

SPECIES INFORMATION SHEET

Anser fabalis fabalis (wintering)

English name: Taiga Bean Goose	Scientific name: <i>Anser fabalis fabalis</i> (wintering population)
Taxonomical group: Class: Aves Order: Anseriformes Family: Anatidae	Species authority: Latham, 1787
Subspecies, Variations, Synonyms: –	Generation length: 6 years
Past and current threats (Habitats Directive article 17 codes): Hunting (F03.01), Human disturbance (G01), Overgrowth of open areas (A04.03), Mining and quarrying (C01.03), Construction (J02.12, C02), Other threat factors (Loss of specific habitat features, J03.01), Contaminant pollution (A07), Extra-regional threats (XO)	Future threats (Habitats Directive article 17 codes): Hunting (F03.01), Human disturbance (G01), Overgrowth of open areas (A04.03), Mining and quarrying (C01.03), Construction (J02.12, C02), Other threat factors (Loss of specific habitat features, J03.01), Contaminant pollution (A07), Extra-regional threats (XO)
IUCN Criteria: A2b	HELCOM Red List Category: EN Endangered
Global / European IUCN Red List Category LC / LC	EU Birds Directive: Annex II A
Protection and Red List status in HELCOM countries: <i>According to the Birds Directive (Annex II A) may be hunted in the EU Member States.</i> Denmark: – (on the 1997 Danish Amber List as a species of national responsibility outside the breeding season), Estonia: VU, Finland: NT, Germany: “particularly protected” under Federal Species Protection Decree (Bundesartenschutzverordnung)/–, Latvia: –, Lithuania: –, Poland: –, Russia: –, Sweden: NT (breeding/resting)	

Range description and general trends

The taiga bean goose *Anser fabalis fabalis* breeds in apparently two separate breeding populations in the Taiga zone of northern Scandinavia and of NW Siberia. Scandinavian birds mainly winter in S Sweden, with smaller numbers migrating to Denmark, Germany, The Netherlands and Great Britain. During hard winter periods with thick snow cover, the birds leave Sweden and move on to the southwest, formerly to W Germany and The Netherlands but nowadays mainly to Denmark. Birds breeding in NW Siberia mainly migrate to Sweden in October and, after a short stopover, proceed to their wintering areas in E Germany and Poland. Small numbers of the NW Siberian breeding population also winter in Central Asia (Nilsson et al. 1999, Bauer et al. 2005, Heinicke et al. 2005). As geese counts in former years did not differentiate between the two subspecies *fabalis* and *rossicus*, information on population size and long-term trends are rather uncertain. However, the population of the taiga bean goose has been strongly declining since the 1999. In the mid-1990s, the population was estimated at 100 000 birds (Nilsson et al. 1999), but decreased to c. 63 000 birds in 2009 (Fox et al. 2010). Since then, it might have decreased even further. Intensive surveys in January 2010/2011 suggest that the decline between 2004/2005 and 2010/2011 may be as much as 50% (T. Heinicke in litt, cited in Wetlands International 2013). While Wetlands International (2013) gives an estimate of 40 000–45 000 birds for 2011, L. Nilsson (written) assumes a current population size of 45 000–60 000 birds. Declines have also been observed in the breeding areas in Scandinavia in the 1990s (Nilsson et al. 1999), but there are no good data from the breeding areas from recent years (L. Nilsson, written). On the Swedish Red List, both, the breeding and the resting population are listed as Near Threatened (Tjernberg & Svensson 2007). In Finland, the distribution of breeding birds is shrinking, the population trend is probably declining. The species is assessed as Near Threatened on the Finnish Red List (Mikkola-Roos et al. 2010, Valkama et al. 2011).

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Taiga bean geese, *Anser fabalis fabalis*. Pictures by L. Nilsson

Distribution and status in the Baltic Sea region

In the Baltic Sea area, the taiga bean goose winters in Sweden, Denmark, Germany and Poland. Largest concentrations are found along the coast reaching some 50–80 km inland, but in Germany wintering sites are also found inland along river valleys. In Sweden, the majority of the world population of *fabalis* gathers during migration in October. Birds breeding in NW Siberia mainly move on to E Germany and Poland, while large parts of the Scandinavian breeding population remain in S Sweden and only relocate to Denmark in strong winter periods (Nilsson et al. 1999, Heinicke et al. 2005). Accordingly, mid-winter numbers in Sweden show no clear trend, but strongly fluctuate due to snow conditions, varying from more than 40 000 geese in mild winters to almost no birds in strongest winter (<http://www.zoo.ekol.lu.se/waterfowl/GooseInv/goose.htm>). However, the population of taiga bean goose resting in Sweden declined by 10–19% since the early 1990s (Tjernberg & Svensson 2007, Nilsson 2013). Higher numbers recorded in the years 2007–2009 and in 2011, breaking the decreasing trend, may be due to a recent increase in the number of tundra bean geese staging in Sweden in October (<http://www.zoo.ekol.lu.se/waterfowl/GooseInv/goose.htm>; L. Nilsson, written). In Denmark, there are major regional differences in the occurrence of the taiga bean goose. In north Jutland birds breeding in northern Scandinavia mainly assemble during autumn and spring migration, moving to or coming from wintering grounds outside the Baltic area. Only in mild winters, these geese remain in Jutland. On the larger Danish islands, bean geese breeding in N Fennoscandia and in W Russia arrive during December in rather varying numbers. Numbers increase during cold weather when birds arrive from S Sweden. When a thick layer of snow covers the wintering areas in Denmark, the geese are forced to move further south. The numbers of bean geese in northwest Jutland is slowly decreasing and the overall numbers are small. On the larger islands the numbers are fluctuating, dependent upon the severity of the winters (Pihl et al. 2006). In winter 2004, 10,683 taiga bean geese were observed in Danish areas, a number comparable to mild winter in earlier years. The majority was found in SE Denmark and a small part in NW (Petersen et al. 2006). In winter 2008, 6,518 taiga bean geese were observed in Denmark, with 2,367 birds wintering on Jutland and the remaining in SE Denmark (Petersen et al. 2010). In the German Baltic area, highest numbers of wintering taiga bean goose occur in the east on the islands of Rügen and Usedom, but some larger flocks can also be found in the western parts. Ring recoveries indicate that the birds predominantly originate from NW Siberian breeding areas (Heinicke et al. 2005). Numbers have been decreasing during the last years (T. Heinicke, pers. com.).

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Habitat and Ecology

The taiga bean goose breeds near lakes, pools, rivers and streams in the high Arctic Taiga forest zone of Scandinavia and Russia. It shows a preference for birch tree forest and dense spruce forest with bogs or mires. The birds usually arrive at the breeding grounds late April or early May, in Russia somewhat later. During winter and on migration, *A. f. fabalis* inhabits marshes, agricultural land, damp steppe grassland as well as flood-lands, rivers and coastal shallows in open country. It mainly feeds in agricultural areas, i.e. on fields with sprouting winter grain and with waste beets, potatoes or other root crops. Besides, the geese need secluded and sheltered lakes or bays for resting during night, preferably not too far from the foraging areas (Pihl et al. 2006, Tjernberg & Svensson 2007, BirdLife International 2013).

Description of major threats

The bean goose is a game species with open hunting season in several EU countries and is shot in Sweden, Denmark, Germany and Poland. In Germany and Poland, the annual goose bag has increased considerably from the 1960s to the 1990s and this high hunting pressure on geese likely had a negative influence on the population of taiga bean goose. Although the annual bag of taiga bean goose is lower than in former times, hunting is still a considerable threat to the small population. Geese grazing on winter crop and other agricultural areas often provoke conflicts. While agricultural damage is probably rather caused by other geese species, shooting of bean geese can also be undertaken to protect certain crops (Nilsson et al. 1999). Taiga bean goose is vulnerable to disturbance near the breeding and roosting areas (Tjernberg & Svensson 2007). Although a number of important roosts along the Baltic Sea are located in protected areas, the geese mainly feed on unprotected agricultural areas subject to shooting or disturbance. Furthermore, intensive shooting can also occur close to protected roosts or even within the borders of nature reserves. Further threats to taiga bean goose are **habitat degradation** or **habitat destruction**, e.g. by water power installations, oil production, peat extraction, dyking, drainage or changes of management practices leading to overgrowth. Besides, pesticides used on agricultural land can lead to poisoning of taiga bean goose (Bauer et al. 2005, BirdLife International 2013).

Assessment justification

The major part of the flyway (world) population of taiga bean goose winters in the Baltic Sea area; the general population trend is thus assumed to be representative of the Baltic winter population trend. Although the assessment of taiga bean goose is complicated by fluctuating numbers due to variation in the severity of the winters as well as by limited differentiation of the two subspecies *fabalis* and *rossicus*, it is concordantly assumed that the population has been strongly declining since the late 1990s. According to Nilsson et al. (1999) and Fox et al. (2010), the population decreased from 100 000 birds estimated for 1997 to c. 63 000 birds in 2009. Since then, it may have further decreased to 40 000–60 000 birds (see above). Taking the numbers presented in Fox et al. (2009) as the basis for the assessment, a decline from 100 000 birds in 1997 to 63 000 birds in 2009 is equivalent to a reduction of 50% over three generations (18 years, according to the Swedish Red List, Tjernberg & Svensson 2007). This grades the taiga bean goose at the threshold of the category *Endangered* (EN) according to criterion A2b, as the reduction and its causes are not fully understood. Considering a possible further decline of the population since 2009, this category seems justified. Accordingly, the taiga bean goose is classified as *Endangered*. As the population size exceeds 20 000 birds and the subspecies has a large range, criteria B, C and D do not apply.

Recommendations for actions to conserve the species

As numbers strongly fluctuate between different wintering sites around the Baltic Sea, coordinated, simultaneous monitoring programs need to be continued, with a special emphasis on the differentiation of the two subspecies, in order to receive more accurate information on population size and trends. Shooting of taiga bean goose needs to be prohibited to avoid mortality, injury or disturbance. As

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problems may arise due to confusion with tundra bean goose and other grey goose species, a shooting ban of all goose species in the most important areas for taiga bean goose needs to be considered. Undisturbed breeding and resting sites of taiga bean goose have to be ensured, while loss or damage of such habitats need to be compensated for by appropriate measures. Protection of feeding areas is more difficult, as taiga bean geese often forage in agricultural areas. In Sweden, certain fields in some areas with large concentrations of staging taiga bean geese have been sown with special crops for the geese, often combined with scaring on other fields. These experiments have been yielding some success in solving a possible agricultural conflict and prevent the shooting of the geese (cited in Nilsson et al. 1999).

Common names

Denmark: skovsædgås, taigasædgås, Estonia: rabahani, Finland: metsähanhi, Germany: Wald-Saatgans, Taiga-Saatgans, Latvia: –, Lithuania: želmeninė žąsis, Poland: gęś zbożowa, Russia: Таежный гусеник, Sweden: sädgås

References

- Bauer, H.G., E. Bezzel & W. Fiedler (2005): Das Kompendium der Vögel Mitteleuropas. Band 1: Nonpasseriformes – Nichtsperlingsvögel. Aula Verlag, Wiebelsheim.
- BirdLife International (2013): Species factsheet: *Anser fabalis*. Downloaded from <http://www.birdlife.org> on 26/03/2013.
- Estonian eBiodiversity. Red List 2008 results and species information available at <http://elurikkus.ut.ee/prmt.php?lang=eng>
- Fox, A.D., B.S. Ebbinge, C. Mitchell, T. Heinicke, T. Aarvak, K. Colhoun, P. Clausen, S. Dereliev, S. Faragó, K. Koffijberg, H. Kruckenberg, M.J.J.E. Loonen, J. Madsen, J. Mooij, P. Musil, L. Nilsson, S. Pihl & H.v.d. Jeugd (2010): Current estimates of goose population sizes in western Europe, a gap analysis and an assessment of trends. *Ornis Svecica* 20: 115–127.
- Heinicke, T., J. Mooij & J. Steudtner (2005): Zur Bestimmung von Saatgans (*Anser f. fabalis*, A. f. rossicus) und Kurzschnabelgans (*Anser brachyrhynchus*) und deren Auftreten in Ostdeutschland. *Mitteilung Verein Sächsischer Ornithologen* 9: 533–553.
- Mikkola-Roos, M., J. Tiainen, A. Below, M. Hario, A. Lehtikoinen, E. Lehtikoinen, T. Lehtiniemi, A. Rajasärkkä, J. Valkama & R.A. Väisänen (2010): Birds. In: Rassi, P., Hyvärinen, E., Juslén, A. & Mannerkoski, I. (eds.). The 2010 Red List of Finnish Species. Ympäristöministeriö & Suomen ympäristökeskus, Helsinki. p. 336–343.
- Nilsson, L. 2013. Censuses of staging and wintering goose populations in Sweden 1977/78 – 2011/12. *Ornis Svecica* in prep.
- Nilsson, L., L. van den Bergh & J. Madsen (1999): Taiga bean goose *Anser fabalis fabalis*. In: Madsen, J., G. Cracknell & A.D. Fox (eds.): Goose Populations of the Western Palearctic. A review of status and distribution. Wetlands International Publication 48, Wetlands International, Wageningen, The Netherlands. National Environmental Research Institute, Rønde, Denmark. Pp. 312–327.
- Petersen, I.K., S. Pihl, J.P. Hounisen, T.E. Holm, P. Clausen, O. Therkildsen, O. & T.K. Christensen (2006): Landsdækkende optællinger af vandfugle, januar og februar 2004. Danmarks Miljøundersøgelser. Faglig rapport fra DMU nr. 606, 76 pp. <http://www.dmu.dk/Pub/FR606.pdf>
- Petersen, I.K., R.D. Nielsen, S. Pihl, P. Clausen, O. Therkildsen, T.K. Christensen, J. Kahlert & J.P. Hounisen (2010): Landsdækkende optælling af vandfugle i danmark, vinteren 2007/2008. Arbejdsrapport fra DMU nr. 261, Danmarks Miljøundersøgelser, Aarhus Universitet.
- Pihl, S., P. Clausen, K. Laursen, J. Madsen & T. Bregnballe (2006): Conservation status of bird species in Denmark covered by the EU Wild Birds Directive. NERI Technical Report No. 570, 130 pp.
- Tjernberg, M., I. Ahlén, Å. Andersson, M.O.G. Eriksson, S.G. Nilsson & S. Svensson (2010): Fåglar – Birds. Aves. In: Gärdenfors, U. (ed.) Rödlistade arter i Sverige 2010 – The 2010 Red List of Swedish Species. ArtDatabanken, SLU, Uppsala. P. 201–221. Red List categories available also at <http://www.artfakta.se/GetSpecies.aspx?SearchType=Advanced>



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Tjernberg, M. & M. Svensson (eds.) 2007: Artfakta – Rödlistade ryggradsdjur i Sverige [Swedish Red Data Book of Vertebrates]. ArtDatabanken, SLU, Uppsala.

Valkama, J., V. Vepsäläinen & A. Lehikoinen (2011): Suomen III Lintuatlas. Luonnontieteellinen keskusmuseo ja ympäristöministeriö. <http://atlas3.lintuatlas.fi> (3rd Finnish Bird Atlas).

Wetlands International (2013). Waterbird Population Estimates. Retrieved from wpe.wetlands.org on Friday 22 Feb 2013.