

WWT/JNCC/SNH Goose & Swan Monitoring Programme

survey results 2014/15

Iceland Greylag Goose *Anser anser*

1. Abundance

The 55th consecutive Icelandic-breeding Goose Census (IGC) took place during autumn and winter 2014/15, providing information on the abundance and distribution of Iceland Greylag Geese.

Counts were conducted by a network of volunteer observers and professional conservation staff over the weekend of 15/16 November. An additional early spring count was conducted over the weekend of 28 February/1 March 2015. Coverage in Britain in November was good, with 102 sites checked in November. Outside Britain, counts were made at several sites in Ireland, southwest Norway (no counts of Greylag Geese were made in southwest Norway during November; however, 1,570 birds, the number counted there in January 2015, was used as an estimated count for the November period), the Faroes and Iceland.

The total count in November was 119,853 Greylag Geese (Table 1). Following adjustments for the presence of British Greylag Geese, which is significant in some areas, and the addition of estimated counts (for definitions and methods see full report, Mitchell 2015.), a population estimate of 89,668 was derived, and represented a small increase of 1.2% compared to 2013/14 (Figure 1), when a population size of 88,577 individuals was estimated.

By November, 69.0% of the population was present in north Scotland, with most of the remainder in Iceland (21.3%).

Table 1. Regional distribution of Iceland Greylag Geese during November 2014.

Region	November
Iceland	32,000
Southwest Norway	1,570*
Ireland	1,726
North Scotland	77,807
Northeast Scotland	854
East Central Scotland	1,936
Southeast Scotland/northeast England	1,553
Southwest Scotland/northwest England	1,371
<i>Total Counted</i>	119,853
<i>Adjusted counts</i>	-30,185
<i>Estimated counts</i>	–
<i>Adjusted total</i>	89,668
Population estimate	89,668

*Count made in January 2015

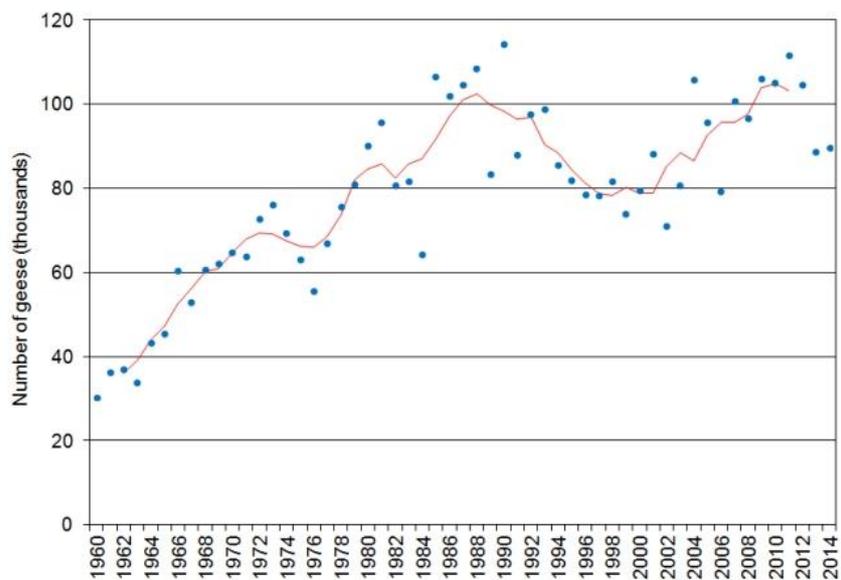


Figure 1. Annual census-derived estimates of Iceland Greylag Goose population size, 1960-2014. Five-year running mean shown as red line (e.g. mean for 2012 is from population estimates for 2010-2014).

2. Breeding success

During early December, 5,002 Greylag Geese from 31 flocks were aged at various localities in Orkney and Caithness. The sample, expressed as a proportion of the 2014 population estimate, was 5.7%. The brood size of 40 families was also determined during this period. Breeding success was similar to the recent mean, with flocks containing 22.3% young (mean 2004–2013: 22.6% \pm 0.76 SE) (Figure 2). The mean brood size of 2.70 goslings per successful pair was slightly higher than that of the recent ten year mean (mean 2004–2013: 2.28 \pm 0.09 SE).

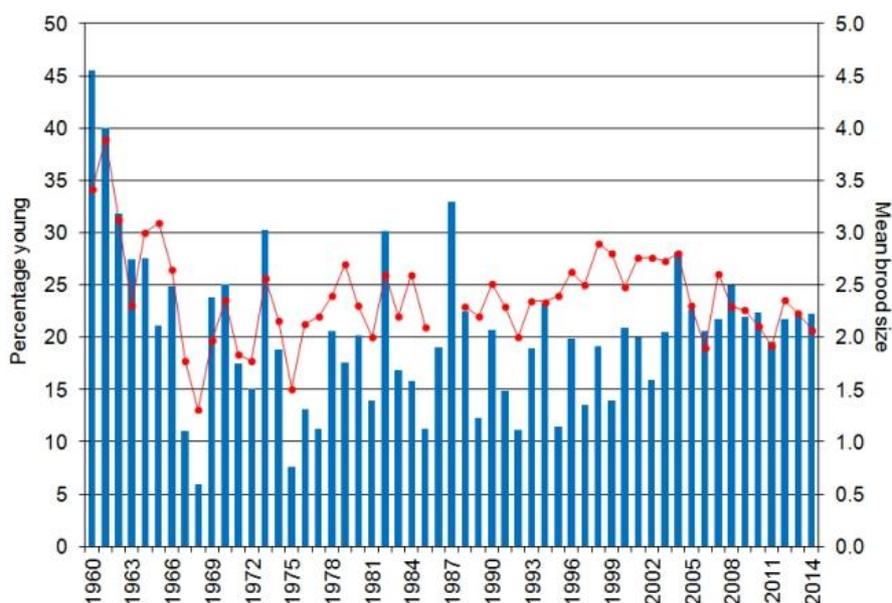


Figure 2. The percentage of young (blue columns) and mean brood size (red circles) of Iceland Greylag Geese, 1960-2014.

3. Discussion

The November 2014 count of Iceland Greylag Geese was thought to be reasonably comprehensive with sites being covered throughout most of the winter range. Coverage in Ireland was not complete (compared with an extensive survey carried out there in autumn 2007) and it is possible that the number of geese in Ireland, particularly in Northern Ireland, is greater than reported here.

The population estimate of 89,668 geese is similar to that in 2013 and confirms the recent decline from over 100,000 birds (as recently as 2012). Greylag Goose remains a favoured quarry species in Iceland, with 30,000 to 40,000 birds shot there annually and, as reported last year that has been a dramatic increase in the number of Greylag Geese shot in Orkney to reduce the British Greylag Goose population on the archipelago, and it is highly likely that more Iceland migrants are being shot there too.

Orkney continues to hold the bulk of the winter stock. After deducting the number of Greylag Geese thought to be resident on the archipelago, based on a summer survey carried out in August 2013 (Mitchell *et al.* 2014), and taking account of those shot under a pilot management programme, an estimated 45,881 Iceland birds were thought to be present in November, 2.5% lower than during the same month in the previous year.

Increasing numbers of British Greylag Geese in core wintering areas for the Iceland migrants, such as Shetland, Orkney, the Moray Firth, Bute and other parts of Scotland and Ireland means that

assessing the abundance of the Iceland migrants is difficult. Where there are reasonable estimates of the abundance of summering Greylag Geese (for example on Orkney) these are subtracted from winter counts. However, up to date information on the abundance of British Greylag Geese south and east of an arbitrary line from Bute east to Aberdeen is largely lacking and, simply as a precaution, any counts obtained through IGC from this area are matched by subtracting that figure (assuming that the majority of birds counted are British). This is unsatisfactory, and is only carried out as a precautionary measure. An analysis of movements of Iceland Greylag Geese based on sightings of individually marked birds in the late 1990s/early 2000s showed that some Iceland migrants moved south within Scotland to winter (Swann *et al.* 2005). It is not known if this is still the case since ringing of the population stopped in the mid 2000s. It is highly likely that a small proportion of Iceland migrants do move south to winter in south east Scotland, but since the proportion is unknown, a precautionary approach has been adopted.

Breeding success in the Iceland Greylag Goose population, as measured on the wintering grounds, appeared to be average in 2014 (22.3%), although the figure was based on a small sample size. Due to their later migration and more limited range, age counts were only collected in one region (North Scotland) during early December. Monitoring annual breeding success for this population is becoming more difficult because the main wintering areas (Orkney, Caithness and around the Moray Firth) hold ever larger numbers of British Greylag Geese and separating birds from each population is impossible in the field. The percentage of young in the Iceland bag was 52%, slightly higher than the previous ten year average of 47% (A. Sigfússon *in litt.*). The population dynamics of this population merit greater study since the population must sustain one of the highest rates of annual mortality through hunting of any goose population and is balanced, presumably, by particularly high rates of breeding success. The long term dynamics of populations that can sustain such mortality would be of particular interest to those wishing to control abundance of goose populations.

4. Acknowledgements

As ever, thanks are extended to the many IGC counters who provided the basis of the population assessments. Of particular importance is the role of the Local Organisers. G. Gudmundsson and A. Sigfússon provided information from Iceland, Helen Boland from Birdwatch Ireland, Helga Bára Mohr Vang from Faroes and Arne Follestad from Norway.

5. References

- Mitchell, C. 2015. *Status and distribution of Icelandic-breeding geese: results of the 2014 international census*. Wildfowl & Wetlands Trust Report, Slimbridge.
- Mitchell, C., A Leitch & E Meek. 2014. *The abundance and distribution of British Greylag Geese in Orkney, August 2014*. Wildfowl & Wetlands Trust Report, Slimbridge. 30pp.
- Swann, RL, I.K. Brockway, M Frederiksen, R Hearn, C Mitchell & A Sigfússon. 2005. Within-winter movements and site fidelity of Icelandic Greylag Geese *Anser anser*. *Bird Study* 52: 25-36

This report should be cited as:

WWT. 2015. Goose & Swan Monitoring Programme: survey results 2014/15 Iceland Greylag Goose Anser anser. 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 Department of Agriculture, Environment and Rural Affairs, Northern Ireland.) and Scottish Natural Heritage.



Goose & Swan Monitoring