

species	data	document	Last updated
Barnacle Goose Greenland population	Counts	Methodology	16032022

Count in Ireland and Scotland

Total population counts in Ireland and Scotland (Triannual counts)

The entire population winters in sites predominantly on the north and west coasts of Scotland and Ireland. Whole flyway population counts have been conducted at approximately five-year intervals since 1959, but this was changed to triennial in 2020. This international census takes place in early to mid-March using a combination of air and ground surveys owing to the remote location of many of the wintering sites.

More information on the count method can be found here: <https://monitoring.wwt.org.uk/our-work/goose-swan-monitoring-programme/abundance/icgbg/>

Key sites in Scotland (Annual counts)

Islay is a key wintering site, with an estimated 78% of the Scottish population and 63% of the flyway population historically wintering on the island. Whole-island counts have been carried out approximately monthly since 1982.

More information on the count method can be found here: <https://monitoring.wwt.org.uk/our-work/goose-swan-monitoring-programme/species-accounts/greenland-barnacle-goose/#:~:text=Branta%20leucopsis,over%2050%25%20of%20the%20population.>

Icelandic breeding population

The Icelandic breeding population of Barnacle Geese was estimated by total count of nests and total number of birds in each known breeding site just prior to hatching by end of May 2019 by the South East Iceland Nature Research Center and Icelandic Institute of Natural History (Jóhannesdóttir et al. 2020). To have the Icelandic estimate in synchrony with the total count in the non-breeding area in Scotland and Ireland in March the nest count was repeated in 2020 (Jóhannesdóttir et al. in prep.). The plan is to count the Icelandic breeding population every third year onwards.

A simultaneous aerial survey using vertical photography was carried out while geese were counted from ground. It turned out that numbers of nests found were similar from air and ground, but total number of birds was underestimated from air, probably as non-breeding birds did flee the approaching plane while breeding birds stay to guard their nests or goslings. The aerial survey was most valuable in large wet areas difficult to cover from ground, e.g. South-Mýrar (364 nests from ground and 354 from air) compared to Skógey (80 nest counted from ground and 136 from air).

At the turn of this century counts indicated that number of nesting pairs of Barnacle Geese was less than 100. By 2009 the total number of breeding pairs had risen to 120 pairs and 2014 to 600+ pairs (Skarphédinsson et al. 2016). Local nest counts of the Icelandic breeding population have been conducted on Skúmeý island since 2014 (<https://nattsa.is/wp-content/uploads/2013/09/Skumey-Lokaskyrsla.pdf>).