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# GOOSE BULLETIN

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**GOOSE BULLETIN** is the official bulletin of the Goose Specialist Group of Wetlands International and IUCN.

**GOOSE BULLETIN** appears as required, but at least once a year in electronic form. The bulletin aims to improve communication and exchange information amongst goose researchers throughout the world. It publishes contributions covering goose research and monitoring projects, project proposals, status and progress reports, information about new literature concerning geese, as well as regular reports and information from the Goose Database.

Contributions for the **GOOSE BULLETIN** are welcomed from all members of the Goose Specialist Group and should be sent as a Word-file to the Editor-in-chief. Authors of named contributions in the **GOOSE BULLETIN** are personally responsible for the contents of their contribution, which do not necessarily reflect the views of the Editorial Board or the Goose Specialist Group.

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## Editorial

Wetlands and waterbirds traditionally form an ecological unity. This was enshrined in the philosophy behind the establishment of the Ramsar Convention of 1971 (“The Convention on Wetlands of International Importance, especially as Waterfowl Habitat”) which was negotiated during the 1960s by governments and NGOs under the guidance of the International Waterfowl and Wetlands Research Bureau (IWRB; now Wetlands International). Under the Ramsar Convention, waterbirds are defined as: “...birds ecologically dependent on wetlands.”

At that time, over-exploitation through hunting and the continuing loss of wetlands were recognised as being the main causes of the declines in most waterbird species throughout Northern America and Western Europe. As a result, waterbird hunting began to be regulated and programmes were put in place to protect remaining wetlands and restore degraded wetlands. As a result of these changes, in these countries the populations of most (but not all) waterbird species have shown an encouraging recovery since the middle of the 20<sup>th</sup> century.

Focussing on geese, we see that most goose species in Northern America and the Western Palearctic have followed similar population trajectories to those of most other waterbird species. It is currently estimated that between 22 and 25 million geese, distributed amongst 59 flyway populations, live in the Northern Hemisphere. Sixty-eight percent of these populations show stable or increasing trends, 24% show declines and, for the remaining 9%, the trend is unknown. Most of the populations showing increasing or stable trends occur in Northern America and the Western Palearctic, whereas most of those with decreasing or unknown trends are found in the Eastern Palearctic.

In parallel with the increase in numbers of most goose species in Northern America and Europe, many species have shifted from winter feeding on wetlands (swamps and wet grasslands) to foraging on agricultural habitats. In contrast, many goose populations in East Asia (and especially in China) still feed on natural and semi-natural habitats. Could this be a contributory factor behind the contrasting fortunes of populations in the Nearctic and Western Palearctic on the one side and the Eastern Palearctic on the other? Or are the differences in hunting pressure, extent and condition of wetlands more important?

It is our task as “Goose Specialists” to find answers on such questions, just as it is the “job” of the Goose Specialist Group to maintain a network of goose researchers to communicate data, ideas, questions and knowledge, hold regular GSG-meetings as well as produce the Goose Bulletin as a platform for knowledge exchange within the group. This is why the editorial board need your manuscripts!

**The next issue of the GOOSE BULLETIN is planned to appear in May 2015, which means that material for this issue should have reached the editor-in-chief not later than the 31st of March 2015.....but earlier submission is, of course, always permitted, if not actively encouraged!**

The Editorial Board



## Time for a change

Dear members of the Goose Specialist Group,

Since 1997 I have been active as chairman of the Goose Specialist Group, after being elected at Martin Mere in December 1996. I have always seen as my main task improving contacts between goose researchers in the Palearctic, but I have also tried to bring our group in contact with goose researchers in the Nearctic.

Local members have been very active in organizing goose meetings in many of the very exciting places to which migratory geese bring us. I am extremely grateful to all those that organized these meetings, to the board members of this Specialist Group, and to the Dutch institute Alterra that allowed me to invest time in these activities. After the meetings organized by Jesper Madsen, our first chairman, in Poland and England, we had meetings in Kavarna (Bulgaria 1998), in Matsushima (Japan 1999), in De Haan (Belgium 2000), Roosta, Estonia (2001), Coto Doñana (Spain 2002), in Odessa (Ukraine 2004), Sopron (Hungary 2005), Xanten (Germany 2007), Leh, Ladakh (India 2008), Höllviken (Sweden, 2009), in Elista (Kalmykia, Russia 2011), in Steinkjer (Norway 2012), and in Arcachon (France 2013).

Short reports of these meetings can be found on the GSG-website [www.geese.org/gsg](http://www.geese.org/gsg)



Bartwolt S. Ebbinge  
Chair of the GSG



Petr M. Glazov  
Vice-Chair of the GSG

I have signed a contract with our umbrella organisation the IUCN-Species Survival Commission that I will lead the Specialist Group until 2016, but I have been looking for a co-chair who can gradually take over my responsibilities. This should be someone also backed by an institute to enable him or her to do this work. We have found such a person, and during the conference in China, Petr Glazov from Moscow has been appointed unanimously by the GSG-board as co-chair. Petr has been very active as goose researcher and has regularly attended the meetings of the Goose Specialist Group. I am confident that Petr and I will co-operate to lead our group in the coming years.

During the conference in China, Sonia Rozenfeld and Evgeny Syroechkovskiy also proposed to organize the next GSG-meeting in Salekhard, Siberia in November 2015 which was also been adopted by GSG. More information about this meeting, which will be held in close co-operation with the Russian Ducks, Geese and Swans Research Group of Eurasia, will soon be made available on the GSG-website.

Barwolt S. Ebbinge

Chairman Goose Specialist Group of the IUCN-Species Survival Commission and Wetlands International

## The 16<sup>th</sup> Meeting of the Goose Specialist Group, 22-25 November 2014 in Beijing (China)

The 16<sup>th</sup> Meeting of the Goose Specialist Group was hosted by the Research Center for Eco-Environmental Sciences (RCEES) of the Chinese Academy of Sciences in the Chinese capital Beijing from 22<sup>nd</sup> to 25<sup>th</sup> November 2014.

The Waterbird Group of the RCEES has been studying waterbirds and wetlands in Eastern China for more than ten years now and has been responsible for considerably extending our knowledge about the numbers, distribution and ecology of waterbirds and wetlands in the region. In cooperation with scientists from other countries, especially from Denmark, Russia and Australia, the group has become increasingly engaged in the serious environmental problems of the Yangtze River floodplain wetlands, which is one of the key freshwater wintering sites for waterbirds of the East Asian-Australasian Flyway.

The 16<sup>th</sup> GSG-Meeting got off to a great start with a welcome reception on the evening of Saturday 22<sup>nd</sup> November, followed by two and a half days of scientific sessions.



Session of the 16<sup>th</sup> GSG-Meeting in the RCEES-Building in Beijing.

On Sunday 23<sup>rd</sup> November after the Opening Sessions, the talks concentrated on the status and monitoring of goose species. The first talk showed that currently, an estimated 22-25 million geese, divided between 59 different flyway populations, are found in the northern hemisphere, of which 68% show stable or increasing trends, 24% show declines and for the remaining 9%, the trends are unknown. Most flyway populations with unknown or decreasing trends occur in East Asia. After status reports from different flyway populations, a number of talks focused on monitoring and tracking methods as well as trends amongst different goose populations. In the evening the participants were invited to a welcome party where they were treated to Chinese culture and food.

On the next day, the meeting continued with talks about the ecology of the Greater and Lesser White-fronted Goose, the Swan Goose as well as the Brent and Barnacle Goose. In the evening the participants could relax during the conference banquet and a bus trip to the Olympic city in Beijing.



Conference picture of the participants of the 16<sup>th</sup> GSG-meeting in front of the RCEES-building.

On Tuesday 25<sup>th</sup> November, the Goose Specialist Group met again to hear talks about the ecology of the Bar-headed Goose and the ecology of the Yangtze River Basin. Subsequently the participants elected Petr Glazov as a co-chair of the Goose Specialist Group who will gradually take over the responsibilities from the current chair Bart Ebbinge. Following the proposal of the Russian members of the Goose Specialist Group, it was agreed to organise the next meeting of the GSG as a joint meeting of the Goose Specialist Group and the Russian Goose and Swan Study Group of Eastern Europe and North Asia (RGG) in Salekhard (Russian Federation) in November 2015, as in Elista in 2011. After two and a half days of talks and engaged discussions, the 16<sup>th</sup> Meeting of the Goose Specialist Group was closed in the early Tuesday afternoon.

Many participants packed their luggage immediately after the meeting and left Beijing for a field excursion to Poyang Lake National Nature Reserve, situated in the Yangtze River floodplain. Poyang Lake, located in Jiangxi Province, is the largest freshwater lake and one of the most important wintering sites for waterbirds in China. The water level of the lake is regulated by that in the Yangtze River and the flooded area can vary between 3,500 square kilometres in wet periods and less than 1,000 square kilometres in dry periods. During high water level periods in late spring and summer, Poyang Lake is the largest fresh water body in China, but in late summer dropping water levels divides the water body into a mosaic of small and large lakes, mudflats and grassy islands. In such periods, the extended grasslands swamps and mudflats offer ideal conditions for migrating and wintering waterbirds.



A view of the Poyang Lake.

During their excursion the participants saw many rare species like Siberian Cranes, White-naped Cranes, Hooded Cranes and Oriental Storks, but also more common birds like the Common Crane, Grey Heron, Night Heron, Bittern, Spoonbill, Tundra Swan, Greater White-fronted Goose, Eastern Tundra Bean Goose, Swan Goose, Little Grebe, Lapwing and Spotted Redshank.



Birdwatching at the Poyang Lake

**The Goose Specialist Group thanks Cao Lei and her team of the RCEES for organizing an excellent conference and an exciting excursion to the Poyang Lake.**



## Taiga Bean Goose – a quarry goose population in decline

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The Taiga Bean Goose *Anser fabalis fabalis* currently breeds discontinuously across the boreal zone from Fennoscandia to Western Siberia. It seems to favour nesting near aapa mires, concave inclined fens characterised by transverse ridges of dry vegetation “strings” interspersed with deep pools (“flarks”), which require inundation by rapid spring snow melt to create the surface features that seems to support the vegetation used by the geese (RUUHJÄRVI 1960, SEPPÄ 2002). These types of sites are a feature of northern Finland, Kola peninsula and Karelia and are relatively base-enriched surface-patterned wetlands, which tend to be selected by geese in close proximity to coniferous woodland with a dense understory of berry-bearing dwarf heath scrub, although in Russia it also seems to favour river valley floodplains as nesting habitat. The Taiga Bean Goose has a highly discontinuous winter distribution, which includes isolated flocks in Scotland, England and through northern Denmark, with more continuous distribution in southern Sweden into south east Denmark, and further wintering areas in north-eastern Germany across the border into Poland. There is another segment of the population that winters in Central Asia.

The Taiga Bean Goose is currently one of the few declining goose populations in the Western Palearctic (FOX et al. 2010). It was estimated that c.100 000 birds wintered in western Europe in the mid-1990’s, but these numbers had dwindled to 63 000 by 2009, although there remain considerable problems with estimating the true distribution and abundance of the race throughout the range because of its discrete nature and the difficulty of distinguishing the two races of Bean Geese at some key wintering resorts.



The Taiga Bean Goose *Anser fabalis fabalis* (Alphéraky 1904)

The Bean Goose is globally categorized as a species of Least Concern in the IUCN Red List, because no distinction is made between the subspecies. The population of the Tundra Bean Goose *Anser f. rossicus* is considered stable or increasing in numbers and is much more abundant than the Taiga Bean Goose. However, the North-east Europe/North-west Europe population of the Taiga Bean Goose is listed on Column A, Category 3c\* of Table 1 of the African-Eurasian Migratory Waterbird Agreement (AEWA) Action Plan.

The current categorization means that hunting of the Taiga Bean Goose may still continue on a sustainable use basis within the framework of an International Single Species Action Plan. The other AEWA-listed population of the Taiga Bean Goose (West & Central Siberia/Turkmenistan to W China) is on Column A, Category 1c, which implies strict protection.

Given its unfavourable conservation status, declining abundance and contracting range, it was clear that an action plan was needed to safeguard the population, agree priorities and coordinate action between the Range States responsible for its protection along the flyways. This was clearly essential if some of those Range States were to justify the continued sustainable hunt of the population within a conservation plan context. For this reason, an AEWA International Single Species Action Plan process was set in train, spearheaded by the Finnish Wildlife Agency, which has been prepared and sent out for international consultation with all Range States.

In the first instance, the plan process has sought to review the distribution and status of the subspecies and actual, potential and perceived threats to the Taiga Bean Goose in a logical framework using a network of key experts from state organisations and statutory agencies, stakeholder groups and non-governmental organisations (NGOs) and researchers with knowledge of the subspecies.

The preparatory work was initiated at a workshop held in Tuusula, Finland during 12-14 November 2013, where all the Range States were represented and much of the detailed content of the Plan was agreed. The compilation of the Plan document was delegated to a drafting committee consisting of Arto Marjakangas and Mikko Alhainen (Finnish Wildlife Agency), Thomas Heinicke (international Bean Goose Project, Germany), Leif Nilsson (Lund University, Sweden), Sonia Rozenfeld (Russian Academy of Sciences), Jesper Madsen and Tony Fox (Aarhus University).



The drafting team was delegated the task of drafting the Plan document and associated process along AEWA guidelines, which lays out the framework for action including an overall action plan goal, objectives and key actions to achieve the required results. A follow-up Swedish workshop was held in Kristianstad, on 5-6 December 2013 organised by the Swedish Association for Hunting and Wildlife Management and the drafting team met in Tuusula again on 2 April 2014 to finalise the drafting process.

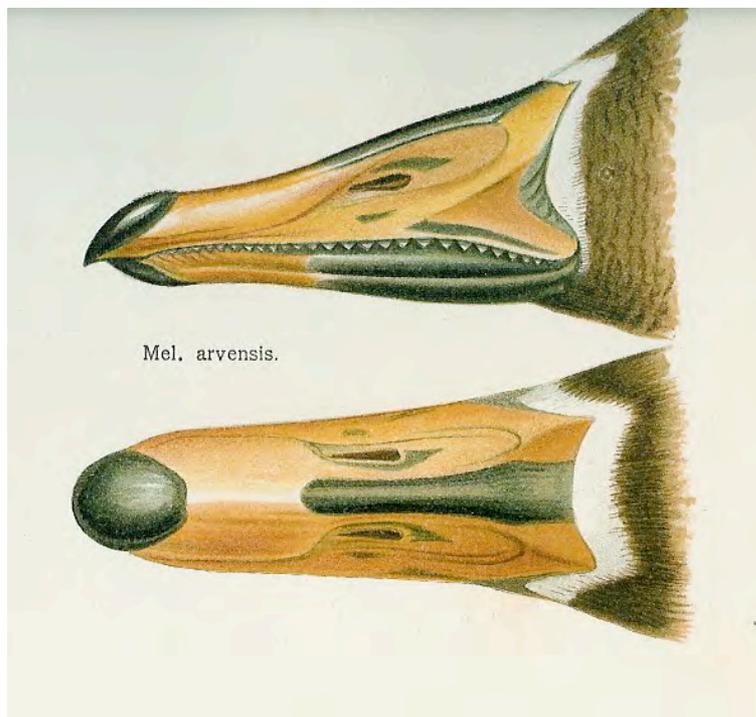
### Scope of the Action Plan

This Action Plan covers the entire subspecies *Anser f. fabalis*, which is confined to the Western Palearctic and western parts of the Eastern Palearctic.

Four sub-populations are recognized based on their different breeding and wintering areas, which serve as management units for the purpose of this Action Plan:

- **Western sub-population** (breeding in Northern and Central Sweden and Southern and Central Norway, wintering in Northern Denmark and Northern and Eastern United Kingdom; current 2014 estimated winter population size c. 1 500 individuals)
- **Central sub-population** (breeding in Northernmost Sweden, Northern Norway, Northern and Central Finland and adjacent North-western parts of Russia, wintering mostly in Southern Sweden and South-east Denmark; c. 35 000 individuals)
- **Eastern 1 sub-population** (breeding in upper Pechora region and western parts of west Siberian lowlands of Russia, wintering mostly in North-east Germany and North-west Poland; c. 15 000 individuals)
- **Eastern 2 sub-population** (breeding in eastern parts of west Siberian lowlands of Russia, wintering in North-west China, South-east Kazakhstan and east Kyrgyzstan; winter population size unknown)

In addition to the range states mentioned above, it was recognised that Taiga Bean Geese also occur regularly in Estonia, Latvia, Lithuania, the Netherlands, Ukraine and Belarus during migration or in small numbers in winter. Larger numbers of Taiga Bean Geese formerly wintered in the Netherlands and it was acknowledged that the dramatic declines there were part of a larger pattern of contraction of range and reduction in population size of the wintering birds that are now confined to eastern Germany and adjacent areas of Poland.



Bill of the Tundra Bean Goose *Anser fabalis fabalis* (Alphéraky 1904)

## Threats

Knowledge of the specific processes and factors affecting the change in population size of the Taiga Bean Goose are scarce or lacking, and thus the plan process must acknowledge that the precise causes for the population decline remain unknown. However, a number of actual or potential threats facing the Taiga Bean Goose have been identified. Legal and illegal harvest was considered to significantly affect both adult survival and reproductive rates, while human disturbance may be contributing to the reduction of reproductive rates. Both overharvest and human disturbance are especially considered to have adverse effects on the two Eastern sub-populations. The loss, fragmentation and degradation of suitable habitat due to forestry, infrastructure development and other human-related factors are also considered important threats to Taiga Bean Geese.



## Plan objectives

It was agreed that the long-term goal of the Plan should be to restore and maintain the population at 165 000–190 000 birds (5 000–10 000 individuals in Western, 60 000–80 000 individuals in Central and 100 000 individuals in Eastern 1 & 2 sub-populations, with stable or increasing trends). The shorter term more immediate aim was to stabilize the overall population size as well as the numbers in each sub-population at least at their current levels within five years, and to enable the sub-populations to start to recover and increase within 10 years. Key objectives required to achieve these aims have been established in consultation with national authorities and key stakeholders. These are to: increase adult survival rate, elevate reproductive success and cease the ongoing loss, fragmentation and degradation of habitats, as well as restore lost, fragmented and degraded habitats.

In order to achieve these objectives, the Plan sets out key results that are required to be achieved and the actions required to attain these outcomes are defined in a framework for action within the Plan. For each activity, relevant range states and management units, priority, timescale and responsible bodies are identified. Activities most likely to deliver reductions in avoidable annual mortality are most highly prioritised. Particular emphasis is placed on the development and implementation of an international Adaptive Harvest Management (AHM) framework to adjust harvest levels to reflect the current status of the population, based on agreed objectives, management alternatives, predictive models, effective monitoring programmes and iterative learning. Immediate priority is also given to the analysis of available data to fill knowledge gaps regarding survival and reproductive rates, population size, flyways and hunting bags.

## International Coordination of Action Plan Implementation

The first draft of the plan has been completed and sent for consultation with the Range States. Once the consultation process is complete, the Plan will be put forward at the next AEWA Meeting of the Parties in Bonn in November 2015 for formal signing off. However, the process does not end there. Appropriate organizational and management structures are vital to the successful and coordinated implementation of the Action Plan. To this end, an AEWA Taiga Bean Goose International Working Group will be convened following the adoption of the plan. The International Working Group will coordinate and guide the implementation and further development of the activities foreseen in the Action Plan. In addition, range states are encouraged to establish National Working Groups and to develop and adopt National Action Plans for the Taiga Bean Goose.

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## New Project

### Where, when and how many geese stage in Latvia?

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The aim of this project is to map all areas used by staging geese in Latvia (for a background, see Kampe-Persson 2010). For each staging area, I want to know where the geese are roosting and feeding, when the area is used in spring and autumn, and how many geese of which species occur. Also Whooper Swans, Bewick's Swans and Cranes will be surveyed as they often stage in the same areas as the geese.

While trying to obtain funding for this project, I have started to build up a data base of staging geese, swans and cranes in Latvia, by using data from the following sources:

- Pilot study in 2013 (financed by a grant from Natuurmonumenten).
- My own field notes from the years 2001–2014.
- Published sources (Račinskis 2004, Kampe-Persson 2010, 2013).
- The Latvian open bird data base ([www.dabasdati.lv](http://www.dabasdati.lv)).
- Other web-sites ([www.latvijaspusti.lv](http://www.latvijaspusti.lv), [www.putni.lv](http://www.putni.lv), [www.litenesputni.lv](http://www.litenesputni.lv) and [www.motacilla.lv](http://www.motacilla.lv)).
- Observations made by Latvian and Swedish bird-watchers (e-mail contacts).

I visited all parts of Latvia during the pilot study and checked 33 staging areas. However, due to an extremely late spring, except along the Baltic Sea coast and a few fields inland, the entire country was covered by snow and ice until the middle of April, the result was less than expected. There is considerable interest among Latvian bird-watchers for geese but most of them are mainly interested in Pink-footed Goose, Barnacle Goose, Canada Goose and Red-breasted Goose. Other species are often reported as *Anser sp.* or not at all. At the moment the data base gives an uneven picture of goose staging in Latvia but some general conclusions can be drawn.

The data base contains information on about 107 staging areas but the true number might be as high as 200. The majority of these areas are probably used regularly in spring but only some of them are used in autumn. In addition, the autumnal use shows large between-year differences. In the autumn of 2013, for instance, hardly any geese at all made stop-overs in Latvia. Autumn-staging geese have been recorded from the end of September to the middle of December.



Primarily, the geese seem to choose staging areas providing large wet fields with maize and cereal stubble. The Tundra Bean Geese also use newly-sown cereal fields to a large extent. In spring 2014, when most autumn-sown cereal fields had to be re-sown, the geese flew more than 30 km to reach newly-sown fields. That distance was flown four times a day as the geese spent a large part of the day at the roost.

Timing, length of stay, numbers of geese and extent of the feeding grounds differ largely among the staging areas. In an early spring, the geese start to arrive in south-western Latvia in the middle of February, in the central part of the country in the beginning of March and in the eastern and northern parts in the middle of March. In a late spring, on the other hand, the geese might arrive in the central part of the country up to six weeks later than in an early spring. Both the Taiga Bean Goose and Tundra Bean Goose arrive somewhat earlier than the White-fronted Goose. The length of stay in the different staging areas ranges between one and ten weeks, with the last geese leaving Latvia during the last week of May.

Maximum counts of the different species and *Anser sp.* are a simple way of describing abundance in the different staging areas (Table 1). The quality of the tabulated data varies widely dependant on how they were obtained, through planned field counts or from a visiting bird-watcher. However, the data give an idea of how many geese stage in Latvia. Tundra Bean Geese and White-fronted Geese constitute about 98% of the staging geese. The Barnacle Goose has been more numerous year by year but flocks numbering more than 100 birds are still quite rare. The Taiga Bean Goose is usually reported in very low numbers but flocks numbering 100–300 birds are occasionally reported from different parts of the country. The number of staging Lesser White-fronted Geese in the springs 2008–2014 has been between one and five individuals (Kampe-Persson 2014).

The extent of the feeding grounds is poorly known in all but a few staging areas. In the best studied staging area, Svēte lower reaches, geese regularly feed up to 20–25 km from the night roost and some flocks have been found more than 30 km from the roost.

Re-sightings of neck-collared individuals will hopefully give an indication whether or not geese move between different staging areas in Latvia. From earlier observations, it is known that some White-fronted Geese stage first at the Nemunas River delta in Lithuania and then at the confluence of the rivers Svēte and Lielupe in Latvia.

Providing funding is found, the field-work of this project will be carried out during the years 2015–2017.

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**Table 1.** Maximum counts of Tundra Bean Goose, White-fronted Goose and *Anser sp.* in different staging areas in Latvia. Most counts were from the years 2012–2014, the others from 2007–2011. All staging areas in which at least 1,000 *Anser sp.* have been counted during the years 2007–2014 were included.

	Tundra Bean Goose	White-fronted Goose	<i>Anser sp.</i>
Svēte lower reaches	4,975	33,000	35,000
Lubāns	7,500	13,000	20,500
Pape lake	2,500	3,000	20,000
Burtnieks	8,500	11,000	17,400
Užava lowland	1,500	14,000	16,000
Babīte lake	5,000	8,500	10,000
Svente flood-plain		10,000	10,000
Vecumnieki	1,000	8,000	10,000
Seda marsh	2,800	4,200	7,000
Ķemeri National Park	4,500	1,500	6,000
Vīrāne lakes	4,800	900	6,000
Ādaži	1,400	4,000	5,500
Kamārce meadows			5,000
Dviete flood-plain	400	3,600	5,000
Iecava	390	4,000	4,000
Turlava	50	1,000	4,000
Augstroze	2,500	130	3,100
Gudenieki	500	2,000	3,100
Durbe lake	1,000	2,400	3,000
Cena bog	400	2,050	3,000
Engure lake	86	1	3,000
Struņķi ponds	8	1,500	2,700
Koša lake			2,500
Liepāja lake	340	2,000	2,000
Ezers bog	500	600	2,000
Smukas		1,000	2,000
Ušur lake	170	200	2,000
Priekuļi county	42	42	2,000
Ēdole parish			2,000
Zebrus lake	700	800	1,500
Stāmeriena parish		1,500	1,500
Celmi pond	11	750	1,500
Tāši lake	8	120	1,200
Sēja	400	400	1,000
Remte parish			1,000



## Flight heights of Pink-footed Geese in north-east Scotland

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### Introduction

Current wind turbine designs pose a potential risk of collision to geese flying at heights up to around 150m. Collision risk is a particular concern when there are proposals to build wind farms within the feeding range of geese from a major roost site, especially when this is a Special Protection Area (SPA), Special Area of Conservation (SAC) or RAMSAR site. Consequently, information on flight height during different activities (e.g. on foraging flights or on longer-distance movements) is important in assessing risk in different parts of the birds' range. The aim of the present study was to provide background data on the flight heights of Pink-footed Goose engaged in different flight activities; just after take-off; during foraging flights; on longer distance flights; and just before landing.

### Methodology

The survey area was in north-east Scotland, mainly within the feeding range of Pink-footed Goose roosting at the Loch of Strathbeg SPA, near Fraserburgh, Aberdeenshire. Flight heights of geese on longer-distance movements were measured on the outskirts of Aberdeen city. Flight heights of Pink-footed Goose were measured by using a Leica LAF 1200 laser rangefinder, with a simple clinometer attached to it, to determine range and angle. Later measurements were made with a Leica Rangemaster 1600 with a built-in electronic clinometer, which gave a more accurate measurement of angle. These measurements were then used to calculate the vertical height of each goose flock. The maximum range of the instrument when used on goose flocks was found to be around 400 m. The flight heights of any flocks which were too high to be measured by rangefinder were estimated to the nearest 100 m by reference to measured heights.

### Flight height in the foraging area

Pink-footed geese on local flights between the roost and feeding sites, or between fields within the foraging areas, were found on average to be flying at just over 100 m, with a mean height of 129m and a median height of 123m.

Tab. 1. The flight height of Pink-footed Goose in foraging areas.

Height (m)	Flocks	% flocks	Geese	% geese
0 - 50	2	2.2	3	0.03
51 - 100	26	28.3	1,161	10.80
101 - 150	25	27.2	2,621	24.38
151 - 200	27	29.3	5,729	53.30
201 - 250	10	10.9	1,119	10.41
251 - 300	2	2.2	116	1.08
Total	92		10,749	

Around a third of the flocks (30.5%) were flying at heights below 100m (Tab. 1), while 57.6% were flying below 150 m and so were at risk of collision with the larger turbines now in operation. Larger flocks tended to fly higher than small ones, so that 10.8% of the geese were flying below 100 m while 35.2% were below 150 m (Tab. 1). A majority of the geese therefore (64.8%) were flying above collision risk height.

Flight height increased with distance from the roost up to about 5 km from it (Fig. 1) but then did not vary with distance from the roost over the remainder of the foraging area (Fig. 2).

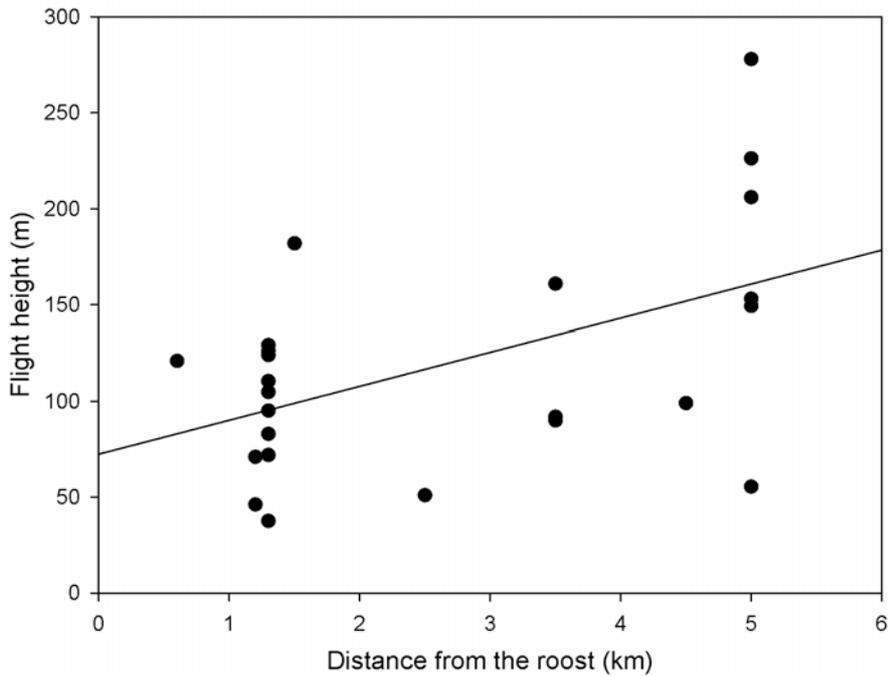


Fig. 1. The flight height of Pink-footed Goose flocks within 5 km of their roost.

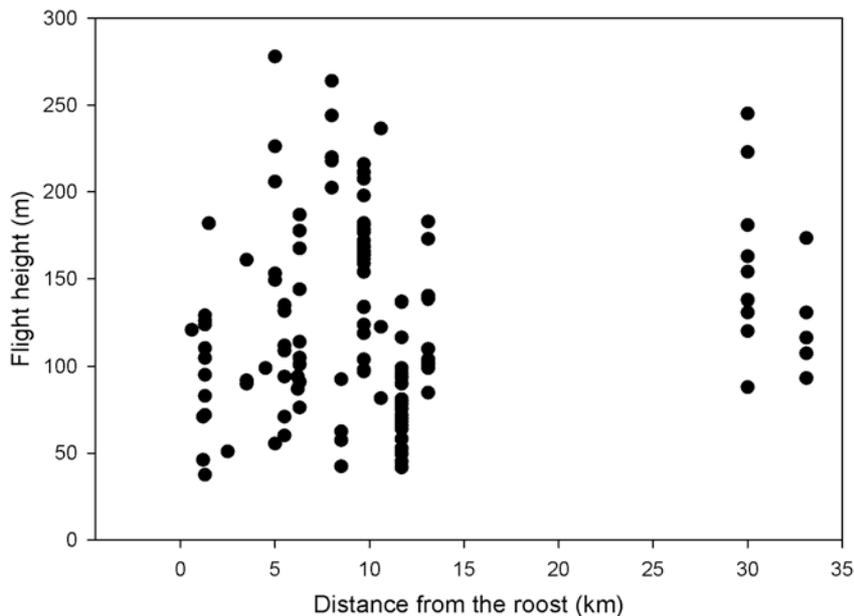


Fig. 2. The flight height of Pink-footed Goose flocks within their foraging area.

### Flight height on longer-distance movements

The heights of goose flocks on longer-distance movements were measured mainly as they flew over the west edge of Aberdeen city, presumably travelling between a roost 29 km to the north and another, 52 km to the south. The majority of flocks were flying at heights over 200 m (Tab. 2), with only 17.3% under 150 m and none under 100 m. The mean height of these flocks was 305 m and the median height 268 m.

Table 2. The flight height of Pink-footed Goose on long-distance flights.

Band	Height (m)	Flocks	% flocks
1	101 - 150	9	17.3
2	151 - 200	10	19.2
3	201 - 300	9	17.3
4	301 – 500	14	26.9
5	> 500	10	19.2
	<b>Total</b>	<b>52</b>	

### Flight height just after take-off

Geese which had just taken off, at 300 – 500 m from the roost or from a field, in fairly calm conditions, were flying mainly at heights below 100 m (Tab. 3), with only 2.5% of the flocks above 150 m. The mean height of these flocks was 68 m and the median height 59 m. Flocks leaving the roost against a strong adverse wind were almost all flying at heights below 50 m (Tab. 3), significantly lower than flocks at the same distance from their take-off point in calm conditions ( $t = 4.33$ ,  $p < 0.001$ ).

Tab. 3. The flight height of Pink-footed Goose within 1.5 km from take-off.

Band	Height (m)	No adverse wind		Strong adverse wind	
		Flocks	% flocks	Flocks	% flocks
1	0 - 50	22	27.2	30	96.8
2	51 - 100	48	59.3	1	3.2
3	101 - 150	9	11.1		
4	151 - 200	2	2.5		
	<b>Total</b>	<b>81</b>		<b>31</b>	



Flight height increased with increasing distance from the take-off point (Fig. 3).

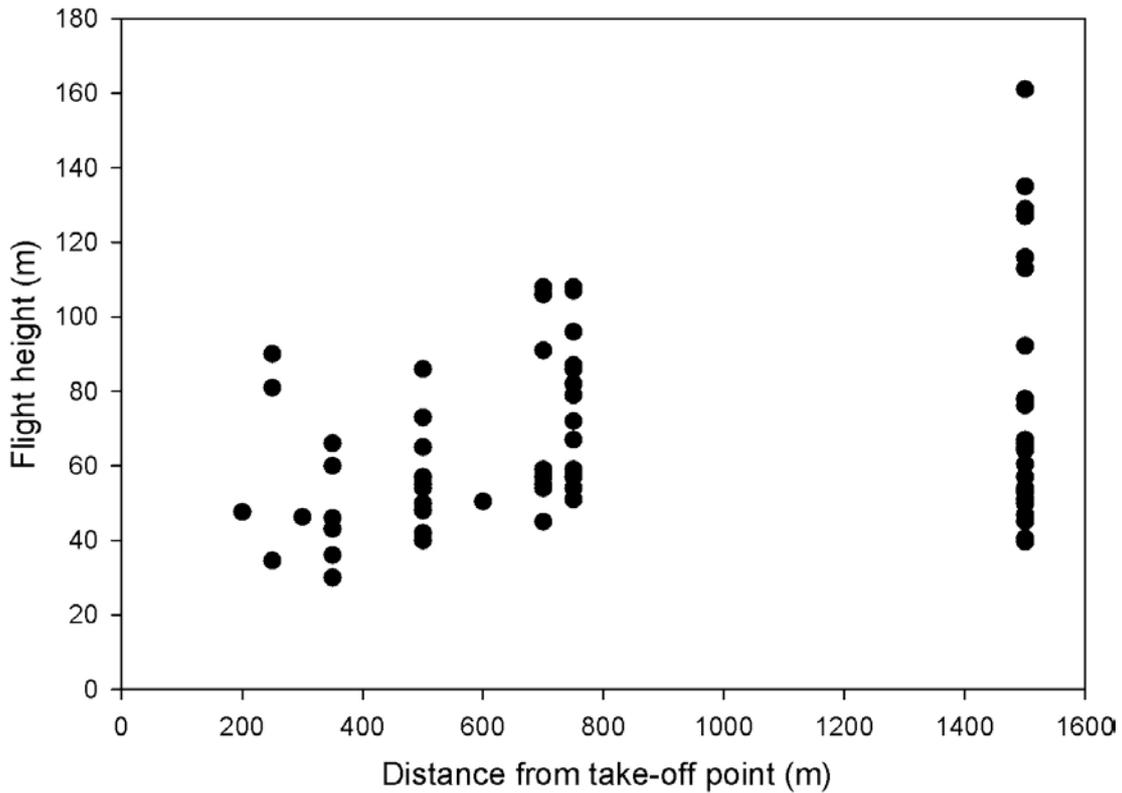


Fig. 3. The flight height of Pink-footed Goose flocks just after take-off, in relation to distance from their departure point.

**Flight height of geese returning to roost**

Flocks of geese returning to roost, probably from distant feeding areas, were found to be flying higher than those leaving, with 32.6% of the flocks remaining at heights over 150 m (Table 4), even when within 1.5 km of the roost, before descending steeply when almost over the roost. The mean height of such flocks was 137 m and the median height 125 m.

Tab. 4. The flight height of Pink-footed Goose returning to roost and within 1.5 km of landing.

Band	Height (m)	Flocks	% flocks
1	51 – 100	8	16.3
2	101 – 150	25	51.0
3	151 – 200	13	26.5
4	> 200	3	6.1
	Total	49	

However, when returning from nearby feeding areas, especially against strong adverse winds, geese were seen to fly much lower, at or below the flight heights usually observed in foraging areas (I.J. PATTERSON, unpublished observations).

**Collision risk**

It is clear from these measurements of flight height that Pink-footed Goose are at most risk of collision with turbines just after take-off and just before landing (especially when flying against strong adverse winds) and when they are flying between the roost and feeding areas or are flying between foraging sites within the feeding area. Geese on longer distance flights, which will include journeys between roosts and distant feeding areas, tend to fly above the zone of collision risk.

**Variation in flight height between neighbouring sites**

The flight heights of Pink-footed Goose varied considerably among six sites in north-east Scotland (Tab. 5). The six sites were within a few km of each other and were observed by the same person (I.J. PATTERSON).

Tab. 5. Mean flight heights of Pink-footed Goose recorded at six sites in north-east Scotland and the percentage flying at heights up to 150m.

Site	Mean height (m)	% 0 - 150m	Flocks
A	78.9	95.8	48
B	157.6	24.1	58
C	174.5	50.0	22
D	67.3	94.7	72
E	114.8	71.9	23
F	128.5	68.3	28

Mean flight height varied from 67.3 m to 174.5 m and the percentage of geese flying at collision risk height (0 – 150 m) varied from 24.1% to 95.8% (Tab. 5)

Variation in flight height between sites appeared to be related to the closeness of a site to the feeding area being used by the birds. At a site close to the current feeding area, the geese flew lower than they did when travelling onwards to a more distant feeding area.



## First meeting of the AEWA Red-breasted Goose International Working Group

**Nicky Petkov**

IWG Coordinator

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AEWA International Single Species Working Groups are being established under the framework of selected AEWA Single Species Action Plans. These Working Groups are the inter-governmental bodies responsible for coordinating and guiding the implementation of the International Single Species Action Plans, consisting of representatives from all range states covered by the Action Plan in question.



The AEWA Red-breasted Goose International Working Group (RbG IWG) was convened by the UNEP/AEWA Secretariat in 2012 and consists of appointed representatives from the 5 countries identified as key range states for the species in the Single Species Action Plan for the Red-breasted Goose.

Each range state has been requested to designate two representatives to the group: one national focal point representing a government organization or institution and one national expert who can also be from an NGO or research institution. The appointed representatives are subsequently expected to lead on the implementation of Red-breasted Goose conservation measures in their respective countries.

In addition to the range states, AEWA has invited initially some international organizations as observers that work closely together with the AEWA Secretariat and provide technical support to it. These were BirdLife International, the Federation of Associations for Hunting and Conservation of the European Union (FACE), Wetlands International and the Wildfowl & Wetlands Trust (WWT).

The purpose of the observers to the group is to provide advice and expertise to the range states as well as the UNEP/AEWA Secretariat - both during the meetings of the Working Group and in the inter-sessional periods.

The coordination of the RbG IWG is based on an agreement between AEWA Secretariat and WWT, the latter has outsourced the coordination via agreement with BSPB/BirdLife Bulgaria and the current International Coordinator on a part time base is Nicky Petkov.



In February 2014 the town of Kavarna was chosen to host the first AEWA Red-breasted Goose International Working Group. Many of the GSG would remember the heavy winter meeting in that Bulgarian town back in the 1990s. The meeting hosted representatives of state authorities of the five key countries for the species – Russia, Kazakhstan, Ukraine, Romania and Bulgaria and experts and conservationists from those countries.



The participants updated each other on the ongoing conservation and research activities in the range countries. Key knowledge on the migration stop-over sites and threats at those sites were presented resulting from active remote tracking work. What comes out of the discussion is that the issue of poaching and associated hunting disturbance is a common problem across the range.

However Bulgaria is the only country that does not have any regulation of hunting at key sites for the species and the BSPB Conservation Director Stoycho Stoychev described the lack of buffer non-hunting zones as kind of “endemic” to Bulgaria. The IWG stressed the need to establishing hunting free zones, which will allow the Red-breasted Goose to have secure resting and refueling stations along the migratory route.



Nicky Petkov (BSPB, RBG-IWG coordinator) and Nina Mikander (AEWA)

The IWG delegates elected for Chair of the group Dr. Volodymyr Domashlinets from the Ministry of Environment of Ukraine. Beside the original observers to the group the list was extended to include the US Fish & Wildlife Service and Royal Belgian Institute of Natural Sciences, which we hope will contribute to further the implementation of the Species Action Plan.

The countries reconfirmed commitment to common monitoring actions and will be looking into options to set new common projects to increase cooperation between countries. One of the major points upon which the delegates laid particular stress was the need to implement a Strategic Impact Assessment for any development in the key areas of the species as a preventive measure. The need for better enforcement of site protection and the development and implementation of management plans for key sites was considered crucial by the IWG participants.



At the meeting the new web site of the IWG was launched, which will serve as the media outlet for the activities and topics of the IWG members and external audiences. The web site can be viewed at [www.redbreastedgoose.aewa.info](http://www.redbreastedgoose.aewa.info)



On the last day of the meeting, participants visited the key site for the species in Bulgaria, Durankulak Lake Special Protection Area where they watched the morning flight departure of the last remaining wintering geese flocks, which still remained in the area after the major part of the flocks had left for Romania and Ukraine *en route* to the breeding grounds.

The First IWG meeting was organised and hosted by the BSPB/BirdLife Bulgaria and the meeting was funded and through the Life+ Project "Safe Ground for Redbreasts", which made possible representation from all key range states.



## Outstanding Goose Specialists of the past: Sergei Nikolayevich Alphéraky (1850–1918)

**Johan H. Mooij**

Sergei N. Alphéraky was a Russian ornithologist and entomologist. He was the second son of Nikos and Maria Alferakis, a noble family of Greek descent, living in Taganrog in the Rostov-on-Don region. Nikos Alferakis (or Nikolay Alferki) was a wealthy merchant. Sergei and his older brother Akhilles Nikolayevich Alferaki, a Russian composer and statesman grew up in the Alferaki Palace in Taganrog.



The Alferaki Palace in Taganrog (Rostov-on-Don region)

In 1867 Sergei left the parental home for Moscow to study Biology at Moscow University. Because of the fact that his supervisor, Professor Anatoli P. Bogdanov (1834-1896) did not support his wish to study Lepidoptera, he left Moscow University in 1869. In 1871 Sergei Alphéraky moved to Dresden, where he could realize his dream, studying Lepidoptera under the famous German entomologist Otto Staudinger (1830-1900).

In 1873 he finished his studies, returned to Russia and started his own studies on the moths and butterflies of the Taganrog region (published 1876) and the Northern Caucasus (1877).

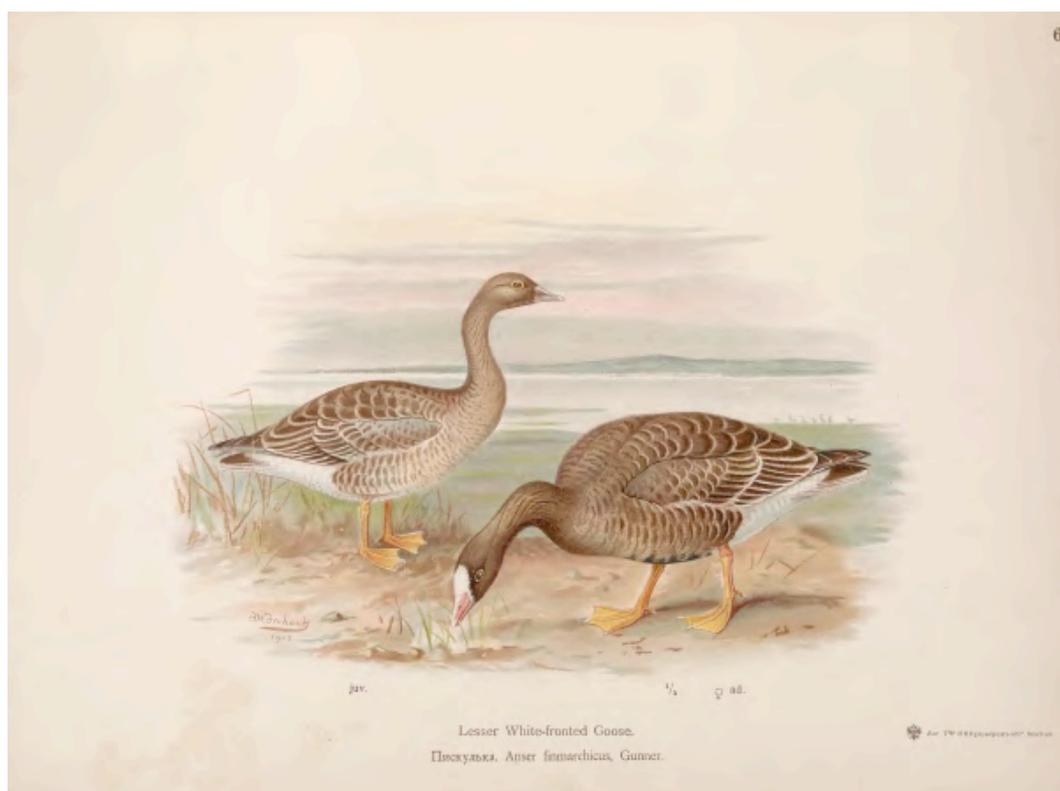
In the following years, Alphéraky travelled through Central Asia from Kazakhstan to Western China, where he collected about 12 000 specimens of Lepidoptera, which subsequently took him several years to process. The results of these studies were published during the 1880s. In this period he also processed the Lepidoptera collected by other scientists during expeditions in Tibet, China and Mongolia, kept in the collection of the St. Petersburg Museum, and published his results during the 1890s.



S.N. Alphéraky

But he wasn't only a highly respected entomologist, he also was a great ornithologist and Goose Specialist. During his travels and studies Alphéraky also collected data about geese and ducks, as well as building up a network of scientific contacts. Based on his own data and the information he obtained from his network, Alphéraky compiled all knowledge available at that time about the goose and duck species of the Palearctic and published two books:

- Utki Rossii (1900), only in Russian, and
- Gusi Rossii (1904), which was published in 1905 in English as “The Geese of Europe and Asia”.



Picture of the Lesser White-fronted Goose (Alphéraky 1904).

A contemporary review of his goose book in the *Auk*, states: “The descriptions of the species, including the various plumages, are very detailed, the bibliographical references are very full, especially to Russian authors, and the geographical distribution and biographies appear to be worked out with great care and thoroughness. The work thus abounds with exceedingly valuable information, not elsewhere given in such a connected and convenient form.” (Review in *Auk* 24, 1907). And indeed Alphéraky's is one of the highlights of goose literature. Because of his extremely critical attitude towards all contemporary information, “The Geese of Europe and Asia” is an important and reliable source of information the distribution and migration of geese in the 19<sup>th</sup> century for today's goose researchers.



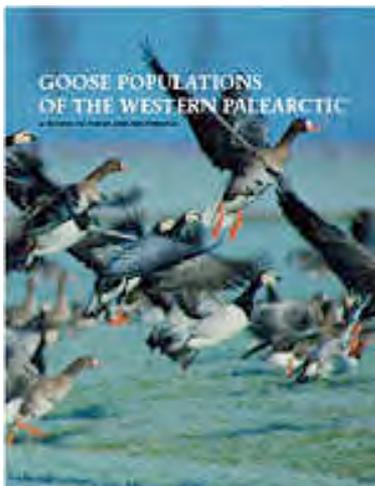
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**Literature**



The Goose Specialist Group made an impressive compilation (edited by Jesper Madsen, Tony Fox & Gill Cracknell) of our knowledge on the status and distribution of the goose populations of the western palearctic. This book is not for sale anymore, but a digital copy can be downloaded for free from:

[http://issuu.com/jesper\\_madsen/docs/goosepopulationswestpaleartic](http://issuu.com/jesper_madsen/docs/goosepopulationswestpaleartic)

or from

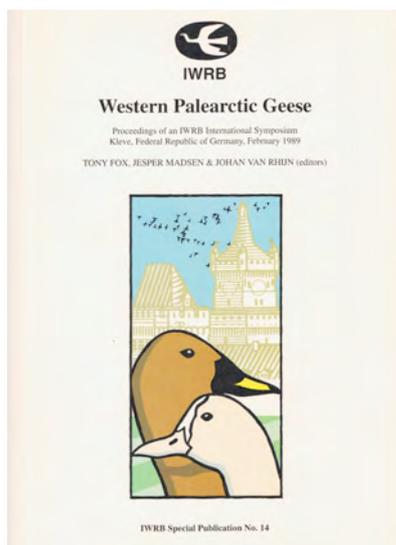
<http://bios.au.dk/en/knowledge-exchange/about-our-research-topics/animals-and-plants/mammals-and-birds/goose-populations-of-the-western-paleartic/>

The latest edition of the Wildfowl journal are now also available online, for free, at:

<http://www.wwt.org.uk/what-we-do/publications/wildfowl/archive/wildfowl-issue-61/>

Furthermore it is still possible to receive a printed copy of the official proceedings of earlier meetings of the Goose Specialist group, as there are:

- IWRB International Symposium on Western Palearctic Geese, Kleve, Germany 1989,
- 10<sup>th</sup> Meeting of the Goose Specialist Group, Goose 2007, Xanten, Germany 2007,
- 12<sup>th</sup> Meeting of the Goose Specialist Group, Goose 2009, Höllviken, Sweden 2009:



Proceedings Goose Meeting 1989  
(Kleve, Germany)  
Interested? Please contact:  
[johan.mooij@bskw.de](mailto:johan.mooij@bskw.de)



Proceedings Goose 2007  
(Xanten, Germany)  
Interested? Please contact:  
[johan.mooij@bskw.de](mailto:johan.mooij@bskw.de)



Proceedings Goose 2009  
(Höllviken, Sweden)  
Interested? Please contact:  
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**Proceedings of the 14th meeting of the Goose Specialist Group of the IUCN Species Survival Commission and Wetlands International are now available online!**

During the 14th meeting of the Goose Specialist Group, which was held in Steinkjer, Norway in April 2012, contributors were invited to submit articles to the online journal *Ornis Norvegica*. *Ornis Norvegica* is the scientific journal of the Norwegian Ornithological Society (Norsk Ornitologisk Forening – NOF).

I am pleased to announce that the proceedings have finally been published. You can find articles from the 2012 meeting, as well as a number of other ornithological papers which are surely of interest on the journal website:

<https://boap.uib.no/index.php/ornis/index/>

Best wishes,  
Paul Shimmings



**The proceedings of the 15th meeting of the Goose Specialist Group are available!**



The proceedings of the 15th meeting of the Goose Specialist Group in France in January 2013 have appeared as a special edition of the journal **Wildfowl**.

By sending an email to [wildfowl@wwt.org.uk](mailto:wildfowl@wwt.org.uk) a printed copy of this Special Issue (nr.3) can be ordered at the cost of £17 plus an additional £3.50 for credit card transactions.

It also can be downloaded for free at:

<http://wildfowl.wwt.org.uk/index.php/wildfowl/issue/view/285>



The  journal Wildfowl



The Wildfowl & Wetlands Trust has published papers on the ecology, biology and conservation of wildfowl and other waterbirds in its scientific journal, Wildfowl, since the mid 20<sup>th</sup> century. The first volume, then known as the Severn Wildfowl Trust Annual Report was produced in 1948. It incorporated the minutes of the first annual general meeting along with a report on the numbers of wild geese wintering at the New Grounds, Slimbridge, an update on the use of rocket nets on the marshes to catch geese for ringing, information on the Berkeley New Decoy and an inventory of birds in the Trust's waterfowl collection.

In 1961 the Wildfowl Trust Annual Report was divided into two parts: an account of the Trust's activities for its Members and scientific papers submitted for publication in the journal. The name changed to Wildfowl (entitled Wildfowl 19) in 1968, the thinking behind the change being carefully described by Geoffrey Matthews and Malcolm Ogilvie in their editorial at the time. By this stage Wildfowl was an established international journal, attracting papers from leading researchers of the day interested in studying wildfowl and in the conservation of these species.



In the intervening years Wildfowl has continued to provide a high scientific output, and the journal is widely circulated. Yet the advent of the electronic age facilitates reaching an even wider audience. From 2009 onwards, in addition to the printed copies of Wildfowl, papers published in the journal have also been made available electronically to all interested parties on the WWT website. Scanned earlier editions of the journal have also now been added and made available through the Open Journal System, to provide a ongoing source of information for researchers, conservationists and all those with an interest in wildfowl and their wetland habitats.

The current issue (Wildfowl 64) can be downloaded under:  
<http://wildfowl.wwt.org.uk/index.php/wildfowl/issue/view/286>





Breeding pair of Western Tundra Bean Geese *Anser fabalis rossicus* (© J.H. Mooij)



**Call for help:**

As discussed during the Höllviken meeting we invite all goose researchers to send their publications to our data bank of geese literature. Not only international but also local publications (including those in languages other than English) are most welcome.

Please send your publications, preferably as a pdf file, to Fred Cottaar - [fred.cottaar@tiscali.nl](mailto:fred.cottaar@tiscali.nl).



**Instructions to authors**

The Goose Bulletin accepts all manuscripts dealing with goose ecology, goose research and goose protection in the broadest sense as well as Goose Specialist Group items.

All manuscripts should be submitted in English language and in electronic form. Text files should be submitted in “.doc”-format, Font “Times New Roman 12 point”, tables and graphs in “.xls”-format and pictures in good quality and “.jpg”-format.

Species names should be written with capitals as follows: Greylag Goose, Greenland White-fronted Goose etc. Follow an appropriate authority for common names (e.g. Checklist of Birds of the Western Palearctic). Give the (scientific) Latin name in full, in *italics*, at first mention in the main text, not separated by brackets.

Numbers - less than ten use words e.g. (one, two three etc) greater than 10, use numbers with blank for numbers over 1 000.

In case of doubt please look at the last issue of the Goose Bulletin.

