

WWT/JNCC/SNH Goose & Swan Monitoring Programme
survey results 2017/18
Greenland Barnacle Goose *Branta leucopsis*

1. Abundance

International Census

In March 2018, the most recent flyway-wide census of Greenland Barnacle Geese took place, including those parts of the winter range that need to be checked using a light aircraft. The full results from the census are presented in Mitchell & Hall (2018).

The population estimate was 72,162, a 10.5% decrease on the last complete census conducted in 2013 (80,670). In Ireland, 16,237 birds were counted, a decrease of 7.2%. In Scotland, 229 sites were surveyed, including 190 islands by aerial census and Barnacle Geese were found at 39 sites (Figure 1). A total of 55,424 birds were counted and an estimate of 501 birds were included from one site, giving a total of 55,925 birds, a decrease of 11.5% since 2013. Islay was the most important site with 34,750 birds counted (Table 1) – 22.6% lower than the number recorded there five years previously.

Compared to 2013, there were increases in numbers in areas surrounding Islay; numbers on Tiree and Coll increased by 17.8% to 6,477 and, on North Uist (mainland), numbers increased by 68.9% to 5,950.

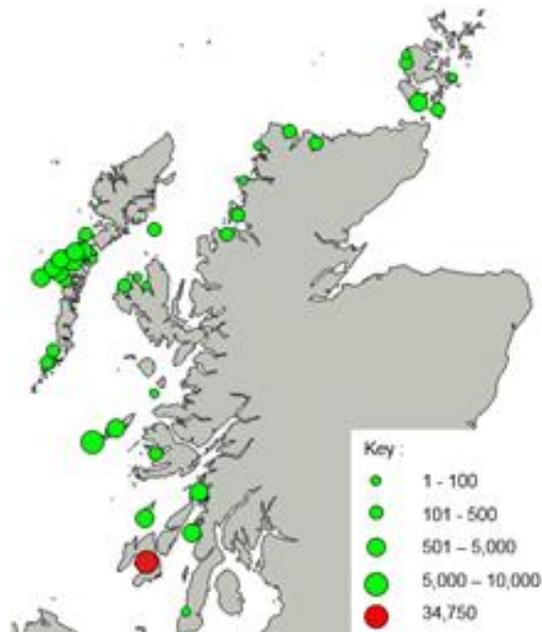


Figure 1. The distribution of Greenland Barnacle Geese in Scotland recorded during the mid-March 2018 international census.

Table 1. Counts of Greenland Barnacle Geese made during the March 2018 survey of over 1% of the Scottish total.

Site	Area	Count in 2013	Count in 2018	% change
Islay	Argyll	44,914	34,750	-22.6
Tiree	Argyll	4,518	5,126	13.4
Oronsay	Argyll	2342	2,250	-3.9
South Walls	Orkney	1740	1460	-16.1
Balemore/Paible	North Uist	37	1442	3797
Coll	Argyll	980	1266	29.2
Ahmore	North Uist	0	921	–
Berneray	North Uist	975	745	-23.6
Balranald/Goula	North Uist	541	677	25.1
Isle of Danna	Argyll	704	650	-7.7
Vallay	North Uist	88	610	593
Griminish	North Uist	0	610	–

Annual counts at key sites

On Islay, the most important wintering site in the UK for Greenland Barnacle Geese, up to four co-ordinated counts were undertaken during winter 2017/18. These revealed 48,366 birds in November, 43,351 in December, 37,487 in January and 34,750 in March. The mean of these four counts was 40,989 birds which represents a 12.2% decrease compared to winter 2016/17 (mean 46,714 geese, Figure 2). The November 2017 count was 5,000 birds higher than the count a month later and 13,600 higher than the March 2018 count. The November count presumably included transient geese that did not stay to winter on Islay and, in addition, 3,321 birds were shot there during the winter.

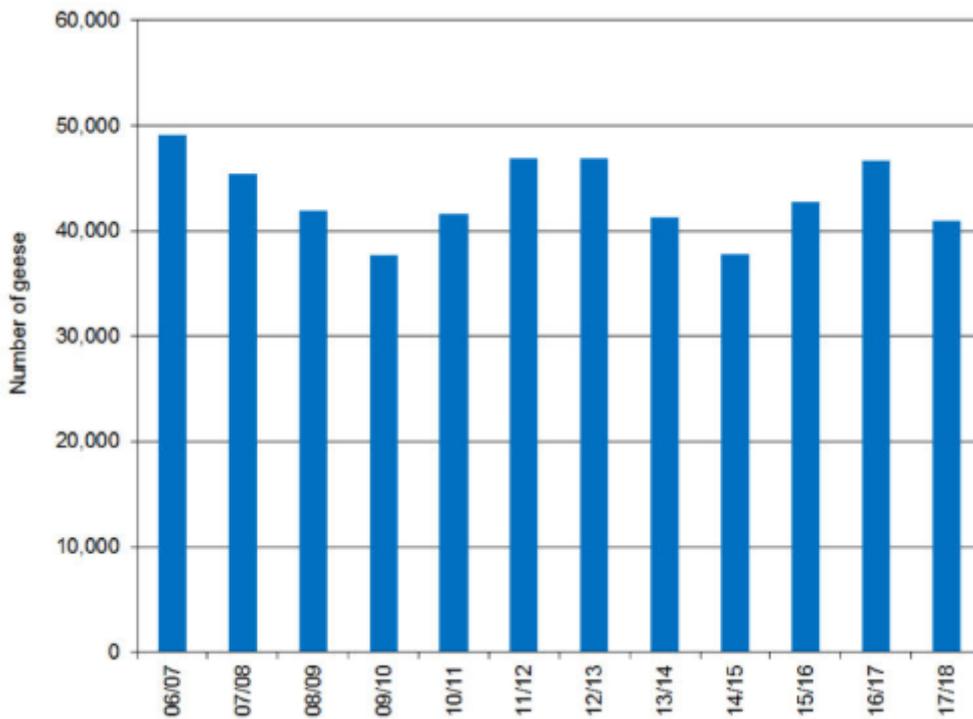


Figure 2. Adopted counts (mean of the winter counts) of Greenland Barnacle Geese on Islay, 2008/09-2017/18.

2. Breeding success

Breeding success is measured annually on Islay and counts in autumn 2017 revealed a poor breeding season. Just over 9,000 birds were aged and 5.3% were young, with a mean brood size of 1.92 young per successful pair (Table 2).

Table 2. The percentage of young and mean brood size of Greenland Barnacle Geese during winter 2017/18.

Site	Number aged	Percentage of young (%)	Mean brood size
Islay	9,015	5.3	1.92
Tiree	300	3.3	1.11
Durness	200	6.0	1.33
Kyle of Tongue	204	0.5	1.00
Oronsay	226	10.2	–
North Uist	412	5.6	1.40
Overall	10,357	5.3	1.79

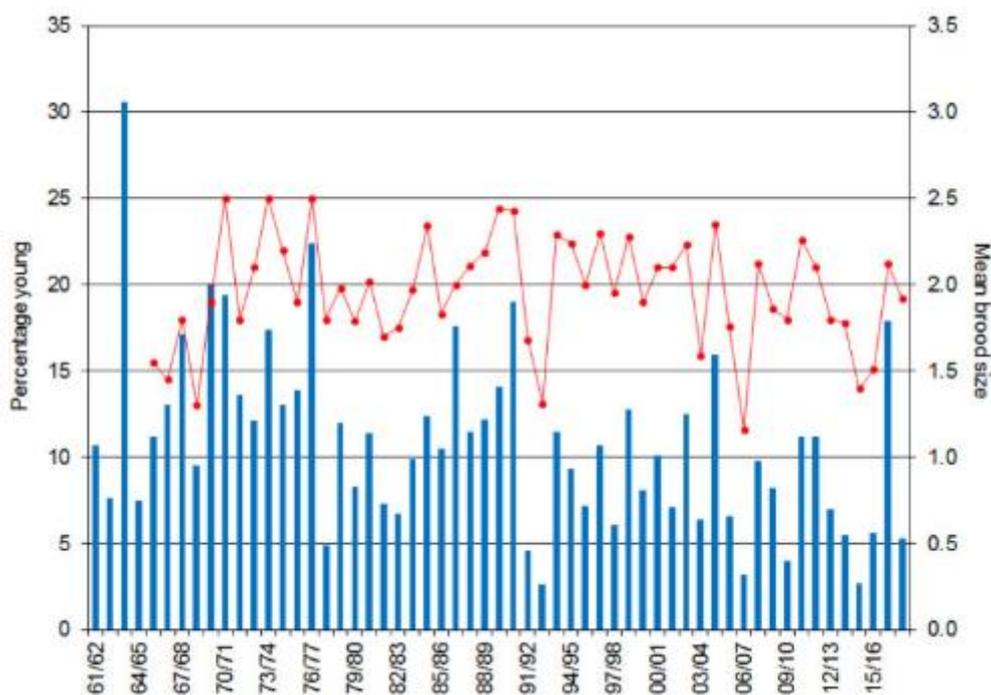


Figure 3. Percentage young (blue columns) and mean brood size (red circles) of Greenland Barnacle Goose on Islay (where data have been collected regularly), 1961/62–2017/18.

3. Discussion

The census in March 2018 indicated that the flyway population has decreased by 10.5% to 72,162 birds compared to 2013. The long-term increase in numbers, from the 1950s up to 2013, seems to have been halted. Up to *c.*2,000 Greenland Barnacle Geese are shot in Iceland each year, and an average of 2,760 geese have been shot on Islay each winter from 2015/16 to 2017/18 as part of the local goose management programme. It may be that this level of mortality, combined with relatively low annual productivity in the last ten years is keeping population growth in check.

Several key sites in Scotland hold the majority of Greenland Barnacle Geese with the majority wintering on the Inner Hebridean island on Islay (Table 1). The decrease in numbers on Islay of 22% compared to March 2013 involves birds recorded on the island at the end of winter. Ring-recovery information has shown that November counts on Islay include some transients (birds that stage on Islay during the autumn and move on to winter elsewhere within the range).

Increases in the number of Greenland Barnacle Geese on Tiree and Coll, and notably on North Uist (although interestingly not in Ireland), may, in part be due to birds moving from Islay due to the disturbance caused by the culls being carried out there.

Results from age assessments conducted during autumn 2017 on Islay (from where the largest sample is provided) show that the 2017 breeding season was poor; the figure of 5.3% young recorded on Islay being similar to the previous ten-year mean of 6.8% (± 1.0 SE). Mean brood size on Islay in 2017 was also slightly higher than average at 1.92 young per successful pair, compared to the previous ten-year mean of 1.88 young (± 0.1 SE).

4. Acknowledgements

Thanks are extended to Malcolm Ogilvie, Andy Knight and John Bowler for providing age counts, and the volunteer counter network, SNH and RSPB for providing additional counts.

5. References

Mitchell, C. & C. Hall. 2018. *Greenland Barnacle Geese Branta leucopsis in Britain and Ireland: results of the international census, spring 2018*. Wildfowl & Wetlands Trust Report, Slimbridge.

This report should be cited as:

WWT. 2018. *Goose & Swan Monitoring Programme: survey results 2017/18 Greenland Barnacle Goose Branta leucopsis*. 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