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# SCOTTISH BIRDS



THE JOURNAL OF THE  
SCOTTISH ORNITHOLOGISTS' CLUB

Vol. 11 No. 7

AUTUMN 1981

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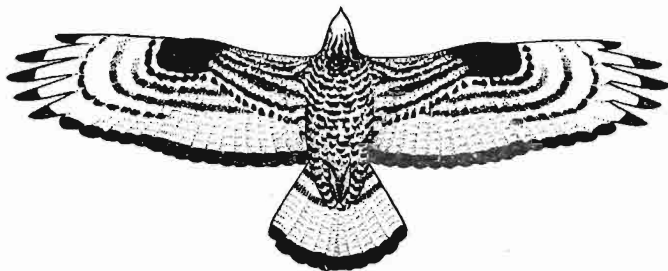
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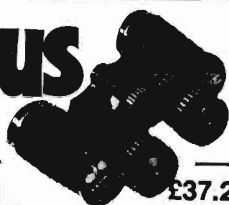
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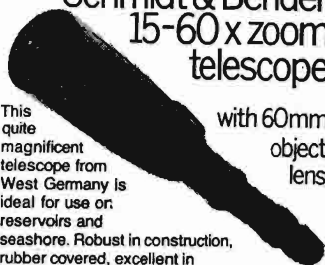
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Vol. 11 No. 7

Autumn 1981

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Edited by D. J. Bates

## A count of Gannets on Boreray, St Kilda

S. MURRAY

(Plates 25-26)

*St Kilda holds the largest gannetry in the world with something like a quarter of the total population. But how accurately can Gannets be monitored in such a difficult and dangerous site?*

The St Kilda group is famous for its seabirds, and Boreray, with its adjacent Stac Lee and Stac an Armin, was thought to have 28% of the world population of the Gannet in 1973 (Cramp *et al.* 1977). Prior to the evacuation of the resident human population in 1930 large numbers of Gannets were killed but since then they have been unmolested and rarely even counted. This paper reports on the Gannets of Boreray in 1979.

The first estimate of the population on the group in this century was made by Wigglesworth in 1902, who based his suggested 15,000 pairs on the numbers of eggs collected from the top of Stac Lee on 14th May 1902 (Wigglesworth 1903). In 1931 Harrisson attempted to make a direct count from a boat in difficult conditions. He estimated a total of 21,300 adults but stressed that 'these figures clearly have a wide margin of error' (Harrisson 1933). Further counts made from the sea by Fisher and others found 16,900 pairs in 1939 and 17,035 in 1949 (Fisher & Lockley 1954).

The first systematic survey of the colonies was made between 11th and 21st May 1959 by Boyd (1961). He plotted the distribution and extent of all the nesting areas from aerial photographs, augmented by others taken from the sea and land. He divided the colony into 116 distinct sections, including 89 on Boreray itself. These were further divided into sub-sections and each was demarcated on aerial photographs. He then made four counts of birds on each of these sections from the photographs. The means of these counts gave 25,569 individuals on Boreray, 11,442 on Stac Lee and 10,178 on Stac

an Armin. He converted the total of 47,189 birds to 44,526 pairs, using a conversion factor obtained by counting the number of pairs present among 100 birds in a sample of aerial and land photographs.

The next estimate was made in July 1969 by Dixon (1973) from 13 aerial photographs covering only 24 sections of the colony (17 on Boreray, seven on Stac Lee). Using counts from the photographs, and assuming the same distribution of birds on the island and stacs as given in Boyd (1961), Dixon estimated the total population as 52,099 pairs. On 18th May 1973, 19 sections of Boreray and one of Stac an Armin, equal to 36% of the colony in 1959, were photographed from the sea. From counts of these photographs Dixon (1973) suggested a total population of 59,258 occupied nests. 'This represents a 37% increase over 1959, which is 2.1% per annum for the period, or well within the colony's own capacity for increase' (Nelson 1978, p. 61).

### The 1979 count methods

I tried to make a direct count of nests and obvious pairs on Boreray between 27th May and 1st June, a time of year when birds are incubating eggs or brooding small young, and the situation is not too confused by non-breeding birds, large young or off duty adults. No attempt was made to count the stacs, as the majority of Gannets on both are hidden from Boreray. Direct counts were preferred because these are more accurate than those from photographs (Harris & Lloyd 1977).

The large size of this gannetry and the intimidating scale of the cliffs of Boreray have led to a belief that it is impossible to make an accurate count from the land. However, I had previously made 13, often prolonged, visits to the island and found ways across the 384 m high west cliffs from Clesgor to Geargo and eventually a through route at two levels from Geo Tarnanach to Sunadal. By such tortuous routes virtually all the colony can be viewed from the land. I spent two days checking the accessibility of colonies and finding sites that allowed the best views of the nesting ledges. Using drawings and polaroid photographs the views from the various sites were compared to determine potential overlaps and hidden ground. Photographic coverage was virtually complete so it is thought that few, if any, areas were overlooked or counted twice. Eventually 13 count sites were chosen: nine of them are easily accessible to anyone with a head for heights, the others might be considered hazardous.

Using obvious natural features, the colonies were divided into 25 discrete areas covering all 89 of Boyd's Boreray sections. Twelve of these areas were counted from the land, one



from the sea and eleven partly from the land and partly from photographs. One area was not counted. All the photographs used in the count were taken from the sea. Except for three covering section 89, all were of areas that were hidden or only partly visible from the land. Detailed descriptions of these areas and how they were counted, with maps and photographs, are deposited with the SOC.

Despite the scale of the cliffs, nests are easy to count through binoculars since most Gannets nest on narrow ledges in open situations. I counted birds on nests, and pairs where the birds were sitting on apparently suitable nest sites. There is no check on the accuracy of these counts but they were carefully made under fairly good conditions. Three areas were also counted by two other observers. Their totals were 1,115, 799, 463, and 1,227, 779, 429 nests/pairs, compared with my counts for the same areas of 1,017, 870, 467 respectively. Mullach an Tuamail was counted from Sunadal by myself and one other, the totals being 3,259 and 3,360 respectively.

My counts from photographs were also of birds on nests and obvious pairs, but interpreting these was difficult and depended on the quality of the photographs. Three sections were counted from colour slides projected through an enlarger; birds, nests and the colony limits were clearly visible. The majority were counted from black and white, full plate prints. These were divided into sub-sections, using as far as possible natural features, and counted through a binocular microscope at x4 magnification.

These prints varied considerably in contrast and definition. The best showed clearly defined Gannets and nests; the worst, ill defined white dots, but the majority of birds were clearly identifiable. Sitting birds were counted as nesting or site owning, standing individuals were not. Obvious pairs, that is birds standing so close as to be nearly touching, were included as nesting. Photographs were counted four times and mean counts are given here. Unlike the counts done from colour slides, which gave small and consistent variations from the mean, those done from black and white prints varied widely, from 8.7% to 19.6% of the means. This is partly a reflection on the quality of the photographs, the greater number of birds involved, and the rather imprecise method of deciding what was counted. Nonetheless it gives as reasonable an estimate as any other approach to interpretation of indifferent photographs.

In three out of four areas where both direct and photographic counts were done, the counts from photographs were from 10.2% to 19.4% higher. In the fourth case the photographic count was 15.8% lower. This contrasts with Harris &

Lloyd (1977) who found that counts of individual Guillemots and Kittiwake nests from photographs were invariably lower than field counts. My field counts are probably lower because it is fairly easy in the field to detect when two Gannets standing together are not actually nesting; this is impossible in a photograph. Another reason why field counts are to be preferred is that it is easier to determine hidden areas in the field than it is from photographs.

To find the variation in counts made by different observers of part of the Grassholm gannetry, I took part in tests carried out by Harris & Lloyd (1977) (I am observer number 2 in their paper). Of nine other people tested, seven had counts higher than mine and only two had lower counts. Thus I may tend to undercount on photographs. If so, my count of the Gannets on Boreray could be an underestimate. However, my own field counts were mostly lower than those from photographs, which suggests, if anything, an overestimate.

### Results and discussion

In 1979 I counted 17,033 nests/pairs on Boreray, 11,757 by direct counts and 5,276 from photographs. The area I did

Table. Counts of pairs/nests of Gannets on Boreray

	Section number	May 1959	May 1979
Creagan Fharspeig	1-2	44	56
Creagan na Rubhaig Bana	3-12	1736	1236
Mullach an Tuamail	13-41	5655	3815
Geo Sunadal	42-47	1915	1959*
Udraclete	48-50	1025	1011
Geargo	51-57	2538	No count
Ant Sail	58-63	1781	1685
Mullach an Eilein (lower)	64-66	1247	837
Mullach an Eilein (upper)	67-72	1425	1074
Na Roachan (lower)	73-78	2582	1684
Na Roachan (upper)	79-82	1335	1238*
Clagan na Ruskochan (west)	83-88	2627	2150
Clesgor			
Clagan na Ruskochan (east)	89	223	288
		24,133	17,033
			19,010
			(derived total)

### Notes

1. All 1959 totals are of pairs derived from figures in Boyd (1961).
2. 1979 totals are of nests/obvious pairs.
3. \* Indicates counts which are known to be too low. Estimates from photographs suggest 100-200 pairs hidden from a land view of section 43 and 50-100 pairs on section 79.
4. The derived total is given on the assumption there was 10.4% of the Boreray population (1,977 nests/pairs) on Geargo in 1979, as there was in 1959.

not count had 10.4% of the total for Boreray in 1959. If the same applied in 1979 the total island estimate would be 19,010 (table).

Separate figures for Boreray are not given by Dixon (1973) and in Boyd (1961) they are expressed as individuals, but calculations from the published tables in these papers using Boyd's conclusion that 54.2% of St Kilda Gannets nest on Boreray gives estimates of 24,133, 28,238 and 32,118 pairs for 1959, 1969 and 1973.

All these counts were made in different ways, so the results are not directly comparable. Boyd counted individuals on photographs of the entire colony. Dixon had only partial coverage for both his counts, but the sections covered on Boreray were much the same for both years. In 1969 he worked from aerial photographs taken in July, a month when the situation is much complicated by non-breeding birds. In 1973 the photographs were taken in May, entirely from the sea. His calculations were then based on Boyd's sections, as delineated in his paper. He was unsure of the exact boundaries between sections, so he could have overestimated the section sizes, and the number of birds within a section, thereby increasing the entire gannetry in proportion.

To judge from areas where the 1959 and 1979 photographs are of good enough definition to allow close comparison of birds and ledges, there has been little change in the extent of the colonies. Then, as now, birds occupied nearly all available space on the rock walls and cliffs on the east and west sides of the island. There has been no expansion on to nearby, equally steep, grass slopes. 'On both the Bass Rock and Ailsa Craig, where the numbers of birds have been increasing at c.3% per annum over a comparable period, marked changes in colony extent have been noted' (S. Wanless, pers. comm.).

Only one definitely new nesting area was identified in 1979. This was on the landward side of Clagan na Ruskochan, where there were 16 nests. Just a single Gannet appears on the 1959 photograph. In addition Gannets were seen and were probably nesting among Guillemots on the lowest and most northerly point of Ant Sail. None were recorded there in 1959, but could easily have been overlooked.

### **Stac an Armin**

The south face of Stac an Armin as seen from Boreray summit has three distinct groups of Gannets. The upper colony is covered by section 115, the large centre colony and the lowest and smallest colony are both included in sections 109 and 116. These sections also cover part of the west face and in 1959 totalled 712 individuals. The 1979 total for these sections

was 1,095 nests/obvious pairs. It is not possible from Boyd's paper to work out exactly how many birds were on this centre colony in 1959, but comparison with photographs taken in later years clearly show the increase in colony extent since 1959.

This colony is a compact and clearly definable group, ideal for photographic monitoring, and anyone who lands on Boreray would do well to photograph it from the summit or nearby. This was done by S. Wanless in July 1980 who counted 840 occupied sites. My total in May 1979 using similar criteria but expressed as nests/obvious pairs was 828.

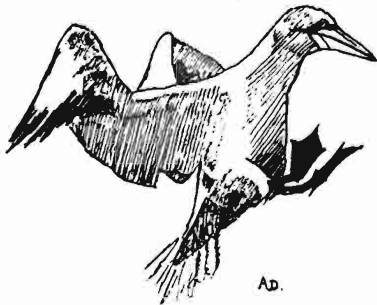
Counts were not done of other sections on the stac but photographs taken from the sea suggest little change in colony limits since 1959. The total for Stac an Armin in 1959 was 9,617 pairs and a suggested figure for 1979 is a minimum of 10,000 pairs.

### Stac Lee

No attempt was made to count this colony in 1979. The fact that the 1959 and a 1971 count of the south face from aerial photographs agree so closely suggests that this area is more or less full (Dixon 1973) so it is curious that ledges on the south side are unoccupied to a height of c.50 m. These are the only feasible walking routes to the summit, but as there have only been two ascents in the last 50 years, human disturbance is unlikely to have prevented colonization of these ledges. The north face also has a ledge, c.60 m long and free of Gannets. Unless they are in some way unsuitable as breeding sites they are areas that might be colonized in the future. The 1979 population is probably similar to the 1959 total of 10,775 pairs.

### Conclusion

The different counting techniques make it difficult to decide whether or not there has been any change in the number of



GANNET  
Andrew Dowell

Gannets on Boreray. However, the population certainly appears not to have increased greatly there, if at all, in the last two decades. It is suggested that the whole gannetry of St Kilda contains 40,000 pairs  $\pm$  20%, a population similar to 1959.

### Acknowledgments

I wish to thank Dr J. M. Boyd for access to the 1959 photographs and T. J. Dixon for clarifying several points. Drs M. P. Harris and S. Wanless improved the manuscript with their criticisms and the SOC kindly supplied a grant towards the cost of hiring a boat.

### Summary

A census of 90% of the gannetry on Boreray in May 1979, by direct counts and from photographs taken from the sea, found numbers similar to 1959, but these counts are not directly comparable since different methods were used. However, comparison with the 1959 photographs showed little change in colony extent. No detailed counts were done of Stac an Armin or Stac Lee but an increase was noted at one colony on Stac an Armin. It is suggested that the St Kilda gannetry contains c.40,000 pairs  $\pm$  20%, similar to 1959.

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## Colonization of Foula by Gannets

R. W. FURNESS

The Gannet population of the British Isles increased at an average of 3% per annum, from 54,500 pairs in 1939 to 141,000 pairs in 1969. Although the number of pairs nearly trebled in this period, the number of colonies only increased from 14 to 16 (Nelson 1978). Gannets are conservative by nature and some form of social inertia inhibits the colonization of new breeding areas. For this reason it is particularly interesting that Gannets have recently founded two new colonies in Shetland. Three nests were built on Fair Isle in 1974 but no

eggs laid, while eight nests were completed, five eggs laid and three chicks fledged in 1975 (Scottish Bird Reports). This colony has been steadily increasing since then by immigration from elsewhere.

Gannets first bred successfully on Foula in 1980, but the process of colonization began several years earlier. Expeditions, including ornithologists, from Brathay Exploration Group have visited Foula every summer since 1956 and have made notes on the status and numbers of Gannets as well as other breeding and migrant birds. Before 1960 it was rare to see more than 40 Gannets passing Foula in one day. In 1961 daily counts ranged as high as 400, and Gannets were recorded patrolling the cliffs for the first time.

The first record of Gannets settling on the island was in July 1970, when 28 spent several days on the cliffs and one was seen carrying seaweed towards the Kame. In 1971 up to 54 roosted on the cliffs and stacks below the Kame and Logat. In 1972 there were up to 360 present. Of these, nearly half appeared to be in adult plumage, nearly half had some black secondaries or rectrices so were 3-4 years old, and the remaining few were dark above with pale head and underparts so were mainly two years old (Nelson 1966). Between 1972 and 1980 numbers on the ledges and stacks rarely exceeded 250, but at least 50 were present on most days between June and early August.

The ratio of plumage classes appearing to be 2 years:3-4 years:adult remained about 1:4:4 over these nine years, so it is clear that different birds were present on the cliffs in different years. After each winter many apparently adult birds must have moved to another colony rather than returning to Foula.

Although a bird was first seen carrying nest material in 1970, no nestbuilding occurred until 1975. In 1976 three nests were completed in June but no eggs laid. None were built in 1977 although numbers on the cliffs were as high as in 1976. Two were built in 1978, but again too late for eggs to be laid, and again in 1979 no nests were completed. In 1980 at least 15 pairs began building and 13 nests were completed. Six birds appeared to be incubating or brooding on 30th June, and at least four of these were seen to turn eggs. On 12th July one adult was standing guard over a small chick while three were brooding or incubating. Many of the nonbreeders had left the cliffs by this date or were only returning irregularly to the island. Later in July three more eggs hatched successfully but the subsequent fate of the chicks is unknown.

Nelson (1966) found that almost all Gannets on the Bass Rock laid before the end of May and late-laying birds had a

much lower breeding success. As the incubation period is about 45 days the pairs on Foula probably laid in early June, considerably later than in an established colony. A very late breeding season is typical of seabirds breeding for the first time and is normal for a newly established colony (Nelson 1980).

Three areas on Foula have been used regularly by roosting Gannets. The most frequent, and the area where breeding occurred in 1980, is a large rock shelf near the foot of the Kame and the top of a stack (Da Stab) by this shelf. There is room for expansion at the expense of nesting Fulmars and Guillemots and several hundred pairs of Gannets could occupy the area. On Wester Hoevdi a single broad ledge has been used regularly for roosting, as has Gaada Stack, a small sloping-topped stack at the north tip of the island presently covered by nesting Fulmars and Razorbills. Both sites are rather small.

Much of the Foula coastline is unsuitable for nesting Gannets as the cliffs tend to be very steep and unbroken, and where this is not the case there are large boulder screes more suitable for Shags, Puffins and Razorbills, so it seems unlikely that the Foula gannetry will ever become comparable to those on Noss and Hermaness, the two well established Shetland colonies.

The Gannet is one of the favourite victims of piracy by Great Skuas. It is easily outflown by the Great Skua and forced to alight on the sea or regurgitate food. It is worth noting that the colonization of Foula by Gannets brings them into close contact with the largest Great Skua colony in the North Atlantic. The 200 or so Gannets are outnumbered by more than 30:1 by the Great Skuas but even so they appear to have raised chicks to at least three weeks old in their first year of breeding on the island.

### Acknowledgments

I thank all those who noted numbers and activities of Gannets on Foula and in particular M. J. Wareing, N. Williams and M. Tasker in 1980. The Seabird Group, the Nature Conservancy Council, Glasgow University and the Scottish Ornithologists' Club provided financial support.

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## Isle of May Bird Observatory and Field Station Report for 1980

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

(Plate 24)

Observatory coverage commenced on 29th March and, apart from some short spells in summer, lasted until 25th October. NCC summer warden Peter Lack provided invaluable assistance as did Dr M. P. Harris and S. Murray. Numbers of many passerine species were lower than in recent years but ringing totals were higher for many breeding species. The Puffin colony continues to increase and Common Terns bred successfully for the first time since 1957. A Montagu's Harrier was new for the island. Rarities included Grey-headed Wagtail *Motacilla flava thunbergi*, Black-eared Wheatear,\* Siberian Stonechat *Saxicola torquata maura*,\* Richard's Pipit,\* Rustic Bunting,\* Scarlet Rosefinch\* and Little Bunting.\* Scarce species ringed were Icterine Warbler (3), Barred Warbler (3), Yellow-browed Warbler, Red-breasted Flycatcher and, for the second year in succession, a Subalpine Warbler.\*

### Migrants

A snowfall in late March perhaps slowed up many migrants but by 4th April a Tree Pipit and four Black Redsarts had joined the first Wheatear of spring. Fine sunny weather brought the first warblers with a Blackcap and Chiffchaff on 10th, a Willow Warbler on 14th and a Whitethroat on 16th. Other mid month migrants included Ring Ouzel, Whinchat, House Martin, Swallow, Common Sandpiper and a Short-eared Owl.

Easterly winds in early May brought another influx of birds, including a string of rarities. The first of these, a male Black-eared Wheatear,\* arrived on 2nd May and stayed until 16th; it was netted and ringed on 5th May. On 13th May a Blue-throat and a Rustic Bunting\* were seen and a Montagu's Harrier found the island and its migrants worthy of an overnight stay. A Grey-headed Wagtail was identified on 16th and another rarity (for the May) was a House Sparrow on 18th. Migrants such as Green Sandpiper, Red-backed Shrike and Grasshopper Warbler passed through during May, and on 24th a beautiful male Subalpine Warbler\* was trapped, only to be followed half an hour later by an equally fine male Blue-

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\*Indicates subject to acceptance.



throat. On the last day of May three flycatchers were noted as the only migrants on the island, one Spotted, one Pied, and one Red-breasted which was trapped. Another House Sparrow appeared on 6th June and on 17th a Roseate Tern was seen offshore.

A flock of 20 Common Scoters offshore on 2nd July heralded the start of autumn migration. A Reed Warbler was trapped on 4th. Easterly winds late in the month resulted in Icterine Warblers being trapped on 30th and 31st. On 4th August 70 Whimbrels were recorded with 67 of these in a single flock. Another period of easterly winds in late August resulted in a Barred Warbler trapped on 28th. On 29th 100 Swallows preceded a deterioration in overnight weather conditions. On 30th a fall of assorted migrants spread themselves over the island. Waders included two Jack Snipe, two Bar-tailed Godwits, a Green Sandpiper, five Ruff and eight Common Sandpipers. Passerines included the first Redwing, 40 Whinchats, 100 Wheatears, ten Redstarts, three Yellow Wag-tails, 40 Pied Flycatchers, seven Spotted Flycatchers and 15 Tree Pipits. Warblers dominated the influx with 250 Willow, 80 Garden, two Icterine, and another Barred Warbler. A Red-backed Shrike and a Wryneck were also added to the list for that day.

On 3rd September a Black Tern flew past the Low Light as did five Whooper Swans on 11th. A Red-backed Shrike was trapped on 11th. Sixty Goldcrests arrived on 14th September and another Black Tern was seen offshore. Mist and north-east winds brought down the best fall of the autumn beginning on 21st September with two Reed Warblers and two Lapland Buntings. The next day 1,000 Meadow Pipits were the major species in a large passage of birds. These included a Richard's Pipit,\* another Reed Warbler, a Yellow-browed Warbler, a Red-breasted Flycatcher, a Little Bunting,\* a Rustic Bunting\* and a Scarlet Rosefinch.\* An eagle of sorts drifted over the island on 24th.

Far offshore on 12th October a phalarope was watched but could not be specifically identified. Gale force northeasterly winds blew in October but the accompanying clear skies meant that any migrants passed over the island. Only a Siberian Stonechat\* on 12th could be claimed as notable. Raptors preyed on surviving migrants and on 22nd a Peregrine, Merlin, Sparrowhawk, two Long-eared and three Short-eared Owls made life difficult for those remaining. A Water Rail, three Black Redstarts and eleven Woodcock evaded the raptors but many of the thrushes did not. Thrush numbers for all species were much lower than in recent years. Finally, two Yellowhammers were trapped on 23rd.

### Dates and numbers of some passage migrants and unusual species

(Maximum in a day in brackets)

- Sooty Shearwater 28 Aug-16 Oct (max 5).  
 Storm Petrel 10 Aug-9 Sep (max 4).  
 Montagu's Harrier 13-14 May (1).  
 Whimbrel 4 Aug (70).  
 Wood Sandpiper 13-15 May (1).  
 Glaucous Gull 19-20 Apr (1); 26 Sep-24 Oct (singles).  
 Roseate Tern 17 Jun (1).  
 Black Tern 3 Sep (1), 14 Sep (1).  
 Wryneck 5-12 May (max 2); 30 Aug-26 Sep (singles).  
 Sand Martin 13 Apr-1 Oct (max 7).  
 Swallow 12 Apr-23 Oct (max 150).  
 House Martin 13 Apr-9 Oct (max 100).  
 Richard's Pipit\* 22-24 Sep (1).  
 Grey-headed Wagtail 16 May (1).  
 Bluethroat 13-24 May (max 2).  
 Redstart 15 Apr-24 Oct (max 5).  
 Siberian Stonechat\* 12 Oct (1).  
 Wheatear 4 Apr-14 Oct (max 100).  
 Black-eared Wheatear\* 2-16 May (1).  
 Ring Ouzel 14 Apr-24 Oct (max 6).  
 Redwing 1,200 on 3 Oct, poor numbers.  
 Sedge Warbler 10 May-16 Sep (max 2), poor numbers.  
 Reed Warbler 15 May-22 Sep (max 2), 6 birds, more than usual.  
 Icterine Warbler 30 Jul-3 Sep (max 2) 6 birds, more than usual.  
 Subalpine Warbler\* 24 May (1).  
 Barred Warbler 28 Aug-5 Sep (max 2), 4 birds.  
 Lesser Whitethroat 2 May-15 Jun (max 12); 23 Aug-12 Oct (max 2).  
 Whitethroat 16 Apr-4 Sep (max 2), very poor numbers.  
 Garden Warbler 10 May-23 Oct (max 80).  
 Blackcap 12 Apr-24 Oct (max 30).  
 Yellow-browed Warbler 22 Sep (1).  
 Chiffchaff 12 Apr-22 Oct (max 5).  
 Willow Warbler 14 Apr-12 Oct (max 250).  
 Red-breasted Flycatcher 31 May (1); 22 Sep (1).  
 Pied Flycatcher 28 May-28 Sep (max 40).  
 Red-backed Shrike 12 May (1), 20 May (2); 30 Aug (1), 11-12 Sep (1).  
 Scarlet Rosefinch\* 22 Sep (1).  
 Rustic Bunting\* 13 May (1); 22 Sep (1).  
 Little Bunting\* 22-23 Sep (1).

### Breeding birds

Accurate counts of Fulmars, Shags and Puffins showed increases in breeding numbers. Fulmars occupied 143 sites, laid 80 eggs and produced 70 chicks; all fledged. Interpreting sea-bird counts presents certain difficulties, but it is now clear that previous reports of Fulmars on the Isle of May refer to occupied sites and not pairs breeding. Puffins are very difficult to assess but Dr Harris and his team estimated around 8,500 occupied burrows. Puffins have now spread to central parts of the island and are literally outside the front door of the Observatory. Young birds often wander indoors at night, en route to the shore. Shag numbers also showed an increase

with an estimated 1,093 active nests. An adult Gannet spent a day on the Maiden rocks.

No drastic declines in the Razorbill, Guillemot and Kittiwake populations were recorded; indeed the winter attendance of these birds shows some, as yet inexplicable, fluctuations. Guillemots returned in October in 'thousands' but on 15th October over 4,000 Razorbills were observed on and off the island, with few Guillemots around. Breeding Razorbills number about 500 pairs. Winter visits of auks last only a few hours. An albino Guillemot was seen on 27th June.



RAZORBILL *Bernard Zonfrillo*

Only 174 Eider nests were found, over 100 less than last year, but 30-40 chicks fledged, far better than last year's dozen. Pre-cull Herring Gulls and Lesser Black-backed Gulls were estimated at 4,000 and 440 breeding pairs respectively. The NCC's cull accounted for some 600 gulls. A pair of Shelduck raised six young while 25 nests of Oystercatchers could only produce seven young. Four pairs of Lapwings laid twice but all eggs and young were eaten by gulls. Happily, a pair of Common Terns nested, raising two young successfully, the first to do so since 1957. A pair of Arctic Terns also laid but the eggs vanished. Feral Rock Doves bred and a pair of Stock Doves were suspected. Breeding passerines were—Swallow, four pairs; Meadow Pipit, three pairs; Rock Pipit, 13 pairs; Pied Wagtail, three pairs; and Starlings produced their usual batch of young.

### Ringling

The snowfall in March destroyed the aged Bain Trap, but despite this setback better than average numbers of birds were ringed. In October Derek Skilling and his group built a new Gully Trap which was instantly effective. Of 5,354 birds ringed, 2,025 were nestlings, mainly seabirds. Record numbers of Puffins were ringed by Mike Harris and his assistants, 2,130 in all. Peter Lack and Norman Atkinson accounted for most of the 857 Shags and 208 Kittiwakes ringed. These, together with those for Fulmar (83) and Razorbill (23), were also new ringing records. Out of 70 Fulmar chicks on the island 69 were ringed, including eight on the hitherto unclimbed rock stack The Cleaver.

Windy weather meant that only five Storm Petrels were caught during August but one was netted on 9th September in the gully immediately below the Low Light. Passerine numbers were boosted by large catches of Willow Warblers, Goldcrest and Blackbirds. Notable species ringed were Black-eared Wheatear,\* Subalpine Warbler,\* Icterine Warbler (3), Reed Warbler (4), Barred Warbler (3), House Sparrow, Sparrowhawk and Common Tern (2) chicks. Numbers of Lesser White-throats, Garden Warblers, Siskins, Swallows and Pied Wag-tails showed an increase over past years but those of Song Thrush, Redwing, Robin and Whitethroat were much lower.

### Ringling recoveries

Herring Gull and Shag recoveries, as usual, constituted the bulk of notifications, with both being recovered up and down the North Sea coast of Britain. Of note was an Isle of May Shag controlled alive and well on the Farne Islands 17 years after being ringed as a chick. In return a Lesser Black-backed Gull ringed as a chick on the Farnes 16 years ago was unfortunately part of the Isle of May cull. A near geriatric Puffin was retrapped on the May 19 years after being ringed, while another colour ringed bird was observed carrying fish on Sanda Island (Kintyre) four years after being ringed on the May. A colour ringed Great Skua sighted off the May in September had been ringed on Foula (Shetland) during 1978. Other recoveries of interest are as follows (age code in brackets).

Ringed on Isle of May		Recovered/controlled	
Storm Petrel (4)	10.08.79	06.07.80	Sanda Island, Kintyre (control)
Storm Petrel (4)	04.08.79	03.08.80	West Yell, Shetland (control)
Storm Petrel (4)	14.08.80	04.09.80	Sanda Island, Kintyre (control)
The last bird took only 21 days to circumnavigate Scotland; an over-land route is possible but unlikely.			
Kittiwake (1)	07.07.75	19.12.79	Helgoland, West Germany (shot)
Puffin (1)	07.07.79	05.04.80	Terschelling, Holland (oiled)
Ring Ouzel (4)	30.04.74	23.10.80	Sandied, Rogaland, Nor- way (dead)
Blackbird (5)	30.03.79	25.12.79	Chaumont-sur-Yonne, France (killed)
Song Thrush (4)	30.04.78	10.12.79	Castellina Marittima, Liv- orno & Pisa, Italy (shot)
Redwing (4)	14.10.79	22.12.79	Marmande, Lot-en-Gar- rone, France (killed)

The Ring Ouzel is only the second recovered. The wintering areas are shown by the dates of the other recoveries. The Song Thrush is surprisingly only the second from Italy; there are several past recoveries from the other thrush-eating countries of southern Europe.

Ringed on Isle of May		Recovered/controlled	
Reed Warbler (4)	07.06.79	22.06.80	Owston Ferry, Epworth, Humberside (controlled breeding)

This record demonstrates the overshooting of spring migrants and is the first recovery from the May.

Willow Warbler (3)	10.08.80	27.08.80	Zandvoort, Noord-Holland (control)
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Ringed elsewhere		Controlled on Isle of May	
Blackcap (4♀)	13.10.79	Ulleroy, Farsund, Norway	22.10.79
Willow Warbler (4)	07.05.80	Dungeness, Kent	10.05.80
Willow Warbler (4)	24.05.80	Portland Bill, Dorset	02.06.80
Willow Warbler (4)	24.04.80	Schiermonnikoog, Holland	03.05.80
Pied Flycatcher (1♂)	30.06.79	Holystone, Northumberland	05.06.80

### Observatory notes

One new plant was added to the island list—Lungwort *Pulmonaria officinalis*—and the colony of Henbane *Hyoscyamus niger* continues to spread, its poisonous foliage disliked even by Rabbits. The influx of Painted Lady butterflies *Vanessa cardui* started in early June and reached a peak of 200 on 13th August. A southeast wind on 6th June brought in a selection of lepidoptera including a rare Hummingbird Hawk Moth *Macroglossum stellatarum*, the second for the island and the first this century. Rona, the northmost part of the Isle of May, lived up to its translation 'a haunt of seals', holding the majority of the 310 Grey Seal *Halichoerus grypus* pups counted in November.

In the interests of safety the old crumbling lookout building was demolished—some of its timbers helping to fabricate the new Gully Trap. On 3rd June a Royal Navy cruiser anchored a short distance offshore and proceeded to fire off blank salvos, to the total panic of most birds. Refurbishing the Low Light and rebuilding the Bain Trap began in autumn and hopefully this can be completed within the next year. My thanks are due to the observers whose contributions to the logs helped make up this report, particularly to Peter Lack, and to those who donated their labour and useful equipment towards improvements. The Principal Lightkeepers and their staff are to be thanked for their help, particularly in times of emergency. Finally, thanks to our boatman Jimmy Smith whose diligence and co-operation are much appreciated.

Bernard Zonfrillo, 28 Brodie Road, Glasgow, G21 3SB

## Birdwatching in and around Perth

VALERIE M. THOM

With the whole of Perthshire to draw upon it may seem odd that I have chosen to write of the immediate vicinity of Perth. Many of the earlier articles in this series have dealt with places that are ornithologically fascinating but which are accessible only to the energetic and physically active. Yet there is much good birding to be had with a minimum expenditure of energy, and there are many birdwatchers who are unable to visit islands or explore untracked moorland or marsh. I have decided, therefore, to focus on the opportunities available to the less mobile birdwatcher within a ten mile radius of Perth. Many of the places I describe are observable from the roadside and the remainder involve only gentle walks along well marked public tracks!

The River Tay, tidal right up to Perth and a major reason for the city's existence, seems as good a place to start as any. Below busy Tay Street the river generally holds an assortment of gulls and Mallard—often mongrels—awaiting titbits from the passers-by, and Goosanders are often to be seen between the bridges. But it is above the old bridge, beside the North Inch, that you have the best chance of seeing that Perth speciality, the Mandarin Duck. This long-established flock originated from a private collection in grounds adjoining the river, to which many of the birds still return for breeding and feeding. But in recent years there have been increasingly frequent reports of Mandarins several miles from Perth: one down the Carse at Inchyra, a duck with a brood at Scone, and 25 on a pond two miles out of town. In 1979 one opportunist Mandarin even took over a Tawny Owl nestbox and successfully hatched four young in it.

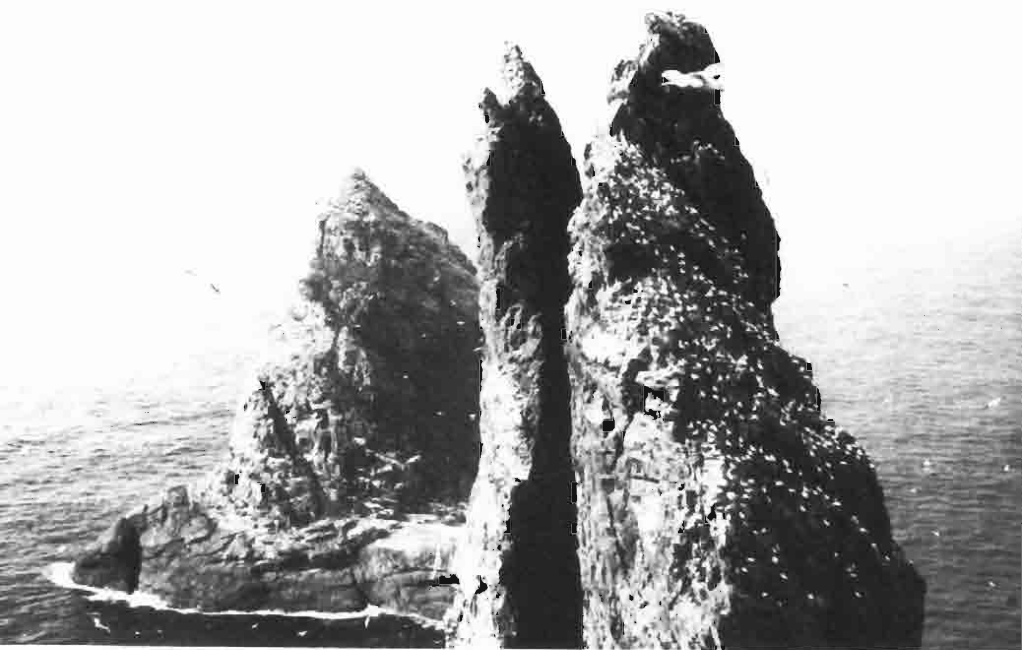
To the north of the town the strip between the A9 and the river, until recently farmland with Skylarks overhead and Goldfinches decorating the thistle patches, is now a mess of housing scheme and industrial estate. But the riverside path is still there, and indeed improved for the walker, and the waterside birds have been little affected by the development. This stretch of the Tay, opposite Scone Palace, can hold as many as 700 Tufted Duck in midwinter, when all the lochs in the area are frozen, and occasionally has a sprinkling of Goldeneye. In spring the shingle islands attract Ringed Plover, Common Sandpiper and Common Terns, some perhaps staying there to nest and others passing on up-river to sites further inland. Around this area there is also a chance of catching a glimpse of a Kingfisher. Up to four pairs have bred near Perth



PLATE 24. Two Isle of May attractions in 1980 (see p. 214). *Peter C. Lack*  
(a) Subalpine Warbler ♂ 24 May. Note the white moustachial stripe between  
the grey head and pinkish throat.

(b) Black-eared Wheatear ♂ 2-16 May. An indistinctive specimen but note the  
black of the wing reaching the scapulars and the extent of white down the tail.  
The mantle is sandy brown, the crown greyer.  
Both species have a Mediterranean breeding range.





PLATES 25-26. Counting Gannets on Boreray, St Kilda (see p. 205).

PLATE 25 (a) The towers of Ant Sail on the north coast with Stac an Armin behind.  
*S. Murray*

(b) South coast of Boreray from the summit of Clagan na Ruskochan.

*J. McDougal*







PLATE 26 (a) Boreray summit and Clagan na Ruskochan (on right). The main Gannet ledge here is centre right.

*S. Murray*

(b) The same Gannet ledges from above.

*S. Murray*

(c) Ledge built by St Kildan fowlers to improve access to this part of the colony.

*J. McDougal*



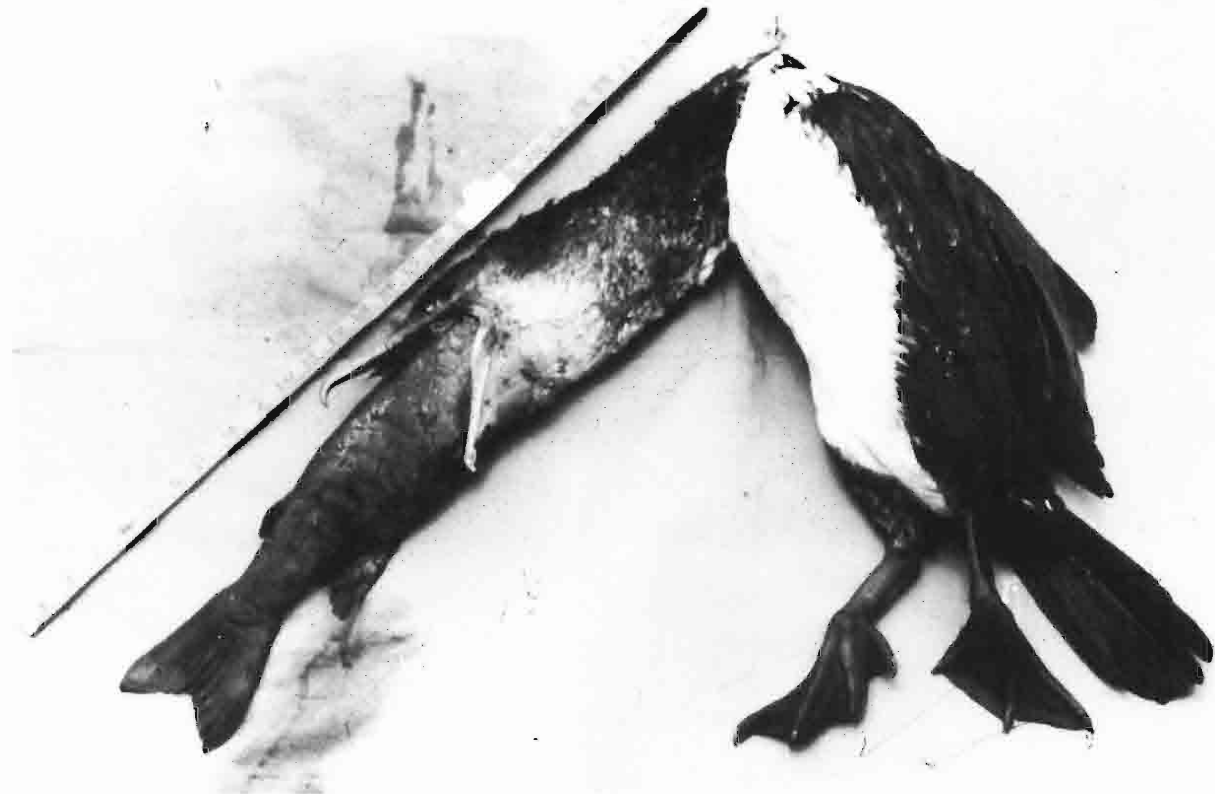


PLATE 27. Cormorant (first year plumage) with half swallowed Salmon *Salmo salar*, River Laggan, Islay (Inner Hebrides) c.1930.

A. Cameron (Islay Museum Collection) per G. Booth

The Salmon is c.50 cm long (the ruler is 27 inches/69 cm). The circumstances of death were not recorded. Dr D. H. Mills says this Salmon is near the size limit for Cormorant prey but there are other records of fish of this size being taken, although it must be a major effort, requiring a considerable period without disturbance, to swallow oneself such a meal.

in recent years, with the most regular reports of sightings coming—naturally—from the local trout hatchery.

Perth is fortunate in the variety of the woodlands that surround it. Whichever direction you go you can find birch scrub, mature deciduous policy woods, and conifer plantations of varying age, extent and composition. There has been some loss of Beech and oak recently, it is true, and also some clearance of scrub and hedges, but there are still enough stately homes and country seats in this area to ensure a fairly secure future for the more choosy birds of deciduous woodland. Many of these estates are open to the public during the summer, under the Scotland's Gardens Scheme, and these occasions still provide a welcome chance to visit the kind of habitat that tends to be private and well protected.

Blackcap and Chiffchaff are among the species likely to be heard, if not seen, in such places. Garden Warblers are common and there is a good prospect of Wood Warblers wherever there are oaks. Even the small oak wood at Battleby, headquarters of the Countryside Commission for Scotland, usually has a pair or two. Green Woodpeckers are widespread and there are certainly quite a few Hawfinches around, although so far the only sighting I have had myself was of one beside the A9 on a right-angled bend, where I only achieved a frustratingly brief glimpse. I did, however, get an excellent view of the Nuthatch that fed regularly at a bird table near Almondbank a few years ago. There have been several more recent records of this species in Perthshire so maybe it is not quite such a casual vagrant as we tend to think.

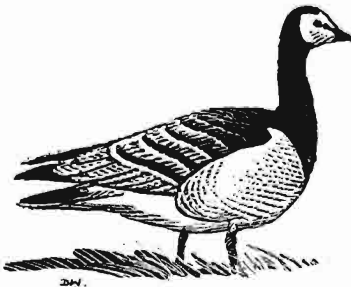
Right on the edge of the town, and belonging to the people of Perth themselves, lie the Kinnoull Hill woodlands, predominantly birch above but with Beech, Whitebeam, Sycamore and oak on the lower slopes. In summer the birches here are full of Willow Warbler song, parasol-fighting Tree Pipits and the thin calls of Spotted Flycatchers. In winter the tits take over—mixed parties of Long-tailed, Great and Blue, with the occasional Coal Tit and Treecreeper as hangers-on, all busily working their way over and through each clump of trees.

This wealth of woodland around Perth is reflected in the variety of birds that turn up in the town's gardens. The list for my own rather small suburban patch includes Redpoll, Tree Sparrow, Brambling, Fieldfare, Redwing, Great Spotted Woodpecker and Sparrowhawk. But to date the most astonishing visitor has been a green parrot which arrived on my birdtable one Sunday morning. Almost as surprising, perhaps, are the records of a Fulmar picked up in Tay Street one June, and the Hoopoe that provided a touch of exotic adornment on a local rubbish tip in September 1977!

To see much in the way of waders and wildfowl it is necessary to go a little further out of town. But Port Allen, on the edge of the reedbeds and tidal mudflats of the Tay and less than ten miles from Perth, boasts quite an impressive list of waders. Several hundred Golden Plover and Dunlin occur regularly, Knot have peaked at 150, and Grey Plover, both godwits, Ruff, Greenshank and Spotted Redshank turn up most years. Although Port Allen is quite well inland, Arctic Skua and Sandwich Tern have also been recorded there.

To the south and west of Perth the River Earn and the Pow Water both regularly flood onto the adjoining farmland, forming shallow muddy flashes which attract a variety of wildfowl. There are good roadside vantage points overlooking the meanders and oxbow lakes of the Earn just west of Aberdalgie—from which, incidentally, I saw my first Perthshire Osprey long before they settled at the Lowes—and around the Dalreoch Bridge area. Sizeable flocks of Wigeon occur here regularly and there are occasional Shovelers and Smew. A group of Whoopers quite often appears near Dalreoch too but the flat fields south of Bridge of Earn are a more regular haunt of theirs and it is here that Bewick's Swans have been recorded several times in recent years.

These areas are also good for goose spotting from the road and this is especially true of the old Crieff road, which runs through some of the best goose ground. Pinkfeet predominate in the immediate vicinity of Perth, with many passing over the town at morning and evening flight and sometimes spending the whole night circling overhead in the fog, presumably bemused by the hazy glow of street lights. But there are always some Greylags around too and as a rule odd individuals of other species. Maybe a dozen or so Barnacles, a couple of Whitefronts and a blue Snow will reward the painstaking observer who is prepared to scan the flocks carefully with a telescope and is fortunate in his position in relation to the light and the geese.



EARNACLE GOOSE *Donald Watson*

If I had to choose the group of birds I associate most closely with the Perth area it would undoubtedly be the geese. And if I had to confine my birdwatching to just one place that place would be the old Roman road running along the Gask ridge to the west of Perth. From that road I have seen young Great Spotted Woodpeckers noisily welcoming the arrival of a food-carrying parent and I have watched fascinated as a brood of downy Capercaillie chicks flew up into the nearest tree after their mother when I disturbed them.

But it is the goose count dawns that I will always remember best: the subdued gabble of the roosting birds, screened from my sight by trees; the curious Stoot sitting up to inspect the car and the nine cock Capers busy gleaning in the stubble—just two of the incidentals that have entertained me as I waited for the sky to lighten. The gradual crescendo of goose talk as dawn breaks and finally the thunder of wings as the flock rises off the water and streams away to the fields. This is surely one of the most exhilarating and uplifting experiences that birdwatching in Scotland has to offer. How fortunate that it is as available to those who cannot leave their car as it is to the young and energetic!

*Valerie M. Thom, 19 Braeside Gardens,  
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## Short Notes

### Black Duck in Renfrewshire

On 22nd December 1979, whilst undertaking a wildfowl count at Stanley Dam, Paisley (Renfrewshire), I found a drake Black Duck amongst a large flock of roosting Mallard. The bird remained until 28th December and was seen by a large number of observers.

**Description** Slightly larger than Mallard, being plumper in the body and fatter about the head. The whole body plumage appeared to be sooty coloured with just a hint of brown. Crown and upper nape dark and contrasted with the pale face which was flecked with darker markings. Dark stripe through eye. Bill unmarked yellow-green with black nail. In flight the upper wing showed a violet-blue speculum without any trace of white on either the leading or trailing edge. The underwing showed silvery white linings which contrasted quite noticeably with the dark of the rest of the wing and body plumage.

This is the first record for Scotland; there have been several others in the British Isles, including one hybridizing with Mallard. The species breeds and winters in North America.

DAVID L. CLUGSTON

Table 1. Weather conditions during seawatches

	29 Apr	30 Apr	1 May	2 May	3 May	4 May	5 May	6 May
Wind direction	SW	W	NW	N	NW	NW	NW	Calm
Wind force	4	6-8	4-6	3-4	3	1-3	1	0
Heavy snow/sleet showers	-	*	*	-	*	-	-	-
Light sleet/rain showers	-	-	-	*	-	*	*	-

Table 2. Numbers of Arctic Skuas

	20 Apr	24 Apr	27 Apr	28 Apr	29 Apr	30 Apr	1 May	2 May	3 May	4 May	5 May	6 May
Handa Sound	2	1	3	1	8	0	19	0	1	0	0	4
Meall a'Bhodha	-	-	-	-	3	16	4	0	74	14	2	0

Table 3. Flock details of Pomarine Skuas

	1 May	2 May	3 May	4 May	5 May
Duration of seawatches (GMT)	06.45-08.15	07.15-08.15	12.00-14.00	07.45-09.45	07.30-08.30
Total No. of birds	7	0	13	41	13
No. of flocks	1	0	4	8	1
Flock sizes	7	0	1, 6, 5, 1	2, 7, 1, 5, 1, 9, 10, 6	13

### Spring passage of skuas at Handa

Throughout the spring of 1979 I was on Handa (Sutherland). A total of 74 Pomarine and 148 Arctic Skuas passed northwards between 20th April and 5th May. The weather was fairly calm, cool and wet from 20-28th April, then strong winds varying from SW to N brought heavy sleet/snow showers until calm conditions arrived on 6th May. From 29th April to 6th May I spent 11½ hours seawatching from Meall a'Bhodha, the most westerly point of the island, overlooking the North Minch (table 1).

**Arctic Skua** Although there were six breeding and two non-breeding pairs during the summer, there was a definite passage of 148 birds on ten dates from 20th April to 5th May. They used two routes: either low offshore along the SW coast or high NE along Handa Sound on the mainland side of the island. Four arrived from Handa Sound on the evening of 6th May and remained on the island (table 2). Those passing along the sound were usually high and on several occasions parties of four were noted. Offshore the birds were usually low and single except for two flocks, both occurring in bad weather. One of 12 on 30th April passed close inshore along the SW coast, and on 3rd May a loose, low flock of 65, with birds breaking away to chase passing Kittiwakes, followed a line NE from the Point of Stoer across Eddrachillis Bay. This size of flock is exceptional; the average from Balranald (North Uist) is 1.65 and the largest nine birds (Davenport 1979, SB 10: 216-221). Details of light and dark phase individuals were not obtained.

**Pomarine Skua** As there are only three previous records from Handa (three 27th May 1972, four 11th June 1973, one 8th July 1975) the passage of 74 from 1st to 5th May was unprecedented (table 3). Most of the parties passed less than 200 m offshore and followed the coast NW out of Eddrachillis Bay some 10-15 m above the sea. The single birds were low over the sea and followed a line NE from the Point of Stoer. The flocks, with an average size of 5.3, usually appeared just after a passing front and recorded passage seemed dependent on adverse conditions and was not related to time of day. All passage occurred after sleet or snow showers on days with NW winds. Only one dark phase individual was recorded (1.4% of the total); the rest were light.

**Long-tailed Skua** One record, an adult flying N along Handa Sound on 14th June, was the first for Handa.

R. I. THORPE

[D. L. Davenport comments: 'The flock of 65 Arctic Skuas off Handa on 3rd May was followed by a flock of 28 (23 dark,

5 light) off Balranald the next day (P. Read, pers. comm.). These records show that large flocks of this species can occur, at least in the first week of May, and suggest that the main passage of Arctic Skuas precedes that of Pomarine Skuas by one or two weeks.]

### Sandwich Terns in the Firth of Forth in winter

Recent winters have seen a marked increase in sightings of Sandwich Terns in the Firth of Forth with records every winter since 1975/6. The table gives an account of the minimum number of birds involved in each of the winter months, figures in parenthesis being the total number of sightings in each month (*Scottish Bird Reports*, *Lothian Bird Reports*). We cannot trace any earlier records of Sandwich Terns in Scotland in winter.

Winter	Dec	Jan	Feb
1975/6	—	1(1)	—
1976/7	—	1(1)	2(2)
1977/8	—	1(2)	1(1)
1978/9	1(1)	1(2)	1(1)
1979/80	1(2)	1(2)	—
1980/1	3(1)	3(3)	3(2)

Young seabirds tend to disperse further from the natal area than adults and British bred Sandwich Terns usually spend their first winter and often the following summer off West Africa (Cramp *et al.* 1974. *The Seabirds of Britain and Ireland*). With this in view, observations in the Forth early in 1981 seem of particular interest. From 29th January to 1st February we saw three Sandwich Terns daily off Dalmeny (West Lothian) while studying waders. On 31st January two of the terns flew together and one of these by its plumage was clearly a first winter bird. Our attention was caught by a familiar but distinctly unseasonal call from the young tern; it was calling in flight to the adult for food, as so often happens in late summer after the young fledge. We watched the adult catch a fish by the usual plunge diving technique and settle on the water beside the youngster and feed it. Further observations were not possible due to the demands of wader ringing.

Smith (*British Birds* 68: 142-155) says that parental dependence in juveniles has been observed in Britain until October when the last ones usually depart, but seems to have largely ceased by January in West Africa, the characteristic call of the young not being heard in Africa during his visit.

Two Sandwich Terns flying together off Gullane (East Lothian) on 14th March 1981 may have been the same birds



since one was seen to feed the other as at Dalmeny (G. L. Sandeman, pers. comm.).

S. R. D. DA PRATO, J. M. DICKSON, F. L. SYMONDS

[Wintering has been reported from several places in north-west Europe in the last decade. R. Hudson says there have been records from the south coast of England every winter since 1973/4, usually of single birds and with a maximum of three together. In view of the recovery of a first winter American Sandwich Tern on the Dutch coast in December 1978 (*Dutch Birding* 1: 60) we cannot assume that these Forth sightings refer to birds from local breeding colonies.—ED.]

### Crested Tit laying second clutch

Second clutches in Crested Tits in Scotland are very rare (Perrins 1979 *British Tits*) and only one case is recorded in *The Handbook of British Birds* (Witherby *et al.* 1943). In a nestbox study area at Culbin Forest (Morayshire) we recorded what we consider a genuine case of a second clutch in 1980.

In a box in a young Scots Pine *Pinus sylvestris* plantation within the forest a pair of Crested Tits laid a clutch of six eggs, and four young subsequently fledged during the last days of May. On 1st June the nearest adjoining nestbox, 30 m away, which had been empty when last checked on 19th May, was found to contain a half built nest. On 9th June the nest was complete and a Crested Tit was flushed from four eggs. This clutch was still being incubated on 20th June but the following day the nest contained three cold eggs and an adult bird was calling from the canopy nearby. On 24th June the three eggs, by now certainly deserted, were examined and found to contain dead, nearly fully developed embryos which could have hatched within one or two days if not abandoned. Human predation was suspected as the cause of this breeding failure.

Although the identity of the breeding Crested Tits in both clutches was not established the conclusions are that the same pair was involved. The species is widespread but at low densities throughout this large pine forest and it would appear most unlikely that the June clutch was the result of a second pair of birds laying a small, extremely late clutch so close to a recently occupied nest.

Perrins (1979) stated that for Great Tits the earliest pairs to have a first brood are usually the only ones to have a second brood since they alone raise their first broods sufficiently early for a second attempt to be worthwhile. In addition, for both

Blue Tits and Great Tits, clutches laid later in the season are markedly smaller.

Examination of our data reveals that the first clutch was begun about 21st April and the second clutch about 4th June. Our Culbin Forest nestbox records for the four years 1977-80 confirm the very late laying date and small size of this second clutch. The other 22 Crested Tit nests give a mean first egg date of 27th April, and a completed clutch size distribution of five eggs (six records), six eggs (12) and seven eggs (four). In any one year between four and eight pairs of Crested Tits use the nestboxes provided, and first egg dates for each year's sample are closely synchronized. Mean dates are 19th April (1980), 26th April (1978), 1st May (1977) and 2nd May (1979), with individual extremes of 17th April (1980) and 10th May (1979). Thus all these clutches were started during a 24 day period during the latter half of April and first half of May.

It is interesting that this single record of a second clutch should occur in the year with the earliest mean laying date, and that the first clutch was one of the earliest recorded.

BRIAN ETHERIDGE, JANET BANKS

## Reviews

**The Birds of the Gambia** by J. V. Jensen & J. Kirkeby. Aros Nature Guides, Arhus (Denmark) 1980; 284 pp; over 100 plain photographs; diagrams; over 400 maps; 21 x 14 cm; softback; £11.80.

Visitors to the Gambia would do well to purchase this book. It is essentially a systematic list, giving the status, habitat and range of 489 species to be found in this, the smallest country in Africa. Most entries have useful distribution maps showing degrees of abundance of birds. Forty two pages deal with good birdwatching localities, complete with maps telling you how to get there, and with lists of the birds that may be seen at each place. The introduction gives a concise account of geography and climate etc. There is also a very full reference list. The maps are excellent but many of the black-and-white photographs are of poor quality.

**Bird Atlas of Natal** by Digby Cyrus and Nigel Robson. University of Natal Press, Pietermaritzburg, 1980; 320 pp; many drawings; 5 diagrams; 553 maps; 30 x 21 cm; 2 acetate overlays; £15.

In the past decade or so we have come to realize the worth of bird atlases both as baselines for future changes in distribution and simply as aids to birdwatching. Few are available for Africa. *Bird Atlas of Natal* is based on the quarter-degree 'square' (there are 166 in each species map) giving complete coverage of Natal. In each square, a clock-face symbol shows the months in which a particular species was recorded.

This gives the status and distribution of each species at a glance. The 530 species maps are grouped two to a page and are therefore large and easily interpreted. Rarer species have a separate section without maps and there is a 6-page checklist. The bird illustrations by Tony Clarkson are simple but effective and pleasing. This is a well planned and clearly presented piece of work which took five years to complete.

A. ANDERSON

**The British Ornithologists' Guide to Bird Life** by C. F. Lundevall, edited by Jim Flegg. Blandford Press, Poole, 1980; 318 pages; 128 colour plates; diagrams; 24 x 16 cm; £12.95.

This is a luxury field guide, but bigger, heavier, less informative and more expensive than other available books. Its main appeal lies in its large and attractive illustrations of more than 300 species by several non-named artists, which give for the most part a good general impression of the appearance of each bird combined with a remarkable amount of detail of plumage; no mean feat. They were originally made for a Swedish book of which this is the British edition, so the picture of the Greylag Goose is the pink-billed eastern race *rubrirostris* and the Lesser Black-backed Gull has the black wings of the Scandinavian race *fuscus*.

More serious than this is the total omission of Storm and Leach's Petrels, Manx Shearwater, Red-legged Partridge, Stone-curlew and Chough. The book is strong on north European owls and woodpeckers, but weak on south European birds and American vagrants. The text gives short, excellent descriptions for field identification and some information about breeding and food, but the summaries of status and distribution are so brief that they are quite inadequate. I thought that the irritating use of N. Britain for Scotland disappeared at least two generations ago.

JOHN ARNOTT

**Wild Geese of the World** by Myrfyn Owen. Batsford, London, 1980; 236 pages; 8 colour plates; 25 drawings; 30 diagrams; 25 maps; 25 x 19 cm; £15.

Yet another book on wildfowl by a member of the staff of the Wildfowl Trust might seem unwarranted. Despite the title, it is largely concerned with the geese of North America and northwest Europe on which most research has been concentrated. The species and races in Asia are discussed in the first chapter, which summarizes the number and distribution of each species, but are hardly mentioned elsewhere. In spite of a scientific appearance I found the text readable with a concise style. My only complaint with the presentation is that the axes on some of the graphs are not labelled clearly. Chapters include social behaviour, movements and migration, summer and winter biology and population dynamics. Detailed appendices give measurements and breeding data of all the species considered. The bibliography is up to date and contains about 420 references. The final chapter concerns conservation and exploitation. The largely laissez-faire attitude of Europeans contrasts markedly with the North American system of refuges and rigorously controlled hunting quotas. The price seems a little high for a book with few colour plates but it may have limited appeal. It is recommended for the keener birdwatcher and particularly wildfowl enthusiasts.

M. V. BELL

**The Popular Handbook of Rarer British Birds** by P. A. D. Hollom. With-erby; London; 2nd edition 1980; 190 pages; 56 colour plates; drawings; 22 x 13 cm. £12.

This book was originally published in 1960 as a companion volume to *The Popular Handbook of British Birds*: together they described virtually all the species recorded in the British Isles. In order to revise this book to the end of 1978 the author has had to expand the text to cater for the inclusion of an additional 50 or so species. All are illustrated in 16 attractive new plates by Norman Arlott. The Voous sequence has been adopted throughout and close scrutiny reveals that, in line with current reappraisals, a number of old records have been reconsidered.

The original text remains little changed and only minimal new information has been incorporated except to update the recent occurrences in brief summary form. The new species are kept together in a second section, but one has to search the individual species accounts for the paragraphs on habitat, general habits and food—all sections that are clearly labelled in section one. Only status and distribution is separately titled and this differs from part one in listing the occurrences individually. These, however, are minor criticisms in what is a welcome revision of a useful and comprehensive book, but some may also find the un-integrated layout niggling in a popular handbook. The separation of old and new, apparently a decision resulting from technical difficulties of colour matching the new and the old plates, leads to, for example, comparison of White-crowned Sparrow with its nearest relative some 44 pages earlier and reference to the accompanying plates in two other places.

ROGER BROAD

**Silent Death: the destruction of birds and mammals through the deliberate misuse of poisons in Britain** by C. J. Cadbury, RSPB, The Lodge, Sandy, Beds., SG19 2DL; 1980; 27 pp; plain photo; diagrams, maps; 21 x 30 cm; softback; £2.

This important report deals with the growing misuse of poisons, mainly against birds of prey in the last 12 years. Excellent information is given on the main poisons and the laws relating to their acquisition and use. A large number of widespread incidents of misuse are tabulated and are comprehensively analysed. The discussion emphasizes concern over the effects on bird of prey populations. There are some omissions; secondary poisoning of Buzzards eating alphachloralose victims in Germany is mentioned but the author should have been able to discover that in a trial elsewhere captive Buzzards survived on a diet of chloralose victims. In field identification of incidents the serious danger of handling mevinphos baits should have been prominently mentioned. Given the scarcity of field studies, my evidence suggesting association between poisoning and a Raven population decline (SB 10: 31) might have been mentioned.

Recommendations are lengthy. The misuse of poisons overlaps the indistinct boundary between farming and game management operations and the organochlorine pesticide story should have taught conservationists that altering widespread use of chemicals on the land requires a formidable body of evidence. Lists of incidents highlight the problem of misuse but evidence of damage to populations is much more important. Hardly any investigations have been made and although I strongly support the RSPB's concern, the evidence given here does not justify the sweeping recommendations. Moreover a recommendation to make land-owners guilty by association unless they can prove innocence is understandable in the light of some disgraceful incidents but its injustice weakens the case.

DOUGLAS WEIR

**The Natural History of Shetland** (New Naturalist 64) by R. J. Berry & J. L. Johnston; Collins, London, 1980; 380 pages; 8 colour, 16 plain photo plates; 45 drawings & maps; 22 x 15 cm; £8.50.

To the growing band of birdwatchers taking an active interest in the birds of Shetland around the mid '60s the standard local reference was the Venables's *Birds and Mammals of Shetland*. However, the book was already a decade old at a time when extra eyes were adding much to the published record and the changing status of several species. So *The Natural History of Shetland* would seem to have a large gap to fill. Its coverage of the islands is surely the most comprehensive work so far with 14 chapters including 'Geological History', 'Natural History of Man', 'Vegetation', 'The Sea', 'Whales and Seals', 'Lochs and Burns', 'Shetland Naturalists', 'Oil and the Natural Environment', 'Conservation', and several on birds. Appendices include checklists of species from fungi to ferns, from fleas to birds. There is also an impressive list of places to visit. Covering so many wide-ranging subjects so well, a book of this size is a credit to its authors.

A penalty of covering so much is that the readability is a little heavy, in danger of becoming a series of checklists and references hard to relocate. Some sections are farmed out to specialist writers, but it is a pity their names are sometimes misspelt, as are some of the Shetland place names—there are two in figure 1. One of these—Lunnasting—also fares badly in the aerial photograph which is printed upside down and called the Walls Peninsula. The colour balance is sometimes poor in reproductions made from transparencies, although many are excellent, as are the black-and-whites.

At £8.50 the book is a must for all who have an interest in Shetland and is likely to remain the standard reference for many years. Of course I thoroughly recommend it: one third of it is devoted to birds!

DENNIS COUTTS

**The books reviewed above (except the RSPB report) are available from the SOC Bird Bookshop**

**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.

*Greylag and Pink-footed Geese in Britain 9th/10th November 1980*. M. A. Ogilvie 1981. Wildfowl Trust.

Population, movements and biometrics of the Purple Sandpiper *Calidris maritima* in eastern Scotland. N. K. Atkinson, R. W. Summers, M. Nicholl & J. J. D. Greenwood 1981. *Ornis Scandinavica* 12: 18-27.

*Caitness Bird Report 1979*. (No details.)

Forth Island bird counts—1980. R. W. J. Smith (no date). *Edinburgh Natural History Society Journal* 1980: 10-11.

Evidence of probable breeding of Storm Petrels on Allsa Craig. B. Zonfrillo 1980. *Glasgow Naturalist* 20: 85-86.

*Fife/Kinross-shire Bird Report 1980*. K. Prockle & T. C. Smout (1981).

1980 *Borders Bird Report*. R. D. Murray 1981. 70p (including postage) from R. D. Murray, 143 Eskhill, Penicuik, Midlothian.

*An Ornithological Survey of the Sanda Islands, Kintyre, in 1980*. E. J. Maguire 1981. Nature Conservancy Council, South West Region, Scotland. The Castle, Loch Lomond Park, Balloch, Dunbartonshire, G83 8LX.

- The Status of Birds at Alemuir Reservoir, Roxburghshire 1970-75 with Additions and Revisions 1976-79.* T. W. Dougall 1980. (Address: Dept. of Geography, The University, St Andrews, Fife, KY16 9AL.)
- Birds in Cumbernauld and Kilsyth District* 1980. A. Wood (47 Kilbowie Road, South Carbrain, Cumbernauld, G67 2PZ) & A. Young (76 Liddel Road, Ravenswood, Cumbernauld, G67 1JE).
- Canna Report 1979-80.* R. L. Swann (14 St Drostan's, Drumnadrochit, Inverness-shire) & A. D. K. Ramsay (An Teallach, Finstown, Orkney).
- Orkney Bird Report 1980.* C. Booth *et al.* 1981. £1.50.
- Loch Lomond Bird Report No. 9 for 1980.* J. Mitchell (comp.) 1981. Nature Conservancy Council.

## Notices

**Ecology and conservation of the Chough on Islay** During 1980 and early 1981 34 Chough were marked with BTO and colour rings: green, blue, yellow or white. A further marking scheme is planned for later this year. Please send sightings of any marked and unmarked birds from Islay and elsewhere, particularly in Scotland, to J. M. Warnes, Coull Farm, Isle of Islay, Argyll. Details of flock sizes, habitat type and feeding behaviour would also be appreciated.

**Dye-marked Redshanks** Redshanks are being dye-marked this summer in Iceland by members of a Tay Ringing Group/Dundee Museum expedition. Please send details of any sightings (giving colour of dye and position on the bird, along with date and place) to Dr M. Pienkowski, Dept. of Zoology, University of Durham.

**Wing-tagged Herons** In Fife and east Perthshire nesting Herons have been fitted with wing tags of various colours, each tag bearing an individual code number. Will anyone seeing a tagged bird please note the colours on both wings and try to read the numbers? Records gratefully received by either Mick Marquiss, Institute of Terrestrial Ecology, Bush Estate, Penicuik, Midlothian (telephone outside working hours Inverkeithing 412712) or Keith Brockie, Gardener's Cottage, Millhill House, Inchture, Perthshire (telephone Inchture 774).

**Yellow Fulmars from St Kilda** Fulmars have nested on St Kilda for centuries, but until 1878 they nested nowhere else in Britain. The Fulmar has now spread all round Britain but this population explosion seems to have come from the arctic, not St Kilda. From ringing studies we know where British Fulmars go in autumn and winter, but we know nothing of the movements of St Kilda Fulmars. I dye-marked Fulmars on St Kilda this summer with yellow on body, tail, wings, or a combination of these. The dye should remain visible until spring 1982 at least. Please send me the date and place of any sightings, the numbers of dye-marked and unmarked Fulmars observed and the positions of the dye. Hector Galbraith, 96 Neilston Road, Paisley PA2 6EL.

(Notices must reach the editor at least four months before publication.)

## The Scottish Ornithologists' Club

### ANNUAL CONFERENCE and ANNUAL GENERAL MEETING

The 34th annual conference and 45th annual general meeting of the club will be held in the Marine Hotel, North Berwick, East Lothian, dur-

ing the weekend 30 October - 1 November 1981. The conference programme and booking form, and the agenda for the AGM, are enclosed with this number of the journal. Members are reminded that bookings for the conference and at the Marine Hotel can only be accepted on the booking form; the hotel management have been instructed not to accept any booking except from the club secretary.

### ENDOWMENT FUND

Members are reminded that the club's Endowment Fund was established for the advancement of ornithology. Any legacy or donation will be very gratefully received and should be sent to the club secretary.

The Fund is administered by the council of the club which is empowered to make grants from the accumulated free income. Applications for a grant must be made on a form available from the club secretary, and should normally be submitted to him by 31 December each year; those received after 31 January will not be considered for a grant in the financial year to 30 June following. Applications, with recommendations by the research committee to which they are submitted, are considered by council at its meeting in March.

### CLUB TIES, BADGES AND CAR STICKERS

SOC ties, badges and car stickers, all with the club emblem—the crested tit, are available from the club secretary and some branch secretaries at the following prices :

**Ties** in maroon, dark blue or green—£2.75 each (£2.86 by post).

**Badges** 50p each (61p by post). **Car stickers** 15p each (26p by post).

### SCOTTISH BIRDS

Copies of all back numbers of the journal from Volume 1 No 1 (autumn 1958), and also some complete unbound secondhand volumes, are available. For details of prices write to the club secretary.

### WINTER EXCURSIONS

#### AYR BRANCH

**Saturday 24 October 1981** IRVINE. Leader, John Burton. Meet Wellington Square, Ayr 11.30 am or Irvine harbour 12 noon (lunch).

**Sunday 22 November** CAERLAVEROCK. Leader, Donald Smith. Meet Wellington Square, Ayr 9 am (lunch).

**Sunday 13 December** DOONFOOT. Leader, Roger Hissett. Meet Wellington Square, Ayr 1.45 pm.

**Saturday 13 February 1982** SOUTH AYRSHIRE LOCHS. Leader, Angus Hogg. Meet Wellington Square, Ayr 1 pm.

**Sunday 14 March** LOCHWINNOCH. Leader, Eleanor Hissett. Meet Wellington Square, Ayr 2 pm or Lochwinnoch Centre 3 pm.

#### DUNDEE BRANCH

All excursions leave Crichton Street at 10 am (bring lunch and tea).

**Sunday 25 October 1981** CAMERON and KILCONQUHAR LOCHS. Leader Mrs J. Grant.

**Sunday 29 November** TAY ESTUARY—Bird count. Leader B. M. Lynch.

**Sunday 13 December** MORTON LOCHS and TAYFIELD. Leader D. B. Thomson.

**Sunday 17 January 1982** LINRATHEN and BACKWATER. Leader B. Pounder.

**Sunday 21 February** MONIKIE and BALMOSSIE. Leader R. Corbet.

**Sunday 21 March** MONTROSE and BODDIN.

**Sunday 18 April** LOCH OF LOWES and DUNKELD. Leader S. Laing.

### LOCAL RECORDERS

Please note the following new Recorders to whom records for the 1981 *Scottish Bird Report* should be sent:

**Dumfriesshire** Dr E. C. Fellowes, West Isle, Islesteps, Dumfries DG2 8ES.

**West Lothian, Forth Islands (except May), Midlothian** A. W. & L. M. Brown, 7 Trelawney Terrace, Penicuik, Midlothian EH26 0NB.

### BRITISH BIRDS - COLOUR TRANSPARENCIES

The Edinburgh Branch Committee is anxious to build up a file of colour transparencies of birds on the British list. Should the proposed project be successful the slides would be indexed, listed and made available, on loan, to branches for talks. Any member willing to donate slides should forward them to The Chairman, Edinburgh Branch SOC, c/o 21 Regent Terrace, Edinburgh EH7 5BT.

## Conference News

**World Pheasant Association grouse symposium, Edinburgh, March 1981**  
Capercaillie and Black Grouse were the subjects of attention at Dalhousie Castle. The WPA, a young organization with open membership, exists to promote the conservation of all galliform birds and encourage improved aviculture. This conference, in bringing together workers from as far afield as China, as did the 1978 symposium (*SB* 10: 198, *Ibis* 122: 257), encouraged a profitable exchange of ideas and drew attention to the current predicament of woodland grouse in Europe. Introducing the conference Prof Dunnet mentioned the role organizations like WPA can play in promoting useful research. Later the likelihood of the WPA backing a study of Scottish Black Grouse was announced.

The value of long term studies was demonstrated by Prof Gullion who mentioned that what he once believed to be the best habitat for Ruffed Grouse had become deserted when better was provided. Unexpectedly high population densities of Ruffed Grouse developed where the forest structure enabled predators to be detected and eluded, and where a mixture of forest successional stages was provided. Forest devastation by wind appeared to play a most useful, if unscheduled, part in producing good habitat for this attractive North American grouse.

Gales in the west of Scotland were mentioned by Brodie to have improved the structure of some new forests which Capercaillie have begun to colonize. Some declines of Capercaillie were described in a paper calling for improved management and conservation of Capercaillie in Scotland and which described some approaches towards these goals. Reports of telemetry studies in Norway illustrated encouraging new developments in research on woodland grouse.

The proceedings will be published by the WPA (Daws Hall, Lamarsh, Bures, Suffolk CO8 5EX). The organizers are again to be warmly congratulated.

A. M. JONES

**BOU annual conference, Glasgow, March 1981: Review of Ornithology in Scotland** What enjoyable events good conferences are! How do you define 'good'? Well, to most people 'good' in this context means something different, depending on what they want from a conference, and different people want different things. At a conference of this sort, some come to learn from the talks, some to criticize, some to look for money



or participants for a new project, but many come to meet old and new friends and chat. There are probably as many different reasons for attending any conference as there are people attending. How do people decide to go to a particular conference or not? Usually there are two main factors: (1) the programme, and (2) who else is likely to be there. The programme in particular is often the deciding factor, but it may fade into secondary significance at the conference itself if the people there turn out to be more interesting than the talks.

How did the BOU go this time? Although it had its high points, I wasn't over-impressed by the programme, for the main reason that I had already heard or read a substantial proportion of the papers given—inevitable with so many old hands performing. Also, very disappointingly, the organizers missed an excellent opportunity and the conference failed to live up to its title; there wasn't even the slightest hint of the review of Scottish ornithology we had been promised. Nevertheless, there was an excellent atmosphere and a great crowd present, and that, for me, made it a good conference. What you thought about it, if you were there, all depended on what you wanted and expected!

ALAN G. KNOX

## Current Notes

The period April to June is covered here. Spring brought the welcome return of summer migrants and lots of rarities. Fair Isle provided yet another first for Britain, a **Sandhill Crane**, and followed up with **River Warbler**, 2 **Alpine Swifts** and **Rustic and Little Buntings**. Shetland yielded goodies like 5 **Red-footed Falcons**, 2 **Subalpine Warblers**, **Night Heron**, **Rose-coloured Starling** and another **Rustic Bunting**. Orkney came up trumps with **Trumpeter Finch** and the Isle of May rallied round with a **Sardinian Warbler**. Caithness and Aberdeenshire excelled themselves, the former providing the first 2 Scottish mainland records of **Thrush Nightingale** and 2 **Subalpine Warblers** and a **Great Reed Warbler**, whilst the latter turned up another **Thrush Nightingale** (killed by a cat), **Eye-browed Thrush**, **Woodchat Shrike**, **Tawny Pipit**, **Kentish Plover** and an obliging **Alpine Swift** which got on to many a list during its 3 day stay.

**White-billed Diver** Fetlar (Shet) 3 May, 17 May. **Night Heron** Unst (Shet) 8-9 May, Yell (Shet) 1 Jun-Jul. **Little Egret** Glenuig (Ross) 4 Jun. **White Stork** Gryfe reservoir (Renf) May, Cumnock (Ayr) Jun, Greenock (Renf) Jun. **Spoonbill** L. Strathbeg (Aber) Jun. **Mute Swan** 7 Fetlar 16 May. **Teal** ♂ Green-winged *carolinensis* Sandwater (Shet) Apr, Fetlar 5 Apr. **Garganey** (all in May) ♂ L. Spiggie (Shet) 9th, Hillwell (Shet) 13-15th, 3 ♂♂ Don (Aber) 13th, ♀ Aberlady (E. Loth). **Ring-necked Duck** Tingwall (Shet) 25 May-9 Jun. **King Eider** ♂ Sullom Voe (Shet) Apr, ♂ Blackdog (Aber) June. **Steller's Elder** ♀ Papa Westray (Ork) May. **Surf Scoter** ♂ Shell Bay (Fife) 25-27 Apr, 2 ♂♂ Blackdog Jun. **Smew** L. Davan (Aber) 25 Apr, pair L. Strathbeg 23 May. **Ruddy Duck** 10 Meikle L. (Aber) 9 May (1st county record), pair Stirling 24 May. **Honey Buzzard** 3 Orkney May, Fetlar 25 May, dead Gulberwick (Shet) 3 Jun, Tingwall 4 Jun. **White-tailed Eagle** imm. Fair Isle 9 Apr, imm poisoned Caithness Apr. **Marsh Harrier** (all in May) L. Strathbeg (2), Aberlady, E. Ross, Orkney, Lochwinnoch (Renf) 16th, Hailes (E. Loth) 29th. **Goshawk** N. Ronaldsay (Ork) 4 May. **Rough-legged Buzzard** Fair Isle 14 Apr, L. Strathbeg Jun. **Golden Eagle** Fetlar 17 Apr-5 May. **Osprey** Orkney 20 May, Yell 20 May. **Red-footed Falcon** 4 ♂♂ 1 ♀ Shetland 16 May-7 Jun. **Hobby** Orkney May, Grutness (Shet) 26 May, St Abbs (Ber) 2 Jun, Fair Isle 6-8 Jun.

**Quail** Fair Isle 18 May, 2-20 Jun, Papa Westray (Ork) 26 May, Tranent

(E. Loth) 29 May, Tynninghame (E. Loth) Jun, Hillswick (Shet) 23 Jun, Bigton (Shet) Jun. **Spotted Crake** Orkney 23 Apr. **Sandhill Crane** imm. Fair Isle 26-27 Apr (1st British record). **Little Ringed Plover** Lochwinnoch May. **Kentish Plover** ♀ Ythan (Aber) 10 May. **Temminck's Stint** Westwater reservoir (Midl) May, Hillwell 23-24 May, Wick 24 May. **Pectoral Sandpiper** Unst 3 Jun, Yell 8 Jun. **Curlew Sandpiper** Fair Isle 7 May. **Ruff** 22 Eden estuary (Fife) 4 Apr. **Black-tailed Godwit** 110 Eden estuary 4 Apr. **Spotted Redshank** 2 Eden estuary 5 May. **Pomarine Skua** Orkney 30 Apr, Collieston (Aber) 12 May, Dowlaw (Ber) 20 Jun. **Long-tailed Skua** Birsay (Ork) 19 May. **Little Gull** Orkney May, Aberlady 27 May. **Caspian Tern** West L. Tarbert (Arg) 6 Jun. **Turtle Dove** Drums (Aber) 14 May, Collieston 14 May. **Cuckoo** 1st L. Awe (Arg) 30 Apr. **Snowy Owl** Orkney 21 May, different bird Jun. **Alpine Swift** Fair Isle 18 Apr, 4-10 Jun, Aberdeen 4-6 Jun. **Bee-eater** Speyside (Inv) Jun, 2 Islay (Arg) 3 Jun. **Hoopoe** Fair Isle 12 Apr, Jun, Linlithgow (W. Loth) 13-15 Apr. **Wryneck** Fair Isle 18 Apr, Drums 14 May, St Abbs May, 18 Shetland May.

**Shore Lark** Papa Westray 22 May. **Tawny Pipit** Newburgh (Aber) 14 May (1st county record). **Tree Pipit** 80 Out Skerries (Shet) and 50 Fair Isle 12 May. **Yellow Wagtail** Out Skerries 12 Apr, Grey-headed *thunbergi* Fetlar 20 May, Unst 20 May, Whalsay (Shet) 14 May, Blue-headed *flava* Fetlar 20 May, Black-headed *feldegg* Fetlar 20 May. **Thrush** Nightingale Noss (Caith) 11 May (1st county record), another 12 May, 1 dead Newburgh (Aber) 12 May (1st county record). **Nightingale** Whalsay 12 May. **Bluethroat** (all in May) 12 Isle of May 11-14th, 16 Caithness 11-19th, 16 NE Scotland 12-14th, 33 Out Skerries 12th, 30 Fair Isle 12th, 13 Fetlar 12th, 50 Shetland May, singles St Abbs 11th, 16th, Fife Ness 14th, Kingsbarns (Fife), Orkney. **Black Redstart** 9 Shetland May, Sanday (Ork) 3 Apr, 3 Fair Isle 6 Apr, Rattray (Aber) 13 May, Drums 13 May, Wick 20 May. **Redstart** 120 Out Skerries 12 May. **Whinchat** 160 Out Skerries 12 May. **Eye-browed Thrush** Newburgh May (5th British record). **Feldfare** 750 Fair Isle 12 May.

**River Warbler** Fair Isle 23-25 May (4th British record). **Savi's Warbler** Fair Isle Jun. **Marsh Warbler** 2 Fair Isle 2 Jun, Whalsay 4 Jun. **Great Reed Warbler** Noss 12-13 May (1st Caith record). **Icterine Warbler** Out Skerries 12 May, Tentsmuir (Fife) 15 May, 2 Fair Isle 24 May, 7 Jun, Fetlar 26 May, Gutcher (Shet) 26 May. **Melodious Warbler** Isle of May 6-8 Jun, Fair Isle 15 Jun. **Subalpine Warbler** Whalsay 8 May, Out Skerries 12 May, ♀ Wick 15 May, ♀ Noss (Caith) 29-30 May, ♂ St Abbs 26-27 Jun, ♂ L. Mullardoch (Inv) Jun. **Sardinian Warbler** Isle of May 3 May. **Lesser Whitethroat** 16 Out Skerries 12 May, 6 Noss Head 13-16 May. **Whitethroat** 53 Out Skerries 12 May. **Wood Warbler** Fair Isle 14 Apr. **Willow Warbler** 90 Fair Isle 12 May. **Willow Warbler/Chiffchaff** 250 Out Skerries 12 May. **Red-breasted Flycatcher** Geosetter (Shet) 19 May, Trowswick (Shet) 20 May. **Pied Flycatcher** 50 Out Skerries 12 May, 34 Fair Isle 12 May. **Golden Oriole** Eday (Ork) 16 May, N. Ronaldsay May, L. Strathbeg 24 May, 6 Shetland 20 May-Jun. **Red-backed Shrike** 30 Shetland May-Jun, Orkney May, Wick 10 May, 14 May, 2 Ythan 12 May, ♀ E. Lothian 29 May, 7 Fetlar 17-28 May. **Great Grey Shrike** Glen Lyon (Perth) 20 Apr. **Woodchat Shrike** ♂ Rattray (Aber) 13 May (1st county record), Outer Hebrides (no date). **Rose-coloured Starling** Out Skerries 25 May. **Trumpeter Finch** Sanday 26-30 May. **Scarlet Rosefinch** 9 Shetland 11-24 May, 3 Fair Isle 19 May, 21 Jun, N. Ronaldsay 20th, 21 Jun. **Lapland Bunting** Fair Isle 4 Jun. **Ortolan Bunting** Fair Isle 11 May, Out Skerries 15-16 May, Fetlar 17 May, Sanday 28 May, Spiggie 20 May. **Rustic Bunting** Fair Isle 21 May, ♂ Eshaness 10 May. **Little Bunting** Fair Isle 3 May.

Late news **Caspian Tern** Hound Point (W. Loth) 3 Jul.

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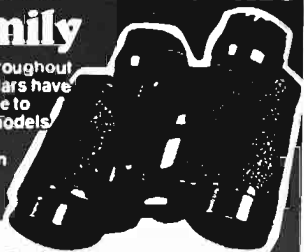
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