

WWT/JNCC/SNH Goose & Swan Monitoring Programme

survey results 2011/12

Svalbard Barnacle Goose *Branta leucopsis*

1. Abundance

During 2011/12, complete counts of Svalbard Barnacle Geese on the Inner Solway rose rapidly from just 721 birds on 5 October to 30,653 on 19 October after what had been a very slow arrival period - the first birds recorded on the Solway, a week later than usual, were 16 on the 24 September. The total number of geese counted on the Solway then fluctuated, as in previous years, mainly in relation to count visibility conditions and goose dispersal. Due to this count variation, with possible inaccuracies and the chance of double-counting, an adopted count total for the population is usually derived by averaging those counts within 10% of the maximum recorded during the winter. In 2011/12, the counts of 33,261 on 14 February, 35,727 on 13 March (the maximum count recorded) and 32,451 on 6 April 2012, fulfilled this criterion and are thus averaged to produce an adopted population total of 33,900 Barnacle Geese (rounded up to the nearest 100) a decrease of 2,000 birds on the previous winter's estimate of 35,900 geese. Thirteen coordinated population counts were carried out from October to April, the frequency having been reduced due to changes in funding levels for the Solway Goose Management Scheme monitoring budget. Weekly counts were still conducted in the arrival and departure periods of October 2011 and April 2012, respectively, with monthly counts in the mid-winter period from November 2011 to March 2012.

2. Breeding success

The breeding success of Svalbard Barnacle Geese observed in flocks on the Inner Solway from October 2011 to November 2011, from Eastpark in the east to Mersehead in the west, ranged from 6.1% to 23.5% (5.6% to 21.5% in 2010/11) with a mean of 13.9% young from 13 flocks with 5,279 geese sampled (10.8% from 13 flocks; 8,092 geese sampled in 2010/11). Across the same area, the total number of broods sampled was 124, with a mean brood size of 2.1 young (range 1-5) being recorded per family (mean 2.5 young, range 1-5, n = 65 in 2010/11).

3. Discussion

As the population has increased, so has its distribution on the Solway, although its core feeding areas remain broadly the same. Rockcliffe Marsh at the eastern end of the Solway continues to play a vital role throughout the winter, with its importance further highlighted in late April/early May during a period of rapid turnover when at least 99% of the population will visit the site for up to a week or more to feed on the newly accreted saltmarsh vegetation before departing for Svalbard. Rockcliffe Marsh is currently in a phase of rapid growth on its seaward edge, as it has been for the last decade, and is probably supporting increasing numbers of geese each year. This, coupled with an expanding distribution on the Solway more generally, makes it more and more difficult to achieve rigorous population counts with coordinated weekly or fortnightly ground counts that have historically been used. As Rockcliffe Marsh expands it becomes increasingly difficult to cover the ground (safely) on foot and make accurate assessments of goose numbers without disturbing them and thus risking double counting. It is perhaps timely to consider exploring aerial counts coupled with high definition photography of the flocks to assess the true population size at perhaps the start and end of the winter as a comparison to the ground counts.

There is a tendency for a proportion of the birds to stay longer on the Solway, particularly on the saltmarsh at Rockcliffe Marsh, Cumbria, and especially on the newly accreted marsh vegetation in that tidal area at the eastern end of the Solway. This marsh is now acting as a spring pre-migration site as well as a wintering ground for over a quarter of the population in most years up to and sometimes beyond the middle of May.

Although the sample size has been small, satellite tracking since 2006 has shown that some, if not all, of these late-leaving birds can by-pass traditional foraging sites in Norway, and simply head more or less directly to Svalbard completing the journey in as little as 36 hours. Also for one bird tagged in 2011, the WWT tracking

website revealed that it was then possible to make a breeding attempt on an offshore island at Prins Karls Forland, Svalbard. In May 2012, over 4,500 geese remained on Rockcliffe Marsh beyond the middle of May, with 850 still present on 24 May and 280 by 28 May. Elsewhere along the flyway, in Helgeland, a large proportion of the staging Barnacle Geese left very abruptly at an earlier date than usual, with around two-thirds having moved northwards by 15 May. More birds were present in early May at several sites monitored regularly than has been typical in recent years (Paul Shimmings pers. Comm.).

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Goose & Swan Monitoring