snow Buntings flew in on the 30th. Last dates for some autumn migrants were:

- 21st September—last Swallow and House Martin
- 26th September—last "comic" tern
- 28th September—last Sand Martin, Whinchat, Whitethroat and Spotted Flycatcher
- 30th September—last Great Skua
- 3rd October—last Arctic Skua and Pied Flycatcher
- 7th October—last Whimbrel
- 8th October—last Wheatear
- 13th October—last Willow Warbler
- 14th October—last Redstart and Garden Warbler
- 18th October—last Lesser Whitethroat
- 22nd October—last Blackcap
- 1st November—last Chiffchaff

Winter

For the third year running a party from the Tay Ringing Group visited the island in December, on this occasion from the 14th-29th. Using dazzling techniques, they caught and ringed 88 Great Black-backed Gulls (out of about 1,000 present), 30 Purple Sandpipers and 10 Turnstones as well as other species, and obtained retraps. Wader numbers were again little more than half the autumn peaks, with a maximum count of 150 Turnstones on 24th December, and on the same day 29 Oystercatchers, 2 Snipes, 32 Curlews, 27 Redshanks, 89 Purple Sandpipers and a Dunlin. Maximum numbers of other species present each day included: 46 Cormorants, 10 Mallards, 4 Teals, 163 Eiders, about 5,000 Herring Gulls, an estimate of 500 Razorbills and 15,-17,000 Guillemots, 80 feral pigeons, 1 Short-eared Owl, 15 Skylarks, 1 Meadow Pipit, and 40 Twites. A flock of up to 19 Snow Buntings was present from the 23rd-29th.

Unusual occurrences

- Great Northern Diver One, 24th October. Eighth record.
- Pintail One, 30th April. Ninth record.
- Tufted Duck Singles on 8th and 23rd September and 24th-30th October. Seventh to ninth records.
- Pochard One male, 8th September. Eighth record.
- Goldeneye One, 5th-20th May and one 3rd June. First records for May and June.
- Red-breasted Merganser Eight, 23rd September. Most in a day.
- Canada Goose One, 2nd June. Sixth occurrence, and first for June.
- Dotterel One, 6th August. Tenth occurrence.
- Greenshank One, 10th May. Second spring record.
- Arctic Skua One, 3rd June. First June record.
- Raven One, 18th March. Fifth occurrence.
- Hooded Crow 75, 13th October; and 80, 14th October. Unusually high numbers.
- Jackdaw 48, 13th October; and 31, 14th October. Most in a day.
- Fieldfare 3,000 30th April. Most exceptional spring figure.
- Nightingale One, 12th May. Scarce.
- Greenish Warbler One, 15th-19th September. Second record.
- Yellow-browed Warbler At least three birds in October.
- Goldfinch One, 29th March. First March record.
- Yellow-breasted Bunting One 31st August and 1st September. Two, 2nd-5th September. First occurrence of two birds.
- Rustic Bunting One, 18th May. Seventh record.
- Little Bunting One, 11th-12th October. First since 1959.

Breeding population

Once again most of the breeding populations were counted or estimated, thanks to several observers, and particularly Hector Galbraith. His figures in June show some fluctuations from those in June 1973, with a number of decreases set against the upward trend of several species on the island. The

totals for 1974, with those for 1973 in parentheses and the percentage differences from 1973 are as follows :

Fulmar 91 pairs (68) Up 33%
Shag 979 pairs (1,130) Down 13%
Kittiwake 3,059 pairs (3,450) Down 8%
Razorbill 451 pairs (482) Down 6%
Guillemot 4,315 pairs (3,697) Up 14%

The estimated numbers of breeding gulls in May before the third major cull was about 8,000 pairs of Herring Gulls and Lesser Black-backed Gulls. Over 100 pairs of Eiders nested (88 nests found) as in 1973, and Oystercatchers at 15 pairs were also at the same level. Puffins are notoriously difficult to count, but the population of several thousand pairs certainly did not appear to have diminished. Among the smaller birds, an estimated 43 Rock Pipit males were holding territories. Although one pair of Common Terns nested in 1973, the first since 1957, there was no tern nest in 1974.

Ringling and recoveries

The ringing total of 4,405 birds (1973 4,000) comprised 77 species. By far the highest figure was for Puffins (1,350), a third up on the previous year's record number. Other record figures were for Eiders (16), Oystercatchers (19), Great Black-backed Gulls (88—the previous grand total 101), Fieldfares (37), Stonechats (11), and Meadow Pipits (108). The total of 435 Blackbirds was the highest for about twenty years, and Wry-necks at 14 had their second-highest annual figure. A single Woodpigeon was the only new addition to the ringing list.

There was a total of 145 recoveries of 16 species, excluding gulls from the cull. The largest numbers were 70 for Shags and 53 for Herring Gulls.

The foreign recoveries were as follows :

| | | Ringed | | Recovered |
|--------------|------|----------|----------|-------------------------------------|
| Herring Gull | Pull | 17. 6.66 | 10. 6.74 | Den Helder, Netherlands. |
| Herring Gull | Pull | 10. 7.73 | 27. 6.74 | Hanstholm, Jutland, Denmark. |
| Song Thrush | PJ | 5.10.71 | 20. 4.74 | St Cevan, Bouin, Vendie, France. |
| Blackbird | Ad ♂ | 6.11.71 | 1. 5.74 | Naas, Eide, More & Romsdal, Norway. |
| Blackbird | Ad ♂ | 29.10.69 | 14.10.74 | Ytre Arna, Haus Hordaland, Norway. |
| Chaffinch | Ad ♀ | 21. 4.73 | 13. 4.74 | Ore Lista, V. Adger, Norway. |

Other recoveries included controls of Pied Flycatcher at Spurn Point, and Garden Warbler at Kettering. The only

two Puffin recoveries were in spring on the English north-east coast. The adult Herring Gull in the Netherlands in June is interesting. Purple Sandpipers and Oystercatchers ringed on the May were controlled at Fife Ness, and vice versa. Controls of birds ringed elsewhere included:

| | Controlled | | Ringed | |
|---------------------------|------------|----------|----------|-----------------------------------|
| Sparrowhawk | 27. 4.74 | Pull | 26. 6.71 | Lydum Plantage, Jutland, Denmark. |
| Purple Sandpiper | 22.12.73 | FG | 22. 8.68 | Revtangen, Klepp, Norway. |
| Greater Black-backed Gull | 19.12.74 | Pull | 26. 6.74 | Calf of Eday, Orkney. |
| Kittiwake | 6. 7.74 | Pull | 25. 7.68 | Hermaness, Unst, Shetland. |
| Kittiwake | 14. 6.74 | Pull | 29. 6.68 | Farnes. |
| Blackbird | 26.12.73 | 1st yr ♂ | 8. 9.73 | Hirviermps, Harne, Finland. |

Management and research

Gull control and research The third annual stage of the primary cull of Herring Gulls and Lesser Black-backed Gulls was carried out by Nature Conservancy Council staff at the end of May. At this time the breeding population in the areas treated was, as expected, about 14,000. By means of carefully placed bait containing drugs, about 9,000 gulls were painlessly killed. The previous cull totals were 16,000 in 1972 and 10,500 in 1973. This means that the combined breeding population of these two species, which in 1947 numbered about 850 pairs and which then increased by 1972 to about 17,500 pairs, has now been reduced to the target figure of approximately 3,000 pairs. It is intended that the population should be kept at about this level. The Committee would like to record its thanks to the Nature Conservancy Council and its staff for the expert way in which this large-scale, arduous and often unpleasant task has been accomplished over the last three seasons. The long-term Durham University gull research project was taken over on the island by Neil Duncan, and he continued the studies of nesting behaviour and success.

Puffins The research programme continued into the status and breeding biology of this other species that greatly increased its numbers on the May during the 1960s. Dr M. P. Harris of the Institute of Terrestrial Ecology and his assistants ringed 1,350 Puffins, of which 1,084 were adults and 266 were pulli.

Vegetation Dr Rosalind Smith of the NCC repeated Douglas Sobey's survey of 1973 into the vegetation changes related to the gull cull. Considerable areas of the island had become bereft of plants altogether when the gull numbers were at

their highest, but during 1974 there was a noticeable improvement, with Sea Campion *Silene maritima* flourishing on the south plateau, and vegetation spreading over former bare ground on North Ness and Rona.

Other observations

Dr W. J. Eggeling, who wrote the book *The Isle of May* published in 1960, has written a revised assessment of the status of the island's birds. It was published as a supplement to *Scottish Birds* volume 8, summer 1974, and in addition to a summary of the status of visiting and breeding species of birds, it contains some striking photographs of vegetation changes.

The water situation in the Low Light has been greatly improved through the installation by the NCC staff of two glass fibre water tanks. The building itself was given a major overhaul and redecoration, and thanks are due to those who contributed to this in various ways.

Once again the Conservation Corps visited the island in July and gave valuable assistance by building an extension to the top trap and repairing others.

The Committee was pleased to note that the Principal Lightkeeper on the May, Mr George Robertson, was honoured by the award of the BEM in the New Year Honours List 1975. To him and his staff special thanks are due for their help and co-operation in many ways throughout the year. And the thanks of the Committee and all observers are also due to the boatmen, Mr Smith and Mr Meldrum, for providing such an excellent service.

On a sadder note, the Committee lost one of its longest serving members, and the representative of Glasgow University, through the death of Professor M. F. M. Meiklejohn. The May occupied a special place in his affections and in accordance with his wishes his ashes were scattered on the island by a small party of his island-going friends.

Finally, a note about office-bearers and helpers. With the exception of the Chairman, there was a complete change-around during 1974. J. H. B. Munro retired after serving as Honorary Treasurer for forty years, ever since the start of the Observatory, and during this time he also occasionally held other offices. He is replaced by L. W. G. Alexander. Alastair Macdonald acted as Bookings Secretary for a decade, and did a great deal of work to ensure continuity of observer cover. He handed over to Lynne Arnott at the end of 1974. Gerard Sandeman, who for many years undertook the exacting task of making up the ringing schedules, has handed over to Derek Langslow. And Nancy Gordon has relinquished the

post of Honorary Secretary which she has occupied with such distinction for more than ten years, running the Observatory and its records system with meticulous care and a lot of very hard work. To her, and to the others, all observers travelling to the May owe far more than they know.

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Short Notes

Scottish records of the White-billed Diver

In an important paper (The White-billed Diver in Britain *Brit. Birds* 67: 257-296), David M. Burn and John R. Mather review the British records of *Gavia adamsii* and problems of identification. With the agreement of the Rarities Committee for post-1957 records, they accept 39 individuals up to the end of 1973 and reject no fewer than 32, eight as misidentified Great Northern Divers *G. immer* and 24 as insufficiently substantiated. Thus ends a decade of suspended judgment and doubt about the identification features, and even the validity, of the species. Observers of large divers with pale bills should study this paper.

In breeding plumage, White-billed and Great Northern Divers may be separated on bill colour alone. The problems arise with birds in winter, juvenile and immature plumages, from the variability of those bill characteristics which were at one time thought to be reliable separating features. Great Northern in winter may have very pale bills, sometimes closely approaching the classical White-billed Diver shape; while White-billed Divers, especially young birds but some adults too, may have the typical bill shape poorly developed, lacking the straight culmen and marked gonys angle. Pale primary shafts are an invariable distinction of the White-billed Diver but are difficult to verify in the field unless seen at close range as the bird stretches a wing. Burn and Mather give various points on which to base identification of specimens, but in the field the most striking feature may be the way in which the head is held. The colour of the culmen ridge along the top of the bill is most important: the Great Northern carries its bill horizontally, and the culmen ridge is always dark, even when the rest of the bill is pale; whereas the White-billed never has this dark ridge, and habitually carries its bill pointing upwards some 20 degrees above the horizontal, like a Red-throated Diver *G. stellata*.

Burn and Mather discuss each record and give extensive notes on identification of the species. It therefore seems unnecessary to take up space in this journal with repetitive accounts of the various Scottish sightings and corpses, even though these include many birds for which detailed descriptions have not been published. The 24 accepted Scottish records are listed briefly in the table; the 13 rejected records, including some accepted by earlier authors, are listed in *Brit. Birds* 67:290-293.

Table. White-billed Divers in Scotland

| showing date, faunal division, age, sex where known, plumage and how recorded. | | | | | |
|--------------------------------------------------------------------------------|----------------------------|---------------|---------------------|----------|------|
| 1946 | 21 Jan | Shetland | adult | winter | dead |
| 1947 | 8 June | Shetland | adult | breeding | seen |
| 1950 | early May | Shetland | adult | breeding | seen |
| 1952 | 24 Feb | Angus | adult | winter | dead |
| | 24 Feb | E Lothian | adult | winter | seen |
| | 8 June | Shetland | "adult" | — | seen |
| 1954 | 21 Jan and 4 and 28 Feb | Angus | presumably adult | winter | seen |
| 1955 | 2 Jan | Moray | adult ♀ | winter | dead |
| | 12-17 Nov | E Lothian | adult | winter | seen |
| 1956 | 19 Feb-29 Apr | | | | |
| 1957 | 13 Jan | E Lothian | adult ♀ | winter | dead |
| 1959 | 4-8 Feb | E Ross | adult | winter | seen |
| | 4-11 Feb | E Ross | presumably adult | winter | seen |
| 1961 | 14 May | Fair Isle | adult | breeding | seen |
| 1963 | 7 Apr | SE Sutherland | adult | winter | dead |
| 1964 | 6 June | Shetland | 1st-summer | immature | seen |
| 1965 | 1 Jan | S Fife | adult | winter | dead |
| 1969 | 24 Mar | Aberdeen | adult | winter | dead |
| | 4-7 May | Shetland | adult | breeding | seen |
| 1970 | 16 Jan | E Lothian | 1st-winter | juvenile | dead |
| | 1 Feb | Moray | adult | winter | dead |
| 1971 | 29 May | Fair Isle | adult | breeding | seen |
| | 6-22 June | W Ross | adult | breeding | seen |
| 1972 | 5 Mar-20 May | Banff | adult | winter | seen |
| 1973 | 27 Jan | Bute | adult ♀ | winter | dead |

Note The 1972 bird was seen first on 5 March, not 14 March as stated in *Brit. Birds* 67: 289, 342 (R. H. Dennis pers. comm.; *Scot. Birds* 7: 331).

The 24 accepted records fall between 12th November and 22nd June, the November bird being the only one before January. All but two are from the east coast or from Fair Isle and Shetland. Burn and Mather ascribe the concentration of records in northeast England and southeast Scotland to a continuation across the North Sea of the southwest migration of birds from northern Russia along the coast of Norway. Good evidence of return passage comes from seven Fair Isle and Shetland sight-

ings between 4th May and 8th June, compared with only a single dead bird found there in winter.

Most of the 24 records are of adults, but there is one of a bird in juvenile plumage in January and one of a first-summer bird in June. Those in winter plumage are recorded between 12th November and early May (and an apparently sick bird to 20th May); and those in breeding plumage between 4th May (not quite complete) and 22nd June, with an English record as early as 26th April. All eight of the British specimens sexed were females. No fewer than ten of the Scottish birds were found dead, suggesting either a surprising mortality for the species in British waters or that healthy unoiiled birds are overlooked.

I am grateful to D. M. Burn, J. R. Mather and R. H. Dennis for help in the preparation of this note.

ANDREW T. MACMILLAN.

Wintering grebes in Loch Ryan

Loch Ryan, a shallow, sheltered sea-loch on the west coast of Wigtownshire, has long been noted for its wintering grebes. For example, Baxter and Rintoul (1953, *The Birds of Scotland*) recorded on 4th December 1920 that "there were numbers of Great Crested Grebes (*Podiceps cristatus*), quite a lot of Slavonians (*P. auritus*), two Red-necked Grebes (*P. griseigena*), one Black-necked Grebe (*P. nigricollis*) and several Little Grebes (*Tachybaptus ruficollis*)."

This note summarizes observations for the years 1965-74 (table 1) and although no formal census was made, any grebes seen during monthly wildfowl/wader counts or at other times were noted. As the data are incomplete, these observations are not necessarily the whole picture but give some indication of the numbers to be expected in Loch Ryan in winter. Table 2 gives the maximum numbers seen in any one month during the same period. In the autumn of 1975 there was a considerable increase in Great Crested Grebe numbers with 70 counted in August and 110 in September.

Four species were recorded, with the Great Crested Grebe and the Black-necked Grebe being regularly present, and the Slavonian and Red-necked Grebes apparently occurring less frequently; the Little Grebe was not recorded. Red-necked Grebes have been seen on six occasions: one on 6th February 1965 (TE), one on 17th and two on 29th December 1966 (ADW *et al*), one on 7th April 1968 (JGY), one on 31st December 1969

Table 1. Counts of Great Crested (a), Slavonian (b) and Black-necked Grebes (c) in Loch Ryan

(There was also one Great Crested Grebe in July 1974)

| | January | | | February | | | March | | | April | | | May | | |
|------|---------|---|----|-----------|---|----|---------|---|---|----------|---|---|----------|---|---|
| | a | b | c | a | b | c | a | b | c | a | b | c | a | b | c |
| 1965 | — | — | 2 | — | — | 22 | — | 3 | — | — | — | — | — | — | — |
| 1966 | — | 4 | 1 | — | — | — | — | — | 4 | 2 | — | — | — | — | — |
| 1967 | 2 | 2 | 1 | 3 | 1 | 3 | 2 | 2 | 2 | 2 | — | 3 | 6 | — | — |
| 1968 | — | — | 3 | — | — | — | 37 | 2 | 7 | — | — | 7 | — | — | — |
| 1969 | — | 3 | 12 | — | 8 | 23 | 10 | — | — | — | — | — | — | — | — |
| 1970 | 1 | — | 3 | — | — | 3 | 3 | — | 1 | 1 | — | — | — | — | — |
| 1971 | 27 | — | 5 | — | — | — | — | — | 3 | 3 | — | — | 4 | — | — |
| 1972 | 2 | — | 1 | 1 | — | 16 | 2 | — | — | — | — | — | 1 | — | — |
| 1973 | — | — | — | 2 | — | 1 | — | — | 6 | 6 | — | 4 | — | — | — |
| 1974 | 9 | — | 2 | — | — | — | — | — | — | — | — | — | — | — | — |
| | August | | | September | | | October | | | November | | | December | | |
| | a | b | c | a | b | c | a | b | c | a | b | c | a | b | c |
| 1965 | — | — | — | 38 | — | — | — | — | — | 1 | 1 | — | 1 | — | — |
| 1966 | 7 | — | 1 | 3 | — | — | 6 | — | — | — | 1 | — | 21 | 1 | 6 |
| 1967 | — | — | — | 6 | — | — | 3 | — | — | 1 | — | 2 | 30 | — | 7 |
| 1968 | 7 | — | — | — | — | — | 15 | — | — | 1 | — | — | — | — | — |
| 1969 | — | — | — | 30 | — | — | — | — | 1 | 3 | — | — | — | — | 6 |
| 1970 | 1 | — | 11 | 1 | — | — | — | — | — | 15 | — | 1 | 1 | — | 2 |
| 1971 | 1 | — | — | 1 | — | 6 | 8 | — | 5 | 12 | — | 1 | 25 | 1 | 3 |
| 1972 | 14 | — | — | — | — | — | 12 | — | 4 | 29 | — | — | 3 | — | 3 |
| 1973 | 5 | — | — | 1 | — | 2 | — | — | 1 | 8 | — | 5 | 2 | — | 4 |
| 1974 | 3 | — | — | 8 | 1 | 1 | — | — | 3 | 21 | — | 2 | 9 | — | 1 |

Table 2. Maximum numbers of grebes in any one month at Loch Ryan between 1965-74

| | Jan | Feb | Mar | Apr | May | Jun | Jly | Aug | Sep | Oct | Nov | Dec |
|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Great Crested Grebe | 27 | 3 | 37 | 6 | 6 | — | 1 | 14 | 38 | 15 | 29 | 30 |
| Slavonian Grebe | — | 4 | 8 | 3 | — | — | — | — | 1 | — | 1 | 1 |
| Black-necked Grebe | 12 | 23 | 7 | 7 | — | — | — | 11 | 6 | 5 | 5 | 7 |

(ADW, JGY *et al.*) and two on 23rd January 1971 (JGY, DS). The earliest and latest dates respectively for each species were as follows: Great Crested Grebe 28th July, 15th May; Slavonian Grebe 22nd September, 11th March; Black-necked Grebe 6th August, 11th April.

In winter they sometimes occurred in loose flocks, especially the Great Crested and Black-necked Grebes, but they were sometimes scattered in ones or twos over quite wide areas. There were, however, some areas where grebes were sometimes readily seen and these areas include The Wig, Soleburn, Stran-

raer Harbour and Innermessan/Leffnel Point. They were not always consistently seen in these areas and this may account for some of the gaps and fluctuations in the tables, the grebes probably moving about the loch where they were difficult to see.

I am grateful to Donald Watson for giving me some unpublished notes including contributions from K. Baldrige, T. Ennis, R. H. Hogg, D. C. Irving, A. F. Jacobs, J. K. R. Melrose, G. A. Richards, D. Skilling, R. T. Smith, L. A. Urquhart, A. J. Watson and J. G. Young.

R. C. DICKSON.

Peregrine's aggressive behaviour away from nest

While climbing in the Galloway hills on 22nd March 1975, I noticed a male Peregrine Falcon *Falco peregrinus* soaring over a steep ridge above me. The next moment a female had appeared and was diving straight towards me narrowly missing my head, and as I ducked I heard a rush of air as she swept past two feet above, her momentum carrying her well down the hill. She rejoined the male and both birds soared over the ridge. Again the female dived down but passed me about 20 feet away, rejoining the male before both birds disappeared behind the ridge; she reappeared briefly to circle above me before finally disappearing.

The nearest breeding crag is about $1\frac{1}{2}$ miles away. Peregrines are known to be aggressive to other birds of prey in this particular area although not always successfully. For instance, on 28th April 1973 a pair of Merlins *F. columbarius* actively battled with a Peregrine, eventually forcing it to land briefly on the hillside.

It is well known that Peregrines react to humans near their eyrie (*vide* Brown and Amadon 1968 *Eagles and Falcons of the World*) when eggs or young are in the nest, but as Bannerman and Lodge (1956 *Birds of the British Isles* vol. 5) point out, it is exceptional for a Peregrine to attack a human being who attempts to examine the eyrie and on rare occasions a bird will stoop within feet of the intruder's head.

While this observation may not be exceptional it is perhaps interesting that the behaviour occurred so distant from a breeding crag and when the contents of a nest were not even at risk.

R. C. DICKSON.

Unusual nest of Redshank/Snipe

Plates 24-27

On 23rd May 1973 MT informed me he had found in a grass field at Sheriffmuir a nest containing a Redshank's *Tringa totanus* clutch of four eggs and also four eggs which he thought were Snipe's *Gallinago gallinago*. Next day I visited the nest with MT and confirmed his identifications: the measurements in millimetres were as follows: Snipe 40 x 30, 40.5 x 30, 41 x 30, 41 x 30; Redshank, 44 x 32, 45.5 x 31.5, 46 x 32, 46 x 32.

As we were unaware of any previous records of a Snipe laying in a Redshank's nest, or vice versa, we put up a hide to study developments. The situation posed several problems. Was this a Snipe's nest usurped by a Redshank, or a Redshank's in which a Snipe had also laid? Would Snipe and Redshank take turn about at incubating or would one species do all the work? When MT had found the nest a Snipe had flown continuously backwards and forwards overhead and the same occurred while we erected the hide about 40 metres from the nest; but a Redshank had vacated the nest as we approached. We did not find any Snipe nest during our observations, not surprisingly perhaps as we did not search the whole area. Our nest was in a large field and several Snipes regularly drummed over it, though not latterly over our nest. There was a second Redshank's nest with c/4 some 30-40 metres from our nest; all the eggs in it hatched sometime after 1st June and the chicks had moved away by the 5th. During the next few days and assisted by different helpers, I stepped the hide gradually forward to about five metres on 29th May and on 30th May MT saw me into the hide for a first spell of close-up observations.

From the first day (24th May) the Redshank accepted the hide with its dummy photographic lens quite readily and usually returned to the nest within ten to 15 minutes of our returning to our car 300 metres away. No Snipe however had yet been flushed from the nest. On my 28th May visit with MT to move the hide, the Redshank may have been dozing as it did not fly from the nest until we were only two metres from it and it then performed a "broken-wings" distraction display, fluttering along the ground for 12 or 15 metres before taking flight. Its normal behaviour however was to stand up on the nest before taking flight and it usually flew as soon as anyone climbed over the roadside dyke into the field. The nest was about 200 metres from the dyke's nearest point, but the bird was very shy and flew immediately even if we climbed over 300 metres away.

On our arrival on 30th May the Redshank eggs felt warm but the Snipe's were distinctly colder, suggesting that the Redshank was mainly incubating its own eggs. The Redshank was back incubating 8 minutes after I heard MT slam the car door; it took no notice of the hide or camera lens but was obviously uncomfortable on the nest, every three or four minutes rising and twisting about and covering now the Snipe eggs, then its own, then the Snipe's again and so on. Each time before crouching to incubate it tried with its bill to guide the peripheral eggs underneath its body but many attempts were required before it succeeded in almost, though not quite, covering them all. Then it settled down. A Snipe drummed frequently overhead but on no occasion then or later did I see a Snipe at or near the nest, although the incubating Redshank's mate often came and stood a metre or so away. On 1st June we found the Snipe eggs quite cold and after MT tied me into the hide and the Redshank returned, it became evident that the bird was definitely incubating only its own clutch. The Snipe eggs were left out in the cold, below and beside its tail. On 5th June one Snipe egg was slightly crushed, probably by one of the sheep which grazed the field. It was found to be addled. On 7th June during a spell of watching the incubating Redshank rose and flew silently off, though I had made no movement or sound. Fully 30 minutes passed before it returned and I learned later that two people had entered the next field about 400 metres away and walked about photographing the scenery. However, when they left the Redshank reappeared and this time briefly incubated the Snipe eggs.

By this date I suspected that all seven remaining eggs were addled; but on a final visit on 13th June the Redshank for the first time sounded parental alarm calls when I climbed the wall. As I walked across to the nest the bird rose about 50 metres away and flew around calling excitedly, warning what I found was a solitary Redshank chick. The six eggs left in the nest were stone cold and one Redshank and three Snipe eggs proved to be addled, while the other two Redshank eggs contained chicks at different stages of development but both had been dead for a day or more. Such a poor hatch from so intriguing a nest was disappointing, but except for the original ownership of the nest most of our initial questions were answered.

ALEX TEWNION, MALCOLM THOMIS.

Long-tailed Skua in central Grampians

On 18th June 1974, I was walking across a high plateau in the central Grampians, one of my Dotterel *Eudromias morinellus*

study areas, when I saw a Long-tailed Skua *Stercorarius longicaudus* in the distance, standing on a hummock.

The bird allowed a close approach, and I was able to note all the features which mark the species, including a very long, unbroken tail. It was an adult in very good plumage and wore on its right leg a rather high non-BTO-type metal ring. I watched the skua for some time as it wandered slowly across the moss, occasionally pecking at the ground as if looking for food, but in the period I observed not actually picking any up. It also flew for a short period about the hill.

The presence of the Long-tailed Skua caused me a little concern, as it was only 50 yards or so from a Dotterel nest containing two eggs. I left the area, noting that the Dotterel was present and close to the nest. Approximately one hour later, I walked back towards this area, and was rather surprised to find the Dotterel missing from his favourite ridge. On investigation, I was disappointed to find that both of the Dotterel eggs were damaged—this taking the form of holes in the eggshells, obviously caused by a bird's bill. The size and shape of these holes were judged to be similar to those expected from a bill of the skua's dimensions. There was some yolk on the eggshell, suggesting that the predator had eaten a little of the contents. The Dotterel could not be seen.

I walked over the plateau again, searching for the Long-tailed Skua, but without success, and it was not seen again on several subsequent visits. It seems likely that the Dotterel came back from feeding, found its nest being attacked, and drove the intruder off the hill. Ten minutes later, on my return, I found that the Dotterel was incubating the spoiled clutch.

On 20th June 1974 I returned to the site and found the male Dotterel some 50 yards from the old nest. He was in the company of a female, and they mated several times as I watched. A few hundred yards away, I found another pair mating, whereas on 18th June there had only been single males and parties of females. It is possible that this pair also had eggs taken or damaged. Eventually at least three pairs re-laid on this plateau. Although it is purely on circumstantial evidence that the skua was the predator concerned, there is no doubt in my mind that this was the case. It was the only predatory bird seen on the hill that day.

It seems possible that this species may join the list of Scandinavian birds that have started to breed in Scotland, presumably due to the cooler summers which we are now experiencing. On my visit to Lake Tornetrask in Swedish Lapland some years ago, I was informed by the Director of the Natural His-

tory unit at Abisko that Long-tailed Skuas eat eggs and small chicks of other birds, depending upon the abundance of lemmings locally, their staple food. The Dotterel was one of several species whose eggs he knew the skuas preyed on.

It would be a pity if the Long-tailed Skua tried to breed on our high tops, as the Scandinavian food supply is absent here, and the birds may have to adapt to eating creatures which the Scottish fauna can ill-afford to lose.

DAVID W. OLIVER.

Obituary

ALASTAIR MACDONALD

With the death of Alastair Macdonald on 11th August 1975 the Scottish Ornithologists' Club lost a staunch friend. After a career in the Forestry Service in Africa he returned to Scotland where he became Area Secretary for East Lothian of the National Farmers' Union. In his later years when his health began to deteriorate he took a less exacting post with The National Trust for Scotland.

Alastair joined the SOC in 1958 and soon became a regular and well-known figure at meetings. Of a modest nature, he shunned the limelight but served on the Edinburgh Branch Committee (1960-2), and the Club Council (1961-5). Perhaps he will be remembered best for his untiring work at Club conferences. Here he willingly undertook many duties including the registration of all those attending.

In 1966 he served with distinction as Transport Officer on the Scottish Bird Islands Study Cruise. He was a very keen supporter of The Isle of May Bird Observatory and organized the bookings with tact and firmness. He visited the May many times and often led the annual Club excursion. On the May he was very helpful to other observers and trained many young ringers. He liked to be up at first light and his keenness of eye was exceptional. Not many birds remained undetected.

Although his doctor had forbidden him to undertake any strenuous exercise it was a matter of great satisfaction to him to have been able to be one of the party that scattered Maury Meiklejohn's ashes on the Isle of May in June 1974.

We shall miss Alastair.

J. H. B. MUNRO.

Reviews

Birds and Mammals of Orkney. By William Groundwater. Kirkwall, The Kirkwall Press, 1974. Pp 299; 16 photographs; 19 drawings; 3 maps. 22½ x 14 cm. £3.60.

The author says that he has attempted to produce a comprehensive history and up-to-date account of Orkney's vertebrate fauna, mainly for Orkney readers but also for visitors, no book of this kind having been available since Omand's *How to know the Orkney Birds* in 1925, and before that, Buckley and Harvie-Brown's *Vertebrate Fauna of Orkney* published in 1891. In consequence of such a time lapse between these publications, the growing interest in Orkney fauna, and the title and layout of the book, it is likely that it will not only be bought by the general reader, but might be regarded by some as a definitive work on the subject. I therefore tend to judge it accordingly.

The book has three main sections: an Introduction (40 pp), Birds (Part Two, 220 pp) and Mammals (Part Three, 33 pp). The terms Part Two and Part Three are used in the text but, unaccountably, not on the contents page nor in the appropriate section headings.

The Introduction has useful information on geology and climate, and a Topography and Habitats section incorporating some long bird-lists which the general reader may find tedious. Here one of the relatively few printers' errors, but an important one, drops the y of the isle Faray so that the description of this northern isle may be confused with that of the isle Fara in the south. The Introduction is concluded by a short, interesting historical review of Orkney fauna, an account of Orkney as an important focal point on bird migration routes, and finally, an enjoyable seven pages on Orkney naturalists.

The faunal section is unsatisfactory in several ways. The writing style tends to be old-fashioned, and anecdotal where one would expect it to be more factual. There are many inaccuracies including 14 mis-spellings of scientific names. Taxonomy at the subspecies level is confused in places, as on p 124 (Lesser Golden Plover) where the author also seems in some doubt as to the proper use of the trinomial system; much the same is evident with the Rock Pipit entry on p 193. On p 231 the reader is wrongly given the impression that Treecreepers are rare visitors to Scotland (the Baxter and Rintoul quotation from which this emanates in fact refers to six Scottish records of the Northern Treecreeper *Certhia f. familiaris* and not to the British Treecreeper *C. f. britannica* which is widespread on the Scottish mainland) and the misconception is only partly rectified in the ensuing text. One error among English bird-names, Napoleon's Sandpiper for Bonaparte's Sandpiper, will not be obvious to the general reader.

There is both inconsistency and error in some bird status headings, for example, the Turtle Dove and the Black Redstart are regular, not irregular visitors to Orkney, and the Common Sandpiper is a breeding summer visitor and passage visitor, not a resident. The Bar-tailed Godwit is not at all scarce as a migrant but breeding Greenfinches are now very few in number and not "fairly common". Among the seabirds, the Arctic Tern colonies on Papa Westray and Westray are not just "important" but are the largest in the U.K. Reference should have been made more frequently to E. Balfour's (1972) *Orkney Birds: Status and Guide* rather than his earlier (1968) *Breeding Birds of Orkney*. Balfour (1972) says that the Golden Eagle has bred in Orkney at least 4 times since 1966—

Groundwater records it as a rare visitor. The status of rare birds, often a source of controversy, could perhaps have been treated more circum-spectly. The Blue Rock Thrush (p 219) which the author says is included in Appendix 4 of the B.O.U. *The Status of Birds in Britain and Ireland* (1971) is actually in Appendix 3 and therefore, by convention, should not form part of the main text in any published list.

In the mammal section there are some details requiring attention. There are now no Rabbits on Eynhallow, the species having been killed off completely there by myxomatosis in 1955. There is no mention of the stranding and eventual death of 67 Pilot Whales in Westray in 1955 (De Kock 1956 *Scot. Nat.* 68: 63-70). The information on seals could have been brought up to date. The annual pup cull was raised to 1,000 in 1972 and a survey of Common Seals around Orkney in that year, made by the Seals Research Division of I.M.E.R., gave an estimate of 2-3,000 animals. Nine occurrences of Walrus in Orkney waters last century deserve a place in any book listing Orkney mammals (Ritchie 1921 *Scot. Nat.* 109-10: 5-9, 113-4 77-86). On p 278 there is a guess at the maximum body length of the Orkney Vole—"at least four inches"—more precise information could easily have been extracted from the appropriate available literature or collections.

Unfortunately, the lack of scientific exactness and objectivity are so frequently apparent in this book that I cannot recommend it. To his credit, however, the author has brought together, in one book, historic records not readily available to the general reader, and also many local records from a variety of sources which are well worth preserving. The line drawings by I. MacInnes express a remarkable feeling for the Orkney scene in a few pen-strokes, but M. Smith's excellent photographs have lost much in the poor reproduction.

A. ANDERSON.

Ducks, Geese and Swans. By Oscar J. Merne. London, Hamlyn, 1974. Pp 160: numerous colour illustrations and distribution maps. 20 x 12 cm. £1.75.

This is a picture book of wildfowl rather than a field guide. The first part deals very briefly with the characteristics of the group: behaviour, habitats, migration, trapping and ringing, wildfowling, conservation and management, propagation and collection, ending with a classified list.

In the second part colour illustrations of each species by Helen Haywood are accompanied by maps showing breeding and winter ranges, and brief but adequate text describing plumage, food, nesting habits and so on. It is unfortunate that sizes are not given and that not all species have a distribution map. Despite this the author is to be congratulated on his knowledge of wildfowl.

The illustrations throughout the book are fairly good with a few exceptions, such as the odd looking Shovelers on page 107 and the Redheads on page 120, and surely the head of a swan on page 6 is that of a Whooper, not Bewick's.

Despite these minor faults the book will be most helpful to anyone using it. It can easily be slipped into the pocket and is cheap in comparison with other works of this kind.

EDGAR C. GATENBY.

The Scottish Ornithologists' Club

TWENTY-EIGHTH ANNUAL CONFERENCE

UNIVERSITY OF STIRLING

23rd - 25th January 1976

PROGRAMME

Friday 23rd January

- 4.30 - 9 p.m. Conference Office in the MacRobert Centre, University of Stirling, open for members and their guests to register and collect name cards and Annual Dinner tickets.
- 6 - 7 p.m. Supper in the MacRobert Centre Restaurant.
- 6.15 p.m. Meeting of Council.
- 8.15 to 9.15 p.m. **FILM AND SLIDE PROGRAMME** in Lecture Theatre over Link Bridge (see 10 on plan). At 9.15 p.m. details of excursions on Saturday afternoon will be given.
- 9.30 p.m. Meeting of Local Recorders.
- 9.15 p.m. to midnight Lounges in the MacRobert Centre are open for informal discussion and refreshments (late licence).

Saturday 24th January

- 8.45 to 9.15 a.m. Conference Office in the MacRobert Centre open for registration.
- 9.20 a.m. Official opening of the Conference by the President, Dr George Waterston, OBE, FRSE, LL.D., in the MacRobert Theatre.
- 9.30 a.m. - 12.30 p.m. **Symposium on "The Cairngorms and their birds"**.
INTRODUCTION, "An ecological perspective" by Professor V. C. Wynne-Edwards, CBE, FRSE.
LECTURE, "Some Pioneers and Researchers" by Desmond Nethersole-Thompson.
- 10.45 - 11.15 a.m. **INTERVAL** for coffee and biscuits.
- 11.15 am. LECTURE, "Recent research and human pressures" by Dr Adam Watson.
- 1 p.m. **INTERVAL** for Lunch.
- 2 p.m. **EXCURSIONS** by private cars leaving the car park behind the Murray Hall of Residence. Details will be posted on the Conference notice board.
- 2.30 p.m. **MEETING** of members of the R.S.P.B. in the Lecture Theatre over the Link Bridge (see 10 on plan), to which members of the Club and their guests are invited.
- 4 p.m. **TEA.**

5.30 p.m. 39th ANNUAL GENERAL MEETING OF THE CLUB
in Lecture Theatre.

Business :

- (1) Apologies for absence.
- (2) Approval of the Minutes of the 38th Annual General Meeting of the Club held at Stirling University on 25th January 1975 (see *Scot. Birds* 8: 290).
- (3) Matters arising from the Minutes.
- (4) Report of Council for Session 38.
- (5) Approval of Accounts for Session 38.
- (6) Appointment of Auditor.
- (7) Election of new Office Bearers and Members of Council. The Council recommends the following elections :
Andrew T. Macmillan as President of the Club to succeed Dr George Waterston who is due to retire having completed his three year term of office.
Miss Valerie M. Thom as Vice-President to succeed Andrew T. Macmillan.
A. Anderson, Miss N. J. Gordon and Dr J. J. D. Greenwood to succeed Miss V. M. Thom, and Dr I. Newton and N. Picozzi who are due to retire by rotation.
- (8) Any other competent business.

7 for 7.30 p.m. ANNUAL DINNER in the restaurant of the Pathfoot building (dress informal).

Sunday 25th January

9.30 - 11.00 a.m. A series of short lectures on ornithological research in Scotland will be given.

Dr David M. Bryant will talk on HOUSE MARTIN ECOLOGY,

Dr David B. Houston will talk on CROWS AND SHEEP and

Alistair J. M. Smith will talk on SOME ASPECTS OF SANDWICH TERN BEHAVIOUR.

11 - 11.30 a.m. INTERVAL for coffee and biscuits.

11.30 a.m. FILMS : details to be announced.

12.30 p.m. Closing remarks by the President.

(approx.)

1 p.m. INTERVAL for Lunch.

2 p.m. EXCURSIONS (informal), leaving the car park behind the Murray Hall of Residence.

Conference Office

Outwith the registration hours the Conference Office will also be open at intervals during the weekend for members to see the exhibits. A wide selection of new books from the S.O.C. Bird Bookshop will be displayed for purchase or orders. A display of paintings by wildlife artists will be on sale adjacent to the Office.

Film and Slide Programme

The programme from 8.15 to 9.15 p.m. on Friday evening is intended to give members and guests an opportunity of showing 2" x 2" slides or 16 mm films. These must however be submitted beforehand to the Conference Film Committee and should be sent by 13th January at the latest to the Club Secretary, 21 Regent Terrace, Edinburgh EH7 5BT. The slides should be titled and sent with brief notes on what will be said about them, to enable the Committee to make a selection and to form a good programme. It will not be possible to show material which has not been received by this time.

INFORMATION

- (1) **Location** The Conference will be held in the University of Stirling, and members will be staying in the Murray and Davidson Halls of Residence. The accommodation consists of single rooms, each with wash-hand basin, grouped round showers and bathrooms, etc. These residences are low rise buildings but have no lifts. There are no catering facilities, apart from coffee and tea making equipment, in the Halls. Soap and towels are provided. Apart from the Annual Dinner (see below) all meals will be taken in the MacRobert Centre restaurant and will be self-service.
- (2) **Reservations** Members intending to be present at any part of the Conference **must** complete the enclosed Booking Form and return it to the Club Secretary (not Stirling University) by Wednesday 23rd December 1975. The Conference charge for the whole weekend, excluding the Annual Dinner, will be £13.00 inclusive of V.A.T.; there are no service charges.
- (3) **Annual Dinner** This will be held in the Pathfoot Building restaurant. **Tickets must be applied for in advance** whether staying at the University or elsewhere (see Booking Form). The supplementary charge for the Annual Dinner is £4.20 including V.A.T. (no service charge); two glasses of red or white wine are included.
- (4) **Other meals** Non-residents may obtain Friday evening supper and lunch on both days at £1.55 per meal including V.A.T. (see Booking Form).
- (5) **Registration** Everyone attending the Conference must register at the Conference Office (for opening times see Programme). The Registration Fee will be £1.25 for those attending the whole Conference, or 75p if attending one day only. Members attending only the Annual General Meeting are not required to pay a Registration Fee.
- (6) **Information Sheets** Notes about the facilities at Stirling University will be sent to all those attending the Conference, together with a plan of the buildings.
- (7) **Car parking** There are ample car parks on the University campus; parking on the campus roads is forbidden. Neither the University nor the Club can accept liability for cars or property brought to the Conference.
- (8) **Camping** There is a camping and caravan park about 2 miles east of the rear entrance to the University on the A91. Details can be obtained from the Proprietor, Mr G. McKerracher, Witches Craig Farm, Blairlogie, Stirling F89 5PX (tel. Stirling 4947) and with whom all bookings should be made. Members are not allowed to camp in the University grounds nor live in caravans or caravettes parked in the car parks or grounds.

- (9) **Excursions** Members are asked to provide cars if possible and to fill their passenger seats; the minimum number of cars will be taken. Members wishing to go out on their own are particularly asked not to go out in advance of the main party and to avoid disturbing the birds.

WIGTOWN GROUP

The inaugural meeting of the Wigtown Group took place in the Bruce Hotel, Newton Stewart, on Tuesday 26th August 1975. The meeting was attended by thirty people, of whom six joined the Club during the evening, while several were members already.

At the meeting Dr P. G. Hopkins was elected as Chairman, Mr Angus Maciver as Secretary and Mr G. Shepherd as Assistant Secretary. These Office Bearers will form the Group Committee for the current session until formal elections are made at the Group's first Annual General Meeting in the autumn of 1976.

The Club Secretary spoke on behalf of the President of the Club, Dr George Waterston, and welcomed all who were present. He gave a short talk on the history and aims of the Club, and expressed the hope that the Group would expand rapidly and soon be able to apply for full Branch status. A telegram of good wishes was received from Mrs J. B. Lammie, a member from the Mull of Galloway who was unable to be present at the meeting.

The Group Secretary announced that a programme of lectures and films had been arranged for the winter at the following locations :

September 30th—Douglas Ewart High School, Newton Stewart

October 21st—Stranraer Academy

November 18th—D.E.H.S., Newton Stewart

December 16th—Stranraer Academy

January 13th—D.E.H.S., Newton Stewart

February 10th—Stranraer Academy

March 9th—D.E.H.S., Newton Stewart.

April 6th—Stranraer Academy

All meetings are on a Tuesday and start at 7.30 p.m. Full details of these and any excursions which may be arranged can be obtained from :

Mr Angus Maciver, 1 Colt Houses, Penninghame, Newton Stewart or
Mr Geoff Shepherd, Bay House Restaurant, Cairnryan Road, Stranraer.

It is hoped that all existing members living in the area will be able to attend meetings and join excursions arranged by this new Group.

DRY ROT - 21 REGENT TERRACE

During the summer an outbreak of dry rot was discovered in the basement of the Club's headquarters at 21 Regent Terrace in Edinburgh. The cost of repairs will be considerable and all possible ways of raising money to pay for them are being explored.

Council agreed that the Club would hold another raffle this session and that the proceeds will be put towards the cost of the repairs. The draw will take place at the Annual Dinner during the Conference on 24th January 1976. Full details about the raffle are being sent to all members with this issue of the journal.

Any member who wishes to make a donation towards the cost of

repairs is asked to contact the Club Secretary for information, or send the donation directly to him. Any donation will be most gratefully received and acknowledged.

WINTER EXCURSIONS - INVERNESS BRANCH

Sunday 23rd November 1975 BURGHEAD and FINDHORN BAY. Leader : Malcolm Harvey (Lunch and tea).

Saturday 14th February 1976 CULBIN SANDS. Leader : Roy Dennis (Lunch and tea).

Saturday 27th March DORNOCH and LOCH FLEET. Leader : Donnie Macdonald (Lunch and tea).

All excursions meet at South Kessock Ferry at 9 a.m.

Any further information may be obtained from the Excursions Secretary, Mrs J Morrison, 83 Dochfour Drive, Inverness (tel. Inverness 32666). Please send s.a.e. if writing.

AYR BRANCH

Winter excursions Details were given in *Scot. Birds* 8: 339. Members wishing transport to any of the excursions should contact the Branch Chairman, Secretary or any Committee member.

Social evening The Branch will be holding a Social Evening, taking the form of a Wine and Cheese Party, at the Wallace Tower Rooms, High Street, Ayr at 7.30 for 8 p.m. on Wednesday 17th March 1976. There will be competitions and a raffle. Tickets, price £1.50 per person, will be available up to 28th February 1976 on application with remittance to Miss R. Beckett, 30 Maybole Road, Ayr. Please enclose s.a.e. for confirmation of booking.

WEEKEND EXCURSION TO DUMFRIES

The annual weekend excursion to the Solway goose grounds has been arranged with the County Hotel, Dumfries, from Friday 27th to Sunday 29th February 1976.

Accommodation: inclusive terms £13.30 (including service charge and V.A.T.) as follows: bed on Friday 27th; breakfast, packed lunch, dinner and bed on Saturday 28th; breakfast and packed lunch on Sunday 29th. Dinner on Friday night is £2.50 extra per person (including service charge and V.A.T.). A limited number of rooms with private bathroom are available for the additional charge of £1.20 per night.

Members may bring guests and should book direct with the Manager, County Hotel, Dumfries (tel. 5401), notifying him that they are attending the Club excursion. Members should also advise the Hotel in advance if they require Dinner on the Friday night.

Those not staying at the County Hotel are invited to attend an informal meeting at the Hotel on Friday at 8.30 p.m., when details of the weekend excursions will be announced. An informal programme of slides will be shown on the Saturday evening. Members or Guests who may have slides of interest are asked to bring them to the Hotel, and to contact the Club Secretary on the Friday evening to discuss their inclusion in the programme. A selection of books from the Bird Bookshop will be taken to the Hotel for sale during both evenings. It is advisable to bring warm clothing, gum boots if possible, and thermos flasks for the excursions.

S.O.C.

BIRD BOOKSHOP



21 REGENT TERRACE
EDINBURGH EH7 5BT

Tel. (031) 556 6042

Some new books

| | |
|--------------------------------------------------------------------------------|-----------------|
| Birds in Islay. <i>C. Gordon Booth</i> | £1.20 |
| Shetland Bird Report 1974 | 80p |
| Fair Isle Bird Report 1974 | 50p |
| Guide to Birdwatching in Europe. <i>Ferguson-Lees et al.</i> | £3.95 and £2.50 |
| Guide to Birdwatching in Sweden. <i>Sanders & Berg</i> | £1.40 |
| Birds of the Tropics. <i>England</i> | £2.50 |
| Handbook of the Birds of India and Pakistan. Vol. 10. <i>Ali and Ripley</i> | £11.20 |
| Checklist of the Birds of Ethiopia. <i>Urban and Brown</i> | £2.15 and £1.70 |
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The aims of the Club are to (a) encourage and direct the study of Scottish ornithology; (b) co-ordinate the efforts of Scottish Ornithologists; (c) encourage ornithological research in Scotland; (d) hold meetings at which Lectures are given, films exhibited and discussions held, and (e) publish information regarding Scottish ornithology.

There are no entry fees for Membership. The Annual subscription is £3.00, or £1.00 in the case of Members under twenty one years of age or Students under 25, who satisfy Council of their status as such at the times at which their subscriptions fall due. The Life subscription is £75. Family Membership is available to married couples and their nominated children under 18 at an Annual subscription of £4.50, or a Life subscription of £112.50. 'Scottish Birds' is issued free to Members but Family Members will receive only one copy between them. Subscriptions are payable on 1st October annually.

'Scottish Birds' is the Journal of the Club. Published quarterly it includes papers, articles and short notes on all aspects of ornithology in Scotland. The Scottish Bird Report is published in the Journal.

The affairs of the Club are controlled by a Council composed of the Hon. Presidents, the President, the Vice-President, the Hon. Treasurer, the Hon. Treasurer of the House Fabric Fund, and ten other Members of the Club elected at an Annual General Meeting. On the Council is also one Representative of each Branch Committee appointed annually by the Branch.

The Club tie in dark green, navy or maroon terylene and a brooch in silver and blue, both displaying the Club emblem, a Crested Tit, can be obtained by Members only from the Club Secretary or from Hon. Branch Secretaries.

The Club-room and Library at 21 Regent Terrace, Edinburgh EH7 5BT is available to Members during office hours (Monday to Friday 9 a.m. to 1 p.m. and 2 to 5 p.m.), and, by prior arrangement, in the evenings during the week in the winter months from 7 to 10 p.m. Members may use the Reference Library, and there is a small duplicate section, consisting of standard reference books and important journals which can be lent to students and others wishing to read a particular subject.

The Bird Bookshop is also at 21 Regent Terrace, Edinburgh. It is managed by the Club and the profits help to maintain services to ornithologists at the Scottish Centre.

Application for Membership form, copy of the Club Constitution, and other literature are obtainable from the Club Secretary, Major A. D. Peirse-Duncombe, Scottish Centre for Ornithology and Bird Protection, 21 Regent Terrace, Edinburgh EH7 5BT (Tel. 031-556 6042).

NOTICE TO CONTRIBUTORS

1. General notes (not of sufficient importance to be published on their own as Short Notes) should be sent to the appropriate local recorders for inclusion in their summary for the annual Scottish Bird Report, not to the editor. A list of local recorders is published from time to time, but in cases of doubt the editor will be glad to forward notes to the right person.

2. If not sent earlier, all general notes for January to October each year should be sent to the local recorders early in November, and any for November and December should be sent at the beginning of January. In addition, local recorders will be glad to have brief reports on matters of special current interest at the end of March, June, September and December for the journal.

3. All other material should be sent to the editor, D. J. Bates, 21 Regent Terrace, Edinburgh, EH7 5BT. Attention to the following points greatly simplifies the work of producing the journal and is much appreciated. Contributions should be on one side of the paper only. Papers, especially, should be typed in duplicate if possible, with double spacing and wide margins. 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 offprints of the paper. Extra 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.

DICK, G. & POTTER, J. 1960. Goshawk in East Stirling. *Scot. Birds* 1: 329.

EGGELING, W. J. 1960. *The Isle of May*. Oliver & Boyd, Edinburgh and London.

6. English and scientific names should follow *A Species List of British and Irish Birds* (B.T.O. Guide 13). Initial capitals are used for English names of species (for example, Song Thrush, Long-tailed Duck) but not group names (for example, thrushes, diving ducks). Scientific names should be used sparingly (see editorial *Scottish Birds* 2: 1-3). When used they should follow the English name, underlined to indicate italics and with no surrounding brackets.

7. Dates should normally be in the form "1st January 1974", with no commas round the year. Old fashioned conventions should be avoided—e.g. use Arabic numerals rather than Roman.

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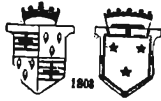
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