

GREENLAND WHITE-FRONTED GOOSE STUDY



REPORT OF THE 2003/2004 NATIONAL CENSUS OF GREENLAND WHITE-FRONTED GEESE IN BRITAIN

Final report – October 2004

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SUMMARY

Two complete censuses of all known Greenland White-fronted Goose wintering haunts found a total of 17,449 birds in autumn 2003 and 16,387 in spring 2004. These comprised 8 birds in England, 116 and 112 in Wales, 11,272 and 9,653 on Islay and 6,053 and 6,614 in the rest of Scotland in autumn and spring respectively. Counts were only missing from Muck where the counts from last year were substituted (comprising <0.3% of the totals). Some counts from Orkney, Caithness, South Uist, Skye and Mull were substituted from adjacent months which amounted to 3.1% and 3.0% of the British totals in autumn and spring. Thirty-four geese were seen in January at the Loch Snizort site, confirming that this group persisted in winter 2003/2004. Breeding success was well below the average for the last 15 years at 7.6% young ($n = 7,987$ aged), brood size was 3.1 ($n = 152$ broods). The continued run of very low production of young (which fails to replace annual losses in the population) is doubtless the major reason for the decrease of 10.9% in the autumn count and a 10.3% decrease 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 2003/2004. However, it seems unlikely that the spring 2004 total will exceed 27,000 based on previous Irish counts (unless there was a serious decline in Ireland in which case the global population would be even less), suggesting further declines in numbers in this population since the peak in spring 1999.

INTRODUCTION

The 2003/2004 survey was the twenty-second 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 are missing from 2001, 2003 and 2004.

Table 1. Spring population census totals for Greenland White-fronted Geese, 1999-2004. 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, 2003 and 2004 was incomplete, hence global population totals cannot be estimated in these years.

| | spring 1999 | spring 2000 | spring 2001 | spring 2002 | spring 2003 | spring 2004 |
|--------------------------------|--------------|--------------|-------------|--------------|-------------|-------------|
| <i>Wexford</i> | 8958 | 8330 | - | 7133 | 7915 | |
| <i>Rest of Ireland</i> | 4617 | (4617) | - | 3158 | - | |
| <i>Islay</i> | 13560 | 11201 | 13281 | 9161 | 10677 | 9653 |
| <i>Rest of Britain</i> | 8438 | 8056 | 7787 | 6960 | 7595 | 6734 |
| <i>Population total</i> | 35573 | 32204 | ? | 26412 | ? | |

ARRIVAL/DEPARTURE DATES

A lone adult bird summered at Loch Bhasapol on **Tiree** from at least 10 July until 1 August 2003 and an injured bird was seen at **Loch Bee**, South Uist on 14 September. Otherwise, the earliest reports were of birds at **Keills/Danna** on 22 September, 3 on the **Dyfi** estuary, 26 at **Loch Ken** and one at **Loch of Strathbeg** on 4 October, 1 on **Tiree** on 6 October (increasing to 175 by 8 October) and first birds on 7 October at **Lismore**. In **Caithness**, 85 were back on 8 October, **Grindon** (Northumberland), 9 arrived on 9 October (although only 8 subsequently wintered) and 8 flew south at **Loch Bee**, South Uist on 10 October (where there 79 on 12 October). These were followed by 11 on Egilsay on 11 October, with 40 at the Loons and 39 the Loch of Swanney the next day (all **Orkney**, reported by Eric Meek).

The spring provided some exciting observations of departures over the Western Isles. From **North Uist**, Brian Rabbitts reported 22 on 30 March; 56 on 9 April; 55 on 10 April (also a flock of c.250 more geese at great distance may have been this species); 185 on 11 April; 66 on 12 April (also a large skein heard at 01.50 hours) and 14 on 16 April. On **South Uist**, Andrew Stevenson reported 30 on 7 April, 56N on 9 April, 190 NW on 10 April, 103 NW 11 April and 32 NW 12 April. The main departure from **Tiree** occurred during the second week April, a lone adult on the 27th being the last report. Birds were last seen on the **Dyfi** (35 birds) on 12 April and at **Lismore** on 16 April. Reserve staff at **Loch Lomond** reported the flock had departed by 6 April, and there were only 17 left at **Loch Ken** by 11 April 2004, all having departed on 13 April.

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, which has recently been transferred from The Wildfowl & Wetlands Trust at Slimbridge to the British Trust for Ornithology at Thetford. These counts were not available at the time of report writing, but normally only contribute a few birds from elsewhere in Britain away from those counted at the regular wintering haunts.

After the encouraging recovery last winter, the population has fallen a little due to the low reproductive output in the population during the last year (see Figure 1). The sustained increase of the 1980s and 1990s has now ceased since 1999, with some evidence of a decline in numbers wintering in Britain during the last five years. This is also reflected in the counts in Ireland, especially in the far south where increases appear more dramatic than elsewhere. Regrettably the continued lack of collated counts precludes a current presentation of Irish (and hence total) population trends at the time of this report.

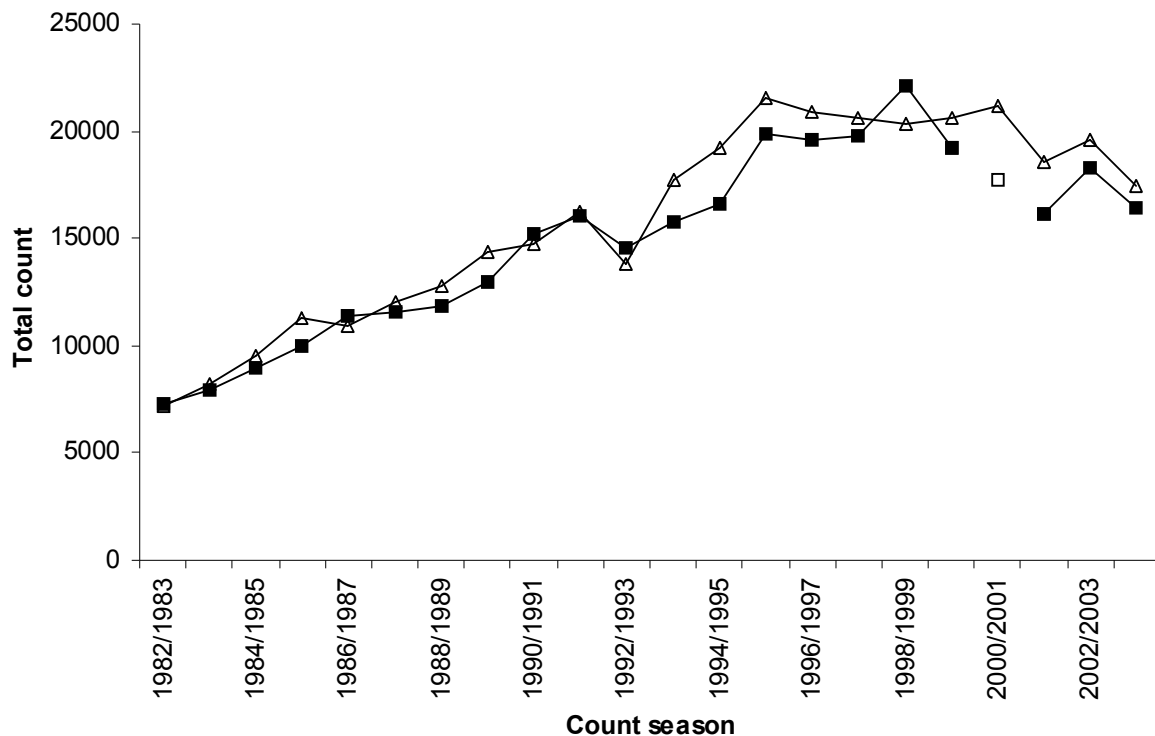


Figure 1. Counts of Greenland White-fronted Geese in Britain, 1982/1983-2003/2004, showing autumn (open triangles) and spring (filled squares) census results for each season. Note the missing value for spring 2001 (unfilled square) on account of the outbreak of Foot and Mouth Disease that year.

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.

This winter, John Dye and his group of local observers failed to find any Greenland White-fronted Geese in the vicinity of Loch Shiel, Claish and Kentra Mosses. This could well be due to their presence on patterned raised mire boglands away from the grassland (especially in-bye fields) they have traditionally exploited in recent years. John does however report his suspicions that the steadily increasing numbers of resident Greylag Geese, which conspicuously feed in areas formerly used by the Whitefronts, could have something to do with their disappearance.

Brian Neath also failed to locate the small group of Whitefronts that have frequented fields near Plockton for the past 5 winters. The group numbered less than 15 individuals at most, and has been notoriously difficult to find in recent years, so its absence in 2003/4 cannot be considered as the end of this area as a regular wintering site, as is the case for the Loch Shiel flock.

AGE RATIOS IN 2003/2004

Breeding success for Greenland White-fronted Geese in 2003 was extremely low and well below average. Overall production was 7.5% among the aged samples (Table 2), but the majority of places failed to reach 6% young in the flocks. There were 8.5% young on Islay (compared with 13.8% average during 1982-2002, and 10.8% last year) and 6.4% in the rest of Britain (compared with 13.5% average during 1982-2002 and 8.8% last year). Mean brood size was 3.14 (see Table 2) based on 152 families sampled from a restricted number of sites. The average values were 3.54 on Islay (identical with last year, but higher than the 1982-2002 average, 3.25) and 2.50 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 | 2.4% | 170 | 2.25 | 4 |
| Coll | 4.7% | 211 | 1.67 | 10 |
| Tiree | 4.6% | 547 | 1.92 | 13 |
| Colonsay | 0% | 84 | - | - |
| Assapol, Mull | 0% | 40 | - | - |
| Lismore | 7.4% | 107 | - | - |
| Benderloch | 5.4% | 74 | - | - |
| Danna | 5.3% | 75 | 2.00 | 2 |
| Moine Mhor | 0% | 23 | - | - |
| Rhunahaorine, Kintyre ¹ | 8.3% | 947 | 3.42 | 12 |
| Machrihanish, Kintyre ¹ | 6.1% | 427 | 4.00 | 5 |
| Clachan, Kintyre ¹ | 9.8% | 183 | 3.40 | 5 |
| Islay ¹ | 8.5% | 4430 | 3.54 | 94 |
| Bute | 7.1% | 141 | 1.80 | 5 |
| Loch Ken | 4.6% | 174 | 1.67 | 6 |
| Stranraer | 4.8% | 126 | - | - |
| Endrick Mouth | 3.3% | 120 | - | - |
| Dyfi Estuary | 14.8% | 108 | - | - |
| Britain, excl. Islay | 6.38% | 3557 | 2.50 | 58 |
| OVERALL | 7.55% | 7987 | 3.14 | 152 |

¹Details from Islay and Kintyre courtesy of Dr Malcolm Ogilvie

It is clear that the production of young in the 5 seasons since summer 1999 has been well below the running average for the years 1962-2003 (see Figure 2 below).

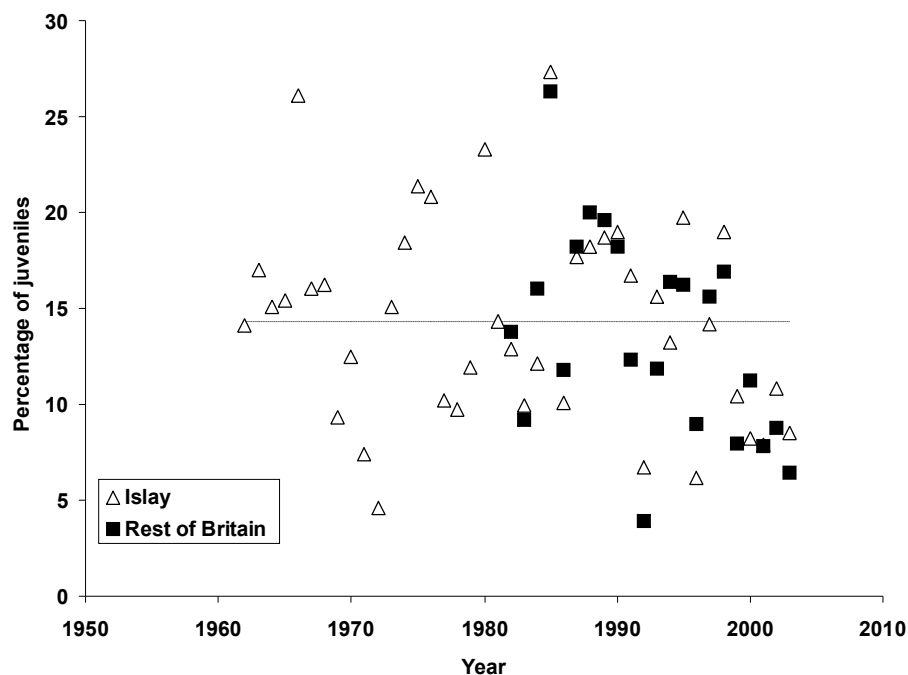


Figure 2. Percentages of first winter geese amongst samples of Greenland White-fronted Geese in Britain, 1962-2003, showing samples from Islay (open triangles) and the rest of Britain (filled squares) compared to the 1962-2003 Islay mean (horizontal dotted line). Note that the percentages have been well below the mean in each of the last 5 seasons.

REPORT ACKNOWLEDGEMENTS

It is easy for us to sit in a warm office collating the counts, but it is thanks to the count network (usually braving the most horrendous of weather!) that we can report these counts for yet another season. Without the continuity and good will of the counters, we just could not have this long time series to look back upon. Our enormous thanks as ever to everybody who has contributed counts of Greenland White-fronted Geese in 2003/2004, which comprised: R.G. Adam, J. Armitage, P. & D. Batty, J. Bowler, R. Broad, P. Collin, W.A.J. Cunningham, A. Currie, R.C. Dickson, J. Duncan-Jones, J. Dye, K. Fairclough, A. Flynn, M. Frankis, M. Gear, C. Gillies, L. Gregory, M. Gregory, F. Harmer, R.F. Hewitt, K. Hoey, I. Hopkins, D. Irvine, P. Isaacson, T. Jacobs, D. Jardine, R. Jones, V. Keller, W. Kelly, S. Laybourne, R. McKenzie, R. McMillan, A. Mainwood, T. Mallows, S. Manson, L. Marshall, R. Matson, E.R. Meek, S. Money, M. Morris, N. Mulholland, W. Neill, B. Neath, M.A. Ogilvie, S. Paterson, M. Peacock, J. Phillips, B. Rabbitts, D. Rees, B. Ribbands, H. Roderick, C. Rodger, D. Rogers, C. Rollie, D. Sexton, R. Squires, A. Stevenson, D.A. Stroud, A.C. Thirlwell, J. Towill, C. White & F. Younger. Thanks to SNH for coverage of sites in Argyll, to the counter teams on Kintyre and Islay and our sincere apologies as ever for forgetting anybody whom we may have inadvertently omitted. The census is supported by the Joint Nature Conservation Committee through a sub-contract from the Wildfowl and Wetlands Trust, and we thank P. Cranswick and R. Hearn for their help as nominated officers for the project.

GREENLAND WHITE-FRONTED GOOSE CENSUS 2003/2004

shaded values are estimates for sites where no counts were received

| SITE NAME | SEP | OCT | NOV | AUTUMN CENSUS | DEC | JAN | FEB | MAR | SPRING CENSUS | APR |
|---------------------------------|-------------|--------------|--------------|--------------------------|--------------|-------------|--------------|-------------|--------------------------|------------|
| ORKNEY | | | | | | | | | | |
| Tankerness | | 1 | | | | | | | | |
| Loons | 93 | 105 | 105 | 105 | 73 | 107 | 77 | 57 | 48 | |
| Loch of Swannay | 39 | | | | | | | | | |
| Stronsay | | | 41 | 41 | | | | | 41 | |
| CAITHNESS | | | | | | | | | | |
| Westfield | 98 | 170 | 170 | 170 | 123 | 152 | 171 | 80 | 171 | |
| Loch of Mey | | 196 | 196 | 196 | | | | | 176 | |
| NE SCOTLAND | | | | | | | | | | |
| Loch of Strathbeg | 1 | 1 | | 1 | 1 | 1 | 2 | | | |
| WESTERN ISLES | | | | | | | | | | |
| Barvas/Shawbost, Lewis | | | 20 | 0 | | 20 | | 17 | 21 | |
| Balranald, North Uist | | | | | | 2 | 2 | 2 | 2 | |
| Kilpheder/Askernish, South Uist | | | 40 | 42 | 42 | 42 | 42 | | 42 | 73 |
| Loch Bee/Kilaulay, South Uist | 98 | 93 | 93 | 93 | | 107 | | | 107 | 80 |
| Nunton, Benbecula | | | | 38 | 38 | | | | | |
| INNER HEBRIDES | | | | | | | | | | |
| Loch Chalium Chille, Skye | | | | 34 | | 34 | | | 34 | |
| Broadford, Skye | | 40 | | 30 | 30 | 59 | 51 | | 51 | |
| Plockton, Lochalsh | | | | 0 | | | | | 0 | |
| LOCHABER/NORTH ARGYLL | | | | | | | | | | |
| Muck/Eigg | | | | 30 | | | | | 30 | |
| Loch Shiel/Claish Moss | | | | 0 | | | | | 0 | |
| Eriska/Benderloch | | | 84 | 78 | | 135 | 95 | 89 | 154 | |
| Lismore | 264 | 277 | 240 | 240 | 254 | 128 | 286 | 270 | 290 | 240 |
| Tiree | | | 710 | 740 | | | | | 954 | |
| Coll | | | 244 | 370 | | | | | 495 | |
| Fidden, Mull | | | | 0 | | 41 | | | 41 | |
| Assapol, Mull | | | | 0 | | | | | 40 | |
| SOUTH ARGYLL | | | | | | | | | | |
| Colonsay/Oronsay | 66 | 84 | 79 | 79 | 79 | 34 | 62 | | 0 | 131 |
| Jura | | | 0 | 0 | | | 90 | | 96 | |
| Danna/Kiells/Ulva | | | 313 | 377 | | 309 | 361 | 296 | 333 | |
| Moine Mhor | 16 | 22 | 23 | 23 | | 23 | 23 | 23 | 23 | |
| Rhunahaorine | | | | 1156 | | | | | 1018 | |
| Machrihanish | | | | 1377 | | | | | 1274 | |
| Clachan | | | | 215 | | | | | 171 | |
| Gigha | | | | | | | | | 95 | |
| Isle of Bute | | 150 | 165 | 165 | 165 | 178 | 183 | 152 | 152 | 99 |
| Endrick Mouth, Loch Lomond | 120 | 120 | 60 | 60 | 260 | 200 | 225 | | 240 | |
| ISLAY | | | 9584 | 11272 | 10738 | | 7716 | | 9653 | |
| DUMFRIES & GALLOWAY | | | | | | | | | | |
| Loch Ken | 228 | 250 | 167 | 167 | 174 | 203 | 256 | 300 | 234 | 202 |
| Stranraer | 42 | | 226 | 226 | 249 | 75 | 269 | 281 | 281 | |
| WALES | | | | | | | | | | |
| Dyfi Estuary | 80 | 116 | 116 | 116 | 116 | 113 | 116 | 112 | 112 | 35 |
| Anglesey, Llyn Alaw | | | 0 | 0 | | | | | 0 | |
| ENGLAND | | | | | | | | | | |
| Lancashire Mosses | | | | | | | | | | |
| Grindon Lough, Northumberland | 9 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| OTHER IRREGULAR SITES | | | | | | | | | | |
| New Galloway D&G | | | | | | 8 | | | | |
| TOTAL | 1155 | 12667 | 17449 | 17449 | 12350 | 1979 | 10035 | 1687 | 16387 | 868 |