WWT/JNCC/NatureScot Goose & Swan Monitoring Programme survey results 2019/20

Taiga Bean Goose *Anser fabalis fabalis*

Updates to data

The following updates have been made to the abundance and breeding success data:

Peak total numbers at the Slamannan Plateau

- 1997/98: updated from 155 to 153 individuals
- 2016/17: updated from 216 to 236 individuals
- 2017/18: updated from 206 to 228 individuals

Breeding success recorded at the Slamannan Plateau

- 2018: the percentage of young has been updated from 5% to 7%; and the mean brood size has been updated from 1.3 to 2.4 young per successful pair.

1. Abundance

The two flocks of Taiga Bean Goose wintering in Britain were monitored during winter 2019/20. Counts were undertaken at the Slamannan Plateau, Falkirk by the Bean Goose Action Group and at the Yare Valley, Norfolk, by RSPB reserve wardens.

At the Yare Valley, where the number of wintering Bean Geese has been declining for the past 25 years, the peak count was of only seven birds, 14 fewer than the previous winter and well below the previous ten year mean (55 birds ± 12.6 SE). The duration the birds spend in Norfolk has also shortened, with birds now only recorded in December and January. The long and slow decline in numbers wintering in England continues (there have been fewer than 30 birds at this site since 2014/15) and one wonders when the last birds will spend the winter there.

A peak count of 207 birds was recorded at Slamannan on 24 October, 34 fewer birds than the maximum recorded in the previous winter (241) and lower than the previous ten-year mean (243 ± 4.5 SE) (Figure 1). The first 108 Bean Geese were seen on 3 October, although a Bean Goose fitted with a Global Positioning System (GPS) tag had arrived the day earlier (with an unknown number of other birds). The last 22 birds were seen on 3 February. The number of Bean Geese wintering at Slamannan has declined from 300 birds as recently as 2007/08 at a mean rate of 1.8% per annum.

The total count for the two sites in 2019/20 (214 birds) was well below the previous ten-year mean which has declined to 299 birds (± 15.5 SE) and continued the long and slow decline in numbers wintering in the UK which probably reflects the decline in the overall flyway population or short stopping or a combination of both.

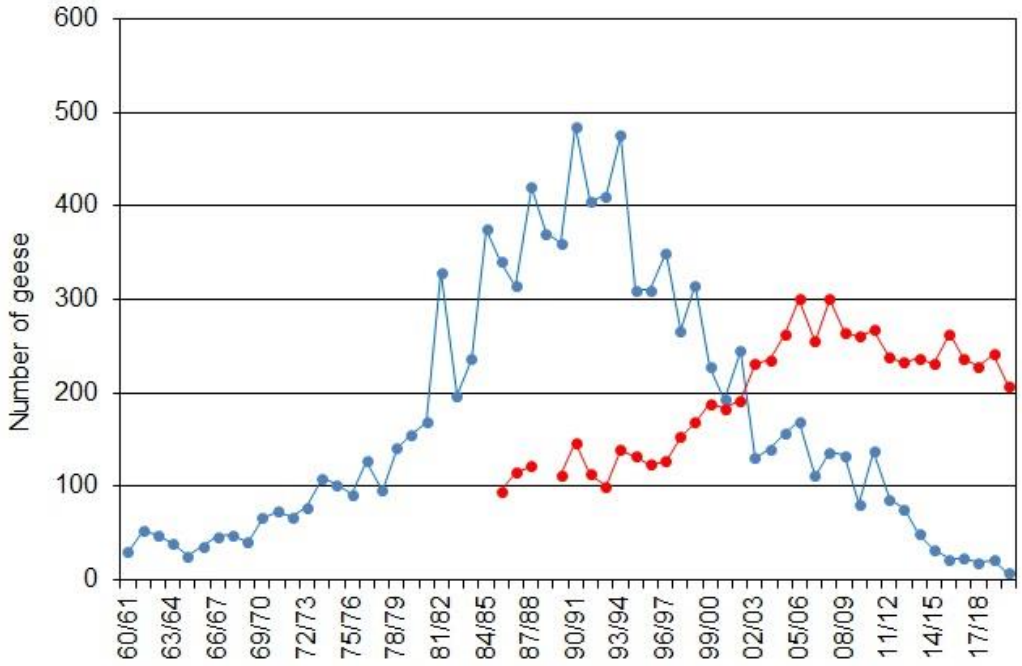

Figure 1. Winter peak counts of Taiga Bean Geese at Slamannan Plateau, Falkirk (red squares) and at Yare Valley, Norfolk (blue circles) from 1960/61–2019/20.

2. Breeding success

Breeding success was estimated from a sample of 141 birds at Slamannan in late October and 16 birds were aged as first-winter (11.3% young), with a mean brood size of 3.0 young per successful pair (Figure 2). Breeding success, measured as percentage of young birds in a flock, has been below 5% in three out of the last six years.

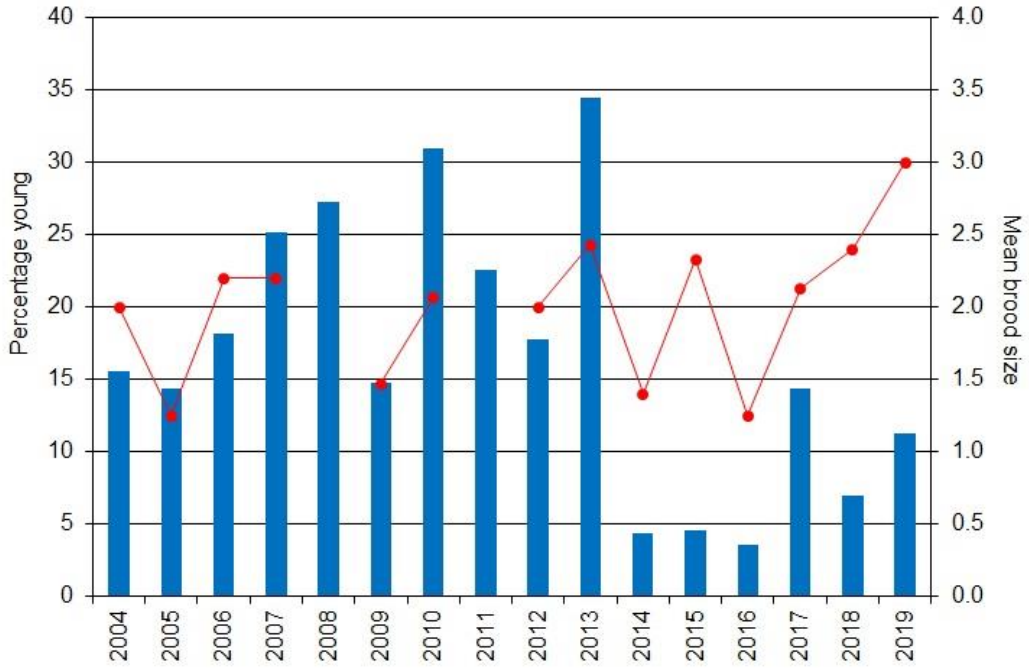

Figure 2. The percentage of young (blue columns) and mean brood size (red line) of Taiga Bean Geese recorded at Slamannan Plateau, 2004–2019.

3. Discussion

Since the peak counts of 300 Bean Geese in 2005/06 and 2007/08, numbers at Slamannan have declined, and the peak count in 2019/20 (207 birds) continues this slow decrease. Breeding success in 2019, as recorded at Slamannan, was not that low (11.3%), so it is perhaps surprising that the winter flock decreased. There appears to be a mismatch between annual breeding success and the number of birds over-wintering in Scotland. In winter 2018/19, only 7% young was recorded, and winter numbers increased by 6%, but in winter 2019/20 there was 11% young and numbers decreased by 14%; the opposite to what might be expected. Quite what is driving the change in numbers at the site is not clear. The surveillance may suffer from low sample sizes when determining breeding success, or there may yet be hitherto undetected connections with birds wintering in Scotland one year and in Denmark the next.

Numbers at the Yare Valley were very low in winter 2019/20. The decline has been remarkable, since over 400 birds were recorded there as recently as 1993/94. It is likely that rather than crossing the North Sea to winter in Norfolk, Bean Geese are ‘short-stopping’ and wintering in Denmark instead.

4. Acknowledgements

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Goose & Swan Monitoring