

SCOTTISH BIRDS



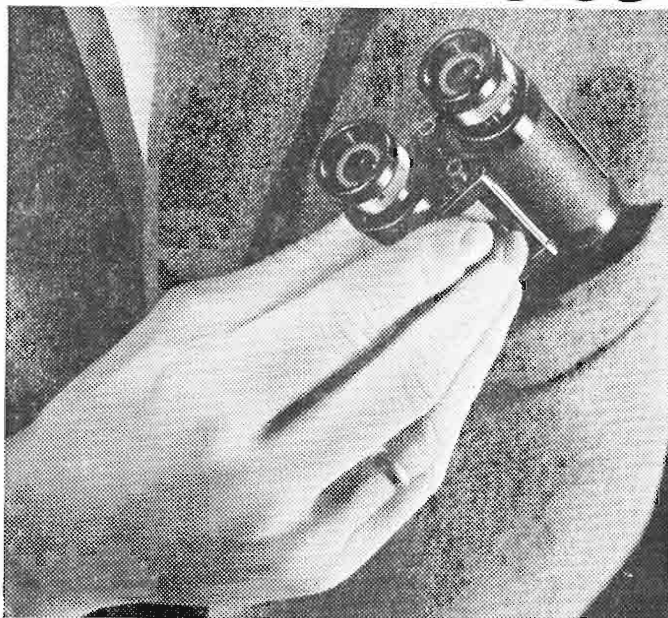
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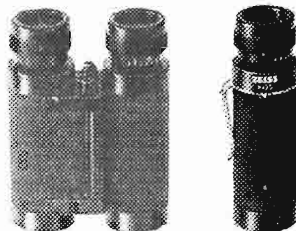


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Vol. 6 No. 4

Winter 1970

Edited by A. T. Macmillan, assisted by D. G. Andrew

Editorial

Editorial arrangements. With 1970 now run its course we pass the joys of editing *Scottish Birds* to Tom Delaney. He has in fact done a major part of the hard work on this issue. We may now reveal that he lives at 27 Trinity Crescent, Edinburgh, EH5 3EE, and ask contributors to write to that address. Andrew T. Macmillan reverts to the singular state, handing over the editorial "we" with all best wishes to his successor.

Scottish Bird Report. Observers are particularly asked to see that their 1970 records reach the local recorders as early as possible, so as to minimise the delays and frustrations of producing the report. We hope that nearly all records, at least for January to October, have already been submitted; any others, including those for November and December, should be sent now.

It seems to us that one of the merits of the Scottish Bird Report has been in drawing together a host of individually minor observations, many of which would not otherwise have been published. Thus a total Scottish picture is built up, and comparisons may be made between one year and another. There is a natural tendency for the number of observations submitted to increase, as people see what sort of records are used, and this is augmented by the increased activity generated by the BTO Ornithological Atlas project. The compiler of the report cannot really get going until he has received nearly all the 25 local recorders' summaries for the year, and corresponded about doubtful points and the background to individual records; he then has to complete a draft of his report before he can make up the key to observers' initials that allows him to start typing the final version to go to the printer two months before publication date. Squeezed for time at both ends, he needs every spare minute to complete his task on time.

The inescapable conclusion is that the Scottish Bird Report should be compiled by someone who is not at the same time having to keep *Scottish Birds* ticking over quarter by quarter, though it may still be published as part of the journal. Our great good fortune is that we have found such a person in Roy H. Den-

nis. With his experience of meticulous record-keeping and preparation of annual reports at Fair Isle Bird Observatory, his membership of the *British Birds* Rarities Committee, his enthusiasm, and his outstanding ability at field identification, he is excellently equipped for the job. He will be living in Inverness-shire as Speyside Representative of the RSPB, and will compile the 1970 Scottish Bird Report in his spare time. Will local recorders please note to send their 1970 summaries to Roy (address to be advised later). Criticism of previous reports, however, should still be directed to their author.

Fair Isle wardens. Fair Isle Bird Observatory has been very fortunate in its wardens—Ken Williamson, Peter Davis and Roy Dennis. Each has stayed long enough to make a real contribution but not so long as to get in a rut. Problems of schooling for a growing family give a strong impetus to leave the island after a time. Now it is Roy and Marina's turn to move on, as indicated above, after seven very successful years at Fair Isle—successful not only in the ornithological sense, but in the way in which they have run the hostel on a shoestring and still made it pay, without sacrificing the comfort of visitors. As their final contribution they have seen through the building of the new observatory and its first year in operation—with all the extra work of larger numbers and unfamiliar surroundings.

The new warden and his wife are Roger and Judy Broad. Their enthusiasm and qualifications are impressive, and we feel sure they will make a success of the job. Roger graduated at University College of Wales with 1st Class Honours in Zoology, and he is now completing his PhD thesis. Birds have always been the chief of his wide interests in natural history, and he comes from the redoubtable Rye Meads Ringing Group. Judy, a qualified teacher, speaks fluent German and some Italian, French and Swedish, and has experience of catering management. They were married a year ago. Dennis Coutts has very kindly provided us with a photograph (plate 18).

Pink-footed Geese in Iceland. Peter Scott's adventures ringing Pink-footed Geese in central Iceland, and recapturing them in Scotland with rocket nets, caught the imagination a few years ago. Numbers have increased steadily in recent years. Who would have thought that the major part of the world population would be suddenly threatened now. But any species which breeds largely in one area, however remote, is potentially at risk.

Malcolm Ogilvie contributes a short account of the problem to this issue, and the text of a resolution passed at the Scottish Ornithologists' Club Annual Conference and addressed to the Iceland Government will be found in the Club section. We must hope that a way out of the difficulties will be found, for in a

direct clash of interests between man and animals it is usually the animals that lose, and it may well be that these geese would be unable to find other suitable breeding grounds if their present ones were flooded.

The Pink-footed Goose in danger

M. A. OGILVIE

Britain's commonest wild goose, the Pink-footed, is facing a massive reduction in its numbers within the next five to ten years. The small area of central Iceland where three-quarters of the breeding population are known to nest is scheduled to be flooded as part of a hydro-electric power scheme. This threat comes at the end of two decades which have seen the discovery of this area as the principal breeding locality, the doubling of the total population, and the establishment of statutory protection on eight of the major winter roosts in Britain.

Thjorsarver, an area of marshland about 50 square miles in extent, is nearly in the centre of Iceland. It is surrounded on three sides by barren lava desert and on the fourth by an icecap. The Wildfowl Trust expeditions of 1951 and 1953 found between 2500 and 4000 pairs of Pinkfeet breeding here. These probably represented half the total pairs in the population. Over 10,000 birds were ringed in the two years. This ringing, and further marking in Scotland and England, showed that the Pinkfeet wintering in Britain comprise the whole of the summer population of Iceland and East Greenland. Furthermore this population is completely separate from the Pinkfeet wintering on the Continent, which have breeding grounds in Svalbard (Spitsbergen).

Estimates of the population were made from the ringing data and indicated a steady increase from about 35,000 birds in 1951 to 55,000 in 1959 when the marking programme ceased. Since then the Wildfowl Trust has organised annual November censuses, which have produced rather more accurate figures. The increase has been maintained, apart from a slight drop in 1967 and 1968, reaching 74,000 in November 1969. This compares with the Svalbard population of only some 12,000 to 14,000 individuals.

The increase has had many contributory factors but the degree of protection given to the species in Britain has played an important part. Eight major roosts are now National or Local Nature Reserves or Bird Sanctuaries. These include Loch Leven, Caerlaverock, Tentsmuir Point and Aberlady Bay. Also very beneficial have been the increased acreages of barley and potatoes now being grown, particularly in Scotland.

Although the proposal to flood Thjorsarver was met with strong protests by conservationists it had to be admitted that the numbers of Pinkfeet breeding there had not been checked since 1953. In the intervening period the total population had doubled, but the effect on the numbers in Thjorsarver was not known. This gap in our knowledge was remedied by an aerial survey in June 1970. It was carried out by helicopter and largely financed by the Canadian Wildlife Service. This particular piece of international cooperation was made possible because Richard Kerbes, a biologist employed by the CWS, who had pioneered the technique of helicopter surveying of goose breeding grounds in the Canadian Arctic, was available to make the Pinkfoot survey, being at the time attached to the Nature Conservancy in Scotland on a year's exchange visit.

The results of the survey, carried out by Kerbes and the writer, showed that the breeding population of Thjorsarver had grown to just over 10,000 pairs. Estimates, backed by some counts, put the number of pairs elsewhere in Iceland at about 2000. There are not thought to be more than 1000 to 1500 pairs in East Greenland. Thus Thjorsarver's importance has increased to the point where it now holds three-quarters of all the breeding pairs in the population.

The evidence from Canada, which was amply confirmed in Iceland, was that the helicopter would cause very little disturbance to the birds at their nests, unlike the effect to be seen in winter. Indeed during the Thjorsarver survey a good proportion of the incubating females never left their nests, even when the helicopter passed directly overhead at no more than 200 feet. The males, standing near, could be seen stretching their necks upwards and half-opening their wings in a typical threat posture.

It is hoped to carry out further research, mainly botanical, over the next few years to try to discover what it is about Thjorsarver that the geese like so much, and, as a corollary, why they do not nest in more than tiny numbers in some of the other marshy areas of central Iceland. The present distribution, especially following such a large increase, suggests that these other areas are not in fact suitable, and therefore the geese will not be able to use them if displaced from Thjorsarver. If the research confirms this it may strengthen the case against flooding but will make the final disaster, if it comes, that much worse. This is, of course, a classic example of how even a fairly numerous species can produce a major conservation problem by being over-concentrated into one locality; in this case almost literally putting all its eggs in one basket.

The industrialisation that hydro-electric power schemes can bring to Iceland is urgently needed to boost that country's

economy and relieve its dependence on fishing. There are several proposed power schemes in the country, the Thjorsarver reservoir forming part of one of the largest. The Iceland Government therefore has a choice of alternatives; the Pink-footed Geese are not so fortunate.

Kestrels, Short-eared Owls and Field Voles in Eskdalemuir in 1970

N. PICOZZI and R. HEWSON

Introduction

During the summer of 1970 unusually large numbers of Short-eared Owls *Asio flammeus* and Kestrels *Falco tinnunculus* were reported from Eskdalemuir in southwest Scotland. In the same area, together with parts of Roxburgh, Selkirk, Peebles and Lanark, there occurred about 1890 a plague of field voles *Microtus agrestis* of such magnitude that the Board of Agriculture set up a Departmental Committee to inquire into its causes, to cope with its results and to suggest means of preventing a recurrence (Harvie-Brown *et al.* 1893). So great were the numbers of voles that a farmer killed 13,000 in three months on 3000 acres using a wooden implement shaped like a small spade to kill them in their runs. By the same method a man hired for the purpose killed 15,000 in a month; another man with 12 terriers accounted for 400 to 600 voles a day on 4260 acres; and finally a farmer turned out 100 cats. The Committee was unable to assign a cause to the outbreak nor could it recommend an effective remedy, but during 1892 the plague diminished and the vole population returned to normal (Adair 1893).

During the plague an area measuring about 60 miles by 12 to 20 miles was overrun. In Roxburghshire 12,000-15,000 acres of sheep pasture were rendered useless out of more than 30,000 acres affected. Although there was little damage to trees on that occasion, Charles (1956) describes damage to beech *Fagus sylvatica* and to several species of conifers, particularly to recently planted Sitka spruce *Picea sitchensis*, Norway spruce *Picea abies* and Scots pine *Pinus sylvestris*, during a vole plague in the Carron Valley (Stirlingshire) in 1953. There was also damage to hay crops on nearby farms.

Adair (1892) gave details of exceptional numbers of Short-eared Owls which appeared and bred during the plague, although the bird was previously unknown in the area. Thirty pairs were reputed to have nested in Eskdalemuir, and estimates of young reared from each nest ranged from 6 to 11 over much of the area, and from 4 to 9 around Moffat. Kestrels were also very numerous.

In case the report of Short-eared Owls and Kestrels in Eskdalemuir in 1970 was linked with another high and potentially destructive vole population we visited the area on 9th-11th September to examine the situation at first hand. During our visit we did not see large numbers of birds of prey, nor did we find evidence that vole numbers had been unusually high. However, the rapid survey methods used and the results obtained should provide a useful basis for comparison if vole numbers increase greatly in this or other similar areas in the future. Numbers of Kestrels, owls and voles and the food as shown by pellet analysis are compared with earlier surveys in similar habitats.

The study area

As in 1890, the hills of which Eskdalemuir forms part are rolling sheep pastures from which most of the heather has been eliminated by burning and grazing. During the last five years, however, large-scale afforestation has taken place in Eskdalemuir; of 28,000 acres owned or managed there by the Economic Forestry Group, no less than 17,000 have been planted, mostly with Sitka spruce, thus forming one of the largest areas of newly planted ground in Britain. A further 6000 acres were unplanted but with the sheep removed, and 5000 acres were still sheep farms. The newly planted ground is similar in general appearance whether planted two or five years ago, with whole hillsides covered by an orderly network of ditches with small trees on the ridges between them. Vegetation grows rapidly when sheep are removed and the drainage is improved, and soon provides dense cover for field voles.

A representative block of 4157 acres was chosen for more detailed study of the birds and their prey in the area where the large numbers of Kestrels and owls had been reported. The excellent forest road system gave easy access to all parts of the selected area, which was between 750 and 1200 feet above sea level.

Counts of Kestrels and Short-eared Owls

Kestrels and owls were counted on 10th and 11th September 1970 over most of the study area from vantage points along the roads. On both days an additional $1\frac{1}{2}$ miles were covered outside the main study area into an adjacent afforested block. Table 1 shows that the counts each day were very similar and, although in many cases it was not possible to be certain that the same individuals were seen, the consistency of the figures and the similar distribution of the birds over the study area strongly suggested that few birds were overlooked.

During the breeding season, five pairs of owls were located in the study area, with an average brood of two young per pair.

Table 1. Birds of prey seen on two days in the 4157-acre Eskdalemuir study area

Date	Miles covered	Kestrel	Numbers of Short-eared Owl	Merlin
10.9.1970	11	13	7	1
11.9.1970	15	14	6	1

There were also seven pairs of Kestrels, which fledged broods in the order of three or four young per pair. Of four pairs which nested in the study area, three nested in small groups of conifers planted about 30 years ago as shelter belts and around lambing pens, and one pair used an old Crow's nest in an isolated ash; the remaining three pairs nested in small woods adjacent to the study area (R. Rose, pers. comm.)

A count of birds of prey was also made during the afternoon of 11th September on about 6 miles of the B709 road north of Eskdalemuir between the Seismological Station and Ettrick. This section of road was chosen because it passed through sheep ground similar to that which has now come under afforestation and is typical of a much larger area. At every good vantage point along the road, all ground visible was thoroughly scanned through binoculars, and although the distance traveled was less than on the network of roads in the study area a vastly greater area was searched, in weather conditions similar to those of the morning count in the study area. Only five Kestrels were seen, despite many apparently suitable nesting woods, together with one Short-eared Owl and one Merlin.

Roosts

Material for forest roads was obtained by digging into the bedrock of crumbling shale above the roadline at intervals as material was required. This completely new feature of the landscape has been exploited by both Kestrels and owls for roosting. However, not all the workings were used, and table 2 shows that suitable quarries for roosting all had in common an overhanging mat of vegetation, caused by the erosion of the one to three feet of subsoil above the exposed bedrock. In quarry 1 (table 2), only half the face was overhung, and there were signs of roosting (faeces and pellets) only at overhung positions. The birds invariably perched at the top of the exposed bedrock, where they would obtain the most shelter and the best perching places. Quarries with an overhang but no exposed rock were not used. Table 2 also gives the aspect of the quarries, that is, the direction in which the opening faced, but, as most were more than semicircular, good shelter could be obtained from most wind directions. The lower part of each face was covered by scree, and the foot of the workings

Table 2. Characteristics of quarries used by roosting Kestrels and Short-eared Owls

Quarry	Aspect	Length of face (paces)	Overhung	Exposed rock (feet)	Scree (feet)
1	SSW	30	Yes	3	9
2	NW	46	Yes	8	10
3	E	100	Yes	8	10
4	E	30	Yes	7	5
5	SE	26	Yes	5	6
6	NW	20	Yes	7	7
7	W	51	Yes	7	8

often contained both small mounds of rubble and turfs which had broken away from the top of the face. These sites were apparently favoured by owls, as pellets were located on many of them, but owls sometimes used similar sites to Kestrels, as pellets of both species were found beneath four of these roosts.

The vole population

Both Kestrels and Short-eared Owls prey largely on field voles (Lockie 1955; Simms 1961). The number of voles on the study area was assessed by the use of lines of unbaited break-back traps (Lockie 1955) and by putting down a half-square-metre quadrat at intervals of 10 or 20 paces and noting the presence or absence of vole runs, fresh droppings, old or recent grazing, and nests.

On the first night three trap lines (65 traps) were put out, with pairs of traps at intervals of five paces. The first and second lines (A and B) were laid through Sitka spruce planted in 1967 and 1968 at 6 feet intervals in rows 5 feet apart, *i.e.* with one ditch every 5 feet, and the third line (C) through ground planted in a similar way in 1970. No voles were caught. Vole movements may have been restricted by high wind and heavy rain, and a few of the traps were rendered ineffective by the wood swelling when wet. However quadrats spaced at 10 paces along and beyond the trap lines suggested that there were few voles except in the *Molinia*-dominated area of trap line B (table 3). Even here the extent of old vole grazing exceeded the new. Grazing was assessed on a scale from 1 (light grazing) to 3 (conspicuous areas of dead grasses with the lower stems eaten off at ground level). Old high intensity grazing was found only once (on trap line B) but small patches one to two feet across (category 2) occurred in four of the nine instances of old grazing. No moderate or high intensity new grazing was found. This result suggested that there were more voles during 1969 than 1970, and old grazing exceeded new on all trap lines except D, in sheep pasture.

On the second night 50 traps were put out at intervals of 20

Table 3. Evidence of vole activity along trap lines at Eskdalemuir

Trap line	A	B	C	D	E
Date planted	1967 or 1968	1968	1970	sheep pasture	1968
Quadrats	10	10	10	13	13
Number with					
Runs	10	10	6	1	12
Fresh droppings	1	7	1	2	3
Grazing					
—new	2	7	0	1	3
—old	9	9	0	1	6
Nests	0	1 (old)	0	0	1 (old)
Dominant vegetation	<i>Deschampsia caespitosa</i> , <i>Holcus mollis</i>	<i>Molinia caerulea</i>	<i>Molinia caerulea</i> , <i>Juncus</i> spp.	<i>Nardus stricta</i> , <i>Deschampsia caespitosa</i> , <i>Agrostis</i> spp.	<i>Holcus mollis</i> , <i>Agrostis</i> spp., <i>Deschampsia caespitosa</i>

paces, half through ground planted in 1968 and half on adjoining sheep pasture. One immature male vole weighing 16.5g was caught in the planted area. Quadrats were put down at intervals of 20 paces in the vicinity of the traps. The pasture had been heavily grazed by sheep and cover was rather sparse, and very few signs of voles were found (one run in 13 quadrats); but in the planted area runs were frequent (12 out of 13 quadrats), and voles were clearly more numerous. Again old grazing was much more conspicuous than new.

Lockie's (1955) standard trap lines of 25 single traps at 5-yard intervals caught an average of 2-4 voles per night over a 5-day period in the Carron valley, Stirlingshire. This was after a vole plague, with numbers still high but declining. The Eskdalemuir trap lines were much less successful, and evidence of vole activity also suggested that voles were not exceptionally numerous in 1970, and possibly less numerous than in 1969. They were also less numerous than at a peak in 1967/68 in Banffshire and Moray, where grazing along roadside ditches and elsewhere was generally more intense than anything encountered in Eskdalemuir (Hewson 1970).

Pellet analysis

Pellets of both Kestrels and owls were collected from the roosts, and 25 for each species were examined. Prey remains were identified from skulls and lower jaws. In the Kestrel pellets 18 field voles and 10 shrews *Sorex* spp. were found, a very similar proportion to that found by Simms (1961). In pellets collected between August and October over two years in up-

land districts of Yorkshire, he found evidence of 128 voles and 71 shrews, as well as smaller numbers of bank voles *Clethrionomys glareolus* and wood mice *Apodemus sylvaticus*.

In the owl pellets there were 51 voles and 19 shrews. Lockie (1955) recorded 143 voles and 33 shrews from pellets collected between 6th and 20th July. The higher proportion of shrews in the Eskdalemuir owl pellets, while not significantly different from Lockie's results, does indicate that vole numbers were not unusually high, and this is further emphasised by the comparison of the Kestrel pellets with Simms' (1961) findings.

Discussion

Although Kestrels and Short-eared Owls were more abundant on planted ground in Eskdalemuir than on sheep pastures to the north, their numbers were consistent with the available nest sites and food supply. Field voles were not numerous, but so large an area of vole-inhabited ground naturally supported a larger stock of predators than a comparable area of sheep pasture. Pellet analysis supported the results obtained from trapping and from an examination of quadrats. Lockie (1955) found that Short-eared Owls had territories of about 40 acres when voles were numerous, but declining, in April and May, in a similar habitat in the Carron valley with 30-40 pairs nesting on 3500 acres; by June, following a continued decline in the vole population, many owls had left, and the territories of two remaining pairs measured 386 and 292 acres. In Eskdalemuir owls appeared much less numerous than this. Neither Kestrels nor owls produced exceptionally large broods, but the presence of several family parties could give an impression of large numbers. It would be interesting to see the effect of a peak vole year on the predators in this area, and whether a proposal by Mr Rose to install nest boxes for Kestrels in the quarries, if carried out, would increase the breeding population.

Acknowledgments

We are grateful to R. Rose, Economic Forestry Group Wildlife Development Officer, for much help in the field, and to R. Jackson, Head Forester, for details of planting and of the position of existing woods and copses.

Summary

Reports of unusually large numbers of Kestrels and Short-eared Owls in Eskdalemuir, where a notable vole plague occurred about 1890, were investigated in September 1970. Both species of predator were counted in an area of about 4000 acres and the vole population was assessed by trapping and by quadrat examinations. It was concluded that the vole population was low and that the number of predators was consistent with this. Pellet analysis showed that the proportion of voles to shrews taken resembled that found in other food studies. Both Kestrels and Short-eared Owls used newly made quarries as roosts.

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Effects of fire on moorland bird life on the Isle of Rhum

L. A. BATTEN

Below-average rainfall on the Isle of Rhum in the Inner Hebrides during 1968 resulted in the moors drying out, leading to the formation of much highly combustible material, in the form of dry heather and moorland grasses, by the spring of 1969. Even the sphagnum mosses were dehydrated and crumbling. Because of the danger of fire breaking out in these circumstances, the Nature Conservancy decided to create additional firebreaks, to protect a large area of experimental tree planting which is part of its reafforestation project (Wormell 1968).

Whilst a firebreak was being burned on 25th March, fresh and variable winds rose and the fire got out of control. The changeable winds, combined with efforts to contain the outbreak, rendered the damage uneven. Some areas were not touched at all, others received a bad singeing when the fire rushed over the ground with the wind, and still other parts were burned so badly that the peat subsequently eroded from the rocks, leaving gaping holes and revealing more bedrock than before. Some of the hillside gulleys were gutted, leaving the sides charred and black. In all about 5000 acres of moorland were burned in the 60 hours or so that the fire raged.

In 1968 the birds of 280 acres of this moorland had been censused, using a mapping method, and breeding bird densities calculated on the basis of the number of territories occupied by singing males (Batten & Pomeroy 1969). This plot included 84 acres of moor which had been ploughed and newly planted with tree seedlings and which was part of the area affected by

Table 1. Relative densities (pairs per 100 acres) of species on planted and unplanted plots before and after moorland fire

	One-year-old moorland plantation 85 acres, 34.4 hectares		Unplanted wet moorland 196 acres, 79.4 hectares	
	1968	1969	1968	1969
Red-throated Diver	0	0	0	.5
Red Grouse	2.4	3.6	0	1.5
Snipe	2.4	2.4	0	0
Skylark	3.6	3.6	0	5
Wheatear	0	0	0	.5
Stonechat	0	0	1.2	0
Meadow Pipit	26.2	22.6	9.7	8.2
	34.6	32.2	10.9	11.2

Note. The following species were seen within the perimeter of the plots but were probably not breeding there: Golden Eagle, Raven, Curlew, Common Sandpiper, Cuckoo.

fire. In the period from 26th May to 4th June 1969 a repeat census was made over this same 280 acres in an effort to assess the effects of the burning on the bird population.

About 60% of the planted and 80% of the moorland census plots were burned. Fortunately the majority of the hardwood seedlings were not killed, and indeed most responded to coppicing; but many of the conifers, because of their inability to grow again from the root collar, were destroyed. Those which did survive were planted on ploughed land, where they were clear of the ground vegetation. Immediately after the fire the ground was black, but by the end of May when the census was started a healthy green colour indicated that recolonisation by purple moor grass *Molinia caerulea* and other grasses was well under way. Deer sedge *Trichophorum caespitosus* also showed definite signs of regeneration, but heather *Calluna vulgaris* did not, although heather seedlings appeared in profusion later in the season. In general the new vegetation was still sparse and little more than a few inches high, compared with eighteen inches or so when the 1968 census work was done. Growth later in the season was vigorous however, due to the release of nutrients by the fire. A detailed account has been given by Wormell (1970).

Although the bird life of the burned moorland showed very little change, a 6.7 acre (2.7 hectare) tree plot in Kinloch Glen, which was nine years old and contained trees of 4-5 feet average height, was damaged so badly that it was still black, with very little regrowth of grasses, in late May. Not a single bird was present where there had been five species totalling 12 pairs in 1968. The results of the moorland census studies are given in table 1.

Five full visits were made to the plots each year, totalling 25 hours in 1968 and just under 33 hours in 1969. In 1968 the census period extended from 7th May to 19th June, three of the visits being completed by 13th May. The weather during the first part of May was cool with occasional rain, and song records for Meadow Pipit were scarce; the two later visits, however, were carried out in warm sunny conditions, and song records were more frequent. In 1969 all the visits were made between 26th May and 4th June, when Rhum enjoyed a period of fine weather. This difference in weather conditions showed up in the number of song registrations, for, whereas only 32% of the contacts were for song in 1968, the figure was 60% in 1969.

It was noted that records of 'pairs' of birds were often associated with the song records in 1969; in fact, five out of 17 territories on the unploughed ground had song records associated with sight records of 'pairs'. A 'pair' of birds was therefore considered to have a high territorial significance, and, in order to reduce the distortion of the censuses arising from the differing weather conditions, a contact with two birds together was given equal weight with a song registration in estimating the distribution and number of territories. Mapping the census results indicated that despite the burning the carrying capacity of the ground was not affected, a total of 49 pairs of birds being recorded on the plots each year. The number of Meadow Pipits showed no significant change. The Stonechat, based on the gully in 1968, disappeared in 1969, possibly as a result of the gully being badly burned. The only obvious change was in Red Grouse, whose numbers went up from two pairs in 1968 to six in 1969; it is not certain whether this was a real increase or an apparent one due to the lack of cover facilitating detection of the birds.

As a control a further census was carried out on a 392-acre (159-hectare) moorland plot in a part of the island not touched by the fire. The total number of pairs of all species here was only 7.4 per 100 acres. This additional evidence also suggests that the plots were no poorer in their carrying capacity as a result of the burning.

Finally, a few other observations concerning the possible effects of the fire are worth mentioning. Golden Plover, which had been in the habit of breeding on the north side, away from the experimental area but within the area of burning, were still moving around in flocks of up to 22 in the valleys and on low ground in early June, at a time when they should have been in the hills. The site of a large colony of Herring Gulls in the affected area was deserted, and large non-breeding flocks were seen around the coast and at sea not far offshore. The three

alternative north-side eyrie sites of the Golden Eagle were burnt out and no nest site was occupied.

Acknowledgments

I would like to express my gratitude to the members of the BTO 1969 Expedition to Rhum for their enthusiastic assistance in carrying out the census work, and especially to Mr and Mrs A. B. Bailey who also laid down most of the grids. I am also grateful to Kenneth Williamson, Dr J. J. M. Flegg and Peter Wormell for very helpful comments on the manuscript. Facilities on Rhum were kindly provided by the Nature Conservancy.

Summary

A mapping census was carried out on a moorland plot on the Isle of Rhum in 1968 and repeated in 1969 after a fire earlier that year. No change in the total number of bird territories was detected on the plots, suggesting that the carrying capacity of moorland for most birds was not impaired by this burning.

There was however evidence to suggest that Golden Plover were not breeding on other parts of the burnt area. A large colony of Herring Gulls and the traditional nesting sites of a pair of Golden Eagles were also deserted.

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Short Notes

Great Northern Diver breeding in Scotland

In late April 1970 my daughter and her husband saw a pair of very large divers on a loch in Wester Ross. After inspecting them with binoculars they concluded that the birds were Great Northern Divers. Their description (dark head; light half collar above light throat band; white spots on upperparts) made the identification fairly convincing to me.

On 23rd June my brother and I were fishing on the loch. Early in the day we saw three pairs of Black-throated Divers, all with young. In the afternoon, as our boat took us among wooded islands on the loch, we both saw a diver much larger than a Black-throated and were immediately impressed by the black head of this bird, in sharp contrast to the grey head and hind neck of the Black-throated Diver. With my binoculars I at once examined the bird, which was swimming away from the boat at a range of about 80 yards.

Description Head very dark; neck thick, with half collar and light-coloured neck band with vertical black stripes; upperparts spotted with white 'windows'; underparts white; bill heavy and dark.

With the diver were two young, which constantly dived and were difficult to see against the background of rock and shore scrub. The general impression was that they were dark brown, with white underparts showing each time they dived. The trio soon disappeared and was not seen again, but later that afternoon I saw a diver similar to the adult we had already seen. It was about 400 yards away from the same place, in open water and diving frequently. On one occasion it surfaced with a small trout, which it swallowed.

On 25th June Richard Balharry searched the loch for two hours and finally sighted an adult with two young. On 9th July he had a much clearer view of the birds when, along with E. Cross, he was able to approach them by boat within 100 feet before they dived. Both adults were present on that occasion, and the young were approximately two-thirds the length of their parents.

The birds were undoubtedly Great Northern Divers.

ERIC N. HUNTER.

(Though birds are often present all summer in the north and northwest of Scotland, and breeding has been suspected from time to time, this is the first satisfactory record of breeding.—Ed.)

Unusual food of Cormorant

On 20th September 1969, while walking by Wick River in Caithness some three miles from the coast, I came upon a Cormorant at the river's edge. On seeing me, it disgorged two cockerels' heads, each about three inches long. It then moved 50 yards downstream. When I returned to the spot about an hour and a half later I noticed that the Cormorant was dead.

I. WARES.

Little Egrets in Scotland

On 12th October 1969 at a coastal marsh at Lochdonhead, Mull, Argyll, Col. M. T. de Klee discovered four Little Egrets. They were later seen by M. Clark, G. S. Heddon, W. Melville, J. Wilson, Col. C. P. Anderson and others, and a number of photographs were taken.

In general appearance the birds were like a Heron, with a Heron-like plume on the head, but white in plumage, with black bill, black legs and yellow feet. The feathering on the breast and back appeared loose and easily ruffled by the wind. One of the four had the appearance of a young bird, with some greyish colour on the underparts. It was slightly smaller than the others. In feeding, the birds made running darts here and there and deliberately stirred up the mud with their feet. They preened often, adopting various odd postures. They were last reported on 20th November, when Mrs de Klee saw three of them huddling among bushes for shelter from stormy weather and hail showers.

P. S. NORWELL.

On 26th October 1969 at Dunblane, Perthshire, a small white heron was seen flying among an excited crowd of gulls by the river. With immaculate plumage, black bill and legs and vivid yellow feet, the bird was easily identified as a Little Egret. It seemed very tired and tried to land on the top of an ash tree but was harried by the gulls, which drove it upstream.

D. E. ROWLING, M. MAXWELL.

On 29th October 1969 R. MacLennan found a Little Egret dead at Loch Portain, near Lochmaddy, North Uist. It was sent to the Department of Natural History of Glasgow Art Gallery and Museum, where it was mounted and now forms part of the Museum's collection.

C. E. PALMAR.

On 1st February 1970 a Little Egret was seen at the head of Loch Feochan, a sea loch south of Oban, Argyll. The bird seemed cold and hungry and allowed an approach to be made

to within about four yards. Full details have been given to the Rarities Committee.

A. GREGORY, S. G. HILL.

On 14th July 1970 at Loch Gorm, Islay, I watched a Little Egret for at least 15 minutes. It flew in from the north and landed by the side of the loch, enabling me to stalk to within 50 yards of it. At this range its bright white plumage and conspicuous long crest made identification certain. The bird flew off when mobbed by two Black-headed Gulls and was not seen again.

D. TOMLINSON.

(It is not clear how many different birds were involved in this series of records, which includes the first for the Argyll, Forth and Inner Hebrides faunal areas, nor whether some of the birds are more likely to have been escapes than wild immigrants.—Ed.)

Goldeneye breeding in East Inverness-shire

In mid July 1970 C. F. Mapletoft identified a Goldeneye with four ducklings on a lochan in East Inverness-shire. The birds were found independently by T. P. Milsom and others on 23rd July. TPM informed the local recorder, who visited the lochan on 29th July and found a female Goldeneye with four large young. They were identified as Goldeneye by the amount of yellow on the female's bill and the appearance of the ducklings. The female was full-winged and had no rings.

Spring courtship, and even mating, commonly occur as late as May in the surrounding area. In four of the last seven years birds (all apparently single) have summered in one or more localities. Local observers saw a female on the lochan in early May 1970, a male up to late June, but up to about mid July no young had been seen.

On 29th July the birds were seen in good light with 11 x 60 binoculars at ranges down to 40 yards. The partly feathered ducklings were midway in size between nearby adult Little Grebes and the female. They were very active, diving for up to 15 seconds, but generally staying within 10 yards of the female and following her closely when alarmed. The following description of the ducklings is taken from notes made at the time:

General appearance very grey, with head darker, grey-brown, redder below eye, chin paler; upper parts near uniform, grey-brown; scapular region paler (especially from behind); white marks just visible on the small wings; throat, breast and flanks paler grey, whitish centrally; belly a clearly defined white rectangle; bill apparently grey or blue-grey; iris (at 40 yards) obvious, whitish or pale yellow.

The ducklings at this partly feathered stage were rather un-

like the descriptions and illustrations of both ducklings and juveniles in the *Handbook*.

The lochan is set in extensive mature woodland and has by local standards an unusually rich and diverse bird population. There is heavy marginal growth and a good deal of emergent vegetation, but more than half the water is open.

The local recorder was satisfied the birds were likely to be wild, had nested nearby and had moved the ducklings to the lochan about mid July. This is the third breeding record for Britain and the first for Scotland. It may be the first record of truly wild birds. At the request of the local recorder it is published over the name of the editor.

ANDREW T. MACMILLAN.

The oiling of large raptors by Fulmars

In the 1969 Scottish Bird Report I noted with interest the report of a dead Honey Buzzard on the Orkney island of Copinsay and the fact that it was spattered with fishy oil (*Scot. Birds* 6: 82). The purpose of this note is to enlarge on my statement on the same page about the White-tailed Eagle soiled with Fulmar oil, and to place on record the oiling by Fulmars of another large bird of prey at Fair Isle.

As regards the eagle, the details are that a male White-tailed Eagle, which had been living free on the island since 2nd October 1968, was disturbed from a sea cave on Fair Isle on 19th August 1969, and instead of flying off strongly, as it would have done earlier in the summer, it flapped heavily over the water and fell into the sea during a struggle to land on a rock just offshore. It flapped and struggled in the water but could not become airborne; instead it drifted ashore, where it was caught and examined. The bird was fat and well fed but the whole plumage was soiled with Fulmar oil, each feather being matted and smelling strongly. It would appear that each time it had approached a young Fulmar on a nest ledge it had been spat at by the Fulmar before and during the struggle (the spitting of oil by Fulmars in self defence is well known), and in this way the plumage had become soiled. Earlier in summer the eagles had killed adult Fulmars in flight, but presumably they would be less likely to be hit by the Fulmar's oil when the struggle was sudden and in the air.

The eagle was left on the beach well above high tide and was seen in the same geo until the 22nd, but by 28th August it had moved round the headland to the next geo, where there was a dead gull on the beach. The eagle's power of flight had obviously been lessened by the soiling of its feathers, and it seems likely that the bird died in September when the last of the young Fulmars left the cliffs and it lost its plentiful and easily obtained source of food.

On 24th June 1970 and on the following two days a Honey Buzzard was observed in the sea cliffs on Fair Isle; Fulmars followed it closely whenever it flew. On 29th June this bird was found dead in a hollow near the cliff-top, and the state of its plumage was similar to that of the White-tailed Eagle. All the feathers were matted with strongly smelling Fulmar oil and its general condition was emaciated.

At Fair Isle the favoured resting places for large migrant raptors are in the cliffs, because the south end of the island is inhabited by people and the north end by aggressive skuas. During its short stay the Honey Buzzard frequented the cliffs at the north end of the island, which are densely populated with Fulmars (just over 17,000 pairs on Fair Isle). On one occasion Fulmars were seen spitting at it when it landed near them on the cliffs, and it seems likely that it was frequently hit by Fulmars spitting in self defence. In this way its flight feathers became soiled, making flying more difficult and laboured, while its body feathers became clogged, thus reducing insulation to both wet and cold.

Food for this species is difficult enough to find in the Northern Isles, and the added effect of the Fulmar oil would appear to have been an important contributory factor to the death of the bird. I would suggest that the fishy oil noted on the Honey Buzzard in Orkney was also probably Fulmar oil. In previous years at Fair Isle I have seen a few large birds of prey, Osprey and Honey Buzzard, looking rather soiled and unhappy, and it now seems likely they also had been attacked by Fulmars; this might also be true of a few newly fledged Ravens and young migrant Herons which I have noted in a badly soiled condition. I have been unable to find any previous reference to this interesting conflict between Fulmars and large birds of prey.

ROY H. DENNIS.

Gyr Falcon in Shetland

On 8th April 1970, while walking along the cliffs on the east side of Whalsay, I saw a Gyr Falcon. The bird rose from the cliff, flew to seaward for 100 yards or so, then turned east into the wind and flew about 200 yards along the shoreline. A pair of nesting Ravens flew out from the cliff, rose above the falcon and swept down on it several times. The falcon banked to leeward, crossed in front of me at about 100 yards distance and flew along the shore for about a mile until a hill took it out of my sight.

It was a little smaller than the Ravens, but much more graceful, with slim outline and pointed wings. It was like a Peregrine

in flight, but bigger and with a slower wing beat.

Description Head and neck white; back, mantle and scapulars white, with a scattering of black spots; wings white, well marked with black spots, black-tipped and pointed; tail, rump and underparts white.

I was in no doubt that this was a Gyr Falcon of the Greenland form. Although I searched the island during the next few days, I did not see the bird again.

J. H. SIMPSON.

Dowitchers in Dumfriesshire and Orkney

On 16th August 1969 I watched a dowitcher on a sandbank at the estuary of the River Nith. I did not note sufficient details of the plumage, however, to be able to say whether it was of the Long-billed or Short-billed species.

My first impression was that, in body size and length of bill, the bird was somewhat similar to a Black-tailed Godwit with which it was closely associating, but its very short legs (so short that at first I did not think I had their whole length in view) gave it a more snipe-like shape. The general impression was of a very pale grey snipe-like wader, almost whitish underneath it in some lights (I did not see any trace of warm buffish colour about the breast). The light was excellent, though I was not able to observe the bird at less than 50 yards range. The following description is drawn from notes made shortly afterwards:

Face greyish white, with dark grey line running from bill through eye; whole of throat, breast and belly greyish white; mantle dark grey; back white, visible between closed wings when the bird walked directly away; rump white; outer wing feathers including primaries dark grey, inner primaries showing an area of light grey; bill very long, straight, wholly dark, like a snipe's but not like a godwit's; legs dark.

The bird fed by probing deeply into the sand with its bill. When it flew towards further sandbanks on the north side of the river, the white back and rump were clearly seen.

M. L. R. ROMER.

On 4th April 1970 I discovered a dowitcher on the marshy area at the south end of Ancum Loch, North Ronaldsay. My attention was drawn to the bird as it gleamed in the sunlight; its predominant colours were silvery-grey white and black. It was standing thigh-deep in mud beside a Redshank and was about the same size but of much heavier build; the long snipe-like bill was immediately noticeable.

The dowitcher seemed tired; it did not feed, and even when I approached to within 25 yards it did not move, although I

flushed all the ducks, gulls and waders around. The following description was taken on the spot :

Crown dark grey, giving capped appearance; superciliary white; eye-stripe blackish grey; nape grey; back and wings silvery grey, grey, black and white; leading edges of primaries black; trailing edge of secondaries spotted white (in flight); breast and flanks light grey, streaked greyish-black; belly white; under tail-coverts spotted black on white background; tail and lower rump barred black on white background, markings larger and more numerous at tip of tail; legs seemed dark (seen only when they had emerged from mud); bill long, dark at tip, pale at base.

I flushed the bird, and the white line up its back was immediately noticeable. It called a lowish double *chu*. In flight the bill was held low. It was carried by the westerly wind in the direction of the links, where it appeared to land in snipe-like manner. I searched the area with Dr Ditchburn but we did not find the bird.

I returned to Ancum Loch in the afternoon and found the dowitcher where it had been originally. I left it with its head under its wing, but three hours later it had gone, possibly disturbed by a farmer spreading manure nearby.

The call note was completely different from that of the Long-billed Dowitcher I had seen on the Endrick in 1969 (*Scot. Birds* 6: 40), and I thought the bird was probably of the Short-billed species, but in view of the difficulties of separating the two species it has been accepted simply as a dowitcher sp.

R. J. W. SHAW.

(These are the first records of dowitchers in the Solway and Orkney faunal areas.—ED.)

Marsh Sandpiper in Shetland—a postscript

A Marsh Sandpiper at Gott on 4th-6th May 1969 has already been reported and described (*Scot. Birds* 6: 42). In selecting a photograph of this bird for the 1969 Scottish Bird Report we chose one which offered a size comparison with a Black-headed Gull and which was also the sharpest of several long telephoto shots taken under difficult conditions (*Scot. Birds* 6: 99).

The photograph is curiously misleading, as it shows the bird with an apparently thick-based pale-coloured bill. This led Dr R. J. H. Raines, who has much experience of the species, to comment that he had never seen a Marsh Sandpiper with such a bill and to suggest that the bird looked more like a very small Greenshank, a species reported by another observer at the same place next day. Nonetheless, the text description supported the identification as a Marsh Sandpiper. We therefore referred the matter back to Dennis Coutts, who had described and photographed the bird.

He comments that the published photograph is not like the bird at all. A remote possibility to account for the apparent distortion of the bill is that the bird bobbed its head as the slit of the camera's focal plane shutter crossed the image of the bill. Mr Coutts emphasises how thin the bill was, and how other observers had independently noticed this. It was like the *Handbook* illustration but with the outer third a little thinner; only the outer half was uptilted, very slightly, R. Duthie considering that the bill was in fact straight. The bird was paler on the breast than the photograph shows, and absolutely white beneath. The legs were very dark green, appearing black to RD, and trailed more than the length of the tail beyond it (say 2-3 inches). When first seen, standing out of the water beside Redshank and in a similar posture, the bird stood $1\frac{1}{2}$ -2 inches lower although its legs were certainly no shorter.

We are reproducing another photograph (plate 14) of the same bird. Although technically less satisfactory, this does give a truer impression of the thinness of the bill.

ANDREW T. MACMILLAN.

White-rumped Sandpiper in Orkney

On 31st October 1969 on the island of North Ronaldsay I watched a White-rumped Sandpiper. When first seen, it flew up and towered above my head, calling a sharp, clear, repeated *tip, tip, tip, tip* or *teep, teep, teep, teep*. The call note was definitely different from the thin *jzeet* note I have previously heard from this species and, although sharp and clear, lacked the usual thin, mouse-like quality.

I had good views of the bird in flight, and its most noticeable character was the clear white band across the base of the dark tail. The tail feathers appeared pointed. The bird was smaller than a Dunlin. Its general colouration was dark; I suppose it had partially retained its summer plumage. In general appearance it resembled the *Handbook* illustration of a juvenile male. On the ground the bird was not seen so well. It was with some Purple Sandpipers (whose wing-bar was rather similar), and ran about swiftly, picking up food from the muddy shore of a small loch.

Description Head, neck and breast purplish grey, with no visible eye-stripe; back and wings brownish, variegated whitish, with pale wing-bar; tail dark, with clear white band; underparts greyish white; bill stout, dark, shorter than a Dunlin's.

During the previous five days there had been strong-to-gale-force northwest winds.

D. B. WOOLDRIDGE.

(Mr Wooldridge also submitted a sketch of the bird. This is the fifth Scottish record and the first for Orkney.—ED.)

White-winged Black Terns in East Lothian, Nairnshire and Inverness-shire

On 5th July 1970 a White-winged Black Tern was present between 1230 and 1900 hrs BST at Aberlady Bay. It was first seen when it flew up from among a group of Common Terns on the shingle spit, and I watched it flying around for about ten minutes. During the afternoon it spent a great deal of time at the Marl Loch, catching flies from just above the surface of the water by repeatedly swooping down in an arc from a height of four to six feet. It perched for some time on a post in the Marl Loch to preen, and made occasional excursions to quarter over the saltmarsh.

The bird was seen in good light with binoculars, and at the Marl Loch often came within ten feet of me. It was a small tern, intermediate in size between Common Tern and Little Tern. Its flight was noticeably buoyant, slower and more jerky than that of Black Tern.

Description Head, nape, neck, mantle, throat, breast, belly and flanks strikingly black; black of mantle grading into very dark grey of upper rump; lower rump white; tail white above and below, slightly forked; under wing-coverts distinctly black; underside of primaries and secondaries pale grey, darker towards tips; upper wing-coverts grading from white at leading edge to pale grey; secondaries pale grey above; primaries pale grey above with white trailing edges; bill black, shorter than that of Black Tern, slightly decurved at tip; legs and feet pinkish red; eye dark.

R. M. BLINDELL.

On 14th July 1970, while ringing tern chicks at a colony on Whiteness Head on the Nairnshire/Inverness-shire border, I noticed an unfamiliar bird resting with a party of Common Terns and their newly fledged young about 150 feet downwind of me. It was facing me and appeared totally black, with prominent white shoulders. The resting birds flew up from the shingle, and I immediately identified the stranger as a White-winged Black Tern in summer plumage. At first the bird flew out of sight over the Inverness-shire coast about a mile off, but it soon returned and was watched, in both counties, at ranges down to 40 feet as it flew with a mixed party of terns over the sea. It finally landed on the shingle with a group of juvenile terns and was still there when I left soon after.

Description Head and body uniform mat black; white mark noted on ear-coverts; fore edge of upper wing strikingly white in contrast with black body and greyish primaries and secondaries; under wing-coverts black, with slight pale mottling noticeable only at short range; tail pure white, slightly forked; upper and under tail-coverts and lower rump pure white; legs red; bill blackish, similar in size and shape to that of a Common Tern.

The bird was slightly smaller than a juvenile Common Tern

and of similar build. Its wings were more rounded and slightly smaller than those of an adult Common Tern, and its flight appeared somewhat sluggish in comparison with that species, reminding me of a Black Tern.

B. ETHERIDGE.

(These are the eighth and ninth records of the species, first recorded in Scotland as recently as 1964; there is no previous record for the Moray Basin faunal area. The bird has occurred only on spring migration, between 7th May and 14th July.—ED.)

Pallas's Sandgrouse in Shetland

From 26th to 31st May 1969 a most unusual bird was present on Foula, feeding on newly cultivated land. Eventually it was identified as a Pallas's Sandgrouse.

Though about the same length as a Woodpigeon sitting not far from it, the bird was not so big, being more the size of a large Rock Dove. The nearest colour illustration in the *Field Guide* was of a Partridge, but the orange head markings were not correct. It sat very low on the ground and walked the same way, when it looked broad across the back. Its legs were so short that the feet were difficult to see, though a glimpse as the bird moved over a clod of earth gave the impression that they came straight out in front in a clumsy way. The bird kept its tail close to the ground all the time, moving slowly, except for its head, which was continually on the move. The long greyish wing feathers extended right back over the tail. As it looked for food it kept moving its beak from side to side in a scraping movement in the soil.

The first impression in flight as it rose suddenly off the rig was of a very oddly coloured racing pigeon, but it was quite unlike anything we had ever seen before. It flew fast with rapid beats (like a Golden Plover) of its long pointed wings. It seemed long and narrow in flight, tapering towards the tail.

We examined the bird for some time on different occasions with telescopes, and the following description, like the account above, is compiled from our combined notes:

On ground, general colour sandy or fawn above, with little dark brown squares across back and top of wings; head, neck and breast uniform dull grey, with yellowy orange spot on each side of lower part of head and top of very short neck, and same colour lower on side of neck or throat (JGH had the impression of small orange spot in front of eye, larger triangle behind, and still larger irregularly shaped patch on neck and throat below eye, with dark irregular stripe or ruffled feathers on the lower edge of it, but hard to define markings as head never still); head very round, with thick neck, and short, fairly thick, grey beak; underparts seldom visible on ground, though dull



PLATE 15. Roger Broad, the new warden of Fair Isle Bird Observatory, and his wife Judy (see Editorial page 182).

Photograph by Dennis Coultts



PLATE 14. Marsh Sandpiper, Gott, Shetland, May 1969, another view of the bird on plate 5(b), showing the very thin bill (see page 201).

Photograph by Dennis Coultts

PLATE 15. Fieldfare, two views of fledgling, Inverness-shire, 17th June 1970 (see page 212).

Photographs by N. Piozzi



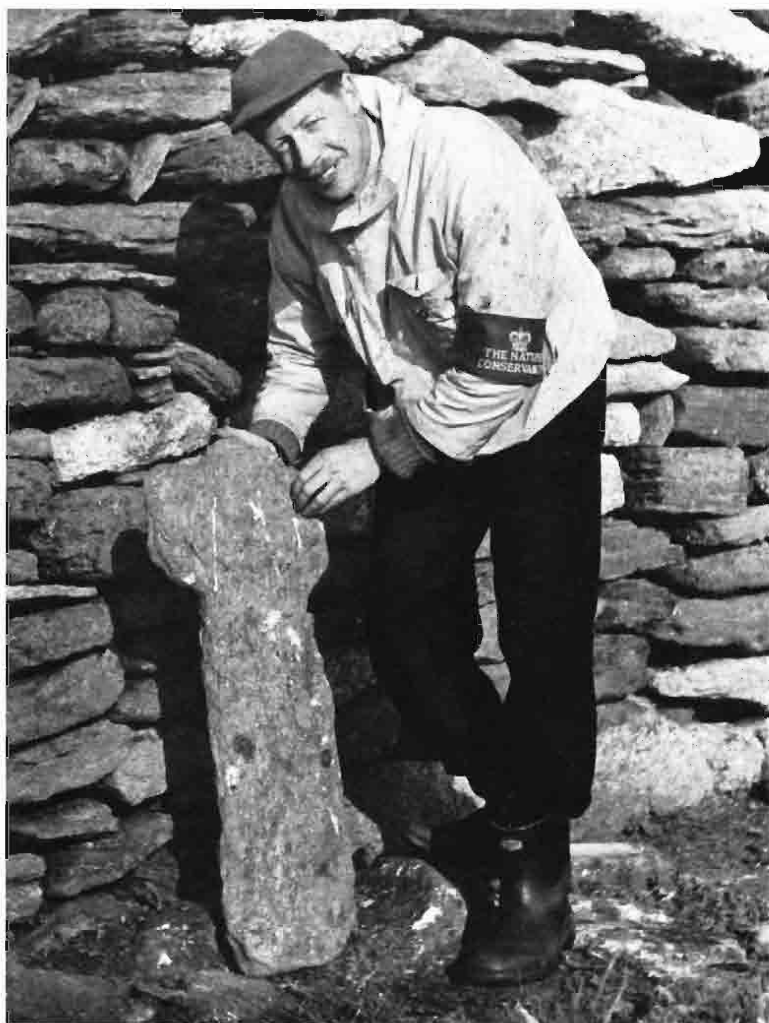


PLATE 16, James MacGeoch in his role as North Rona Honorary Warden, with a rough stone cross outside the old chapel, June 1958 (see Obituary page 216).

Photograph by James MacGeoch

black patch on belly (broad and kidney-shaped) sometimes seen when bird crossed a ridge; underparts off-white behind black patch; underwing not clearly noted, but thought to be lightish; primaries long and greyish.

JOHN G. HOLBOURN, MIMA GEAR.

(Though formerly an irregular irruption species, with 2000 recorded in Scotland in 1888, and breeding in Moray that year and in 1889, Pallas's Sandgrouse has been virtually unknown in Britain since the most recent influx to England in 1908. Then on 28th December 1964 one was seen in Kent, apparently after a two-month stay in the Netherlands, where it was also the first recorded since the 1908 invasion (*Brit. Birds* 60: 416). One of the most interesting features of 1969 was the occurrence of a small but significant number of Pallas's Sandgrouse in north and west Europe (*Brit. Birds* 62: 452).—ED.)

Alpine Swift in Aberdeenshire

On 19th April 1970 at Rattray Head, a Swift-like bird was seen flying at a height of 30-70 feet. Although it flew like a Swift, it was clearly larger in size and paler in plumage than that species. It was immediately identified as an Alpine Swift. It flew from between the dunes and the lighthouse cottages, and hawked above the dunes for a little time. It appeared to be feeding, diving and twisting frequently, sometimes with wings winnowing and sometimes flying in fast shallow dives. At times the bird was almost falcon-like in appearance and flight. When gliding and banking, it seemed to hold its wings closer to the body than a Swift and not quite so stiffly. The long wings and large Swift-like shape were outstanding; the tail appeared forked at times but not quite as much as that of the Swift. All upperparts were 'Sand Martin' brown; the belly was white and extremely conspicuous as the bird twisted and turned in the sunlight. Although we could see the demarcation between belly and breast-band, the white throat was not seen, probably because the bird was flying away from us most of the time.

N. ELKINS, J. ELKINS, M. R. WILLIAMS.

(This is the first record for the Dee faunal area and Aberdeenshire.—ED.)

Kingfishers breeding in Easter Ross

From 2nd April 1970 an estate employee regularly watched a pair of Kingfishers at a river in Easter Ross. On 25th April he located a nest hole. The nesting tunnel had been excavated at a point where the river bank was very low, and the entrance hole was only slightly more than two feet above the water level. The tunnel was about three feet long. On 6th May the nest

chamber was inspected and found to contain a clutch of six eggs. When a further visit was made on 26th May, three nestlings had emerged, and by 30th May the entire clutch had hatched successfully.

Unfortunately a thunderstorm of exceptional severity and torrential rain struck the area on the evening of 6th June. When the site was visited next morning it was found that the bank had collapsed and that the spate had washed everything away, leaving no trace of the nest and its contents.

D. MACDONALD.

(At the request of the observer, this note appears over the local recorder's name to avoid disclosure of the exact locality. It is the first breeding record for the Moray Basin, and well north of the normal range of the species.—Ed.)

Roller in Caithness

On 19th June 1969 at Skail Forest a local farmer saw a Roller. J. Gunn and Dr Pamela McMorran saw it on the 21st, and on the 22nd P. James, K. Goodchild and I saw it. It was feeding, apparently on insects, in a grass field adjacent to a forest plantation. Occasionally it would fly to perch on a fence post; its flight was a series of rapid wing beats followed by a long glide. In flight the tail was wedge-shaped.

Description Head turquoise, with black eyestripe and forehead, and chin a paler blue-grey; mantle and scapulars chestnut-brown; primaries dark brown-black; tail black with pale white edge; breast and underparts and underside of tail turquoise; bill thick, black and pointed; legs dark brown.

The bird was last seen on 24th June.

D. M. STARK.

(Details of two later 1969 records have already been published (*Scot. Birds* 6: 47).—Ed.)

Lesser Spotted Woodpeckers in Scotland

Following a report of Lesser Spotted Woodpeckers visiting a garden bird table on a few occasions in the autumn and winter months during the previous two years, Forestry Commission Ranger R. Rose visited the garden on 23rd September 1968. The locality is one of mixed woodland in East Stirlingshire and the birds have also been seen to cross the county boundary into South Perthshire, both divisions being in the Forth faunal area. Great Spotted Woodpeckers are common in the area and frequent the same bird table, being well known to all the observers.

Two birds were present, and Mr Rose watched them for about half an hour at down to 30 yards range, but without his binoculars. Their behaviour was shy and retiring as they worked the slender upper branches of hazel and hawthorn, apparently seeking insects. Their flight was the typical undulating flight of a woodpecker, and the call was noted as a repeated *chee-chee-chee*. The birds were about the size of large sparrows, with back and wings closely barred black and white. The occupants had seen them at times just outside the window, and had noticed the small size and bars on the back, but the colour of the crown was not noted.

The birds were not seen in 1969, but reappeared in hard frost and six inches of snow on 5th and 6th January 1970. Mr Rose and the occupants of the house again noted the shy, nervous behaviour of the birds, hard to approach nearer than 25 yards, size slightly bigger than a House Sparrow and shape like a very small Great Spotted Woodpecker. This time there were three of them on a high hedgerow of holly and hawthorn. They climbed trees close to the trunk like Treecreepers. The white bars across the black back and wings were again noted, and the upper tail-coverts were black. One bird had red marks on top of the head, the other two light grey; all three had light underparts.

The surrounding area, with its extensive conifer plantations, bears no resemblance to the open parkland in which I have seen the species in England. There is, however, a similarity to the habitat of the northern race *Dendrocopos minor minor* in Scandinavia.

JOHN MITCHELL.

(We were initially reluctant to accept the 1968 and earlier sightings as the first Scottish records of the species, especially as various ornithologists had tried without success to see or hear the birds, but the 1970 record, with good views and a fuller description, would seem to put the identification beyond doubt.

Previously there have been no satisfactory Scottish records, though there was an erroneous report of breeding (see *Glasgow Bird Bull.* 7: 1-7 and *Scot. Birds* 1: 120 for comment), and there is no lack of unsubstantiated records, published and unpublished, and confusion with Great Spotted Woodpeckers (which, incidentally, are well known to visit bird tables). In Sweden the Lesser Spotted Woodpecker is not uncommonly found visiting bird tables (Anders Bjärvall, Director of the Swedish Society for the Conservation of Nature, *in litt*).

In England the bird is very thinly distributed, especially in the north, so that expansion into central Scotland would be rather unexpected. English birds also are largely resident

throughout the year, and are said to avoid conifers, whereas the Scandinavian race is partly migratory, some birds moving south in winter, and in parts of its range occupies just the sort of habitat found in this area of Scotland. Professor M. F. M. Meiklejohn tells us that the valley in which the birds were seen is an enclave of deciduous trees in the middle of conifer plantations, with numerous oaks, birches and alders. It is the only part of the immediate area where Tree Pipits are common, and when he walked 16 miles through the area by night it was the only place where he heard Nightjars—three of them churring together.

Various Scandinavian species, such as Wood Sandpiper, Wryneck, Fieldfare and Redwing, have begun to breed in Scotland recently, for reasons that are not altogether clear. It could be that these Lesser Spotted Woodpeckers, possibly only winter visitors, provide a parallel with the Wrynecks recently found breeding in Speyside at a time when the English population is disappearing nearly 500 miles further south.—ED.)

Fieldfares breeding in East Inverness-shire

In 1970 a pair of Fieldfares fledged six young from a nest in East Inverness-shire. A bird was first noted on or shortly before 23rd May, and when I and another observer searched the locality on 27th May we found a pair, which, from the noisy, aggressive behaviour of the male and the secretive behaviour of the female, appeared to be nesting or about to nest. We decided not to attempt to find the nest until the birds were feeding young. After seeing an adult carrying a faecal sac on 10th June, we located the nest in an oak tree on the same day. On 11th June I climbed to the nest and ringed the six young. They were large, with eyes open, and were just starting to feather. Two young flew on 16th June, and the remaining four on 17th June; all were very short-tailed when fledged (plate 15). The birds were seen, increasingly irregularly, up to about the end of June.

The male appeared slightly smaller than the female, more dapper and with a bluer rump. He was extremely noisy and aggressive and was watched chasing common Buzzard and Jackdaw. Both birds mobbed human observers vigorously. Besides the 'chacking' note, there was an alarm churring, similar to that of the Mistle Thrush but harsher. Singing was noted only once, immediately after I had ringed the young. The male made exaggeratedly slow flights, with wings and tail fully spread, singing loudly. The opening notes sounded like a harsh and squeaky start to a Blackbird song, followed by a jumble of notes, repeatedly including a note like a Song Thrush in pain.

A newly fledged juvenile made a similar note when handled. Unfledged young on 11th June had a cheeping call like that of the House Sparrow.

The breeding habitat was park-like, a mature oak and birch wood with a thin, scattered understorey of young birch and hazel scrub and floor layer of grass. There was open, hummocky grassland below the nest wood, with small clumps of mature oak and birch. Adults were seen to forage up to 200m from the nest in this habitat and probably exploited other habitats further afield. The nest was about 8m up, on the fork of a sloping branch in the lower part of the canopy of an oak 12m high. The outside diameter of the nest was only about 150mm, the depth rather more. The outside was mainly of grasses, covering a substantial mud cup, which was lined also with grasses.

This is the first breeding record for the mainland of Scotland. The observer who first saw the male and located the nest wishes to remain anonymous to avoid disclosing the locality, since the nest was near his house. The birds and/or the nest were also seen by G. L. Atkinson-Willes, R. H. Dennis, A. Pelham-Burn and N. Picozzi.

D. N. WEIR.

Redwings breeding in North Perthshire

On 30th May 1970, at a road junction in North Perthshire, George Alderson and I saw a Redwing sitting on a fence rail at the side of the road. On looking around we discovered another bird sitting on the telegraph wires, singing, and a third at the edge of a small wood. Two of the birds flew into a field on the north side of the junction and started foraging under some larches. GA then observed one of them feeding a well fledged young on a log under the trees. After watching the birds for some 20 minutes, we determined that there were two young birds being fed. The young were similar in appearance to a young Song Thrush, but darker. The head was dark grey, with a pronounced white eyestripe. After being fed, one fledgling flew up into the lower branches of one of the larch trees; the other flew across the road into a small birch plantation.

J. JEFFERSON.

(In recent years increased and significant numbers of Redwings have been found breeding in northern Scotland (see e.g. *Scot. Birds* 5: 342; 6: 111), but this record, which is the first for Tay and North Perthshire, represents a substantial extension southwards from the Spey Valley over the Grampians.—Ed.)

Behaviour of Wheatears and rabbits in a warren

On 15th June 1969 I was greatly intrigued by the behaviour of two pairs of Wheatears nesting in a large rabbit warren on a hillside near Heatherhope Reservoir, Roxburghshire.

About 40 rabbits, males, females and young, were basking and playing there in the bright sunshine of the late afternoon. The birds were repeatedly entering and leaving the rabbit-holes, and must have been feeding young inside. Owing to the playfulness of the young rabbits, however, the Wheatears had great difficulty in gaining access to the holes and frequently had to dive at the young rabbits, pecking and displaying at them to drive them away. Sometimes a rabbit would follow a Wheatear down a hole, to be driven back out again, or even to come popping out of another hole pursued by the bird.

I had never previously seen Wheatears nesting in an occupied warren.

R. S. BAILLIE.

Black-eared Wheatear in Caithness

On 2nd July 1969 M. Williams saw a strange wheatear, which he tentatively identified as a male Black-eared Wheatear, at Hill of Many Stanes, Clyth, near Lybster. The bird was seen that evening by MW, DMS and D. Harris, and the identification was confirmed. In general appearance and size it was like a common Wheatear, but black and white in plumage and with extensive white sides to the tail. The following detailed description was made:

Forehead buff, shading to white on crown and nape; mantle, back and scapulars silvery white; rump and upper tail-coverts pure white; lores and ear-coverts black; underparts from chin to under tail-coverts white, with breast washed creamy buff; wings uniform dark brown, almost black; tail white with dark central feathers and (hard to see) narrow dark tips to outer feathers; bill, legs and feet black.

The bird's behaviour was solitary. It appeared to roost in an old bothy, and when disturbed flew onto the wall of a ruined croft.

On 15th July EMS and RWJS saw and photographed it, in the same area of exposed rough grazing with an occasional cultivated field. They noted that the black of the wing-coverts extended over the scapulars, giving the bird, when viewed from the rear, nicely rounded symmetrical black shoulders on each side of the white mantle. From a distance the rest of the plumage appeared white, the underparts gleaming in the sun. The bird had started to moult, particularly on the head; at close quarters the crown was grey, very pale at the back and darker at the front.

When feeding, the Black-eared Wheatear perched on the old croft or on top of the fence, flying down to the long grass and quickly back again, whereas the common Wheatears spent most of their feeding time on the road or adjacent bare field, using the fences only occasionally.

E. M. SMITH, R. W. J. SMITH, D. M. STARK.

(This is the first record for the North Coast faunal area.—Ed.)

Subalpine Warbler in Angus

On 14th May 1970 during a period of easterly winds and coastal fog which had produced such migrants as a Wryneck, two Lesser Whitethroats and two Bluethroats, an unfamiliar warbler arrived at the cliff-top fields north of Arbroath. After making a detailed description, I identified it as a Subalpine Warbler. It frequented a drystone dyke, and I observed it at distances down to nine feet, using 10 x 40 binoculars. The bird continually flicked and cocked its tail.

Description Head, back and scapulars blue-grey; rump grey; distinct white moustachial stripes, and whitish patch below bill; chin and throat chestnut-pink; breast and flanks paler pink; rest of underparts white, with faint pink tinge; tail dark brown, with outer edges white; wings uniform black-brown; bill dark brown; legs pinkish-brown; eye-ring red.

Later that day I returned with N. K. Atkinson who also saw the bird.

M. NICOLL.

(This is the first record for Tay and Angus.—Ed.)

Black-headed Wagtail at Fair Isle

On 7th May 1970 a very fine male Black-headed Wagtail was found by Julian Harris beside Easter Lothar Water. It was seen later by many observers including myself, and was watched at ranges down to ten yards as it ran after insects in the short grass beside the loch and among the stones at the water's edge. In the evening it was more flighty and twice flew to the nearby cliffs. Next day it again frequented Easter Lothar and on 9th May it was seen beside Byerwell pool in the middle of the island.

The most distinctive feature of the bird was its very black head, the black extending unbroken onto the nape and below the eye; there was no eyestripe and no white below the black. Otherwise it was similar to a Grey-headed Wagtail, although the whole of the underparts appeared even brighter and deeper

yellow. The wings were marked with two pale-yellow wing-bars and noticeable white edgings of the tertials. The call was slightly harsher than that of the other *flava* wagtails and was sufficiently different to distinguish the bird in flight. There were three Blue-headed Wagtails, two Grey-headed Wagtails and seven Yellow Wagtails on the island on 8th May. All three races are regular at Fair Isle, but this is the island's first record of a Black-headed Wagtail.

ROY H. DENNIS.

(The five previous Scottish records are listed in *Scot. Birds* 6: 176.—ED.)

Obituary

JAMES MACGEOCH

(Plate 16)

The sudden death of Jim MacGeoch on Saturday, 19th September 1970, when his car struck a stone wall on the outskirts of Inverness, is a tragic loss to all who knew him, and to his fellow members of the SOC in particular.

Mr MacGeoch was well known throughout the north of Scotland, both in the Police Department, in which he served with distinction for 30 years, and in ornithological circles, where his knowledge and deep interest were held in great respect.

Jim MacGeoch was one of the founder members of the Inverness Bird Watching Group, which was begun in 1952, and he with others was responsible for this Group becoming the Inverness Group of the SOC, which in turn was to graduate into the Inverness Branch of the SOC. At the time of his death he was Secretary of the Branch, as well as a Member of Council, and it was due to his enthusiasm and boundless energy that the Inverness Branch has developed into the thriving and active organisation which it is today. Jim's interest in birds and in birdwatching was infectious and his strength lay in his ability to stimulate others, especially the young, so that under his guidance their enthusiasm soon matched his own.

Although birdwatching was probably his chief interest he was involved in many other activities. His unquestionable ability as a photographer was recognised far beyond the north of Scotland; he was interested in archaeology, Freemasonry, piping, the Gaelic language, and indeed almost any cause connected either with natural history or with his beloved Highlands.

In 1956 Jim MacGeoch was appointed Honorary Warden for

the Nature Conservancy of the North Rona and Sula Sgeir Reserve. This appointment was made at the personal request of Max Nicholson, then Director-General of the Nature Conservancy, and the carrying out of the duties of this appointment gave him immense satisfaction, although it often involved danger, and frequently discomfort, owing to atrocious weather conditions. Jim was the obvious man for this job. Early in his career he had won the confidence of the Men of Ness and had accompanied them to Sula Sgeir on their annual *guga* hunt, just as he had gone along with the shepherds when they went to round up their sheep on North Rona. He made many expeditions as Warden and took his share in the arduous job of counting and branding the grey seals. The slides, films and sound recordings which he brought back have delighted audiences throughout Scotland.

He will, of course, be remembered for many things, but we of the SOC will think of his interest in birds and his liking for 'birding folk'. He was an outstanding raconteur and he liked nothing better than an evening of song and story in the company of those who shared his interests.

As fellow birdwatchers we respect his memory and extend our sympathy to those who will miss him most, his widow and three children.

HAMISH A. MAXWELL.

Reviews

St Kilda and other Hebridean Outliers. The Island series. By Francis Thompson. Newton Abbot, David & Charles, 1970. Pp. 220; 33 photographs and 14 text figures (7 maps). 21½ x 13¼ cm. £2.50.

Like others who have written books about these remote Scottish islands, the author draws heavily on the works of those who went before, including our incomparable Martin Martin, *Gent.*, so that much of what he writes is already familiar. But the powerful fascination of the tale is still there; and no devotee will regret another book on the Hebridean outliers nor hesitate to add it to his collection.

The first half deals with St Kilda; the latter with North Rona, Sulasgeir, the Flannans, the Monachs and Heisgeir Rocks. There are also appendices on natural history and island placenames, and a useful bibliography (but with not a single reference to the pages of *Scottish Birds*).

The book is attractively presented, with a good range of maps and photographs (many by the late James MacGeoch), and excellent typography and paper. It is therefore the more disappointing to find an irritating number of trivial errors, which should have been eliminated by careful checking and proof-reading. For instance, all £sd amounts are also quoted in £p, but in a single table the half new penny is printed as ½p (correct), .50p and .5p (both wrong). Mileages on the map of Sulasgeir are double those given in the text. The Gannet is said to have black tops to the wings (in a context that shows it should be black tips).

Two of three named visitors to St Kilda in "the present century" in fact made their visits in the previous one. The Fulmar is similar in size to "the gull" (species unspecified). Likewise we are not told the species of a "seal" pictured in a sea pool on North Rona. The Puffin is about the size of a pigeon, with plumage "red and white about the breast." The Razor-bill is *alca torca*; and other errors in scientific names could be added to the two here. Over-exploitation of the Gannet at St Kilda and elsewhere, which is said to have led to either the extinction of the species or reduction of the population below the limit for continued survival at these colonies, is at least exaggerated. The main island of St Kilda, except in Appendix A, is called Hirt, without comment, though the more usual form has been Hirta.

Despite these criticisms one may still welcome this book, for the way in which it provides an introduction to St Kilda and its distant neighbours. The author is never dull; he looks at his subject from a variety of angles (hence, probably, the slips, for it is not easy to be expert in every field), and he captures something of the magic of remote islands, so well expressed after the second world war in Robert Atkinson's superb *Island Going*, now long out of print.

ANDREW T. MACMILLAN.

A Guide to Shetland Birds. By Bobby Tulloch & Fred Hunter. [Lerwick], The Shetland Times, 1970. Pp. [72]; 24 photographs, 5 line drawings, folding map (with plan on reverse). 22½ x 15½ cm. Soft cover 50p.

This modestly priced guide will be very useful for the visitor to Shetland, one of the most ornithologically exciting parts of Scotland. The various islands and their birds and habitats are briefly described, and the birdwatcher is given plenty of guidance on where to go and how to conduct himself. Sensible emphasis is placed on preserving the attractions of Shetland's birds for those who come after; but there is a refreshing lack of secrecy over localities.

Some 18 pages describe the islands (curiously, the pages are not numbered). Then follows a 7-page detailed status list of the breeding birds and a 6-page list of the more regular migrants. Breeding birds are treated more fully than migrants, but the lists are not mutually exclusive, many species appearing in both, and some breeding information only in the migration section.

The rest of the guide consists mainly of a series of fine photographs of local birds by Bobby Tulloch and Dennis Coutts, a checklist for the observer to enter his own records, some general material, and several blank pages on which to make one's own notes.

Bobby Tulloch and Fred Hunter have done an excellent job; let us hope that we may soon see imitators doing the same for other parts of Scotland.

ANDREW T. MACMILLAN.

Highland Deer Forest. By Lea MacNally. London, Dent, 1970. Pp. xii + 107; 48 plates (76 photographs). 21½ x 13½ cm. £2.

For nineteen years the author worked as head stalker on the Culachy deer forest in Inverness-shire. During these years he stored a fund of anecdotes concerning the wildlife of the area, much of which he studied in great detail. A very accomplished naturalist and equally accomplished photographer, his great gift is that he is able so well to share his experiences with his readers. Those who are fortunate enough to know the Scottish Highlands will immediately be able to identify themselves with

the author in his, often hazardous, exploits. To those less fortunate he must surely be the ideal armchair Highland naturalist. There are well written accounts of many birds and animals, including eagle, Buzzard, Peregrine, diver, Ptarmigan, Greenshank and Redwing, together with wildcat, fox and particularly red deer. We watch with him an eagle at the nest, after it had perched on his hide only inches above his head before jumping down to the eyrie, just six feet away. We learn of his efforts to catch elusive red deer calves, and must be impressed by his seemingly endless patience.

Interspersed with the author's reminiscences are those of Johnny Kytra, a retired stalker now in his late eighties, which give an insight to a way of life now all but forgotten.

The only criticism is that a few of the plates fall short of the author's best work. Three of roe deer and one of a roaring red deer stag have been poorly retouched to compensate for lack of contrast. All the other photographs are very impressive. The reviewer has no hesitation in thoroughly recommending this delightful book to all who have a feeling for the Highlands and their wildlife.

N. PICOZZI.

Eagles. The World of Animals series. By Leslie Brown. London, Arthur Barker, and New York, Arco, 1970. Pp. 96; 80 photographs (16 in colour) and 10 figures. 21 x 20 cm. £1.25.

Few birds excite the imagination as much as eagles, and Leslie Brown is the natural choice of author to write a popular account of them. Through the book, he deals fully with all the questions that are so frequently asked about eagles: how big are they, how fast can they fly, how long do they live, how much food do they require, do they pair for life, and so on. In addition to general information of this nature, he goes into more detail on the Golden Eagle and several species of African eagles of which he has first-hand experience. In the final chapter there is a discussion on ways in which eagles as predators appear to conflict with man's interests. In all, there is a surprising amount of information in such a short book. There are a few oversights, however, such as no definition of the term 'dimorphic' (although 'tarsus' is defined), and in ch. 2 the metric equivalents for weights and dimensions are not consistently given. Of the few printing errors, the more important are heights for weights (p 21 line 2) and A.M. for P.M. (p 41 line 19).

Many people will buy this attractively priced book for its excellent selection of photographs. Apart from one of the Golden Eagle at the nest, the colour plates are really splendid, and so are most of the monochromes. As a whole, this book gives really good value for money and should make an ideal gift for anyone interested in birds of prey.

N. PICOZZI.

The Atlantic Islands. A Study of the Faeroe Life and Scene. By Kenneth Williamson. Revised edition with an additional chapter by Einar Kallsberg. London, Routledge & Kegan Paul, 1970. First published London, Collins, 1948. Pp. 385; 38 photographs, 32 text figures, end-paper maps. 21 $\frac{1}{2}$ x 14 cm. £3.25.

The reissue of this superb book, first published 22 years ago, is very welcome. At four times the original cost it is still well worth the money, for a fascinating account of the Faeroe Islands. Had Ken Williamson never written it we would be even more ignorant of our near neighbours to the north than we are.

A complete revision has not been possible, but the great changes in the islands in the past 25 years are covered by an additional chapter by Einar Kallsberg. The plates have been rearranged and some new ones provided; the bibliography has been expanded; and the appendix on Faeroe birds has been brought up to date.

The Atlantic Islands by Kenneth Williamson is an acknowledged classic, and can be highly recommended to anyone who does not already know it.

ANDREW T. MACMILLAN.

Radar Ornithology. By Eric Eastwood. London, Methuen, 1967. Pp. xii + 278; 24 photographic plates and 116 figures. 23½ x 15½ cm. £3.75.

This important book, the first of its kind, was published several years ago but has not previously been reviewed in *Scottish Birds*. No birdwatcher will be completely unaware that the use of radar has changed many of the theories about bird migration, but comparatively little on the subject has appeared in this journal. This is not surprising as much of it is very technical.

This book is recommended reading for those intrigued by the use of radar in birdwatching and eager to improve their knowledge of the subject. In the first few chapters Dr Eastwood, chief scientist of the Marconi Company, thoroughly explains the principles of radar, the different types of equipment, and the operation, uses and limitations of this equipment, before moving on to a history of the use of radar in bird study. He then discusses the radar patterns of bird migration in various parts of the world, and the use of radar in such subjects as the dispersal of Starlings from their roosts, the soaring and gliding of birds, the altitudes at which birds migrate, and the effects of various types of weather. The book concludes with chapters on counting birds by radar, the influence of radio waves on birds, and the future of radar in ornithological research, with an appendix on wind drift and a bibliography of 146 references on the subject.

Each chapter is clearly set out under various sub-headings, which also bring together simplified versions of many scientific papers published in journals throughout the world, while the many line drawings greatly help the non-specialist to understand some of the technical data. Radar research has been carried out in Scotland in Aberdeenshire, Shetland and the Outer Hebrides, but the book has little Scottish data, only about six pages of text, and no mention is made of studies by Bourne and Patterson (*Scot. Birds* 2: 3-17) on the spring departures of Common Gulls from Scotland, or by Myres (*Bird Study* 10: 34-43) on the feeding movements of Kittiwakes near Shetland. There are 24 pages of photographs, mainly radar displays of bird movements; these are very interesting, especially the excellent photographs of 'ring angels' caused by Starlings leaving their roosts.

In conclusion, this is a valuable book to anyone interested in bird migration, but it must be read with care and diligence.

ROY H. DENNIS.

The Life and Organization of Birds. Contemporary Biology series. By W. B. Yapp. London, Edward Arnold, 1970. Pp. x + 246; 82 + 3 text figures (line and photographic). 21½ x 14 cm. £3.50.

This book ranges across the whole field of bird biology, from evolution, through anatomy and physiology, to behaviour and ecology. Within so

wide a scope, the author does not pretend to cover everything, but has selected those topics which most interest him and those most relevant to his theme, that birds are interesting as animals. The book is primarily intended for university students, but the hope is expressed that bird-watchers will also be able to learn something from it. The exact structuring of the subject matter is rather curious; the nervous system and senses, for example, are dealt with twice in different parts of the book. The author's efforts to include as much as possible have led to a rather compressed style, but most of the chosen topics are dealt with adequately, though rather superficially.

For most birdwatchers this book would be heavy reading as, particularly in the chapters on anatomy and physiology, a good deal of specialist terminology is used and little of this appears in the glossary. Detailed criticism is therefore out of place, but it must be mentioned that the sections vary considerably in their value; that on behaviour, for instance, ignores much recent work and is not a useful introduction to this field. Mr Yapp has some unorthodox views, which come through particularly strongly in this part of the book. He disposes of ethology in a single paragraph, which criticises its imprecision on the basis of one (uncited) reference. It is, however, inevitable in a book which cuts across so many disciplines of biology that the author should occasionally wander from his own area of expertise; Mr Yapp is at his best on anatomy and physiology, fields in which his previous text-books are well known.

The book is well produced and indexed and includes a list of over 400 references. It will be useful to the more scientifically minded ornithologist who is prepared to read it critically and use it as a key to the original literature in the fields that it covers.

P. J. B. SLATER.

Signals for Survival. Based on the film. By Niko Tinbergen & Hugh Falkus. Drawings by Eric Ennion. Oxford, Clarendon Press, OUP, 1970. Pp. 80; 88 photographs, 27 pages with colour sketches. 27½ x 21½ cm. £2.

Derived from the very successful film of the same name, this book covers, in simple terms, the behaviour of the Lesser Black-backed Gull, loosely arranged around the succession of events during the breeding season. It consists of a series of excellent photographs, interspersed with Ennion's watercolour sketches and woven together by a commentary. It is claimed to be "of especial interest to those in schools and universities as well as to the general reader".

The book is largely, but not entirely, restricted to displays, and illustrates well the complex interactions between individuals that go to make up the life of a gull colony. The commentary is well written to enlighten the general reader without antagonising the specialist. The photographs, which are illustrative rather than artistic, while certainly the main attraction of the book, often lack the dynamic aspect so essential to behaviour. This is made up for by the drawings which, though rather sketchy in places, have a fine feel of action about them and help to fill in some of the gaps in the photographic record. It is, however, the lack of movement in the book which makes it a poor substitute for the film. At its price and level it is an expensive souvenir, but it should find a place in the classroom and on the shelf of the birdwatcher who wants a 30 minute introduction to behaviour.

P. J. B. SLATER.

Encyclopaedia of Aviculture. Vol. 1 (of 3). Edited by A. Rutgers & K. A. Norris. London, Blandford, 1970. Originally published in Dutch as *Encyclopedie voor de Vogelliefhebber*, 1964-68. Pp. 350; 14 colour plates, 209 black-and-white illustrations, numerous text figures. 29½ x 20¾ cm. £8.

This book is intended primarily to be a guide for amateur aviculturists and a work of reference for those interested in the study of birds in captivity. Most naturalists are now aware of the importance of preserving, even in captivity, species of animals which have reached the borderline of extinction, and some notable results, as with the American Whooping Crane, have been achieved. After introductory chapters of a general nature, of which the most important are those on 'Bird Ecology as applied to Planted Aviaries' by R. W. Hawkins and 'The Diseases of Cage and Aviary Birds' by Christine M. Startup, this first volume gives accounts of selected species from seventeen families, with information on their lives under natural conditions, followed by considerable detailed information on how to keep such birds in captivity. In the fourteen full-page colour plates, from paintings by artists J. van den Broecke and H. J. Slipper, allied species are shown in groups, and the plates are adequate for their purpose. In addition there are numerous black-and-white half-tone illustrations of many species, from varied sources, such as Gould (unacknowledged). A bibliography shows curious inclusions and omissions: one would expect to find mention at least of Phillips's *Ducks* or Goodwin's *Pigeons* or even Witherby's *Handbook*.

The work is properly completed with an index to Latin names and one to English names. The text has been produced in England and is nicely set out and printed and very readable. The plates, both coloured and black-and-white, have been printed in Holland and are really not quite as good as one would expect—a criticism one is pleased to offer these days when it is usual to 'knock' anything British. But on the whole the publishers have produced an attractive book at a reasonable price, and one looks forward to the completion of the work, which offers much interesting information on many colourful species not readily available in any form.

RITCHIE SEATH.

Enquiries

Waxwing invasion. Exceptional numbers of Waxwings have occurred this autumn. Information on the invasion is being collated by Ian H. J. Lyster, Royal Scottish Museum, Chambers Street, Edinburgh, EH1 1JF, and records should be sent to him.

Seabird movements. For the past two years, studies have been made of seabird movements off the Aberdeenshire coast. If anyone has unpublished data on such movements for the coast from Angus to the Moray Firth, would they please contact Norman Elkins, 7 Skene Square, Aberdeen, AB2 4UU.

Ospreys. It has become apparent over the past few years that the number of Ospreys seen throughout the country has increased, perhaps quite considerably. With a view to collating the records of this increase, and ultimately publishing a paper on the subject, it would be appreciated if observers would send details of **any** sightings of Ospreys they have made to Harvey J. Burton (Warden, Loch Garten Osprey Reserve), RSPB, 17 Regent Terrace, Edinburgh, EH7 5BN.

The Scottish Ornithologists' Club

Revenue Account for the year ended 30th June 1970

	Year to 30/6/70	Year to 30/6/69
INCOME—		
Subscriptions received for year	£2479	£2258
Income Tax recovered on covenanted subscriptions	328	311
Dividends and Interest received (gross)	236	228
Surplus on Bookshop (Sales £4061)	1115	1157
Sale of "Scottish Birds" to non-members	167	91
Sundry sales less sundry purchases	54	56
Contribution from the World Wildlife Fund towards facilities granted by the Club	0	27
Donations received	7	3
	£4386	£4131
	£4386	£4131
 EXPENDITURE—		
Branch expenses including lectures	£403	£356
Travel expenses of Council members and of delegates to conferences	176	83
Secretarial services	3079	2240
Office expenses	471	505
Scottish Centre for Ornithology and Bird Protection : Club's share of running expenses	274	385
Cost of books purchased for Library	47	54
Cost of publishing "Scottish Birds" (less advertising revenue £252)	834	704
Net cost of Annual Conference	35	2
Subscriptions paid	32	33
	£5351	£4362
Excess of Expenditure over Income carried to Balance Sheet	965	231
	£4386	£4131
	£4386	£4131

The Scottish Ornithologists' Club

Balance Sheet as at 30th June 1970

	Year to 30/6/70	Year to 30/6/69
Accumulated Surplus as at 30th June 1969	£3990	£4221
Deduct: Excess of Expenditure over Income for year	965	231
Accumulated Surplus as at 30th June 1970	<u>£3025</u>	<u>£3990</u>

(Note : £1000 of this surplus is earmarked
for the House Fabric Fund)

Made up of :

Cash in hand and Bank current accounts	£162	£147
Savings Bank accounts	91	557
Bookshop stock at valuation	840	840
Tie and Badge stocks at valuation	86	133
Debts due to Club	329	298
Investments at cost, as below	3500	3500
	<u>£5008</u>	<u>£5475</u>

Less :

Life Membership Fund	£450	300
Subscriptions paid in advance	76	55
Debts due by Club	902	690
Sum due to Endowment Fund	258	143
Sums earmarked for :		
Library binding	238	238
Painting	59	59
	<u>1983</u>	<u>1485</u>
	<u>£3025</u>	<u>£3990</u>

Investments as at 30th June 1970 :

	Market value	At cost	At cost
Loan to County Burgh of Wigan 7½% (formerly 7½%)	£600	£600	£600
Safeguard Industrial Investments Ltd—700 Ord. shares of 5/- each	367	508	508
£950—6½% Treasury Loan 1976	926	946	946
£1300—British Electricity 3% Guar. Stock 1974/77	1027	952	952
£550—5¼% Conversion Stock 1974	511	494	494
	<u>£3431</u>	<u>£3500</u>	<u>£3500</u>

ENDOWMENT FUND

(The free income of which is available for the advancement of ornithology)

Revenue Account for the year ended 30th June 1970

	Year to 30/6/70	Year to 30/6/69
INCOME—		
Interest and Dividends received (gross)	£196	£190
EXPENDITURE—		
Grants as detailed in Report of Council	125	33
Unexpended Income for the year	<u>£71</u>	<u>£157</u>

ENDOWMENT FUND**Balance Sheet as at 30th June 1970**

Endowment Fund as at 30th June 1969	£2519	£3080
Add: Additions to Fund during year	—	3
	<u>£2519</u>	<u>£3083</u>
Less: Loss on realisation of £1151 3½% War Stock	—	564
	<u>£2519</u>	<u>£2519</u>
Accumulated unexpended Income		
as at 30th June 1969	£434	277
Add: Unexpended Income of year	71	157
	<u>505</u>	<u>434</u>
	<u>£3024</u>	<u>£2953</u>

Made up of:

Investments at cost as below	£2441	£2441
Royal Bank of Scotland Deposit account	325	369
Due by Club's General Funds	258	143
	<u>£3024</u>	<u>£2953</u>

Investments as at 30th June 1970:

	Market Value	At cost	At cost
976 Units of the Equities Investment			
Trust for Charities Ltd	£1565	£1000	£1000
£1140 5% Exchequer Stock 1976/78	929	1000	1000
£440 8½% Conver. Unsecured Loan Stock			
1993/98 British Printing Corporation Ltd.	330	441	441
	<u>£2824</u>	<u>£2441</u>	<u>£2441</u>

HOUSE FABRIC FUND

Summary of Accounts for year to 30th June 1970

	Year to 30/6/70	Year to 30/6/69
RECEIPTS		
Balance as at 30th June 1969	£107	£110
Year's rent from Mr and Mrs George Waterston ...	150	100
Year's rent from World Wildlife Fund	130	87
Miscellaneous Interests	5	4
	<u>£392</u>	<u>£301</u>
EXPENDITURE		
Repairs and Maintenance	£55	£5
Property Burdens	189	171
Insurance	18	18
	<u>£262</u>	<u>£194</u>
On Deposit with Dunedin Building Society	130	107
	<u>£392</u>	<u>£301</u>

Note: The balance of £130 includes £19 unexpended from the Harvey Donation.

EDINBURGH, 30th September 1970.—I have audited the foregoing Revenue Accounts for the year to 30th June 1970, and the Balance Sheet at that date. I have accepted as correct the Subscriptions and other receipts shown as received in the Books and the value placed on the Bookshop Stock. Subject to this I certify that in my opinion the foregoing accounts are correctly stated and sufficiently vouched.

(Signed) ARTHUR WALKER,
Chartered Accountant.

REPORT OF COUNCIL

Your Council submits the following Report for the year 1969/70 :

Membership At the end of the session the Club had 2149 members. The net increase during the year was 93, but again over 300 new members joined (326), three more than last year. Three members transferred to Life Membership. A table of membership for the last six years is given below.

	30/6/65	30/6/66	30/6/67	30/6/68	30/6/69	30/6/70
Ordinary	1263	1373	1524	1677	1771	1849
Junior	222	252	259	265	274	286
Life	0	0	0	3	6	9
Honorary	3	3	4	4	5	5
	<u>1488</u>	<u>1628</u>	<u>1787</u>	<u>1949</u>	<u>2056</u>	<u>2149</u>
Increase	93	140	159	162	107	93

The number of Deeds of Covenant signed by members rose from 322 to 337, representing 387 subscriptions and contributing £328 to Club funds. Council acknowledges with thanks this support to the Club, and particularly wishes to thank those members who have taken out a new Coven-

ant; at no extra cost to themselves they have given considerable help to the Club.

Deaths It is with great regret that Council records the death during the year of Mr James MacGeoch, Secretary of the Inverness Branch and Member of Council; Mr James Fisher, a member of the Club since 1946; and also Mr Matt Forrester and Mr Len Fullerton, whose obituaries have appeared in *Scottish Birds*.

Honours Council has great pleasure in recording honours given during the year to two of the Club's Founder members, and warmly congratulates the recipients. Professor V. C. Wynne-Edwards was elected a Fellow of the Royal Society, and Sir Frank Fraser Darling was given a Knighthood for his work on conservation and the environment. Mr S. L. MacKInlay is also congratulated on his award of an Honorary Degree by Glasgow University.

Business of Council Five meetings of Council were held during the year, while the Management Committee met twice. Business discussed included the following :

New Editor of "Scottish Birds" In March Mr A. T. Macmillan intimated that he would no longer be able to continue as Editor of *Scottish Birds* after 1970. Council accepted his notice of resignation and wishes to record deep appreciation of his long and distinguished tenure of the editorship. He was Assistant Editor from the first publication in Autumn 1958 until he took over as Editor from Professor Meiklejohn in Spring 1962.

Members will appreciate that it has been a formidable task to maintain so successfully the high standard of the journal, particularly with the greatly increased work involved in the *Scottish Bird Report*. One of the main tasks of the Management Committee has been to fill the gap which Andrew Macmillan will leave. Applications for a successor were invited and Council is pleased to report that Mr Tom Delaney has been appointed to take over as Editor from the end of 1970, and that Mr Macmillan has kindly agreed to continue to give the benefit of his knowledge and experience in an advisory capacity. Mr D. G. Andrew continues as Assistant Editor and the Secretary as Business Editor.

Subscription changes The Club has for many years been operating on a very modest subscription and in 1968 the Accounts showed a deficit for the first time. It became obvious that the growth of the Club, requiring additional servicing, together with rising costs, would inevitably lead to an increase in subscription rates.

At the Annual General Meeting last year approval was given to raise the subscription, but this could not come into force for existing members until 1st October 1970, many having already paid for the session. For this reason the Accounts have again shown a deficit, amounting to £965.

It is encouraging however that in spite of the new subscription rates, which applied to all members joining since the Annual General Meeting, the number of new members for the session is as high as ever.

Endowment Fund Your Council approved a Grant of £100 to the Seabird Group towards the cost of Operation Seafarer in 1970. Much of the work in this national census of seabirds is being carried out in Scotland and in Scottish waters, and the money has been used for this purpose.

Council also approved a donation from the Endowment Fund of £25 to the Len Fullerton Memorial Fund, recently set up by his friends in Dundee, the proceeds of which are being devoted to a rehabilitation Unit for injured birds and animals. Sited in Camperdown Park, Dundee, the Unit will be under the direct charge and supervision of Mr Alfred Robertson, who has great experience and success in this field.

Council would like to draw members' attention to the importance of

the Endowment Fund. Set up originally with legacies from the late Misses Baxter and Rintoul, the free income is available for the advancement of ornithology. If the Fund can be increased, then more Grants can be given annually, and any donation or legacy will be warmly welcomed.

Public Enquiry In July 1969 a Public Enquiry was held into Edinburgh City's development plans for the Duddingston area, which included the provision of playing fields on land known as Bawsinch, adjoining the Duddingston Loch Bird Sanctuary. The Club was represented at the Enquiry by Mr D. G. Andrew. Recommendations were made for a 'buffer zone' between the proposed sports ground and the Sanctuary to prevent undue disturbance to bird life. The final decision by the Secretary of State for Scotland, to limit the plans for the development of the whole area for schooling, resulted in Bawsinch being declared a public open space. Proposals for suitable development in the interests of conservation and for the benefit of the public will be put forward in due course.

Atlas of British Breeding Birds Mr C. G. Headlam continued as Organiser for Scotland of the BTO Atlas Scheme, now completing the third of its five years. Council would again like to thank the many members who have worked so hard on this project, and to appeal for more help in the next two years to ensure full coverage of Scotland.

Club Representation The Club was again represented on the British Section of the International Council for Bird Preservation by Sir Landsborough Thomson and Mr George Waterston, and on the Duck Working Group of the International Wildfowl Research Bureau by Miss Valerie Thom.

European Conservation Year 1970 Council agreed that all contributions to ECY 70 should be organised through the Branches of the Club, and this was carried out mainly in cooperation with kindred societies. Special events were held in Ayr, where Branch members organised stands at the 'Countryside in the 70s' exhibition and the 'Ayr Show', and in Falkirk where the Stirling Branch prepared a successful exhibit at the 'Falkirk Spring Fayre'. Edinburgh Branch members helped with the organisation and leading of excursions in the area, and a special display of books on conservation and related subjects was arranged in the Scottish Centre.

Under the auspices of the Scottish Landowners Federation several landowners invited organisations to send a representative to visit their estates on special days in connection with the Federation's promotion for ECY 70. The Club was represented at five of these events, which were aimed at promoting understanding and cooperation between landowners and those representing public interest in the countryside.

Your President represented the Club at a Lunch held in the Glasgow City Chambers in April to inaugurate the City's contribution to ECY 70.

Annual Conference. The Twenty-second Annual Conference and the Annual General Meeting, held in Dunblane, were attended by 302 members and guests. On Saturday morning lectures were given by Dr N. W. Moore and Mr Ian Prestt, Toxic Chemicals and Wildlife Section, Monks Wood Experimental Station. Dr Moore's paper on 'Recent changes in the environment and some of their effects on British birds' proved to be most topical, following the wreck of seabirds on the west coast a week earlier. Mr Prestt lectured on 'The Heron and pollution'. On Sunday Sir Hugh Elliott, Secretary of the Ecology Commission, International Union for the Conservation of Nature, spoke on 'Birds of the world; the conservation outlook'.

Branches During the winter a full programme of lectures was again given in the nine Branches and there were meetings of the Thurso Group. Branches organised their summer and winter excursions, and the Club's annual excursion to the Solway goose grounds took place in February.

This popular weekend was attended by over 50 members and friends and was again successfully organised by the Dumfries Branch. After a lapse of several years an extremely enjoyable weekend meeting was held on Speyside in May. Organised most efficiently by the Inverness Branch Secretary and other members, the meetings were attended by 110 members and friends. Slides and films were arranged in the evenings and excursions were led to four locations.

"Scottish Birds" Four numbers of the journal, including the annual Scottish Bird Report, were published during the year, with an Index to Volume 5, now completed.

Club Library Owing to the limited budget only a few new reference books were added to the library this year. Council thanks the donors of many books, journals and reprints for their gifts to the library.

Bookshop Sales in the first nine months of the session were extremely encouraging, receipts being well above the previous year, but in the last quarter they were greatly reduced, due to lack of new books being published, coupled with a general recession in trade. Book displays were again taken to the annual conferences of the British Trust for Ornithology, held at Swanwick, and the Irish Wildbird Conservancy/RSPB at Malahide, Co. Dublin. Council is most grateful to these organisations for their help and cooperation, which greatly enhances our sales and publicity.

Scottish Centre The Centre was again used for meetings of the Fair Isle Bird Observatory Trust, the Isle of May Bird Observatory and Field Station Committee, and the Aberlady Bay Nature Reserve Biological Committee. Informal discussion groups were also held regularly during the winter.

Numerous postal and telephone enquiries were dealt with during the year and many British and overseas visitors called at the Centre for advice during the summer.

Greetings. The Annual Conference of the Royal Australasian Ornithologists' Union was attended this year by General Sir Philip Christison. Sir Philip gave warm greetings on behalf of the Club to the Royal Australasian Ornithologists' Union, and he was asked to convey their greetings to the Club in return.

Acknowledgments Finally, Council wishes to record its thanks to all those who have helped the Club in so many ways during the session, much of which is unseen but is very greatly appreciated.

For the Council, A. DONALD WATSON, President.

THIRTY-FOURTH ANNUAL GENERAL MEETING OF THE CLUB

The Thirty-fourth Annual General Meeting of the Club was held in the Hotel Dunblane Hydro, Perthshire, on Saturday 31st October 1970 at 6 p.m. Mr A. Donald Watson, President of the Club, presided over an attendance of about 120 members.

Apologies Apologies for absence were received from Dr D. A. Bannerman, Dr David Boddington, Sir Charles G. Connell, Dr G. M. Dunnet, C. E. Palmar, Dr I. D. Pennie and Dr M. Rusk.

Minutes The Minutes of the Thirty-third Annual General Meeting, held in Dunblane on 25th October 1969, were approved and signed.

Report of Council Presenting the Report of Council for Session 33, the Chairman particularly mentioned the work done by Mr A. T. Macmillan, as Editor of *Scottish Birds* over the past nine years. Very great credit was due to him for the immense amount of time and effort he had given in maintaining the high standard of the journal, and the Club was deeply

indebted to him. Subject to the addition, under HONOURS, of the award of an Honorary Degree to Mr S. L. MacKinlay by Glasgow University, the Report was adopted.

Accounts Presenting the Accounts for the year ending 30th June 1970, the Hon. Treasurer said that the deficit had been forecast. He explained that the increase in subscription rates, except for those who had joined the Club since 1st November 1969, had only come into effect on 1st October 1970. It was hoped that a small surplus would be shown at the end of the current financial year if the present growth in membership continued. The Accounts were approved.

Appointment of Auditor Mr Arthur Walker C.A. was re-elected Auditor for the ensuing year.

Election of new Members of Council In the absence of any other nominations, the Council's recommendations for the following elections were approved. Council Members: Mr A. T. Macmillan and Miss M. P. Macmillan to replace Mr William Brotherston and Miss V. M. Thom, who were due to retire by rotation. The Chairman thanked the retiring members for their service to the Club.

It was noted that following the death of Mr James MacGeoch, there was still one vacancy on Council. It was agreed, however, that since Council is empowered to co-opt additional members, it was unnecessary to fill the vacancy immediately.

Pink-footed Geese in Iceland. Earlier in the Conference attention had been drawn to the proposal of the Icelandic Government to flood the Thjórsárver breeding ground of the Pink-footed Goose, for hydro-electric purposes. It was agreed that a resolution should be sent from the Club expressing concern at the situation. The text of the resolution was approved later during the Conference.

Votes of Thanks The Chairman moved a warm vote of thanks to all those who had worked so hard to make the Conference a success and paid tribute to the Club's staff for their work both before and during the Conference. The Meeting closed with a hearty vote of thanks to the Chairman by Mr George Waterston, Vice-President of the Club.

Text of the Resolution sent from the Annual Conference to the Icelandic Government

At the Annual Conference of the Scottish Ornithologists' Club held on 31st October 1970 and representing a membership of over 2000 amateur bird watchers throughout Scotland, the following resolution was approved:

Resolve that:

WHEREAS a major effort has been made in recent years to protect the large proportion of the world population of the Pink-footed Goose which, after summering in Iceland returns to spend each winter in Scotland, by the institution of wildfowl refuges, imposition of restrictions on the sale of shot geese, and encouragement of an improved attitude to conservation by the farming community, resulting in an increase in the birds which has brought pleasure to many people, and whereas this progress would be threatened by adverse developments in the breeding area of the birds;

ACCORDINGLY, while the Scottish Ornithologists' Club fully understands Iceland's need to harness its natural power resources, it nonetheless views with great concern the proposal to inundate the Thjórsárver oasis which forms the principal breeding ground of the Pink-footed Goose, and therefore urges the Icelandic Government to develop alternative hydro-electric schemes or if this is not possible, to make every effort to

minimise the effects of the flooding on the geese through research and management applied to other potential breeding areas.

COUNCIL AND OFFICE BEARERS OF THE CLUB FOR SESSION 34

Hon. Presidents : David A. Bannerman, O.B.E., LL.D., Sc.D., F.R.S.E.; Sir Charles G. Connell, W.S.; Sir Arthur B. Duncan.

President : A. Donald Watson.

Vice-President : George Waterston, O.B.E., F.R.S.E.

Hon. Treasurer : Maxwell K. Hamilton, C.A.

Hon. Treasurer of House Fabric Fund : D. G. Andrew, W.S.

Secretary and Treasurer : Major A. D. Peirse-Duncombe.

Deputy Secretary : Mrs George Waterston.

Editor of "Scottish Birds" : A. T. Macmillan (1970); T. Delaney (1971).

Assistant Editor of "Scottish Birds" : D. G. Andrew, W.S.

Business Editor of "Scottish Birds" : Major A. D. Peirse-Duncombe.

Council : R. S. Baillie, R. G. Caldow, Dr I. T. Draper, C. G. Headlam, Dr David Jenkins, A. T. Macmillan, Miss M. P. Macmillan, Prof. M. F. M. Meiklejohn, T. D. H. Merrie.

Branch Representatives to Council : Miss G. L. C. Falconer (St Andrews); J. E. Forrest (Dundee); Miss F. J. Greig (Aberdeen); J. H. B. Munro (Edinburgh); R. T. Smith (Dumfries); A. G. Stewart (Ayr).

BRANCH AND GROUP OFFICE BEARERS

Aberdeen : Chairman, A. J. M. Smith; Vice-Chairman, N. Picozzi; Secretary, Miss F. J. Greig; Committee, A. Duncan, D. P. Willis, R. F. Yule.

Ayr : Chairman, A. G. Stewart; Vice-Chairman, Dr M. E. Castle; Secretary, R. M. Ramage; Committee, Dr J. A. Begg, W. R. Brackenridge, J. L. Burton, Miss S. M. Williamson.

Dumfries : Chairman, A. D. Watson; Vice-Chairman, R. T. Smith; Secretary, H. M. Russell; Committee, W. Austin, Miss J. M. Donnan, J. Maxwell, D. Skilling.

Dundee : Chairman, D. B. Thomson; Vice-Chairman, Dr D. G. Adamson; Secretary, Miss J. Stirling; Committee, A. Beat, J. E. Forrest, Mrs J. A. R. Grant, B. Pounder.

Edinburgh : Chairman, J. H. B. Munro; Vice-Chairman, C. K. Mylne; Secretary, J. A. Stewart; Committee, L. W. G. Alexander, P. Kerr, Mrs J. H. B. Munro, Dr L. L. J. Vick.

Glasgow : Chairman, R. G. Caldow; Vice-Chairman, Dr I. T. Draper; Secretary, Mrs I. T. Draper; Committee, Mrs H. S. C. Halliday, R. A. Jeffrey, J. Mitchell, R. G. Nisbet.

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CLUB REPRESENTATION

British Section, International Council for Bird Preservation: Sir Landsborough Thomson, George Waterston.

International Wildfowl Research Bureau, Duck Working Group: Miss V. M. Thom.

British Trust for Ornithology, Atlas of British Breeding Birds Project: C. G. Headlam (Scottish Coordinator).

HONORARY MEMBERS

Duncan Anderson, Clyde Bain, Henry Boase, P. W. G. Gunn, Sir Landsborough Thomson.

WEEKEND EXCURSION TO DUMFRIES

The weekend excursion to the Solway goose grounds has been arranged with the County Hotel, Dumfries, from Friday 12th March to Sunday 14th March 1971.

Accommodation: inclusive terms £6.6.0, inclusive of gratuities, as follows—bed on Friday 12th; breakfast, packed lunch, dinner and bed on Saturday 13th; breakfast and packed lunch on Sunday 14th. Members should inform the hotel in advance if they require dinner on Friday night (extra). A limited number of rooms with private bathrooms are available for the additional charge of 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. It is advisable to bring warm clothing, gum boots if possible, and thermos flasks.

ST ANDREWS BRANCH

Will all Members please note that the date of the Meeting in March 1971 should be Wednesday 3rd March, and not as printed in the Syllabus.

BRANCH SECRETARIES

Since the publication of the Syllabus of Lectures for 1970/71 there has been a change of Secretary in both the Ayr and Inverness Branches. Will Members please note the names and addresses as follows:

Ayr R. M. Ramage, 57B St Quivox Road, Prestwick, Ayrshire.

Inverness: A permanent Secretary has not yet been appointed, but in the meantime Mrs W. A. Sinclair has agreed to undertake the work. Correspondence should be sent to 4 Aultnaskiach House, Culduthel Road, Inverness.

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THE SCOTTISH ORNITHOLOGISTS' CLUB

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

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 40s, or 10s in the case of Members under twenty one years of age or University undergraduates who satisfy Council of their status as such at the times at which their subscriptions fall due. The Life subscription is £50. Joint Membership is available to married couples at an Annual subscription of 60s, or a Life subscription of £75. 'Scottish Birds' is issued free to Members but Joint 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 Editor of 'Scottish Birds', 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.

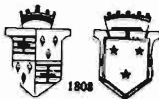
The Scottish Bird Records' Committee, appointed by Council, produces an annual Report on 'Ornithological Changes in Scotland'.

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).



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For information regarding accommodation, transport, etc, contact:

**Information Centre, Shetland Tourist Organisation,
LERWICK, Shetland**

For expert advice on local birds contact:

**Robert J. Tulloch, R.S.P.B. Shetland Representative, Reafirth,
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