



# 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



Scientific research does not take place in a vacuum; it is more or less directly connected to the community we live in, because most research is funded by governments, companies, universities and private organisations. Without taxpayers' and private sponsors' money most research would be impossible. In return we have to feed our financiers with results and we have to spread our knowledge in such a way that the community that supports us, can understand what we are doing.

The famous ethologist Konrad Lorenz (1903-1989) once wrote: "In fact, every man of science, of whatever scientific field, ought to consider it his duty to tell his fellow men about his work in an understandable way." And for the scientists, who are afraid that they don't have the ability to explain the complexity of their results in an understandable and fascinating way, he continued: "As said before, I am a scientist, not an artist. I don't venture to liberties and stylizations. That is not necessary, because the scientific facts already speak of beauty and poetry enough."

To me, this seems to be far too optimistic a view on the readability and comprehensibility of scientific publications. Actually for most scientists it is extremely difficult to present the more or less complex scientific content of their research in such a way that it is understandable even for non-experts. But a broad understanding of our results is crucial, not only to secure long-term funding of our research, but also to spread our findings in the community as a base for decisions.

It is undoubtedly the case that not every topic of a research project can be taught easily, but within every project there are a number of items that easily can be presented even to interested laypeople. Many good opportunities to do so exists, such as at international conferences like those of the Goose Specialist Group - this year in Mongolia and in 1 ½ year in the Czech Republic (see pages 2-15 in this issue) - or through publications in scientific or more popular journals, like Wildfowl and the Goose Bulletin. If we want to be heard and taken seriously, we have to take our knowledge out into the community and explain and discuss our findings.

In spite of all political polarisation, we all live in one world, we do research on elements of the same ecosystems, together we are responsible for ensuring that the results of our research are used for the benefit of our worldwide society. Therefore we need international cooperation, open discussions, unrestrained exchange of knowledge and an easy-to-understand communication of our findings with society.

**The next issue of the GOOSE BULLETIN is planned to appear in May 2024, which means that material for this issue should have reached the editor-in-chief no later than the 31st of March 2024.....but earlier submission is, of course, always permitted, if not actively encouraged!**

Editor in chief



## Short report about the 20<sup>th</sup> GSG meeting in Ulaanbaatar, Mongolia

### International conference calls geese experts for stronger flyway level collaboration

Some 87 scientists from 14 countries specializing in goose ecology from Asia, Europe, and North America gathered in Ulaanbaatar, Mongolia, between 16 and 18 August 2023, for the 20<sup>th</sup> meeting of the Goose Specialist Group of IUCN Species Survival Commission. It was an important international meeting to provide a platform for researchers to discuss scientific questions concerning geese, to identify new approaches towards species and habitat conservation, and to promote strong international collaboration.



The meeting was hosted by the Wildlife Science and Conservation Centre of Mongolia and the IUCN Goose Specialist Group in partnership with the Ministry of Environment and Tourism of Mongolia, East Asia-Australasian Flyway Partnership, University of Oklahoma, and the Institute of Biology, Mongolian Academy of Sciences, and with financial support from the Hanss Seidel Foundation, University of Oklahoma, Druid Technologies, and the Global Messenger.



The theme of the meeting was **“Science. Cooperation. Conservation. For better understanding and protecting goose populations across the northern Hemisphere”**.

Following an impressive concert of throat-singing and horsehead fiddle, the meeting was kicked-off by a vibrant presentation given by Dr. Lucy Hawkes from the University of Exeter in UK

about the high-altitude migration of bar-headed geese, which fly at 7000 m high across the Himalaya range.

This species is also a flagship species of the Central Asian Flyway, in which several species of geese migrate between breeding areas in East Russia and Mongolia to wintering areas in India and South Asia. Besides bar-headed geese, this flyway includes several other vulnerable species including also lesser white-fronted geese, and for many of these species vital knowledge on their population size is missing. Information on waterfowl counts at several key sites along this flyway was presented by scientists from several countries including India, Mongolia and Russia. In a workshop hosted by the Hanns Seidel Foundation and the Wildlife Science and Conservation Centre of Mongolia on the 15<sup>th</sup> of August, the developments of the Central Asian Flyway Initiative were discussed, which will link range states within the flyway to support conservation actions for migratory species.



The three keynote speakers from left to right: Lucy Hawkes (Exeter University, UK), Cao Lei (Research Center for Eco-Environmental Sciences, CAS, China) and Diann Prosser U.S. Geological Survey, Patuxent Wildlife Research Center, USA)

Mongolia is also the home of breeding swan geese and other goose species migrating within the East Asia-Australasian flyway to winter in China. Specialists from China, Russia, Korea and Japan presented new data on populations of geese within this flyway. Their findings showed a mixed picture, with some strong population growth in species that are able to feed on farmland, while species



Cao Lei with her Godman-Salvin medal

reliant on natural habitats still appear very vulnerable. An absolute highlight was the presentation by professor Cao Lei from Chinese Academy of Sciences in China, who showed the intricate migratory connections of geese species between the Russian Arctic and wintering sites in Yangtze River Basin in China. At the end of the conference, she was awarded with the Godman-Salvin medal by the British Ornithological Union, which was handed out during a beautiful ceremony.

On the last day of the conference, the important topic of avian Influenza and other infectious diseases among geese populations across the globe was discussed. Diseases such as high-pathogenic avian influenza can be spread between countries by the linkages created by migratory waterfowl. At the same time, the keynote presentation by Dr. Diann Prosser from US Geological Survey in USA and other presentations underlined that transport of domestic birds is likely to be as important or more important for the spread of avian influenza, yet this is challenging to study.

In the most recent years, migratory waterfowl more and more seem to become victims of high-pathogenic influenza, with large losses in several populations of geese, pelicans, seabirds and cranes. The most critical challenge appears to be the monitoring of the spread of high-pathogenic avian influenza, and several examples of detailed avian influenza surveillance and monitoring programs in Asia, Russia, America and Europe were discussed.

The 20<sup>th</sup> meeting of the Goose Specialist Group was an important stimulant for developing protection and monitoring of waterfowl in the Central and East Asian flyways, as well as international collaboration in research on avian influenza and other topics concerning goose ecology. The countries present in this meeting were Belgium, China, Czech Republic, Denmark, Germany, India, Japan, Mongolia, Netherlands, Poland, Russia, South Korea, United Kingdom, and United States.

Within the framework of the conference, the conference participants were awarded in nominations for the most interesting presentation, poster and the most promising young scientists. It was noticeable that many young scientists took an active part in the conference and joined the ranks of the group.

During the conference, the new logo of the group was presented for the first time. Also, a reorganization was carried out in the structure of the Goose Specialist Group IUCN SSC. The new chairman of the group became Dr. Thomas Lameris (the Netherlands), who replaced Petr Glazov (Russia), who had been heading the group since 2014. In turn, Petr Glazov became deputy chair of the group.



Thomas Lameris (left) and Petr Glazov (right) with the three award-winners in between them.

From left to right: Thomas Lameris (new chairman GSG) Wenxin Liu (best early career talk), Kirill Sharshov (best talk), Eun-Jeong-Kim (best poster) and Petr Glazov (current co-chairman GSG).

The International Goose Specialist Group is actively working, developing, and bringing together more than

350 specialists from 39 countries of the world and striving to strengthen contacts between all researchers on migratory goose populations in the Northern Hemisphere.

It was decided to hold the next meeting in Mikulov (Czech Republic) in January-February 2025.

All photo credits @WSCC of Mongolia

## Impressions of the 20<sup>th</sup> Goose Specialist Group meeting in Ulaanbaatar, Mongolia 16-18 August 2023

Barwolt Ebbinge,

former chairman of the GSG, b.sebbinge1993@kpnmail.nl

In order not to duplicate the overview of this meeting in this Goose Bulletin, I will just underline a few items that impressed me most.

Welcomed by a Mongolian throat singer who accompanied himself on a horsehead-fiddle (*morin khuur* in Mongolian) this 20th meeting of the IUCN-SSC Goose Specialist Group was indeed opened in a very impressive way.



Mongolian throat singer with horse-head fiddle opens the conference

The meeting was attended by 87 people from 14 countries. There were 20 participants from Mongolia itself, 18 from Russia, 12 from China, 10 from South Korea, and 6 from the Netherlands, to mention the top five attending countries. Of course, also representatives from Japan and India were present.

As former chairman of this group from 1996- 2018 it was gratifying to see how this formerly strictly European group has now developed into a truly Eurasian one.

The first three meetings were held in Poland, England and Bulgaria, but in 1999 the first Asian conference was organized by our Japanese hosts in Matsushima.

The meeting in Ulaanbaatar was the fifth meeting east of the Ural Mountains, the others being held in Leh, Ladakh, India (2008), in Beijing, China (2014), and in Salekhard, Russia (2015).



In his opening speech the current chairman Petr Glazov gave an overview of the history of this specialist group since it was established in 1995 by Jesper Madsen. After many discussions in the past, finally a beautiful logo for the group has been chosen.

At present the group is one of the largest IUCN-specialist groups with 408 members. The current membership is still heavily male biased with 82 % males, and only 18 % females.

The meeting in Ulaanbaatar, however, showed a positive change in this respect with 54 male participants (62 %) and 33 women (38 %). Moreover, all three key-note lecturers were given by women.

Key issues discussed during this meeting were the increased use of ever more sophisticated satellite transmitters tracking the migratory pathways of various goose populations, detailed research to understand how bar-headed geese (*Anser indicus*) manage to cross the death-zone of the Himalayas when migrating from their Mongolian breeding grounds to India (Lucy Hawkes, Exeter, UK), and the world-wide problem of avian influenza (Diann Prosser, John Takekawa, Henk van der Jeugd and Kirill Sharshov).



Bar-headed Geese (*Anser indicus*)

It was great that we could meet again with many Russian goose researchers, which has become very difficult these days because of the terrible war that the Russian government has launched by invading Ukraine.

Hu Yibo of the Chinese Global Messenger Co., Ltd specialized in wildlife tracking technology for ten years demonstrated their newest devices. The migratory routes of many goose populations wintering in Japan, Korea and China, but nesting mainly in Siberia are now known in much greater detail as was proven in many talks.

Avian influenza, originating from China, but now spreading over the entire globe, was an important topic during the conference. Though Henk van der Jeugd suggested that possibly Eurasian Wigeon might be involved in passing on high-pathogenic avian influenza from Siberia through Europe and Iceland to North America, the evidence for this is still too scanty. During the Q&A sessions, the issue was raised by several participants that a role of migratory birds spreading the disease is happily used by poultry farmers, who keep their own possible role in spreading the disease by transporting live poultry all over the world well hidden. Government inspection services appear to be more on the side of the (economic) interests of farmers and transporting companies in allotting blame one-sidedly on migratory waterfowl, and ornithologists should avoid playing that game too so as to receive research money to study dispersal and migration. We as IUCN-SSC-group must be careful, and perhaps ask whether we do enough for conservation and protection in our enthusiasm for ecology.

How complicated matters can be was illustrated by an impressive overview by Herbert Prins (“Goose conservation versus human health: between the devil and the deep blue sea”), who talked about the decisions of the Chinese government to prevent the disease bilharzia to spread again in the Yangtse river valley. As a result of constructing the Three Gorges Dam (in order to generate electricity for many people), the risk of bilharzia has increased, and therefore buffaloes (an important intermediate host for this disease) are in the process of being banned from the Yangtse to prevent the very unhealthy cycle of the bilharzia parasite – snail – buffalo - fluke.

As a result of the removal of buffaloes the vegetation from short grazed lawns to tall sedge communities, unsuitable for wintering Lesser White-fronted Geese (*Anser*

*erythropus*). So many actions that one would expect a responsible government to take, in order to provide people with electricity and a disease-free environment, can have unforeseen repercussions for wintering waterfowl.

The impact of protection of wild geese from hunting has caused major increases of several goose populations in western Europe, most notably the Russian Barnacle geese (*Branta leucopsis*) (from 40,000 in the early 1970s till well over 1,000,000 currently, and likewise of Greater White-fronted Geese (*Anser albifrons*). Detailed studies on Kolguyev island (GLAZOV, LOSHCHAGINA, ANISIMOV & KONDRATYEV) demonstrated the current use of newly colonized breeding grounds and competition between Barnacle Geese and Greater White-fronted Geese. Monitoring the size and the spatial distribution of goose populations remains important, though few populations have been monitored as long and detailed as that of the Dark-bellied Brent Goose (*Branta bernicla bernicla*) (EBBINGE et al.). This was only possible because of the rather limited coastal distribution of this population in winter, and a well-organized network of bird counters.

Better protection during spring migration (partly because of avian influenza) also resulted in a marked increase in numbers of Tundra Bean Geese (*Anser fabalis serrirostris*) in Zabaikalsky Krai (east of Lake Baikal) starting in 2004 (GOROSHKO)

The impressive use of many satellite transmitters has revealed the migratory trajectories of many goose populations in East and Central Asia, which is important information for their protection.

The meeting was very well organized with a special website [www.gooseconference.com](http://www.gooseconference.com), where you can find the entire programme and all abstracts of the talks and posters.



Bird watching at Ugli Lake guided  
by Batmunkh Davasuuren

The post-conference excursions made an ever-lasting impression of this wonderful country with barn swallows everywhere, and huge numbers of birds-of-prey, many wader species, common pochards, white-winged black terns, lapwings and spoonbills. All these birds in the least densely populated country in the world with 3,5 million inhabitants, a country which is roughly twice the size of Turkey. Our excellent guide Batmunkh Davaasuren took us to many beautiful places with steppe

eagles, saker falcons, upland buzzards and even lammergeiers.

He and the organizing team led by Nyambayar Batbayar deserve many thanks for the work they did.

All pictures by Doortje Dallmeijer



## Population Trend of the Geese in Border Area, Gimpo, Republic of Korea

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### Abstract

Birds are highly mobile, and they are significant biodiversity indicators. They also have the potential to identify valuable ecosystems and conservation priorities shared by the two Koreas as well as the regional and global levels. This study was conducted a total of 10 surveys in Gimpo City along the Han River Estuary (HRE), border area, between November 2018 and April 2019. We recorded four waterbird species during the survey in Ramsar-defined internationally important concentrations Tundra Bean Goose (*Anser serrirostris*), Greater White-fronted Goose (*Anser albifrons frontalis*), Taiga Bean Goose (*Anser fabalis middendorffii*), and Swan Goose (*Anser cygnoides*) in the survey area. This study has brought attention to the goose population of the HRE between the two Koreas. In addition, we recommend the site be surveyed regularly as a contribution to the International Waterbird Census.

**Keywords:** Han River Estuary, Tundra Bean Goose, Greater White-fronted Goose, Swan Goose, Waterbird Census

### 1. Introduction

The value of bird count data to multi-stakeholders, including decision and policy-makers, is explicit in the previous studies and implied through the Convention on Biological Diversity, Ramsar Convention, and World Heritage criteria. However, bird protection is a complicated interplay of more species-oriented protection, such as protection against illegal hunting or the use of harmful chemicals and more habitat-oriented protection such as protection against reclamation of tidal flats.

The Han River Estuary (HRE) Wetland is a protected wetland between the two Koreas in the Demilitarized Zone (DMZ) and a threatened area by the developed plan for humans. HRE is an internationally important area for waterbirds and endangered species as roosting places, feeding grounds, and stop-over sites. HRE Wetland was designated as an East Asian-Australasian Flyway (EAAF) network site in 1997 (EAAFP 2023), an Important Bird and Biodiversity Area in 2004 (BIRDLIFE INTERNATIONAL 2023), and a protected area by the Ministry of Environment (ME), Republic of Korea (ROK) in 2006 (ME 2006). We conducted avian surveys to identify species along the HRE, focused on the Gimpo area, for a study on the ecological value of the Korean inner-border area (CHOI et al. 2020). Here, we focused on counting the birds, mainly goose species, along the HRE supported by Gimpo City and Han River Basin Environmental Office under the ME ROK.

### 2. Material and Methods

#### *Observation site*

The study site covers 60.668 km<sup>2</sup> and is part of the Han River Estuary Wetland Protected Area, designated on 17 April 2006 by the ME ROK, and which joined the EAAF site network on 7 March 1997 (EAAFP 2023), and was designated an Important Bird Area in 2004 (BIRDLIFE INTERNATIONAL, 2023). This area is also a Military Installation Protected Area and Civilization Control Zone.

*Observation methods*

The survey was conducted 10 times between 27 November 2018 and 11 April 2019 by experienced birdwatchers and bird and habitat conservation scientist. We used a car and were occasionally followed with military vehicle to survey the area, equipped with a Swarovski Scope, sometimes a second Swavorski Scope, and binoculars. During the surveys, we counted every bird that we heard or saw from slowly moving vehicles (average < 20 km/h); from certain points in the survey areas with many birds we stopped for a more precise count. To ensure the accuracy of the bird identification, we recorded photos and did peer reviews.

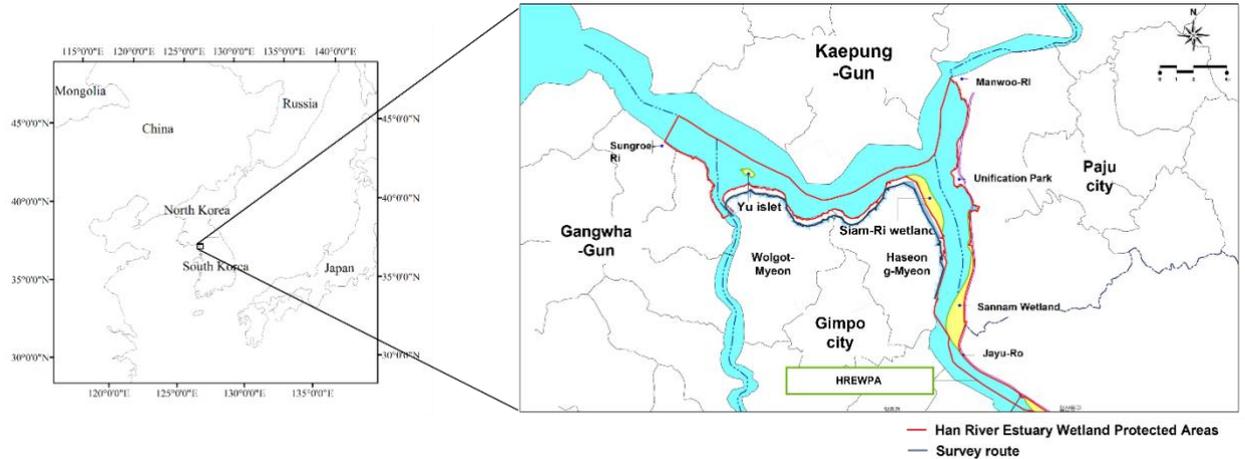


Figure 1. Survey area and route

Source: Authors’ compilation based on the map of Han River Estuary Wetland Protected Area by ME (2006)

**3. Results and Discussion**

*Number of Goose Species*

Significant numbers of waterbird species were found along the HRE, including total counts of 1,010 Swan Goose, 285 Taiga Bean Goose, 3,800 Tundra Bean Goose, 4,101 Greater White-fronted Goose and a single Lesser White-fronted Goose (*Anser erythropus*), counted in the survey area between 27 November 2018 and 11 April 2019 (Tabel 1).

Table 1. List of Goose species recorded by the present research, with their peak count, November 2018 to April 2019.

Scientific Name	English Name	Highest recorded
<i>Anser cygnoides</i>	Swan Goose	1,010
<i>Anser fabalis</i>	Taiga Bean Goose	285
<i>Anser serrirostris</i>	Tundra Bean Goose	3,800
<i>Anser albifrons</i>	Greater White-fronted Goose	4,101
<i>Anser erythropus</i>	Lesser White-fronted Goose	1



Figure 2. Swan Geese with Tundra Bean Geese and Eastern Spot-billed Ducks just behind the military fence protecting Han River Estuary.  
Source: Bernhard Seliger



Figure 3. Greater White-fronted Goose with a transmitter and ring near Siam-ri Wetland.  
Source: Bernhard Seliger



Figure 4. Goose species in the paddy area, survey area.  
Source: Bernhard Seliger

Comparing our peak counts in January 2019 with the mean of annual counts in January 2013-2017 of the same species (NIBR, 2013, 2015, 2016, 2017) we found nationally important concentrations of 1% of four to five species (Table 2).

Table 2. Goose species recorded in Nationally Important concentrations of 1% or more in January 2019 based on the mean of the nationwide count of the same species in January from 2013 to 2017.

	Nationwide Mean*	Suggested National 1% Criterion	Recorded on 15 Jan 2019	Recorded on 21 Jan 2019
Tundra Bean Goose	69,520	695	1,196**	895***
Greater White-fronted Goose	87,942	879	724**	846***
* NIBR (2013, 2015, 2016, 2017) ** +462 geese sp. *** +290 geese sp.				

The numbers of Greater White-fronted Goose we recorded were highest on 27 November 2018, generating the peak count of 3,250 individuals. In March 2019, we counted at least 3,115 Greater White-fronted Goose in the survey area. November 2018 and March 2019 represented the peak migration periods in autumn and spring for the species (Figure 5). In the absence of individually marked birds, there is no evidence to support the assumption that birds counted during these two migration periods were the same individuals, mainly because ROK is used by some geese that remain throughout the winter, while others continue their migration southward to winter in the People's Republic of China.

The current survey area defined for the Asia Waterbird Census by the National Institute Biological Resources does not include the westernmost part of the HRE area, which includes our survey area, Gimpo City (NIBR 2020, 2022). This area also supports many thousands of geese, including internationally vulnerable species, e.g. Swan Goose. Based on our survey results, we suggest conducting an inventory of the waterbirds in the (inner) border area of Gimpo City.

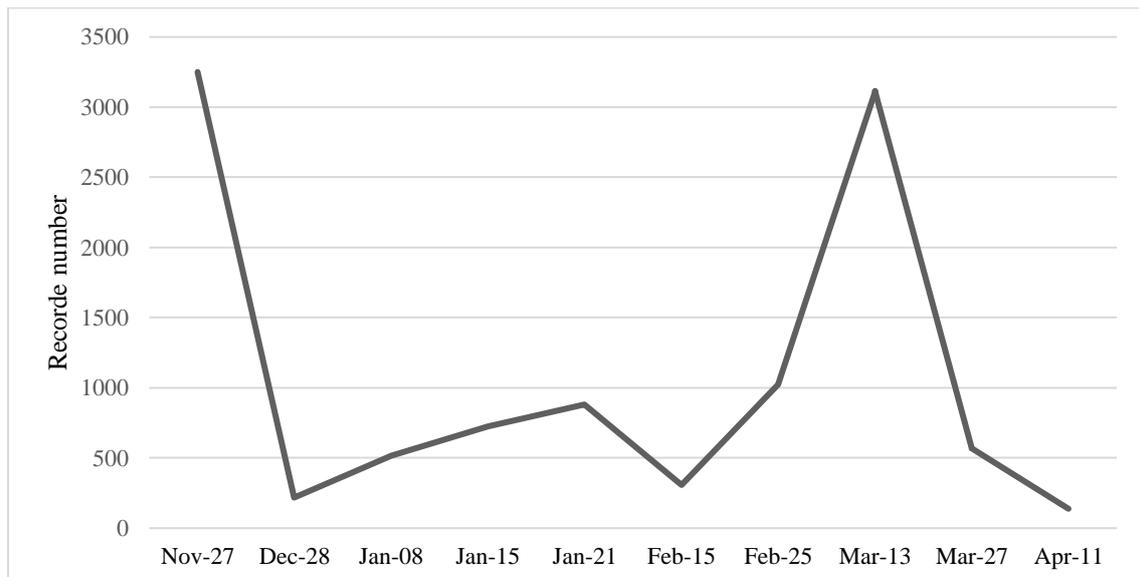


Figure 5. Number of Greater White-fronted Goose recorded during each of the surveys, November 2018 to April 2019

#### 4. Discussion and Conclusion

Many bird species show asynchronous migration patterns; the peak counts in numbers of such species will be much lower than the actual number of individuals truly passing through the area, because some individuals will stay for only a few hours or days, while others stage for several weeks. For this reason, while the Ramsar Convention uses a 1% population criterion, the EAAF Partnership also recognises a threshold of 0.25% of a population of a staging waterbird population to confirm a site's international importance considering this phenomenon. We found the four waterbird species during the survey in Ramsar-defined internationally important concentrations in the Survey Area, Gimpo city along the HRE - Swan Goose, Taiga Bean Goose, Tundra Bean Goose and Greater White-fronted Goose. This study has brought attention to the numbers of geese of different species using the HRE between the two Koreas. Based on our experiences, we strongly recommend the area as become a potential annually surveyed area to contribute to the International Waterbird Census.

We were also able to count birds along several kilometres of the Democratic People's Republic of Korea (DPRK) river-edge including Yu islet. Although some of the DPRK river-edge supported natural vegetation, we did not see any Swan Goose on the DPRK side of the river and we only saw small numbers of other geese; with a maximum count of 300 Tundra and/or Taiga Bean Goose seen in late March 2019 and even fewer duck, even though there appeared to be extensive rice-fields and wetland habitats in the DPRK hinterland.

Greater White-fronted Geese came and went during the same period, arriving in the survey areas in response to snow cover or to a rapid fall in temperature leading to the freezing of lakes used by the birds during the rest of the winter. According to Hearn (2004), large-scale cold weather movements and associated dependence on preferred refuge wetlands in the mid-winter period are still very poorly researched. In the survey area, the lowest mid-winter count was 218, increasing to 880 before decreasing again to 310 before increasing again to 1022 and then 3,115. This suggested that, at least 500-600 Greater White-fronted Goose also used the survey areas as a mid-winter refuge.

We can, therefore, be confident that our survey effort substantially underestimated the total number of waterbirds using the site and also likely underestimated the national and international importance of this wetland to some species of waterbird.

#### 5. Acknowledgements

We are grateful to Gimpo City and Mr. Min-Seok Chae at Gimpo City, Republic of Korea, for supporting the survey in the border area. We also thank Dr. Nial Moores, Birds Korea, for his input and for leading the field surveys.

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Mongolian Gers (Yurts in Russian) (© Doortje Dallmeijer)

## Monitoring in the context of the AEWA European Goose Management Platform

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### Abstract of an oral presentation at the 20<sup>th</sup> GSG-conference in Mongolia

Migratory geese increasingly pose a significant challenge for management. Their migration routes frequently span across national and even continental borders, thus requiring the coordination of management strategies at different levels, including the local, national, and international levels. Furthermore, the recent changes in environmental conditions, such as those caused by climate change, intensified agriculture, and wetland degradation, have resulted in some populations experiencing rapid growth while others are declining. This further complicates management efforts.

One approach to managing natural resources in such uncertain and changing conditions is known as Adaptive Management (AM). AM engages stakeholders and employs an iterative process that includes problem framing, agreement of objectives and actions, assessing consequences and trade-offs, followed by implementing, monitoring, evaluating, and adjusting management strategies in order to continuously learn from the outcomes of management efforts. This approach has been applied for many years to managing waterbirds in North America, and in 2015, the European Goose Management Platform (EGMP) was established under the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA) to provide a similar framework in Europe.

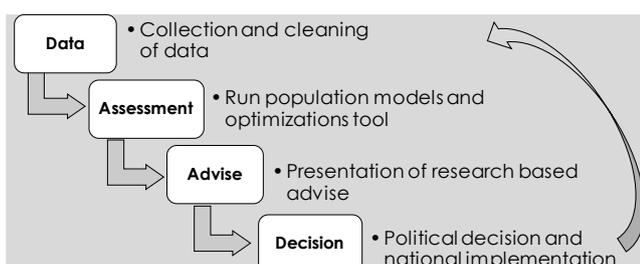
AEWA European Goose Management Platform



### Development of optimal management strategies

Start-up phase: Problem framing, agreement of objectives and actions

Iterative process:



The EGMP is established to provide a mechanism for a coordinated and inclusive decision-making and implementation process for the sustainable management of goose populations in Europe, with the objective of maintaining them at a favorable conservation status, while taking into account the concerns of relevant stakeholders and the pertinent legislative frameworks and regulations.

Management and action plans developed under the EGMP are currently in place for the Svalbard population of the Pink-footed Goose *Anser brachyrhynchus*, the Taiga Bean Goose *Anser fabalis fabalis*, the three populations of the Barnacle Goose *Branta leucopsis* and the NW/SW European population of the Greylag Goose *Anser anser*.

## The first announcement of the 21st Goose Specialist Group meeting, January 2025, in Mikulov (South Moravia, Czechia)

The Goose Specialist Group will hold its 21st conference in Mikulov, South Moravia, Czech Republic, in late January 2025.

Czechia, as well as other central European countries become more important for wintering geese and other waterbirds. South Moravia is the most important region within the country, with a high concentration of White-fronted Geese, Tundra Bean Geese and Greylag Geese. The other wintering species include Barnacle Goose, Brent Goose, Red-breasted Goose, Lesser White-fronted Goose and Pink-footed Goose.



*Church of St. Linhart from early 13th century and wintering geese on the reservoir Nové Mlýny (build 1980s)*

South Moravia is a unique region in the Czech Republic. It is located on the edge of the Pannonian plateau and Bohemian-Moravian Highlands. The history of this region is ancient, including mammoth hunters in the ice age, the Edge of the Roman Empire and for centuries border between Austria, Moravia and Hungary, and recently Austria, Czechia and Slovakia. This region has been famous for wine production and Biosphere Reserve, including limestone Pálava hills, the remaining riverine forests and the Lednické rybníky fishponds.

The conference will be held in the historical city Mikulov, located close to the Czech/Austrian border, which is 270 km from Václav Havel Prague Airport and 100 km from Vienna Schwechat International Airport.

The conference topics will include various aspects of goose ecology and conservation: current population status, changes in distribution, population management, hunting regulation, agricultural damages, interaction with other waterbirds management.

You can find more information on

<http://www.gsg2025.cz/>

Please do not hesitate to contact us at: [gsg2025cz@gmail.com](mailto:gsg2025cz@gmail.com)



## Swedish Lesser White-fronted Goose population – a status report

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It is a widely known fact that the Lesser White-fronted Goose *Anser erythropus* population has declined dramatically in the Fennoscandian region since the mid-1900s. The common population in Sweden and Norway has been subject to fragmentation, and today only two distinct and separated breeding areas remain, one in the Swedish mountains and one in Finnmark in Norway. In Finland no breeding has been verified since 1995 (JONES et al. 2008).

Conservation activities targeting the Swedish population have been taken since the late 1970s. Some of these actions have triggered a debate about genetic purity, flyway direction, origin of founder birds and potential threat to other populations. The following presentation is meant to give the reader an overview of the developments which have taken place since early 2000.

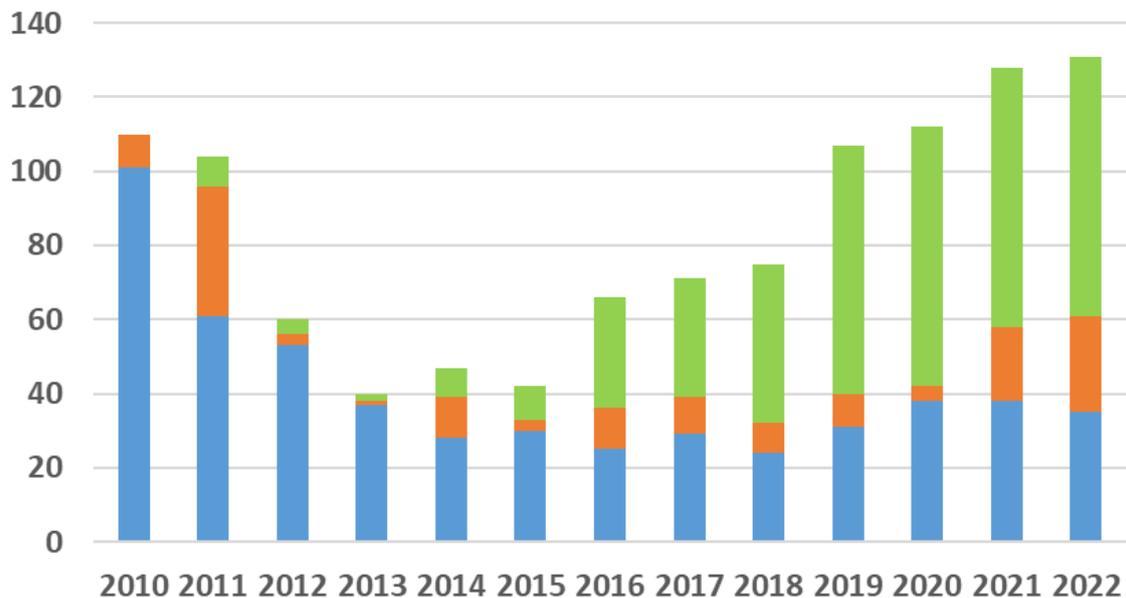


Fig. 1. Estimated minimum post-breeding numbers of Swedish Lesser White-fronted Goose population 2010-2022. Blue bars represent number of wild-born adults, red bars wild-born fledglings and green bars number of released birds recruited to the population. Released birds are defined as recruited when being connected to the population during a full migration cycle (thus, released birds from the same year are not included the graph).

As single birds in the former population established for captive breeding and release in the Swedish mountains were found to carry genes of Greater White-fronted Goose *Anser albifrons* (RUOKONEN et al. 2007), the breeding stock was terminated in 1999 and releases were abandoned.

In order to continue reinforcement and resume releases, the former captive breeding stock was replaced by in all 59 young Lesser White-fronted Geese caught in the wild in northernmost Russia 2005-2013. These founder birds form the base of today's breeding stock, and their offspring are used for annual releases in northern Sweden. Continuous reinforcement has proven to be needed, as a recent study indicates that the production of young in the wild does not balance mortality. Without additional augmentation, the Swedish population would decline about 15% per year under prevailing conditions (SCHEKKERMAN & KOFFIJBERG 2020). Recovery in population numbers since 2013 is primarily explained by recruitment of released birds (see Fig. 1), which include numerous established breeding pairs.

Consequently, reinforcement plays a key role in avoiding extinction of the Swedish breeding population. Even though the production of wild-born Lesser White-fronted Geese has been promising during the last two years, reinforcement needs to be continued, together with increased focus on other conservation actions, primarily remedying predation pressure. There is evidence that especially the cohort of breeding pairs producing most offspring is vulnerable for predation as they are more exposed to predation risk when staying the entire summer in the mountains, compared to non-breeders or failed breeders, moving to the coastal site Hudiksvall for moulting in June-July. High predation pressure is known to be a common obstacle for conservation projects with small populations world-wide, and this project is no exception.

During 2012-2013 the Swedish population suffered a severe decline, primarily caused by predation from White-tailed Eagle *Haliaeetus albicilla* in the breeding area. Since then the population has recovered rapidly, and the most recent population estimate is 120-140 individuals (Fig. 1). Apart from minimizing predation risk, availability of suitable habitat needs attention, especially in the pre-breeding phase when birds build up reserves.

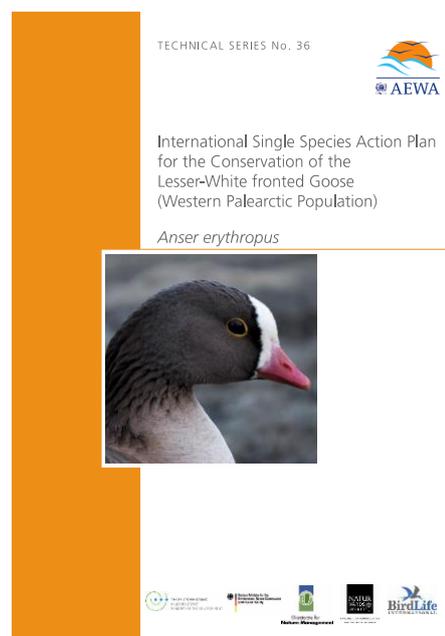
From 2010 up until 2022, 724 birds from the new breeding stock have been released in Swedish Lapland, 651 in the core breeding area, and the remaining 73 at an additional locality within the original breeding range. In all more than 40 birds have carried tracking devices, which have resulted in valuable information about flyways and stop-over sites. In a recent study, the routes and stop-over sites of four wild-born individuals have been examined in detail, providing much information in relation to needs for site protection (KRUCKENBERG et al. 2023).

In recent years, new wintering strategies have become established, e.g. wintering in the Lippe Region in Germany (KOFFIJBERG et al. 2023). Compared to the situation before 2010, resighting data submitted to the geese.org portal suggest that the wintering range has expanded and more birds stay outside the known wintering sites, including sites in Germany.

Since early 1980s, most birds belonging to the Swedish population use a south-western flyway through Sweden via Denmark/Germany to wintering sites, mainly in the Netherlands. This route is about one third in length compared to what Norwegian birds have to fly in a single year during migration. Birds wintering in the Netherlands and also Germany are carefully monitored by dedicated volunteers. In the Netherlands, five Natura 2000-sites have been designated, supporting the majority of the wintering population there.

Whether the south-western flyway is natural or not, has been a subject for discussion. British Trust for Ornithology looked deeper into this question and concluded that there is insufficient evidence for the existence of a historic south-western migration route (MARCHANT & MUSGROVE 2011). The report also stated that whether this route is a natural one or not, should not necessarily be an overriding issue, bearing in mind many examples of goose migration traditions changing spontaneously and rapidly. Moreover, in the context of the European Bird Directive, this issue is not relevant at all, as the birds are protected irrespective of their flyway.

The International Action Plan for Lesser White-fronted Goose (JONES et al. 2008) falsely described the Swedish population as derived from captive-bred birds and supplemented/reintroduced, in contrast to the population breeding in Norway, which was described as wild. The terminology used for the Swedish population was not accepted by Swedish authorities, which resulted in a request from the AEWa Secretariat to the IUCN Reintroduction Specialist Group to evaluate the status of the population. In its answer, based on its own *Guidelines for Reintroductions and Other Conservation Translocations*, IUCN concluded that the population is wild and supplemented and not reintroduced (SEDDON 2012). This is in line with an earlier review based on historical Swedish data (ANDERSSON & HOLMQVIST 2010).



As a consequence of the use of Barnacle Geese *Branta leucopsis* as foster parents in the Swedish conservation programme during the period 1981-1999, five mixed species breeding pairs were established in the wild, producing at least 49 hybrid offspring until 2013. The mixed pairs and their offspring socialized with Barnacle Goose flocks, and were never seen in the breeding area of Lesser White-fronted Goose. Today (February 2023) 1-3 hybrids may still be alive. No evidence was found that hybrids ever posed a threat to the breeding populations of Lesser White-fronted Goose neither in Sweden nor in Norway (LILJEBÄCK et al. 2021).

The discovery in the 1990s that some of the birds in the captive breeding population carried genes from Greater White-fronted Goose (*Anser albifrons*) caused a heated and long-lasting discussion about genetic purity, and whether the Swedish population stands a threat to other populations. In the International Action Plan for Lesser White-fronted Goose (JONES et al. 2008), hunting was presented on less than one page as a threat of critical importance, whereas the possible genetic introgression of different goose species into the Fennoscandian population from birds released in Sweden covered more than 10 pages!

To provide a scientific basis for future discussion, the Center for Genetic Identification at the Museum of Natural History in Stockholm was commissioned to carry out genetic analyses (whole genome sequencing) of 21 Lesser White-fronted Geese representing the Swedish, Norwegian and Russian population. This analysis in depth, found no evidence of genetic introgression from Greater White-fronted Goose, nor any other goose species, into any of the three Lesser White-fronted Goose populations sampled (DIEZ-DEL-MOLINO et al. 2020).

The analysis further indicated that the Swedish population is genetically distinct from the combined Norwegian and Russian populations. The study also showed the Swedish birds had a higher level of inbreeding and lower genomic diversity compared to the Norwegian and Russian populations. The second and ongoing release programme based on Russian founder birds (from 2010 onwards), however, most likely have resulted in a restoration of the genetic diversity in the present Swedish population.

Recent reports and independent reviews have established that the Swedish Lesser White-fronted Goose population is wild and supplemented. Furthermore, according to BirdLife International, the species is native in Sweden (BIRDLIFE INTERNATIONAL 2023). It is also verified by AEWA Technical Committee 2011, that two subpopulations are breeding in the Fennoscandian region (AEWA 2011). Hosting the only breeding population within EU, Sweden has a crucial responsibility for the conservation of the species according to the provisions of the Birds Directive. As shown above, there is no evidence supporting treating the Swedish Lesser White-fronted Geese as a threat to any other population, justifying the killing of individuals outside its typical migration route. Nonetheless, this extreme action has been implemented at three documented occasions.

The captive breeding programme in Sweden will continue. Thanks to the support from European Association of Zoos and Aquaria (EAZA) EX situ Program, a 5-year working plan is being developed with clear guidelines on how to sustain a long lived, genetically optimized and productive captive breeding population. It is worth noticing that according to the AEWA Secretariat's negotiation mission in January 2007, neither Norway nor Finland were against a continuation, provided that only wild founder birds are used.

The natural long-term objective in the conservation of the species in the Fennoscandian region must be to restore the previously coherent breeding distribution area in Sweden, Norway and Finland. The need for cooperation between Sweden and Norway is emphasised in the two relevant National Action Plans, but unfortunately this objective has not yet been implemented.

### Acknowledgements

We would like to thank Kees Koffijberg and Niklas Liljebäck for comments on an earlier draft of the manuscript. We are also most grateful for the efforts made by enthusiastic volunteers, who participate in goose counts every year.

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## Obituary: Derek Scott: 1944-2022

**Johan H. Mooij**

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Derek Scott was born and brought up in Bradford, Yorkshire (England) 27 June 1944 and educated at Bradford Grammar School. Subsequently he studied biology at Oxford University and completed his Ph.D. on the breeding biology of the Storm Petrel *Hydrobates pelagicus* at the Edward Grey Institute in Oxford in 1970.



Back in the days of the late Shah Mohammad Reza Pahlavi, from October 1970, he worked for five and a half years as chief of the Ornithology Unit at the Department of Environment in Iran. He helped to prepare the scientific basis for the network of National Parks and Protected Areas of Iran and wrote numerous papers as well as - together with two Iranian colleagues Ali Adhami and Hussein Moravedj Hamadani - a book about the birds of Iran, called “The birds of Iran”, which came out in 1975 (only 5,000 copies) and was sold out in 6 months.

After the revolution and the founding of the Islamic Republic he left Iran and worked as a consulting ornithological and wetland specialist for international conservation bodies such as Wetlands International, BirdLife International, WWF, IUCN, the Ramsar Convention Bureau, the World Bank, the FAO and a number of national agencies.

He has been involved in conservation projects in different parts of the world, like Western Europe, North and East Africa, the Middle East, South and East Asia, Central and South America, the Caribbean and the Insular Pacific.

Most of his activities focused on waterbirds and their wetland habitats. But he also worked on tropical forest birds, mainly in South America, and on desert birds in the Middle East and North Africa.

He has carried out wetland and waterbird surveys in many countries, and has co-ordinated the compilation of inventories of internationally important wetland sites in over 120 countries in five continents. Between 1994 and 2006, he collaborated with Wetlands International in the compilation of the first four editions of Waterbird Population Estimates. He was a co-author of the Atlas of Anatidae Populations in Africa and Western Eurasia, published by Wetlands International in 1996, and An Atlas of Wader Populations in Africa and Western Eurasia, published by Wetlands International in 2009. He has also worked with Wetlands International in the compilation of conservation status reports for the African Eurasian Waterbird Agreement.

Since 1994, he has led three to five bird tours a year for Birdquest Ltd to various countries in Europe, the Middle East, North and South America, southern Africa, South-east Asia, Australasia, the Western Pacific and Antarctica.



Derek Scott at his cottage on Dursey Island (Ireland)

© Mike Moser

In recent years, he has been collaborating with ornithologists in Iran in the compilation of an Atlas of the Birds of Iran. Although based in Somerset in the U.K., he spent much of his time between assignments at his cottage on the remote Dursey Island off the west coast of Ireland.

He was married without children. Since losing his wife Joanna, he became increasingly physically incapacitated over the last few years and passed away 22 November 2022 in hospital in Taunton (Somerset, England).

**Source:** Heidari, F. (2016): On the wings of Caucasian Black Grouse in Iran. - *Theran Times*, August 7, 2016 - 19:8.

Information provided by Mike Moser & Mike Smart



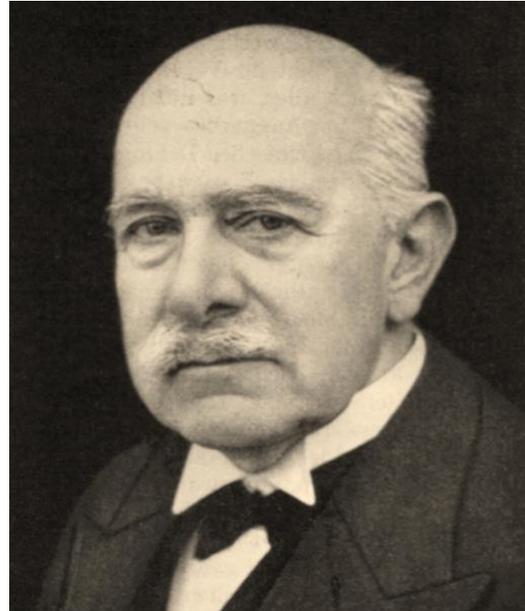
## Outstanding Ornithologists of the past: Oskar (1871-1945), Magdalena (1883-1932) and Katharina (1897-1989) Heinroth

**Johan H. Mooij**  
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Oskar Heinroth was a momentous German zoologist. He was born in the hospital of Kastel, near Mainz, as the only child of his parents. Immediately after his birth he contracted smallpox through his midwife.

While most of the newborns in the children's ward died, little Oskar survived with many scars and severe eye damage.

Although young Oskar loved birds and wanted to work with animals, his parents forced him to learn “something sensible”. He studied medicine in Kiel and finished his medical studies with a PhD in 1895. Although he actually worked as a medical doctor for a short period, his old love for birds won and he moved over to Berlin in 1896 to study biology. Parallel to his studies Oskar Heinroth started as a trainee in the Zoo and in the Natural History Museum of Berlin. He finished his studies in 1901 and got his first paying job as an assistant of the well-known zoo director Ludwig (Lutz) Heck (one of the Heck-brothers Heinz and Ludwig, breeders of Heck cattle) of the Berlin Zoo in 1904.



Oskar Heinroth (1920's)



Magdalena Heinroth (1920's)

During his studies he was an enthusiastic waterbird hunter and studied the behaviour especially of ducks, geese and swans. Between 1898 and 1913 he raised almost all European duck species by hand so he could study their behaviour.

But he didn't do his studies alone.

After Heinroth started his biological studies in Berlin he met Magdalena Wiebe. She was born in Berlin as one of two children of a respectable family from better society circles. From her earliest youth she loved animals and studied, painted and stuffed animals and prepared their skeletons and organs. Although Magdalena was the best pupil in school her wealthy, but traditional parents did not allow her to go to university. Instead, she was allowed to optimize her skills and

became apprentice of the chief-preparator of the Berlin Zoo to become a taxidermist.

There she met Oskar Heinroth and both of them discovered their common ground and became a couple.

Between Juli 1900 and October 1901 Heinroth participated in an expedition in the Australo-Papuan Region and in spite of a tragic end to the expedition he brought a significant zoological collection back to Berlin. In 1902 Magdalena and Oskar got engaged and in 1904 Magdalena Wiebe married Oskar Heinroth and became Magdalena Heinroth. This marriage was the beginning of an astonishing and extremely effective two person research team.



Oskar and Magdalena Heinroth photographing a reared bird (1920's)

Whereas Oskar Heinroth, the assistant director of the Berlin Zoo, had a fulltime job and had to plan and realise the new aquarium of the zoo, only could put all his leisure time in the joint research project, Magdalena spent all her time breeding, taking care of, observing and drawing birds. All observations were made according a standarised method and meticulously notated in a diary.

Their research started with only one young bird, but gradually the project took possession of the Heinroth couple. Maybe they saw something like a substitute for children in the birds they took care of after it became clear that their marriage would remain childless after an abdominal operation of Magdalena in 1910. But detached from such possible emotional triggers they did high quality research. In spring the Heinroths collected eggs of free-living birds in the surroundings of Berlin and annually more then 30 young birds were raised and studied in their premises. There was no room in their house without at least one bird living there. From all birds raised behavioural aspects, data about weight gain, body growth, feather development were daily documented. For most of these data it was the first time somebody bothered to collect them.



Oskar & Magdalena Heinroth walking the cranes (1920's)

From his experiments with ducks and their hybrids Heinroth concluded that behavioural aspects can be used to deduce taxonomic relationships.

Oskar and Magdalena Heinroth also compared and analysed the behavior of waterbird species during the phase of juvenile development and courtship. They described different calls and connected them with the behaviour of the birds, for the first time describing Triumph-call, Threat-call etc.. They recognised, that display rituals are inherited and that young birds get to know their parents by imprinting.

The first mention of the phenomenon of imprinting is found in a publication by the British lawyer and statesman Sir Thomas More (1478-1535) as well as by the British biologist Douglas Spalding (1841-1877), but the importance of this phenomenon was not recognized. After its rediscovery by Heinroth imprinting became common knowledge through the work and popular publications of his (according to his own statement) pupil Konrad Lorenz (1903-1989).

Both Oskar and Magdalena produced a number of research papers under their own name, but also joint publications. Their main joint publication, their “Opus Magnum”, was a four volume work about the results of their almost 30 years running bird raising project, called “Die Vögel Mitteleuropas. In allen Lebens- und Entwicklungsstufen photographisch aufgenommen und in ihrem Seelenleben bei der Aufzucht vom Ei ab beobachtet“ („The Birds of Central Europe. Photographed at all stages of their life and development and observed in their psyche during rearing from the egg onwards.”) that was published between 1924 and 1934. In this Opus each of the 286 raised bird species has its own chapter with a wealth of information. Magdalena did not live to see the last volume published; she died unexpectedly 1932 during holidays in the Rumanian Danube Delta from an acute intestinal obstruction.

Due to the permanent and inevitable contact with birds and feathers Oskar Heinroth suffered from an allergy, which did not keep him from further research. It was only after the end of the bird raising project in his house in the early 1930’s that his allergic asthma went away.

After Magdalena’s death Oskar Heinroth met the zoologist Katharina Berger, who subsequently helped him to finish the last volume of “Die Vögel Mitteleuropas”. In 1933 they married and together they started a new research project to study bird behaviour, but this time with free flying domestic and semi-wild rock pigeons. This time the birds were not kept in their house, but in a pigeon loft near their house. The project took more and more of his spare free time, alongside his daily work at the Berlin Zoo and it stopped only after the destruction of the zoo in November 1943. Besides he wrote articles for scientific journals as well as daily newspapers and journals, gave lectures for all interested people,



Wedding picture of Oskar and Katharina Heinroth (1933)

from students to prisoners, from ornithologists to country women clubs and he was the president of the “Deutsche Ornithologen-Gesellschaft” (DO-G, “German Ornithological Society”). Together with Ludwig Koch (1881-1974) Oskar Heinroth produced a book “Gefiederte Meistersänger” (“Feathered Mastersingers”), including three shellac disk records with bird songs, which was published in 1935. It was the first bird song book ever

produced, including sound recordings. In 1936 they produced a second volume, on which Kochs name was lacking, because he was Jewish. Koch fled to London via Switzerland, where Heinroth helped him to build up a new existence through a recommendation to Sir Julian Huxley. With Huxley’s help Ludwig Koch could produce another bird song book and became employee of the BBC.

In contrast to Konrad Lorenz and his chief Lutz Heck, who were active members of the NSDAP and advocates of Nazi ideas, the Heinroths were conservative liberals and kept their distance from the Nazis. They were shocked how a part of their friends were treated by the Nazis and during the Second World War the maintenance of the zoo and their research stock became increasingly difficult. Because of food shortage they had to reduce their research pigeon stock and after the November 1943 bombardments of Berlin, which also disrupted large parts of the Berlin Zoo, all experiments were stopped and the Heinroths tried to save what could be saved from the zoo livestock and accommodation. As the Russians came closer to Berlin Zoo director Lutz Heck took all the zoo money and fled, leaving Oskar Heinroth, as his deputy, without money but with full responsibility for the zoo, its employees and animals. Although weakened by hunger and seriously ill, mainly lying in bed in a damp basement of the bombed zoo Heinroth tried to help injured people as a medic, while his wife prevented the SS from blowing up the remnants of the zoo. As the Russian Army took over the zoo area on 27<sup>th</sup> April Katharina was raped two times by Russian soldiers right next to her extremely weakened and terminally ill husband. A few weeks later, on May 31 Oskar Heinroth died in the arms of his wife. His ashes were buried on the zoo area.

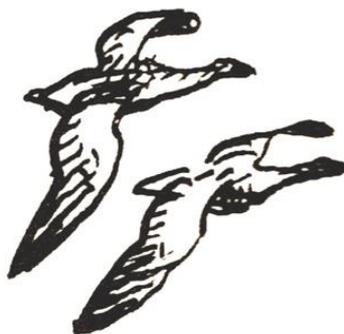
Katharina Heinroth did not give up. Immediately after the end of the war she started to rebuild the Berlin Zoo, became its first female director and kept this position until her retirement in the end of 1956. She was curator of Oskar Heinroth's notations, published books and articles, held lectures and in spite of defamations by old Nazis (like Lutz Heck, who wanted his job back!) became one of the most popular celebrities in post-war Berlin.



Berlin Aquarium after a bomb hit in 1945

Oskar Heinroth was one of the founders of modern ethology, a term he used in 1910 for the first time ever. He certainly was an outstanding scientist and ornithologist of the past, but his outstanding achievements would not have been possible without the two extraordinary women at his side.

(Pictures © Heinroth, from: Schulze-Hagen, K. & G. Kaiser (2020): Die Vogel-WG. – Knesbeck, München)



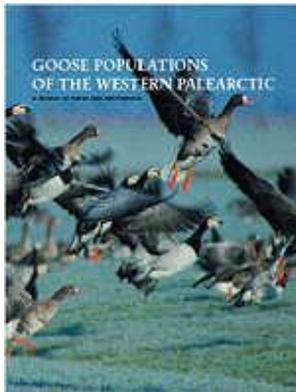
**New Publications 2021 – 2024**

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**Literature**



**Goose populations of the Western Palearctic**

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:

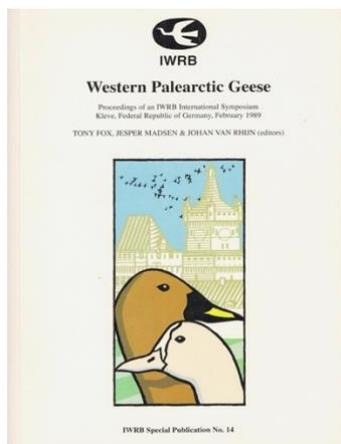
[http://issuu.com/jesper\\_madsen/docs/goosepopulationswestpaleartic](http://issuu.com/jesper_madsen/docs/goosepopulationswestpaleartic)

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/>

**Proceedings of the Klever, the 10<sup>th</sup> and the 12<sup>th</sup> meeting of the GSG**

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:



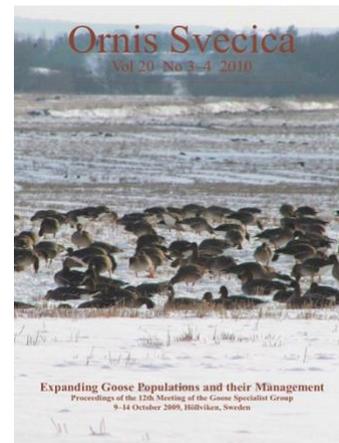
Proceedings Goose Meeting 1989  
(Kleve, Germany)

Interested? Please contact:  
[johan.mooij@bskw.de](mailto:johan.mooij@bskw.de)



Proceedings Goose 2007  
(Xanten, Germany)

Interested? Please contact:  
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Proceedings Goose 2009  
(Höllviken, Sweden)

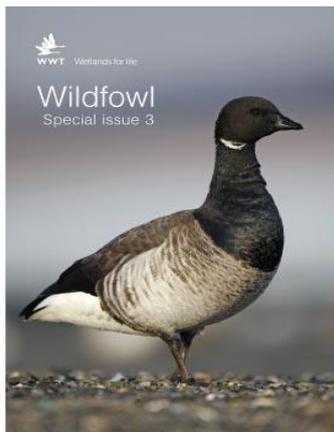
Interested? Please contact:  
[leif.nilsson@zoekol.lu.se](mailto:leif.nilsson@zoekol.lu.se)

**Proceedings of the 14<sup>th</sup> meeting of the Goose Specialist Group**

The proceedings of the 14<sup>th</sup> meeting of the Goose Specialist Group held in Steinkjer, Norway in April 2012 have been published in the online journal Ornis Norvegica, which is the scientific journal of the Norwegian Ornithological Society (Norsk Ornitologisk Forening – NOF). 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/issue/view/62>

## Proceedings of the 15<sup>th</sup> meeting of the Goose Specialist Group



The proceedings of the 15<sup>th</sup> meeting of the Goose Specialist Group held in Arcachon, 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 Wildfowl journal

Wildfowl is an international scientific journal, published annually by Wildfowl Press, and previously published by the Wildfowl & Wetlands Trust (from 1948–2020).

The journal appeared originally as the Annual Report of The Severn Wildfowl Trust at the end of the Trust's first working year in 1947. From the outset it presented the results of scientific research in order to improve knowledge and understanding of wildfowl populations. It disseminates original material on the ecology, biology and conservation of wildfowl (Anseriformes) and ecologically associated birds (such as waders, rails and flamingos), and on their wetland habitats. Research and review articles related to policy development and application are welcome. Material on habitat management is also sought, particularly where this is directed to the conservation of wildfowl and other wetland birds.

In 2020, the WWT took a decision that it would no longer publish the journal, as part of its plans to refocus as a wetland conservation charity.

The journal however continues to thrive with support from the waterbird research and conservation community, and is now being published by “Wildfowl Press”, a newly-formed publisher dedicated to the journal, with pdfs also being made available online as usual (Impact factor: 1.417 (2020))

The complete back catalogue of Wildfowl is available via the Open Journal System at:

<https://wildfowl.wwt.org.uk/index.php/wildfowl>

The current Issues are Wildfowl 72 (2022), which was published early November 2022 and Wildfowl 73 (2022), which is on schedule for publication in late November/early December 2022. In Wildfowl 72 you find a comprehensive paper about the history of IWRB, the predecessor of Wetlands International. The IUCN-SSC waterbird specialist groups (Swan, Ducks, Geese, Threatened Waterbirds) support “their Wildfowl Journal” as well as its publisher the “Wildfowl Press”.

Those interested in having access to or receiving future issues of the journal please send an email to Eileen Rees on her personal email, at [ReesEileenC@gmail.com](mailto:ReesEileenC@gmail.com), including indicating whether they might be willing to subscribe to the journal. Either for online access to papers and/or for printed copy.



### **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.





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