

WWT/JNCC/SNH Goose & Swan Monitoring Programme survey results 2018/19

Iceland Greylag Goose *Anser anser*

1. Abundance

The 59th consecutive Icelandic-breeding Goose Census (IGC) took place during autumn and winter 2018, providing information on the abundance and distribution of Iceland Greylag Geese. A full account of the census can be found in *Brides et al. (2019)*.

Counts were conducted by a network of volunteer observers and professional conservation staff over the weekends of 10/11 and 24/25 November: two survey periods were set in November 2019 due to the need to alter the originally planned date of 17/18 November as a result of it conflicting with a conference many IGC counters were attending.

Coverage in Britain was good, with 150 sites checked (compared with 106 in 2017). Outside of Britain, counts were made at several sites in Iceland, Faroes, Ireland and Southwest Norway. Counts in Norway took place in January rather than November, but the total from these counts was used as an estimated count for the November period since guidance from counters in Norway suggests that the winter influx of Iceland migrants occurs in late October and early November and they remain there throughout the winter (A Follestad pers. comm.).

The total count was 92,509 Greylag Geese (Table 1). Following adjustments for the presence of British/Irish Greylag Geese, which is significant in some areas, a population estimate of 58,426 was derived. This represented a decrease of 4.2% compared to 2017 (Figure 1), when a population size of 60,962 individuals was estimated.

Table 1. Regional distribution of Iceland Greylag Geese during November 2018.

Region	November
Iceland	10,583
Southwest Norway	250*
Faroe Islands	1,000
Ireland	3,008
North Scotland	68,040
Northeast Scotland	2,590
East Central Scotland	2,062
Southeast Scotland/Northeast England	4,345
Southwest Scotland/Northwest England	371
East England	260
<i>Total counted</i>	92,509
<i>Adjusted counts</i>	-34,083
Population estimate	58,426

*Count made in January 2019 (see *Brides et al. 2019*).

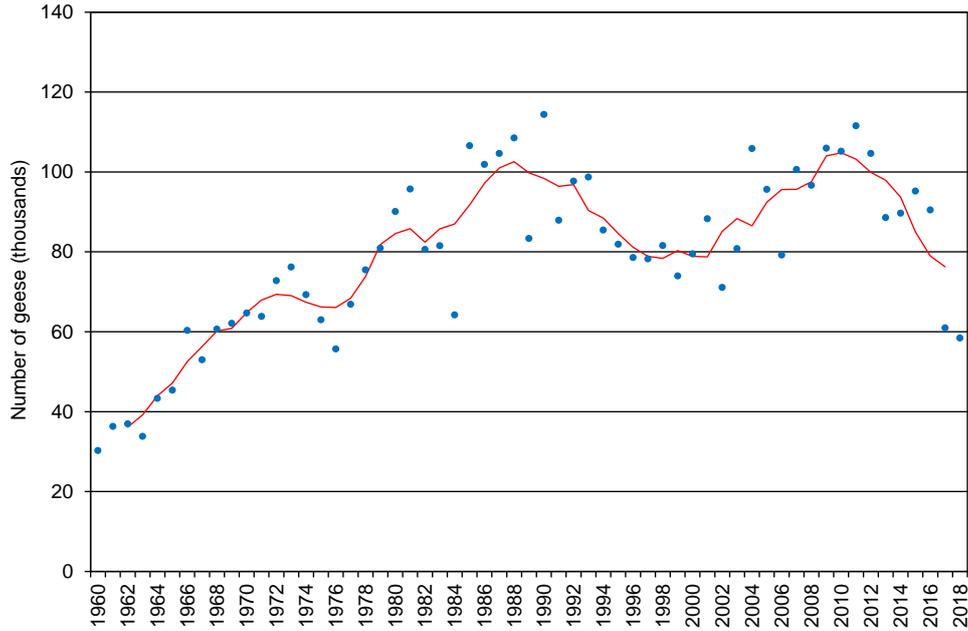


Figure 1. Annual census-derived estimates of Iceland Greylag Goose population size, 1960–2018. Five year running mean shown as red line (e.g. mean for 2015 is from population estimates for 2013–2017).

2. Breeding success

During mid-November, 1,378 Greylag Geese from 17 flocks were aged at various locations in Caithness, Scotland. This represented 2.4% of the 2018 population estimate. The brood size of 24 families was also determined during this period.

The percentage of young found amongst flocks (22.6%) was higher than the previous year (19.9% in 2017) (Figure 2) and higher than the recent ten-year mean (2008–2017: 21.9% ± 0.51 SE). The mean brood size of 2.08 goslings per successful pair was lower than that of the recent ten-year mean (2008–2017: 2.25 ± 0.08 SE).

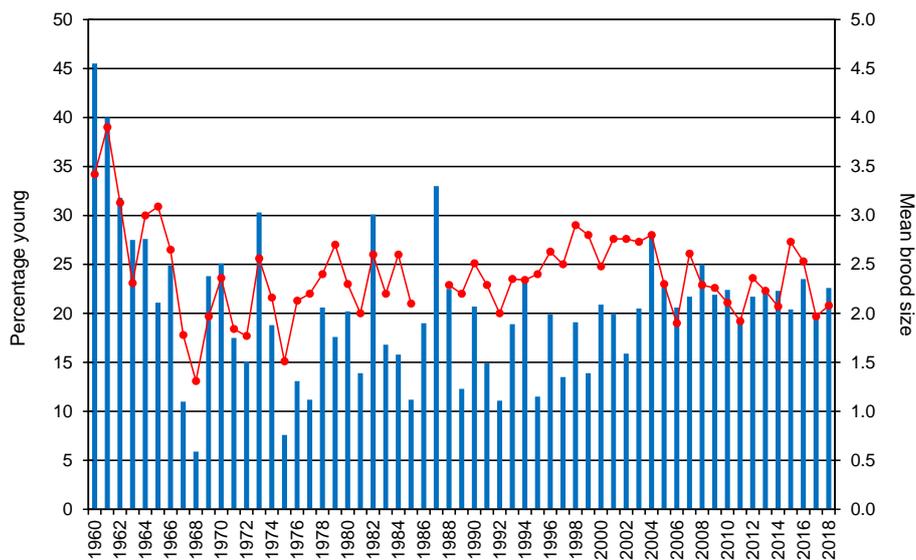


Figure 2. The percentage of young (blue columns) and mean brood size (red circles) of Iceland Greylag Geese, 1960–2018.

3. Discussion

The population estimate of 58,426 Iceland Greylag Geese, although lower is not too dissimilar to that in 2017. Suggestions of a recent population decline have been previously reported (see Mitchell & Brides 2017) and it is noteworthy that the population estimate remains well below the ten-year average of 96,838 birds (2008–2017). However, it is uncertain to what degree undercounting affects the 2017 and 2018 population estimates.

Orkney continues to hold the largest proportion of the Iceland Greylag Goose population; however, as geese from both the Icelandic and British populations are present at the time of the census, estimating the number of Icelandic birds also requires an understanding of the number of British birds present.

To do this, we used the most recent post-breeding census of British Greylags in Orkney, undertaken in August 2016 (21,000 birds; see Mitchell & Brides 2017), and adjusted it using an estimate of the number of British birds shot in Orkney between September and November 2018 (2,500 birds). Therefore, in total, 18,500 birds were deducted from the overall Orkney total to give the best possible estimate of the number of Iceland Greylag Geese. This rather crude method would benefit greatly from annual monitoring of the size of the post-breeding British population in Orkney alongside annual estimates of the number of birds shot there, both during the period when both populations are present and when only the British birds are present.

As information on the number of summering British Greylag Geese on Shetland is limited, it is difficult to provide an estimate on the number of wintering Iceland Greylag Geese in Shetland at the time of the census. Therefore, as a precautionary measure, the total number of birds (3,813) was deducted from the overall total. Likewise, information on the status of birds in the Faroes is limited and, as a result, the total number of birds (1,000) was deducted from the overall total. The ringing of summering birds is due to start in the Faroes from 2019 onwards (Jóhannis Danielsen pers. comm.) and will hopefully provide useful information on the winter movements of summering Greylag Geese in the country.

As previously reported, large numbers of British Greylag Geese in core wintering areas for the Iceland populations, such as Orkney and the Moray Firth, mean that assessing the abundance of the Icelandic geese remains very difficult. Up to date information on the status of wintering Greylags south and east of an arbitrary line from Bute east to Aberdeen is largely lacking and, therefore simply as a precaution, any counts obtained through the IGC from this area are subtracted from the total count (as it is assumed that the majority of birds counted are British). However, as recently as winter 2017/18, sightings of colour-marked Iceland Greylag Geese were sighted as far south as Northumberland (B. Swann pers. comm.) showing that some Icelandic birds still winter south of this arbitrary line.

The monitoring of annual breeding success for the Iceland Greylag in Britain is also becoming more difficult because of the overlap in the main wintering areas with British Greylag Geese and it is impossible to separate birds from each population in the field. However, the results from summer counts (carried out in 2016), suggest that the majority of birds found in Caithness in winter are from Iceland (C. Mitchell pers. obs.) and it is in this county only that age counts were undertaken in 2018. However, difficulty was experienced in finding good numbers of geese for ageing in Caithness in November 2018 which led to a very low sample size.

Given the increased difficulty in ageing Iceland Greylag Geese on the wintering grounds and with the discontinuation of the annual wing survey of harvested birds in Iceland, which provided additional information about breeding success, it would be advantageous to explore options for sampling the geese in Iceland prior to migration in order to assess the breeding success of this population. However, this does pose problems since temporal changes in surveillance from November (wintering area) to August/September (in Iceland) will make the comparison of annual results difficult and so a period of overlap whereby both methods are used should be implemented.

4. Acknowledgements

Many thanks go to the many IGC counters and Local Organisers who provided the basis of the population estimates. Thanks also go to those who contributed age assessment data.

5. References

Brides, K, C. Mitchell & S.N.V Auhage. 2019. Status and distribution of Icelandic-breeding geese: results of the 2018 international census. Wildfowl & Wetlands Trust Report, Slimbridge. 18pp.

Mitchell, C & K. Brides. 2017. Status and distribution of Icelandic-breeding geese: results of the 2016 international census. Wildfowl & Wetlands Trust Report, Slimbridge. 19pp.

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