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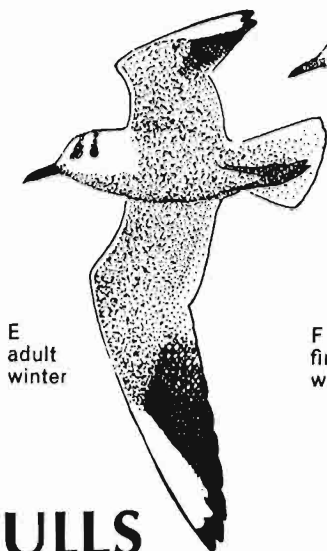
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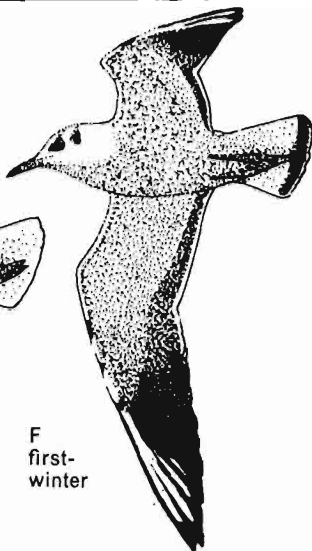
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first-
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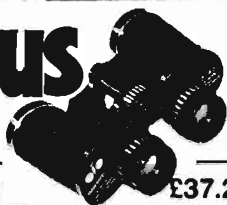
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Edited by D. J. Bates

Fledging success of some Red-throated Divers in Orkney

C. J. BOOTH

This study indicates how the breeding success of Red-throated Divers can be affected by human disturbance.

The presence of Red-throated Divers on several islands in Orkney during Viking times is suggested by the number of lochs called 'Loomachun'. This word is the old Norse for 'Tarn of the Diver'. Since then there must have been a decrease, as Buckley & Harvie-Brown (1891) stated that they had no authentic information that Red-throated Divers bred on any of the Orkney Islands except Hoy. Here they knew of only four pairs, but also added that birds had been seen on suitable lochs on other islands. The species has increased during the last 80 years to number at least 67 pairs (Lea 1978) and has recently been recorded as breeding on seven different islands.

The obvious threats to Red-throated Divers are oil pollution and, as they are at the end of a food chain, toxic chemicals. Perhaps less well known are the threats at their nesting lochs, threats that are often associated directly or indirectly with human activity. During the period 1973-80 I monitored the fledging success of divers on eight lochans and one loch in Orkney; the results are included in this paper together with some probable reasons for failure.

Study area

The eight lochans are all on hill ground at heights of between 180 and 200m; they are situated in blanket bog and vary in size from 110 m² to 420 m². The depth ranges from half to 1½m, with a mainly peaty bottom and very little plant growth.

The loch has an area of 3.5 ha and is at a height of 160m. There are steep banks bounding one side, a small beach and low banks around the rest of the loch with clumps of *Juncus*

which are often used as nesting sites. There is a stony bottom on part of the loch and again very little plant growth, with a maximum depth of 2m.

Methods

It was considered very important to avoid disturbance, as a diver will often leave its nest and even the nesting loch,

Table 1. Number of young Red-throated Divers fledged on eight lochans in Orkney, 1973-80

Lochan	1973	1974	1975	1976	1977	1978	1979	1980
A	1	1	2	1	0	2	1	2
B	1	1	1	0	0	0	1	0
C	1	2	2	0	0	1	1	0
D	1	1	2	1	0	0	0	1
E	1	0	1	1	0	0	1	2
F	1	0	0	1	1	0	0	1
G	1	1	1	0	1	1	1	2
H	0	1	0	2	0	1	1	1
Total young fledged	7	7	9	6	2	5	6	9

Total No. of breeding attempts 1973-80 64

Total No. of young fledged 1973-80 51

No. of young fledged

per nesting pair per year 0.79

Total No. of successful breeding attempts 42 (65.6% success)

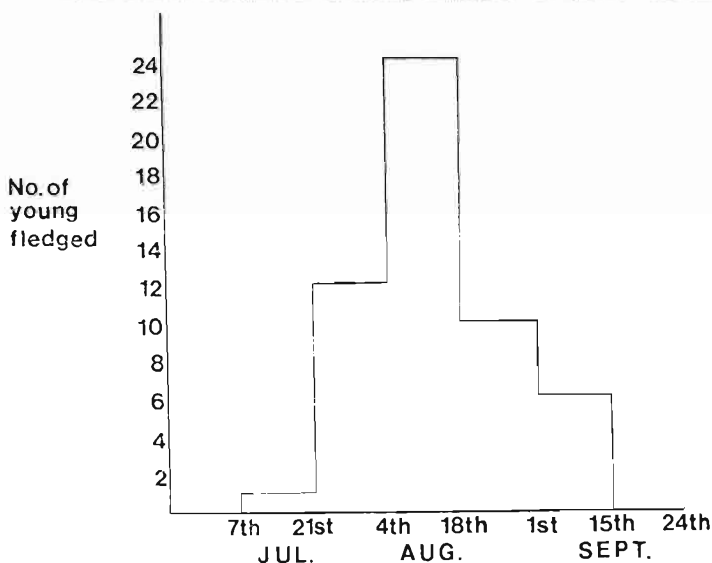


Fig. Fledging dates of 51 young Red-throated Divers on eight lochans, 1973-80. in fortnightly periods.

allowing easy predation of eggs and small young; no attempt was made to find nests with eggs.

At the lochans observations were made from a distant position in May to establish that pairs were present; a further visit was made in early July to assess the presence or absence of young. If there was no sign of either young or an adult, then a careful search of the bank was made for nesting scrapes. At successful sites another visit was made when it was thought that the young would be well grown, and at failed sites a check was made a month later for the possibility of a second attempt at nesting. If no young were seen on a lochan, where young had been noted previously, even if it was thought that they may have fledged, a search was made around the edge for possible signs of dead young.

The loch was also visited in May to establish the number of pairs with territories, and in July and August to count young. No attempt was made to look for failed nests here, as there was always at least one pair present until the end of August, and by this time the growth of vegetation made recognition of some nesting scrapes difficult. Observations were again made from a distant position overlooking the loch.

Results

Nesting attempts were made on all lochans during each year of the study period, the number of young reared on each lochan being shown in table 1. Only one pair of divers nested on any one lochan in any year and the average number of young reared per nesting pair was 0.79 per year. In terms of the proportion of pairs producing fledged young, there was a 65.6% success.

The fledging date of young on the lochans is shown in the figure. This is given in fortnightly periods, as visits were limited to avoid disturbance. At lochan A in 1972 and at another in 1979 (not included in this study) single young fledged during the period 15-29th September. The latest date I have seen a young diver on any loch or lochan was 23rd September 1972. In Orkney fledging occurs from mid July to late September, with a peak during mid August.

The number of young reared on the loch is shown in table 2. In each year five pairs were seen to be holding territory and it was assumed that this was the number of pairs nesting. An average of 0.55 young were reared per nesting pair, with a 47.5% success.

Human activity affecting nesting success

(1) **Egg collectors, birdwatchers and photographers** In 1977 egg collectors were particularly active in Orkney and it is

Table 2. Number of young Red-throated Divers fledged on a loch in Orkney, 1973-80

	1973	1974	1975	1976	1977	1978	1979	1980	Total
No. of young fledged	6	5	2	1	1	4	0	3	22
No. of successful breeding attempts	4	4	2	1	1	4	0	3	19
Total No. of breeding attempts 1973-80							40		
Total No. of young fledged 1973-80							22		
No. of young fledged per nesting pair per year							0.55		
Total No. of successful breeding attempts							19 (47.5%)		

significant that in this year divers had the poorest nesting success of any of the eight years. In some years visiting bird-watchers have made counts of nests around the loch and one group even camped nearby. The lochans are less often visited by birdwatchers but up to 1976 have been occasionally used by bird photographers.

(2) Peat cutting Peat cutting takes place close to the loch and workers are often in sight of sitting divers; there is also peat cutting near lochan F. The nesting divers probably tolerate people while they are actually working, but the main disturbance will be during arrival and departure when they pass close to the edge of the loch, especially if accompanied by dogs. This disturbance may have had most effect in 1979, which was the coldest and wettest summer on record in Orkney; no young were reared on the loch or on lochan F.

(3) Shooting On 12th August 1978 I found an adult diver and two young freshly shot on lochan E. Similarly on 23rd August 1980 at another lochan I found a well grown young that had been shot, and on the same day at lochan B, which is not far away, the head of a young diver floating in the water.

(4) Agricultural reclamation An excavator was used in making a drainage ditch near lochan D in 1979 just after the young had hatched, and this disturbance was almost certainly the cause of failure to fledge. Another potential hazard is the use of barbed wire fencing as hill ground is reclaimed; I found a dead adult diver caught on barbed wire fencing at the head of a lochan on 24th July 1973.

(5) Fishing Although disturbance from fishing is not significant on the loch and lochans in my study area, many of the larger lochs in Orkney (especially on Mainland) are well fished and it is unlikely that divers will nest very successfully on them.

Discussion

It is interesting to note that in a Shetland study (Bundy 1978) none of the young divers hatching after 4th July fledged successfully. Allowing 6-7 weeks as the fledging period (Cramp *et al.* 1977) these young would leave the lochs during the last fortnight of August or early September. In my study in Orkney 30.6% of the young fledged in the last fortnight of August and the first two weeks in September.

Human activity in several forms can have an adverse effect on the breeding success of Red-throated Divers. This ranges from the shooting of adults and young or egg collecting, to disturbance, either directly from birdwatchers looking for nests or indirectly from peat cutters and farm workers, allowing easier predation of eggs and young by skuas and gulls.

The amount of disturbance is much greater on the loch than on the lochans, some of which are remote and difficult to locate. This is shown in the difference in overall nesting success with only 0.55 young reared per nesting pair on the loch compared to 0.79 young reared for the lochans. The loch is a popular place to watch divers and it is noteworthy that the poorer breeding success on the loch started in 1975 coinciding with an increase in birdwatching parties visiting Orkney. Some of these parties were advised that the loch was a good place to see divers, and visitors to a local hotel were taken to the loch and actually shown divers' nests.

In his study of Red-throated Divers on Unst (Shetland) in 1973 and 1974, Bundy (1976) found a breeding success of 0.37 and 0.46 young per pair respectively, and on Yell and Unst in 1976 (Bundy 1978) the success was 0.35 young per pair. While his figures are for single years only and may not be directly comparable with the overall figure for eight years in Orkney (0.67 young per pair) they certainly show a lower breeding success in Shetland.

One reason suggested for the nesting failures in Shetland was the increase in the number of breeding pairs of Great Black-backed Gulls and skuas (Bundy 1978). In Orkney there has not only been an increase in these species during the same period, but also an increase in the numbers of breeding pairs of Red-throated Divers (Balfour 1968). This rise in the numbers of potential predators of eggs and small young would in my opinion only have a significant effect if it was also associated with human disturbance.

There was no evidence to suggest that water levels affected nesting success.

Acknowledgments

I am very grateful to Dr P. B. Heppleston and P. Reynolds for their

advice with the preparation of this paper, to my family for assistance with the field work and to Mrs M. F. Cuthbert and D. Lea for information.

Summary

The fledging success of Red-throated Divers in Orkney was monitored on eight lochans and one loch over eight years. On the lochans 0.79 young fledged per pair per year and for the loch 0.55 young per pair; human disturbance was greater on the loch. Fledging occurs from mid July to late September. A number of ways in which human activity can affect nesting success is discussed.

References

- BALFOUR (E.) 1968. Breeding birds of Orkney. *Scottish Birds* 5: 89-104.
BUCKLEY (T. E.) & HARVIE-BROWN (J. A.) 1891. *A Vertebrate Fauna of the Orkney Islands*. Edinburgh.
BUNDY (G.) 1976. Breeding biology of the Red-throated Diver. *Bird Study* 23: 249-256.
— 1978. Breeding Red-throated Divers in Shetland. *British Birds* 71: 199-208.
CRAMP (S.) (ed.) *et al.* 1977. *Handbook of the Birds of Europe, the Middle East and North Africa: the Birds of the Western Palearctic, vol. 1*. Oxford University Press.
LEA (D.) (1978). *Orkney Bird Report 1976-7*.

C. J. Booth, 'Ronas', 34 High Street, Kirkwall, Orkney

Wintering coastal waders of Lewis and Harris

N. E. BUXTON

There are few published accounts of the numbers and distribution of the waders wintering on the coastal areas of the Outer Hebrides. As on mainland Britain, data are least available from rocky shores. Studies on the mainland have suggested that the Birds of Estuaries Enquiry, assessing only the wader populations of various soft coast habitats, excludes a large proportion of birds using rocky shores. On the east coast of Scotland there have been attempts to remedy this (Summers *et al.* 1975, da Prato & da Prato 1976 a-b), and Atkinson *et al.* (1978) have assessed the winter distribution of a single species, the Purple Sandpiper. During the winter 1978/9 over 140 km of Lewis and Harris coastline were surveyed to investigate these wader populations in the Outer Hebrides.

Study area and methods

Lewis and Harris together constitute the largest island in the Outer Hebrides. They are formed almost entirely from

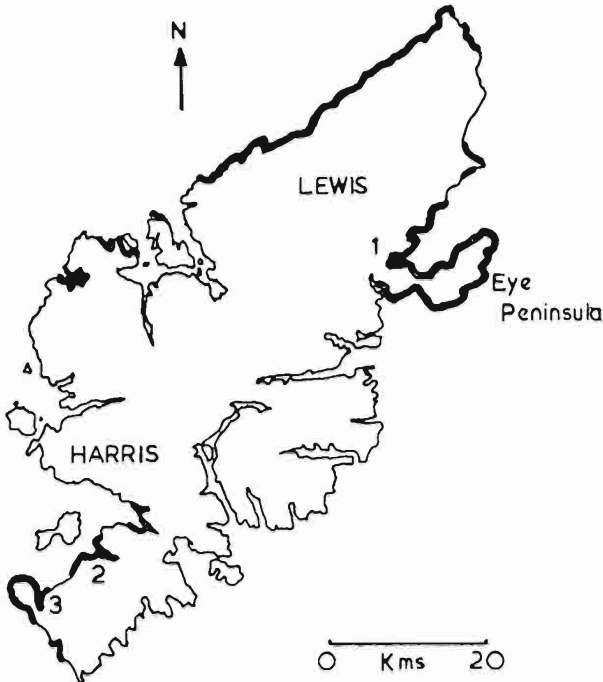


FIGURE. Lewis and Harris showing (heavy line) the area counted, (1) Tong Saltings, (2) Luskentyre Banks, (3) Northton Saltings.

Lewisian gneiss except a small area to the northeast of Stornoway which includes Tong Saltings where red sandstones and conglomerates occur. The eastern coasts (figure) tend to have an intricately fretted shoreline with very little sediment, but on the west a considerable amount of calcareous sand is deposited. However, this does not preclude areas of rocky coastline. Consequently on both east and west coasts the sandy bays are interspersed between boulder beaches, rock platforms covered with a variety of seaweeds, and high cliffs, often with offshore rocks.

The coastline was divided into sections, and each, with three exceptions, was counted once during the period November to February. The exceptions were the tidal flats of Tong Saltings in Lewis and those of Luskentyre and Northton in Harris. These are estuarine sandy flats and saltmarsh where repeated counts were made. A pilot study on the Eye Peninsula (Buxton 1979) demonstrated that certain shore types, e.g. cliffs and some rocky configurations, supported few birds. Such areas were omitted from the present study.

Birds were counted as they moved when the observer walked along the shore. Counting was preferably carried out around the low tide period since this was the best way of assessing the Turnstone and Purple Sandpiper populations, which were often inaccessible at high tide. Unfortunately all counts could not be undertaken at the same state of tide due to the short daylight hours in winter. Where the shore was inaccessible the tideline was carefully scanned through binoculars and very few Turnstones or Purple Sandpipers are thought to have been missed.

A planimeter was used to measure the areas of rocky shore (6.1 km²) and sandy shore (12.8 km²) from which densities could be calculated.

Results

The numbers of waders frequenting the areas of Lewis and Harris counted are presented as the peak totals (summing the maximum counts at all sites during the period November to February) for each species (table 1). Oystercatcher

Table 1. Winter numbers and distribution of waders in Lewis and Harris in 1978/9

	Rocky shore (6.1 km ²)			Sandy shore (12.8 km ²)			
	Total	No.	%	Density /km ²	No.	%	Density /km ²
Oystercatcher	1,053	407	39	67	646	61	50
Ringed Plover	340	134	39	22	206	61	16
Knot	85	0	—	—	85	100	7
Purple Sandpiper	260	259	100	42	1	<1	<1
Dunlin	198	25	13	4	173	87	14
Bar-tailed Godwit	85	0	—	—	85	100	6
Curlew	276	208	75	34	68	25	5
Redshank	299	242	81	40	57	19	4
Turnstone	617	496	80	81	121	20	9
Total	3,213	1,771	55	290	1,442	45	113

and Turnstone were the most common species but Ringed Plover, Curlew, Redshank and Purple Sandpiper were also present in good numbers. The Oystercatchers on the rocky shores were greatly augmented by the large populations on the tidal flats of Tong Saltings and Luskentyre (572 out of 1,053—54%—table 2 below) but considerable numbers did occur in some stony locations. Flocks of 97 and 44 roosted over high water on the south side of the Eye Peninsula and in northwest Lewis respectively, from where they spread out over the adjacent shores on the falling tide. Repeated winter counts at Tong Saltings and Luskentyre showed that the

Table 2. Wintering numbers of Oystercatcher and Bar-tailed Godwit on the tidal flats of Tong Saltings and Luskentyre in 1978/9

	Dec	Jan	Feb
Tong Saltings			
Oystercatcher	326	320	278
Bar-tailed Godwit	2*	50	50
Luskentyre			
Oystercatcher	244	246	206
Bar-tailed Godwit	23	26	26

*Numbers probably underestimated

numbers of Oystercatcher in early winter and Bar-tailed Godwit in late winter were remarkably stable (table 2). Numbers of these species were also similarly stable during the winter of 1979/80.

Contrasting with Oystercatcher, the majority of Redshank occurred on the open rocky or sandy coasts (260 out of 299—87%) with only small numbers amongst the channels and saltmarsh of the tidal flats. Additional birds, almost certainly undercounted, fed amongst the crofts. Similarly the Lapwing, Golden Plover and Curlew, which consistently frequented several coastal locations, were but a proportion of the island total since the numbers only reflect those that visited the coast during the survey.

Most species occurred on both rocky and sandy shores but the distribution of certain species was centred upon one particular habitat (table 1). Purple Sandpipers were concentrated on rocky shores whilst Bar-tailed Godwit and Knot were centred on sandy shores. On the east coast of Scotland Summers *et al.* (1975) found a considerable number of Knot on rocky shores, but in the three winters 1978/9-1980/81 all wintering Knot in Lewis and Harris were on sandy shores. In the Uists Purple Sandpipers may be found on soft shores feeding amongst the vast piles of cast kelp on the strandline (Buxton in press) but in Lewis such tangle rarely, if ever, exists; consequently the main feeding grounds were rock platforms. Turnstone, although mainly frequenting rocky shores, did occur fairly commonly on beaches, especially Tong Saltings, where they fed on both the open flats and amongst the piles of cockleshell debris. They also often fed on grassy cliffs in midwinter where these backed the rocky shores.

Discussion

This study has shown that, in regional terms, considerable numbers of waders winter on the coasts of Lewis and Harris. The numbers of most species, such as Oystercatcher, Redshank, Ringed Plover, Dunlin and Knot, found in Lewis and Harris are dwarfed by the numbers found on the mainland

(Prater 1973b-1977) and many are far smaller than those in the Uists (Buxton in press). Densities too are low (table 1) and most species except Ringed Plover would generally appear to occur at greater densities on the east Scottish mainland (Summers *et al.* 1975). However, many of the birds found on sandy shores in Lewis and Harris are concentrated in three of the four large estuarine flats. Consequently, although not attaining international or national (British) significance, the tidal flats at Tong Saltings, Luskentyre and Northon are extremely important in the regional context of the Outer Hebrides and the northwest of Scotland.

It is very difficult to put the rocky shores into a national perspective since little rocky shore counting has been carried out. Summers *et al.* (1975) found that 332 km of rocky coastline in eight east Scotland counties supported a minimum of 2,993 Purple Sandpipers (55-175/km²) and 7,326 Turnstone (135-289/km²) whilst Prater (1973a) suggested that Turnstones were much less common on the northwest coast than elsewhere. This would appear to be the case in Lewis and Harris with 6.1 km² supporting 81 Turnstones/km² and 42 Purple Sandpipers/km². Most other species, except Ringed Plover, occurred at lower densities than on east coast rocky shores. As with soft shores the birds of rocky coasts were not uniformly distributed; greatest numbers occurred on the rocky platforms and the more sheltered areas of northwest Lewis and Broadbay.

In the areas examined, overall wader density was greatest on rocky shores (table 1). However, practically all the sandy shores were surveyed whilst only the best rocky shore habitats were covered. Hence, if the remaining cliff and rocky coast were included, the overall density on rocky shores in Lewis and Harris would be much decreased. In contrast to mainland Scotland, none of the wader habitats in Lewis and Harris is under great threat at present. However, although the overall numbers of birds are undoubtedly greater on rocky coasts than the sandy shores, it is the latter that are most sensitive. These soft habitats are exceedingly infrequent in Lewis and Harris, and northwest Scotland in general, with the result that development upon any one could have far-reaching consequences upon local wading-bird populations.

Acknowledgments

I wish to thank M. E. Ball, A. Currie and W. A. J. Cunningham for reading earlier drafts and J. Gammie for help with maps.

Summary

Counts of wintering waders were carried out round the coasts of Lewis and Harris (Outer Hebrides) during the winter of 1978/9. The numbers of birds present were not large by mainland standards but

were probably important on a local or regional basis. The most important areas for waders in the islands are discussed.

References

- ATKINSON (N. K.), DAVIES (M.) & PRATER A. J.) 1978. The winter distribution of Purple Sandpipers in Britain. *Bird Study* 25 : 223-8.
- BUXTON (N. E.) 1979. Wintering waders on the coast of the Eye Peninsula, Lewis. *Hebridean Naturalist* 3 : 42-47.
- in press. Wintering coastal waders of the Atlantic shores of the Uists and Benbecula. *Scot. Birds*.
- DA PRATO (E. S. & S. R. D.) 1979a. Counting wintering waders on rocky shores in East Lothian, Scotland. *Wader Study Group Bulletin* 25 : 19-23.
- 1979b. Wader counting on the rocky shores of East Lothian. *Scot. Birds* 10 : 184-6.
- PRATER (A. J.) 1973a. The 1972 midwinter census of waders in Scotland. *Scot. Birds* 7 : 391-8.
- (1973b-1977). *Birds of Estuaries Enquiry* 1971/72-1974/75. BTO/RSPB/WT.
- SUMMERS (R. W.), ATKINSON (N. K.) & NICOLL (M.) 1975. Wintering wader populations on the rocky shores of eastern Scotland. *Scot. Birds* 8 : 299-308.

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42 Aird Tong, Isle of Lewis, Outer Hebrides

Isle of May Bird Observatory and Field Station report for 1981

Prepared for the Observatory Committee by
B. ZONFRILLO, Honorary Secretary

(Plates 5-6)

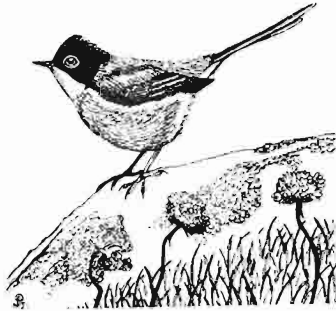
The Observatory was opened on 1st April and closed on 7th November. Coverage was generally good but in periods of bad weather when crossings were impossible Dr M. P. Harris, S. Murray and NCC summer warden Kevin Bayes bridged gaps in the observatory's records. Ringing totals increased, reflecting the continuing increase in most breeding seabirds. A new bird for the island was Sardinian Warbler* and a new breeding species was Stock Dove. Other unusual visitors were Melodious Warbler, Barred Warbler, Yellow-browed Warbler, Red-breasted Flycatcher and a very late Nightingale.

Migration summary

April migrants were sparse and unspectacular, with Willow Warblers arriving on 11th and Chiffchaffs on 18th; an Iceland Gull was seen on 15th. In contrast, May proved an exciting month. A southeasterly wind on 6th brought in a Whimbrel, 12 Fieldfares, three Lesser Whitethroats, a Goldfinch, a Chiffchaff, a Redstart, two Jackdaws and a Rook. The 7th added

Sparrowhawk, Common Sandpiper, Whinchat, Ring Ouzel, Garden Warbler, Blackcap and Redpoll. Strengthening winds on 8th drifted larger numbers of birds onto the island: 80 Willow Warblers, ten Lesser Whitethroats, 25 Wheatears, five Sedge Warblers and one Grasshopper Warbler, Cuckoo and Hooded Crow. Fog on 9th brought three Swifts. Conditions persisted until 11th when Pied and Spotted Flycatchers arrived along with the first Tree Pipits and five Bluethroats. By 13th May no fewer than ten Bluethroats were on the island, joined by a Wood Warbler and a Pied Flycatcher bearing an Estonian ring.

A Quail arrived on 16th accompanied by a Turtle Dove, a Brambling and another Bluethroat, and the next day three Twite, a Reed Warbler and a male Lapland Bunting were present. Interest continued with a Wryneck on 21st and two Red-backed Shrikes on 27th. The wind dropped and moved to southeasterly on 30th, producing a fine male Sardinian Warbler,* a new species for the island list. The bird stayed only



a few hours, near the Low Light. The last day of May brought a final Bluethroat but migration continued into June, producing a Turtle Dove and Reed Warbler, and on 6th the island's second Melodious Warbler, which stayed until 16th. A Black Redstart appeared on 11th, and on 14th three Canada Geese. Finally an immature Little Gull was seen from the boat on 23rd.

Autumn migration started around the first week in August with a Green Sandpiper, a Short-eared Owl, a Whimbrel and a Cuckoo. A trickle of Willow Warblers became a flood on 14th August when at least 500 were on the island; 155 were ringed that day but next day all but 20 had gone. A Ruff was present on 23rd despite very little fresh water on the island, which meant a scarcity of waders. On 30th August migrants included a Grey Wagtail, four Tree Pipits and a Barred War-

*Subject to acceptance.

bler. A Wood Warbler was trapped on 31st. A due east wind on 2nd September saw five Barred Warblers, two Fieldfares and a White Wagtail (nominat *alba*) present. On 3rd a Peregrine visited the island and 15 Common Sandpipers were counted on 11th. On 21st a Little Stint was seen. Numbers of birds increased towards the end of the month with 100 Chaffinches, 40 Siskins and 150 Meadow Pipits on 27th. Another Peregrine was seen on 28th and a Lapland Bunting arrived. On 29th a Yellow Wagtail concluded September's migrants.

October began with a Barnacle Goose appearing near the Low Light, followed by a Glaucous Gull on 2nd; 650 Redwings and 80 Blackcaps passed through on 3rd. On 4th nine Brent Geese, Lapland and Snow Bunting and two Sooty Shearwaters were seen. A Water Rail arrived on 5th and a Barred Warbler and Red-breasted Flycatcher were trapped on 6th. A Yellow-browed Warbler was ringed on 8th and another was seen on 18th. Eight Pintail were noted on 19th. Surprise of the autumn was a Nightingale trapped on 22nd October, following a northerly airflow! Little Grebe and Black Guillemots were offshore in late October and on 28th ten Barnacle Geese landed on the island, nine of which stayed until at least 7th November. On that date four Little Auks were seen from the boat, two of which were amongst a group of 15 Starlings flying towards the island!

Dates of some migrants (maximum daily count in brackets)

Shoveler 12 May (2).
 Whimbrel 6-24 May, 22 Jul-17 Oct (17).
 Little Gull 23 Jun (1).
 Little Auk 7 Nov (4).
 Swift 9 May-12 Sep (17).
 Swallow 6 May-25 Oct (80).
 Nightingale 22 Oct (1).
 Bluethroat 11 May-11 Jun (10).
 Black Redstart 1 Apr-12 Jun (2). No autumn records.
 Reed Warbler 17 May-5 Jun (2).
 Melodious Warbler 6-16 Jun (1).
 Sardinian Warbler* 30 May (1).
 Barred Warbler 30 Aug-6 Oct (5).
 Lesser Whitethroat 6 May-6 Oct (10).
 Whitethroat 8 May-28 Oct (14).
 Yellow-browed Warbler 8-9 Oct, 18 Oct (1).
 Wood Warbler 13 May, 31 Aug-2 Sep (1).
 Willow Warbler 11 Apr-30 Sep (500).
 Red-breasted Flycatcher 6 Oct (1).
 Lapland Bunting 17 May, 28 Sep-28 Oct (1).

Breeding birds

Most seabirds continue to show an increase in breeding numbers. Fulmars raised 63 chicks (70 last year). Paradoxically 144 occupied sites were counted and over 500 individ-

uals were present around the island on 21st February, record totals for the island in both instances. Another species in decline was Herring Gull: 2,900 pairs counted pre-cull (4,000 last year, 600 birds culled). Despite this natural drop in numbers, the NCC's systematic gull destruction programme went ahead and around 500 birds were poisoned. The islands auk populations were censused by Dr Harris in summer. Some 17,000 Guillemots were counted and around 2,000 Razorbills. Exactly how many pairs breed is hard to tell but these figures represent record head counts and an increase in breeding can be inferred. Puffins increase relentlessly—c.10,000 active burrows. Shags increased with around 1,221 breeding pairs counted, and Kittiwakes also showed further increases with around 6,100 active nests, several hundred now breeding on the east side of the island. A record 309 pairs of Eiders attempted breeding with reasonable success. Two pairs of Common Terns laid eggs and one at least had two young fledge. Oyster-catcher nests found totalled 27 and at least 14 young fledged.



Eider

One pair of Stock Doves produced young, a new addition to the island's breeding birds; another pair also present may have bred. Seven Lapwing nests were found but no young were raised. Passerines breeding included Swallow, Meadow Pipit, Pied Wagtail and Starling. Rock Pipits increased to 17 breeding pairs.

Ringling

The ringling total of 6,135 showed an increase of about 800 over last year. About 1,500 passerines were ringling, the rest mainly seabirds. Dr Harris's Puffin ringling programme again topped the species list with a record 2,631 birds. H. Galbraith and N. Aebischer concentrated on Shag ringling studies and a healthy 790 birds were ringling with an additional 240 worn rings replaced. The low gullies to the east of the island rapidly colonized by Kittiwakes allowed for many of them to be ringling. Sheila Russell, Keith Brockie and Mike Harris ringling 684 over a three day spell, surpassing by far the record total set last year.

Twenty-four Storm Petrels were ringling during August, with

two controlled. One bird was netted without tape lures playing, showing that this species at least prospect the island without artificial stimulation. Birds were caught at five sites around the island; 13 were netted in one night. An adult Gannet was ringed on the South Ness in May.

Notable passerines ringed were Nightingale (1), Bluethroat (5), Reed Warbler (2), Melodious Warbler (1), Yellow-browed Warbler (1), Red-breasted Flycatcher (1) and Red-backed Shrike (2). Six Barred Warblers were also caught and one of these trapped on 30th August by Robert Morton weighed 21.3 gm, on 1st September it weighed 25.3 gm and on 4th September it was again retrapped and weighed 29.2 gm, leaving the island in a healthy state.

Ringing recoveries

Several interesting recoveries were notified during the season, revealing remarkable distances covered, migration patterns and wintering areas. Observations of colour ringed birds can render precise details without the birds being caught or disturbed. Two birds thus marked were a Barnacle Goose (orange AJ) in a group of nine grazing on the island from late October onwards, and a Purple Sandpiper sighted on 5th October. The Barnacle Goose had been ringed at Caerlaverock (Dumfriesshire) in November 1979, had returned to the Solway with a mate and two young in autumn 1980 and was last seen there on 21st January 1981 before leaving for Spitsbergen. This was the observatory's first record of any marked goose. The colour combination worn by the Purple Sandpiper allowed the bird to be individually recognized. It was ringed as a chick on 21st June 1981 at Hardangervidda (Norway) during an expedition organized by the Tay/Gram-pian ringing groups to study this species. Recoveries and controls are as follows, age codes in brackets.

Ringed Isle of May		Recovered/controlled	
Shag (1)	06.07.63	29.06.81	Isle of May (controlled breeding)
Oystercatcher (1)	20.06.74	17.09.81	South Gare, Cleveland (control)
Herring Gull (1)	02.07.68	19.02.80	Grootegast, Gronigen, Holland (sight record, also there 04.08.80)
Guillemot (8)	02.07.79	10.01.81	Hastings, Sussex (dead, oiled)
Razorbill (1)	28.06.80	13.02.81	Helgoland, W. Germany (dead)
Puffin (8)	05.07.80	20.01.81	Etretat, Seine-Maritime, France (dead)
Puffin (8)	10.07.78	29.03.81	Bovbjerg Fyr, Ferring, Denmark (dead)

Ringed Isle of May		Recovered/controlled	
Puffin (1)	02.07.78	09.07.81	Kvenvaer, Hitra, Sor-Trondelag, Norway (dead)
Puffin (8)	23.07.80	22.07.81	Imachar Point, Isle of Arran (dead)

The Shag is the oldest island-born bird on record, compare with Gannet (below). Few Guillemots and Razorbills are ringed each year (a good sign). The Clyde record is the second from that area in successive years.

Meadow Pipit (2)	23.09.80	03.02.81	Larache, Morocco (caught, released)
Robin (3)	08.09.81	14.09.81	Kilwinning, Ayrshire (dead)
Redstart (4♀)	14.05.81	20.06.81	Threestoneburn, Northumberland (control)
Blackbird (4♂)	23.10.79	11.03.81	Kjeldberg, Jylland, Denmark (dead)
Blackbird (3♀)	23.10.80	06.08.81	Imsland, Vindafjord, Norway (dead, ring in fresh Goshawk pellet)
Willow Warbler (3)	21.08.80	29.09.80	Rota, Cadiz, Spain (shot)
Starling (3)	21.08.77	14.05.81	Fordingbridge, Hampshire (dead)
Brambling (4♀)	01.04.81	23.04.81	Utsira, Rogaland, Norway (dead)

The suburban Robin in the west six days after ringing was probably of Scandinavian origin. The fate of the Norwegian Blackbird is interesting, and the Starling may have been one of the May's young. The Brambling is the first spring recovery on file.

Ringed elsewhere

Recovered/controlled Isle of May

Storm Petrel (4)	20.07.81	Yell Sound, Shetland	02.08.81 (control)
Storm Petrel (4)	27.07.81	Noss Point, Wick, Caithness	05.08.81 (control)

Tape lures were used at the ringing places and on the May. Storm Petrel controls in three years now outnumber Fulmar recoveries since first ringed in 1947.

Gannet (1)	15.07.61	Bass Rock, E. Lothian	14.10.81 (dead)
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A long-lived bird but still five years short of the known record.

Robin (4)	28.10.79	Grandholme Estate, Aberdeen	23.10.80 (control)
Sedge Warbler (3)	28.07.80	Montrose Basin, Angus	13.05.81 (control)
Pied Flycatcher (1♂)	27.06.80	Paistu, Viljandi, Estonia, USSR	13.05.81 (control)

The Pied Flycatcher is our first from the Soviet Union. It was almost at the latitude of ringing but 1,709 km west.



PLATE 4. Unusual visitors on the Isle of May (p. 43)

(a) Melodious Warbler, only the second record for the island (the first was in 1913). *N. Aebischer*

(b) Sardinian Warbler. This adult male, the first for the island, was only the second Scottish record.

N. Aebischer

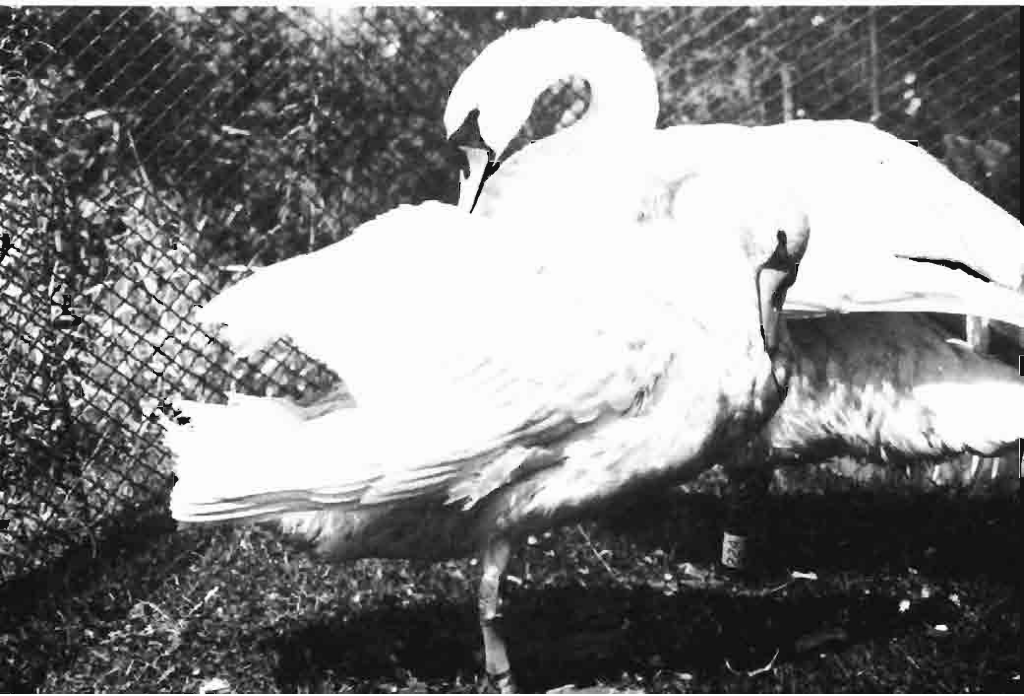
(c) Barnacle Goose. One of a group of nine which included a colour-ringed bird. *S. Leach*

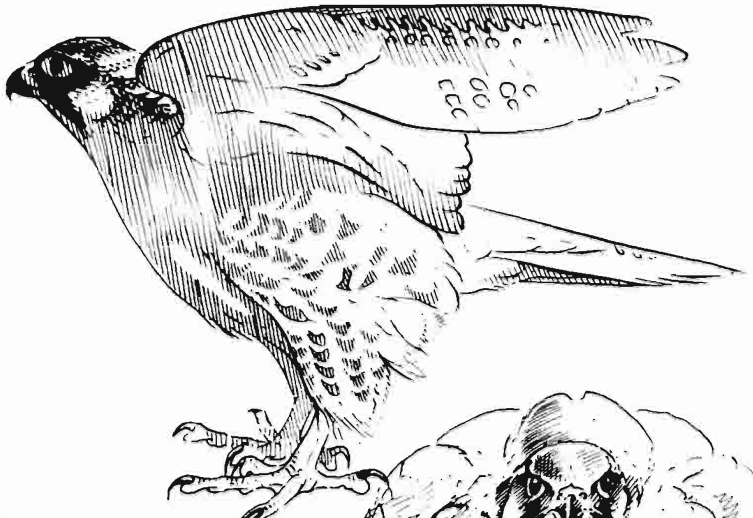




PLATE 5. Two examples of the leucistic form of common species.

- (a) A Willow Warbler with predominantly white mantle and head, photographed on the Isle of May. *I. P. Gibson*
- (b) A 'Polish' Mute Swan; the pink legs and feet distinguish the bird as leucistic. *D. W. Core*





Immature ♀ Peregrine
Keith Brockie
March 1982



PLATE 7. Treecreeper roosting in the bark of a Wellingtonia. Note the obvious streak of droppings below indicating a well-used roost. *Don Smith*



Observatory notes

A turf fire near the Beacon during the September drought burned for around six weeks before being extinguished. Fortunately few, if any, Puffin burrows were damaged. Most visitors, without prior knowledge, survived the drought conditions with imported supplies of other liquids, and discovered the joys of sea bathing. Facilities at the Low Light have gradually been upgraded over the year. The Bain Trap has proved too costly to replace immediately but will be done when funds are available. An inorganic migrant, in the form of a balloon released by Sunnyside Hospital, Montrose (Angus), was controlled on the Isle of May, 59 km south. Grey Seals *Halichoerus grypus* were again breeding in large numbers. Principal keepers G. Birse and D. Leslie left the island for other parts with Alex Summers taking over. We wish him an enjoyable term of duty, and thank his predecessors for their help over the years. Our thanks are again due to the Northern Lighthouse Board and their staff and to Jimmy Smith our boatman for his help and numerous favours.

Bernard Zonfrillo, 28 Brodie Road, Glasgow G21 3SB

Harvie-Brown - a profile

JOHN A. LOVE

No one involved in Scottish ornithology can fail to encounter at some stage in his researches the name of Harvie-Brown. A giant both in stature and in reputation, he could have no finer monument to his memory than the encyclopaedic *Vertebrate Faunas*. These dozen volumes of which Harvie-Brown was principal editor remain invaluable source books about Scottish wildlife. But it is not intended here to present a critique of the writings of Harvie-Brown but instead to describe something of the man himself.

John Alexander Harvie-Brown was born in Edinburgh on 27th August 1844, the only son of John Harvie of Quarter and Elizabeth Spottiswoode of Dunipace. (His father assumed the name Brown as a beneficiary under the will of one Alexander Brown of Quarter.) The young John was educated at Merchiston and later the University of Edinburgh. Although a keen footballer and cricket player he was most remarkable for his passion for field sports and natural history. While at Cambridge University he befriended the eminent ornithologist Professor Alfred Newton. For a time John nursed a desire to become a collector for the Smithsonian Museum in North America but his father objected, preferring him to follow a profession. But

on his father's death John fell heir to the Stirlingshire estates and devoted his life to natural history, shooting and fishing. He never married.

Harvie-Brown was a large, powerfully built man with a broad and bearded face. He was a great talker, possessed a fund of anecdote and was always full of humour. As a laird he was loved and respected by his tenants and neighbours alike. He gave generously to sundry charities and worthwhile causes and, a staunch Tory, was active in public life. However, he also said that if the socialists were true to the real meaning of socialism it would be the better cause. For a number of years he was chairman of Dunipace School Board and was also a member of its Parish Council; he also served as a Justice of the Peace for Stirlingshire.

He was a charming and genial host and an excellent shot. However, while once ramming a charge into his gun he accidentally blew off the top of his thumb. Joseph McNaughton, one-time employee of Harvie-Brown and later curator of Stirling Museum, also recounted how on another shoot a reckless companion swung round to fire at a Rabbit; after cutting down a young tree his shot lodged itself in Harvie-Brown's ankle—a wound which almost proved fatal and whose scar he bore to his dying day.

Harvie-Brown was a keen angler and wrote several articles on fish, including one giving directions on how to cook trout! In 1898 was published his book entitled *The Wonderful Trout*. He early came to realise how lamentably little had been documented about Scotland's wildlife so in 1892 he founded and co-edited (together with Prof J. W. H. Trail and W. Eagle Clarke) the *Annals of Scottish Natural History*—'A quarterly magazine with which is incorporated *The Scottish Naturalist* . . . Annual Subscription payable in advance 7s. 6d., Post Free.' The original *Scottish Naturalist* was the journal of the Perthshire Society of Natural Science and the *Annals* later came to be called the *Scottish Naturalist* until its demise in 1964.

At the age of 18 Harvie-Brown published his first ornithological note in the *Zoologist*. Thereafter his output was prolific with regular short submissions on a wide variety of ornithological and other topics. On breaking his wrist around 1900 he contrived to continue his writing unabated by investing in a typewriter. His monograph on *The Capercaillie in Scotland* had been published in 1879 and two years later *The History of the Squirrel in Great Britain*. This latter volume rapidly sold out so that Queen Victoria herself had difficulty in procuring a copy. In his studies of species such as Great Spotted Woodpecker, Stock Dove, Rook, Fulmar, Starling and Capercaillie and various mammalian predators Harvie-

Brown pioneered the use of questionnaires. He also co-ordinated the collection of records from lighthouse keepers which were ultimately incorporated into Eagle Clarke's monumental *Studies of Bird Migration* (1912).

Harvie-Brown maintained a vast network of friends and informants throughout the country which generated a prodigious correspondence and complemented his own extensive knowledge. Until 1903 he undertook annual expeditions to Sutherland, his favourite county. This he celebrated with the publication in 1887 of the first *Fauna*, written jointly with T. E. Buckley, an Englishman resident in the county. That same year saw his yacht *Shiantelle* launched in Fraserburgh and which was to greatly facilitate his exploration of the Hebrides, Orkney and Shetland. On these cruises he was accompanied by many eminent naturalists such as Eagle Clarke, and by the geologist Professor Heddle of St Andrews University; a young Fraserburgh man William Norrie was employed to take photographs.



Other regional faunas were to follow—the Outer Hebrides in 1888, Orkney in 1891, the Inner Hebrides in 1892 and the Moray Basin in 1895—all with Buckley, who with A. H. Evans in 1899 wrote the *Vertebrate Fauna of Shetland*. In 1904 Harvie-Brown collaborated with the Rev. H. A. Macpherson on the northwest Highlands and Skye, but two years later was himself to undertake the *Vertebrate Fauna of the Tay Basin and Strathmore*. The late W. Berry has pointed out how some of the later works are subject to some inaccuracies, possibly due to the failing of Harvie-Brown's previously faultless memory. But A. H. Evans, G. Sim, H. Gladstone and the Misses Baxter and Rintoul were to continue the *Vertebrate*

Faunas with subsequent volumes on the Tweed, Dee, Dumfries and the Forth.

Harvie-Brown's boundless energy and insatiable pursuit of knowledge were not confined to Britain. During the 1870s he travelled extensively abroad—Norway, Transylvania, Archangel and the valley of the Pechora. On such expeditions he would seek the companionship of such friends as E. R. Alston and Henry Seebohm, and amongst their numerous ornithological discoveries were the first nests and eggs of the Grey Plover and Little Stint. In 1894 he visited The Faeroes and two years later was invited to accompany the Royal Irish Academy on a cruise round St Kilda and Rockall. His overseas experiences were recounted in two volumes published in 1905 entitled *Travels of a Naturalist in Northern Europe*.

A lightkeeper once jokingly interpreted Harvie-Brown's initials as standing for 'John Always Hunting Birds' and indeed he was an obsessional collector. His vast collection of bird skins and eggs, amassed with the help of his friend Col H. W. Feilden, was accommodated in the top floor of his mansion house at Dunipace. He also collected and neatly catalogued agates and other semi-precious stones, together with a unique accumulation of toilet soaps which became quite a popular exhibit at local sales of work! Tragically one January night in 1897 this impressive museum was totally destroyed by fire. This must have been a bitter blow but one which Harvie-Brown bore with characteristic cheerfulness. Fortunately his extensive library, housed in a specially built wing of the house, was saved and remains intact in the Royal Scottish Museum (Edinburgh).

Despite his zeal for collecting Harvie-Brown was, for his era, unusually conscious of conservation. In the 1890s he printed privately a leaflet on the Osprey which he circulated to county councils in Scotland, pleading for better preservation of the species. In his *Vertebrate Fauna of Argyll and the Inner Hebrides* he 'put up a little prayer to the proprietors and shooting tenants of lands formerly and presently occupied by White-tailed Eagles to take active measures for their future protection'. Rhum is specifically mentioned in this respect, an island which in 1886 he had considered purchasing. Had he not been persuaded against it one might surmise that the Erne might never have become extinct in Britain.

Harvie-Brown's esteem as a naturalist earned him fellowships from the Royal Society of Edinburgh and the Zoological Societies of both Edinburgh and London. He was especially proud to have been elected an honorary member of the American Ornithologists' Union and in 1912 the University of Aberdeen conferred upon him an honorary degree of LL.D.

For much of his life Harvie-Brown had suffered from asthma and in 1899 contracted a severe attack of influenza. Thereafter his health slowly began to deteriorate. He was forced to give up his outdoor activities and, despite his moderate diet, he steadily gained in weight until he reached 27 st. Latterly he had to abandon his upstairs bedroom and instead slept in his ground floor study where one end of his desk served as his dining table. On 26th July 1916, after a week's illness, John Harvie-Brown died and was laid to rest in the family graveyard at Dunipace. But in his 72 years he generated an immense legacy of scientific literature—nearly 250 titles—which greatly advanced Scottish natural history and remains to this day a worthy tribute to a remarkable man.

The most informative source for this article was a short biography by J. McNaughton (*Stirling Natural History and Archaeological Society: Transactions LVIII 50-63*) and I am grateful to Henry Robb for bringing this to my attention. Ian Lyster and Miss Joy Pitman also gave generous assistance and the latter as Archivist at the Royal Scottish Museum is at present cataloguing the Harvie-Brown papers with a view to preparing a booklet in the museum Information Series.

John A. Love, Kinloch, Isle of Rhum, Inverness-shire

Short Notes

Predation of birds by Pine Martens

Since the early 1970s Pine Martens *Martes martes* have become increasingly common in Glenurquhart (Inverness-shire). The first indication I had was finding holes up to 23cm in diameter and 30cm deep in the centre of old Buzzard nests. Whilst checking a Buzzard nest in April 1976 I disturbed an adult Pine Marten from one of these hollows and in 1981 I found three young martens in a similar hollow. In 1978 one of our owl boxes was taken over by a marten but the box was eventually abandoned. Once a box or nest had been used by a marten it was never reoccupied by the birds.

However it is not so much in nest take-overs as in nest robbing that Pine Martens are most active. In 1977 I found a brood of three large Buzzards. I returned a week later to ring them and found the nest to be empty but littered in half chewed feathers and quills. The nest was in an alder next to a conifer plantation and I am sure a marten was the most likely culprit. In 1978 at the rookery in Drumnadrochit a Pine Marten was seen to climb a Scots Pine and enter three Rook nests, eating the eggs. It was not known how many other nests were robbed but by the next day the rookery (about 60 pairs) was abandoned and a new one was later established c.800m up the glen.

Despite this new rookery having been shot out the birds have never returned to the original wood.

After the hard winter of 1978/9 Pine Marten activity was greatly reduced but by 1980 and '81 they were back in evidence once more. Tawny Owl boxes suffered with two clutches being eaten in 1980 and three clutches and two broods in 1981. Small nestboxes were also attacked. In 1980 the lid of a box containing a brood of Great Tits was half eaten off enabling the marten to reach and eat the chicks. In another case the hole to a box was slightly enlarged allowing the marten to put in a paw and rake out five of the seven young tits and much of the actual nest. The two remaining birds, tucked in a corner, survived and fledged.

There have been many other cases where the remains of chewed feathers and quills of nestlings in a nest have suggested Pine Marten predation. The species involved include Blackbird, Song Thrush, Redwing, and Pied and Grey Wag-tails. Woodpigeons have been found on Pine Marten nests and marten droppings are normally full of feathers.

R. L. SWANN

Work on Golden Eagle and Peregrine in northeast Scotland in 1981

The North-East Scotland Raptor Study Group formed to co-ordinate observations for the all-Britain survey of Peregrines in 1981. We intend to continue such observations annually, on Golden Eagles and Peregrines. The full data will appear as scientific papers after some years but this brief summary (see table) may interest a wider readership. Being up to date it may help the protection of these species by drawing attention to harmful events as they arise. The group intends to produce such a summary annually. For both species in 1981 we covered the counties of Aberdeen, Kincardine, Angus, Fife, Kinross, Perth east of the Perth—Blair Atholl—Glen Tilt road, and Banff except the southwest corner in the Cairngorms.

Golden Eagle

The Group looked at all known sites in the area and searched other likely places. The birds had an average breeding success. Five eaglets were ringed. At one of the only four nests with two large young an eaglet was removed in early July under licence for falconry. Of the 28 home ranges, 20 were regularly used, adult pairs were seen at five places where breeding has occurred in the past, and one or more adults at a sixth. An immature bird or pair appeared at two other places on grouse moors where breeding has not been observed in

the past and where nesting eagles would be unlikely to succeed because of human persecution.

Table. Breeding in 1981

All columns except the rightmost two give number of cases, not number of eggs or young

	Home ranges or sites with pair or single bird present	Known to have laid (probably laid)	Eggs failed to hatch (eggs or small young disappeared /died)	Fledged young seen (large chicks seen, not checked for fledging)	Median fledged brood size	Total no. young reared
Golden Eagle	28	16(2)	2(5*)	11(0)	1	15+
Peregrine	55	4(10)†	4(10)	22 μ (4x)	2	46

*Probably eggs robbed at 3 nests.

+Including one removed for falconry.

†Eggs disappeared at 2 nests.

μ At 6 nests with at least 10 young, observers could only say that at least 1, 2 etc. young fledged; the other 16 produced 36 fledged young.

xBig chicks ringed; at a 5th nest, 5-6 day old young were seen and not checked later.

Peregrine

Breeding success was poorer than average. Small young died at two nests. They disappeared at one nest and probably disappeared at five others; the possibility of the eggs being broken and eaten by the adults cannot be disproved conclusively but is considered less likely. Most of these eight failures occurred at exposed sites, in a few cases associated with periods of heavy cold rain, so we think it more probable that the chicks died than that falconers took them. The group ringed 29 young. Birds were seen at four places on the coast, and laid eggs and reared broods of two and three young at two of them. This is a welcome sign of recovery after so many years of absence in the old coastal haunts.

The usual main prey items occurred at nests, such as Red Grouse and domestic pigeons. Some interesting prey items at moorland sites were five Blackbirds and a Song Thrush. Observers also noted three Redshanks, two Collared Doves and a Kestrel. Small items included a Meadow Pipit, two small rodents and a very small Mallard duckling. One observer saw an adult Peregrine take an adult Hooded Crow in a stoop.

The group checked all other sites known to have been used in the past, both inland and on the coast, and also many other potential sites. This revealed two pairs that had previously been suspected but not proved and a few 'new' pairs on ground not previously searched. It also showed large expanses of grouse moor country with suitable crags, but with no signs of birds apart from droppings at a roost at one place. This absence occurred on ground managed intensively by gamekeepers. In one case with a change of keeper, a successful run of years by one pair has ended.

This note is presented by one of us on behalf of the group, which consists of K. Brockie, J. Chapman, B. L. Cosnette, E. Duthie, P. Ellis, G. Flodgell, J. Hardey, M. Nicoll, A. G. Payne, R. Rae, G. Rebecca, A. B. Ritchie, A. Rollo, A. Watson and J. Young. We are grateful to R. Balharry, D. Batty, D. Carstairs, N. Cook, J. Edelsten and E. Jensen for some observations, and to R. L. McMillan for his interest and co-operation.

ADAM WATSON

Movement of a Greenshank chick

In 1981, while working on our family Greenshank research in Sutherland, we recorded an unusually long movement of a Greenshank chick. On 17th May Katharine and I found a nest with four eggs. When checked by Richard on 30th May no eggs were starred, but on the morning of 3rd June all were starred. These were checked on the mornings of 4th, 5th and 6th June when the chicks were still unhatched. By late evening on 7th June three chicks, two still with egg teeth, were in the nest and the fourth egg chick had its bill through the shell. All three chicks were now ringed with two brown rings on their right legs, a combination unique to this brood. They then weighed 18, 18 and 19 gm (normal hatching weights) and the egg scaled 22 gm. By the afternoon of 8th June the fourth egg had hatched and the brood had moved c.60m uphill.

It rained all day on 8th June. On 9th June at c.15.30 GMT Patrick and I were walking through a distant nest territory when we came across a brood which we expected to belong to that territory. We sat down and watched the adult call in a chick and brood it. Patrick then caught the chick. I was astonished to find that it had two brown rings on its right leg. The chick, which now weighed 20gm, had moved 3.5km as the crow flies and probably a much greater distance across the gneiss, over very rough terrain, around many dubhlochans, and through at least three other occupied territories.

In *Greenshanks* (1979) D. & M. Nethersole-Thompson say 'Pairs . . . often travel long distances with their families, some-

times covering 400 to 800 yards [c.360-730m] in quick time. In 1977 Bill Henderson watched a brood in the Inverpolly Reserve move roughly half a mile (800m) within an hour.' In our study area the movements of Greenshank broods vary greatly. Some pairs annually rear their families on particular parts of the same flow, 200-300m from where the chicks have hatched. Others take their broods on much longer and seemingly erratic journeys. Ringing alone can positively identify these families which have made long journeys passing through and into the territories of other pairs.

We have had no proof that parent Greenshanks carry their chicks, but a Swedish observer watched one lift and carry a chick several hundred yards (*Greenshanks*). There are also records of long treks by other wader broods. Hale (1980, *Waders*) recorded a brood of colour ringed Redshank chicks moving nearly 1km in 24 hours with the parents carrying them one at a time over four different stone walls.

MAIMIE L. P. THOMPSON

Reviews

The Birds of Fair Isle . . . an illustrated checklist by J. F. Holloway & R. H. F. Thorne. Published by the authors, Fair Isle, 1981; 50 pages; drawings; map; 21 x 14 cm; softback; £2.

This welcome booklet is an up to date, clearly laid out list of the birds of Fair Isle and as such fills a glaring gap. It does not pretend to be an authoritative full revision of all Fair Isle data but is a guide for those who quickly want to know what has occurred and when. Each species is supported by, at most, a few brief lines of general comment on numbers, status and occurrences and most pages are illustrated by John Holloway's line drawings. The brevity of the text could in places be misleading and it is unfortunate that sometimes comment on status differs from published information.

ROGER A. BROAD

Sketches of Bird Life by C. F. Tunnicliffe, edited by Robert Gillmor. Gollancz, London, 1981; 144 pages; over 122 drawings; mostly in colour; 25 x 27 cm; £10.95.

Compared with its predecessor *A Sketchbook of Birds* this fine collection of Tunnicliffe's sketches is more illuminating about the master's methods of working from barest field sketch to finished picture. Robert Gillmor's devoted yet discreet editorship has ensured this. It includes a high proportion of birds drawn in active postures which Tunnicliffe captured with bold, firm draughtsmanship. That so much work never intended by the artist for publication shows no hint of tentativeness is a tribute to his ability to maintain his own exacting standards. Everyone will find their own favourite pages in this book. Greatly as I admire the power of his Gyrfalcon, the linear simplicity of his Woodpigeons and the fine angular shapes of his swans. I continually return to the waders, like the beautifully realized Wood Sandpiper, the hurrying Greenshank

or the Curlew feeding in evening light. A few studies of small birds seem to me a trifle heavyweight. Yet one of the most memorable sketches is that of a Shore Lark with Skylarks, suggested with a marvellous economy of touch.

DONALD WATSON

Flight Identification of European Raptors 3rd edition by R. F. Porter *et al.* Poyser, Calton, 1981; 180 pages; 248 plain photos; many drawings; 25 x 16 cm; £9.60.

This is not merely a revision of an excellent book; it is almost a completely new book. Much obvious work has gone into improving the identification data on the *Aquila* eagles and the *Buteo* group. Indeed fuller and more accurate descriptions of all species are backed by a far more comprehensive range of drawings, with Buzzard being an ideal case for the more detailed treatment. The superb artwork of Ian Willis, displayed in the previous two editions, appears even finer due to his revisions and additions, plus the better quality paper on which it is reproduced. A wider range of carefully chosen photographs bring out the full character of the birds described in the text. Cautionary comparisons also exist for those who would imagine that raptor identification is an easy matter, e.g. Sparrowhawk and Goshawk. Without doubt this must be currently the most attractive and useful book on European birds of prey. It's difficult to see how the authors can further improve on this splendid book—but doubtless they'll try!

ANGUS HOGG

The Birdwatcher's Dictionary by Peter Weaver; Poyser, Calton, 1981; 155 pages; many drawings, diagrams & maps; 22 x 15 cm; £5.

The aim of this book is to define those terms most likely to be encountered by beginners and more experienced birdwatchers. Between 'Abdomen' and 'Zygodactyl(e)' it covers a wide range including slang ('Banger'), birding activities ('Sponsored bird watch'), organizations ('Euring'), geography ('Sahel Zone'), behaviour ('Roding') and science ('Diastataxic'). Four appendices list abbreviations, North American names with British equivalents and scientific names, a birdwatchers' code of conduct, and a British and Irish list (Voous order). Generally the definitions blend brevity and explanation in lay language. The reviewer found them clear and adequate. However, the derivation of tiercel is not given though the origin of jizz is. The book achieves its aim but its use is more likely to be for the less experienced wishing quickly to acquire the vocabulary rather than for the experienced who may well know most of its contents and who would wish a fuller exposition of any term they require to check.

SANDY MITCHELL

The books reviewed above are available from the SOC Bird Bookshop (see booklist for postage terms)

Current literature Articles and reports on the status and distribution of birds in Scotland are listed here. Strictly biological studies such as ecology or behaviour are excluded and so are references from the widely read journals *British Birds*, *Bird Study*, *Ringing and Migration* and *Ibis*. Most items listed and many others are available for reference in the club library and we are grateful to the contributors. The library welcomes copies of work on any ornithological subject.

Birds of Estuaries Enquiry 1976-77 to 1978-79. J. H. Marchant (ed) 1981. BTO.

- Wick High School Bird Report* 1980. S. G. Mackay (ed) 1981. 75p from Wick High School, West Banks Avenue, Wick, Caithness, KW1 5LU.
- Gladhouse Local Nature Reserve: Descriptive Report*. Lothian Regional Council Dept. of Physical Planning (1981?).
- Gladhouse Local Nature Reserve: Management Plan 1982-86*. Lothian Regional Council Dept. of Physical Planning 1981.
- Wildfowl Counts at Fannyside Loch (L)* 1977-1980. (No author, date or publisher.)
- Grampian Ringing Group Report* 3. J. Hardey & A. Brenchley (eds) 1981. Includes Snow Bunting biometrics, breeding of Merlin, Slavonian Grebe and Tawny Owl, and prey of Peregrine and Great Skua.
- The Results of the National Wildfowl Counts and Birds of Estuaries Enquiry 1980-81*. D. G. Salmon (ed) 1981. Wildfowl Trust.
- Final comments on the spring migration of waders through Britain in 1979. P. N. Ferns 1981. *Wader Study Group Bulletin* 33: 6-10.
- Censusing breeding waders on agricultural land in Scotland. H. Galbraith & R. W. Furness 1981. *Wader Study Group Bulletin* 33: 12-13.
- Aspects of overland wader migration in autumn at a reservoir in southern Scotland. T. W. Dougall 1981. *Wader Study Group Bulletin* 33: 25-27.
- The Breeding Waders of Upper Glen Fruin, Dunbartonshire*. H. Galbraith 1982. Nature Conservancy Council.
- Greylag and Pink-footed Geese in Britain: 7th/8th November* 1981. M. A. Ogilvie 1982. Wildfowl Trust, Slimbridge, Gloucester, GL2 7BT.
- Geographical variation of the Fulmar... in the North Atlantic. J. A. van Franeker & J. Waddel 1982. *Ardea* 70: 31-44.
- Movements of Bewick's Swans... marked at Slimbridge, England from 1960 to 1979. M. E. Evans 1982. *Ardea* 70: 59-75.
- Highland Ringing Group Report* 4. 1981. From T. Mainwood, 13 Ben Bhraggie Drive, Golsple, Sutherland. Includes papers on Ear-tailed Godwits, Red-wing movements, and the effect of winter temperature on breeding birds.
- A Bibliographically-annotated Checklist of the Birds of Shetland*. N. Hamilton 1981. £3 from Institute of Terrestrial Ecology, Merlewood Research Station, Grange-over-Sands, Cumbria, LA11 6JU.
- The spring passage of Pomarine and Long-tailed Skuas off the south and west coasts of Britain and Ireland. D. L. Davenport 1981. *Irish Birds* 2: 73-79.
- Movements of Mute Swans from Scotland to Ireland. C. J. Spray 1981. *Irish Birds* 2: 82-84.

Notices

Photographic competition Remember that entries for our new competition must reach the editor by 31st August (see SB 12: 1 for details).

Colour ringed Purple Sandpipers Please report any sightings to Robert Rae, 13 Red Inch Circle, Newburgh, Aberdeenshire.

Chough Survey 1982 This summer a joint RSPB/BTO/IWC survey of the Chough is being done throughout Britain and Ireland to show how the population has fared since the last census in 1963, which revealed only eleven pairs in Scotland. Choughs are now well established on Islay and have spread to Colonsay, Jura, Kintyre and possibly Mull. If you come across Choughs this summer (up to the end of July) please note locality and grid reference, numbers, evidence of breeding (e.g. young/nest cave) and terrain in which any are feeding, and write to Chough Survey, RSPB, The Lodge, Sandy, Beds., SG19 2DL.

(Notices must reach the editor at least four months before publication, with an SAE if acknowledgment is required.)

The Scottish Ornithologists' Club

ANNUAL CONFERENCE

The 35th annual conference and 45th annual general meeting of the club will be held in the Marine Hotel, North Berwick, East Lothian, during the weekend 5-7 November 1982. The conference programme and booking form will be sent to members with the autumn journal early in September. Reservations for the conference can only be accepted on the booking form; the Marine Hotel has been instructed not to accept any booking except through the club secretary.

BRANCH MEETINGS

Will members please note that the dates of the first meeting of branches next winter will be as follows :

September 20th Aberdeen, Borders and Glasgow
21st Edinburgh, Inverness and Wigtown
22nd Ayr, Dumfries, St Andrews and Thurso
23rd Dundee, New Galloway and Stirling

The venue for all branches except St Andrews and Wigtown remains unaltered. St Andrews will meet in The Scores Hotel and Wigtown in the Library, Stranraer, for all its future meetings. The times of meetings are unchanged, except St Andrews which will start at 7.30 p.m. in future. Full details will be published in the syllabus of lectures sent to all members with the autumn journal.

LOCAL RECORDERS

Please note the following change of address and new recorder :

South Kincardineshire, Angus N. K. Atkinson (new address) 5 Tolmount Crescent, Montrose, Angus.

Fife (except Forth islands), Kinross-shire (new recorder) I. G. Cumming, 11 Canongate, St Andrews, Fife.

SUBSCRIPTIONS

All members who pay their subscription by banker's order, and those who have a deed of covenant, were sent a letter with the spring journal. The response to the letter was very gratifying and the membership secretary would like to thank all those who replied so quickly. If you have not yet replied we would ask you to do so as soon as possible; there is still a lot of work to be done before the start of the new session and banks have to be notified in good time to correct their computers.

If you have mislaid your form, or the secretary's letter, do please write to him at 21 Regent Terrace, Edinburgh, EH7 5BT, for a copy.

GEORGE WATERSTON MEMORIAL FUND

Donations, accrued interest and very successful film shows at seven branches have brought the total in the fund to well over £4000. An announcement will be made in the autumn journal giving details of the sums raised and the decision of Council on the way in which the fund will be used.

However, it can be announced now, that at its meeting in March Council was very pleased to donate two hides in memory of George Waterston. One will be on the RSPB reserve at Vane Farm, Loch Leven, Kinross, and the other on the SWT reserve at the Montrose Basin, Angus. Full details about these hides will be given in the next journal.

THE BIRD BOOKSHOP

The new summer booklist is available free from No. 21. Members can still order books post free if they buy at least £10 worth at a time.

Branch News

Aberdeen The Aberdeen Branch is doing very well. We now have a pattern of two members' nights each session and these have revealed a wealth of talent in the branch. We also have an outing every month throughout the year except July. Both the members' nights and the outings contribute to the informal club atmosphere. Many of the members currently involved in the northeast bird atlas which is being run in conjunction with the BTO Winter Atlas. This year we are giving our annual visit to the Isle of May a miss and, in response to popular demand, are going to the Bass Rock instead. In November the branch had its first ever wine and cheese social evening. This was a great success. Part of the entertainment was a short session of slides of members caught unawares which caused a great deal of hilarity. One result of this is that now on outings everyone is extremely wary of the clicking of cameras!

ALISTAIR DUNCAN

Fieldwork Reports

In this new feature recipients of SOC Endowment Fund grants in 1981 report on their fieldwork.

Northeast Scotland atlas The northeast Scotland atlas survey is scheduled to run for four years, 1981-4. Records from every month of the year are being collected. The area (Grampian Region less Moray District) has been divided into 395 sites. At the time of writing (January 1982) no forms have been received from 150 of these sites, and only one form has been returned from a further 79. So far 70 people (or groups) have returned 1,000 forms, representing nearly 30,000 records. No formal analyses have been carried out but preliminary maps should be available during 1982. The following impressions have been gained by scanning through the forms. As expected, some breeding species, e.g. Whinchat, Ring Ouzel and Jay, seem to favour Deeside and Donside, and the Redstart seems to breed almost exclusively on Deeside, although it was once more widespread. There are species that occur mostly in Buchan, e.g. Corn Bunting and Tree Sparrow. Green Woodpecker and Goldfinch seem to have become firmly established almost throughout the area. Barn Owl, Garden Warbler, Blackcap and Chiffchaff have been recorded more frequently than expected. If you would like to take part in the survey please contact Steve Buckland, Department of Statistics, University of Aberdeen.

STEVE BUCKLAND

Grampian schools expedition to St Kilda We sailed in the ketch *Taikoo* from Mallaig on 7th June 1981, west via Canna through the Sound of Harris and a night sail to St Kilda. We anchored in Village Bay on 10th June but sailed again next morning as the wind veered east. After circling St Kilda we returned to Village Bay overnight 11/12th June, then returned to Mallaig via Rhum. Seabirds counts were made on most days and have been sent to the Seabirds at Sea Team to provide data on a poorly recorded area. Between Mallaig and Canna Guillemots and Manx

Shearwaters were numerous, and we saw small numbers of Shags and Black Guillemots. Gannets near St Kilda showed a pronounced east/west movement pattern. Numbers of Guillemots and Razorbills on the sea fell off rapidly as we moved away from St Kilda but Puffins were numerous at considerable distances from the islands. On Hirta counts revealed at least 18 pairs of Great Skuas. There was not enough time to count gull nests but faecal samples were collected for bacterial investigation at Aberdeen University. One interesting sighting was an Iceland Gull in Village Bay.

A. DUNCAN

Grey Heron breeding and dispersal Along with some other members of the Tay Ringing Group we have been ringing nestling herons since the early 1970s. At first numbers ringed were usually small but in 1979 we began a more thorough programme of monitoring breeding numbers and success, and ringing as many young as possible. In the 1981 season 13 colonies in the Tay area were monitored. Most colonies remained at 1980 numbers or increased. Of three colonies which decreased two were due to felling operations and the other was probably due to a shift of birds caused by poor success the previous year. Breeding success was average; 329 young were ringed in 1981, our highest annual total. Recoveries so far show a random dispersal and an average distance travelled of 101 km. Several young were colour ringed in 1979 and 1980 but observations from birdwatchers have been few, and only one bird so far has been located at a breeding colony. However, in 1981 we began a joint marking scheme with Mick Marquiss. Young from selected colonies were individually wing tagged. The scheme has been very successful with an excellent response from birdwatchers, giving a better insight into dispersal.

KEITH BROCKIE, MICHAEL NICOLL

Merlin breeding biology During 1981 previous work on Grampian Merlins was continued. Most of the known or suspected nesting areas were checked during February-April for signs of occupancy and during May-June to attempt to locate the nest. All nests found were visited again to record the breeding success and ring any young present. Some areas were also visited to record the post-fledging success. Signs of occupancy were found at 15 of the 19 areas checked and breeding was proved at eleven. The clutch sizes were 3-5, the average being a minimum of 3.7 for nine nests. For these nine nests the brood size at the ringing stage was 1-4, the average being 2.8. Five areas checked for post-fledging success had at least nine young on the wing. On all visits prey remains and pellets were collected for future analysis. I would like to thank all who assisted me during the season, especially Brian Cosnette and Logan Steele who assisted throughout.

GRAHAM W. REBECCA

Purple Sandpiper breeding and migration In 1980 and 1981 Grampian and Tay ringing groups visited the Hardangervidda in Norway to study Purple Sandpipers. In July 1980 we individually colour marked a total of 59 chicks and their attendant adult males. Four have since been sighted, two on the Isle of May and two on the Farne islands. In 1981 we visited the area in June to discover nests. Unfortunately the nest is more difficult to find than that of the Greenshank. Only four were found, plus several broods of newly hatched chicks. Of the four nests three of the incubating birds were colour marked as adult males in 1980, suggesting that site fidelity may be strong in males. Males do most of the incubation and perhaps all the rearing of the chicks. Therefore, because we only visited the area for short periods, data on females are limited. In all, eight individuals from previous years were located within the study area,

some of which were only 100-200m from where they were ringed. It is intended to continue for two more seasons to collect sufficient data to write up a full report.

STUART RAE

Redshank biometrics It has been known for some time that wintering Redshanks in Britain are drawn from both the Icelandic and British breeding populations. However, the proportions of the two are unknown. It is also known that Icelandic Redshanks have longer wings and are probably bigger in other respects as well. Thus the proportions may be determined from biometric measurements. Wing length, however, is not a useful measurement since it varies greatly between observers, wings shrink (or wear), and the measurement cannot be taken during the moult of the outer primary. Therefore we went to Iceland in June 1981 to obtain a series of measurements of other structures to compare with measurements already made from British breeding birds. We found that Icelandic Redshanks had a larger foot (tarsus plus toes), ulna and sternum, and a smaller bill. Variation between observers was least in the measurements of the foot. We used the data on foot length to estimate the percentage of Icelandic birds in a sample caught on the Clyde in November 1981. Values of 45%, 56% and 54% were obtained using different types of analysis. Further measurements and analyses are planned.

R. W. SUMMERS, M. NICOLL

Common Sandpiper breeding biology This programme was initiated after a general survey of breeding birds in Glen Clova (Angus) by the Dundee branch in 1978. A repeat survey in 1979 located good Common Sandpiper areas. In 1980 several adults were colour ringed in three study areas. In 1981 15 new adults were ringed and valuable biometrics obtained. Two adults from previous years were controlled. One was holding territory on the same stretch of river for the third consecutive year. Another adult, colour ringed in 1980, was sighted at Braemar (Aberdeenshire). Very rewarding was the control of one of the six chicks ringed in 1978. As far as is known this is the first national evidence for natal fidelity in this species. Nest finding was successful and of the six located, five are believed to have reached the hatching stage. Ten chicks were found. One was picked up on two consecutive weekends. During the intervening eight days its weight increased from 8g to 17g. Hopefully more information will be collected during 1982 which would then allow a short paper to be written.

BRUCE M. LYNCH

Current Notes

These include unchecked reports and are not intended as a permanent record, nor will they be indexed. Please send reports to the editor via local recorders by the end of March, June, September and December.

The period January to March is covered here. The cold snap in early January sent many geese south of the border to slightly less inhospitable climes. In some areas waders tried to sit it out but severe mortality occurred on the east coast with 320 **Redshank** found dead at Montrose Basin (Angus), and 138 **Oystercatchers** died at Findhorn Bay (Moray). Despite the cold there were several reports of wintering **Blackcaps**. With the onset of better weather there were signs that the breeding season was about to get under way. In Deeside (Aber) a particularly aggressive

Capercaillie had to be moved after it held a man hostage in his own cottage, attacking him as soon as he opened the door.

Rarities were relatively few, a young **Sea Eagle** which confused Shetlanders for several months could well have come from the continent. All those wanting to tick it should ensure that they don't get a good view of its legs (the Rhum birds are colour ringed). Rare gulls put in a poor showing, the only ones being 3 interesting but unexciting **Ring-billed Gulls**. The award for the most optimistic bird of the period must go to an **Alpine Swift** which tried to convince a birder in Glen Muick (Aber) that summer had already arrived on 31 March.

White-billed Diver Whalsay (Shet) Jan. **Bittern** St Abbs (Ber) Jan. **American Bittern** Kilmaccolm (Renf) 5 Nov-4 Jan. **Bean Goose** 24 Black Isle Jan-Mar, 16 S. Uist (O. Heb) 17 Jan. **Snow Goose** Bute Jan. **Canada Goose** Foula (Shet), Papa Stour (Shet) Jan (escaped from Oslo Zoo). **Brent Goose** Dark-bellied *bernicla* Cruden Bay (Aber) 3-9 Jan, 5 Pale-bellied *hrota* Port Seton (E. Loth) Jan. Green-winged **Teal** Invergordon (Ross) Feb, Inverness Feb. **Black Duck** ♂ Inverness Feb. **Ring-necked Duck** ♂ Ken-Dee (Kirk) 15 Jan, ♂ Kirkmichael (Arg) Mar. **King Eider** ♂ Sullom Voe (Shet) Jan, ♀ Knab (Shet) Feb, 2 ♂♂ L. Fleet (Suth) Jan-Mar. **Steller's Eider** ♂ S. Uist Jan-Mar. **Surf Scoter** ♂ Dornoch (Suth) Feb. **Smew** ♂ Inverness Jan-Mar, 2 Aberdeen Feb, Girdleness, Ythan, L. Davan and 2 L. of Strathbeg (all Aber) Feb. **Goosander** ♂♀ Uig, Lewis (O. Heb) Mar. **Red Kite** Methil (Fife) 6 Jan. **White-tailed Eagle** imm Shetland Jan-Mar. **Goshawk** Ythan 9 Jan. **Buzzard** Footabrough (Shet) Feb, Aberlady (E. Loth) 25 Mar. **Rough-legged Buzzard** Deeside Mar. **Osprey** Highlands 26 Mar. **Gyr Falcon** Findhorn Mar. **Crane** Altbea (Ross) 29 Mar.

Woodcock 50 St Abbs Jan. **Bar-tailed Godwit** 3,250 Aberlady 6 Feb. **Little Gull** 7 Girdleness 3 Mar. **Ring-billed Gull** Lerwick (Shet) Jan-Feb, Scalloway (Shet) 4 Feb, Bragar (Lewis) 11 Feb. **Lesser Black-backed Gull** St Margaret's L. (Midl) 4 Jan, Scandinavian *fuscus* Aberlady 26 Feb. **Iceland Gull** 8 Stornoway (Lewis) Feb. **Glaucous Gull** 20 Kirk L., Yell (Shet) Jan, 7 Fraserburgh (Aber) Feb, 5 Islay (Arg) Mar. **Glaucousx-Herring Gull** Stornoway 13 Feb. **Sandwich Tern** 2 Firth of Forth (E. Loth) Jan-Mar. **Little Auk** Balranald, N. Uist (O. Heb) Jan, dead ones Stornoway 17 Jan, St Abbs 17 Jan, Balmedie (Aber) 31 Jan and Uig 7 Feb. **Alpine Swift** Glen Muick 31 Mar. **Shore Lark** 2 Tynninghame (E. Loth) Jan. **Sand Martin** Aberlady 27 Mar. **Waxwing** 6 Eyemouth (Ber) 5 Jan, Edinburgh 21-22 Jan, 5 Aberdeen 13 Feb. **Black Redstart** Rattray Head (Aber) 7 Feb, Whalsay 19 Mar, Skaw, Unst (Shet) 21 Mar. **Wheatear** 2 St Abbs 25 Mar, Aberlady 25 Mar. **Ring Ouzel** Aberlady 28 Mar. **Blackcap** ♂ Colinton (Midl) Jan, ♀ North Berwick (E. Loth) 9 Jan, ♂ Edinburgh 23-30 Jan, ♂ Dalkeith (Midl) 5 Feb. **Great Grey Shrike** Longniddry (E. Loth) Feb. **Goldfinch** 14 Stornoway 21 Jan. **Redpoll** 3 Mealy *flammea* Maywick (Shet) 1 Mar, Greenland *rostrata* Fetlar (Shet) 15-17 Jan. **Lapland Bunting** 3 Musselburgh (Midl) Jan.

Latest news **Purple Heron** Aberlady 6 Apr.

PETE ELLIS

STOP PRESS Editor/Bookshop Manager

Mr D. J. Bates ceased to be on the club staff and to edit *Scottish Birds* from 7 May 1982. Until a successor has been appointed the editorial committee, under the chairmanship of Miss Valerie Thom, will edit the journal. Any correspondence normally sent to David Bates, for either the journal or the bookshop, should be sent to the club secretary until further notice.

Holidays-Scotland-Self Catering



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Secluded site on West Coast of Scotland.

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