

WWT/JNCC/SNH Goose & Swan Monitoring Programme

survey results 2008/09

Greenland/Iceland Pink-footed Goose *Anser brachyrhynchus*

1. Abundance

The 49th consecutive Icelandic-breeding Goose Census took place during autumn and winter 2008, providing information on the abundance and distribution of Greenland/Iceland Pink-footed Geese. In addition to the two usual counts undertaken in October and November, a third count in December (introduced in 2005) was also conducted, although this is primarily as part of a three year trial to re-assess the most suitable time for a complete census of Iceland Greylag Geese.

Counts were conducted by a network of volunteer observers and professional conservation staff over the weekends of 4/5 October, 8/9 November and 6/7 December 2008. Coverage in Britain and Ireland was similar to the preceding year, with 104 sites visited in October, 137 in November, and 133 in December. Outside Britain, counts were made at several sites in the Faroe Islands in all three months and an estimate of the maximum number in Iceland in October was also provided. Data were also received from southwest Norway.

Totals of 340,734 Pink-footed Geese were counted in October, 313,127 in November and 290,807 in December. The total numbers counted in October, November and December were 21.8%, 19.9%, and 51.1%, respectively, higher than the counts in the preceding year. After the addition of estimated counts (for definitions see full report, Mitchell 2009.), the peak winter total in October was used to derive a population estimate of 351,188 geese. This represents an increase of 23.4% since 2007/08, when a revised population size of 284,405 individuals¹ was estimated.

The distribution varied considerably over the three counts. Southeast Scotland/Northeast England held the greatest numbers of birds in October with higher than average proportions also present in West and East England at this time. Lower concentrations were found in North Scotland and Southwest Scotland/Northwest England. The proportion of birds in Northeast Scotland during October was also lower than usual, with particularly low numbers at the Loch of Strathbeg, although more typical numbers for the region were present during November (22.0%). By November, numbers had decreased in East Central Scotland but had increased substantially in East England. Over half of the population (53.8%) was present in East England in December, whilst numbers in Northeast Scotland and East Central Scotland declined.

¹Revised population estimate following receipt of additional data since Mitchell (2008) (IGC reports).

Regional distribution of Pink-footed Geese during October, November and December 2008 (nc = not counted). Regional counts do not include estimated counts for sites where no data were received.

Region	October	November	December
Iceland	1,000	nc	nc
Faroe Islands	2	6	0
Southwest Norway	0	250	250
Ireland	nc	0	0
North Scotland	299	11,356	5,348
Northeast Scotland	77,250	40,037	37,178
East Central Scotland	75,574	52,572	51,137
Southeast Scotland/Northeast England	91,848	36,521	17,706
Southwest Scotland/Northwest England	1,993	6,586	8,720
West England	52,810	94,663	56,066
East England	40,018	67,174	114,402
Total counted	340,734	313,127	290,807
Estimated counts	10,454	2,000	2,000
Adjusted total	351,188	315,127	292,807
Population estimate	351,188		

2. Breeding success

Between mid-September and mid-November, a total of 14,778 Pink-footed Geese, in 30 flocks, was aged at various localities throughout Scotland and England. The proportion of the 2008/09 population estimate was 64.1%. The brood size of 107 families was also determined during this period.

Breeding success was above average for the previous decade, with 22.8% young (mean proportion of young 1998-2007: 19.1% \pm 0.4 SE). The mean brood size of successful pairs was 2.08 goslings, which was slightly lower than the mean recorded during the preceding ten years (mean brood size 1998-2007: 2.19 \pm 0.06 SE).

There was evidence of modest regional variation in the percentage of young Pink-footed Geese, which varied from 15.6% in North Scotland to 25.6% in Southeast England although both were based on small sample sizes. Similarly, mean brood size varied from 1.79 goslings in East England to 2.47 recorded in East Central Scotland.

The percentage of young and mean brood size of Pink-footed Goose flocks in autumn 2008.

	Total aged	% young	No. of broods	Mean brood size
North Scotland	96	15.6	na	na
Northeast Scotland	5,055	22.8	60	2.05
East Central Scotland	3,759	20.7	23	2.47
Southeast Scotland	1,217	25.6	na	na
Southwest Scotland	621	23.5	na	na
East England	1,277	24.4	24	1.79
West England	2,453	24.1	na	na
Overall	14,478	22.8	107	2.08

3. Discussion

The 2008 Pink-footed Goose population estimate represents a 23.4% increase in the population estimate of Pink-footed Goose since 2007 and appears reasonable since coverage, particularly of the main sites, was good. Despite recent fluctuations in numbers, partly caused by fluctuations in coverage, notably so in 1995 and 2006, the long term population trend is one of continued increase. Breeding success remains fairly stable at c 15-20% and is, presumably, more than compensating for annual deaths. Bag statistics from Iceland for autumn 2007 are not yet available, but it is not expected that these were significantly greater than other recent years (c 10,000-15,000 geese). Unfortunately, meaningful bag statistics remain unavailable from Britain and Ireland. This makes interpreting changes in population dynamics all the more complicated.

Pink-footed Geese were early in reaching Britain in autumn 2008 with rapid a increase in numbers witnessed at several important sites - the top five sites alone accounting for 63.6% of the population estimate. In order to avoid the mid month full moon, the October count weekend was also unusually early and it seems that, with some good fortune, a mass early arrival of Pink-footed Geese into Britain in autumn 2008 coincided with favourable count conditions. Very few Pink-footed Geese were recorded in central Iceland in October (Arnór Sigfússon pers comm.), however, the species often remains dispersed at inaccessible areas at this time. Peak counts of Pink-footed Geese have occurred in November in two of the previous five years (in 2005 and 2006), so the departure of the species from Iceland clearly varies year to year. It is possible therefore, that in years when an underestimate occurs (notably so in autumn 2006) large numbers may still be residing at inaccessible areas of Iceland. It would appear prudent that coverage of sites holding Pink-footed Geese needs to be maintained in both October and November due to the varying time of arrival from the breeding grounds.

Peak counts of Pink-footed Geese have occurred in October in five of the previous ten years (1998, 2000, 2001, 2004 and 2007), thus it would appear prudent that coverage of sites for Pink-footed Geese need to be maintained in both October and November due to the varying time of arrival from the breeding grounds.

4. References

- Mitchell, C. 2009. *Status and distribution of Icelandic-breeding geese: results of the 2008 international census*. Wildfowl & Wetlands Trust Report, Slimbridge.
- Mitchell, C. 2008. *Status and distribution of Icelandic-breeding geese: results of the 2007 international census*. Wildfowl & Wetlands Trust Report, Slimbridge.

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Goose & Swan Monitoring