

WWT/JNCC/SNH Goose & Swan Monitoring Programme survey results 2014/15

East Canadian High Arctic Light-bellied Brent Goose *Branta bernicla hrota*

1. Abundance

A total of 31,985 Light-bellied Brent Geese were counted during a near-simultaneous census in the southern part of the wintering range in early November (UK, Ireland, France and Jersey). The current lack of aerial survey coverage in western Iceland means that an unknown number may have been present there, although the census date has been moved to a later date in order to try and minimise this. The total count, whilst possibly an undercount, continues a recent trend of counts falling within the range of 30–40,000 (Figure 1).

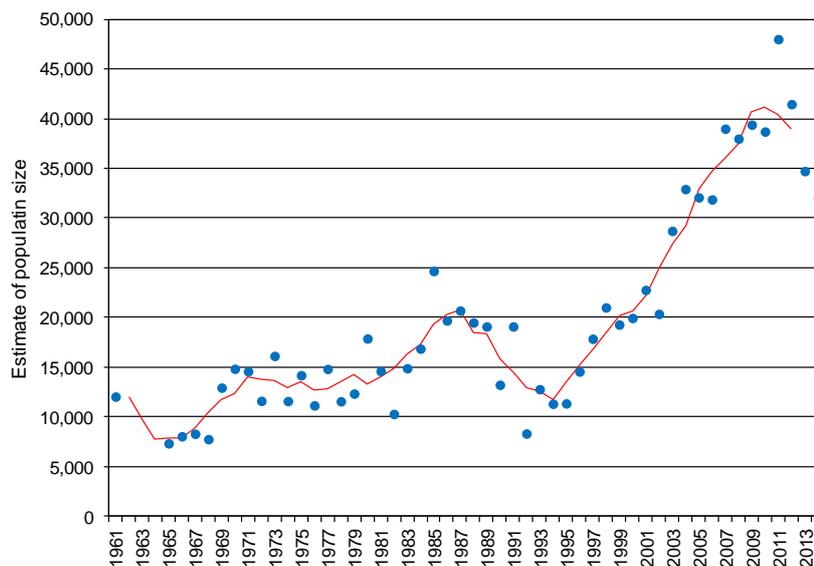


Figure 1. Annual census-derived estimates of Canadian Light-bellied Brent Goose population size, 1960–2014. Five-year running mean shown as red line (e.g. mean for 2011 is from population estimates for 2009–2013).

2. Breeding success

The decrease in abundance is supported by the fact that 2014 was another poor breeding season, the third in succession. The population contained an estimated 4.1% young in a sample of almost 14,000 birds aged (Figure 2). The mean brood size was 2.1 young per family unit.

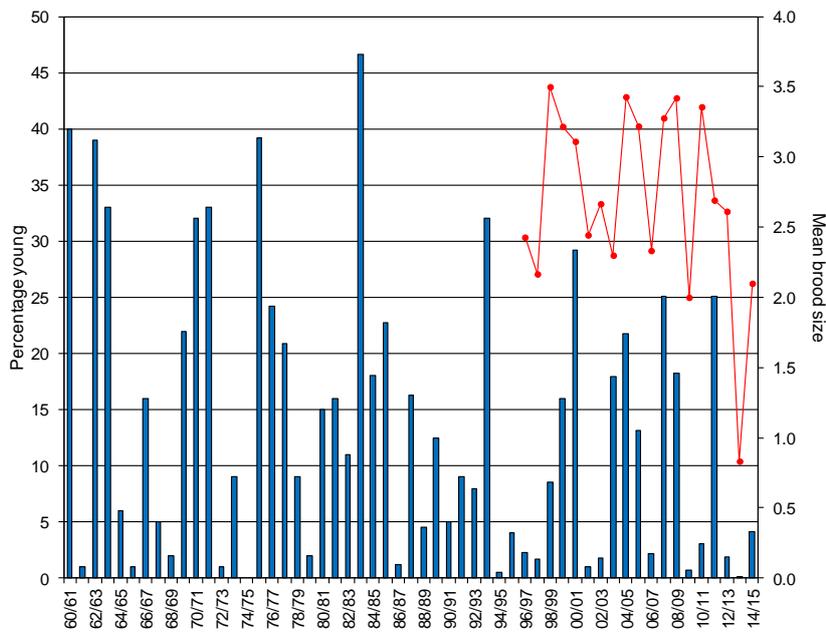


Figure 2. The mean percentage of young (blue columns) and mean brood size (red circles) of East Canadian High Arctic Light-bellied Brent Geese, 1996/97–2014/15.

3. Discussion

Thus, following a period of long-term growth, the Canadian Light-bellied Brent Goose population has shown signs of significant decline over recent years. A peak count of in excess of 48,000 in 2011 was inflated by high productivity (25.0%) in that season, but a series of poor breeding seasons since then (2012–2014 inclusive; mean 2.0%) has undoubtedly contributed to the lower census totals, in the range 30–40,000, during that period.

However, the lack of an autumn survey in Iceland will inevitably have also contributed to the observed decline, meaning that these census totals are probably also an underestimate of actual population size. Thus, it is currently difficult to estimate population size for Canadian Light-bellied Brent Geese with any certainty. In an effort to minimise the effect of this reduced census coverage, we delayed the census date from the typical mid-October period to early November, in order to maximise the number of birds that had already migrated to Ireland or further south where surveys could be undertaken. Accordingly, the population was more dispersed than is usual for an autumn census and counts were received from a larger number of sites. Coverage was comprehensive throughout Ireland, western Scotland, Wales, western England, Jersey and northern France.

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