Swan News

Issue no. 12 / September 2016

Newsletter of the Wetlands International / IUCN SSC Swan Specialist Group

Wetlands INTERNATIONAL

IUCN

SSC Species Survival Commission

SWAN SPECIALIST GROUP

WWT

About the Swan Specialist Group

The Wetlands International / IUCN SSC Swan Specialist Group (SSG) is a global network of over 360 swan specialists from 38 countries who undertake monitoring, research, conservation and management of swan populations.

The SSG strives to facilitate effective communication between members and others with an interest in swan management and conservation world-wide, in order to improve national and international links for cooperative research, to identify gaps in knowledge and to provide a forum for addressing swan conservation issues.

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Opinions expressed in articles in this Newsletter are those of the authors and do not necessarily represent those of the Swan Specialist Group, Wetlands International or the IUCN Species Survival Commission (SSC).

Citation: Mitchell, C.D. (ed). 2016. *Swan News issue no 12 / September 2016*. Newsletter of the Wetlands International / IUCN SSC Swan Specialist Group. 36pp.

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Editorial

Hello fellow Swan Specialist Group members,

It is time to present the second in the resumed series of Swan Specialist Group Newsletters. This is *Swan News* No. 12, 2016. We have had good responses from several SSG members, and have a number of interesting articles on several species from different geographical areas. This is very gratifying. We also welcome the return of Yerko Vilina as species coordinator for the Black-necked Swans and Coscoroba Swans in South America. This Newsletter serves a unique, and I hope important, role in communicating with each other. But it only works if all the SSG members see its value and contribute to making it worthwhile and interesting and informative.

We can always use articles, project summaries, photos, announcements and other items that will be of use and interest to the members. Don't let everyone else do the work. Let us know what you are up to, at any time.

We've gotten no responses about alternative methods of communication. Therefore we assume that the existing newsletter and list-serve are supporting the SSG goals and meeting members' expectations. If not, please let us know. A Swan Specialist Group website is also in development, and should be launched in the coming year.

I would like to acknowledge and thank Colette Hall, Paul Matthews, Eileen Rees, all of the contributors, and the others who are actually responsible for building the newsletter you are about to read. Thank you all.

I hope you enjoy the following *Swan News*.

Best wishes,

Carl D. Mitchell

"A fine swan was found recently in the Plain of St Denis, alive, but much exhausted. It had round its neck a silver collar, with an inscription engraved on it, stating that the bird belonged to the domain of Prince Hohenlohe in Germany."

Evening Star, Washington, D.C. (USA), Friday, March 16, 1855. Vol. 5, no. 686, page 2.

Photo: Ian Henderson / WWT

Conference delegates (photo: M. Ivanov).

International Conference on the Waterfowl of Northern Eurasia, Salekhard, Russia, 30 November–5 December 2015

Eileen Rees & Peter Glazov

Waterbird experts from 13 different countries, ranging from Japan, China and Korea across Eurasia to the USA, travelled to Salekhard in the Russian arctic in mid-winter to attend the international conference on "*Waterfowl of Northern Eurasia: conservation and sustainable use*". The meeting was the 5th Conference of the Goose, Swan and Duck Study Group of Northern Eurasia (RGG) and the 17th Conference of the Wetlands International / IUCN SSC Goose Specialist Group (GSG), and was made possible by the support and hospitality of the Yamalo-Nenets Autonomous Okrug (YaNAO) government. The meeting featured presentations that covered a range of issues facing the conservation and sustainable use of waterfowl in the Russian Federation and along international flyways.

Following welcoming addresses from Mr A.L. Titovskiy (from the Department of Science and Innovations at the YaNAO), Evgeny E. Syroechkovskiy (for the RGG), Bart Ebbinge (for the GSG) and Mr A.P. Mezhnev (Department of Game Management in the Ministry for Natural Resources, Russia) we heard interesting talks about the research and management of waterfowl in the YaNAO, including in relation to the development of oil and gas fields in the region. Presentations then extended to cover studies of goose populations within Russia and more widely, with special sessions on the status of Common Pochard and also on the decline of the Northwest European Bewick's Swan population. The latter (convened by Eileen Rees and Didier Vangeluwe) included information on the exciting new tracking study to determine the migration routes of Bewick's Swans summering on the Yamal Peninsula (presented by Didier Vangeluwe and Sonia Rozenfeld; Sonia having also undertaken extensive work on goose populations in the region), the recent increase in Bewick's Swan use of the Evros Delta in Greece (presented by Didier), an initiative to address the illegal shooting of Bewick's Swans (by Julia Newth) and a new study on Bewick's Swan incubation behaviour (by Anastasia Mylnikova). Outside of the session there were valuable discussions with Cao Lei and Diana Solovyeva on the development of the Eastern Bewick's Swan population study, which may provide further insight (through comparisons of the dynamics of the two populations) into the reasons for the decline in the numbers of Bewick's Swans in Northwest Europe.

Given that Salekhard has only a few hours of daylight in mid-winter, the meeting was structured to make best use of the light available, and there was a break half-way through the second day to tour the city, visit the Obdorsk fort and view the wonderful ice sculptures which last until the spring thaw. The post-conference

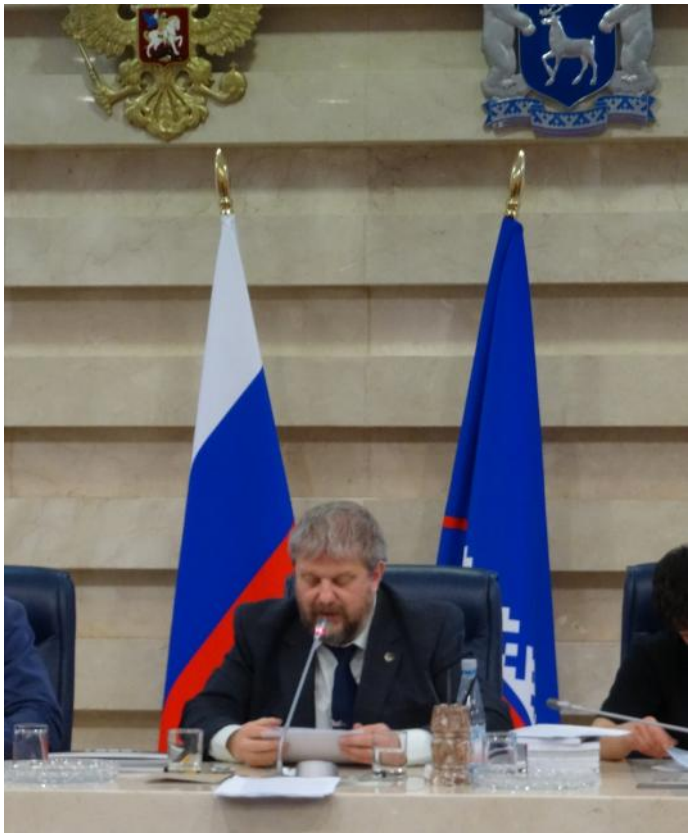
excursion – the “Yamal Olympic Games” – provided a wonderful opportunity to visit the temporary camp of a Nenets family, who were moving with their reindeer across the open snow-covered tundra north of the city.

The conference was notable for the excellent and friendly communication between all those attending (facilitated by the impressive Russian–English simultaneous translation provided by Monomax, the conference organisers), for the valuable discussions on recent research programmes and conservation initiatives, and for the warm welcome from our Russian hosts. The many discussions were synthesised into a valuable set of recommendations, and the Conference Resolution is now available online: **http://onlinereg.ru/salekhard2015/resolution_eng.pdf.** The Resolution noted that the Northern European population of the Bewick’s (Tundra) Swan is recognised as “threatened” in Europe and that current data support the fact that the abundance of the population continues to decline. The Conference therefore recommended:

- Taking the measures to preserve the Bewick’s (Tundra) Swan in the Russian Federation indicated in the Action Plan of AEWA, including minimising losses due to poaching;
- Clarifying the change in distribution of the swans on their breeding grounds and comparing the population dynamics of Bewick’s (Tundra) swans using three different flyways, in order to understand which actions are necessary to undertake for the conservation of the species on the flyway crossing north-western Europe; and
- Publishing immediately, in Russian and in English, and distributing to interested individuals and organisations, an evidence-based (scientific) review of the effects of the activity of nesting swans on neighbouring waterfowl, refuting the widespread and false belief that swans are “harmful” birds, because they “interfere” with nesting geese and ducks.

At the end of the meeting, Bart Ebbinge stood down as Chair of the Goose Specialist Goose, a role he has served in to great effect for 19 years, since the 2nd meeting of the GSG held at WWT Martin Mere in 1996. He passed the baton to Peter Glazov (Russian Academy of Sciences, also an active member of the Swan Specialist Group), who has worked with Bart as Co-Chair of the GSG over the past two years. Given that there is substantial overlap in the interests of goose and swan researchers and conservationists, we look forward to continuing and extending communication between the SSG and the GSG into the future.

Conference delegates at the arctic circle monument (photo: M Ivanov).



Evgeny Syroechkovsky considering the Conference Resolution. (photo: Eileen Rees).

Bart Ebbinge being interviewed by the Russian media (photo: M. Ivanov).

Nenets' chum (tent) visited during the post-conference excursion (photo: Eileen Rees).

Bewick's Swan breeding success in a changing environment

Kevin A. Wood, Julia L. Newth, Geoff M. Hilton, Bart A. Nolet & Eileen C. Rees

The northwest European population of Bewick's Swans (*Cygnus columbianus bewickii)* has suffered a steady decline, dropping from around 29,000 birds in 1995 to 18,000 in 2010 (Rees & Beekman 2010) with a further decrease since then. In recognition of its vulnerable conservation status the species has been placed on Annex I of the European Union Birds Directive and is currently classified as endangered on the European Red List of bird species (BirdLife International 2015). There are currently critical gaps in our understanding of Bewick's Swan biology that hinder our ability to understand and address the ongoing population decline. Two key unanswered questions are whether there has been a decline in breeding success and how Bewick's Swan productivity has responded to environmental drivers including climate variables and predation pressure.

WWT has monitored the Bewick's Swan productivity since the days of Sir Peter Scott, and consequently has information on breeding success from the 1960s to the present day. Each winter the proportions of juvenile Bewick's Swans in the population and the mean number of young per brood have been recorded at key overwintering sites around the UK. Bewick's Swans are well-known for their prolonged parental care of cygnets, as the cygnets migrate and remain with their parents throughout their first winter, which facilitates the assessment of breeding success from numbers on the wintering grounds.

The Bewick's Swans' breeding grounds on the maritime Arctic tundra in Russia is an area undergoing rapid environmental change. Data from the Amderma and Nar-Yan Mar weather stations showed a clear increase in mean air temperatures during their breeding period (Wood *et al.* 2016). Despite these climatic changes, we found no evidence for a long-term change in the proportions of juvenile Bewick's Swans in the population, nor in the mean number of cygnets per family group; these findings suggest no long-term change in Bewick's Swan breeding success (Wood *et al.* 2016). The lack of trends for our two measures of swan breeding success were evident over both the 1988–2013 (all UK sites) and the 1964–2014 (WWT Slimbridge, southwest UK) time periods considered in our study (Figure 1).

The Bewick's Swans showed considerable inter–annual variation in breeding success over the 1988–2013 study period. The percentage of the wintering population that were juveniles ranged between 4.1% and 24.1%, whilst the mean number of cygnets per family ranged between 1.5 and 2.5 (Wood *et al.* 2016). We found that Bewick's Swans arrived with more cygnets in years when the mean summer temperature

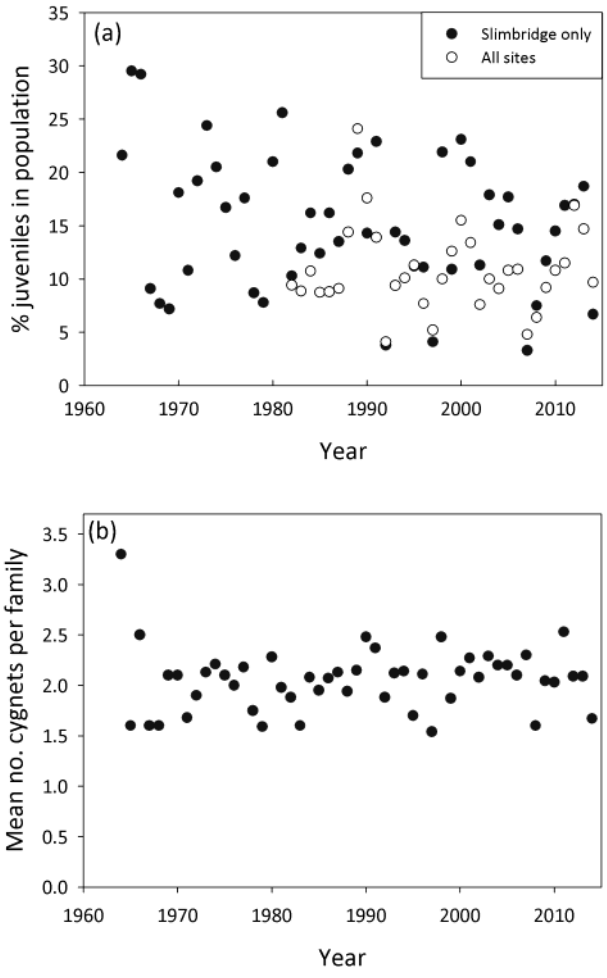


Figure 1: We detected no changes over time in either of our two measures of Bewick's Swan breeding success: (a) the proportion of cygnets in the population and (b) the mean number of cygnets per family group.

A family of Bewick's Swans arrive at WWT Slimbridge after undertaking their autumn migration from their breeding grounds in the Russian Arctic. (photo: Paul Marshall / WWT).

on the breeding grounds had been higher, and fewer Arctic Foxes (*Vulpes lagopus*) had been observed on the breeding grounds. Warmer weather likely increased food availability, and decreased both nest abandonment and cygnet mortality. Arctic Foxes are a key predator of many birds in the Arctic, and are known to eat swan eggs and cygnets, although the adults themselves are likely to be too large and well-defended to fall prey to an Arctic Fox. The abundance of other predatory species, such as Pomarine Skuas (*Stercorarius pomarinus*) and Rough-legged Buzzards (*Buteo lagopus*), had no detectable effects on Bewick's Swan breeding success. Swan breeding success was found to be negatively density-dependent, suggesting a role for intraspecific competition in productivity. We also found evidence that breeding success was better in years when there were more 'experienced' pairs (*i.e.* birds that had been paired together for longer) in the population.

Our findings suggest that there has been no long-term decrease in breeding success that might account for the ongoing population decline. Whilst poor breeding years might impact on swan numbers, other factors are clearly involved in the observed decline. To improve our understanding of the demographic causes of the northwest European Bewick's Swan population decline we will next examine temporal trends in survival rates. We look forward to discussing our findings in future issues of the Swan Specialist Group Newsletter.

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The odyssey of the Bewick's Swan – another route to Greece

Didier Vangeluwe, Sonia Rozenfeld & Savas Kazantzidis

After almost 20 years of surveying the impressive increase in the number of Bewick's Swans wintering on the Evros Delta (Greece), from a first observation of 25 birds in February 1997 to a peak at 8,400 individuals during February 2016, there is much puzzlement about their breeding grounds and migration route. Tracking the migration of Bewick's Swans tagged with GPS-GSM loggers (made by ECOTONE) on the Yamal Peninsula in arctic Russia in 2015, has given us (at least a part of) the answer! Yet the incredible spread of the wintering areas used by the tagged birds has raised even more questions. Amazingly, Bewick's Swans caught and tagged at the same time and location on the Yamal Peninsula were tracked down up to the Evros Delta (one individual), the Volga Delta in North Caspian Sea, Russia and Kazakhstan (one individual) and to Poyang Lake in China (three individuals, joined at the same site by another two neck-banded birds). A mere 8,000 km separates the Evros Delta from Poyang Lake! Moreover, a Whooper Swan caught and neck-banded "incidentally" in the same Yamal flock was spotted all winter close to Hamburg (Germany), at a site equidistance between the Baltic and the North Sea.

The GPS-tagged birds should now be back on the breeding grounds, for summer 2016. One of those wintering in China was last located just 150 km from the southern limit of the Yamal Peninsula's tundra habitat on 20th May. The three others swans whose tags were still transmitting were last recorded 350–600 km from the Yamal's tundra region in early May (Figure 1). No news has been received since then because the tracking devices download data via the GSM network, which is very poorly developed or non-existent in the remote arctic areas, so further information is unlikely to be available until the swans migrate south in autumn.

Photo: Richard Taylor-Jones / WWT

It is possible to follow their movements live here: **http://odnature.naturalsciences.be/bebirds/en/blog_swans** (also available in French and Dutch).

More tagging and neck-banding of Bewick's Swans on the Yamal Peninsula is now being planned for the next breeding season.

The programme "The odyssey of the Bewick's Swan – another route to Greece" is an initiative of the Severtsov Institute for Ecology and Evolution (Moscow) and the Royal Belgian Institute of Natural Sciences (Brussels), in partnership with the Greek Forest Research Institute, the Evros Delta National Park Management Authority and the Goose, Swan and Duck Study Group of Northern Eurasia.

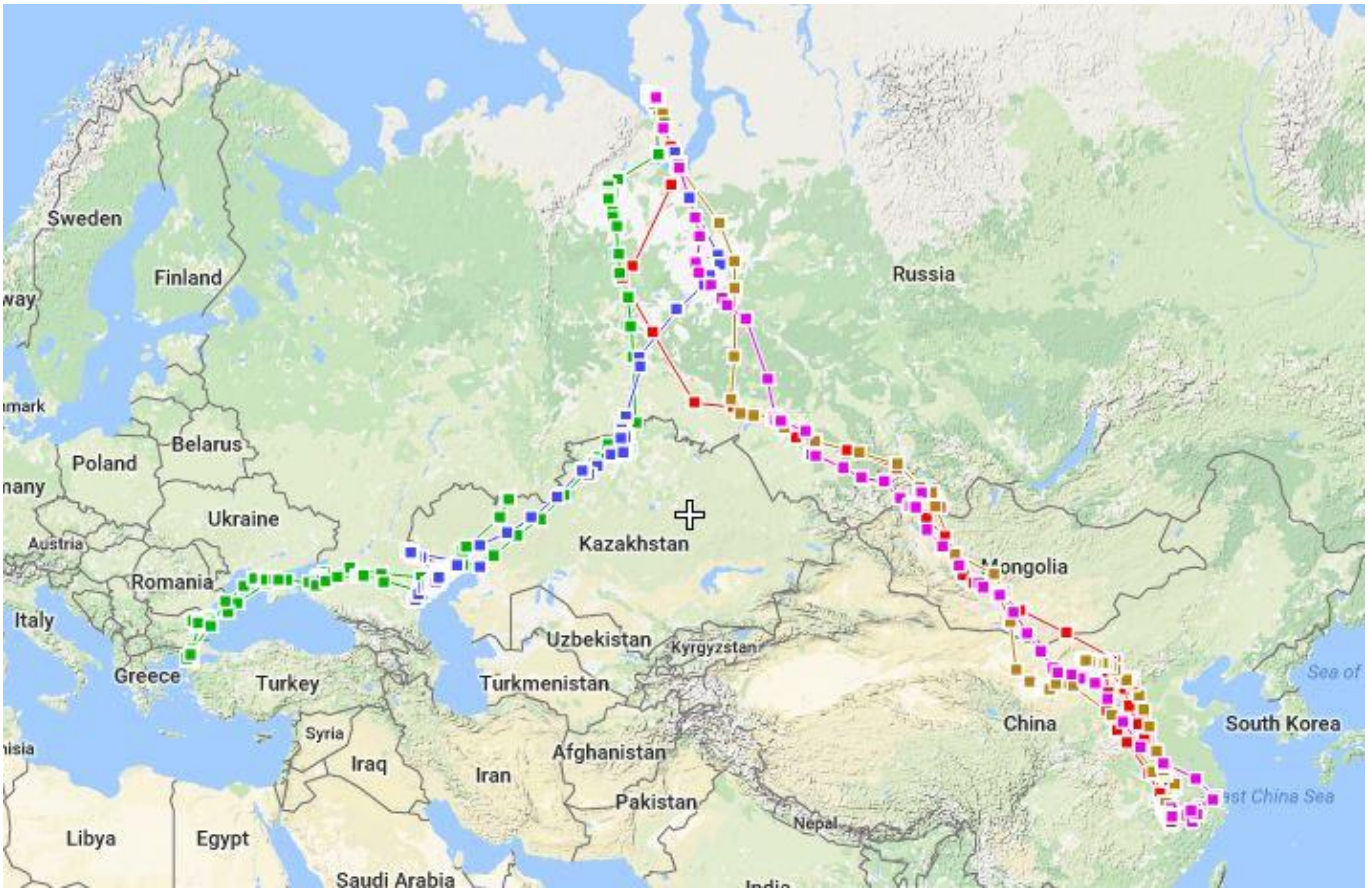

Figure 1. Migration routes to spring 2016 for six Bewick's Swans tagged on the Yamal Peninsula, Russia, in summer 2015.

Six Bewick's Swans ready to be released after tagging and processing on the Yuribey Estuary, Yamal Peninsula, Russia, 14th August 2015 (photo: Didier Vangeluwe).

One of two Bewick's Swans from the Yamal Peninsula whose neck-band was read in China, at Huoshan, Anhui Province, on 29th November 2015. (photo: Du Shihong).

The Bewick's Swan is a paradox

Konstantin Litvin & Didier Vangeluwe

The shallow waters of the Yuribey Estuary on the Yamal peninsula, Russia, host Bewick's Swans during their annual moult (photo: Didier Vangeluwe).

Thanks to the pioneering work of Sir Peter Scott and the Wildfowl & Wetland Trust, the Bewick's Swan has been closely studied on its UK wintering grounds for more than 50 years. Research of the highest quality has also been undertaken on the swans' migration physiology and ecology by Dutch scientists since 1985. But the numbers of Bewick's Swans that traditionally winter along the North Sea shores have decreased from 29,000 individuals in 1995 to 18,000 in 2010, and this dramatic and ongoing trend remains largely unexplained (Rees & Beekman 2010). An international action plan on the conservation of the Northwest European population therefore was prepared in 2012, under the auspices of African-Eurasian Migratory Waterbird Agreement (Nagy *et al*. 2012).

In the meantime, numbers of Bewick's Swans wintering in Greece along the Mediterranean shores have increased tremendously. Eight records totalling 21 individuals were known before 1997. Since then, the species has been observed annually on the Evros Delta, reaching 4,200 individuals in February 2015 and 8,400 individuals during February 2016. Observations yielded four visual sightings of individuals marked in the Pechora region, Russia (1) and in the Netherlands (3). Surprisingly this amazing trend was not mentioned in the AEWA action plan. Simultaneously, Bewick's Swans are frequently encountered along the Ob River, heading south, during post-breeding migration (Sonia Rozenfeld data).

What's happening with the Bewick's Swans? Is it a shift between the North Sea and the Mediterranean Sea? If yes, then why? Where are the Bewick's Swans wintering in Greece breeding? What is the migration route of this new "population"? Is there a sharp delineation between the Northwest European and Eastern Population (formerly classed as a *Cygnus columbianus jankowskii* subspecies wintering in China, Japan and Korea), or are there links between both groups? What are the factors actually causing the decline observed along the North Sea, and how do we stop it?

Increased and coordinated marking programmes could contribute to answering these questions and should thus be encouraged. We need to know – urgently! – why the North Sea population of the Bewick's Swans is decreasing so sharply.

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Density-dependent mechanisms at the peak nest density of Bewick's Swan population in the Chaun Delta, Chukotka, Russia

Anastasia Mylnikova

The breeding biology of Bewick's Swans Cygnus columbianus bewickii nesting in the Chaun River delta of Chukotka, northeast Russia, has been monitored since the mid 1970s (Kondratiev 1979, 1991; Solovyeva & Vartanian 2014). Between 1975 and 2015 nest density increased significantly, from 0.2 pairs/km^2 in 1975–1984, to 2.2 nests/km^2 in the 21st century. Density-dependent mechanisms (including smaller clutch sizes where swans were nesting closer together), were found to have an influence on the swans' breeding success in the Chaun Delta. In the early years of the study, Bewick's Swan clutches consisted of up to six eggs (Kondratiev 1991) whereas more recently the largest clutches contained only four eggs (Solovyeva & Vartanian 2014).

Bewick's Swan cygnet (photo: Anastasia Mylnikova).

The current twp-year project, which commenced in summer 2015, therefore aims to study the Bewick's Swans' incubation and nest-defence behaviour in further detail, to provide further information on the mechanisms by which breeding density impinges on the swans' productivity. Incubation behaviour was recorded in the same study area in 1981–1983 when nesting densities were much lower, and the swans' behaviour now will be compared with that of earlier times. Reconix camera-traps are being used to record incubation rhythm, including recess periods, for breeding pairs. Plans for the future include determining whether the weight of the eggs varies significantly with breeding density, and to determine the proportion of pairs that are relatively aggressive compared with those that exhibit "shy" behaviour under different circumstances.

Bewick's Swan on Chukotkan tundra (photo: Anastasia Mylnikova).

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Sacha Dench flying her paramotor (photo: Angharah Barlow / WWT).

Flight of the Swans

Julia L. Newth, Kevin A. Wood & Chris Rostron

Last year, the Northwest European Bewick's Swan was classified as Endangered in Europe (BirdLife 2015). This has followed a tumultuous period in which numbers have declined by 40% since the mid-1990s. Twenty years ago, some 29,000 birds wintered in Europe – worryingly, these have now dwindled to fewer than 18,000 (Rees & Beekman 2010). Amid concerns, a Bewick's Swan Action Plan was prepared by experts from each country across the migratory range (Nagy *et al*. 2012). The Action Plan, adopted by the African-Eurasian Migratory Waterbird Agreement (AEWA) in 2012, aims to halt the decline and restore the population to at least 23,000 birds. Eileen Rees of the Wildfowl & Wetlands Trust (WWT) now chairs the Bewick's Swan Expert Group tasked with implementing the Action Plan, an effort that will require the support of people from all twelve countries across the swan's flyway.

International co-operation and collaboration are essential for the conservation of migratory species but this can be challenging because of geography and language barriers. Harnessing and coordinating efforts – linking the people, their work, and the sites along a flyway – is perhaps the biggest challenge for the conservation of all migratory species.

In autumn 2016, WWT's Sacha Dench will endeavour to link up and stimulate conservation efforts across the flyway by flying a paramotor and following the Bewick's Swans as they migrate from the Russian arctic to the UK. She will emulate their feat – flying at the same speed and height as a swan, using the same sites they use, contending with the same conditions. This record–breaking journey is called Flight of the Swans. Conservation workshops in Estonia, Lithuania, the Netherlands and Russia are being planned to coincide with the flight and aim to shed light on why the Bewick's Swan population is declining, identify existing threats, and plan conservation activities. These workshops offer a valuable opportunity to review the progress we have made, along with our collaborators and partners, in implementing the Action Plan.

The expedition will also support a robust package of work to reduce the illegal shooting of Bewick's Swans in their Arctic breeding grounds (Newth *et al.* 2011). This will involve surveying people from seven communities in the Nenets Autonomous Okrug to determine the motivations for illegal shooting. This information will be discussed at a hunting stakeholder workshop and will be used to identify solutions to reduce illegal shooting in this region.

Above all, Flight of the Swans will use its originality to attract attention and shine a spotlight on Bewick's

Swans and wetlands across their migratory route. Community events and activities are being arranged in the UK, Belgium, the Netherlands, Denmark, Germany, Poland, Latvia, Lithuania, Estonia and Russia to maximise opportunities for raising awareness of, and connecting people with, swans and wetlands. In these times of rapid environmental change and limited resources, the need to devise imaginative and creative solutions to actively engage people with serious conservation issues and to stimulate action could not be greater. The novelty and ambition of Flight of the Swans will bring together people from very different cultures and backgrounds across a large geographical area to save the Bewick's Swan. And for that reason, it will make a real difference.

You can follow the journey of Sacha and the swans this autumn online at **https://www.flightoftheswans.org/** or via social media**: https://www.facebook.com/flightoftheswans/** or **https://twitter.com/WWTSwanFlight**

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Bewick's Swan Expert Group: feedback to AEWA, spring 2015

Nina Mikander & Eileen Rees

Following the formation of the Bewick's Swan Expert Group (BSEG) in 2014, the BSEG was asked along with other AEWA International Species Working Groups and Expert Groups to inform the African-Eurasian Migratory Waterbird Agreement (AEWA) of progress made regarding the implementation of the actions within the Action Plan, as part of an overview of progress of all AEWA Action and Management Plans, presented to the 6th Meeting of the AEWA Parties (AEWA MOP6) in November 2015. For this purpose, a questionnaire was circulated in early 2015 to the AEWA Representative (for countries that are signatories of AEWA) and BSEG Contact Points (for all range states; usually just one individual per country to reduce duplication of effort and feedback), requesting that they complete the questionnaire by providing feedback on progress relating to the actions listed relevant to their country.

The AEWA *pro forma* of the questionnaire (which was approved by the AEWA Technical Committee) was modified to cover the results and activities in the Bewick's Swan Action Plan and then circulated to the 15 range states (Russia, Estonia, Finland, Sweden, Latvia, Lithuania, Poland, Germany, Denmark, Netherlands, Belgium, Norway, UK, Ireland and France). Greece was not included on this occasion, because it is still unclear whether Bewick's Swans in Greece are mostly from the Caspian or the NW European Population, but given the substantial increase in numbers wintering on the Evros Delta and the possibility of the swans having changed flyways, we will aim to include it in future reviews.

Overall, completed questionnaires were received from ten of the 15 Principle Range States which could be taken into account in the review (*i.e.* a 67% response

rate of the range states), with two countries (Finland and Germany) providing only partial information. In addition, Bewick's Swans were reported as being "accidental" in Norway, and in Germany the numbers of Bewick's Swans have increased in recent years, with the trend thought to be attributable to short-stopping in milder winters. Although the AEWA International Single Species Action Plan for the Conservation of the Bewick's Swan had only been in force for three years when the review was undertaken, all countries which responded reported that some progress had already been made – in particular on the implementation of the activities ranked as 'essential' or 'high' in priority. A little under half (47%) of the countries that provided feedback reported the first action within the Action Plan – "maintaining key sites" for the species – as partially or totally achieved, with all countries that responded also confirming that legislation is in place to protect the Bewick's Swans from hunting. The overall average implementation rate for all nine results was 14%, whereas the average implementation rate for essential and high priority activities (of which there are 18) was 24%. As almost all of the range states are also EU member states, implementation has certainly benefitted from relevant EU regulations as well as the adoption of the International Action Plan.

Estonia (a crucial staging area in both spring and autumn) has prepared a National Action Plan specifically for Bewick's Swans, with the UK and the Republic of Ireland having similar national recovery plans for the species incorporated within other conservation programmes. Several new initiatives have been developed since the review was undertaken, however, such as studies aiming to determine levels of interchange between the NW European Population, the Caspian Population and also the Eastern Population (*e.g.* see Vangeluwe *et al.* in this volume), which should become apparent in the next review of the implementation process.

In addition to reporting against the concrete results and activities foreseen in the Action Plan, countries were also requested to provide feedback on the three main factors contributing to as well as hampering the implementation of the Plan. Countries mentioned the existence of an international and/or national conservation plan for the species, the adequate protection of wintering sites as well as the minimization of hunting pressure as the three main factors

Photo: James Lees / WWT

contributing to achieving the Action Plan goals. Very much in line with the reports submitted by the other AEWA Species Working and Expert Groups, the Bewick's Swan range states also reported the lack of sufficient financial capacity as one of the main obstacles to effective Action Plan implementation. In addition, range states highlighted increased human disturbance to be an issue, which is perhaps not addressed sufficiently within the current plan.

The lack of adopted National Action Plans (or similar national recovery plans) and established National Working Groups for the species, as well as the reported lack of national management and government support indicate that the Bewick's Swan might not be considered a high priority conservation species in some of the range states. Should this be the case, the AEWA Bewick's Swan International Expert Group should consider measures to increase national (*i.e.* government) support and raise awareness for the conservation of the species.

A crucial task in order to ensure the effective long-term implementation of the Action Plan will be the active engagement of Russia – both at governmental and at expert levels. This should include promoting the accession of Russia to AEWA.

For full AEWA overview please see: **http://www.unep-aewa.org/sites/default/files/document/mop6_16_aewa_ssaps_review_rev1.pdf**

Black-necked Swan *Cygnus melancoryphus*: Is there any evidence that it ever occurred in Paraguay?

Paul Smith

Abstract

The Black-necked Swan is commonly cited as occurring in Paraguay in the international literature, yet the species has never been treated as anything other than hypothetical in the national literature. The reason for this discrepancy is investigated with a review of the relevant literature. It is concluded that there is no evidence that the species has ever been positively recorded in Paraguay and it is recommended that it be considered "erroneously cited" in the country.

Introduction

The Black-necked Swan *Cygnus melancoryphus* has repeatedly been included on lists of the Paraguayan avifauna, yet the evidence for its occurrence in the country has never been fully elucidated. The tendency in the Paraguayan literature has generally been to omit the species from the national list, yet this is in direct contrast to most of the international literature which consistently includes the country in the distribution of the species.

Photo: Febe Van Tonder / WWT

Perhaps as a result of this confusion it was treated as "possible" by Guyra Paraguay (2004, 2007), and as "possibly occurring as an austral migrant" by Hayes (1995) who highlighted the fact that there are no substantiated records. No subsequent documentation or reports of the species in Paraguay have been forthcoming since these publications. Despite this, all of the major monographs on wildfowl published in recent times include Paraguay as being in the Black-necked Swan's range, including Soothill & Whitehead (1978) "breeds in … Paraguay"; Wilmore (1979) "Paraguay"; Madge & Burn (1992) "southern Paraguay" and "disperses north to northern Paraguay"; Carboneras (1992) "Paraguay" and "occurring as far N as Tropic of Capricorn"; Kear (2005) "southeast Paraguay" and "some movement into northern Paraguay"; Carbonell *et al*. (2007) "locally common … in Paraguay"; and Johnsgard (2010) "breeds in Paraguay".

Clearly there is a contradiction between the national literature and the international perception of the distribution of the species, and the source of the discrepancy warrants investigation. In this paper I provide a review of the principal literature citations regarding the presence of the species in Paraguay in an attempt to clarify the situation as to the present and historical distribution of the species in the country.

Literature review

The first mention of *C. melancoryphus* in a work commonly associated with Paraguay is that of Azara (1802) "No. 425 Cisne de Cabeza Negra", who asserts that "the species does not occur in Paraguay, but abounds in the area of the River Plate and the great lagoons of Buenos Aires". Azara even goes so far as to state that "they tell me" the species is resident in that area, thereby dispelling any possible misunderstanding as to his opinion of the distribution of the species. Consistent with this, the species was not mentioned by Rengger (1835) who travelled and collected widely through the Paraná basin between 1818 and 1826 (Ramella & Perret 2011) and Eyton (1848) also confined the species to the south of the continent in his monograph of the Anatidae.

Lieutenant Thomas Jefferson Page travelled extensively through Paraguay and Argentina in the years 1853–1855 (Smith & Bartlett 2009). In his report on the expedition Page (1859) states in an appendix

that he collected specimens “higher up the Rio Paraná than ever before documented”, but in the main text he mentions collecting the species on the Paraná only at La Paz–San Juan, Argentina 475 miles north of Buenos Aires, a location well to the south of even the expanded boundaries of Paraguay prior to the territory loss following the reparations of the Triple Alliance War (1864–1870). This specimen is not listed in the online database as part of the ornithological collection of the Smithsonian Museum and its whereabouts are unknown.

Burmeister (1860) associated his *Cygnus nigricollis* with Azara´s No.425 (in agreement with Hartlaub 1847) and gave the distribution as “Frequent on the lagoons of the Pampa, also in Paraná”, referring to the river, not the Brazilian state where the species has never been recorded (Scherer-Neto *et al*. 2011). This ambiguity may potentially be a source of confusion for later writers who also perhaps unwittingly associated both Azara and the Paraná River with Paraguay. Burmeister (1872) later clarified what he meant regards the Argentine distribution, describing the bird as common “… in the southern parts of the Republic near the river Paraná and the great lagunes (sic) of the interior”. A similar southerly distribution was given in the principal English language work on the Argentine avifauna available until this date, which states that the species is “very abundant on the pampas of Buenos Ayres and in Patagonia, and ranges south to the Magellan Straits and the Falklands” (Sclater & Hudson 1889).

At this point it was clear that there were still no *bona fide* records of the species in Paraguay, but the presence of the species on the southern Rio Paraná was enough to prompt Berlepsch (1887) to include it amongst his species of hypothetical occurrence (No. 87) with known distribution “Sta. Catharina — Paraná & B. Aires”. The Argentine distribution he provided echoes Burmeister (1872), and the citation for Santa Catarina is probably that of Burmeister (1856).

In one of the most significant ornithological works of the 19th Century, Salvadori (1895) gave the distribution of the species as “Southern Brazil, Paraguay, Uruguay, Argentine Republic, Chili, Patagonia, and Falkland Islands.” The basis for him doing so is uncertain as he lists no Paraguayan specimens and none of the citations he lists mentions concrete Paraguayan records either. However this is the first major work to state categorically that the species occurs in Paraguay and, given its significant impact on ornithological science around this time, may be the source of subsequent confusion. Other prominent authors such as Brabourne & Chubb (1912) cited a similar distribution of “South Brazil: Paraguay: Argentina, to Tierra del Fuego: Chile: Falkland Islands” and arguably most significantly of all Peters (1931) provided an almost verbatim distribution of “Paraguay, southern Brazil, Uruguay, Argentina, Chile, Falkland Islands.”

German-born Hermann von Ihering was perhaps the most influential ornithologist in southern Brazil at the beginning of the 20th Century, having been contracted by the German Imperial government to carry out scientific exploration in the region, and was in part funded by the wealthy aristocrat Berlepsch. Ihering founded the Museu Paulista, and shared correspondence with Arnaldo de Winkelried Bertoni, the principal Paraguayan naturalist of the time, who held him in high regard (Smith *et al*. 2015). Ihering (1904) omitted the species from his compendium on the birds of Paraguay, but Ihering & Ihering (1907) then cited a distribution that more closely resembles that of Salvadori (1895), but further extends the distribution to the north “Patagonia, Chile, Uruguay, Paraguay, Argentina, Rio Grande do Sul, Santa Catharina, S. Paulo and Bolivia”. The inclusion of Bolivia may be rooted in a speculative comment in Sclater & Salvin (1876) that the species occurs “perhaps almost to the frontier with Bolivia”, but those authors also omitted mention of Paraguay in the range. An almost word-for-word reproduction of Ihering & Ihering (1907) was provided by Pinto (1938) who added that occurrence further north on the large rivers was “exceptional”, perhaps in an effort to explain the lack of documentation. Major regional authorities thus included Paraguay in the species distribution without citing any supporting evidence.

Bertoni (1914, 1939), the only author actually based in Paraguay and presumably therefore the best placed to be aware of any real records, never treated the species as anything other than hypothetical in the country during this time. The distribution he provided reflected his faith in Ihering as can be seen from his inclusion of Bolivia in his list of countries “S. Brasil, Bolivia, Argentina, Paraguay?, Bs. Aires (Azara)”, but it is noteworthy that he queries the Paraguayan range, and additionally highlights that Azara referred to reports from the Buenos Aires (perhaps to dispel confusion as to the link between Azara and Paraguay?). However Bertoni´s work was published locally and received only

limited circulation compared to that of his distinguished colleagues. Consequently it was regularly overlooked by successive authors.

Writing at approximately the same time Laubmann (1939) produced a detailed German language treatise on Paraguayan birds, which highlighted that the citation by Salvadori and by Bradbourne & Chubb "appears to be in error as there are no records of the species". Podtiaguin (1941) omitted the species entirely from the Paraguayan list, but Schade & Masi Pallarés (1969) included it, though the text was brief, general and predictably lacked any specific details.

None of these key works on the Paraguayan avifauna appear to have been widely consulted or cited, but two further influential works of the mid 20th Century continued to include Paraguay in the distribution. Hellmayr & Conover (1949) clearly base their distribution on Ihering & Ihering (1907) as can be inferred from the Brazilian distribution that they include, and it is perhaps significant that though they provide specific localities for other countries in the distribution, they do not do so for Paraguay. The 2nd edition of the monumental Peters Checklist (Mayr & Cottrell 1979) then included a fanciful description of the species range in which it claimed that the species "Winters north to the Tropic of Capricorn, in Paraguay and the three southern provinces of Brazil". The Tropic of Capricorn corresponds closely to the Upper Paraná region of Paraguay, perhaps implying a misunderstanding of the works of Page (1859) or Burmeister (1860), but more likely it is an over-extrapolation, as the northernmost point of the southern three provinces of Brazil corresponds effectively to the same latitude as the Tropic. Regardless of the reasoning, they repeat the same speculation of previous authors. The influence of these standard global taxonomic works cannot be over-estimated.

Discussion

The literature review found no substantiated records of Black-necked Swan *Cygnus melancoryphus* in Paraguay and no evidence to support the occurrence of regular long-distance migrations in the species that may imply a former, regular appearance in Paraguay. Despite affirmations to the contrary, available data suggests that occasional irregular local movements in coastal southern Brazil and central Argentina only rarely reach latitudes comparable with southern Paraguay and that the core of the distribution is well to the south.

Belton (1994) describes the species as an uncommon resident in "wetlands, lakes and lagoons in the southern half of the littoral" in Rio Grande do Sul but that numbers may be augmented during winter due to local movements from further south. The odd few Brazilian records north of here in Santa Catarina, São Paulo (MZUSP–9818 "Iguape") and Rio de Janeiro (MN–36248 "Lagoa de Maricá") are coastal and refer to vagrant individuals (Rosário 1996, Straube *et al.* 2013). The species thus does not occur regularly at latitudes comparable to Paraguay in its Brazilian range.

The most northerly documented records from Argentina are from Provincias Santiago del Estero (Nores *et al.* 1991) and Tucumán (Olrog 1953), but records are few and refer to vagrants or overshooting migrants. There are undocumented, sight reports from extreme southeastern Provincia Chaco (Contreras *et al.* 1990, "D. Benvenutti pers. comm.") and Rio Guayquiraro, southern Provincia Corrientes (Doering 1874, "observed in passage by Sr. Schulz, but very rare"), as well as a mention of the species from Candelaria department, Provincia Misiones (Chebez 1996), but there are no records from Provincia Formosa which directly borders the Paraguayan Chaco (Contreras *et al.* 2013). Contreras *et al.* (1990, 2013) speculated that such records may represent birds in passage moving northwards, but the lack of physical evidence to support the records closest to Paraguay cannot be overlooked. Such speculation is apparently based in part on the erroneous assumption that the species winters in Paraguay but, there is in fact no reason to believe that they represent anything other than exceptional cases of vagrancy.

Extrapolation of distributions into poorly known areas is a common practice, but not without considerable risk (Straube *et al.* 2013) and the result of extrapolating extrapolations can be far removed from reality. As highlighted by Laubmann (1939) the source of the erroneous citation of Paraguay in the distribution of the species appears to be Salvadori (1895) and its acceptance and/or embellishment by most of the subsequent major international ornithological works that followed is without sound basis.

As there is no evidence to suggest that the species has ever occurred in Paraguay it should be treated as "cited in error" and removed from the national list

pending evidence to the contrary. Any potential future occurrence of the species in Paraguay is certain to be the result of vagrancy and the inclusion of the country in the species normal breeding or migratory range is thus unwarranted.

Acknowledgements

Thanks to Mark Pearman and Fernando Straube for their comments and for providing valuable information about the distribution of the species in Argentina and Brazil respectively. Thanks also to Adam Betuel for assistance with a hard to find reference. Funding for this work was partly provided by the PRONII program of CONACYT.

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Wintering swans in Krasnodar Province, Southwestern Russia

Alexander Solokha & Yury Lokhman

Abstract

This article presents the results of swan counts undertaken in Krasnodar Province, SW Russia from 2003–2016, for the International Waterbird Census (IWC) programme coordinated by Wetlands International. Distribution and numbers of Mute Swans (*Cynus olor*), Whooper Swans (*C. cygnus*) and Bewick's Swans (C*. columbianus bewickii*) are listed and discussed. Local Mute and Whooper Swan wintering populations were numerous and had positive trends over 2003–2016, whereas Bewick's Swan numbers were low and fluctuating.

Introduction

Three species of swans are commonly found in Russia: the Mute Swan *Cygnus olor* (Gm.), Whooper Swan *Cygnus cygnus* (L.) and Bewick's Swan *Cygnus columbianus bewickii* (Yarr.). In Krasnodar Province, the Mute Swan is a breeding species and occurs throughout the year, whereas the Whooper and Bewick's Swans only appear on migration and during winter. The hunting of swans is illegal throughout Russia, except for Mute Swans in the Astrakhan Region. Bewick's Swans are included in the Red Data Book of the Russian Federation (2001).

Most Russian wetlands normally freeze by January and thus are not suitable for wintering waterbirds. However, extensive parts of the Sea of Azov and Black Sea coasts and also inland waterbodies of Krasnodar Province often remain ice-free and therefore provide important winter quarters for swans and other waterbirds, especially in mild winters. Since 2003, mid-winter waterbird counts have been conducted regularly in the region, as part of the International Waterbird Census (IWC) (Solokha 2006). This article presents the results of the mid-January swan surveys made in Krasnodar Province under the IWCs from 2003 until 2016, except for three missing seasons of 2007–2009.

Materials and methods

The IWC is a site-based counting scheme for monitoring waterbird numbers. It is a so-called look-see survey whereby observers visit a site and make a count of every waterbird species present (Bibby *et al.* 1992, Delany 2005). We used ground and boat surveys to count swans and other waterbirds during several days in January each year. Extensive wetlands and a lack of experts and trained volunteers meant that we were unable to conduct counts simultaneously at all sites in the region. Nevertheless, we tried to visit the sites in as short a time as possible, particularly in recent years, and most counts were performed between 10–25 January. We used binoculars and spotting scopes with 20–60 X magnification for observations. Swans were counted mainly one-by-one, but in the case of large congregations (*e.g.* at Taman Bay) also as groups of ten individuals.

The coverage of IWC in Krasnodar Province varied, being dependent mostly on the condition of the wetlands (frozen or not), but also on available time and funds. Altogether, 37 sites were counted at least once with high coverage (27 sites) in 2004 (Table 1).

The standard customised software Excel and Access were used to collate and summarise the data, and a

Table 1. Summary results from mid-winter counts of swans in Krasnodar Province since 2003.

Years & time of counts	No. of sites covered	Location	No. of sites with swans	Total no. of swans	No. of identified species
2003: 18–28.01	20	Azov & Black Sea coasts, lakes & reservoirs	9	3,485	M: 2,677 W: 808 B: 0
2004: 21.01–04.02	27	Azov & Black Sea coasts	12	1,818	M: 1,429 W: 389 B: 0
2005: 13.01–05.02	15	Azov & Black Sea coasts	9	2,127	M: 1,535 W: 575 B: 0
2006: 03–21.01	19	Azov & Black Sea coasts	13	5,275	M: 3,147 W: 383 B: 0
2007–2009: No counts					
2010: 16–29.01 Cold winter; many wetlands frozen. Poor coverage due to lack of funds	8	Azov & Black Sea coasts	3	2,155	M: 418 W: 762 B: 0
2011: 15–31.01 Poor coverage due to lack of funds	12	Azov & Black Sea coasts	6	3,594	M: 1,790 W: 1,804 B: 0
2012: 20–25.01 Late counts. Extreme cold; freezing waterbodies	5	Azov Sea coast	5	825	M: 529 W: 296 B: 0
2013: 14–28.01	18	Azov & Black Sea coast & reservoirs	11	6,297	M: 3,440 W: 1,782 B: 139
2014: 12–23.01	14	Azov & Black Sea coasts, lakes & reservoirs	11	7,164	M: 3,889 W: 2,560 B: 91
2015: 14–24.01	15	Azov & Black Sea coasts, lakes & reservoirs	12	7,509	M: 6,994 W: 427 B: 2
2016: 13–24.01	20	Azov & Black Sea coasts, lakes & reservoirs	13	7,009	M: 5,718 W: 793 B: 39

free program DIVA–GIS was used for mapping and spatial presentation. Trends in the numbers of Mute Swans and Whooper Swans wintering within Krasnodar Province over the period 2003 to 2016 were analysed using program TRIM 3.53 (Pannekoek & van Strien 2005).

Weather conditions

Weather conditions were rather different each winter. Figure 1 shows variation in the daily average temperature for the town of Krasnodar over the last five IWC seasons. A steady decline in temperatures to below 0°C causes the wetlands to freeze and most of the waterbirds then depart. This was most evident in the last ten days of January 2012, whereas the opposite situation occurred in 2013 when, after a cold December, steady warming in mid-January resulted in the ice melting on inland waterbodies and shallow coastal waters. The unusually warm weather permitted huge populations of waterbirds to stay along the sea shores and on reservoirs until the end of the winter. January 2015 and January 2016 were both rather cold at the start of the month, and wetlands in the northern part of Krasnodar Province froze, but warm weather in mid-month resulted in partial melting of ice at these wetland sites.

Results

Mute Swan. This species was found every winter, and was recorded at 20 different sites over the period 2003–2016 (Figure 2). The number of wetlands where Mute Swans occurred varied from three sites in 2010 to 12 sites in 2004, 2006, 2015 and 2016. Total numbers counted ranged from 481 individuals in 2010 to 6,994 in 2015, with a mean of 2,875 ± 624 birds per year. High numbers of Mute Swans (4,313 birds) were counted at Taman Bay in 2016. Taman Bay was also the one site where Mute Swans were found every year. In some years, Mute Swans gathered in considerable numbers at three other sites: the Primor–Akhtar wetlands (peak count of 3,304 in 2015), the Anapa wetlands (898 birds in 2013) and the Kuban–Protoka wetlands (656 birds in 2005).

The overall trend for Mute Swans in Krasnodar Province (TRIM: modelled slope ± s.e. = 1.101 ± 0.029; imputed slope ± s.e. = 1.083 ± 0.030) indicated a "moderate increase" status since 2003 ($P < 0.01$; see Figure 3).

Whooper Swan. This species was found in Krasnodar Province during each of the IWC counts, and was recorded at a total of 14 sites over the period 2003–2016 (Figure 4). The number of wetlands where Whooper Swans occurred varied from two sites in 2005 and 2010 to ten sites in 2016. Total numbers counted ranged from 296 birds in 2012 to 2,560 birds in 2014, with a mean of 962 ± 225 birds counted per year. The largest number of Whooper Swans (1,597 birds) was counted at Taman Bay in 2011, and Whooper Swans were seen at Taman Bay in every year of the study. Varnava Reservoir was also regularly used by Whooper Swans in mid-winter, and in most years the highest counts were recorded at this site, peaking at 648 birds in 2014.

The overall trend for Whooper Swans in Krasnodar Province (TRIM: modelled slope ± s.e. = 1.079 ± 0.025; imputed slope ± s.e. = 1.061 ± 0.044) indicated a "moderate increase" ($P < 0.01$) or "uncertain" trend status (see Figure 3).

Bewick's Swan. This species was first found in the region in January–February 2008, when 2–5 birds were seen at Kerch Strait and the neighbouring portion of Taman Bay (Mnatsekanov 2008). We recorded this species every January from 2013 onwards, and between 2013–2016 its numbers varied from two (in 2015) to 139 (in 2013) (Table 2). Bewick's Swans occurred at three sites (Figure 5): Varnava Reservoir (which had the high number of birds, with 101 counted in 2013), Taman Bay (reaching 57 birds in 2014) and Krasnodar Reservoir (only in 2013, when 18 birds were seen at the site).

Photo: Liz Gent / WWT

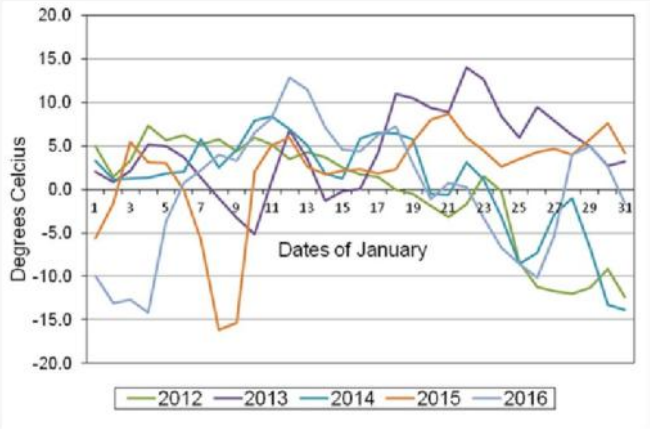

Figure 1. Mean daily temperatures for the town of Krasnodar in January, each year from 2012 to 2016 (based on the counts at 13 and 11 sites respectively).

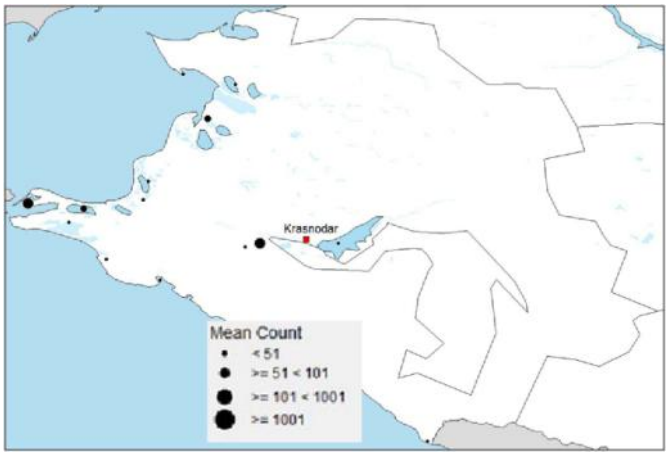

Figure 4. Distribution of Whooper Swans in Krasnodar Province in January 2003–2016 (black dots indicate mean count at each site).

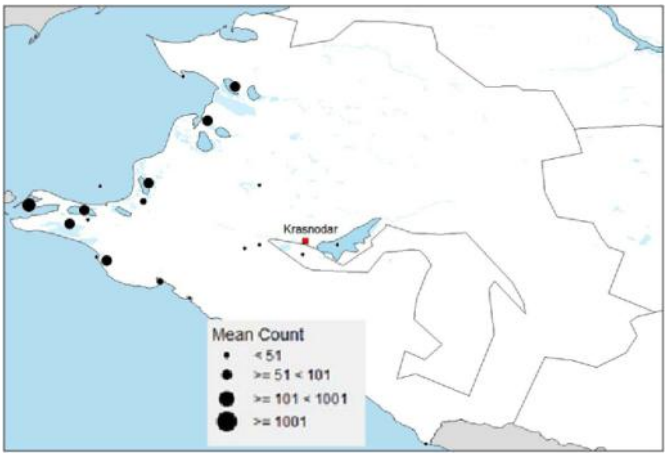

Figure 2. Distribution of Mute Swans in Krasnodar Province in January 2003–2016 (black dots indicate the mean count at each site).

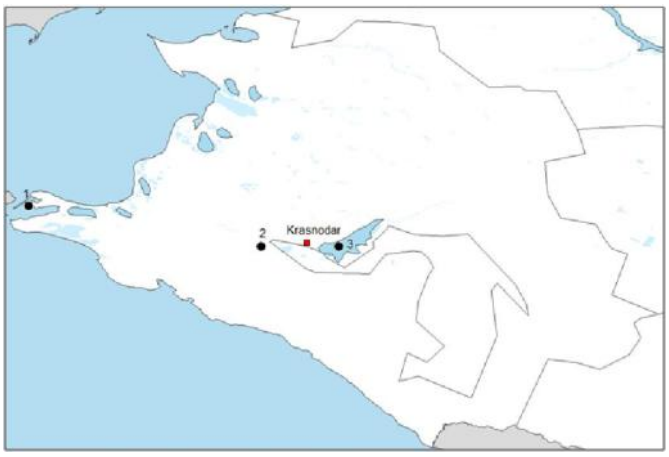

Figure 5. Distribution of Bewick's Swans in Krasnodar Province in January 2013–2016 (1 = Taman Bay, 2 = Varnava Reservoir, 3 = Krasnodar Reservoir) .

Figure 3. Trends in the number of Mute Swans and Whooper Swans wintering in Krasnodar Province during 2003–2016 .

Photo: Thomas Hinsche

Non-identified swans. We were unable to identify some swans to species level due to long distances, poor visibility (*e.g.* fog), or to the swan's head being hidden (*e.g.* under its wing). Non-identified swans were counted in 2005, 2006, 2010 and 2013–2016, mostly at the large Varnava Reservoir and at Taman Bay. The highest number of non-identified swans recorded was in 2006 (1,745 birds), of which most birds (840 individuals) were at Varnava Reservoir. We also counted 916 non-identified swans at Varnava Reservoir in 2013, and 900 swans were not identified at Taman Bay in 2010.

Overall, we found swans at 21 sites during 2003–2016. The total numbers varied from 825 in 2012 to 7,509 in 2015, with an average of 4,296 ± 735 individuals recorded. On comparing total swan counts made at individual sites, most swans (4,779 birds) were recorded at Taman Bay in 2016. Other important sites for all swans (*i.e.* with ≥ 1,000 individuals recorded at least once) included the Primor–Akhtar wetlands (3,321 birds in 2015), Varnava Reservoir (1,060 birds in 2006) and the Anapa wetlands (1,018 birds in 2013). The Primor–Akhtar wetlands and Varnava Reservoir were frozen in some years, however, and apparently didn't have much importance for swans at these times. The broadest distribution of swans (across 13 sites) was recorded in 2006 and 2016 (see Table 1).

Discussion

The numbers of swans counted in Krasnodar Province varied from year to year, depending mostly on conditions at the sites (*i.e.* whether the water bodies were frozen) and, partially, on the availability of funds for undertaking the surveys. Fewest swans were counted in January 2012 (825 birds) and this can be explained by the fact that, firstly, the counts were relatively late (made from 20th January) in that year, and secondly, following a sharp drop in temperature, all of the wetlands quickly became frozen from 24th January onwards. Because of these extreme conditions we covered just five sites, some of them only partially. In January 2016, fog hampered counts at Taman Bay, and it seems that the swans were also underestimated at that key site in that year.

Mute Swans were the most numerous and broadly dispersed of the wintering swan species, whereas the Bewick's Swan was the rarest and least widespread swan species in Krasnodar Province. Nagy *et al.* (2014) estimated the Black Sea population of Mute Swans at 45,000 individuals and the N Europe & W Siberia/Black Sea & E Mediterranean Whooper Swan population at 14,000 individuals. The highest total counts of 6,994 Mute Swans and 2,560 Whooper Swans recorded during the IWCs therefore indicates that Krasnodar Province may hold up to 16% and 18%

Table 2. Bewick's Swan counts in Krasnodar Province during the IWCs: 2013–2016.

Site name	2013	2014	2015	2016
Taman Bay	20	57	0	2
Varnava Reservoir	101	34	2	37
Krasnodar Reservoir	18	0	0	0
Total	**139**	**91**	**2**	**39**

Mute and Whooper Swans in Taman Bay (Photo: Alexander Solokha)

respectively of the relevant flyway populations. Defining the importance of Krasnodar Province for the Bewick's Swan flyway population is difficult because of uncertainty over the total numbers of this species wintering in the Black Sea – Mediterranean area. As shown in Figure 3, there appears to be positive trends numbers for both Mute and Whooper Swan wintering in Krasnodar Province, albeit this increase is more obvious for Mute Swans than it is for the Whoopers. At the flyway level, the trend estimates for the Mute and Whooper Swan populations are correspondently "Stable?" and "Increasing" (Nagy *et al.* 2014), though these analyses end in 2012.

Mild weather in January is a leading factor in supporting the mass wintering of swans in Krasnodar Province. Large natural and artificial wetlands provide them with a plenty of food. Additionally, swans seem to benefit from the good protection and low disturbance levels established in the Province following the closure of waterbird hunting season on 31st December. However, housing and other infrastructure development along the sea shores is causing the degradation of some important wetland habitats, including swan sites such as the Anapa wetlands and Taman Bay.

Acknowledgements

We thank the Ministry of Natural Resources of Krasnodar Province and Wetlands International for support of the waterbird mid-winter counts. We are also grateful to Roman Mnatsekanov, Mikhail Dinkevich, Murat Emtyl, Timur Korotkiy and Petr Tilba for participation in the field surveys in 2003–2006.

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Taman Bay in January (Photo: Alexander Solokha

News items

Observation of a Tundra Swan in West Chukotka

Diana V. Solovyeva

Photo: Diana V. Solovyeva

An adult Tundra Swan was recorded on a lake (69° 24'N, 168°12'E) in the Rakvachan River valley on the Kyttyk Peninsula, west Chukotka on 29 July 2015. This is 450 km west of the area where Bewick's and Tundra Swans are known to overlap on the breeding grounds in eastern Russia. The area has been well monitored in recent years (Arkhipov *et al.* 2014, Golubev & Suin 2014). Interestingly this sighting was made west of the Chaun Delta, an area with high Bewick's Swan nesting densities of (Solovyeva & Vartanyan 2014), where Tundra Swans have not previously been reported.

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First arrival at Slimbridge sets new record!

Julia Newth

The first Bewick's Swan to arrive at Slimbridge, Gloucestershire, last winter was sighted on 11th October 2015, breaking the record for the earliest arrival date since WWT's long-term study of individuals wintering at the site commenced back in winter 1963/64.

The swan, which was promptly named 'Record Breaker', was found to be a yearling and probably also visited Slimbridge as a cygnet during the previous (2014/15) winter, because it seemed very familiar with the reserve and arrived alone, without the guidance of a regular visitor. Record Breaker has now beaten the earliest record held for over 30 years by the pair named Tomato and Ketchup, following their arrival at Slimbridge on 12th October in 1980.

Despite this early arrival, which coincided with cold weather (temperatures 5–10ºC below average for the time of year), snowfall and north-easterly winds in Russia and Eastern Europe, it was not a harbinger of an exceptionally hard winter. Rather temperatures were relatively mild but wet, at least in the UK, for the rest of the winter.

Further information on the Bewick's Swans at Slimbridge in previous and future winters can be found in the swans at Slimbridge blog, **on http://www.wwt.org.uk/news/all-news/category/wwt-slimbridge-diaries-bewicks-swan-diary/** with new items due to be posted when the swans return in autumn 2016.

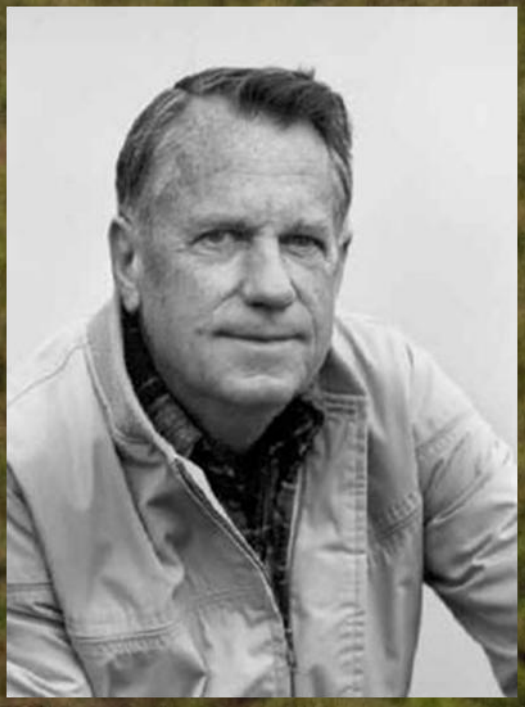
A note on swans colliding with aerial wires

Carl D. Mitchell

While reviewing old newspapers for records of swans in North America (see *Swan News* No. 11, 2015), I noticed that swans colliding with aerial wires is not a new phenomenon. The earliest records I have found to date were from Wheeling West Virginia in March 1877 (*The Wheeling Intelligencer* 15 (171):1, March 14, 1877) and in Washington, D.C. in January 1881 (*The Evening Star*, 57 (8663):1, January 12, 1881). Thus it appears that swan collision with aerial wires has been going on almost since people started to put them up. While progress is being made on addressing these collisions in many areas, this is still a worldwide problem for swans and many other large birds that needs attention and rectifying.

In Memoriam

Winston E. Banko, 1920–2016



Winston Banko was a pivotal figure in the world of Trumpeter Swan (*Cygnus buccinator*) biology, management and conservation. As Refuge Manager of Red Rock Lakes National Wildlife Refuge in southwest Montana Winston managed and studied the largest nesting flock of Trumpeter Swans in the lower 48 states. After nine years of field and literature research, he authored *The Trumpeter Swan: Its History, Habits and Population in the United States.* This monograph was first published by the Department of Interior in 1960 as No. 63 in the North America Fauna Series. It subsequently was reprinted, and republished by the University of Nebraska Press, thereby extending its availability. It is still probably the best single source of knowledge on Trumpeter Swans. It is also an extraordinary example of the sort of scientific field work that can be done without recourse to expensive technology. As mentioned in *Swan News* No. 11, 2015, this monograph is available free to download at: **http://fwspubs.org/doi/abs/10.3996/nafa.63.0001.**

Win was also involved in many other wildlife management programs and studies over a long and productive career. A more complete obituary can be read at: **http://www.pwrc.usgs.gov/resshow/perry/bios/BankoWinston.htm**

Photo: Graham Maples / WWT

Recent swan literature

Here we list recent papers published in the last five years, on various swan species, habitats and surveys, not included in *Swan News 11*. Please note that this list is far from being comprehensive, and that citation details for other recently published papers would be most welcome.

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Announcements

New Swan Specialist Group and Bewick's Swan Expert Group logos

Eilleen Rees

Following a call put out in *Swan News* 11 for artists to develop ideas for a new Swan Specialist Group logo, there was an excellent response and artwork for ten logos was submitted for consideration. The standard was very high and any one of the logos would have served very well as a logo for the Wetlands International / IUCN SSC Swan Specialist Group. When Swan SG members were informed in autumn 2015 of the range of logos suggested, there arose a lively debate, with comments provided by 74 (20%) of the 368-strong SSG membership. Two clear favourites emerged with strong advocates on both sides.

Helpfully, both the artists involved were willing to amend their logos in line with comments received, and sent in revised artwork. We also consulted WWT colleagues, familiar with the development and the use of logos, who advised on the amendment process and confirmed that both logos would be good and appropriate for the Swan SG.

We took the view that we should take the opportunity to have the benefit of two splendid new logos. I'm therefore delighted to announce that the logo prepared by Oscar Langevoord, which received support from the highest proportion of SSG members (and includes all swan species), is to be the new Swan SG logo, and that the one prepared by Janissa Balcomb is to be the logo for the Bewick's Swan Expert Group, which is responsible for taking forward the AEWA Bewick's Swan Action Plan.

Both logos are available on request, in different forms (colour, black-and-white) and file-types, for use for Wetlands International / IUCN SSC or BSEG purposes. We look forward to seeing them on posters, newsletters and other publications for many years to come.

Wetlands International / IUCN-SSC Swan Specialist Group logo by Oscar Langevoord

Bewick's Swan Expert Group logo by Janissa Balcomb

The Trumpeter Swan Society 24th conference, November 2016

Margaret Smith

The 24th Conference of The Trumpeter Swan Society (TTSS) will be held in Duncan, BC, Canada, on November 16–18, 2016. TTSS conferences were begun in 1969 to provide a public forum to bring together private citizens, conservation groups, policy makers, swan managers, and research scientists to examine the status, biology and conservation needs of Trumpeter Swans (Cygnus buccinator) in North America.

The 24th conference will focus on both the successes and challenges involved with long-term management of Trumpeter Swans. Special attention will also be given to be the status, management, and conservation of Trumpeter Swans in the Pacific Flyway and potential conflicts between swans and agriculture during winter. Presentations will examine swan conservation accomplishments and lessons learned and discuss the future challenges. In addition, the Conference will include sessions on the biology, habitat and

management of Trumpeter Swan populations throughout North America. Papers and posters on the biology and management of Tundra Swans and Mute Swans or their interactions with Trumpeter Swans are also invited. Papers will be published in TTSS' journal North American Swans.

We strongly encourage private partners, agency managers, and biologists involved in Trumpeter Swan restoration, management, and research to participate. If you are interested in making a presentation at the 24th Conference, please contact John Cornely at (johncornely@msn.com), Paul Fletcher (paul@fletcherfoto.ca), or Jim Hawkings (hawkings@northwestel.net) for additional information, including presentation guidelines and submission dates. More information and updates are available at **http://www.trumpeterswansociety.org.**

International Swan Census, January 2015

Eileen Rees, Colette Hall & Carl D. Mitchell

International censuses of Bewick's and Whooper Swan populations in Europe, and of Trumpeter Swans in North America, are carried out at five-year intervals with the most recent censuses being undertaken in 2015.

Data recorded during the seventh international census of the Icelandic Whooper Swan population, made in January 2015, have been collated and analysed. The 34,004 swans counted in Britain, Ireland, Iceland and the Isle of Man during the census represented a 16% increase in numbers compared to the previous census in 2010, a 155% increase on counts made in 1995, and was the highest census total to date (Hall *et al.* in press).

Surveys of Trumpeter Swans in North America were also undertaken in 2015 and the data are now being compiled. The previous survey, conducted throughout Canada and the northern United States in May 2010–January 2011, put the total number of Trumpeter Swans at 46,225 (s.e. ± 1,172) birds in 2010, an increase of 33% from the 2005 estimate and the highest count recorded since the surveys began in 1968. Record numbers were found for each of the three populations recognised in North America: 26,790 (s.e. ± 1,060), 9,626 (s.e. ± 500), and 9,809 for the Pacific Coast, Rocky Mountain, and Interior populations, respectively (Groves 2012). Methods in 2010 varied among regions but were generally similar to prior surveys, except for a change from complete censuses to stratified random sampling in Alaska and parts of Canada. The 2015 survey followed the same methods as those used in 2010, and results will be reported by the U.S. Fish & Wildlife Service.

Following the decrease in the NW European Bewick's Swan population to 18,055 individuals in January 2010 (from a peak of 29,232 in January 1995; Rees & Beekman 2010, Beekman *et al.* 2015), and the recent increase in numbers wintering on the Evros Delta in Greece, the 2015 census for Bewick's Swans and also for Whooper Swans wintering in continental Europe was extended to include countries thought to be wintering haunts for the Caspian Bewick's Swans and the Black Sea/East Mediterranean Whoopers (Beekman et al. 2012). National count coordinators for these areas are now requested to submit their count data for the January 2015 Bewick's and Whooper Swan censuses to the census coordinators, for a preliminary assessment of total population sizes by the end of the year.

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