

## A6.17 Bean Goose *Anser fabalis*

### 1. Status in UK

| Biological status |   | Legal status                           | Conservation status                                                      |
|-------------------|---|----------------------------------------|--------------------------------------------------------------------------|
| Breeding          |   | Wildlife and Countryside Act 1981      | General Protection<br>Species of European Conservation Concern           |
| Migratory         | ✓ | Wildlife (Northern Ireland) Order 1985 | General Protection<br>(UK) Species of Conservation Importance<br>Table 4 |
| Wintering         | ✓ | EC Birds Directive 1979                | Annex II/1<br>Migratory<br>All-Ireland Vertebrate Red Data Book          |

### 2. Population data

|                                 | Population sizes (individuals) | Selection thresholds                 | Totals in species' SPA suite           |
|---------------------------------|--------------------------------|--------------------------------------|----------------------------------------|
| <b>GB</b>                       | 450                            | 50 (see section 5.1.2 for rationale) | 207 (51.8% of GB total)                |
| <b>Ireland</b>                  |                                |                                      |                                        |
| <b>Biogeographic population</b> | 80,000                         | 800                                  | 207 (0.3% of biogeographic population) |

GB population source: Batten et al. 1990

Biogeographic population source: Rose & Scott 1997

### 3. Distribution

The global distribution of Bean Goose extends across northern Eurasia from Scandinavia to the Bering Sea. The species breeds from the shores of the Arctic Ocean, through tundra and taiga zones to about 50°N in the central Asian parts of its range. Birds from the eastern parts of the breeding range migrate to winter in Europe, where it occurs discontinuously in most western European countries.

There are two races of Bean Goose, the Taiga (or Western) Bean Goose *A. f. fabalis* and the Tundra Bean Goose *A. f. rossicus*. Taiga Bean Geese winter in southern Sweden and countries along the southern shores of the Baltic and North Seas after migration from their main breeding area in the taiga zone of northern Fennoscandia and western Russia. Tundra Bean Geese migrate to their wintering grounds in central and southern Europe (from Spain to the Balkans) from breeding grounds on the north Russian tundra (Hagemeijer & Blair 1997; van den Bergh 1999). Some mixing of the two races occurs during autumn and winter, but the races are morphologically clearly separable (Cramp & Simmons 1977; Owen *et al.* 1986).

Most birds wintering in Britain are of the Taiga race from western Russia and northern Scandinavia, but small numbers of Tundra Bean Geese also occur and often associate with European White-fronted Geese with which they share high-latitude breeding grounds (Owen *et al.* 1986; Lack 1986; Rogačeva 1992).

The Bean Goose is no longer a common wintering species in Britain and occurs only in small, widely dispersed groups from north-east Scotland to south-east England generally close to the east coast (Owen *et al.* 1986). There are currently only two regularly used sites: the Slamannan Plateau in central Scotland (used since 1981, Watson 1986) where the numbers of birds fluctuate both within and between winters (Pollitt *et al.* 2000); and the Yare Valley in Norfolk (Parslow-Otsu 1991). The flock formerly wintering in the Dee–Ken valley of south-west Scotland is now extinct (Watson 1986).

Bean Geese have a long association with agricultural habitats foraging mainly on grasses, but also grain from stubble, potatoes, and winter wheat (Cramp & Simmons 1977; Owen *et al.* 1986; Batten *et al.* 1990; Nilsson *et al.* 1999). Roost sites are typically small lakes that are well sheltered and often surrounded by woodland (Batten *et al.* 1990).

#### **4. Population structure and trends**

The total of wintering Taiga Bean Geese in Europe is estimated to be 80,000 individuals, whilst that of the Tundra race is estimated to be 300,000 individuals (Rose & Scott 1997). The largest wintering population of Taiga race birds is found in southern Sweden (30,000 individuals), with the remaining 50,000 birds migrating further south and extending from Britain and the Netherlands, east to Poland (Hagemeyer & Blair 1997; Madsen 1991; Nilsson *et al.* 1999). The population of Taiga Bean Geese staging in southern Sweden has increased from about 20,000 individuals in the early 1960s to 50,000–70,000 in the 1980s (Madsen 1991), suggesting a general increase in the population as a whole, for which the reasons are not currently understood.

The total number wintering in Britain is estimated to be 450 birds (Batten *et al.* 1990). Taiga Bean Geese were much more common in Britain in the early 1800s, often out-numbering other geese at some sites, but a decline began in the 1860s and continued into the early 1900s (Owen *et al.* 1986; Lack 1986; Batten *et al.* 1990). The cause of this considerable decline is not clearly understood.

Recent studies of the Broadland population give an indication that the species is susceptible to agricultural changes, especially improvements to grazing marshes and conversion of grazing marshes to arable farmland (Allport 1989a,b). Broadland birds favour cattle-grazed swards containing *Poa* spp. Grassland areas re-seeded with Ryegrass *Lolium* spp. and which are sheep-grazed, are rarely used. The close-cropped grassland that develops in these conditions provides favourable grazing for Wigeon, which compete successfully with Bean Geese (Allport 1989a,b). The insights from these detailed studies have allowed the implementation of a management regime in the Yare Valley that favours the Bean Goose flock there.

#### **5. Protection measures for population in UK**

##### **SPA suite**

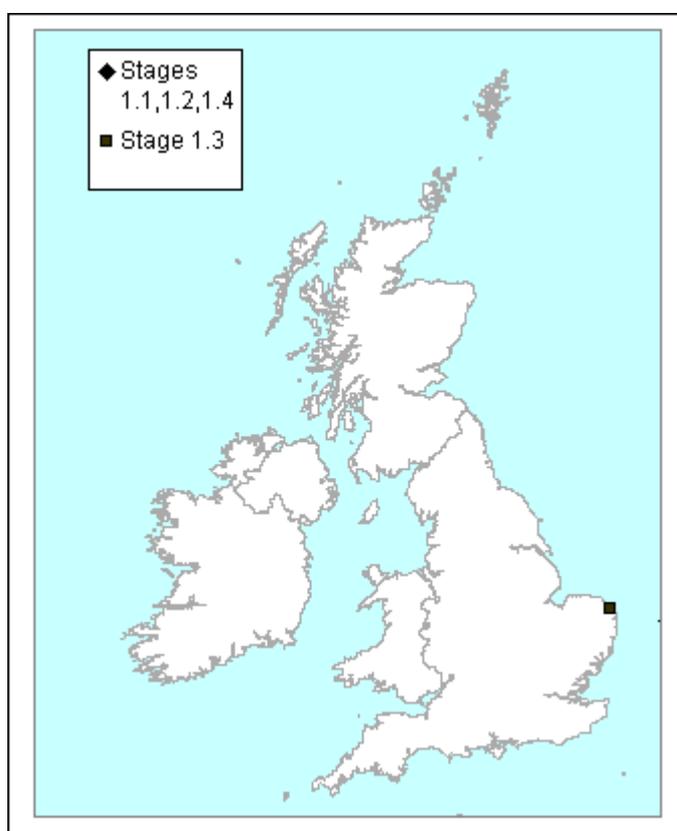
In the non-breeding season, the UK's SPA suite for Bean Geese supports, on average, 207 individuals (calculated using January WeBS totals for the period 1992/93 to 1996/97 – see section 4.4.1 and Appendix 2 for further explanation). This total amounts to about 52% of the British total and 0.3% of the international populations. The suite comprises a single site (Broadland) where Bean Goose has been listed as a qualifying species (Table 6.17.1).

#### **6. Classification criteria**

No site in the UK regularly holds more than 1% of the international population. As Britain lies at the south-western edge of the wintering range of the Taiga race of Bean Goose a single site was selected as being important maintaining the species' range in Europe.

A single site, Broadland, was considered and selected under Stage 1.3 (see section 4.3), with Bean Goose being identified as an important component of the non-breeding waterbird assemblage. There is a long history of Bean Goose occupancy at this site (Boyd in Atkinson-Willes 1963), which is also a multi-species SPA. Another significant wintering population in the UK occurs at a second site, Slamannan Plateau in Scotland, and this site was considered as a possible SPA under Stage 1.4. After consideration of stage 2 judgements, however, Slamannan Plateau was not selected for classification because regular wintering has only been established recently (1981 – Watson 1986, numbers are lower than in Broadland, and no other bird species occur there in numbers of European importance (*i.e.* it is not a multi-species site).

### Distribution map for Bean Goose SPA suite



**Table 6.17.1 – SPA suite**

| Site name     | Site total       | % of biogeographical population | % of national population | Selection stage |
|---------------|------------------|---------------------------------|--------------------------|-----------------|
| Broadland     | 277              | 0.4                             | 62                       | 1.3             |
| <b>TOTALS</b> | 207 (in January) | 0.3%                            | 51.8%                    |                 |