UNEP/CMS/Inf.10.39
CMS

CONVENTION ON MIGRATORY SPECIES

Distribution: General

UNEP/CMS/ScC17/Inf.18
26 October 2011

Original: English

17TH MEETING OF THE
SCIENTIFIC COUNCIL
Bergen, 17-18 November 2011
Agenda Item 11.1

MIGRATORY LANDBIRDS IN THE AFRICAN-EURASIAN REGION

(Document submitted by BirdLife International)

This document highlights the urgent conservation need for cooperative CMS action on African-Eurasian Landbirds

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Background

Trans-Saharan migratory landbirds are suffering particularly severe declines

Evidence suggests that populations of long-distance trans-Saharan migratory landbirds in the African-Eurasia flyway have declined in many European countries in recent decades (Table 1), often to a greater degree than resident or short-distance migrants.

Table 1: The common long-distance, trans-Saharan migrants with the most severe long-term (1980-2009) pan-European population declines according to robust data from the European Bird Census Council Pan-European Common Bird Monitoring Scheme gathered across 25 countries. Species are ordered by the level of their trends.

Species	CMS Appendix	European trend
European Turtle Dove	II	-69
Whinchat	II	-67
Northern Wheatear	II	-66
Common Nightingale	II	-63
Tree Pipit		-54
Yellow Wagtail		-53
Icterine Warbler	II	-50
Eurasian Wryneck		-49
Spotted Flycatcher	II	-43
Grasshopper Warbler	II	-39
Willow Warbler	II	-33
Wood Warbler	II	-33
Garden Warbler	II	-25
Pied Flycatcher	II	-21
Common Cuckoo		-21
Barn Swallow		-18
House Martin		-18
Sedge Warbler	II	-12
Reed Warbler	II	-7

Threats throughout the annual cycle

As migratory bird populations may be affected by threats on the breeding grounds, the wintering grounds and stopover sites in between, they are vulnerable to the effects of environmental change on a particularly wide geographical scale making ascertaining the causes of their population changes particularly challenging. Potential drivers of population declines are diverse and are spread across the migratory cycle.

The available information for long-distance migrant landbirds in the African-Eurasia flyway is biased towards conditions on the European breeding grounds, making it difficult to form robust conclusions

regarding the relative importance of factors operating in different periods of the migratory cycle. Furthermore, the relative influence of conditions during different periods is liable to vary according to particular populations, species and periods, and hence also the consequential impact of effects that may be carried-over from one period to the next.

Threats on the breeding grounds

A recent RSPB review (Ewing 2008[1]) found that factors operating on the breeding grounds are important for a number of long-distance migrants. Loss and degradation of breeding habitat appears to represent a particularly widespread threat, but phenological mismatch due to climate change, declines in food availability and predation, also play a role in some species.

Threats on the non-breeding grounds

The review also uncovered persuasive evidence for factors operating on the non-breeding grounds, the most compelling of which links climatic conditions in the Sahel zone of Africa with the population change (through impacts on adult survival and breeding success) of both wintering and passage migrants.

However, although early declines in the 1970s and 1980s were of species associated with arid Sahelian and Sudan savannah habitats, more recent declines have been associated with the more humid Guinea savannah and forest zones further south. This is of particular concern as increasing human population pressure and allied rapid land use change are both likely to result in previously sustainable agricultural practices becoming drivers of land degradation and causing reductions in biodiversity. Moreover, since for much of the year migrant birds are an integral part of tropical bird communities, it is probable that any causal factors operating in the wintering or staging grounds may also be impacting upon populations of Afro-tropical species in a similar, but as yet unquantified, way.

Research needs in Africa

Information on migration routes, migratory strategies, important staging areas, broad wintering zones and the stage-specific resource and habitat requirements of migratory landbirds in Africa is scarce and currently biased towards the arid zones immediately south of the Sahara. Such information is, however, necessary to facilitate assessments of the consequences of environmental changes and development of solutions. Movements of migrant landbirds between the different bioclimatic zones along the latitudinal gradient from desert to tropical forest have only been documented anecdotally, primarily due to a lack of co-ordinated wide-scale surveys.

Changes in the distribution and condition (due to direct and indirect anthropogenic factors) of both staging and wintering habitats in Africa may limit the availability of high-quality resource-rich habitat and consequently lead to a progressive extension of ecological barriers to be crossed by birds during return migration, with ensuing negative effects on the physical breeding condition of birds of many species of long-distance migratory landbird (Pilastro & Spina, 1997[2]). Further research is urgently needed to better document bird/habitat relationships during crucial phases of the wintering period spent in Africa, such as moult and pre-migratory fattening.

Historical changes in the winter distribution of long-distance migrants in Africa as a reaction to climate change (as recently documented in the case of the Barn Swallow *Hirundo rustica*, Ambrosini *et al*, Climate Research, *in press*[3]) may cause birds to winter in suboptimal habitats, with potentially seriously detrimental consequences on subsequent breeding condition and survival, contributing to population declines. A better knowledge of the extent of such indirect consequences of climate change on migratory landbirds is urgently needed.

[1] Ewing, S.R., 2008 - A review of the population trends of Afro-Palearctic migrants and some potential factors contributing to these declines. RSPB Research Report no.31, RSPB, Sandy, UK.

[2] Pilastro A., Spina F., 1997 - Ecological, geographical and morphological correlates of residual fat reserves in spring passerine migrants at their arrival in southern Europe. *J. Avian Biology*, 28: 309-318.

[3] Ambrosini R, Ruolini D., Pape Moller A., Bani L., Clark J., Karcza Z., Vangeluwe D., du Feu C., Spina F., Saino N., 2011 - Climate change and the long-term northward shift in the African wintering range of barn swallows *Hirundo rustica. Climate Research, in press.*

Need for sustainable management at flyway scale

Effective and sustainable management of key habitats in the wider landscape, and coordinated planning and management along migration flyways as a whole, are vital for effective conservation of migratory bird populations. Working across borders and major vegetation zones along the African-Eurasian flyway will facilitate development of an ecosystem-scale conservation framework and build sufficient capacity that will enable a sustainable basis for future conservation initiatives for migrant birds.

This needs to be underpinned by an understanding of current and likely future land use and use of habitats by birds, distributions and key threats within each major vegetation zone, supported by comprehensive databases and trained personnel to increase the capacity to use such information.

There is an urgent need for an overarching perspective of the ecology of long-distance migrant landbirds in the African-Eurasia flyway that incorporates an understanding of factors on the breeding, wintering and staging grounds, and of the interactions across these stages. We need to draw on existing long-term and large-scale datasets for birds, land use and climate at national and international scales to increase our knowledge and gain a better understanding of species- and population-specific flyways linking Eurasia and Africa, conduct detailed autecological studies at local scales, take advantage of the emerging high technology tracking devices, and build basic scientific capacity and research expertise on the wintering and staging areas of these birds in Africa (see Annex B1 for details of suggested priority initiatives).

Recommendation

We strongly recommend to the Scientific Council of the Convention on Migratory Species to support the adoption by the CMS 10th Conference of the Parties of the Resolution 10.27 submitted by Ghana, calling for the implementation of an African-Eurasia Migratory Landbird Action Plan (AEMLAP) as an initiative aimed at tackling such complex conservation issues and to encourage all Parties to work together to promote land use policies and practices that provide ecosystem services for people and benefit migrant landbirds that share the habitats. This is in line with the Declaration from the British Ornithologists' Union Annual Conference Migratory Birds: Ecology and Conservation 5-7 April 2011 (see Annex A).

ANNEX A

Declaration to the
Tenth Conference of the Parties to the Convention on Migratory Species
20-25 November 2011, Bergen, Norway
from the British Ornithologists' Union Annual Conference
Migratory Birds: Ecology and Conservation
University of Leicester, United Kingdom, 5-7 April 2011

Preamble
The 2011 British Ornithologists' Union Annual Conference on Migratory Birds: Ecology and Conservation 5-7 April 2011 was attended by 137 ornithologists from more than 27 countries (and six continents).

Particular attention was drawn by the conference to the plight of African-Eurasian migrant landbirds:

- Noting that many of these species – especially the trans-Saharan migrants - have undergone precipitous declines in the three decades since CMS came into force in 1979

- Aware that the 2011 CMS Flyway Working Group *Proposals for policy options for migratory bird flyways conservation/management - to feed in to the Future Shape of the Convention on Migratory Species* concluded that that there is an urgent need for development of intergovernmental conservation provision for long-distance migrant landbirds, especially those that spend the non-breeding season in sub-Saharan Africa

- Recalling that the report of the 9th CMS COP drew attention to the fact that individual species groups, such as trans-Saharan migrant birds, may be a suitable indicator for assessing the impact of climate change on a number of migratory species

- Conscious of the existing instruments for the conservation of migrant birds under the CMS in the African-Eurasian flyway, namely the African Eurasian Waterbird Agreement and the Memorandum of Understanding on the Conservation of Migratory Birds of Prey in Africa and Eurasia.

The participants of the BOU conference gathered in Leicester…
Urge the 10th meeting of the Conference of Parties to the Convention on Migratory Species to adopt a recommendation to:

- **develop a flyway action plan for the conservation of African-Eurasian migrant landbirds for adoption at the 11th Conference of the Parties in 2014, including to encompass the relevant research and conservation priorities identified by the 2011 Annual BOU Conference as itemized in Annex B1 to this declaration.**

- **to commission, in parallel to the production of the action plan, research to determine which international, national and local institutions influence relevant land use policy and practice in the sub-Saharan countries on which most declining long distance land bird migrants depend during the non-breeding period.**

The action plan should address in particular: the drivers of the causes of habitat loss and transformation in the African non-breeding areas; unsustainable hunting of migrating birds, especially in the Mediterranean; protection of key staging sites; and habitat loss and transformation in the Eurasian breeding grounds.

Annex B1

1. Research priorities

1.1 Identifying the precise population-specific wintering and staging areas of African-Eurasian migrant landbirds

- Analyse existing data on distribution of African-Eurasia migrant landbirds at all stages of their annual cycle, including through the compilation and regular updating of an Africa-Eurasia migration atlas;
- Ensure strategically designed surveys of bird distribution and abundance;
- Develop and support standardized long-term bird population monitoring schemes along the flyway of African-Eurasian migrant birds;
- Use emerging high technology tracking devices to improve knowledge of migration strategies of different African-Eurasian migrant landbirds, including the identification of key staging areas and stop-over sites;
- Increase understanding of migratory connectivity to allow improved assessment of the future role of migratory species in the spread of avian born emerging infectious diseases;
- Use emerging technologies and methods to improve knowledge of wintering zones of different populations of African-Eurasian migrant landbirds.

1.2 Understand the habitat requirements of, and threats to, African-Eurasian migrants during all stages of their life cycle

- Examine the habitat requirements of African-Eurasian migrant birds in their non-breeding and staging areas and the effects of land-use change on this;
- Analyse existing long-term and large-scale data relating to African-Eurasian migrant landbirds at all stages of their annual cycle, in order to improve our knowledge of habitat use and energetic requirements especially during migration and wintering;
- Examine variation in seasonal survival;
- Examine choices and consequences for individuals during migration;
- Examine and understand spatial and functional connectivity and carry-over effects throughout the annual cycles of African-Eurasian migrant landbirds;
- Use existing climate change models to identify the consequences of future global climate change on long-distance migratory landbirds, particularly in relation to species- and population specific variation in migratory routes, use of staging areas and stopover sites and/or spatial and temporal distribution in wintering zones;
- Examine the effects of climate change on breeding productivity, including developing an understanding of the functional influence of climate change on African-Eurasian migrant birds and the potential consequences of future change.

1.3 Identify the socio-economic and other factors driving land use and land-cover change along the African-Eurasian flyway

- Establish multidisciplinary research teams, spanning the natural and social sciences, to improve understanding of human and bird resource use and needs;
- Examine the pattern of land-cover change in sub-Saharan Africa;
- Identify the mechanisms driving the main declines and regional variation in bird population trends;

- Identify land use practices relating to food and water security, livelihoods, and measures to combat desertification and climate change that would provide benefits to both migrant landbirds and people;
- Identify ways of implementing suitable land management practices by linking habitat requirements of migrant landbirds to the social and economic processes that are driving land cover change;
- Identify ecosystem services provided by migrant landbirds.

2. Conservation priorities: non-breeding areas

- Develop stronger international scale prioritisation and action for species and site conservation, including an African-Eurasian Migratory Landbird Action Plan (AEMLAP) under CMS which will, among other things, provide a framework for coordinated, targeted research to tackle key conservation questions;
- Commence habitat and ecosystem restoration in the non-breeding and staging areas of African-Eurasian land-birds, especially in sub-Saharan Africa;
- Strengthen local action along the African-Eurasian flyway, particularly with respect to education;
- Develop sustainable and adaptive management practices of natural resources that provide benefits to both birds and people;
- Ensure effective protection of key migration areas, especially to meet needs of species throughout the annual cycle;
- Ensure the conservation and restoration of remaining areas of tropical forest, grassland and scrub habitats, especially in sub-Saharan Africa;
- Build capacity within all countries within the flyway to ensure effective implementation of a flyway action plan for the conservation of African-Eurasian migrant landbirds.