

WWT/JNCC/SNH Goose & Swan Monitoring Programme

survey results 2009/10

Iceland Greylag Goose *Anser anser*

1. Abundance

The 50th consecutive Icelandic-breeding Goose Census (IGC) took place during autumn and winter 2009, providing information on the abundance and distribution of Iceland Greylag Geese. In addition to the usual count undertaken in November, a count in December (introduced in 2005) was also conducted.

Counts were conducted by a network of volunteer observers and professional conservation staff over the weekends of 14/15 November and 12/13 December 2009. Coverage in Britain was similar to the preceding year, with 124 sites counted in November and 111 in December. Outside Britain, counts were made at several sites in the Faroe Islands, Ireland, southwest Norway and Iceland.

Totals of 120,971 and 111,677 Greylag Geese were counted in November and December, respectively. Following adjustments for the presence of Greylag Geese from other populations and the addition of estimated counts (for definitions and methods see full report, Mitchell 2010.), a population estimate of 109,496 was derived from the higher November total, and represented an increase of 11.4% compared to 2008/09, when a population size of 98,291 individuals was estimated.

The autumn distribution was typical, with a very low proportion of the population present in Britain during October. Those that had arrived were primarily concentrated in North Scotland, East Central Scotland and Southeast Scotland/Northeast England, though no count was made in Orkney during this month. By November, 71.0% of the population was present in North Scotland, with most of the remainder in Iceland and East Central Scotland. Distribution was similar in December although most Greylag Geese had left Iceland by this month.

Regional distribution of Greylag Geese during November and December 2009 (nc = not counted). Regional counts do not include estimated counts for sites where no data were received.

	November	December
Iceland	22,500	2,500
Faroe Islands	574	0
Southwest Norway	670	670
Ireland	2,795	nc
North Scotland	83,247	95,954
Northeast Scotland	522	758
East Central Scotland	5,229	5,578
Southeast Scotland/Northeast England	2,204	2,869
Southwest Scotland/Northwest England	3,230	3,348
Total counted	120,971	111,677
Adjusted counts	-12,750	-12,650
Estimated counts	1,275	2,795
Adjusted total	109,496	101,822
Population estimate	109,496	

2. Breeding success

During early November, 2,911 Greylag Geese from 35 flocks were aged at various localities throughout northern Scotland. The sample, expressed as a proportion of the 2009/10 population estimate, was 2.7%. The brood size of 43 families was also determined during this period.

Breeding success was similar to the recent mean, with flocks containing 21.9% young (mean 1999-2008: 20.9% \pm 1.29 SE). The mean brood size of 2.26 goslings per successful pair was slightly lower than that of the recent ten year mean (mean 1999-2008: 2.54 \pm 0.09 SE).

3. Discussion

The 2009 Icelandic-breeding Goose Census revealed an 11.4% increase in the population estimate of Iceland Greylag Goose compared to 2008. The population estimate returned to the high numbers found in 2004 and 2007 (both over 105,000 birds), though the 2006 survey was, almost certainly, an undercount.

The count of Greylag Geese was comprehensive, with sites being covered in most of the winter range. It was particularly good to get coverage in the Faroe Islands, Iceland and southwest Norway. The increasing concentration of the population on Orkney continues with a record count of 80,538 Greylag Geese counted in December 2009 (although that total includes an estimated 10,000 summering birds). 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 dedicated ground survey undertaken by the Icelandic Institute of Natural History in two of three important areas for Greylag Geese in the southern lowlands, together with non-systematic information provided by hunters and local birdwatchers around the country. This suggested that between 15,000 and 30,000 birds were present (Arnór Sigfússon pers. comm.). That such a large range was estimated is not ideal given the importance of the November count in determining a population estimate, however, this simply reflects the size of the area occupied by Greylag Geese during autumn in Iceland and the relatively few counters available. A compromise figure of 22,500 Greylag Geese was used for deriving the population estimate. Thus, the population estimate for November 2009 is perhaps more accurately represented by the estimate 109,496 birds (range 102,000-117,000). Interestingly, \approx 2,000-3,000 Greylag Geese were also thought to have overwintered in southern Iceland the second winter in succession that such high numbers have been present (Arnór Sigfússon, pers. comm.).

Trinder *et al.* (in press) 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 \approx 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.

However, there is an increasing number of summering Greylag Geese in Scotland. Mitchell *et al.* (2010) estimated there to be \approx 47,400 Greylag Geese in Scotland in 2008 and 2009. With a large concentration of summer birds in Orkney (\approx 10,000) and Shetland (\approx 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. 2010. *Status and distribution of Icelandic-breeding geese: results of the 2009 international census*. Wildfowl & Wetlands Trust Report, Slimbridge.

Mitchell, C, L Griffin, M Trinder, J Newth & C Urquhart. 2011. The status and distribution of summering Greylag Geese in Scotland, 2008/09. *Bird Study* 58: 338-348.

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WWT/JNCC/SNH, Slimbridge.

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Goose & Swan Monitoring