

**REPORT  
OF THE 2008/2009  
INTERNATIONAL CENSUS OF  
GREENLAND WHITE-FRONTED GEESE**

by

**GREENLAND WHITE-FRONTED GOOSE STUDY**



***Tony Fox & Ian Francis,***  
*c/o Department of Wildlife Ecology and Biodiversity  
National Environmental Research Institute, University of Aarhus, Kalø, Grenåvej 14,  
DK-8410 Rønde, Denmark*

**AND**

**NATIONAL PARKS AND WILDLIFE SERVICE**



Comhshaol, Oidhreacht agus Rialtas Áitiúil  
**Environment, Heritage and Local Government**

***Alyn Walsh,***  
*National Parks and Wildlife Service,  
Department of the Environment, Heritage and Local Government, Wexford Wildfowl Reserve,  
North Slob, Wexford, Ireland.*

*Final report – September 2009*

## SUMMARY

*This report presents the results of complete simultaneous surveys of Greenland White-fronted Geese at all known resorts on the wintering grounds in winter 2008/2009. This combines the counts from all the British resorts (coordinated by the Greenland White-fronted Goose Study) and those in Ireland (co-ordinated by the National Parks and Wildlife Service), although no counts were available from Norway where very small numbers may winter. Combining the counts from spring 2009 from the two networks gave a global total of 23,162 Greenland White-fronted Geese, almost unchanged from the last world population estimate of 23,208 in spring 2008.*

*Excellent count coverage was achieved in Ireland in autumn 2008 and spring 2009, amounting to 8,100 and 8,034 from Wexford respectively, combined with the counts of 2,415 and 2,623 from the rest of Ireland. Counts were only missing from two regular wintering resorts in Ireland, and there were seven other sites not counted exactly within the autumn census period and ten sites in spring. These substituted values together contributed only 3.0% and 4.5% to the Irish autumn and spring totals. Spring 2009 numbers in Ireland were therefore up by c.560 birds on the spring 2008 count. Two complete censuses of all known Greenland White-fronted Goose wintering haunts in Britain found totals of 12,159 birds in autumn 2008 and 12,506 in spring 2009. This compares with 12,122 and 13,113 respectively that were reported in the previous season at the same times of year. The 2008/2009 totals comprised 9 birds reported in England, 61 and 59 in Wales, 6,783 and 6,429 on Islay (compared with 6,617 and 7,086 respectively last season) and 5,306 and 6,009 in the rest of Scotland in autumn and spring respectively. Despite a large difference between the spring 2009 counts from Islay undertaken on consecutive dates, the mean is presented here for consistency; this may imply the count under-represents the true numbers on the island at the time and hence under-estimates the total British population size. Coverage was otherwise complete, except for Jura, which was not visited repeatedly, but which held no birds in February during a thorough search of the island. All known resorts were counted at least once in the season, including the Small Isles (not covered in many recent years), where sadly none were found by the local observer. Counts were missing from the specified count period from several resorts, but all were substituted with counts undertaken very close to the defined dates, amounting to 3.2% and 5.1% of the British totals in autumn and spring, respectively.*

*Average breeding success (measured as the percentage young in the flocks) amongst the British resorts was 10.7% (n=6,795 aged), slightly better than last season (9.7%). This included 11.5% on Islay (amongst 3,220 aged) and near or above 10% amongst the two flocks in Caithness, on South Uist, Mull, Colonsay, Rhunahaorine (Kintyre), Stranraer and Dyfi Estuary. Mean brood size was low at 2.8 (n=164), less than the 3.0 (n=124 last year), with 3.46 on Islay (n=35) also slightly down on last year (3.52, n=44). In Ireland, the mean percentage young amongst aged flocks in 2008/2009 was 10.23 (n =5,201), up on 9.5% in 2007/8, although as ever this was biased by the 10.2% amongst 4,797 aged at Wexford, where the mean brood size was 3.33 based on 117 broods (both measures were very similar to last season). Elsewhere in Ireland, reproductive success was 10.4% (n = 404) and mean brood size 2.38 (n=19).*

*It would appear that after the declines in global population size since peak numbers were reached in spring 1999, numbers have remained relatively stable since the removal of hunting mortality in autumn in Iceland in 2006, which formerly removed c.3,300 geese per annum. It seems likely that during a phase of continued low reproductive success in this population, removal of this source of additional mortality has contributed to more stable numbers in the last three winters, although the overall population trend continues to be downward.*

## INTRODUCTION

The 2008/2009 survey was the twenty-seventh annual census of Greenland White-fronted Geese co-ordinated in Great Britain by the Greenland White-fronted Goose Study and in Northern Ireland and the Republic of Ireland co-ordinated by the National Parks and Wildlife Service. Most recent census data are shown in Table 1; counts from Ireland are missing from 2004, 2005 and 2007. After the unusually low spring 2008 count at Wexford, numbers recovered there in 2009, but the spring count from Islay in 2009 may underestimate the true numbers present (see below). We again have no counts from southern Norway, but otherwise the spring 2009 count represents a full survey of all know winter haunts for this population.

*Table 1. Spring population census totals for Greenland White-fronted Geese, 2004-2009. Count coverage for the rest of Ireland from spring 2004, 2005 and 2007 was incomplete, hence global population totals cannot be estimated in these years.*

	spring 2004	spring 2005	spring 2006	Spring 2007	Spring 2008	Spring 2009
<i>Wexford</i>	8424	7707	7892	9713	7536	8034
<i>Rest of Ireland</i>	-	-	2716	-	2559	2623
<i>Islay</i>	9653	7152	7111	6025	7086	6429
<i>Rest of Britain</i>	6734	6878	7176	6428	6027	6076
<i>Population total</i>	?	?	24895	?	23208	23162

## ARRIVAL/DEPARTURE DATES IN BRITAIN

The first geese reported back comprised one on Tiree (17 September), two juveniles at Loch of Strathbeg in Grampian (26 September) and two adults at the same place two days later (Vicky Anderson). Such early arrivers are likely overshoots travelling direct from Greenland, missing Iceland and turning up in Scotland unusually early. Singles were back on Colonsay on 4 October and on Tiree on 5 October (when 32 arrived back on nearby Coll) and nine on 8 October (Mike Peacock, Ben Jones and John Bowler). Two were back at Fidden (Mull) by 8 October, increasing to seven (on 16 October), eight (18th), 17 (27th) and 29 (29th), making the full complement of 32 on 1 November (Bryan Rains). John Armitage found neck-collared J3H with a group of 37 Greenland White-fronted Geese at Claddach Loch on Islay on 8 October. Twelve were back at the Loons on 12 October, eight at Loch of Swannay on 14 October and 48 on Birsay (all Orkney) on 25 October. Stephen Longster saw six back at Ring Point, Loch Lomond on 13 October, increasing to 54 there by 28th of the month. Arthur Thirlwell saw his first at Loch Ken on 14 October, whilst Peter Cunningham saw his birds back on Lewis with some 20 birds present on 18 October. Andrew Stevenson had 76 passing south over Snishival, South Uist on 20 October. Brian Rabbitts reported his first single White-fronted Goose with three Pinkfeet at Kilaulay, South Uist on 29 October 2008. More typical were the fact that 89 had arrived at Ardnaclach by 31<sup>st</sup> October (Alan Reid).



*Greenland White-fronted and Barnacle Geese on Islay. Photo Clive McKay.*

Intriguingly, we had a good smattering of Greenland White-fronted Geese reported in eastern Scotland away from normal haunts this year, especially around the end of October and beginning of November. This involved birds reported from Moray (Findhorn Bay), Elgin and Speyside, so perhaps they were blown more eastwards off track this autumn en route from Iceland than usual. Certainly there were many reports of probably tens of birds from throughout Aberdeenshire at this time and Mike Bell reported the collared geese J4H and J9F amongst 11 at Skinflats, Grangemouth, Falkirk on 28 October – these individuals had together made their way back to their wintering site of the previous winter, Wexford, by 17 November 2008 (Alyn Walsh). Another Wexford-caught collared bird J3U was reported on 6 November 2008 from Ørlandet, Trondheim, in western Norway (Jan Ove Gjershaug, per Arne Follestad), presumably also blown off course at the same time. This general pattern is also confirmed by the remarkable recovery of P8F, a collared goose which had regularly wintered at Wexford, which Ian and Adam Francis saw at Hvanneyri in western Iceland this autumn on 15 October 2008. Roy King found this goose completely by chance a few days later. It was in the bicycle basket of a Danish hunter who was cycling along a track on a remote marsh down near the German border with Denmark in the Wadden Sea over the weekend of 1-2 November 2008. Roy was over helping to catch ducks at Tøndermarsken and so was there by pure coincidence, especially as a few moments later and he would never have bumped into the wildfowler concerned! The even more extraordinary thing was that Roy was also present, the last time that this bird had been in human hands, when it had been caught using cannon nets at

Hvanneyri, Iceland in autumn 2004! All in all, it was an extraordinary and highly unlikely coincidence, especially given that Greenland White-fronted Geese are pretty rare in west Jutland and hardly ever reported from Denmark anyway!

In spring 2009, birds were fidgety from mid-March onwards. Although the full complement of geese was still present at Loch Lomond on 19 March, numbers had fallen to 25 by 26<sup>th</sup> and all were gone by the morning of 31 March (Stephen Longster). The Grindon Lough group of birds were not seen after 31 March. Amongst the long-stayers in north-eastern Scotland, Dick Hewitt still had singles still at Meikle Loch (31 March), Kinloss (1 April), Dalcross (3 April) Gollanfield (5 April) and Dulnain Bridge (9 April). Departures of 31 occurred over South Uist on 30<sup>th</sup> March plus 100 passed over Benbecula and 74 over North Uist on 9<sup>th</sup> April, all witnessed by John Kemp. N8H (a collared bird originally caught at Wexford but which had wintered on Orkney) was still at the Loons on 5 April, but by which time the flock size had fallen to just 15, all of which departed soon after (Alan Leitch). Thirty-eight geese at Fidden on Mull on 1 April had fallen to just eight by 8 April (Brian Rains). Last birds lingered until 7 April at Loch Ken, with all gone the next day (Arthur Thirlwell). On the other hand, we also had reports of relatively late departures from Ardnaclach, Appin on 10/11<sup>th</sup> April (Mike Gear), Tiree on 10/11 April (John Bowler), Islay late on 12<sup>th</sup> April (John Armitage), Lismore 13 April (Catriona White) and Stranraer 13 April (Paul Tarling). First arrivals back at Hvanneyri, western Iceland in spring were 13 seen on 2 April 2009 (Arnor Sigfusson).

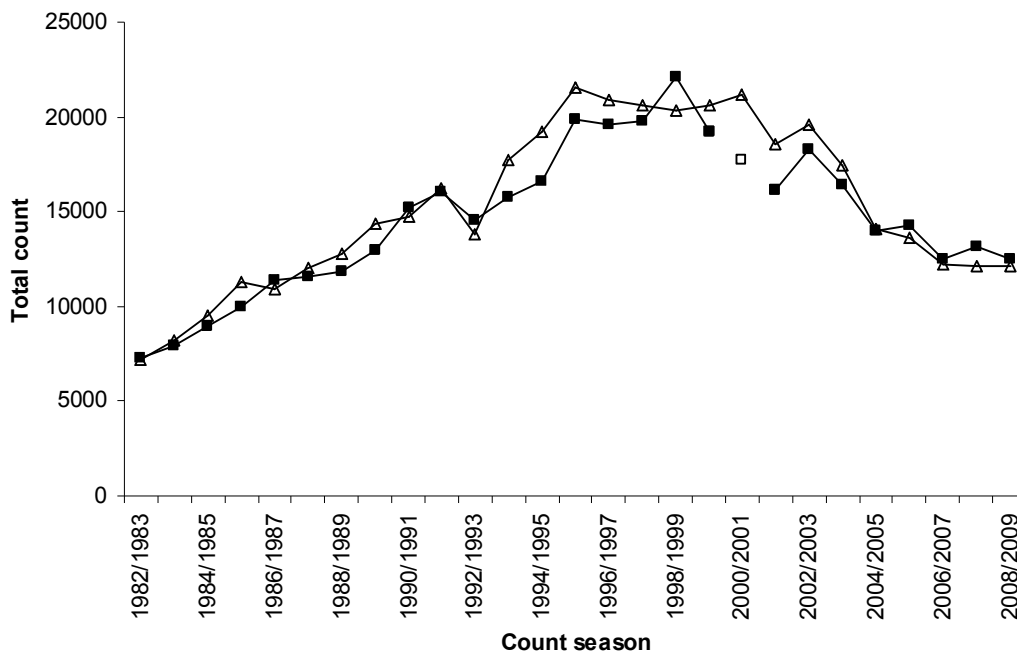


*Greenland White-fronted Geese on Islay. Photo Clive McKay.*

## BRITISH COUNT TOTALS

All known regular wintering sites were covered by GWGS together with counts carried out by Scottish National Heritage. Again this year, no data have been incorporated from the WeBS database, as these counts were not available at the time of report writing, but they normally only contribute a few birds from elsewhere in Britain away from those counted at the regular wintering haunts.

The spring count was a little lower than last year (perhaps due to an underestimate of numbers on Islay due to a low count during the second census day), back to the level of spring 2006, but the autumn count was almost identical to the last two years in Britain, confirming a stabilisation in numbers after 6-8 years of declines (see Figure 1). Annual reproduction was very slightly up on last year, which may account for the lack of major declines in the last year.

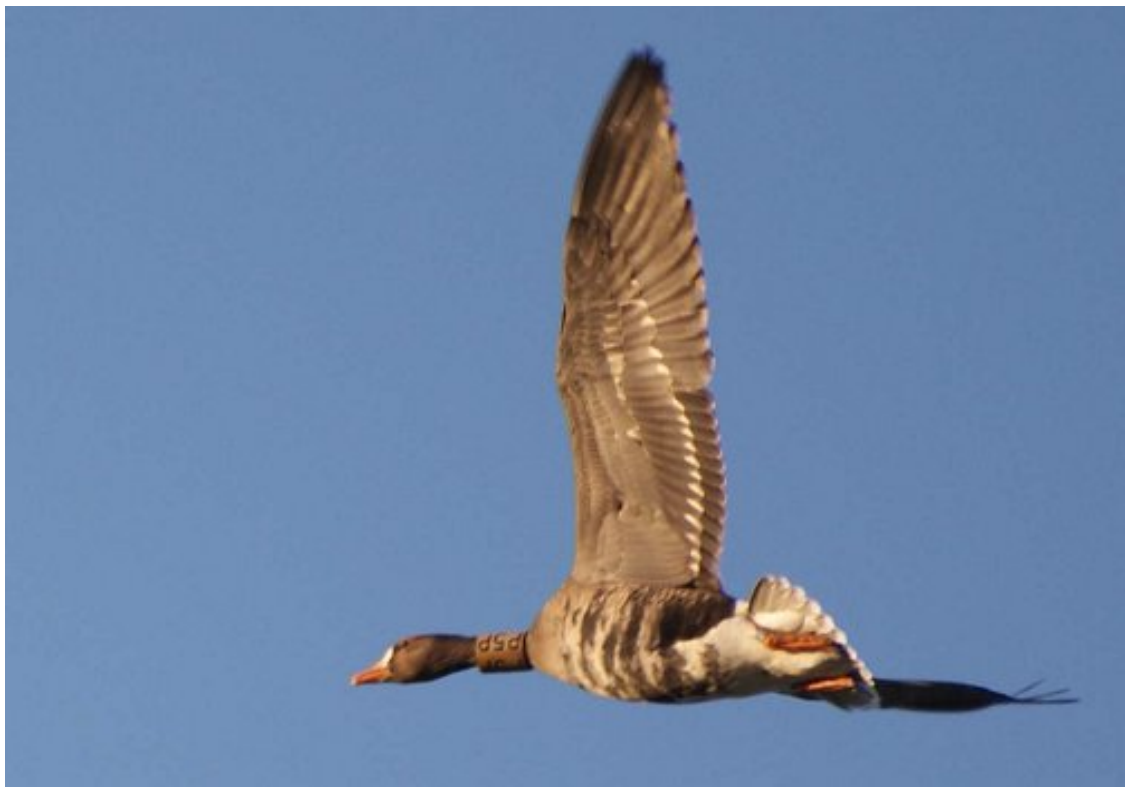


*Figure 1. Counts of Greenland White-fronted Geese in Britain, 1982/1983-2008/2009, showing autumn (open triangles) and spring (filled squares) census results for each season. The value for spring 2001 (unfilled square) was missing on account of the outbreak of Foot and Mouth Disease that year and was therefore estimated from previous counts.*

## COUNTS IN BRITAIN

Maximum monthly counts are tabulated on page 8 along with those from the two international census periods for as many sites as counts were available. Most sites were well covered, although 11 sites in autumn (3.2% of the total) and 12 in spring (5.1%) were not counted in

the precise international count census window and had to be substituted with counts from other periods. We experienced particular problems with coverage of the Benderloch (Lorn) group of birds this winter, which is always a difficult set of feeding areas to cover. Breeding success was also low amongst the birds in the Lorn area, which were often tantalisingly difficult to find - thanks to the observers involved for their sterling efforts nevertheless! There were reports of only 1-2 geese from East Mainland Orkney which must now be considered abandoned as a regular wintering site. Thanks to the efforts of David Barnden on Muck, we had comprehensive coverage from Muck and supplementary cover on Eigg throughout the winter, alas without result, suggesting also that the flock on the Small Isles has also now disappeared. Numbers on Coll fell again by in excess of 100 individuals between the springs of 2008 and 2009, but Tiree fared better with an increase of 180 birds over the same period. Jura was visited during the prelude to the workshop on Islay (see below) by a team of observers that scoured all known previous resorts and possible haunts and although there were no counts from the island during the international census periods, it must be concluded that there are few if any regularly wintering geese on the island anymore. There was a large difference between the two spring Islay counts (undertaken on consecutive dates), but the mean is presented here for consistency; this may imply the value represents an under-representation on the numbers on the island at the time, which obviously contributes a large amount to the overall British total.



*P5P in flight at Hvanneyri, west Iceland 15<sup>th</sup> October 2008. Photo Adam Francis.*

**BRITISH GREENLAND WHITE-FRONTED GOOSE CENSUS 2008/2009**

*shaded values are estimates for sites where no counts were received for the precise period of the international census periods*

SITE NAME	SEP	OCT	NOV	AUTUMN CENSUS	DEC	JAN	FEB	MAR	SPRING CENSUS	APR
<b>ORKNEY</b>										
Tankerness				2	2	1	1		1	1
Loons		15	67	56	67	67	75	37	70	20
Stronsay						9				
<b>CAITHNESS</b>										
Westfield		41	170	109	109	145	176	172	172	18
Loch of Mey			180	120	120	100	240	178	178	
Loch of Winless										
<b>NE SCOTLAND</b>										
Dulnain Valley, nr Carrbridge		8	8	4	4	4	4	4	4	3
Insh Marshes			17							
Loch of Strathbeg	2	39	2	2	2	2	1	1	1	1
<b>WESTERN ISLES</b>										
Barvas/Shawbost, Lewis		20	20	20		29	21		21	
Balranald, North Uist										4
Kilpheder/Askernish, South Uist				15		15	21	23	23	
Loch Bee/Kilaulay, South Uist			150	135	135	110	94	115	115	
Nunton, Benbecula				33		33	33	41	41	
Loch Chialum Chille, Skye				28		28	23	13	28	
Broadford, Skye		123	19	36		36	20	15	36	
Plockton, Lochalsh				0					0	
<b>LOCHABER/NORTH ARGYLL</b>										
Muck/Eigg				0					0	
Loch Shiel/Claish Moss				32	21		8	32	32	
Lorn: Eriska/Benderloch				92					43	
Lorn: Appin		89	0	76	76	91	90	89	92	
Lismore		245	160	50	150	240	256	230	180	280
Tiree				695		690	691		979	
Coll		336	292	207	126	203	261		275	
Fidden, Mull		29	32	32	32	32	32	32	32	32
Assapol, Mull		7								
<b>SOUTH ARGYLL</b>										
Colonsay/Oronsay		79	75	87	51	48	84		84	54
Jura: Loch a'Chnuic Bhric				0					0	
Jura: Lowlandman's Bay				0					0	
Danna/Kiels/Ulva				239			226		208	
Moine Mhor				18			19		19	
Rhunahaorine				630			751		879	
Machrihanish				1477			1157		1364	
Clachan				79			130		170	
Gigha				268					125	
Glenbarr				61			21		54	
Isle of Bute	24			210	210	190		187	187	30
Endrick Mouth, Loch Lomond		54	207	210	210	203	218	220	220	
<b>ISLAY</b>		5665	7617	6783	6783	7124	8590	6521	6429	5521
<b>DUMFRIES &amp; GALLOWAY</b>										
Loch Ken		101	170	192	193	194	187	172	180	107
Stranraer		100	198	112		273	239	235	195	80
<b>WALES</b>										
Dyfi Estuary		46	52	61	61	61	59	59	59	59
Anglesey										
<b>ENGLAND</b>										
Lancashire Mosses		7			2	2	2			
Grindon Lough, Northumberland		11	13	9			9	9	9	
<b>OTHER IRREGULAR SITES</b>										
Letham Pools, Fife								1	1	
Saltholme Pools, Cleveland								1		
Hauxley NR, Northumberland					1					
<b>INTERNATIONAL COUNT TOTALS</b>				12159					12506	



## COUNTS FROM IRELAND

The count network in Ireland pulled out all the stops in 2008/2009 and produced excellent coverage this season. Once again, we are deeply indebted to the National Parks and Wildlife Service Rangers and other observers in the Republic, supplemented by the count network and RSPB staff in Northern Ireland, for providing such outstanding cover this year. The full set of counts is presented in the table of Irish counts that follows on page 10, where monthly maxima have been provided for many of the sites. In addition to all the well monitored sites, observers found signs of geese present at the wintering sites in Errif and Derrycraff (Mayo where there were 33 last winter) and North Lough Ree (in the Shannon which held 34 last spring), but failed to see them or obtain counts. Hence, whilst we know that these sites have not been abandoned, we have had to enter 30 birds as an estimate for both resorts in 2008/2009. Seven other sites were not counted during the precise dates of the International Spring Census period and we have substituted counts from other dates, but these nine sites taken together constitute just under 4.5% of the overall spring count total.

Numbers at the two largest concentrations increased in spring 2009 over those of the previous year, Lough Foyle/Swilly holding 1,157 and Wexford 8,034 compared to 1,107 and 7,536 respectively last year. The spring 2009 count Wexford count was in line with a remarkably stable 7,800-8,200 present throughout the winter. Generally the smaller aggregations showed stable numbers since last year or declines, but it was cheering to find 45 in County Clare and over 70 still using various resorts in the Bog of Erris, both areas where the widely scattered haunts of small numbers of geese make regular census a considerable challenge. Also after failing to find birds at Lower Lough Corrib and on the River Suck in spring 2008, numbers at both sites held up in spring 2009, whilst numbers at Lough Gara were reassuringly higher than in spring 2008. Not so encouraging was the lack of geese at Dunfanaghy, Donegal, where only very small numbers could be found throughout the winter. Overall, the picture is very much of the many small scattered flocks hanging on by the skin of their teeth, whilst the larger flocks seem to be holding their own, or even showing modest signs of increase!

As in previous recent winters, there were no signs of wintering Greenland White-fronted Geese at Bunduff, Lower Lough Derg, the Fergus and Shannon Estuaries, and especially in the south and west at Kilcolman, Doo Lough, Inny Island and the Blaskets, all of which were considered abandoned last winter.

Based on the Wexford count of 8,034, with 2,623 from the rest of Ireland, these counts contribute to an Irish spring 2009 total of 10,657 and overall global total of 23,162 Greenland White-fronted Geese, almost exactly the same as the 23,208 counted in spring 2008 (see Figure 2 below).

**IRISH GREENLAND WHITE-FRONTED GOOSE CENSUS 2008/2009**

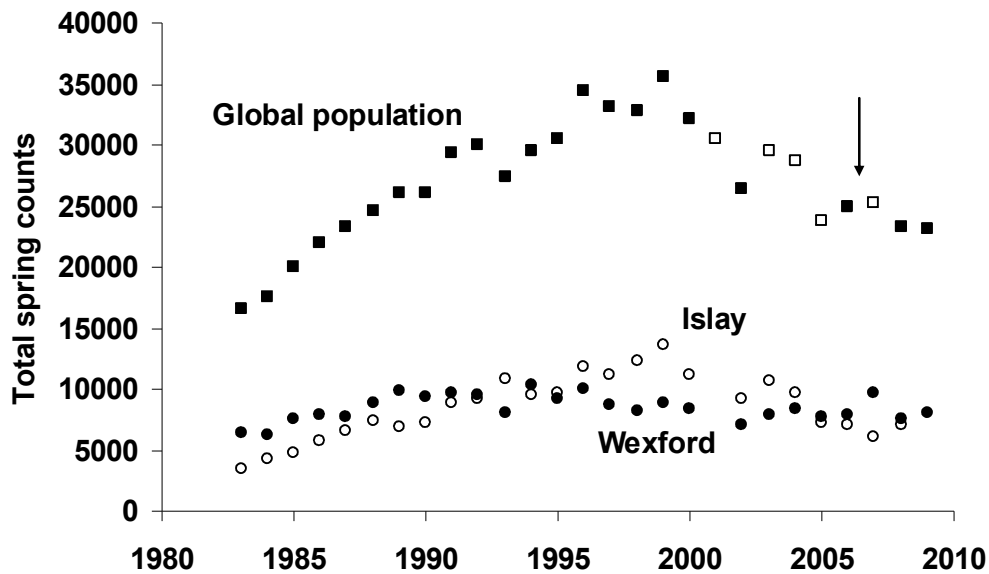
*shaded values are estimates for sites where no counts were received for the precise period of the international census periods*

<b>SITE NAME</b>	<b>SEP</b>	<b>OCT</b>	<b>NOV</b>	<b>DEC</b>	<b>JAN</b>	<b>FEB</b>	<b>MAR</b>	<b>SPRING CENSUS</b>	<b>APR</b>
<b>DONEGAL</b>									
Loughs Foyle and Swilly			1068	1031	1112	1124	1195	1157	
Dunfanaghy	60	7	0	0	3	6	6	6	
Sheskinmore Lough			37					37	
Pettigo			57	57				66	
<b>NORTH CENTRAL</b>									
Lough Macnean			58	56	62	48	54	54	
Lough Oughter			0	10	10	0	14	14	
Caledon				3				3	
Stabannan				40				40	
<b>MAYO</b>									
Lough Conn	1		60			62		43	
Bog of Erris Owenduff	17		20			17		17	
Bog of Erris Carrowmore			36	36	37	4		37	
Bog of Erris Termoncarragh			0	21	21	21		22	
<b>MAYO/GALWAY UPLANDS</b>									
Errif and Derrycraff				30				30	
Connemara				31		30		31	
<b>GALWAY LOWLANDS</b>									
Rostaff and Killower				59				56	
Lower Lough Corrib	0	25	41	30	39	39		39	
Rahasane Turlough		9	45	72	0	0		72	
<b>CLARE/LIMERICK</b>									
Tullagher	15			15				15	
North County Clare				45	45			45	
<b>SHANNON HEADWATERS</b>									
Lough Gara				148			100	148	
Loughs Kilglass and Castleforbes									
<b>MIDDLE AND LOWER SHANNON</b>									
North Lough Ree				30				30	
River Suck				93	93			150	
Little Bronsa				250			220	250	
<b>MIDLANDS</b>									
Midland Lakes	180	210	260	223	225	240		240	
River Nore			7			7		7	
<b>SOUTH WEST</b>									
Killarney Valley				11	14			14	
<b>SOUTH EAST</b>									
Wexford			7817	8100	8159	8109	8188	8034	

**INTERNATIONAL COUNT TOTALS**

10515

10657



*Figure 2. Combined global spring counts of Greenland White-fronted Geese from Britain and Ireland, 1983-2009, showing actual count totals (filled squares) and those estimated using modelled values for the missing “rest of Ireland” totals in some recent years (open squares). These values were calculated on the basis of the relationships between the “rest of Ireland” counts and combined Wexford and British values in previous years of full coverage. Values for spring 2001 (unfilled square) were missing on account of the outbreak of Foot and Mouth Disease that year and were therefore also estimated from previous counts. The arrow indicates the point where hunting in Iceland was stopped. Spring counts for Islay (open circles) and Wexford (closed circles) are also shown.*

## AGE RATIOS IN BRITAIN

We were delighted with the excellent broad coverage that was achieved from observers gathering breeding success data at no fewer than 22 different resorts. Overall production was very slightly up at 10.7% amongst the flocks sampled ( $n = 6,795$ ) compared to 9.7% last season. The elevated percentage young on Islay (11.5%) contributed to raising the overall ratio in all, but it was cheering to see seven other regular flocks near or exceeding 10% young, with the Lewis flock again producing a single gosling in 2009. Mean brood size was lower at 2.79 (compared to 3.03 last season, see Table 2) based on 129 families sampled from a good number of sites. The average value was 3.46 on Islay (much as last year) and 2.60 elsewhere (also much as last season).

**Table 2. Summary of age ratio determinations and brood sizes for Greenland White-fronted Geese wintering in Britain 2008/2009.**

SITE	% YOUNG	SAMPLE	MEAN BROOD SIZE	SAMPLE
Loch of Mey, Caithness	9.88	172	2.43	7
Westfield, Caithness	10.0	80	1.60	5
Dulnain Valley, Carrbridge	25.0	8		
Loch Urrahag, Lewis	5.0	20	1.00	1
Kilpheder, South Uist	26.09	23	3.00	2
Tiree	8.95	525	1,96	47
Fidden, Mull	25.00	32		
Colonsay	24.05	79	2.71	19
Lismore	3.09	97		
Lorn	1.19	84	1.00	1
Keills	5.66	159	2,25	9
Moine Mhor	0	19		
Rhunahaorine, Kintyre <sup>1</sup>	13.97	680	3.33	30
Machrihanish, Kintyre <sup>1</sup>	8.23	583	3.36	14
Clachan, Kintyre <sup>1</sup>	5.43	129	2.33	3
Islay <sup>1</sup>	11.52	3220	3.46	35
Bute	4.76	210		
Loch Ken	9.33	193	3.00	6
Stranraer	17.44	195	2.27	15
Endrick Mouth, Loch Lomond	6.42	218	1.75	8
Grindon Lough	0	9	0	0
Dyfi Estuary	10.53	76	4.00	2
Britain, excl. Islay	9.93%	3575	2.60	129
OVERALL	10.68%	6795	2.79	164

<sup>1</sup>Details from Islay and Kintyre courtesy of Dr Malcolm Ogilvie

## AGE RATIOS FROM IRELAND

Breeding success was highly variable between 24.3% (Sheskinmore n = 37), 10.7% (Lough Conn, n = 86), 9.6% (Midland Lakes, n = 240), 6.3% (Bog of Erris, n = 16), 5.5% (Rostaff and Killower, n = 55), but was 10.2% at Wexford (n = 4,797). Mean brood size at Wexford was 3.33 (n = 117) but as usual were low elsewhere (2.38, n = 8) contributing to 3.27 overall (n = 125). Measures of breeding success were generally close to values from last year.

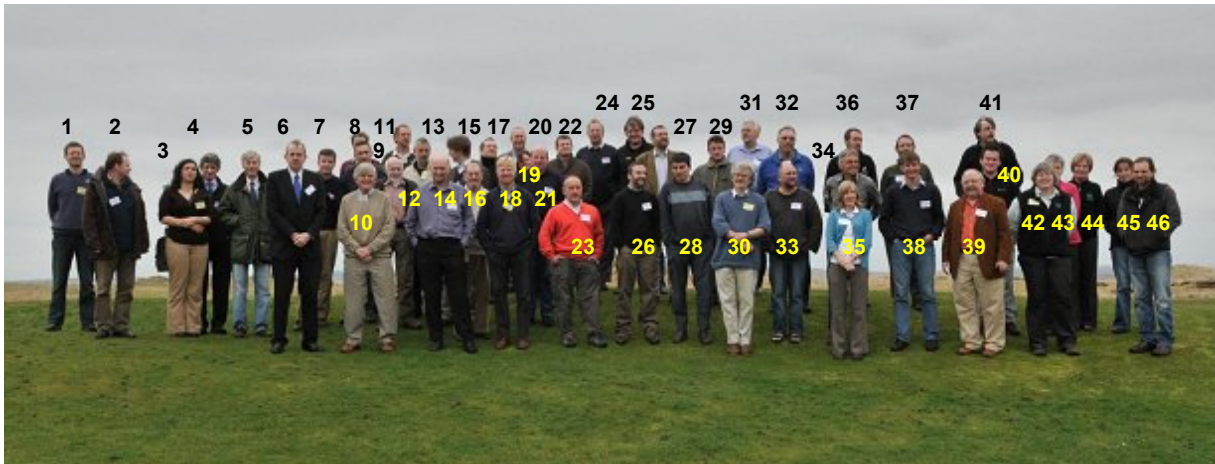
## OTHER NEWS

*Greenland White-fronted Goose International Workshop*



**Scottish Natural Heritage**  
All of nature for all of Scotland

In the light of the dramatic declines in the wintering population, an international workshop on the Greenland White-fronted Goose was convened in early 2009. Scottish Natural Heritage (SNH) funded the drafting of a management plan for the population and organised a workshop in collaboration with the Greenland White-fronted Goose Study on Islay to discuss the future conservation of the sub-species. This programme is part of the Species Action Framework of SNH which addresses some of the most pressing challenges facing individual species conservation in Scotland and recognises the real needs faced by Greenland White-fronted Geese at the global scale. The objective was to gather experts and stakeholders involved with the population from around the globe to discuss the issues affecting their effective conservation and to prioritise and agree actions for the future. So it was that more than 50 individuals, primarily from the range states involved along the flyway (Ireland, the UK, Iceland, Greenland and Denmark) gathered for three days (24-26 February 2009) to discuss the problems. The participants were drawn from the scientific community to explain our current understanding of the factors limiting and regulating the current size of the population, but included representatives from the statutory bodies, international and non-government conservation organisations, as well as representatives of hunting and agricultural interests, clearly all of whom have a stake in these long distance migratory birds and their future.



*Participants at the Scottish Natural Heritage/Greenland White-fronted Goose Study workshop on Islay February 2009. 1 – Carl Mitchell WWT, 2 – Einar Þorleifsson BirdLife Iceland, 3 – Chris Urquhart SNH, 4 – Andy Douse SNH, 5 – Angus Laing SNH, 6 – Colin Galbraith SNH, 7 – John Bowler RSPB, 8 – (partially hidden) Dominic Berridge NPWS, 9 – Andy Robinson RSPB, 10 – John Wilson NPWS, 11 – John Harradine BASC, 12 – Stan Laybourne Caithness, 13 – Tony Fox NERI Denmark, 14 – Ron McDonald SNH, 15 – David Tierney NPWS, 16 – Arthur Thirlwell Dumfries, 17 – Paul Walton RSPB, 18 – Ian Francis RSPB, 19 – partially hidden Fiona Lesley Scottish Government, 20 – Alan Lauder BirdWatch Ireland, 21 – Craig Archibald Islay, 22 – Dave Beaumont RSPB, 23 – Ian Hopkins Bute, 24 – Malcolm Ogilvie Islay, 25 – Arnor Sigfusson Iceland, 26 – Matt Murphy CCW, 27 – Sergey Dereliev African Eurasian Waterbird Agreement, 28 – Tim Jacobs SNH, 29 – Baz Hughes WWT, 30 – David Stroud JNCC, 31 – Ævar Petersen Icelandic Museum of Natural History, 32 – Dick Hewitt Moray, 33 – Ian Englander Northern Ireland Environment Agency, 34 – Christian Gladher NERI Denmark, 35 – Ruth Cromie WWT, 36 – Larry Griffin WWT, 37 – Ian Bainbridge Scottish Government, 38 – Jesper Madsen NERI Denmark, 39 – Des Crofton National Association of Regional Game Councils Ireland, 40 – Lee McDaid NPWS, 41 – Jens Bagger, Greenland Government, 42 – Rae McKenzie SNH, 43 – partially hidden Barbara Bremner SNH, 44 – Margaret Morris SNH, 45 – Olivia Crowe BirdWatch Ireland, 46 – James How RSPB. Missing from the photo were Tracy Johnston and Alyn Walsh, who took the photograph.*

The ultimate aim of the meeting was to discuss the current range of threats and pressures currently acting on the population and to determine which of these are most prominent in affecting their current and future distribution and abundance throughout the flyway.

The meeting developed onwards from the foundations established by the previous draft management plan, developed in 1992 and discussed at a similar workshop in Wexford, funded and organised at that time by Wetlands International and the National Parks and Wildlife Service of the Department of the Environment Heritage and Local Government in Ireland. That plan was agreed but never formally adopted, but much has happened since that time, not least the end of the 6% per annum increase in the population that started in 1982, followed by equally rapid declines since the population peaked at some 35,600 in spring 1999.

The scientific review presented information on changes in reproductive success and adult survival of individuals in the population over the many years that monitoring mechanisms have now been in place. These presentations showed that whilst annual survival has been stable amongst the collared birds marked at Wexford, there have been major reductions in the production of young in recent years that have simply failed to replace annual losses throughout the annual cycle, so it is most likely breeding success and factors affecting this parameter, mainly on the breeding grounds, that were responsible for the downturn in

numbers. In this context, conservation actions, especially those that could enhance reproductive output and manage hunting off-take were key issues.

Critical in the discussions were a review of conservation actions taken in the four key Range States over the period, most notably the cessation of hunting on the winter quarters since 1982 and in Iceland since autumn 2006. The workshop also heard that, given the unfavourable conservation status of the Greenland White-fronted Goose, the committee that provides advice to the Greenland Government on revision of the hunting law in that country has recommended that the species be protected from hunting there under the next revision. Subsequently, we are delighted to announce that the Greenlandic government has completely protected the Greenland White-fronted Goose from hunting with effect from 2 March 2009! The workshop also heard about the development of the protected areas networks for the species throughout the four countries as well as methods to resolve agricultural conflicts, with particular emphasis on the winter quarters where these issues are more to the fore. The workshop included a field trip to a farm to discuss conflict resolution and the effectiveness of the Islay Goose Scheme in maintaining a balance between farming needs and goose conservation on the island, as well as visiting the RSPB reserve at Gruinart to see land management for the geese at first hand.

It was clear from the deliberations that many of the most urgent conservation actions had been taken to date, and in particular, the cessation of shooting in Iceland which would stop the removal of some 3,300 geese annually from the population, was almost certainly the most important action of recent years in making a real difference to adult annual survival. This appears reflected in the relatively stable population trajectory since the implementation of the ban, and stands as a great credit to the actions of the Icelandic BirdLife Partner this achievement in conjunction with the Icelandic Shooting Association and the Icelandic Government. The cessation of the much smaller hunt in Greenland is also greatly welcomed from this year. The workshop reviewed many of the remaining, new and emerging threats to the population and potential management actions to alleviate these, concluding with recommendations for the necessary research and conservation action required throughout the flyway to tackle the issues associated with the decline.

With broad general agreement on the key issues and conclusions, the Plan will now be circulated to all parties for polishing and improvement for finalisation. The draft can be found at:

<http://gwfg-conservation.wikispaces.com/file/view/GWGS+Action+Plan+v4.3.pdf>

It is important that this is available as soon as possible to cement and build upon the agreement achieved amongst parties at the workshop, not least with regard to prioritising actions and agreeing the most important targets and objectives to be tackled over the coming months, both by the statutory agencies and the various NGOs involved in Greenland White-fronted Goose conservation now and in the future.

The workshop also provided the excuse for two very exciting public initiatives, an evening slide show and an afternoon open session of the workshop related to wintering site issues, both of which were open to the public on Islay and very well attended by folk representing a

wide range of opinion. In addition, the presence on Islay of so many “foreign experts” was a wonderful excuse to visit four of the primary schools on the island, explain to the children about the annual cycle of “their” geese and provide first hand accounts of what the geese get up to when they are away from Islay’s shores. It was a great experience for all concerned, not least for the visiting experts who were probably more beguiled by the children than *vice versa!* At the same time, it was invaluable with the benefit of expert experience to be able to explain something of the fragility of our world and especially the sensitivity of long-distance migratory wildlife species to changes happening in the world. The Greenland White-fronted Geese are so totally dependent upon the habitats offered by places like Islay as they commute across our changing globe between their widely separated seasonal “homes”. The children were also treated to souvenirs in the form of glossy information pamphlets explaining about the geese and attractive t-shirts bearing “tour-dates” and “road-maps” of geese as they span the globe in their annual perambulations.

Most of all, it was so cheering to gather together committed folk from many different backgrounds to try and find consensus about how best to conserve this small and vulnerable population in the future. The workshop achieved an incredible amount in a very short time, and we look forward to more developments very soon.

#### *Greenland 2009*

Another very happy band of volunteers travelled to Isunngua in west Greenland in July 2009 to catch and mark more birds on the breeding areas. The international team from UK, Denmark, Ireland and USA again covered the area immediately north of Kangerlussuaq airport in west Greenland and repeated the extensive survey of numbers and distribution of both Canada Geese and White-fronted Geese in the area. As reported last year, the area has been visited on and off since 1988, when Canada Geese were first found in the area. Very large numbers of Canada Geese and relatively few Greenland White-fronted Geese were again found in the area, so it looks very much like the trend for increasing numbers of the North American species has continued. The major objective was the capture, marking and screening of individual geese for avian influenza and in all these respects, the project was outstandingly successful. In the course of six round-ups, a total of 151 Canada Geese were newly ringed, plus 44 previously ringed last year which were recaptures.

Only eight new Greenland White-fronted Geese were caught and released with NPWS collars and leg rings, four adults and four goslings of the year, two of the adult males were fitted with GPS satellite transmitters, part of a collaborative project with the Livingstone Ripley Waterfowl Conservancy of Litchfield in Connecticut:

<http://www.lrwc.net/research.html>

...a project which hopefully will be able to follow the birds during their autumn migration back to the winter quarters. In addition, JOF an adult female caught in the same area last year was retrapped in 2009.

Please do look out for brand new orange collars this autumn, as we greatly look forward to hearing about the progress and wintering areas of these newly marked individuals. Keep a



look out for yellow neck rings on Canada Geese as well! Although the west Greenland Canada Geese winter along the Atlantic coast of eastern North America (generally in New Jersey/Connecticut down the coast towards Delaware), there is always the outside chance that individuals could get caught up with Greenland White-fronted Geese on their way south in autumn!

A full report of the entire project is in preparation, but in the mean time, you can read more about the work of the project in the summers of 2008 and 2009 on the wiki websites at:

<http://greenland08.wikispaces.com/>

<http://greenland09.wikispaces.com/>



*Rich Malecki of the Livingstone Ripley Waterfowl Conservancy of Litchfield in Connecticut, USA bearing DY, with the antenna of the satellite transmitter visible on its back, ringed in Isunngua, west Greenland 18th July 2009. Photo David Stroud.*

## **ACKNOWLEDGEMENTS**

With the population in such a state of flux, it is so important to keep up the effort counting Greenland White-fronted Geese and it is such a great pleasure to have the count network respond so well every year by providing counts, age ratios and ring resightings. A very sincere thanks to all of you again! For Britain during 2008/2009, these include: John Adair, Bob Adam, Vicky Anderson, John Armitage, David Barnden, Brian Bates, Dave Batty, Pat Batty, Mike Bell, Pete Berry, John Bowler, Julian Branscombe, Roger Broad, D.M. Bryant,

George Christie, Paul Collin, Colin Corse, Martin Culshaw, Peter Cunningham, Paul Daw, Tim Dean, Becks Denny, Keith Duncan, John Dye, Keith Fairclough, Ian Fisher, Michael Francis, Dominic Funnell, Mike Gear, Larry Griffin, Keith Hague, Nick Haycock, Dick Hewitt, Ian Hopkins, Alan and Elaine Horner, Keith Hoey, James How, Sandra Hutchinson, Dave Irving, Tim Jacobs, David Jardine, Tracey Johnston, Ben Jones, Martin Jones, Russell Jones, Wilma Kelly, John Kemp, Andy Knight, Stan Laybourne, Alan Leitch, Stephen Longster, Ruth Mathias, Dennis McCullough, Marco McGinty, Rae McKenzie, Bob McMillan, Kim Malcolm, Leigh Marshall, Dick Matson, Eric Meek, Carl Mitchell, Margaret Morris, Brian Neath, Bill Neill, Roger Norman, Malcolm Ogilvie, David Palmar, Ian Patterson, Mike Peacock, Dave Pierce, Brian Rabbitts, Bryan Rains, John Raymond, Alan Reid, Brian Ribbands, Andy Robinson, Dave Rogers, Chris Rollie, Malcolm Russell, Martin Scott, Dave Sexton, Stuart Shaw, Alan Simpson, Ian Sims, Dick Squires, Andrew Stevenson, David Stroud, Paul Tarling, Arthur Thirlwell, James Towill, Andrew Upton, Jim Williams, Stuart Williams, Anna White, and Catriona White.

For Ireland, these include: Wesley Atkinson, Penny Bartlett, Dominic Berridge, Helen Boland, Dermot Breen, Noel Bugler, Carl Byrne, Mark Byrne, Sue Callaghan, John Carroll, Helen Carthy, Cameron Clotworthy, Kendrew Colhoun, Pdraig Comerford, Jimi Conroy, Dick Coombes, William Cormacan, Niall Cribbon, Fionnbarr Cross, Olivia Crowe, Miriam Crowley, Eamon Doran, Pascal Dower, Brian Duffy, Dave Duggan, Maurice Eakin, Triona Finnen, Leonard Floyd, Ciara Flynn, Ciaran Foley, Pat Foley, Kathryn Freeman, Emma Glanville, Jervis Good, Michael Hackett, Cathryn Hannon, Brian Haran, Seamus Hassett, Gerry Higgins, John Higgins, Robert Holloway, Emmet Johnson, Stefan Jones, Judit Kelemen, James Kilroy, Liam Lenihan, Robert Lundy, Annette Lynch, David Lyons, Larry McDaid, Lee McDaid, David McDonagh, Graham McElwaine, Tim O'Donoghue, Barry O'Donoghue, Maurice McDonnell, Anthony McElheron, Eoin McGreal, Frank McMahan, Dave McNamara, Emer Magee, Colm Malone, Breffini Martin, John Matthews, Eleanor Mayes, Eamonn Meskell, Robbie Miller, Sue Moles, Enda Mooney, Jim Moore, Enda Mullen, Jacinta Murphy, Tony Murray, David Norriss, Irene O'Brien, John O'Connor, Aonghus O'Donaill, Declan O'Donnell, Ger O'Donnell, Pdraig O'Donnell, Sylvia O'Hehir, Denis O'Higgins, Danny O'Keeffe, Ciara O'Mahony, Michael O'Sullivan, Patrick O'Sullivan, Carl Partridge, Linda Patton, Brad Robson, Tim Roderick, Tom Ryan, Cyril Saich, Lorcan Scott, Joe Shannon, Ralph Sheppard, David Silke, Andrew Speer, Ray Stevens, Denis Strong, Dave Suddaby, Val Swan, Eva Sweeney, Rebecca Teesdale, Matthew Tickner, David Tierney, Deirdre Toomey, Pat Vaughan, Bart Venneman, Patrick Warner, Ross Watson, Lorna Whiteside and John Wilson. As ever, it is NEVER our intention to leave anybody out when we are so very grateful for the effort made by all the counters, but inevitably we are only human and we do humbly apologise if we have inadvertently left anybody off the list.

We gratefully acknowledge the continuing programme of research and surveillance carried out by the National Parks and Wildlife Service and we are extremely grateful to the count network throughout Ireland for a magnificent effort in obtaining these numbers in time for this report. Thanks to SNH for coverage of sites in Argyll, especially Tracy Johnston and Margaret Morris, to the counter teams on Kintyre and Islay. The census receives financial support from the Joint Nature Conservation Committee through a sub-contract from the Wildfowl and Wetlands Trust under their UK Goose and Swan Monitoring Programme, and we thank Carl Mitchell and Rich Hearn for their help as nominated WWT officers for the project.