

# WWT/JNCC/SNH Goose & Swan Monitoring Programme

## survey results 2010/11

### Svalbard Barnacle Goose *Branta leucopsis*

#### 1. Abundance

The first Svalbard Barnacle Geese recorded on the Solway Estuary were 16 birds on 17 September on the flood ground of the WWT Caerlaverock reserve. From 29 September to 21 May, 25 coordinated counts were carried out on both the north (from Cummertrees to Wigtown) and south (Rockcliffe to Grune) sides of the estuary. Total counts rose gradually from 4,720 on 29 September to 5,950 one week later with a bigger influx late afternoon and overnight on 11 October with 12,723 by 12 October and 35,640 by 19 October. Count totals then fluctuated, as in previous years, mainly in relation to count visibility and goose dispersal, especially during the severe freezing conditions and snow present from mid-November to mid-December. The final 223 geese were recorded on the saltmarsh at WWT Caerlaverock on 11 May in a late end to the season for that area after an unprecedented 1,880 had arrived back on the reserve from Rockcliffe Marsh on 7 May (including two satellite tracked birds) after a thunderstorm the night before. At RSPB Mersehead, a flock of 36 remained until 4 May but these were gone by 6 May.

As in previous years, up to half the population was residing on Rockcliffe Marsh, Cumbria by the beginning of May, prior to departure, where up to 7,000 stayed until mid-May. The other half of the population probably departed on migration to Norway between 21 April and 28 April. From 4 May to 6 May, numbers declined from just over 17,000 to 12,000, with further departures by 8 May when almost 7,000 remained with these final birds departing at some time between 11 May and 21 May, after which only 44 remained. Four birds were seen on Rockcliffe Marsh on 25 May and one remained there on 1 June. One of four satellite tagged geese departed late on the night of 13 May whereas the other three departed late night on 18 May, suggesting the final goose departures happened on these dates.

As a precaution against the possibility of some of the birds having been counted twice, an adopted total for the population is usually derived by averaging those counts within 10% of the maximum recorded during the winter. In 2010/11, the counts of 35,640 on 19 October and 36,152 (the maximum count recorded) on 26 October fulfil this criterion and are thus averaged to produce an adopted population total of 35,900 Barnacle Geese (rounded up to the nearest 100). This is an increase of 9% on the adopted population estimate for 2009/10 (32,900).

#### 2. Breeding success

The breeding season in 2010 (10.8% young and the mean brood size was 2.5 young per successful pair) was the best recorded since 2007, resulting in another increase in the total size of this population for the fifth consecutive year.

#### 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.

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