

WWT/JNCC/SNH Goose & Swan Monitoring Programme
 survey results 2016/17
 Taiga Bean Goose *Anser fabalis fabalis*

1. Abundance

During winter 2016/17, monitoring of Taiga Bean Goose, was again undertaken at the Slamannan Plateau, Falkirk, by members of the Bean Goose Action Group and at the Yare Valley, Norfolk, by RSPB reserve wardens. A peak count of 216 birds was recorded at Slamannan, lower to the previous ten-year mean (255 ± 6.7 SE) (Figure 1) and well below the peak there of 300 birds in winters 2005/06 and 2007/08. At the Yare Valley, where the number of wintering Bean Geese has been declining since 1993/94, the peak count of 23 geese was one bird higher than in 2015/16, when 22 geese were recorded. The slow decline of this important flock continues and the previous ten-year mean has declined to 87 birds (± 13.6 SE).

The first 150 birds arrived at Slamannan on 4 October and the autumn highest count was of 216 birds on 14 October. The autumn gathering began to break up into smaller flocks, and it is unknown if there was an influx of late arriving birds. Migration back to the spring stop over sites in Denmark again took place unusually early in February 2016, with birds leaving on the evening of 5 February (but see below). At the Yare Valley, the geese again arrived slightly later than usual. No geese were recorded in October and the first birds (22 individuals) were seen on 26 November. The highest winter count of 23 birds was recorded the next day. That number was never beaten or matched during the remainder of the winter. Twenty-one Bean Geese were counted on 15 January 2017, but by 21 January only six birds remained – the last sighting of the winter. The duration of stay of the Yare Valley flock appears to be getting shorter each year. No neck collared birds ringed in Sweden were recorded at the Yare Valley during winter 2016/17.

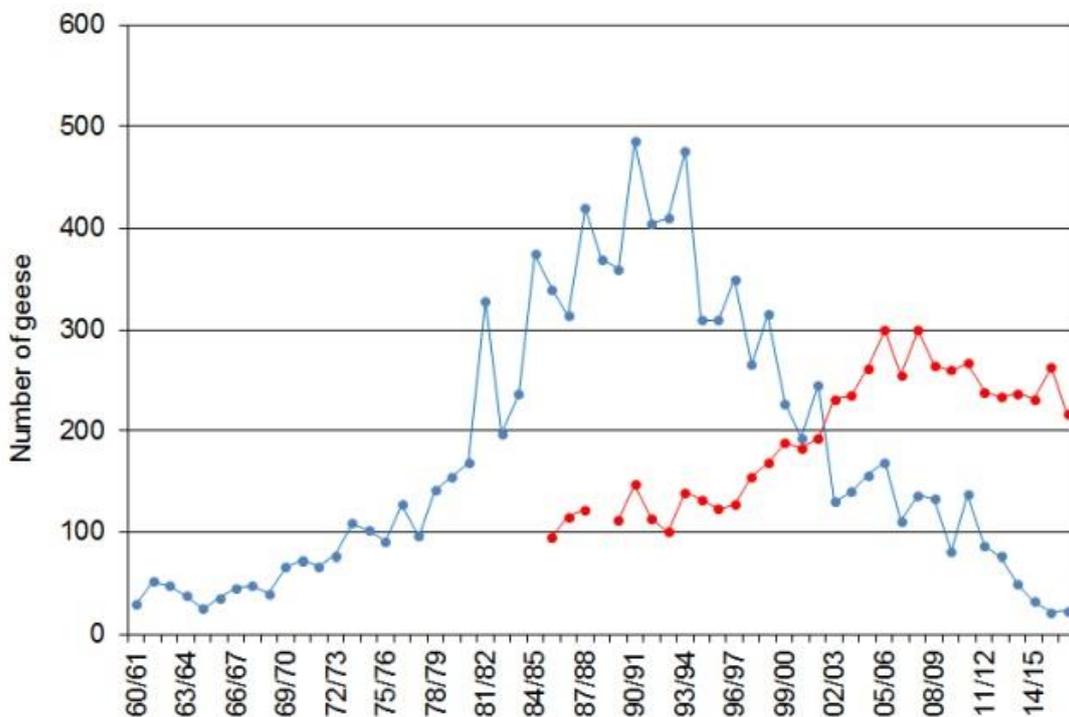


Figure 1. Winter peak counts of Taiga Bean Geese at Slamannan Plateau, Falkirk (red circles) and at Yare Valley, Norfolk (blue line) from 1960/61–2016/17.

2. Breeding success

Age assessments at Slamannan indicated that 2016 was again a poor breeding year for Taiga Bean Geese wintering in Scotland. A flock of 138 birds was aged on 24 October, of which five (3.6%) were young birds (Figure 2). Four families were identified with a mean brood size of 1.25 goslings per successful pair. Breeding success data were not collected at the Yare Valley.

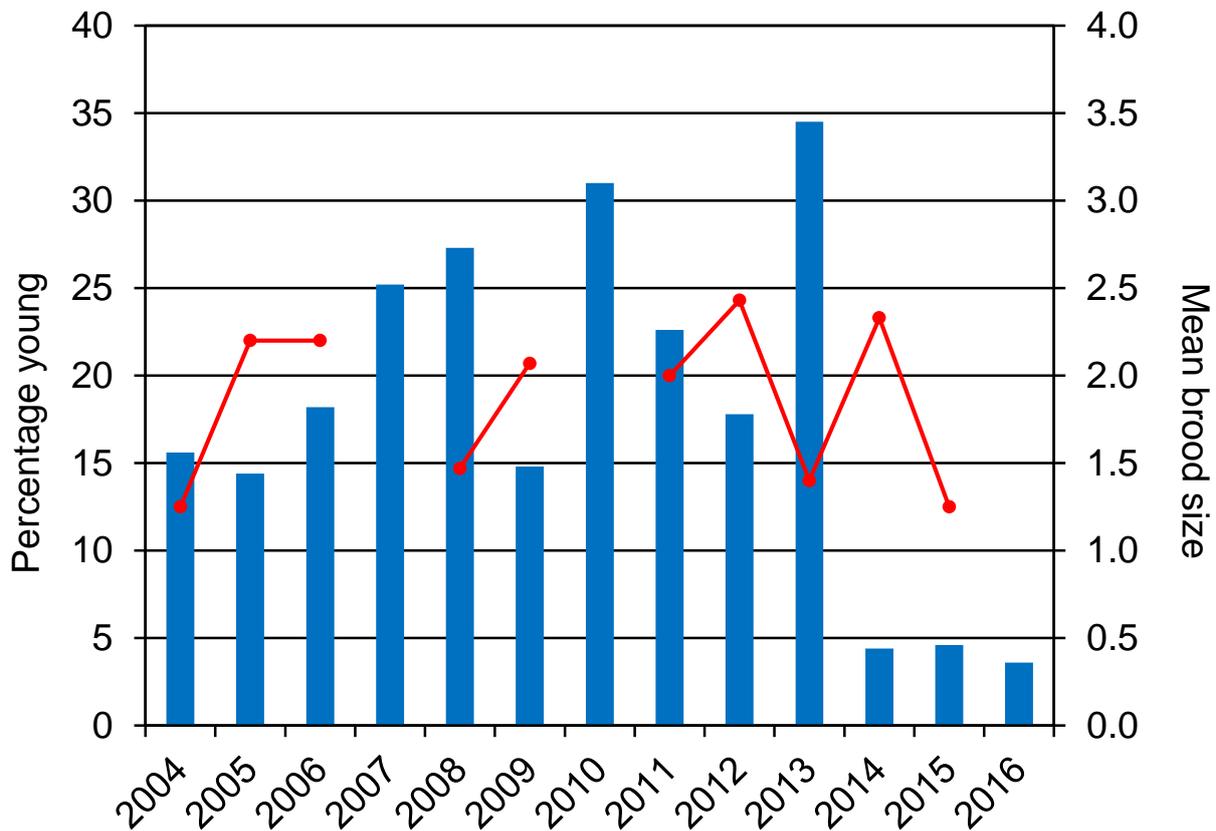


Figure 2. The percentage of young (blue columns) and mean brood size (red line) of Taiga Bean Geese recorded at Slamannan Plateau, 2004–2016.

3. Spring migration from Slamannan

Part of the Slamannan flock left Scotland on the late evening of 5 February and others on the morning of 6 February 2017. Some of the migrating birds flew into strong headwinds half ways across the North Sea and rather than push on, either abandoned the crossing and turned back or simply got carried along with the strong south-easterly winds. GPS data showed that some of the birds landed in Orkney before heading south straight back to Slamannan. They then made a successful crossing a week later (20 February). One bird stayed on Orkney and made a direct crossing to Denmark alone.

4. Discussion

Since the peak count of 300 Bean Geese in 2005/06 and 2007/08, numbers at Slamannan have declined to approximately 200–270 birds, although the peak count in 2016/17 (216 birds) was a decrease on recent years.

Breeding success in 2016, as recorded at Slamannan, was again poor; however, because this flock is <1% of the whole population, this estimate may not be representative of overall breeding success in the population. Bean Geese are not legal quarry in Scotland and few are probably shot in Sweden, Norway or Denmark. With poor breeding success recorded at Slamannan since 2014/15 (Figure 2), it is therefore perhaps unsurprising that the number of geese recorded there has decrease recently. There may be unknown sources of mortality affecting this small group, or there may be connectivity between the Scottish winter flock and those wintering on the continent. Based on sightings of colour ringed birds, we know that one of the 33 Bean Geese marked at Slamannan since 2011 has over-wintered on the continent.

Numbers at the Yare Valley continue to decline and the winter 2016/17 count of 23 birds is the second lowest since 1954/55. 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. This phenomenon might also help explain why the Slamannan flock is not increasing (see above).

An analysis of location data provided by GPS collars documented the movements of the Slamannan flock to their hitherto unknown breeding quarters in south central Sweden and helped to identify key staging areas in Denmark and Norway (Mitchell *et al.* 2016).

5. Acknowledgements

Thanks are extended to Angus Maciver (Bean Goose Action Group) and Ben Lewis (RSPB) for providing additional information above.

6. References

Mitchell, C., L. Griffin, A. Maciver, B. Minshull & N. Mckan, N. .2016. Migration routes, stop-over locations and breeding area of Taiga Bean Geese *Anser fabalis fabalis* wintering in central Scotland. *Bird Study* 63: 437–446

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