

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

## Greenland Barnacle Goose *Branta leucopsis*

### 1. Abundance

#### International Census 2018

The most recent flyway-wide census of Greenland Barnacle Geese took place in March 2018. The census was undertaken by WWT in Scotland, funded by SNH, and by the National Parks and Wildlife Service in Ireland. This census is carried out every five years. A brief summary of the results was presented in the 2017/18 report for Greenland Barnacle Goose: see the previous results tab. The full report (Mitchell & Hall 2019) can be downloaded [here](#).

The census yielded a population estimate of 72,162, a 10.5% decrease compared with the previous census in 2013 (80,670) (Figure 1). In Ireland, 16,237 birds were counted, a decrease of 7.2% compared with 2013, whilst a total of 55,424 birds was recorded for Scotland, representing a decrease of 11.5%.

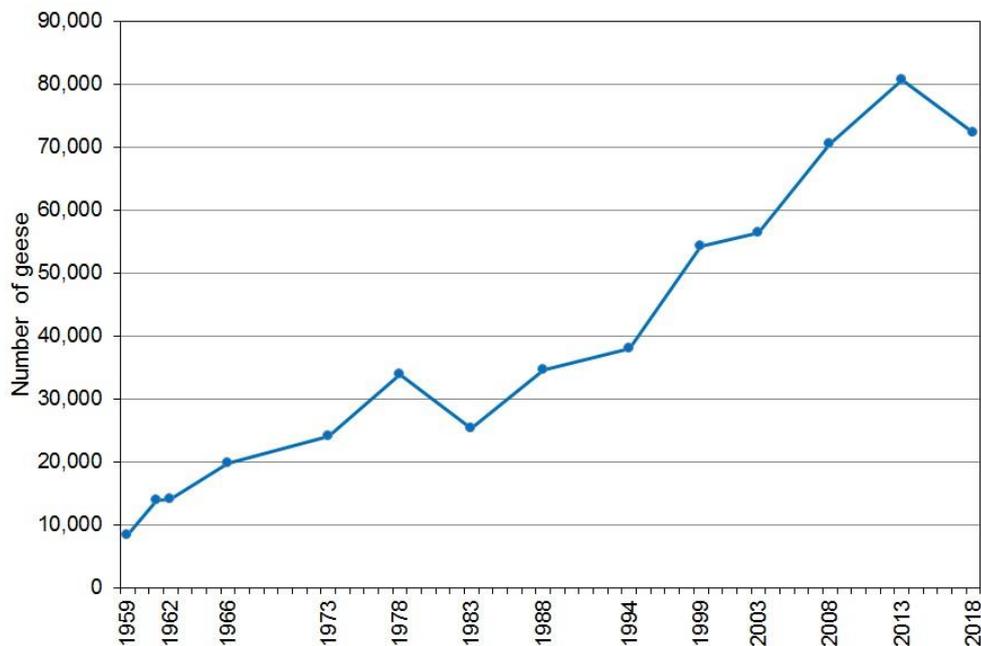


Figure 1. Population estimates of Greenland Barnacle Goose, 1959–2018, derived from the International Barnacle Goose Census.

#### Annual counts at key sites

On Islay, the most important wintering site in the UK for Greenland Barnacle Geese, four coordinated counts were undertaken during winter 2018/19. These revealed 30,428 birds in November, 31,263 in December, 35,251 in January and 31,058 in March. The mean of these four counts was 32,000 birds which is 21.9% lower than the mean in winter 2017/18 (40,989 geese) (Figure 2). The over winter population there has now decreased by a third in the last three winters as a result of the management culls that are taking place.

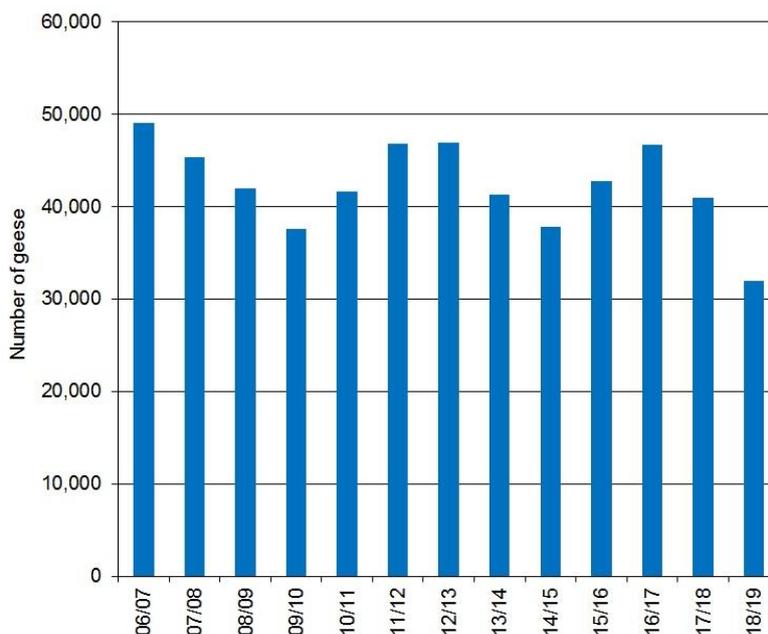


Figure 2. Adopted counts (mean of the winter counts) of Greenland Barnacle Geese on Islay, 2009/10–2018/19.

Winter maxima at other key sites include 500 birds on Danna, Argyll (March), 645 on Coll, Argyll (Dec), 4,585 on Tiree (March), 4,712 on North Uist (February) and 3,812 on Colonsay/Oronsay (Dec).

## 2. Breeding success

Breeding success is measured annually on Islay and counts in winter 2018/19 revealed another poor breeding season. Just over 8,000 birds were aged and showed that just 1.1% were young with a mean brood size of 1.01 young per successful pair (Table 1, Figure 3). On Tiree, a sample of 1,000 birds held just 14 young (1.4%) with a mean brood size of 1.08 young per successful pair.

Table 1. The percentage of young and mean brood size of Greenland Barnacle Geese during winter 2018/19.

Site	Number aged	Percentage of young (%)	Mean brood size	Number of broods
Islay	8,100	1.1	1.01	89
Tiree	1,000	1.4	1.08	13
<b>Overall</b>	<b>9,100</b>	<b>1.13</b>	<b>1.02</b>	<b>102</b>

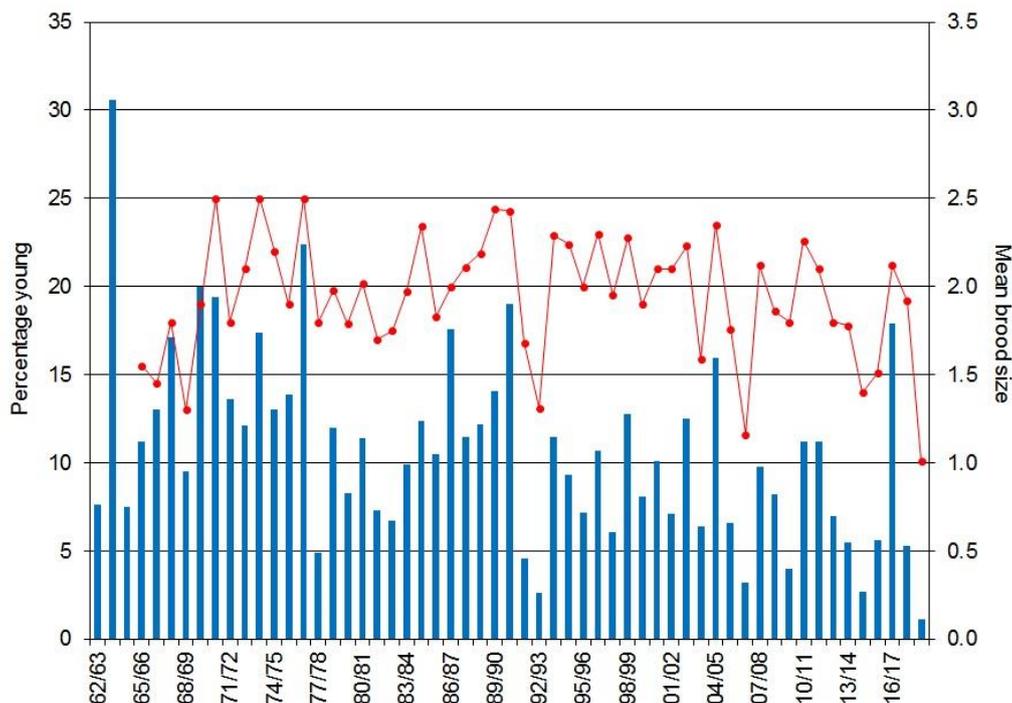


Figure 3. Percentage young (blue columns) and mean brood size (red circles) of Greenland Barnacle Goose on Islay (where data have been collected regularly), 1961/62–2018/19.

### 3. Discussion

The population total of this Annex 1 European protected species has declined in the last five years and this is probably due to increased mortality through legal hunting in Iceland and the culls on Islay which have increased, at a time when annual reproductive success has been low.

Results from age assessments conducted during autumn 2018 on Islay (from where the largest sample is provided) show that the preceding breeding season was poor: the figure of 1.1% young recorded on Islay being very low compared to the previous ten-year mean of 7.9% ( $\pm 1.4$  SE). The mean brood size on Islay in 2018 was also lower than average at 1.01 young per successful pair, compared to the previous ten-year mean of 1.86 young ( $\pm 0.08$  SE). 2018 was the worst breeding season since records began in 1959 and for six out of the last seven years, breeding success has been below 7% young. Reports from several areas in East Greenland mentioned unusually heavy snow during spring and early summer which was still lying as late as August.

### 4. Acknowledgements

Thanks are extended to Malcolm Ogilvie and John Bowler for providing age counts. SNH provided additional counts.

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## Goose & Swan Monitoring