

GREENLAND WHITE-FRONTED GOOSE STUDY



REPORT OF THE 2002/2003 NATIONAL CENSUS OF GREENLAND WHITE-FRONTED GEESE IN BRITAIN

Final report – April 2004

*Tony Fox & Ian Francis
c/o Department of Wildlife Ecology and Biodiversity
National Environmental Research Institute
Kalø
Grenåvej 12
DK-8410 Rønde
Denmark*

SUMMARY

Two complete censuses of all known Greenland White-fronted Goose wintering haunts found a total of 19,577 birds in autumn 2002 and 18,272 in spring 2003. These comprised 9 birds in England, 126 in Wales, 12,253 and 10,677 on Islay and 7,189 and 7,460 in the rest of Scotland in autumn and spring respectively. Counts were missing from Muck and North Uist where the counts from last year were substituted (comprising <0.3% of the totals), and some counts from Caithness, South Uist, Skye, Eriska, Oronsay and Jura where counts from adjacent months were substituted. In all, these substitutions contributed 3.9% and 2.4% of the British totals in autumn and spring. No birds were found at the Loch Snizort site, Skye for the third winter running, but 20 birds discovered north of the most regularly used site gives some optimism that this group persists. Breeding success was well below the average for the last 15 years at 9.9% young ($n = 8,293$ aged), brood size was 3.2 ($n = 180$ broods). Despite this relatively low production, these counts represent an increase of 5.3% over the autumn 2001 count and a 13.1% increase over the spring total in the previous year. We await the count data from the rest of Ireland away from Wexford before we can provide the global population estimate for 2002/2003, but it seems likely that the spring 2003 total may now exceed 30,000 based on previous Irish counts (unless there was a serious decline in Ireland away from Wexford), suggesting some stabilisation in numbers in this population.

INTRODUCTION

The 2002/2003 survey was the twenty-first annual census of Greenland White-fronted Geese carried out in Great Britain by the Greenland White-fronted Goose Study. As usual, full censuses were attempted in autumn and spring to coincide with the International counts made concurrently in Northern Ireland and the Republic of Ireland and co-ordinated there by the National Parks and Wildlife Service from Dublin. Table 1 shows the most recent total census data available to the present, although counts from Ireland outside of Wexford are missing from 2001 and 2003.

Table 1. Spring population census totals for Greenland White-fronted Geese, 1998-2003. The British total for spring 2001 (missing because of the outbreak of Foot and Mouth Disease) has been estimated based on the relationship between spring and autumn counts from previous seasons. At the time of compilation, collation of count coverage for the rest of Ireland from spring 2001 and 2003 was incomplete, hence global population totals cannot be estimated in these years.

	spring 1998	spring 1999	spring 2000	spring 2001	spring 2002	spring 2003
<i>Wexford</i>	8306	8958	8330	-	7133	7915
<i>Rest of Ireland</i>	4899	4617	(4617)	-	3158	-
<i>Islay</i>	12224	13560	11201	13281	9161	10677
<i>Rest of Britain</i>	7396	8438	8056	7787	6960	7595
<i>Population total</i>	32835	35573	32204	?	26412	?

ARRIVAL/DEPARTURE DATES

As in 2001, there were few very early arrivals in 2002, because of the late departure from Iceland. Nevertheless, there was an early bird at **Loch of Strathbeg** on 4 October, a single on **Shapinsay, Orkney** on 5 October and 6 were back at the **Loons on Orkney** on 7 October (per Eric Meek). Arthur Thirlwell reported 6 birds back at **Loch Ken** on 6 October. Conspicuously, no more arrived until 19 October when there were 11, building to 95 on 20th and 214 on 26 October. Most first arrivals occurred after mid-month, e.g. on **Coll** (16 October), **Tiree** (a single, 14 October), Kintyre (240 present by 17 October). On **Tiree**, John Bowler reported a heavy passage of small flocks noted during northerly winds mostly passing on southwards during 16-19 October. First groups on the ground there were 35 at Loch a'Phuill (19th), 60 at Balephuill with a further 30 at Loch a'Phuill (22nd), 90 at An Fhaodhail (23rd), 64 at Barrapol/Loch a'Phuill (27th), 210 at Balephetrish (28th). There was also a report of a single flock of 280-300 birds on improved pasture at Gallanach, **Coll** on 18 October, which flew on approach and were gone the next day. First arrivals in **Caithness** were unusually late - 9 on 24 October.

Spring departures are always difficult to describe, especially since arriving spring migrants deflect attention! Geese were last seen at **Loch Ken** on 9 April (where they were gone by 10th), on **Coll** on 16 April and at **Lismore** on 17 April. A lone adult lingered on **Tiree** until 25 April (where the major departure took place in the second week of April, with only 2 remaining on 16th).

COUNT TOTALS

The counts presented here are based on the regular coverage of all known regular wintering sites organised by GWGS, but also incorporate counts carried out by Scottish National Heritage. This year, no data have been incorporated from the WeBS database managed by The Wildfowl & Wetlands Trust from Slimbridge, because these counts were not available at the time of report writing. These normally contribute few birds from elsewhere in Britain away from those counted at the regular wintering haunts. A scatter of observations are presented in the table from Dick Hewitt, who regularly observed individuals along the coast from Nairn to Lossiemouth and in parts of Aberdeenshire during the winter.

It is now encouragingly clear that the population recovered a little during the past year (see Figure 1), presumably because productivity was slightly higher than in previous years, whilst still well below the long-term average. What is evident is that the sustained increase during the 1980s and early 1990s has now ceased since the late 1990s, with little change in numbers wintering in Britain during the following five years and with signs of decline in most recent years. This is especially true in Ireland, although regrettably the lack of collated counts from there precludes a current presentation of Irish, and hence total, population trends.

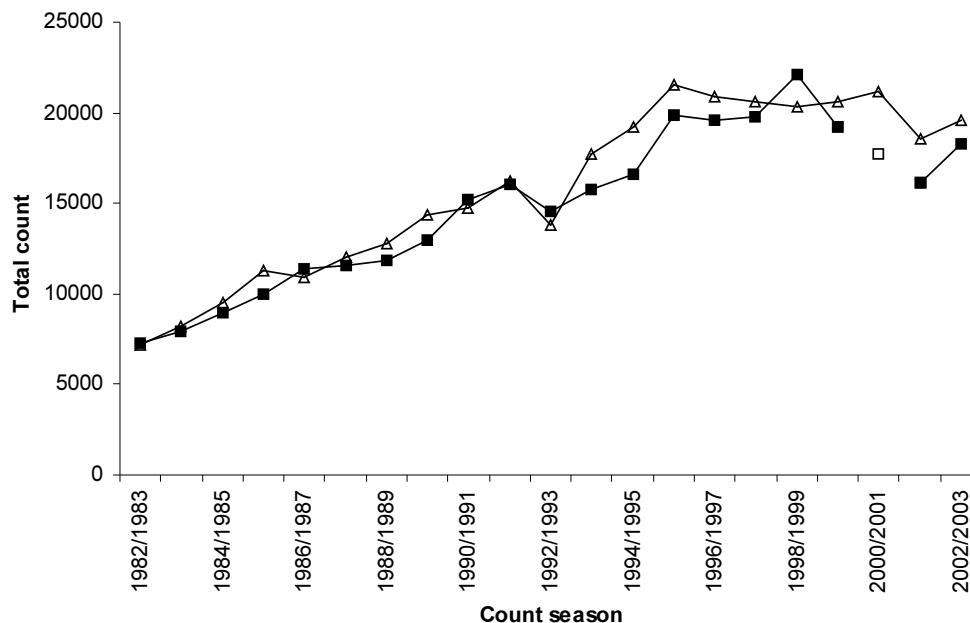


Figure 1. Counts of Greenland White-fronted Geese in Britain, 1982/1983-2002/2003, showing autumn (open triangles) and spring (filled squares) census results for each season. Note the missing value for spring 2001 (unfilled square) on account of the outbreak of Foot and Mouth Disease that year.

COUNT BREAKDOWN

A full breakdown of the count totals giving the maximum counts per month and the census period total is appended at the back of the report. The Islay counts varied between 5,945 and 12,473, with an average of 9,429 (based upon 14 paired all island counts, data courtesy of Scottish Natural Heritage), down on last year's equivalent value.

A Twenty-one year perspective

Looking back over 21 years of annual monitoring, it is interesting to contrast the different trends amongst the various British sites, especially in the light of recent declines – there have been considerable changes.

Sites now deserted

Of the sites listed as occupied since 1982/83 in the 12-year report, the newly colonised flock at **Sullom Voe (Shetlands)** has apparently since disappeared. The following sites were all abandoned prior to 1982/3-1993/4: **Loch Eye (Easter Ross)**, **Loch Sguod/Longa Island (Wester Ross)**, **Barr Loch (Ayrshire)**, **Bladnoch Valley (Dumfries & Galloway)**, various

Ayrshire lochs, Cors Caron or Bryn Du (mid-Wales). All of these sites have been visited in recent years without finding evidence of wintering birds and hence, we confirm that these are no longer used as regular winter haunts. However, signs of goose feeding were found this winter at Loch Sguod, suggesting that this area remains a staging site in autumn. It seems reasonable therefore to assume that these sites are indeed now deserted as wintering sites as stated at the time of the 1994 report.

Changes in site use or irregular occupation

The use of the peatlands of **Loch Meadie/Loch a'Cherigal** and the **Loch Scarmclate** area in **Caithness** were associated with the **Loch Heilen** and **Loch of Mey** flocks there. The apparent abandonment of these areas most likely represents a contraction of former range, rather than loss of a discrete group of birds. It is still unclear whether the **Loch Winless/Loch Wester** flock was, or continues to be, a separate Caithness group, but there have not been any recent observations from this area. Numbers present at **Tankerness (Orkney), Benbecula, North Uist, and Lowlandman's Bay on Jura** have fallen to very low levels and suggest only sporadic and perhaps irregular occurrence in recent years, although in some cases birds may have shifted locally to new, undiscovered feeding areas. Numbers reported from the **Lancashire Mosses**, from **Anglesey** in North Wales and from **Loch of Strathbeg** in Aberdeenshire continue to be small and somewhat irregular.

Declining flocks

Two flocks have shown particular long-term declines, starting before the downturn in general numbers since the mid 1990s, and therefore continue to give most cause for concern. These would include those at **Snizort** (possibly recently "rediscovered" using areas north of their former haunts on Skye) and **Moine Mhor**. Several other flocks have shown relative stable trends overall, but remain vulnerable on account of their low numbers. These would include the flocks on **Lewis, Askernish (South Uist)**, those at **Broadford, Plockton** and **Loch Shiel** as well as the two flocks on **Mull**, none of which have exceeded 50 individuals in very recent years.

Stable or increasing numbers

Several of the larger groups show stable trends (**Swannay [Orkney], Westfield [Caithness], Muck, Stranraer** and **Loch Ken**), in some cases the result of a period of stable or increasing numbers followed by a recent decline. Other large groups exhibit increasing trends overall (**Loons [Orkney], Loch Bee [South Uist], Tiree, Coll, Colonsay, Islay, Benderloch, Keills**, all three **Kintyre** flocks, **Loch Lomond, Bute** and **Dyfi**) obviously give less cause for concern, despite many reflecting the recent downturn in numbers. Nevertheless, given the decline in overall numbers and the continued contrasting fortunes of the different wintering flocks, it is vital that site specific monitoring continues in the immediate future to ensure we keep tabs on the numbers and distribution of wintering Greenland White-fronted Geese in Britain.

AGE RATIOS IN 2002/2003

Breeding success for Greenland White-fronted Geese in summer 2002 was higher than that in 2001, although still below average. Overall production was 9.9% among the aged samples (Table 2). This comprised 10.8% young on Islay (compared with 14.2% average during 1982-2001, and 7.9% last year) and 8.8% in the rest of Britain (compared with 14.1% average during 1982-2001 and 7.8% last year). Mean brood size was 3.16 (see Table 2) based on 177 families sampled from a restricted number of sites. The average values were 3.53 on Islay (higher than the 1982-2001 average, 3.22) and 2.74 elsewhere.

Table 2. Summary of age ratio determinations and brood sizes for Greenland White-fronted Geese wintering in Britain 2002/2003.

SITE	% YOUNG	SAMPLE	MEAN BROOD SIZE	SAMPLE
Westfield, Caithness	13.1%	130	2.43	7
Loch of Mey, Caithness	10.5%	38	1.33	3
Coll	12.5%	329	1.9	-
Tiree	13.1%	475	2.58	24
Colonsay	0%	87	-	-
Skye	10%	20	-	-
Lismore	4.0%	150	-	-
Benderloch	8.6%	81	1.4	5
Danna	2.8%	176	-	-
Moine Mhor	4.3%	23	1	1
Rhunahaorine, Kintyre ¹	9.7%	672	3.07	14
Machrihanish, Kintyre ¹	8.6%	526	3.88	8
Clachan, Kintyre ¹	10.2%	167	3.25	4
Islay ¹	10.8%	4514	3.53	94
Jura Inver	8.9%	101	3.00	3
Jura Lowlandman's Bay	11.1%	9	1.00	1
Bute	9.7%	165	5.33	3
Loch Ken	2.3%	220	1.25	4
Stranraer	8.0%	113	-	-
Endrick Mouth	5.7%	210	3.17	6
Dyfi Estuary	9.2%	87	2.67	3
Scotland excl. Islay	8.8%	3779	2.74	86
OVERALL	9.9%	8293	3.16	180

¹Details from Islay and Kintyre courtesy of Dr Malcolm Ogilvie

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