INTERIM REPORT OF THE BRITISH GREENLAND WHITE-FRONTED GOOSE CENSUS; AUTUMN 1983

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Last winter, the first co-ordinated counts were made of wintering Greenland White-fronted Geese. At some sites, counts were made throughout the winter, but the two complete censuses undertaken found British totals of 7,189 in November 1982 and 7,282 in April 1983.

Although originally planned as a single census, it was decided to continue the counts annually to investigate changes in population size throughout Britain and Ireland. This short report summarises counts made until the end of December 1983. A comprehensive report will again be produced after the spring census counts.

ARRIVAL DATES

A party of 160 Greenland Whitefronts were seen on the south Wexford coast of Ireland on 9 September (O. Merne). Such an early arrival is quite exceptional and the majority of birds did not arrive at British sites until the more usual time, the second week in October.

The first British birds to arrive were the Dyfi Whitefronts: a flock of c50 were seen flying in from the west over Aberystwyth on 6 October. On Islay, the first party of 12 were seen on 11 October, with the main influx of Greenland Whitefronts, Barnacles and Whooper Swans occurring on 14 October. On this date also, Whitefronts were seen in passage (with Pinkfeet, Barnacles and Greylags) flying south past Colonsay. This Colonsay passage continued until 19 October.

At Loch Ken the first flock of c105 Whitefronts arrived on 16 October and numbers increased rapidly after this. At Endrick Mouth, Loch Lomond, the first sighting of c100 birds was made on 20 October.

The size of arriving parties on Islay was small with the mean of 8 skeins being 11 (range 7-23).

COUNTS

Most British sites were counted in November as indicated in Table 1. Reports have yet to be received for a few sites and in these cases, the count of November 1982 has been substituted and indicated appropriately. These estimates account for only 1.8% of the total.

The provisional British total for November 1983 was 8,190, a slight increase from the total for 1982/83. This increase however, is entirely accounted for by a very high Islay count (4,592) and numbers elsewhere have generally fallen. The proportion of the British population on Islay this autumn (56.0%) is significantly higher than it was last year (45.2%). Although it is encouraging to see high numbers on Islay, it is worrying that such a large proportion of the population should be concentrated in one area, especially in view of local attitudes to geese.

A regional breakdown of the total is given in Table 2. The significance of regional changes will be better assessed at the end of the winter.

Table 3 gives a breakdown of Islay counts so far this season. The areas used are the same as for the 1982/83 season. Counts range from 3,917 - 4,592 with a low count of 3,641 on 21 December. Since the NCC initiated monthly counts on Islay last year a large number of new sites have been discovered, and the potential for coverage errors (see below) realised. It is not possible to say whether the changes in numbers on the island represent real changes in numbers present, or whether they merely reflect changes in count 'quality'. The latter is suspected.

Flock size, although low at all times compared with other geese, is highest in autumn and spring. During the mid-winter period a very large number of small flocks (rarely over 100 in size) are found all over the island. This directly affects the difficulty in achieving a complete count of the island.

The counts from Kintyre also present problems. Counts made at Machrihanish and Rhunahaorine in early November indicated a Kintyre total of 940. A similar total was obtained later in the month, but there had been an apparent redistribution with the Rhunahaorine total higher, and the Machrihanish total lower. In view of past suspected movements between these two sites, the total obtain from 'simultaneous' counts (940) has been used, rather than the seperate site maxima for November (763 + 400 = 1163). A thorough survey of the Kintyre sites is planned for the spring.

PRODUCTIVITY

1983 was a very poor breeding year. At Sisimiut towards the south of the breeding range, July was dominated by "really bad weather: snow, rain and fog" (N. Thingvad). In August, much of the west coast from Nûk to Svartenhuk still had extensive areas of lying snow and reports from other travellers indicated a summer with a very late thaw and long periods of rain and snow. Such weather would have had a severe effect on both adults before nesting and on newly hatched goslings.

The proportion of young on Islay was 9.9% (mean brood size 2.66) and is similar to the Scottish 9.2% (mean brood size 2.40) and Welsh 10.5% (mean brood size 2.7). As with last year, there was no overall difference in productivity between Islay flocks and those elsewhere in Britain.

Ageings undertaken at Wexford this year also indicated a below average year but significantly more young were present than in Britain, following a long-standing trend.

Table 4 gives both regional and national breakdowns of counts of young this autumn.

DISCUSSION

The increase in population size is hard to reconcile with the very poor breeding year. Compared to November 82 there has been a 8.6% fall in numbers away from Islay however. This fall in the British total away from Islay, from 3939 to 3598, is in line with the smaller number of young produced this year.

The very high count on Islay is felt to reflect the ever increasing thoroughness of the count there rather than any sudden increase in numbers. Prior to 1982/83 counts were made by one person over a period of several days. In 1982/83 counts were made by three teams of counters covering the whole island on one day. From this seasons peak count, on 23 November, counts have been made by four teams synchronously. This has undoubtedly resulted in both better coverage of previously known sites and the discovery of 'new' Whitefront areas.

There are two types of possible error involved in goose counting: count errors and coverage errors. For Greenland Whitefronts the latter is much more likely owing to their habit of feeding in a large number of small flocks scattered over a large area. Each such flock is easy to count accurately, but it is easy to miss whole flocks due to incomplete coverage of the area.

An attempt to estimate count errors has been made. It is assumed possible to accurately count all flocks up to 200 birds. An error of ± 5% of the flock size has been added to flocks of between 201 - 500. For flocks of between 501 - 1,000 an error of ± 10% has been added. This is considered realistic inasmuch as larger flocks are harder to count accurately.

The Islay Barnacle Geese, counted at the same times as the Whitefronts, feed in a small number of very large flocks. For this species, the possible count error for c14,500 birds is in the region of ± 1,500 (ie close to 10% of the overall total). The count errors for Whitefronts are given in Table 3 and it can be seen that they do not significantly affect the overall total since there are few flocks over 200 birds.

DARVICS

A06 seen Parton, Loch Ken; previously 79/80 at Loch Lomond.

A11 Shot Lough Foyle, N. Ireland 5/11/83; no previous sightings.

A14 Avenvogie, Islay; same site as 79/80, 80/81, 81/82 & 82/83.

A18 Avenvogie, Islay; " " "

A19 Avenvogie, Islay; " " "

A24 Avenvogie, Islay; " " "

A26 Avenvogie, Islay; " " "

A31 Avenvogie, Islay; " " "

A32 Avenvogie, Islay; " " "

A38 Avenvogie, Islay; " " "

A60 Islay House, Islay; same site as 80/81 (only previous sighting); 4jvs

A61 "found dead" nr Loch Ken 18/10/83. Islay 79/80 & 80/81, Loch Ken 82/83

A66 Avenvogie, Islay; same site as 79/80.

A67 Avenvogie, Islay; same site as 79/80.

A96 Kindrochid, Islay; previously Machrihanish 79/80 & 80/81. This bird was the female of the 1979 GWGS expedition's incubation study (Observations on the incubation and post-hatching behaviour of the Greenland Whitefronted Goose. Wildfowl 33: 63-72), and known to expedition members as Penelope. She is now wintering within a few 100m of DAS !

A full listing of all sightings will be given with the spring census report.

SITE THREATS

Few sites seem threatened with potentially damaging activities away from Islay this year. However, in view of the increased proportion of the British population on the island this year, news of potentially damaging changes to some of the most important roost sites on Islay are very disturbing.

Over 3,500 acres of hill land in the north-east of Islay has recently been sold to the Economic Forestry Group. This area has yet to be properly surveyed, but undoubtedly holds several small hill lochs used as roosts. Loch Finlaggan and Loch Staoisha (known to be important roosts) adjoin the area.

The area of Fèur Lochain, a proposed SSSI, in north-west Islay is reported to be similarly threatened by afforestation. This area is, however, undoubtedly of international importance as a roost area holding over 300 birds on a regular basis and more in autumn and spring.

Fèur Lochain is also of great intrinsic interest as a large unspoilt mire complex. It is to be hoped that NCC rapidly complete SSSI notification of the site, which would provide at least some safeguards for this important area.

The small bog of Glac na Criche close to Fèur Lochain, has recently been notified as a new SSSI. This area is used as part of the Fèur Lochain roost complex and the protection recently given is welcome.

The most worrying recent development on Islay, where intact peatlands are coming under increasing pressure, concerns an important bog called Moine Eilean na Muice Duibhe. The area is a Grade 1 mire site with much botanical and ornithological interest and is a proposed SSSI. However, a planning application to cut large quantities of peat for Scottish Malt Distillers has been submitted before SSSI status was given. Fortunately however, the application has been called in by the Secretary of State for Scotland.

The Argyll & Bute District Council support the application and local councillors regard the area as 'a wasteland' harbouring diseases and pestilant insects (in reality, several scarce dragonflies). The NCC is opposing the planning application on the grounds that there are several other suitable areas for peat-cutting nearby where no damage would be done to areas of interest.

The site is of major significance to Greenland Whitefronts on the island with up to 500 using it on a regular basis. Cutting as proposed would seriously damage the bog and most of its features of botanical and ornithological interest. The GWGS is opposing the development and it would be a great help to our, and NCC's case, if letters of objection were sent to: Secretary of State for Scotland,
Scottish Development Department,
New St. Andrews House,
Edinburgh.
Further details can be obtained from DAS (049-686-209).

SPRING CENSUS

The spring census is between 25 March and 1 April with the main count on the weekend of 31 March/1April. If it is not possible to count between these dates, please try and count as close as possible to the census period.

As some counters will be aware, the 1984 GWGS expedition to Eqalungmiut Nunât is due to take place this summer having been postponed from 1983. It would considerably help this work if counters could record departure dates (or date of last spring sighting), so that this information is available to compare with dates of arrival in Greenland.

Due to the summer expedition (leaving late April), it may not be possible to acknowledge and collate spring census returns until after our return from Greenland in early September. However, it is hoped that a summary of the spring census will be prepared as soon as possible after this. Please send in counts as soon as possible after the count, but bear with us if you do not get a prompt reply ! Thank you.

ACKNOWLEDGEMENTS

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Please note: The information in this report is provisional and figures are liable to slight change. Please refer to the below address for adjusted totals in due course.

Greenland White-fronted Goose Study, School of Biological Sciences, UCW, Penglais, Aberystwyth, Dyfed SY23 3DA.

or
Kindrochid, Sanaig, Bruichladdich, Isle of Islay, Argyll.

January 1984

Table 1. Peak monthly counts at British Greenland Whitefront sites, October - December 1983.

	October	November 1-13	November 14-30	December
NORTH EAST SCOTLAND				
Orkney: Tankerness Loch	0	0	0	
The Loons/ L. of Ibister	14	28	49	
Caithness: Stemster			91	
Hallan			52	
Lyth			118	
Loch Eye	present		5	0
NORTH WEST SCOTLAND				
Lewis: Shawbost/Barvas		27	27	
Benbecula: Nunton/Griminish			(0)	
South Uist: Loch Hallan	0	0	17	17
Loch Bee			(55)	
Skye: Loch Snizort & Broadford			(76)	
Longa Island & Gairloch			(0)	
Muck & Eigg			(20)	
NORTH ARGYLL				
Tiree			357	
Coll: Caoles			125	
Uig/Acha			80	
Arnabost/ Cliad			230	
Lismore Island			nc	
Eriska Island		90-95	c90	
Ventra Moss/Loch Shiel			44	
Mull: Loch Poit na h-I			36	
Loch Assapoll			23	
SOUTH ARGYLL				
Colonsay	75-(passage?)		29	
Jura: Lowlandmans Bay			18	
Loch a' Chnuic Bhric			52	
Islay		4030	4592	3936
Keills			16	
Isle of Danna			91	
Moine Mhor		19		
Rhunahaorine	600+	450+	763	356++
Machrihanish		400+	177	
Bute: Kerryfearn	69		43	62-65
Loch Lomond, Endrick Mouth	c100	120	134	
Barr Loch, Renfrew			(0)	
GALLOWAY				
Stranraer			350	
Loch Grannoch			0	
Bladnoch Valley & Clugston Loch		6	43	
Cree Valley			0	
Loch Ken	c275	c290	c290	
Ayrshire			0	
ENGLAND				
Lancashire: Martin Mere			1	
Formby			1	
Dee Estuary				30
WALES				
Dyfi Estuary	72	76	76	78

Table 2. Regional totals 1982/83 and autumn 1983.

	November 82	April 82	November 83
North-east Scotland	457	576	315
North-west Scotland	185	80	195*
North Argyll	873	1068	985
South Argyll: Islay	3250	3441	4592
other sites	1723	1413	1342
Galloway	595	631	683
England	33	0	2
Wales	73	73	76
TOTAL BRITAIN	7189	7282	8190

* largely estimated from counts of November 1982.

Table 3. Islay area totals 1983.

AREAS	Oct 24	Nov 1	Nov 2	Nov 15-18	Nov 22	Nov 23	Dec 20	Dec 21
OA	873	929	722	836	582	865	580	703
ARDTALLA	0	0	0	0	0	0	0	0
GRUINART	-	451	386	418	614	415	328	243
GOIL	888	(329)	445	414	552	454	372	227
KINNS	0	180	465	607	384	504	346	205
LAGGAN	-	(100)	382	395	475	646	548	330
GLEN	-	154	144	260	290	350	276	271
[illegible]	-	(356)	1486	1382	1020	1358	1486	1662
TOTAL	-	(2499)	4030	4312	3917	4592	3936	3641
± count error		55	93	139	16	47	33	35

NB - indicates area not counted whilst 0 indicates area counted but no geese were found. Incomplete counts on 1 November bracketed. Very poor visibility on this day led to poor counts in some areas.

Notes for Table 1.

Counts underlined have been used in calculation of autumn census total. Counts bracketed are site totals of November 1982 used when either a site was not counted this autumn, or a count has yet to be submitted. + indicates value is minimum present, ++ indicates total probably significantly higher. nc = not counted, no recent information on status.

Table 4. Summary of ageings undertaken, autumn 1983.

	Total aged	Number young	% young	Number broods	Mean brood size	Brood sizes 1	2	3	4	5	6	Calculated totals of young	families
Islay	2121	210	9.9%	7[illegible]	2.66	16	21	23	12	3	3	454	171
Rest of Scotland	1310	120	9.2%	47	2.40	11	20	8	4	[illegible]	2	331	138
England	2	1	-									1	
Wales	76	8	10.5%	3	2.7		1	2				8	3
BRITAIN	3509	339	9.66%	128	2.57	27	42	33	16	5	5	794	312

Islay ageing

Area	Total aged	% juveniles
Oa	748	7.88%
Ardtalla	0	-
Gruinart	54	9.2%
Gorm	286	12.6%
Rhinns	96	16.7%
Laggan	62	29.0%
Glen	152	13.1%
Kilmeny	723	7.7%
TOTAL	2121	9.90%

British ageing

Area	Total aged	% juveniles
North east Scotland	186	9.1%
North west Scotland	44	15.9%
North Argyll	415	10.1%
South Argyll (ex Islay)	508	8.6%
Galloway	157	6.4%
Wales	76	10.5%