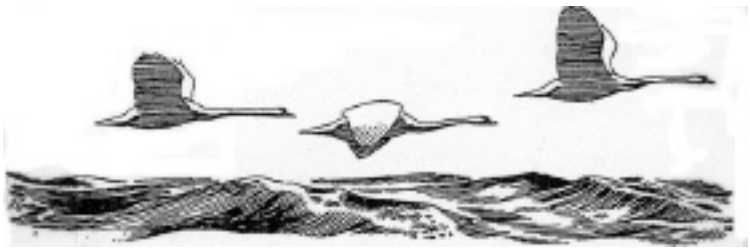


Swan Specialist Group Newsletter

Published by the *Wildfowl & Wetlands Trust*
for *Wetlands International's Swan Specialist Group*

Editors: Roberto Schlatter and Bert Coleman

Contents

No. 10, April 2004

Aims of the Wetlands International/IUCN SSC Swan Specialist Group

- To ensure good communication between swan researchers world-wide, to promote cooperative research and ringing programmes where appropriate, and to improve links and information exchange with other research groups.
- To identify gaps in our knowledge with a view to encouraging new projects in these area.
- To advise effectively on swan management and conservation issues especially at an international level.

Structure of the Group

Regional Co-ordinator (Eurasia) and Global Chair

Jan Beekman
Dept. of Plant-Animal Interactions, Nederlands Instituut voor Oecologisch Onderzoek, Rijksstraatweg 6, 3631 AC Nieuwersluis, Nederland.
Email: Bewicks_swan@xs4all.nl

Regional Co-ordinator (Neotropics)

Roberto Schlatter
Instituto do Zoologia, Facultad de Ciencias, Universidad Austral de Chile, Valdiva, Chile.
Email: rschlatt@uach.cl

Regional Co-ordinator (North America)

Carl Mitchell
Gray s Lake National Wildlife Refuge, 74 Gray s Lake Road, Wayan, Idaho 83285, U.S.A.
Email Carl_Mitchell@r1.fws.gov

Species Co-ordinators

Trumpeter Swan
Donielle Rininger
5382 Free State Road, Marshall, VA 20115-3033, USA
Email: ringers@earthlink.net

Tundra Swan
Jerry Serie
USFWS Division of Migratory Birds, 12100 Beech Forest Drive, Laurel, MD 2078, U.S.A.
Email: jerry_serie@fws.gov

Whooper Swan - Icelandic Population
Olafur Einarsson
Laufrimi 6 (Flat 0204), IS-112 Reykjavik, Iceland
Email: oembl@simnet.is

Whooper Swan - Scandinavian / NW Russian Population
Bjarke Laubek
Willemoesgade 6.1. 8200, Aarhus N, Denmark.
Email: laubek@post10.tele.dk

Mute Swan / Whooper Swan - Far Eastern Population
Ma Ming
Xinjiang Institute of Ecology and Geography, Acedemia Sinica, 40, Beijing Road, Urumqi 830011, Xinjiang, Peoples Republic of China.
Email: maming@ms.xjb.ac.cn

Bewick s Swan - NW European Population
Jan Beekman

Mute Swan - Central / East Europe Population
Maria Wieloch
Ornithological Society, Nadwislanska 108, 80-680 Gdansk 40, Poland.
Email: mwieloch@stornit.gda.pl

Mute Swan - United Kingdom
Bert Coleman
67, Park Lane, Bonehill, Tamworth, Staffordshire, B78 3HZ, U.K.
Email: a.coleman@ntlworld.com

Black-necked Swan
Roberto Schlatter

Coscoroba Swan
Yerko Vilina
Ejercito 146, Esc. Hed. Vet. Univ. Sto Tomas, Santiago, Chile. Email: yvilina@ust.cl

Bewick s Swan - Far Eastern Population
Vacant

Black Swan - Australia
Vacant

Black Swan - New Zealand
Vacant

Membership Secretaries

Roberto Schlatter and Bert Coleman

Newsletter Editors

Roberto Schlatter and Bert Coleman

Project Co-ordinators

Jan Beekman and Jerry Serie

Website Officer

Donielle Rininger

Swan Literature Database

Susan Earnst
USGS - SRFS, 970 Lusk, Boise, ID 83706, U.S.A.
Email: searnst@usgs.gov

Conference Co-ordinator

Vacant

Ring Co-ordinator

Pelle Andersen-Harild
Danish Nature Council, Frederiksborggade 15, Copenhagen, Denmark DK1360, Denmark.
Email: Pelle.Andersen.Harild@get2net.dk

Editorial

The Fourth International Swan Symposium at Airlie in Virginia, U.S.A. was a huge success and everyone involved found it a memorable and enjoyable experience. Some idea of the breadth of topics presented either as oral or poster presentations appear in this Newsletter.

At the Symposium Dr Eileen Rees who has edited this Newsletter so excellently for a number of years, retired from this position and the new editors, Roberto Schlatter and Bert Coleman, are now discovering how difficult and arduous a task it is compiling their first Newsletter.

The Swan Specialist Group Newsletter provides the opportunity for colleagues to publish short papers, and to submit reports from scientific meetings and conferences, as well as providing a vehicle for keeping people in touch, exchanging ideas and requesting information. Please help us to provide a Newsletter which fulfils all of the above.

We would be pleased to receive any material you wish to submit for publication. For convenience, our addresses are given with the instructions to authors below.

Roberto Schlatter and Bert Coleman

Rory McCann, 2002

Instructions for Authors

The Swan Specialist Group Newsletter publishes short papers with original data concerning swan species, progress reports for ongoing projects, recent abstracts, letters (especially requests for information), news items, descriptions of new methodologies, etc. Reports/ papers should be no longer than 1,500 words, including references. Figures, including maps, should be drawn neatly in black ink, in a form suitable for photocopying.

The editors reserve the right to make minor alterations to the text without consulting the authors. Readers should note that the opinions expressed in the articles in the Swan Specialist Group Newsletters are those of the authors and do not necessarily represent those of the Co-ordinators, WWT, Wetlands International or IUCN-SSC.

Submissions may be sent to either of the editors.

Dr Roberto Schlatter
Instituto de Zoologia,
Facultad de Ciencias
Universidad Austral de Chile
Valdiva, Chile

Telephone: +56 632 21408
Fax:+56 632 21315
Email: rschlatt@uach.cl

A. E. Coleman
67 Park Lane
Bonehill
Tamworth,
Staffordshire B78 3HZ, UK

Telephone: +44 1827 739034
Fax:+44 1827 739033
Email: coleman2@ntlworld.com

The final date for contributions to the next edition of the SSG Newsletter is **30th September 2004**

Fourth International Swan Symposium of the Wetlands International Swan Specialist Group

The Fourth International Swan Symposium of the Wetlands International Swan Specialist Group took place from 13 - 18 February 2001, at the invitation of Environmental Studies at Airlie in Virginia U.S.A., and in conjunction with the 18th Conference of the Trumpeter Swan Society. The Symposium was attended by 143 swan biologists from 16 countries: Canada, Chile, China, Denmark, Estonia, Hungary, Iceland, Ireland, Japan, Netherlands, Norway, Poland, Russia, Sweden, United Kingdom and United States.

A total of 89 oral presentations and Poster abstracts were presented at the Symposium, a list of which appears at the end of this report.

At the Symposium Eileen Rees retired from her post as Global Chairman, Regional Co-ordinator (Eurasia) and Editor of the Swan Specialist Group Newsletter. The Symposium acknowledged with gratitude the very considerable contribution made by Eileen to the Swan Specialist Group during her years in Office.

Dr Jan Beekman was elected to succeed her as Regional Co-ordinator (Eurasia) and Global Chair, and Dr Roberto Schlatter and Bert Coleman were elected as Editors of the Swan Specialist Group Newsletter. Other changes of co-ordinators and additional posts created were noted.

Symposium Recommendations

Authors: Eileen Rees, Roberto Schlatter, Carl Mitchell, Jan Beekman, Bert Coleman, Susan Earnst, Olafur Einarsson, Bjarke Laubek, Ma Ming, Donielle Rininger, Marie Wieloch & Gerard Boere.

Following a review of the status of swan species globally, the Recommendations of the Symposium are as follows:

• Noting the value of long-term monitoring for determining population trends and changes in distribution, as illustrated by several of the presentations, the Symposium urges the continuation of such efforts to support the global overviews on waterfowl populations by the International Waterfowl Censuses (IWC) and the Waterbird Population Estimates (WPE), which in turn supports the work of the international conventions.

• Recognising the value of satellite-tracking, stable isotope ratios and other technologies, the Symposium recommends greater use of these methods to describe swan populations and sub-populations where the migration routes remain uncertain, notably in the Siberian and Central Asian flyways and South America, and to identify key sites for future protection.

• Noting the substantial lack of data on the unpredictable movements of the South American swans, the Symposium advocates the development of a region-wide co-ordinated banding programme

• Noting that productivity, survival and dispersal varies within and between populations, for instance in relation to different habitats, the Symposium recognises that continuing population dynamics studies is a high priority for understanding the biological processes underlying population change.

• Noting the key role in weather conditions in influencing nesting phenology and breeding success, and recognising that global climate change (identified as an important issue in the 3rd International Swan Symposium in 1989) is increasingly likely to influence swan populations, the implications of global climate change for swan populations should be addressed. These implications should be considered both for arctic habitats and for unpredictable Neotropical and Australian habitats where the frequency of El Nino events may increase.

• Noting that complete counts of some swan populations on breeding and wintering grounds is not possible, the Symposium recommends reviewing appropriate sampling methods with a view to ensuring that estimates of population size and trends are comparable between years and populations, and as precise and unbiased as possible. The potential standardisation of biometric methods should be reviewed.

• Recognising the importance of dynamic wetlands in maintaining Black-necked Swan *Cygnus melancoryphus* and Coscoroba Swan *Coscoroba coscoroba* populations and sub-populations, the Symposium urges a broad survey of the species in relation to habitat with a view to protecting the appropriate network of wetlands for these species. The Symposium would welcome the rapid publication of the South American Wetlands Assessment to help design an appropriate banding and conservation programme.

• Bearing in mind the increasing overlap of populations and species in both the breeding and wintering ranges, the Symposium identifies the need for further research into competition/co-existence, and to quantify the effect of increasing swan numbers on aquatic and terrestrial ecosystem function.

• Noting that the potential for crop damage remains a concern in many areas, the Symposium recommends that investigations be undertaken to determine the extent to which swans cause agricultural damage, and that methods be developed for reducing swan-human conflicts, emphasising that scientific evidence for damage must be presented. Potential benefits of grazing (such as fertilisation of the sward) also should be addressed.

• Noting the increasing industrial development in circumpolar regions, especially for oil and mineral extraction, the Symposium urges further studies of the effects of development on swan numbers, distribution and reproductive success.

• The Symposium commends governments and local authorities for banning the use of lead for shooting and angling, but notes that spent lead remains an important health hazard for swans. Further efforts therefore need to be made to reduce lead levels, and research undertaken on how best to deal with lead in the environment.

• Noting the increased dependency of swans on artificial feeding, the Symposium recommends reviewing the costs and benefits of different methods of managing swan populations, including assessing the health risks for large concentrations of birds

• Noting that a small and isolated Whooper Swan *Cygnus cygnus* population/sub-population on the north slope of the Chinese Himalayas is threatened with extinction, immediate action is urged to preserve the unique grazed grassland and

alpine-wetland habitat in which this vulnerable population/sub-population has co-existed with nomadic herdsmen, through habitat management and environmental education in the region.

• Noting the value of a scientifically sound basis for management and conservation decisions, the Symposium recommends re-emphasizing the need for dissemination of research to the public and to policy makers.

• The Symposium urges that Wetlands International, as the parent organisation for the Swan Specialist Group, circulate these recommendations to the appropriate bodies of the international conventions, such as the Bonn Convention (CMS) Scientific Council, the International Panel for Climate Change (IPCC), the Ramsar Convention Scientific Technical Review Panel (STRP), and the Conservation of Arctic Flora and Fauna (CAFF) working group.

• The Symposium recommends that the 5th International Swan Symposium be held in the Southern Hemisphere to stimulate participation of researchers in that area, and Chile has tentatively been recommended as the host country.

Scientific papers presented orally at the Symposium

East Asian Swans - Population development and wintering ecology of swans in Japan. *J. O. Albertsen and Y. Kanazawa.*

Nesting ecology of Tundra Swans, *Cygnus columbianus columbianus*, on the coastal Yukon-Kuskokwim Delta, Alaska. *C. A. Babcock, A. C. Fowler and C. R. Ely.*

Aquatic feeding activity of Tundra Swans during spring and fall migration at Long Point Bay, Ontario. *S. S. Badzinski, C. D. Ankney and S. A. Petrie.*

Bewick s Swan *Cygnus columbianus bewickii* skipping behaviour: Differential use of migratory stop-over sites in spring and autumn. *J. H. Beekman, B. A. Nolet and M. Klaassen.*

Fat and protein utilisation in nesting Mute Swans *Cygnus olor*: Date-dependent strategy-mix of capital and income breeding. *J. H. Beekman, R. Ubels and G. H. Visser*.

Nesting ecology of Trumpeter and Tundra Swans at Minto Flats, Alaska. *K.S. Bollinger and R.J. King.*

Habitat usage and field choice by Mute and Whooper Swans in the Tweed Valley, Scotland. *H. Chisholm and C. Spray.*

Base-line studies, environmental impact assessment, and monitoring during the construction of the sound link - effects of a combined tunnel-bridge construction on a moulting population of Mute Swans, *Cygnus olor*. *P. Clausen, J. Kahlert, H. Noer, B. Petersen and R. Zydelis.*

The effect of age, sex, social status and body condition on moult in Mute Swans *Cygnus olor*. *J. T. Coleman, C.J. Spray and S. Percival.*

Size variation in the Mute Swan *Cygnus olor* and its influence of breeding status and breeding performance. *J. T. Coleman and A. E.Coleman.*

Effects of grazing on grasslands by wintering Whooper swans. *K. Colhoun and K. R. Day.*

Life expectancy in Irish Mute Swans *Cygnus olor*. *R. Collins.*

The 2000 census of Trumpeter Swans on Alaskan nesting habitats. *B. Conant, J. I. Hodges, D. J. Groves and J. G. King.*

Variation in the size and distribution of the Icelandic Whooper Swan population: Results of the fourth International census, January 2000. *P. C. Cranswick, K. Colhoun, O. Einarsson, G. McElwaine, A. Gardarsson, M. Pollitt and E. C. Rees*

Winter wheat and Tundra Swans: a study of crop depredation in North Carolina. *D. R. Crawley Jr and E. G. Bolen*.

Egg size variation and its influence on hatchability, body size and survival of Mute Swan cygnets. *A. Czapulak*.

Moult in breeding Mute Swans *Cygnus olor*. *A. Czapulak.*

Site fidelity and birds status consecutive breeding seasons in the Mute Swan *Cygnus olor*. *A. Czapulak*.

Dynamics of semi-migratory and migratory Tundra Swan populations on the Lower Alaska Peninsula, Alaska. *C. P. Dau and J. E. Sarvis*.

Retrospective reproductive success of Trumpeter Swans after treatment for lead toxicosis. *L. A. Degernes.*

Wisconsin Trumpeter Swan movements and wintering areas: First year results of a satellite telemetry programme. *E. N. Diebold, S. Matteson, F. Koontz, P. Manthey and A. Fetting*.

Use of winter translocations to expand distribution of Trumpeter Swans *Cygnus buccinator* in the Western United States. *R. C. Drewien, K. Clegg and R. E. Shea*.

Parental care in Tundra Swans during the pre-fledging period. *S. L. Earnst*.

Effects of breeding density and habitat quality on Whooper Swan productivity: Results of a long term study. *O. Einarsson and E. C. Rees.*

Whooper Swans moulting at Lake Myvatn, Iceland, in 1974 - 2000. *A. Gardarsson, A. Einarsson and S. Thorstensen*

Design and implementation of Trumpeter Swan surveys in Canada 1970 - 2000. *J. Hawkins, G. Beyersbergen, A. Breault.*

The influence of water level and plant community on site selection by Mute Swans *Cygnus olor* autumn staging in two brackish lagoons. *T. E. Holm.*

Satellite tracking of the migration of Bewick s Swans *Cygnus columbianus bewickii* from Yonago Waterbirds Sanctuary, Lake Nakaumi, Japan. *K. Kaname.*

Breeding success of Whooper Swans *Cygnus cygnus* in different types of habitat in Finland. *H. L. Knudsen, B. Laubek and A. Ohtonen.*

Status of Whooper Swans *Cygnus cygnus* in Estonia. *A. Kuresoo, L. Luigujoe and H. Pehlak.*

Breeding success of Whooper Swans *Cygnus cygnus* at different latitudes in Finland. *B. Laubek, H. L. Knudsen and A. Ohtonen.*

Autumn migration of the Bewick s Swans *Cygnus columbianus bewickii* in Estonia. *L. Luigujoe and A. Kuresoo.*

The Ontario Trumpeter Swan restoration programme - past and future. *H. G. Lumsden*.

Status of eastern population Tundra Swans 2000. *D. C. Luszez and J. R. Serie.*

Dangers to Whooper Swans in Xinjiang, China. *M. Ming and C. Dai.*

The development in the Swedish populations of Mute Swan *Cygnus olor* and Whooper Swan *Cygnus cygnus* 1967 - 2000. *L. Nilsson*

Trends in Mute Swan blood lead levels: Do management and policy measures reduce lead poisoning? *J. O'Halloran, P. Smiddy, X. Quishi, R. O'Leary and C. Hayes.*

Isozyme analysis reveals potential fixed genetic difference between Trumpeter Swan *Cygnus buccinator* of the High Plains flock and those of the Pacific Coast population. *C. A. Pelizza and H. B. Britten*.

Survival rates of colonial Mute Swans. *C. M. Perrins and R. H. McCleery.*

Sex ratios in a colony of Mute Swans. *C. M. Perrins and R. H. McCleery.*

The exotic Mute Swan *Cygnus olor* in Chesapeake Bay, U.S.A. *M. C. Perry.*

Satellite tracking of eastern population Tundra Swans. *S. A. Petrie and K. L. Wilcox.*

Population trends and habitat use of Tundra Swans staging at Long Point, Lake Erie. *S. A. Petrie, S. S. Badzinski and K. L. Wilcox.*

Recoveries from seventy-five years of marked Tundra Swans with new evidence of interchange between eastern and western populations, estimated longevity and examples of multiple resightings of individuals throughout the species range. *D. L. Rininger, R. Limpert and W. J. L. Sladen.*

Population trends and productivity of a Tundra Swan population on the central Arctic Coastal Plain, Northern Alaska 1988-2000. *R. J. Ritchie, J. G. King, A. A. Stickney, B. A. Anderson, J. R. Rose, A. M. Wildman, and S. Hamilton.*

Population structure of Bewick s and Whooper Swans breeding in Northern European Russia. *Y. M. Shchadilov, E. C. Rees, A. V. Belousova and J.M. Bowler*

Twenty five year population dynamics for Black-necked Swans in the first Chilean Ramsar site: How to recover a species from menace. *R. P. Schlatter and R. A. Navarro.*

Restoration of Trumpeter Swans in North America: A century of progress and challenges. *R. E. Shea, H. Nelson, L. Gillette and D. Weaver.*

Teaching migration routes to Canada Geese and Trumpeter Swans using ultralight aircraft as surrogate parents (1900-2001). W. *J. L. Sladen, W. Lishman, G. Shire and W. Bezner Kerr.*

A comparison of weights between two experimental flocks in the Trumpeter Swan ultralight project. *K. L. Hawn and T. C. Wood.*

Veterinary medical support for Trumpeter Swan migration studies. *G. H. Olson, D. Rininger, M. Ets and W. J. Sladen.*

Hybridisation in the Northern Swans - Biology and morphology. *W. J. L. Sladen, G. Shire and R. Canniff.*

Hybridisation in the Northern Swans - Vocalisations. *T. Brooks, W. J. L. Slade and T. Wood.*

Determining the extent of hybridisation between swan taxa using MTDNA D-Loop sequence. *P. M. Gillevet, J. Peters and W. J. L. Sladen.*

Development of an expert system for assessing Trumpeter Swan breeding habitat in the Northern Rocky Mountains. *R. S. Sojda, J. E. Cornely, D. J. Dean, D. B. Hamilton and A. E. Howe.*

Habitat characteristics, spatial distribution and nest site selection by Tundra Swans in the Kuparuk Oilfield and Colville River Delta, Northern Alaska. *A. A. Stickney, B. A. Anderson, R. J. Ritchie, J. G. King and J. R. Rose.*

Population development of the Mute Swan *Cygnus olor* in the Czech Republic. *J. Svobodova and D. Resl.*

Nesting ecology of Bewick s Swan, *Cygnus columbianus bewickii*, on Vaygach Island, Russia. *E. V. Syroechkovsky, K. E. Litvin and E. N. Gurtovaya.*

Population dynamics of Tundra Swans *Cygnus columbianus columbianus* using the Upper Mississippi River in Fall. *E. M. Thorson and J. A. Cooper.*

Population trends and breeding success of the Black-necked Swan in the Mediterranean Wetlands of Chile. Yerko. *A. Vilina, H. Cofre and C. Silva-Garcia.*

Changes in wintering area of the Polish population of the Mute Swan *Cygnus olor*. *M. Wieloch and M. Remisiewicz.*

Breeding ecology of the Mute Swan *Cygnus olor* in Central Poland. *R. Wlodarczk.*

Bayesian time series analysis of U.S. segments of the Rocky Mountain Trumpeter Swan *Cygnus buccinator* population. *C. K. Wright, R. S. Sojda and D. Goodman.*

List of Posters and Tabled Papers presented at the Symposium

(• denotes tabled paper)

East Asian Whooper Swan body biometry data after 15 years. *J. O. Albertson, K. Tamada and S. Abe.*

Trumpeter Swan restoration in Iowa: A phenomenal partnership effort. *R. Andrews.*

Consistency in egg dimensions for individual Bewick s Swans. *A. Belousova and Y. Shchadilov.*

• The accuracy of sexing Mute Swans by cloacal examination. *A. W. Brown and L. M. Brown.*

Potential effects of a large-scale wind turbine park on wintering Whooper Swans *Cygnus cygnus* - an environmental impact assessment. *P. Clausen and J. K. Larsen.*

Habitat preferences of Tundra Swans on their breeding grounds in Northern Alaska. *S. L. Earnst.*

• Pilot titre tests in swans indicate antibody response to vaccine against Clostridial related diseases *G. R. Gardner, F. F. Funk, S. A. Bolin, R. W. Wilson and S. A. Bolin.*

Territoriality of Bewick s Swans during the breeding season. *E. N. Gurtovaya.*

• Modern distribution of the Whooper Swan *Cygnus cygnus* in northwest of Russia. *T. Y. Hokhlova and A. V. Artemjev.*

Restoration of Trumpeter Swan to the central portion of North America. *J. W. C. Johnson.*

Stochastic dynamic programming (SDP): Migratory behavior in Bewick s Swan. *M. Klaassen, J. Beekman and B. Nolet.*

Longevity of Mute Swans *Cygnus olor* in the Ukraine. *A. Korzyukov and O. Korzyukov.*

• Trumpeter Swan energy balance at stopover areas during spring migration. *J. LaMontagne, R. M. R. Barclay and L. J. Jackson.*

Laying and incubation behaviour of Trumpeter Swans. *H. G. Lumsden.*

Incubation behaviour of Whooper Swan in Xinjiang, China. *M. Ming and C. Dai.*

A comparison of the ecology and behaviour of Black and Whooper Swans. *M. Ming and K. Kraaijeveld.*

Distribution and dynamics of the Whooper Swan *Cygnus Cygnus* population in the European North East of Russia. *Yu N. Mineev and O. Yu Mineev.*

Bewick s Swan population of Western Siberia: Origin and territorial connections. *V. V. Morozov.*

Mute Swans *Cygnus olor* in relation to available food resources in a coastal area of south Sweden during winter. *L. Nilsson.*

Clumping as a tactic of clonal plants to escape learning foragers? *B. A. Nolet and W. J. Mooij.*

Habit switching in Bewick s Swans: An example of risk-averse behaviour. *B. A. Nolet, M. Klaassen, R. M. Bevan and O. Langevoord.*

Rapid increase in the Southern Ontario population of feral Mute Swans: A review and a recommendation. *S. A. Petrie.*

Number, dynamics and population status of Bewick s Swans in the Lena River Delta, Yakutia, Northern Asia. *Vladimir Pozdnyak*

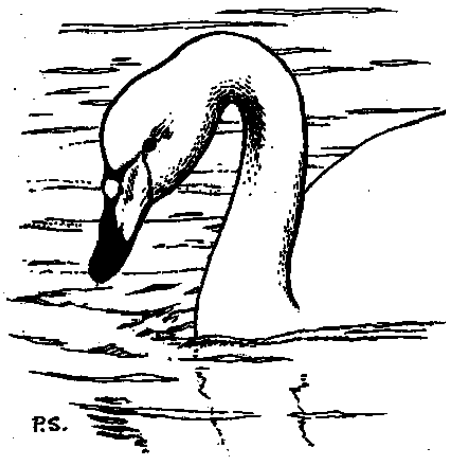
Status and distribution of swans in the Siberian Arctic. *E. Syroechkovski Jr.*

United States public policy toward the non native invasive Mute Swan, *Cygnus olor. J. Tate Jr and L. A. Harris*

Population trends of Coscoroba Swans at the northern-most breeding site in Chile. *Y. A. Vilina, H. Cofre and C. Silva-Garcia.*

Symposium Proceedings

Any Swan Specialist Group member who has not received a copy of the Proceedings of the 4th International Swan Symposium and would like to do so should contact Mrs Clare Lee, Wildfowl & Wetlands Trust, Slimbridge Gloucester, GL2 7BT, U.K. (email: clare.lee@wwt.org.uk). Allocation limited to one copy per member.



Recent Abstracts

A 39 year study of the Mute Swan Cygnus olor population in the English Midlands.

Coleman A.E., Coleman J.T., Coleman P.A., Minton C.T.D.M.
67, Park Lane, Bonehill, Tamworth, Staffordshire, U.K. B78 3HZ.
165, Dalgetty Road, Beaumaris, Melbourne, Victoria, Australia. VIC 3193. *Ardea* 89 (Special Issue): pp123-132.

Abstract: The results of a long term study of the Mute Swan *Cygnus olor* in a 1,440 square kilometre area of the English Midlands are presented. During the period 1961 to 1999 the population varied between 213 and 551 birds with the numbers of pairs each spring ranging from 53 to 162. Life histories of 1,647 birds marked as cygnets in family parties or in flocks and whose date of death was also known are examined in detail. Of these birds only 11% achieved breeding status, high mortalities occurring in the first two years of life. Approximately 50% of the breeding birds only had one or two breeding seasons and over the period of the study a minority of the breeding adults produced a majority of the cygnets. Most birds were recorded first paired at two or three years old while first breeding mostly occurred at three and four years old. Maximum successful breeding age recorded for both males and females was 18 years. Females showed a higher degree of site fidelity and examples of incestuous breeding were recorded, with fertile offspring being produced. The effect of mate and territory change on breeding performance is also discussed. The study illustrates how the parameters affecting population dynamics have varied over a period in which there has been wide-spread national and marked local fluctuations.

Habitat selection and breeding biology of Bewick's Swan Cygnus columbianus bewickii on the Russkij Zavorot Peninsula (The northeastern part of the Malozemelskaya Tundra).

Y. N. Mineyev and O. Y. Mineyev
Institute of Biology, Komi Science Centre Ural Division of RSA, Syktyvkar, Russia. *Acta Zoologica Lituanica* 2000, Volumen 10. Numerus 2. ISSN 1392-1657

Abstract: Investigations have been carried out in 1976, 1977, 1988 1990-1996 on the Russkij Zavorot Peninsula. Data obtained from stationary, land based and boat surveys, and air-visual counting of breeding and non-breeding birds and their habitats are given.

The maximal number of birds (2.5 - 3.1 individuals on average) was recorded on small shrub-moss-lichen and dry lichen parts of the bogged up tundra, while the minimal one (2.0 individuals per one kilometre square on average) - on the herbage-sedge hilly tundra. Investigations of many years show the main nesting and moulting areas to be unchanged and located along the Zakharyin bank, the area of the Kolokolkova inlet, and the central part of the Russkij Zavorot Peninsula. The spatial distribution of Bewick s Swan nests depends on the character of spring weather conditions, snow cover dissolution in particular. The necessary nesting precondition is a combination of food and nesting habitats and the abundance of small shallow lakes featuring macrophytes and algae. The population of Bewick s Swans on the Russjik Zavorot Peninsula occupies individual territories, makes nests and lays eggs in the second decade of May to June 15. Productivity analysis of the swans shows egg-clutch size to decrease

by 35-37% and nesting density to decline in unfavourable weather conditions. Comparison of the data of investigations carried out in different years shows the maximal number of nesting birds to exceed the minimal one by 14.8%, and the egg-clutch size by 22.4% on average. The productive capacity of Bewick s Swan at the end of July averages but 71.2%.

Key words: Bewick s Swan, tundra, habitats, breeding, numbers.

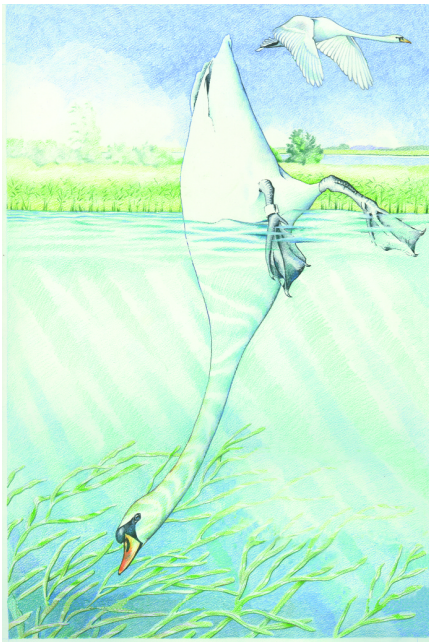
Changes in wintering areas of the Polish population of the Mute Swan, Cygnus olor.

M. Wieloch and M. Remisiewicz
Ornithological Station, IP PAS, Nadwislanska 108 80-680 Gdansk 40. Poland.

Dept. of Vertebrate Ecology and Zoology, University of Gadansk, Al. Legionow 9, Poland.
In Press: *Acta Orniothologica Lithuanica*.

The aim of the study is to define changes in the localisation of wintering areas of the Polish breeding population which took place over the last several decades, on the basis of the analysis of recoveries possessed by the Polish Ringing Scheme.

In the 1950s-1960s, when the Mute Swan bred only in the northern part of Poland, only a small number of swans used to spend winter on the Baltic coast. In the 1970s and at the beginning of the 1980s, distinctly more Mute Swans were spending winters on the coast, as well as many places in western Poland. Additionally, in lower numbers they were wintering in the Masuria region (NE Poland) and in several sites along the Vistula River between Gdansk and Cracow. Since the second half of the 1980s these birds have spent winters in the whole country on unfrozen or partly frozen sections of rivers as well as



on ponds, reservoirs and waste water treatment plants. The biggest wintering quarter of the Mute Swan in Poland is the Gulf of Gdansk, where large flocks stay in the shallows south to the Hel Peninsula and in the neighbourhood of the beaches between Gdansk and Gdynia.

Alongside the growth of the breeding Mute Swan population in Poland and in the neighbouring areas, the number of birds wintering in Poland has been rising; their number increased from several 100s in the 1960s to 20,000-22,000 by the end of the 1990s.

Analysis of the location of gravity centres for ring recoveries for the Polish-breeding population, calculated for successive periods in the second half of the 20th century, found a distinct movement of the wintering centre towards the southeast. In the years 1952- 1970, the gravity centre was localised in the region of the Danish shallows. In the next period, 1971-1980, it moved to the south to the region west of Lower Oder river. After 1980, centres in subsequent five-year periods passed through the Wielkopolska region (west Poland), until in the 1990s centres fell at the boundary of Wielkapolska and Lower Silesia (southwest Poland). The same phenomenon was shown by the mean recovery angles decreasing gradually (thus moving from the west to the south) in successive periods. What draws attention is the stability of the wintering centre within the last decade.

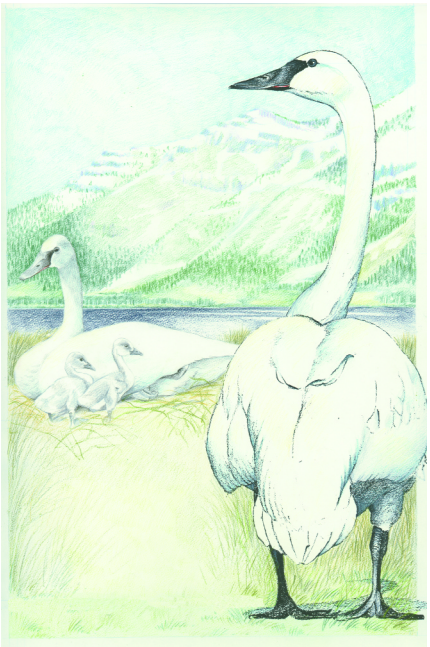
On analysing distances between breeding and wintering areas of Mute Swans in different periods, it transpired that they became gradually shorter in subsequent terms. The mean recovery distance for swans ringed in the period 1971-1980 was remarkably higher than the values for the next four five-year periods. The mean recovery distance for birds ringed in the last period considered (1996-1999) was the shortest of all groups and differed significantly from that calculated for swans ringed in years 1986-1990.

Analysis of wintering areas for Mute Swans breeding within the defined regions of Poland showed that birds from different sites within these regions spend the winter together in the same wintering quarters. On the other hand, birds originating from different regions prefer different wintering areas. Swans from northern Poland winter most frequently to the west of the breeding grounds, but some also winter to the south. In contrast, birds from the south of Poland most frequently winter southwest and south of the breeding areas but some also occur in northern wintering sites.

On analysing data from four regions of Poland in relation to changes in wintering areas over this time, it was found that the largest shift in location of the gravity centre was for birds breeding in northeast Poland. The gravity point for winter records fell within the Danish shallows in the years 1952-1986, then moved in subsequent years to the Gulf of Gadansk. The mean distance between breeding and wintering

grounds for birds originating from that part of Poland became shorter, decreasing from 617 kms to 254 kms, which is as much as 59%. The mean distance of recoveries for birds ringed in 1996-1999 varied markedly from that for birds ringed in 1986-1995. In Mute Swans breeding in southwest Poland, a 64% shortening of the migration distance has been found within the last two decades.

Changes in wintering distribution depends also on winter severity, e.g. in the first three decades more swans from Poland migrated to the western wintering grounds (Denmark, Holland and Germany) during severe weather. In the last decade fewer swans wintered there in severe winters because many migrated to the south (to Hungary, Croatia and Slovenia).



Papers

Status and movements of Mute Swan *Cygnus olor* in Croatia.

Jelena Kralj
Institute of Ornithology, Zagreb, Croatia

Introduction

The Mute Swan is a widely distributed species which is increasing in range and numbers in the Western Palearctic. Range expansion from central Europe eastward and southward created a new, southeast European subpopulation, which is still rapidly growing (Wieloch 1991). The recent status, distribution and population trends of the Mute Swan *Cygnus olor* in Europe are well known (Scott & Rose 1996, Wieloch 1991).

In contrast to the situation in Europe, the swans status in Croatia has not been well documented. There are a few published data from NW Croatia: Lesinger (1994) reported about wintering numbers and first breeding in Međimurje and Kralj *et al.* (1998) mentioned first breeding in the Pokupsko basin. With increasing numbers of wintering swans in Croatia, the number of ringed individuals increased (Ćiković & Radović 1999). This paper presents the recent status of Mute Swans in Croatia and the dispersion of autochthonous Croatian swans, according to the results of ringing recoveries.

Materials and Methods

This paper summarised scarce published data together with author s personal observations between 1990 and 2000. Movements are analyzed on the basis of ringing recoveries. Some of them are already published (Radović *et al.* 1993, Kralj & Radović 1999), other are included in ringing/recovery databases at the Institute of Ornithology in Zagreb. Only recoveries of swans ringed as pulli or juveniles still in family groups (i.e. those hatched on the ringing site) were analyzed. All of them were ringed by Andrija Lesinger in Međimurje, NW Croatia. Time of recoveries was divided into three groups according to the annual circle: moulting period (recoveries between July and September), wintering period (between November and February) and breeding period (only for birds reported as breeding). Moulting, wintering and breeding periods are defined according to Cramp and Simmons (1978). Birds resighted during the breeding period, but not reported as breeders are regarded as non-breeding individuals.

Results

The status in the past

Mute Swans were first recorded in Croatia at the end of the 19th Century, mostly during severe winters (1884, 1887 and 1894), although exceptionally also during summer (Kopački rit, 17th August 1887). In the 1920s it occurred also in Dalmatia. It was an irregular bird until the last half of the 20th Century (Kralj 1997).

Wintering numbers

The Mute Swans become a regular wintering species at the end of 1980s, in the northwest part of Croatia. At the outset, they overwintered in greatest numbers in two major areas: gravel-pit Šoderica near Koprivnica and Međimurje region, and on accumulations on the River Drava between the Slovenian border (Lake Ormőz) and Donja Dubrava. Data for River Drava are given by Lesinger (1994), and from Šoderica are the author s own unpublished data. At these two sites, the number varied from about

100 in winter 1989/90 to 160 in winter 1992/93 (**Table 1**). Also, Mute Swans over-wintered in small numbers at other gravel-pits, fishponds etc, such as the Draganic fishponds near Karlovac, where between four and 12 birds stayed at the beginning of 1990s (Kralj *et al.* 1998). In later years the number of localities with wintering swans increased, as well as the total number of swans. For example, on 12th January 1996 a flock of 270 birds were observed at a single locality, at the Varaždin lake (Jurčević 1998). Today, swans are wintering in different numbers at many localities, including gravel-pits, carp fishponds, rivers, oxbow lakes, accumulations etc. For example in January 1999, there were 118 Mute Swans at Draganić fishpond and 128 at Šoderica gravel-pit, in spite the fact that almost the whole water surface was frozen. For wintering, as for breeding, they prefere eutrophic water (marshes, bigger fish-ponds and oxbow lakes), but they sometimes stay on oligotrophic water-bodies, but only if permanently fed by man. Mute Swans also winter on the Croatian coast, but irregularly and in small numbers, from one to nine birds, in wide shallow coastal bays, ports and on the sea near settlements (Jurčević 1998). Even more exceptionally they winter on the lakes in mountainous part of Croatia, such as on 15th January 1989 when a single bird was observed on Lake Sabljaci near Ogulin (Jurčević 1998).

According to the recoveries of ringed birds, swans wintering in Croatia come from Hungary, Poland, Czech Republic and Slovenia. Swans with Praha rings have been observed between 31st December and 22nd January, with Gdansk rings between 26th October and 19th February (with exception of one Swan hatched in Poland and observed in Croatia on 6th April), with Ljubljana rings between 25th November and 12th February and with Budapest rings between 3rd September and 9th April (with high majority observed between November and February).

Winter	Međimurje	Šoderica
1989/90	62	35
1990/91	circa 50	37
1991/92	circa 50	49
1992/93	60-70	97
1993/94	60-80	58

Table 1. Numbers of wintering Mute Swans at the beginning of 1990s in two major wintering sites (Međimurje - Lesinger 1994, Šoderica - pers. data).

Breeding

As the numbers of wintering birds increased, Mute Swans also started breeding in Croatia. One pair bred in summer 1990 at Lake Ormož, Croatia (Lesinger 1994). It was the only breeding pair in Međimurje region until 1994, when another pair started breeding at an accumulation near Varaždin. The number increased to 14 in 1999 and 17 (of which 14 were successful) in 2000 (A. Lesinger *in litt.*). In 1991 a pair bred for the first time at Draganić fishponds in Pokupsko basin (Kralj *et al.* 1998). In 1999 the total number of breeding pairs at three fishponds in Pokupsko basin rose to 14 (K. Leskovar pers. com.). Numbers of breeding pairs and breeding localities are increasing. The breeding population was estimated at only 10 pairs in 1995, but rose to between 70 and 100 pairs by 2000. With highest numbers still in the northwest part of the country, it now breeds at many sites throughout lowland Croatia between river Drava on the north and rivers Kupa and Sava on the south. In the last few years it spread toward eastern Croatia, along the Drava River; in 1998 breeding was noted at Čambina near Repaš and around Kopački rit, at the mouth of the river Drava to Donau. Mute Swans in Croatia breed on bigger carp fishponds (which are highly productive, with extensive reed-beds and well-developed submerged and floating vegetation), oxbow lakes, marshes (also the small ones) and reservoirs with some reed-beds.

Of the swans ringed in Croatia as pulli, only two were subsequently reported breeding, both in the same area where the had hatched. The female was three years old on breeding, but the male was only two. This male bred also in the subsequent year at the same site.

Movements

From 1910 to 2000 a total of 674 Mute Swans were ringed, the majority of them in last few years: 69 birds in 1996, 159 in 1997, 157 in 1998, 134 in 1999 and 54 in 2000. Up to the end of 2000 a total of 618 recoveries were processed. Apart from recoveries from Croatia there were 129 recoveries from Hungary, 39 from Poland, 23 from Slovenia, 13 from Austria, 3 from the Czech Republic, 3 from Slovak Republic and one from Germany and Yugoslavia. In the same period, a number of Mute Swans ringed in other European countries were found in Croatia: 214 recoveries with Budapest rings, 36 with Gdansk, 6 with Praha, 5 with Ljubljana and one with Radolfzell and Hiddensee rings.

Of the 674 Mute Swans ringed in Croatia between 1991 and 2000, only 114 (17.17%) were ringed as pulli. All of them were ringed between 1996 and 1999. Forty one swans

were reported in a total of 87 recoveries. Thirty nine records (26 birds) were from the winter and 21 (14 birds) were from the moulting period. Most of the records from the moulting period (total 15 reports, 71.4%) were from the Varaždin lake. Only 6 birds were found in Hungary, on the Balaton lake area (Keszthely, Balatongyorok, Badacsony, Fonyod and Revfulop). Many winter sightings or recoveries were from Croatia (31 reports, 75.6%), but others were from Austria (1 bird at Neusiedler See and 1 in Steiermark), River Drava in Slovenia (3 birds), Gyekenyes in Hungary (1 bird) and Slubice (River Odra) in Poland (1 bird). Croatian swans were mostly resighted on Varaždin lake or its surroundings (24 reports), while others were from Šoderica gravel-pit near Koprivnica (about 40 km, direction 104° from the ring site). Swans resighted in Slovenia travelled similar distances, but in northwest direction (285°). The recovery from Poland represents the largest distance travelled by a swan from Croatia (678 km, direction: 349°). Apart from those observed in Slovenia all swans found far from their natal grounds were resighted in their second winter. Two of three birds resighted in Slovenia were in their first winter.

Discussion

Mute Swans from the Central European subpopulations have recently spread east and south, and established new breeding grounds. Wieloch (1991) named this group south-east European or west Ukrainian-Hungarian . In Hungary, Mute Swans started breeding in 1970 (Szinai 1998), having spread there from Austria. They have bred in NW Slovenia since 1981 (Bracko 1996) and in Croatia since 1990 Lesinger 1994).

The number of ringed swans has increased in the last few years. Most of ringing was carried out during the winter, when the swans were in large flocks, and readily approached by humans. It is therefore impossible to tell the origin of msto of these birds, as even resightings from the breeding period doesn t ensure that the birds were hatched in the same area. For example, a Mute Swan hatched on Varaždin lake and ringed on 10th August 1996 was found on 18th June 2000 at Mutenice fishpond, Slovakia, as a male in its fourth year.

Balaton lake is an important moulting site for Hungarian swans (Szinai 1998), but is of only minor importance for those from Croatia. The main moulting area for Croatian swans is the accumulations on the river Drava near Varaždin. It is important only for local populations, as there were no foreign recoveries from this area during the moulting period. Apart from this, there were many recoveries of foreign (especially Polish and Hungarian) Mute Swans during winter months in NW Croatia.

Some Croatian swans winter on their breeding grounds, but others move towards the north and east. Only one bird was found southeast of the breeding ground, near Sikirevci in Slavonia (distance: 210 km, direction 127°). Morever, among other (adult) swans ringed in Croatia, there is only one other example of extensive south/south-east movement, to Kolut, Vojvodina (YU).

The wintering grounds of Polish-ringed swans are west or northwest of the breeding grounds. Those from southern Poland wintered south-west or south of their breeding grounds, in Czech Republic, Slovakia, Austria, Hungary, Croatia and Slovenia (Wieloch and Remisiewicz 2001). It is possible that with the rapid increase in the breeding range, swans retained their original wintering grounds, thus wintering north of the present breeding grounds in Croatia. It is known that some swans winter at the same sites for several years while others change more readily (Wieloch 1990). Moreover, strong fidelity to the wintering grounds has been confirmed for Swedish, Lithuanian and some Polish swans (Wieloch and Remisiewicz 2001).

The most unusual movement was one of a Mute Swan with ring number UA 0727. Ringed on 12th August 1996 at Varaždin lake, it was resighted twice, both times in Slovakia: on 15th October 1998 at Piestani, Trnava (distance: 277 km, direction: 24°), and on 18th June 2000 at Mutenice fishpond, Hodonin (distance: 289 km, direction: 12°), where it was recorded as a male bird.

A breeding attempt by a two year old male is exceptional, as first breeding is commonest at age three (females) or even four years (males) (Cramp & Simmons 1978). However, age at the first breeding attempt is, on average, lower in expanding populations than in stable ones (Wieloch 1991). Wieloch (1991) noted an unsuccessful breeding attempt by a two-year old swan near Gdansk.

Unlike the mainly non-migratory western European swans, those from eastern Europe are mostly migratory or nomadic, but nevertheless tend to reduce the distance of movement or to become resident (Wieloch 1991, Wieloch & Remisiewicz 2001).

References

Bracko, F. (1996): Distribution of the Mute Swan *Cygus olor* in northeast Slovenia. (in Slovenian) *Acrocephalus* 17 (77): 113- 116.

Cramp, S. & K.E.L. Simmons (eds.) (1978): *The Birds of the Western Palearctic*. Vol 1. Oxford University Press. Oxford. pp. 372-379.

Ćiković, D., D. Radović (1999): Results of

bird ringing from 1993 till 1997 (31st report). (In Croatian) *Larus* 47:47-82.

Jurčević, I. (1988): Winter fauna and ecology of Anseriformes in Croatia. (in Croatian) MSc Theses. Zagreb University, 240 pp.

Kralj, J. (1997): Croatian ornithofauna in the last 200 years. (in Croatian) *Larus* 46: 1-112.

Kralj, J., D. Radović (1999): Recoveries of ringed birds from 1993 till 1997 (31st report). (In Croatian) *Larus* 47:83-123.

Kralj, J., D. Radović, V. Tutiš (1998): Numbers and seasonal activity of Anatidae at Draganic fishponds in northwest Croatia. *Vogelwelt* 119: 21-29.

Lesinger, A. (1994): The Swans in Medimurje area in Croatia (in Croatian). *Troglodytes* 7: 69-76.

Radović, D., J. Kralj, V. Tutiš, G. Sušić, Z. Pongrac (1993): Recoveries of ringed birds in 1991 and 1992. (In Croatian) *Larus* 44/45:13-32.

Scott, D.A. & P.M. Rose (1994): Atlas of Anatidae populations in Africa and western Eurasia. *Wetlands International Publication* 41, pp. 45-49.

Sziniai, P. 81998): Status of the Mute Swan *Cygnus olor* in 1997 in Hungary. *Aquila* 103-104: 9-16.

Wieloch, M. (1990): The wintering of the Mute Swan. *Baltic Birds* 5: 237-241.

Wieloch, M. (1991): Population trends of the Mute Swan *Cygnus olor* in the Palearctic. In: Sears, J. & J.P. Bacon (eds): *Proceedings of the Third IWRB International Swan Symposium*. Wildfowl Supplement No.1: 22-32.

Wieloch, M. & Remisiewicz, M. (2001): Changes in wintering area of the Polish population of the Mute Swan *Cygnus olor*. In: S. Svažaš, W. Meissner, V. Serebryakov, A. Kozulin and G. Grishanov (eds). *Changes of wintering sites of waterfowl in Central and Eastern Europe.* OMPO Special Publication. *Vilnius*. pp: 94-103.

Progress Reports

Neotropical Swan Census - Final Report 1999

Maria Susana Seijas (1)

During 1999, 42 volunteers from Argentina and Uruguay participated in the census, covering 49 sites across both countries. Useful information was obtained for both species of swans as below:

Black-necked Swan *Cygnus melancoryphus*

¥Total number of swans counted: 2,353.

¥Largest concentrations of swans: 1,000 (Barra Laguna Rocha, Uruguay) and 600 (Laguna La Salada Grande, Argentina)

¥Dead swans: 13. Causes: 4: possible botulism; 8: strong winds; 1: weakness.

Reproduction was registered for June and December.

Coscoroba Swan *Coscoroba coscoroba*

¥Total number of swans counted: 1,489

¥Large concentrations of swans: none. Dead swans: 13. Causes 12 - shot; 1 - attacked by dogs.

Reproduction was registered for June, November and December

To obtain a complete report write to: Censo Neotropical de Cisnes (1), Casilla de Correo 1220, (8400) S.C de Bariloche, Pcia. De Rio Negro, Argentina.

E-mail: atenea@bariloche.com.ar

The Trumpeter Swan Migration Project

In the March 2001 edition of the Trumpeter Swan Society Newsletter Trumpetings , the Trumpeter Swan migration project of Environmental Studies at Airlie (ESA), Virginia, requested the public to help monitor ringed Trumpeter Swans migrating north from Maryland s Chesapeake Bay. Last October, ESA biologists trained a group of 14 young swans to follow ultralight aircraft at a New York Department of Environmental Conservation facility north of Batavia, New York. These swans were then shown a predetermined migration route from western New York through Pennsylvania to Chesapeake Bay. The swans arrived at their wintering destination at the Wildfowl Trust of North America in Grasonville, Maryland on 18th January 2001.

The swans are marked with yellow collars fitted with radio transmitters. Although the birds will be followed using aerial telemetry, members of the public sighting these birds were asked to contact the project organisers.

Updates of the project may be viewed at the project website, on www.trumpeterswans.org

The Effect of Foot and Mouth Disease on Swan studies in the U.K.

U.K. Swan Study Group.

In February 2000 the first case of Foot and Mouth Disease was confirmed in livestock on a farm in northeast England. The spread of

the disease necessitated restricting access to large areas of the countryside, which resulted in many swan study organisers failing to achieve the same degree of comprehensive monitoring obtained in previous years. Ringing in most areas was restricted to urban flocks resulting in lower ringing totals. In some areas aerial surveys were arranged in an attempt to provide data on breeding productivity but since a large number of pairs nest on narrow rivers and streams, large stretches of which were obscured by overhanging vegetation, this proved to be ineffective.

Access restrictions also resulted in the suspension of all surveys by the major ornithological organisations.

One of the casualties of such a decision was the National Census of the Mute Swan Population in Great Britain scheduled for the spring of 2001. In addition to determining the size of the population and identifying the breeding and non breeding components, the census would have enabled an assessment of the recovery from lead poisoning, the effect of mild winters and improved water quality, and whether there has been an expansion into new areas or habitats as a consequence. The census would also have provided data by which to measure potential and actual increases in conflict between swans and agriculture and fishery interests - one of the recommendations also made at the International Symposium.

The census was rescheduled for Spring 2002, and analyses are underway. Results will be published in a report to JNCC, and also submitted for publication elsewhere, in 2004.

Arctic Birds - an international breeding condition survey. Newsletter No. 2. (2000) and Newsletter No 3 (2001).

Project co-ordinators:

Mikhail Soloviev
Dept of Vertebrate Zoology,
Biological Faculty,
Moscow State University,
Moscow 119899, Russia.
E-mail: soloviev@soil.msu.ru

Pavel Tomkovich
Zoological Museum,
Moscow State University
B.Nikitskaya St., 6,
Moscow 103009, Russia.
E-mail: tomkovic@l.zoomus.bio.msu.ru

Newsletters are distributed among contributors to the database. Others may request it from the Project Co-ordinators - free of charge.

For the lastest information about the survey visit the website http://www.arcticbirds.ru

Swan Manual for U.K. Mute Swan Ringers

U.K. Swan Study Group

In 1999 the organisers of Mute Swan studies in the United Kingdom met to discuss the possibility of producing a code of practice for U.K. swan ringers. What started as an Aide Memoire based on the skills and experiences of the participants, quickly developed into a major work.

The manual encompasses:

a) Colour ringing - providing details of U.K. colour ringing schemes

b) Ring fitting - both metal and Darvic rings

c) Manufacture of Darvic rings

d) Catching techniques - including moulting herds and broods

e) Keeping, handling and releasing - including use of swan jackets for cygnets, pen construction for moult catches etc.

f) Ageing and sexing - details of plumage characters and cloacal sexing.

g) Measuring and weighing - details of taking specific essential biometric measures.

h) Health and safety matters.

i) Public relations issues.

The Manual is in its final stages of preparation and is to be published by the British Trust for Ornithology in the near future.

The Trumpeter Swan Restoration Programme in Ontario 2000

(Based on information supplied by Harry Lumsden)

Production of cygnets in the wild is still not high enough to offset high mortality when they reach breeding age at 3-4 years. At this age pair bonds are consolidated and birds move out from familiar surroundings to find secluded nesting marshes. Such areas are often contaminated with lead shot from hunting. Swans eat the lead pellets they find in the mud and die from lead poisoning - the largest single cause of death in adult swans. Losses peak in March, April and May.

In the year 2000, captive pairs laid 136 eggs of which 63% hatched - well above the long-term average (1987-2000) of 54%. Fifty two of the cygnets survived to the first of September - well below the long term average of 70%, and may have been due to unusually heavy losses from predators. The cygnets have been moved to holding pens where they will be cared for until they are nearly two years old before release.

In Southern Ontario at least 18 pairs of wild Trumpeter Swans nested in 2000. The clutch size of many of the wild pairs is not known but six pairs are known to have laid a total of 43 eggs. Fourteen pairs were successful producing a total of 42 cygnets. Little breeding success was reported from eastern Ontario and the Kenora District.

The total number of wild Trumpeter Swans between Lake Huron and Lake Ontario was estimated as 303, based on the following information:

¥Estimated swans alive 01.09.99 - 252.

¥Cygnets produced in the wild - 42

¥Releases and escapes of captive swans - 45.

¥Swans recorded dead or missing (Swans not reported for over a year are counted as dead) - 36.

Bulletin No 3 of the Polish Swan Study Group

Maria Wieloch
Polish Academy of Sciences,
Institute of Ecology,
Gdansk Ornithological Station,
Nadwislanska 108,
80-680 Gdansk 40, Poland

The third edition of the Polish Swan Study Group Bulletin was published in September 1999. Papers and articles included are listed below. For further information contact Maria Wieloch at the above address.

¥ Spring migration of the Mute swan in the Ner river valley.

¥ Preliminary results of the census of breeding Mute Swans in Poland.

¥ Changes in the numbers of Mute Swans in Zamosc region in years 1976-1997.

¥ The Mute Swans in the Notec river valley between Rosnowa and Rosko.

¥ Study of Mute Swans on the Przygodzice Ponds and surrounding areas in 1998.

¥ Ringing of Mute Swans on the Mazury.

¥ A strange accident with a dog at a Mute Swan nest.

¥ The wintering of Mute Swans on the Gdansk Bay in seasons 1987/88 - 1996/97.

¥ Occurrence of swans in the Ustka area in 1993-1998.

¥ Changes in Mute Swan numbers in Kolobrzeg in 1998.

¥ The Mute Swan wintering in the Przechlewo commune - January 1999.

¥ The Mute Swan wintering in Bydgoszcz in 1998/1999.

¥ Mute Swans wintering on the Warta river, between Dobrowo and Rumin, in 1997/1998.

¥ Mute Swans wintering in Kolo in 1998.

¥The swans wintering in the Nadwarcianski Landscape Park.

¥ Mute Swans wintering in Kalisz in the 1998/1999 season.

¥ The swans in Krakow (May 1997-June 1998).

¥ New breeding site for Whooper Swans in North Podlaise Lowland.

¥ First observations of Bewick s Swans in Southern Wielkopolska.

¥ Autumn migration of Bewick s Swans in the heated lakes area near Konin in 1998.

¥ Second brood of the Mute Swan.

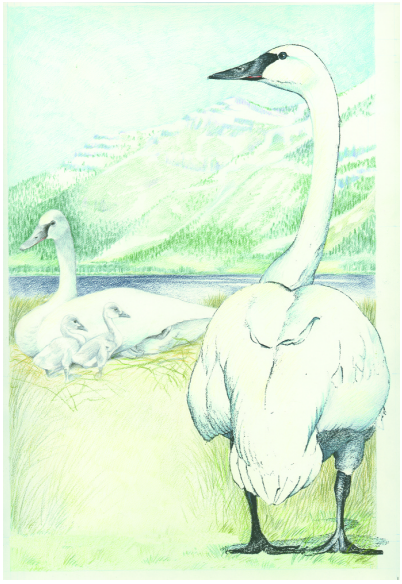
¥ The Bewick s Swan: a new breeding species in Lithuania.

¥ Is the Mute Swan knob an indicator of condition and parasite levels?.

¥ What about swans in Hungary ?

¥ The marking of swans in Germany.

¥ The Black Swan in Poland.



Announcements

Award to Harry Lumsden

We are delighted to report that Harry Lumsden has been appointed to the Order of Canada, the country s highest honour, for a life-time s achievement in wildlife research and conservation. Many readers will be aware that this includes his innovative work on re-introducing Trumpeter Swans to Ontario, which aims to ensure that the species does not again approach extinction. The announcement was made by Her Excellency the Right Honourable Adrienne Clarkson, Governor General of Canada, in January 2004. We congratulate Harry most heartily on this deserved award.

There are two websites documenting some of the results of a satellite telemetry study on the Eastern Population of Tundra Swans in the U.S. They are:
http://www.dnr.cornell.edu/research/tundraswans/tswan.html
and
http://sites.state.pa.us/PA_Exec/PGC/swan/index.htm.

North American Swans 30(1) was printed in December 2001. It contains the following articles:

¥ Remembering Ron Mackay.

¥ A single swan can make a difference.

¥ History of the High Plans Trumpeter Swan restoration.

¥ Eastern population of tundra swans: population status, survival, and movements.

¥ A survey of Trumpeter Swans in the Kenora district of Ontario.

¥ North Dakota Trumpeter Swan observations.

¥ 2000 survey of Trumpeter Swans in Alberta, Saskatchewan, Manitoba and the Northwest Territories.

¥ Status report on the High Plains flock for 2000.

¥ 2001 Midwinter survey: Rocky Mountain population of Trumpeter Swans.

¥ 2000 Midwinter survey: Rocky Mountain population of Trumpeter Swans.

¥ Trumpeter Swan surveys on the Chugach National Forest 2000: an update.

For more information contact the Trumpeter Swan Society, 3800 County Road, 24, Maple Plain, MN 55359, USA; telephone 763-476-4663;

Email: ttss@hennepinparks. org.

Selected Papers of the 19th Trumpeter Swan Society Conference

February 5-8, 2003

The 19th Conference of The Trumpeter Swan Society was held in Richmond, British Columbia, Canada on February 5-8, 2003. Richmond is near important wintering areas for all three swan species, and near U.S.-Canadian border habitats where over 1,350 Trumpeter Swans have died from lead poisoning since 1999. This very serious problem, which threatens the continued growth of the Pacific Coast Population of the Trumpter Swans, prompted the Conference to be held in this location. Conference papers addressed the lead-poisoning crisis. Others described recent research, management issues, population and habitat conservation efforts, and the population status of Trumpeter Swans and Tundra Swans in North America. The biology and management of Mute Swans, as these topics relate to conservation of the native North American swan species, was also included.

The Conference papers will be published in North American Swans, the journal of The Trumpeter Swan Society, in May 2004 and can be purchased for US$20 To purchase this special edition of North American Swans, or to join TTSS, contact The Trumpeter Swan Society, 3800 County Road 24, Maple Plain, MN, USA 55359. Phone 763-694-7851, email mlinck@threeriversparkdistrict.org or ruthshea@srv.net

Submitted by Ruth Shea, Executive Director, The Trumpeter Swan Society

Recent Swan Publications

Corti, P and R.P.Schlatter. 2002. Feeding ecology of Black-necked Swan in wetlands of southern Chile. *Studies of Neotropical Fauna and Environment* 37 (1): 9-14.

Eerden, M.R. van (Ed). Pechora Delta. *Structure and dynamics of the Pechora Delta ecosystems (1995-1999)*. RIZA report nr.2000.037. RIZA Institute for Inland Water Management, Lelystad, The Netherlands.

Engelhardt, K.A.M. 1997. Evaluation of translocation criteria for trumpeter swans reintroduced into Northern Utah: habitat quality and interactions with tundra swans. M.Sc. Thesis, Utah State University, Logan, UT

Engelhardt, K.A.M., J.A. Kadlec, V.L. Roy and J.A. Powell. 2000. Evaluation of translocation criteria: a case study with Trumpeter Swans *Cygnus buccinator*. *Biological Conservation* 94: 173 - 181.

Powell, J.A., and K.A.Engelhardt. 2000. Optimal trajectories for the short distance foraging flights of swans. *Journal of Theoretical Biology* 201: 415 - 430. For contact: http://www.math.usu.edu/~powell

Quintana, R.D., V.Cirelli and J.L.orgeira. 2000. Abundance and spatial distribution of bird populations at Cierva Point, Antarctic peninsula. *Marine Ornithology* 28 (1): 21 - 27

Rees, E.C., and J.M. Bowler. 2002. Bewick s Swan *Cygnus columbianus*. In: BTO (Eds.) *The Migration Atlas: movements of the birds of Britain and Ireland.* T & AD Poyser, London.

Rees, E.C., Colhoun, K., Einarsson, O., McElwaine, G., Peterson, A.E. and S. Thorstensen. 2002. Whooper Swan *Cygnus cygnus*. In: BTO (Eds.) T*he Migration Atlas: movements of the birds of Britain and Ireland*. T & AD Poyser, London.

Spray, C., Coleman, B. and J. Coleman. 2002. Mute Swan *Cygnus olor*. In: BTO (Eds.) *The Migration Atlas: movements of the birds of Britain and Ireland*. T & AD Poyser, London.

Appendix

New members...welcome!

USA:

Name: Khristi Wilkins, 11500 American Holly Dr., Laurel, MD 20708-4016 Graduate student, working on the dynamics and management of tundra swans, including changing winter distribution of Eastern Tundra Swan population and techniques to estimate survival rates. Satellite and VHF radios have been attached to swans in two field seasons. Web site with tundra swans satellite locations can be found at: http://www.dnr.cornell.edu/research/tundraswan/tswan.html

Name: James T. Anderson, Assistant Professor, West Virginia University Division of Forestry, Wildlife and Fisheries Resource Program, 322 Percival Hall, P.O. Box 6125, Morgantown, Wv 26506 - 6125.
Email: jander25@wvu.edu; Fax (304) 293 - 2441