

# The influx of European White-fronted and Tundra Bean Geese in Scotland during winter 2011/12

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**Plate 224.** *European White-fronted Goose, Cleish, Perth & Kinross, March 2012.* © John Nadin

At the annual Scottish Ringers' Conference in Carrbridge on 12 November 2011, news filtered through to the delegates that a flock of 38 'whitefronts' had been seen near Kingussie. Initially, it was assumed that they were Greenland White-fronted Geese, since a small number have irregularly wintered in Badenoch & Strathspey in recent years. How wrong we were, since the sightings heralded a remarkable influx of European White-fronted and Tundra Bean Geese into Scotland.

Seven flocks of European White-fronted Geese were reported on Saturday 12 November from Lothian to Moray, including the Kingussie flock. On the same day, two flocks of Tundra Bean Geese, two birds at Sumburgh, Shetland and 11 on North Ronaldsay, Orkney were also seen. The days that followed saw a steady arrival of both species across many parts of Shetland, eastern and south central Scotland. Records were, in part, driven by birdwatchers hearing the news of the first few sightings and making an effort to check local flocks of Pink-footed and Greylag Geese. But the timing of the sightings suggests that the arrival was over a prolonged period rather than a spectacular 'fall' driven by a weather event.

Assessing the scale of the arrival proved difficult due to multiple records from locations close to

each other or movements of geese between sites within Scotland. However, estimates of the numbers involved are given below and have been calculated by:

- 1 for multiple records at sites within 10 km of each other, the highest count reported was used (this may have slightly underestimated the number of geese involved).
- 2 an attempt was made to try to account for large groups reported at different sites. For example, 300 European White-fronted Geese were recorded at Loch of Strathbeg, North-east Scotland on 19 January and 101 geese were reported at Garmouth, Moray (120 km to the west) 11 days later, building to 221 birds on 19 February. This may have involved some of the same birds and hence only the largest count was used. However, the movement of smaller flocks within Scotland was hard to detect and this may have slightly overestimated the number involved in the influx.

The arrival patterns of the two species appeared to be different. By adding the records from November from different sites, larger numbers of European White-fronted Geese appeared to arrive earlier, notably so around 16–18th of the month, than Tundra Bean Geese (Figure 1), the latter appearing to arrive steadily throughout November.

The influx may not have been restricted to November either since the highest counts tended to occur later in the winter, for example 158 Tundra Bean Geese at Loch of Strathbeg, North-east Scotland on 10 December and 300 European White-fronted Geese at the same site on 19 January (see below). This suggests that the arrival was staggered over several weeks - and hence the initial arrivals were not associated with a particular weather pattern (see below).

A regular wintering flock of 200–250 *fabalis* Taiga Bean Geese near Slammanan, Falkirk and about a half of the world's population of Greenland White-fronted Geese on the west coast allow Scottish birdwatchers to familiarise themselves with both of these races. However, an influx of *rossicus* Tundra Bean Geese and European White-fronted Geese into Scotland provided some interesting identification challenges. Autumn 2011 also saw small parties of Greenland White-fronted Geese displaced from their normal wintering areas on the west coast and birdwatchers needed to be wary of quickly assigning races. Light conditions played an important factor when scanning whitefronts. Bubble-gum pink bills and paler upper body parts of the European birds appeared darker on overcast days or those without bright sunshine. Bill shape and size, neck length and again, upper body colour, were variable both within Tundra Bean Geese and between *rossicus* and *fabalis* Bean Geese. All good stuff to keep identification skills honed.

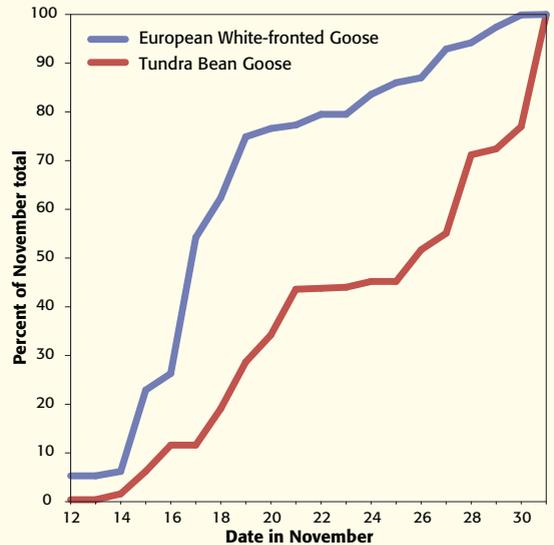


Figure 1. Cumulative counts of European White-fronted Geese and Tundra Bean Geese expressed as a percent of the November total.

In all, 686 records from BirdGuides were used in this brief assessment of the scale and distribution of the influx. It is recognised that these records do not represent a complete picture of the influx and that more records are likely to be submitted to SOC county recorders in the fullness of time - so this brief assessment should be treated as preliminary. Many sightings involved mixed goose flocks with both European White-fronted and Tundra Bean Geese seen in the same flock (30% of the records) and either species seen together with Pink-footed Geese and/or Greylag Geese.



Plate 225. European White-front with Pink-footed Geese, Rossie Bog, Fife, February 2012. © John Nadin

### European White-fronted Geese

*Anser albifrons albifrons*

There were 384 records, ranging from one to 300 birds (median 12 birds) and these probably refer to c. 3,220 birds at 108 sites (Figure 2). The largest count was of 300 birds at Loch of Strathbeg, North-east Scotland on 19 January, 2012 (Table 1). Records were widely scattered in Scotland with the largest number on Shetland, the east coast and in south central Scotland (Figure 2). However, smaller flocks were also reported in Badenoch & Strathspey, Caithness, the Moray Firth, Argyll, Ayrshire, Dumfries & Galloway and the Outer Hebrides.

### White-fronted Geese (not assigned to race)

There were seven records of Greater White-fronted Geese (not assigned to race), ranging from one to 111 birds, and these probably refer to a further 123 geese. The largest count was of 111 birds at Loch of Strathbeg, North-east Scotland on 5 December, however, like most of the other six records, these were eventually assigned to race and recorded on separate occasions.

### Taiga Bean Goose *Anser fabalis fabalis*

Away from the traditional wintering area at Slammanan near Falkirk, there were 27 records, ranging from one to 22 birds, and these probably refer to c. 50 birds at ten sites. Sightings included 22 geese at Portlethen, North-east Scotland seen on 12 November; a date too late to involve birds on passage to Slammanan. Records were widely scattered with three (possibly six) reported from Benbecula, Outer Hebrides, three on Islay and six on Shetland. Taiga Bean Geese at six of the sites were recorded together with Tundra Bean Geese posing identification challenges.

### Tundra Bean Goose *Anser fabalis rossicus*

There were 375 records, ranging from one to 158 birds (median 6 birds) and these probably refer to c. 1,350 geese at 103 sites (Figure 3). The largest count was of 158 geese on 10 December at Loch of Strathbeg, North-east Scotland (Table 1). Records were widely scattered in Scotland with the largest number on Shetland, the east coast and in south-central Scotland (Figure 3). The distribution of records is remarkably similar to that of the European White-fronted Geese, partly a reflection of careful scrutiny of goose flocks by birdwatchers. However, there were few records from Dumfries & Galloway.

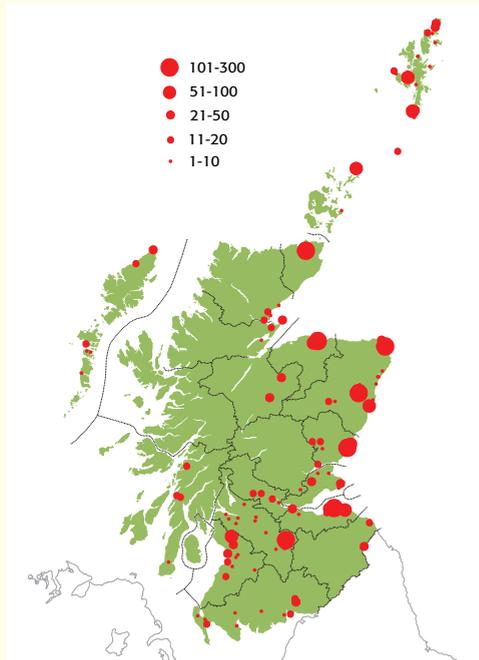


Figure 2. Distribution of maximum counts of European White-fronted Geese recorded at 108 'sites' in Scotland during winter 2011/12.

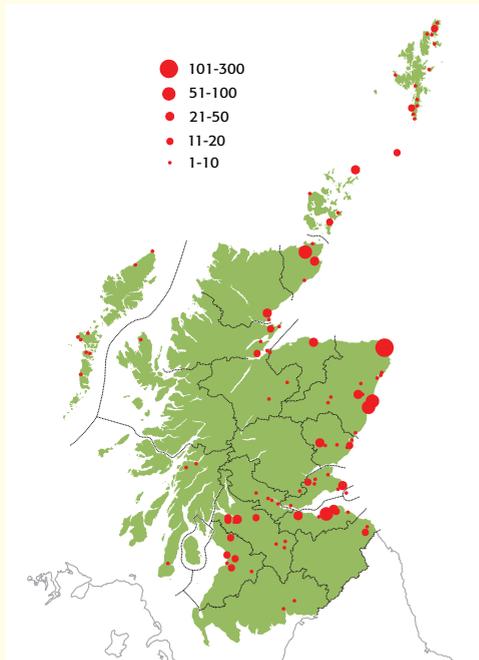


Figure 3. Distribution of maximum counts of Tundra Bean Geese recorded at 103 'sites' in Scotland during winter 2011/12.

**Table 1.** The ten largest counts of European White-fronted Geese and Tundra Bean Geese in Scotland during winter 2011/12. Whilst attempts have been made to try to account for large groups reported at different but nearby sites, the symbol \* indicates likely counts of some geese that may have been recorded at two sites.

European White-fronted Geese			Tundra Bean Geese		
Site	Count	Date	Site	Count	Date
Loch of Strathbeg, NE Scotland	300	19/1/12	Loch of Strathbeg, NE Scotland	158	10/12/11
Inverkeilor, Angus & Dundee	240	3/12/11	Newtonhill, NE Scotland	95*	27/11/11
Camwath, Clyde	232	27/12/11	Rigifa Pool, NE Scotland	82*	28/11/11
Garmouth, Moray & Nairn	221*	19/2/12	Longniddry, Lothian	59	21/12/11
Loch of Skene, NE Scotland	150	24/12/11	Durran, Highland	53	24/2/12
Fenton Barns, Lothian	120	11/12/11	Lochill, Moray & Nairn	42	18/11/11
Durran, Highland	104	24/2/12	Loch of Skene, NE Scotland	42	24/12/11
Urquhart, Moray & Nairn	100	9/1/12	Fenton Barns, Lothian	31	11/12/11
Tynningame Bay, Lothian	88	14/11/11	Loch of Kinnordy, Angus & Dundee	30	14/1/12
Aberlady Bay, Lothian	85*	16/11/11	Erskine, Clyde	29	11/12/11

### Bean Goose (not assigned to race)

In addition to the records of *fabalis* Taiga and *rossicus* Tundra Bean Geese, there were 38 records of Bean Geese not assigned to a race. These ranged from one to 59 birds (median six) and probably refer to a further 310 birds at 25 sites. The largest count was of 59 geese on 14 November on Fair Isle, Shetland. The majority of these were probably Tundra Bean Geese, thus the influx is likely to have involved more than the c. 1,350 birds noted above, although some were undoubtedly seen again, assigned to a race and recorded separately. Thus, we have a little less confidence in the number of Tundra Bean Geese involved in the influx, but it is likely to be between 1,350 and 1,500 birds.

Both European White-fronted Geese and Tundra Bean Geese winter in very large numbers in The Netherlands and Germany, with recent winter population estimates of c. 800,000 of the former and c. 250,000 of the latter in The Netherlands alone. Thus, the winter influx into Scotland involved relatively modest number of birds compared to wintering numbers on the near continent. However, compared to winter records of both species in normal winters the winter 2011/12 influx appears to be the largest in living memory. There were two records of colour-marked European White-fronted Geese in Scotland and records of these geese in previous winters suggest that the influx stemmed from birds that normally winter in The Netherlands.



**Plate 226.** Tundra Bean & European Whitefronted Geese, near Crail, Fife, November 2011. © John Nadin

The cause of the influx remains a mystery. Weather conditions, particularly the strength and direction of wind in the week preceding 12 November and the week that followed, did not reveal any indications of strong south-easterlies or easterlies ([www.wetterzentrale.de/topkarten/tkfaxbraar.htm](http://www.wetterzentrale.de/topkarten/tkfaxbraar.htm)) which may have aided a rapid influx. Nor was the arrival related to a cold weather movement associated with occasional influxes in mid-winter from continental areas. For example, from mid-January to early March 1996, more than 20 Tundra Bean Geese (and more than 100 'Bean Geese') and at least 600 European White-fronted Geese were recorded in eastern Scotland during a cold spell on the continent (Forrester *et al.* 2007).

Weather charts for early November suggest a period of relative calm prior to the first arrivals. A high pressure system was sitting over the southern Baltic Sea area on 11 and 12 November providing only light south-easterlies across the continental part of the North Sea. However, weather records from Terschelling (an island on the north-west coast of The Netherlands, 53.38N 5.35E) reported fog on 8, 9 and 10 November. Could a combination of fog and light south-easterlies have been sufficient to promote a drift of European White-fronted Geese to the north and west over the North Sea? Kees Koffijberg and Kees Camphuysen kindly reported that 11 European White-fronted Goose carcasses were found on beach surveys in The Netherlands in the month of November and that this number was unusually high. Perhaps some migrating Whitefronts became disorientated on arriving at the North Sea, some perishing, others migrating further west.

However, this does not explain the staggered arrival of Tundra Bean Geese. Contact with the Wetlands International Goose Specialist Group (an umbrella group of goose researchers in Eurasia) confirms that the influx was not restricted to Scotland. Large numbers of both European White-fronted Geese and Tundra Bean Geese were reported from east England and the latter from southern Norway. Thomas Heinicke (Germany) suggested that the influx of Tundra Bean Geese into Norway comprised birds most likely from northern Scandinavia and north-west

Russia and that, based on the timing of the sightings there, the influx could easily have continued into Scotland. This might explain the early records from Shetland, Caithness, the Outer Hebrides, for example. Tony Fox (Denmark) indicated that both European White-fronted Geese and Tundra Bean Geese have been increasing in number in south-east Denmark in recent years from their normal wintering areas in The Netherlands and Germany. Johan Mooij (Germany) mentioned that European White-fronted Geese 'discovered' Flanders and the lower Rhine as wintering areas as recently as the early 1960s and that their numbers increased dramatically there from the early 1980s. Perhaps they exhibit occasional wanderings?

So, perhaps Scotland witnessed influxes on two fronts: a drift of European White-fronted Geese across the North Sea from The Netherlands/Germany and an unusual migration of Tundra Bean Geese from northern Scandinavia and north-west Russia, south-west into Norway and continuing on into Scotland?

Unusually, many flocks of European White-fronted and Tundra Bean Geese in winter 2011/12 remained until well into early spring, for example, the flock of 38 Whitefronts seen near Kingussie on 12 November built to 101 birds by 3 February and remained there until the second week of March. There will be considerable interest next autumn to see if any of the long-staying 'wintering' birds of 2011/12 return to Scotland. For the first-winter geese which arrived in autumn 2011, Scotland is now their 'normal' wintering area.

### Acknowledgements

Thanks go to Stephen Menzies who kindly provided records submitted to BirdGuides ([www.birdguides.com](http://www.birdguides.com)) and to birdwatchers in Scotland who took the time to record their sightings. Tony Fox, Johan Mooij, Thomas Heinicke, Paul Shimmings, Kees Koffijberg and Kees Camphuysen are thanked for their thoughts and provision of records.

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