

WWT/JNCC/SNH Goose & Swan Monitoring Programme

survey results 2013/14

Greenland White-fronted Goose *Anser albifrons flavirostris*

1. Abundance

Coordinated spring and autumn counts of the Greenland White-fronted Goose were carried out in Great Britain and Ireland for the 32nd consecutive winter. This census is organised by the Greenland White-fronted Goose Study in Britain and by the National Parks & Wildlife Service in Republic of Ireland and Northern Ireland.

Combining the results for Britain and Ireland for spring 2014 gives an overall estimate of population size of 20,797, a decrease of 6.1% compared to spring 2013 and the lowest recorded since 1985 (19,948) (Figure 1).

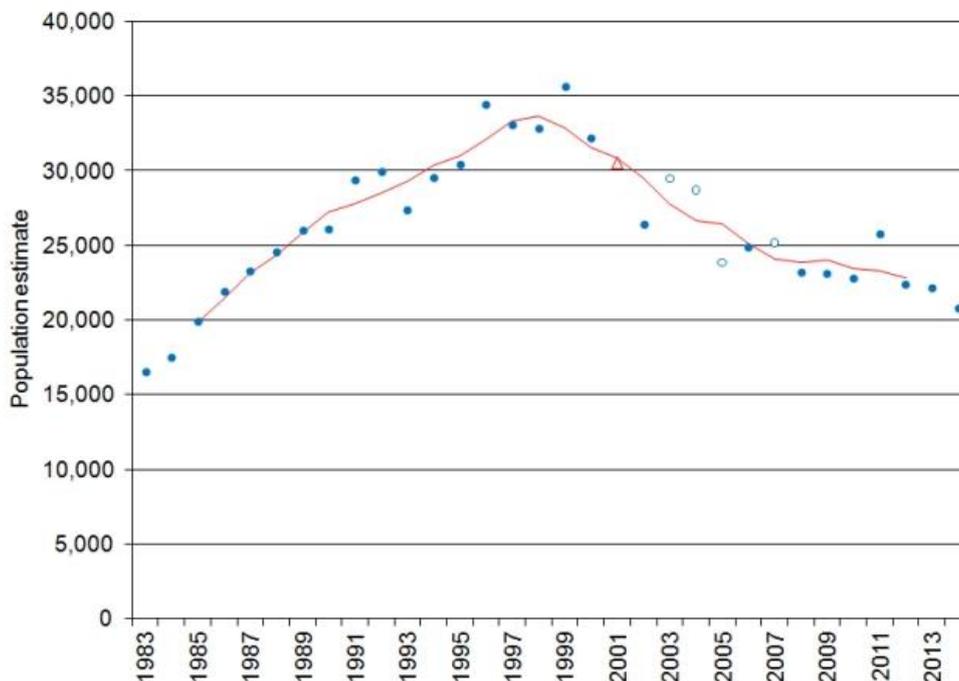


Figure 1. Annual population estimates of Greenland White-fronted Geese, spring 1983-2014 (filled circles) (Fox *et al.* 2014). The five-year running mean (e.g. mean for 2008 is from population estimates for 2006-10) is shown as a red line. The open circles indicate estimated values for years when data were missing from Ireland. The open triangle indicates the estimated value for 2001 when data were missing on account of the outbreak of Foot and Mouth disease that year.

All wintering resorts in Britain were covered at least once during the 2013/14 season. For any sites not covered during the census period, counts were substituted with those undertaken close to the defined dates; amounting to 3.3% and 6.7% of the autumn and spring totals, respectively.

Overall, totals of 10,949 and 10,175 Greenland White-fronted Geese were recorded in autumn 2013 and spring 2014, respectively (Table 1). This represents increases of 1.2% compared with autumn 2012 and a decrease of 7.0% compared with spring 2013 (Figure 2). The autumn 2013 total included a count of 10,907 in Scotland, of which 5,869 were observed on Islay (10.3% higher than in autumn 2012), 37 in Wales and five in England. During spring 2014, 10,137 geese were seen in Scotland, 5,093 of these being seen on Islay (6.5% lower than in the previous year, 33 were located in Wales and five in England).

Table 1. Autumn and spring counts in Britain and Ireland, 2013/14 (includes substituted counts; see text) (from Fox et al. 2014).

Region	Autumn Census	Spring Census
Orkney	70	92
Caithness	300	317
Western Isles	208	201
Inner Hebrides	26	34
Lochaber/North Argyll	1,227	1,285
South Argyll	2,977	2,801
Islay	5,869	5,093
Dumfries & Galloway	230	314
Wales	37	33
England	5	5
Britain total	10,949	10,175
Donegal	1,147	1,411
North Central	104	109
Mayo	76	85
Mayo/Galway Uplands	50	50
Galway Lowlands	157	178
Clare/Limerick	57	57
Shannon headwaters	122	122
Middle & lower Shannon	300	268
Midlands	217	255
Southwest	7	7
Wexford	8,827	8,110
Ireland total	11,064	10,622
Population estimate	-	20,797

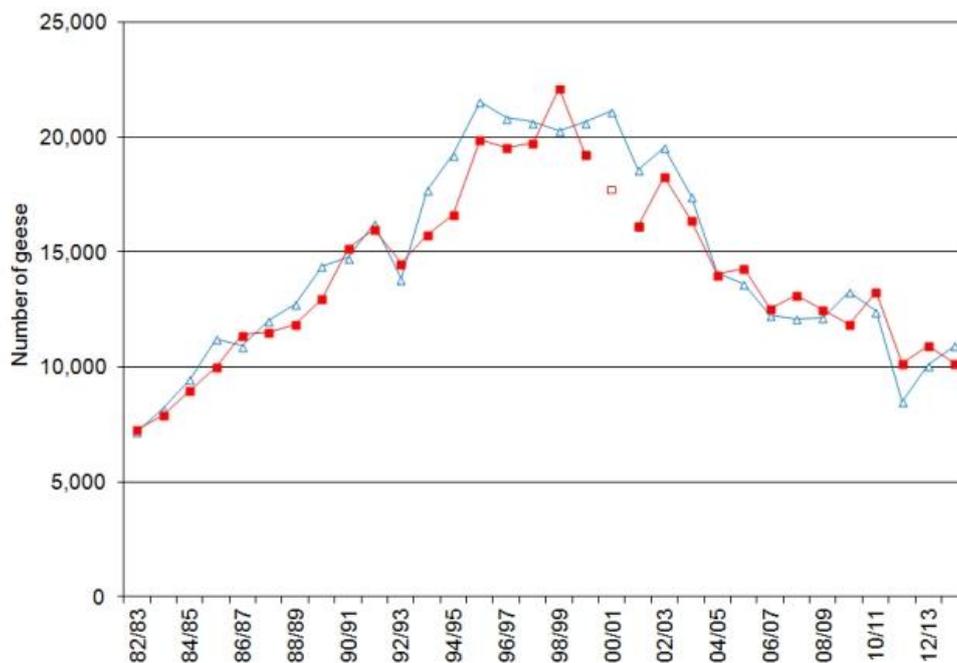


Figure 2. Coordinated count totals of Greenland White-fronted Geese in Britain, 1982/83-2013/14, showing autumn (open triangles) and spring (filled squares) census results for each season. Note the missing value for spring 2001 (unfilled square) on account of the outbreak of Foot and Mouth Disease that year (from *Fox et al. 2014*).

Coverage of Ireland was also near complete, with all important sites covered at least once during the season. For calculating census totals, counts were substituted for sites where no count was made during the census period, contributing 3.8% and 4.4% of the autumn 2013 and spring 2014 totals, respectively.

A total of 11,064 Greenland White-fronted Geese was recorded in autumn, an increase of 8.3% compared with 2012, and 10,622 during the spring census, representing a decrease of 5.3% compared with 2013 (Table 1). Wexford held a high proportion of the geese, with 8,827 seen during the autumn count (11.6% higher than during autumn 2012) and 8,110 observed in spring (7.3% lower than in spring 2013).

2. Breeding success

During 2013/14, 6,833 Greenland White-fronted Geese were aged at 24 sites in Britain and brood size was assessed for 245 families (Table 2). Overall, the percentage young was 14.2%, 4.6% higher than in 2012/13 (Figure 3) and also higher than the previous ten-year mean (10.7% for 2003/04-2012/13). The mean brood size was 2.88 young per successful pair, only fractionally lower than in 2012/13 (Figure 3) and also the previous ten-year mean (3.10 for 2003/04-2012/13).

The percentage of young varied between wintering sites, ranging from 0 to 29.6%, with eight sites recording 15% or more young. On Islay, the proportion of young was 17.0%, notably higher than the previous winter (11.1%) and the average of 14.0% for 1962–2012. Elsewhere in Britain 11.6% of the geese aged were juveniles compared with 8.6% in 2012/13.

In Ireland, age assessments were made at nine sites, where a total of 5,378 geese were aged and brood size was assessed for 101 families at two sites (Table 2). The overall percentage young was 6.9%, an increase of 1.9% on the previous winter (Figure 4) whilst the mean brood size was 2.88, also slightly higher than in 2012/13 (Figure 4).

Breeding success varied between sites, ranging from 0–17.9%. The majority of birds were aged at Wexford, where 6.8% of the 4,964 geese aged were juveniles, whilst breeding success was higher in areas away from Wexford, with flocks holding 8.5% young ($n = 414$).

Table 2. Percentage of young and mean brood size of Greenland White-fronted Geese in Britain and Ireland during winter 2013/14 (*Fox et al. 2014*).

Region	Proportion (%) of young (n)	Mean brood size (n)
Islay	17.0 (3,287)	3.28 (98)
Britain excluding Islay	11.6 (3,546)	2.61 (147)
Britain overall	14.2 (6,833)	2.88 (245)
Wexford	6.8 (4,964)	2.9 (93)
Rest of Ireland	8.5 (414)	2.63 (8)
Ireland overall	6.9 (5,378)	2.88 (101)

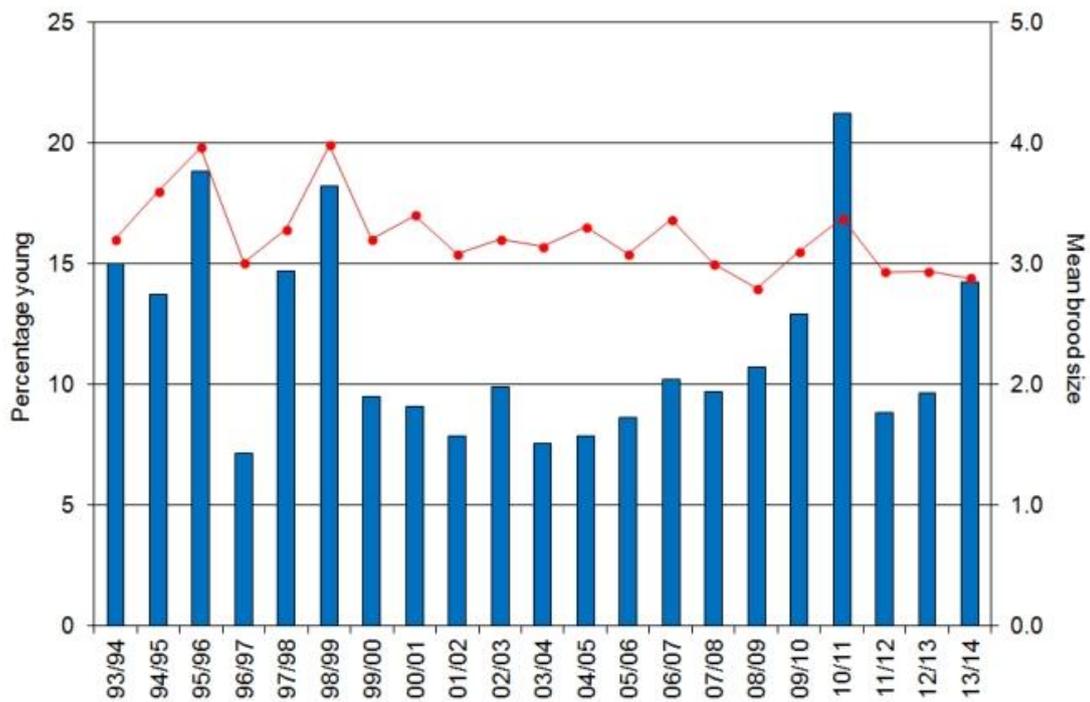


Figure 3. The percentage of young (blue columns) and mean brood size (red circles) of Greenland White-fronted Geese in Britain, 1993/94 – 2013/14 (from Fox *et al.* 2014).



Figure 4. The percentage of young (blue columns) and mean brood size (red circles) of Greenland White-fronted Geese in Ireland, 2007/08 – 2013/14 (from Fox *et al.* 2014).

For further information see Fox *et al.* (2014).

3. References

Fox, A.D., I. Francis, D. Norriss & A. Walsh. 2014. *Report of the 2013/2014 International Census of Greenland White-fronted Geese*. Greenland White-fronted Goose Study / National Parks & Wildlife Service report, Kalo.

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Goose & Swan Monitoring