

WWT/JNCC/SNH Goose & Swan Monitoring Programme

survey results 2011/12

Iceland Greylag Goose *Anser anser*

1. Abundance

The 52nd consecutive Icelandic-breeding Goose Census (IGC) took place during autumn and winter 2011/12, providing information on the abundance and distribution of Iceland Greylag Geese.

Counts were conducted by a network of volunteer observers and professional conservation staff over the weekends of 5/6 November, 3/4 December 2011 and 25/26 February 2011. Coverage in Britain in November was similar to the preceding year, with 129 sites counted, with 105 sites covered in December and 110 covered in February. Outside Britain, counts were made at several sites in Ireland, southwest Norway and Iceland.

Totals of 128,915 and 115,985 Greylag Geese were counted in November and December, respectively. Following adjustments for the presence of British Greylag Geese and the addition of estimated counts (for definitions and methods see full report, Mitchell 2012), a population estimate of 119,915 was derived from the November total, and represented an increase of 8.1% compared to 2010/11, when a population size of 110,962 individuals was estimated.

The autumn distribution was typical; by November, 63.6% of the population was present in North Scotland, with most of the remainder in Iceland (30.2%). Distribution was similar in December although most Greylag Geese had left Iceland by this month.

Regional distribution of Greylag Geese during November and December 2011, and February 2012 (nc = not counted). Regional counts do not include estimated counts for sites where no data were received.

	November	December	February
Iceland	44,796	10,000	1,000
Southwest Norway	0	0	0
Ireland	1,460	0	0
North Scotland	77,304	97,075	86,558
Northeast Scotland	721	1,188	1,511
East Central Scotland	1,791	4,656	5,037
Southeast Scotland/Northeast England	1,603	1,579	1,761
Southwest Scotland/Northwest England	1,240	1,487	3,261
Total counted	128,915	115,985	99,128
Adjusted counts	-19,403	-19,222	-19,020
Estimated counts	10,430	4,190	11,863
Adjusted total	119,915	100,953	91,971
Population estimate	119,915		

2. Breeding success

During early November, 2,263 Greylag Geese from 24 flocks were aged at various localities on Orkney and in southern Iceland. The sample, expressed as a proportion of the 2011/12 population estimate, was 1.9%. The brood size of 39 families was also determined during this period.

Breeding success was slightly lower than the recent mean, with flocks containing 19.6% young (mean 2001-2010: $21.9\% \pm 1.0$ SE). The mean brood size of 1.92 goslings per successful pair was slightly lower than that of the recent ten year mean (mean 2001-2010: 2.45 ± 0.1 SE).

3. Discussion

The 2011 Icelandic-breeding Goose Census revealed an 8.1% increase in the population estimate of Iceland Greylag Goose compared to 2010. This estimate has thus returned to the high numbers found in 2004, 2007 and 2010 (all over 105,000 birds), though the 2006 survey was, almost certainly, an undercount.

The November count of Greylag Geese was comprehensive, with sites being covered in most of the winter range. It was particularly good to get aerial survey coverage in Iceland and counts from southwest Norway. Although no counts were received from the Faroe Islands in 2011, the archipelago tends to support less than 1,000 birds on passage. The increasing concentration of the population on Orkney continues with a count of 77,513 Greylag Geese counted in February 2012 (although that total includes an estimated 10,000 summering birds from the British population). Peak counts have occurred in November each year since 2005. However, it would appear prudent that coverage of sites for Greylag Geese needs to be maintained in both November and December due to the varying time of arrival from the breeding grounds.

The November counts in Iceland are based on a mixture of aerial survey and dedicated ground survey undertaken by the Icelandic Institute of Natural History in important areas for Greylag Geese in the southern lowlands, together with non-systematic information provided by hunters and local birdwatchers around the country. These suggested that *c.* 44,796 birds were still present. Approximately 1,000 Greylag Geese were also thought to have overwintered in southern Iceland the fourth winter in succession that such high numbers have been present (Arnór Sigfússon, pers. comm).

The spring survey in late February confirmed that Orkney supports large numbers of Iceland Greylag Geese throughout the winter. Counts in November and December had shown that an increasing number of Iceland Greylag Geese were present in the early part of the winter and although anecdotally the geese did not appear to decline in number as winter progressed, this has now been confirmed. Typically, Caithness and the north Scotland firths held the highest counts. However, it is interesting to note that the Isle of Bute, Loch Lomond and Loch of Lintrathen, all in central Scotland, held over 1,000 birds, suggesting that some Iceland Greylag Geese still move south to winter.

Counts in 1994 to 1996 had shown that 51% and 53% of the autumn population estimates for Greylag Geese were counted in the spring. The comparable figure for 2012 was 80%. The reason for this discrepancy is not easily explained. The November count may have been an underestimate of the true population (see above). Geese may have been at fewer sites and less dispersed in the landscape (*i.e.* not roosting on temporary flooded fields). Count coverage may have improved - there has not been a spring census since 1996 and more goose counters may have felt willing to undertake an additional count in the spring. The higher value for Greylag Geese can, in part, be attributed to more birds wintering on Orkney, which has excellent count coverage. In 1996, Orkney supported 17% of the spring census total; in 2012, the figure was 56% (excluding summering birds).

Trinder *et al.* (2010) analysed the IGC data from the last 15 years, the time in which the majority of Iceland Greylag Geese began wintering on Orkney. This shift in winter distribution has probably meant that fewer Greylag Geese are being shot in Britain, as there are fewer wildfowlers on Orkney than in East and East Central Scotland. Despite the annual harvest in Iceland of *c.* 30,000-40,000 Greylag Geese (data from Wildlife Management Institute, Akureyri, Iceland), a presumed reduction in the number shot in other parts of the winter range and breeding success at over 20% young in eight out of the last nine years was thought sufficient to reverse the decline noted in this population during the 1990s.

There is an increasing number of British Greylag Geese in Scotland. Mitchell *et al.* (2011) estimated there to be *c.*

47,400 Greylag Geese in Scotland in 2008 and 2009. With large concentrations in Orkney (c. 10,000) and Shetland (c. 5,000), where Iceland Greylag Geese are known to winter, separating the two populations for status monitoring is becoming increasingly difficult.

4. References

Mitchell, C. 2012. *Status and distribution of Icelandic-breeding geese: results of the 2011 international census*. Wildfowl & Wetlands Trust Report, Slimbridge.

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This report should be cited as:

WWT. 2012. *Goose & Swan Monitoring Programme: survey results 2011/12 Greylag Goose Anser anser*.

WWT/JNCC/SNH, Slimbridge.

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This report was produced under the Goose & Swan Monitoring Programme (GSMP). This programme monitors numbers and breeding success of geese and swans in the UK during the non-breeding season. GSMP is organised by the Wildfowl & Wetlands Trust in partnership with the Joint Nature Conservation Committee (on behalf of Natural Resources Wales, Natural England and the Council for Nature Conservation and the Countryside) and Scottish Natural Heritage.



Goose & Swan Monitoring