

# WWT/JNCC/SNH Goose & Swan Monitoring Programme

## survey results 2013/14

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

#### 1. Abundance

The East Canadian High Arctic population of Light-bellied Brent Goose has been undergoing a long-term period of growth for several decades, and this has been particularly rapid since around 2000 (Figure 1). October 2013 saw the 19th consecutive international census during which near simultaneous counts were undertaken at the main resorts in Ireland (chiefly Strangford Lough) and western Iceland (surveyed from the air). The 2013/14 season showed a decline in the population to 34,734 birds from previous peaks in excess of 40,000 birds in 2011 and 2012.

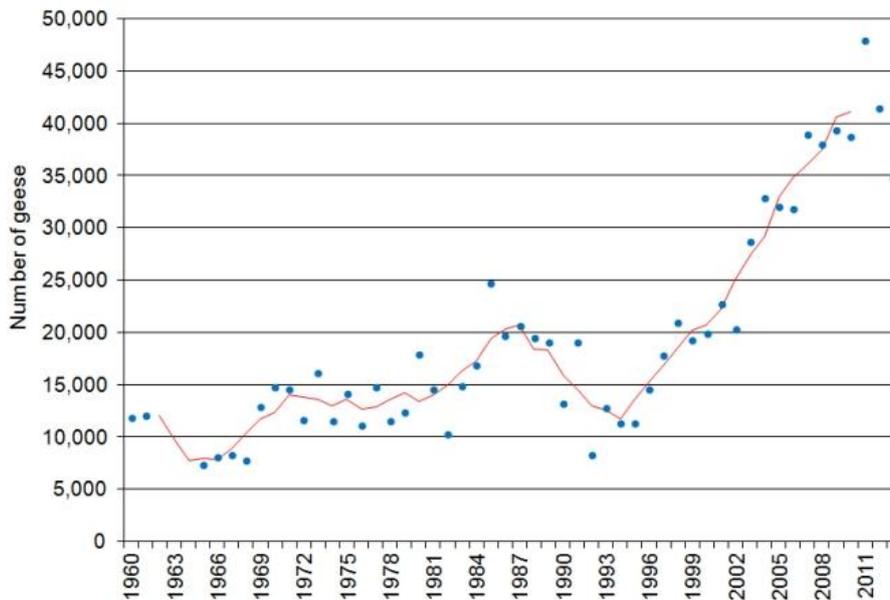


Figure 1. Annual census-derived estimates of Canadian Light-bellied Brent Goose population size, 1960-2013. Five-year running mean shown as red line (e.g. mean for 2011 is from population estimates for 2009-2013).

#### 2. Breeding success

The summer of 2013 was an especially poor breeding season with observers struggling to see any juvenile birds throughout the winter period. In autumn 2013, a sample of 14,169 birds aged yielded just six juveniles in five small family groups (comprising one or two juveniles), equivalent to productivity of just 0.04% (Figure 2).

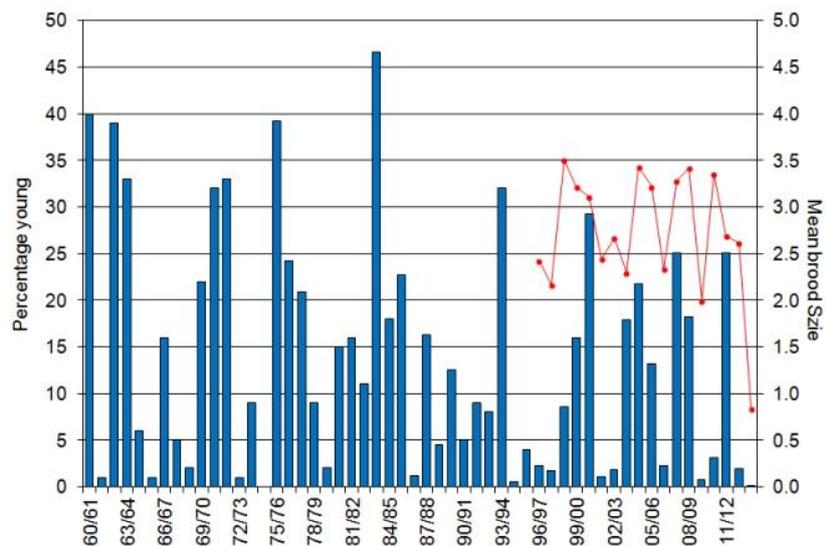


Figure 2. The mean percentage of young (blue columns) and mean brood size (red circles) of East Canadian High Arctic Light-bellied Brent Geese, 1996/97-2013/14.

### 3. Discussion

Following the peak count in 2011 (48,002), two consecutive years with very low breeding success (< 2%) has, unsurprisingly, led to a halt in the growth of the population. Despite the census total of around 35,000 birds being generated from simultaneous counts in the two main concentrations (western Iceland and Northern Ireland) the low total may have been an undercount. As is always the risk, a northerly airflow on the weekend of the count may have led to unrecorded birds (which count certainly run into many thousands) being ‘at sea’ on their migration between Iceland and Ireland. However, weekly counts at Strangford did not show a pronounced increase in birds in the week following the count (though birds may already have been passing through this site or going to other concentrations at, for example, Lough Foyle).

Detailed research is on-going into the ecology of this flyway population through annual work in Ireland and Iceland. In the summer of 2014 the most comprehensive study of the breeding ecology to date was undertaken by the University of Exeter, Canadian Wildlife Service and Irish Brent Goose Research Group. These studies at recently discovered breeding concentrations in Axel Heiberg and Ellesmere Islands in the Canadian Arctic will add considerably to our basic understanding of the species’ poorly known breeding ecology. Early indications suggest that 2014 may see modest breeding success, estimated to be in the range 5-10% young.

This report should be cited as:

WWT. 2014. *Goose & Swan Monitoring Programme: survey results 2013/14 East Canadian High Arctic Light-bellied Brent Goose Branta bernicla hrota*. WWT/JNCC/SNH, Slimbridge.

© Wildfowl & Wetlands Trust

All rights reserved. No part of this document may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior permission of the copyright holder.

This report was produced under the Goose & Swan Monitoring Programme (GSMP). This programme monitors numbers and breeding success of geese and swans in the UK during the non-breeding season. GSMP is organised by the Wildfowl & Wetlands Trust in partnership with the Joint Nature Conservation Committee (on behalf of Natural Resources Wales, Natural England and the Council for Nature Conservation and the Countryside) and Scottish Natural Heritage.



## Goose & Swan Monitoring