

# WWT/JNCC/SNH Goose & Swan Monitoring Programme

## survey results 2017/18

### Pink-footed Goose *Anser brachyrhynchus*

## 1. Abundance

The 58th consecutive Icelandic-breeding Goose Census took place during autumn and winter 2017, providing information on the abundance and distribution of Greenland/Iceland Pink-footed Geese. A full account of the census can be found in Brides *et al.* (2018).

Counts were conducted by a network of volunteer observers and professional conservation staff over the weekends of 21/22 October and 18/19 November 2017. An additional early spring count was conducted over the weekend of 10/11 March 2018 in order to assess distribution at this time of year (see Brides *et al.* (2018)).

Coverage in the UK was good, with 98 sites visited in October and 106 in November. Outside the UK, counts were made at several sites in Iceland during October, when some birds had not yet left breeding areas.

Totals of 515,852 and 376,798 Pink-footed Geese were counted in October and November, respectively (Table 1). The total numbers counted in these months were 7.2% and 3.6% higher than the respective unadjusted counts in the previous year. Coverage was good, and no estimated counts needed to be added to the total. The peak winter total in October was used to derive a population estimate of 515,852 geese. This represents an increase of 7.2% on the previous year (Figure 1).

During the October census, 15 sites held over 10,000 Pink-footed Geese. The highest numbers were recorded at Montrose Basin, Angus which held 80,000 birds (15.5% of the population estimate), Morecambe Bay, Southwest Lancashire (38,600, 7.5%), Beaully Firth, Highland (29,500, 5.7%), WWT Martin Mere, Southwest Lancashire (25,000, 4.8%), West Water Reservoir, Borders (20,150, 3.9%), Carsebreck and Rhynd Lochs, Perth and Kinross (19,500, 3.8%), Whitton Sands, Humber (18,100, 3.5%), Findhorn, Moray (16,130, 3.1%) and Loch of Skene, Aberdeenshire (16,000, 3.1%). Combined counts from the 27 sites holding numbers exceeding 1% of the population estimate (5,158 birds) accounted for 82.9% of the total October count.

Table 1. Regional distribution of Pink-footed Geese during October and November 2017 (nc = not counted, or no count received).

<b>Region</b>	<b>October</b>	<b>November</b>
Iceland	6,000	nc
Faroe Islands	nc	nc
North Scotland	62,043	52,866
Northeast Scotland	58,922	40,861
East Central Scotland	149,904	60,890
Southeast Scotland/Northeast England	15,625	25,723
Southwest Scotland/Northwest England	69,961	39,104
West England	96,335	58,746
East England	57,062	98,608
<i>Total Counted</i>	515,852	376,798
<i>Estimated counts</i>	0	0
<i>Adjusted total</i>	515,852	376,798
<b>Population estimate</b>	<b>515,852</b>	

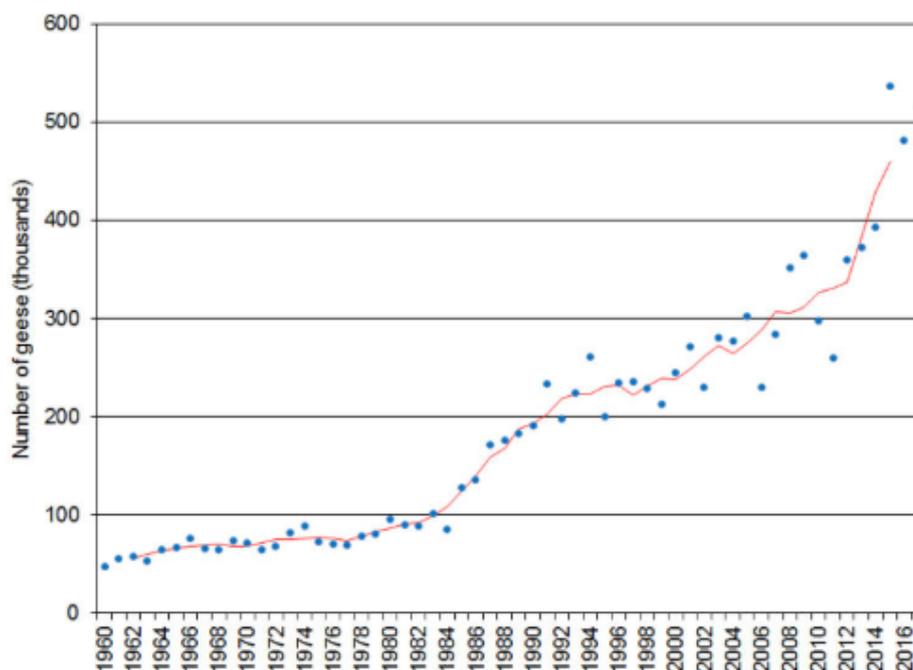


Figure 1. Annual census-derived estimates of Pink-footed Goose population size, 1960–2017. Five year running mean shown as red line (e.g. mean for 2014 is from population estimates for 2012–2016).

## 2. Breeding success

Between early October and late November, a total of 24,590 Pink-footed Geese, in 34 flocks, was aged at various locations throughout Scotland and England. This sample represents 4.8% of the 2017/18 census-derived population estimate. The brood size of 448 families was also determined during this period.

Breeding success was similar to the mean for the previous decade, with 17.1% young recorded (mean 2007–2016: 18.4% ± 1.2 SE) (Figure 1). The mean brood size of successful pairs was 1.85 young, which was lower than the mean recorded during the previous ten years (mean 2007–2016: 2.05 ± 0.06 SE).

Table 2. The percentage of young and mean brood size of Pink-footed Geese in autumn 2017.

Region	Time period	Total aged	Percentage of young (%)	Number of broods	Mean brood size
North Scotland	Late Oct	500	17.8	2	1.00
Northeast Scotland	Early Oct	1,200	16.6	76	2.01
	Late Oct	1,329	17.9	27	2.07
	Late Nov	400	16.5	–	–

<b>Region</b>	<b>Time period</b>	<b>Total aged</b>	<b>Percentage of young (%)</b>	<b>Number of broods</b>	<b>Mean brood size</b>
East Central Scotland	Early Oct	400	23.3	7	3.14
	Late Oct	3,650	12.5	14	2.00
	Early Nov	400	17.8	3	2.00
	Late Nov	1,750	9.6	–	–
Southwest Scotland	Early Oct	596	13.9	121	1.48
West England	Early Oct	582	16.2	16	1.50
	Late Oct	1,016	26.5	49	1.76
	Early Nov	124	45.2	34	1.65
East England	Late Oct	4,681	21.3	64	1.98
	Early Nov	7,962	15.3	51	2.18
<b>Overall</b>		<b>24,590</b>	<b>17.1</b>	<b>448</b>	<b>1.85</b>

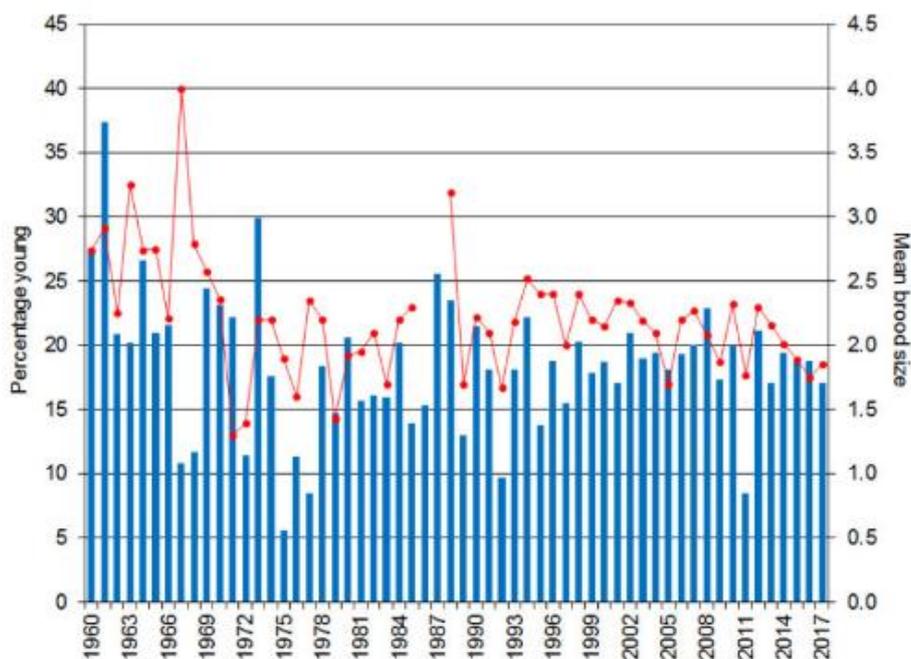


Figure 2. The percentage of young (blue columns) and mean brood size (red circles) of Pink-footed Geese, 1960/61–2017/18.

### 3. Discussion

The 2017 population estimate of 515,852 was 7.2% higher than the previous population estimate of October 2016 (481,341 birds) and is the second highest population estimate ever recorded, with the highest being when the population passed half a million birds in October 2015 (536,871).

The breeding success of Pink-footed Geese in 2017, at 17.1% young was slightly lower than the previous year (18.8%) and lower than the previous ten-year mean of 18.4% ( $\pm 1.22$  SE).

Recent research through the GPS tracking of individual Pink-footed Geese has highlighted the possibility that new roosts are being used during the autumn. Thus, the information gathered will be used to identify any new sites that require covering as part of the Icelandic-breeding Goose Census.

### 4. Acknowledgements

Many thanks go to the many IGC counters and Local Organisers who provided the basis of the population assessments. Thanks also go to those who contributed age assessment data.

### 5. References

Brides, K, C. Mitchell, A. Sigfússon & S. N.V. Auhage. 2018. *Status and distribution of Icelandic-breeding geese: results of the 2017 international census*. Wildfowl & Wetlands Trust Report, Slimbridge. 19pp.

This report should be cited as:

WWT. 2018. *Goose & Swan Monitoring Programme: survey results 2017/18 Pink-footed Goose Anser brachyrhynchus.*

WWT/JNCC/SNH, Slimbridge.

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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