WWT/JNCC/SNH Goose & Swan Monitoring Programme

survey results 2007/08

European White-fronted Goose *Anser albifrons albifrons*

1. Abundance

The abundance of European White-fronted Geese during 2007/08 was monitored through the Wetland Bird Survey (WeBS); the results are expected to become available in 2010.

2. Breeding success

A total of 1,634 European White-fronted Geese was aged at eight localities in Britain between 13 December 2007 and 23 January 2008. Flock sizes varied from 83 to 624 birds. The overall percentage of young present was 24.3% (an increase of 7.6% on 2006/07) but ranged from 3.3% in Kent to an average of 34.5% for Norfolk sites. Brood size was recorded for a total of 104 families and ranged from 1-4 goslings. The mean brood size per successful pair was 1.9 (±0.16 s.e.) goslings.

The proportion of young and mean brood size of European White-fronted Geese during winter 2007/08.

Region	No. sites	Total aged	% young	No. broods	Mean brood size
Gloucestershire	1	508	16.9	26	2.5
Kent	1	60	3.3	0	-
Norfolk	4	783	34.5	59	1.8
Suffolk	2	283	14.2	19	1.5
Total	**8**	**1,634**	**24.3**	**104**	**1.9**

3. Discussion

The breeding success of European White-fronted Geese wintering in the UK during 2007/08 increased compared to 2006, although the percentage young recorded was still lower than both the 2005 and 2004 winters. Prior to 2004/05, estimates of annual breeding success were only routinely carried out at WWT Slimbridge, Gloucestershire.

The proportion of young birds recorded at Slimbridge in 2007/08 was slightly higher (2.2%) than that recorded in 2006 but remained below the recent ten year mean (1997-2006: 20.6%, ±2.4 s.e.). The mean brood size (2.5 goslings per successful pair) was also higher than the preceding year (2.2) and comparable to the recent 10-year mean (1997-2006: 2.55, ±0.2 s.e.).

One of the main influences on the breeding success of tundra-nesting geese is the cyclic pattern of lemming populations. Breeding success generally decreases in years of low lemming abundance as a result of predators switching from lemmings to birds (Blomqvist *et al.* 2002). During 2007, monitoring stations in the Artic recorded low numbers of lemmings (Soloviev & Tomkovich 2008). However, for certain parts of the breeding range a low abundance of predators (predominantly Artic Foxes) was also recorded.

The percentage of young in each flock varied greatly between sites. Particularly high proportions of young were recorded in Norfolk (60% at Holkham NNR), as opposed to Kent where only 3.3% of the flock were first winter birds. The degree of variation between flocks stresses the need to continue age assessments at a range of wintering sites to ensure estimates of breeding success are representative of both the total British and Baltic/North Sea populations.

4. References

Blomqvist, S, N Holmgren, S Åkesson, A Hedenström & J Pettersson. 2002. Indirect effects of lemming cycles on sandpiper dynamics: 50 years of counts from southern Sweden. *Oecologia* 133: 146-158.

Soloviev, M & P Tomkovich. (Eds.) 2008. *ARCTIC BIRDS: an international breeding conditions survey*. Online database: http://www.arcticbirds.ru/ Accessed 15 May 2008.

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