



Convention on the
Conservation of
Migratory Species of
Wild Animals



Agreement on the
Conservation of
African-Eurasian
Migratory
Waterbirds (AEWA)



MIGRATORY BIRDS SEVERELY IMPACTED BY CLIMATE CHANGE

United Nations specialized bodies warn that climate change is serious threat for birds, and start public awareness campaign to inform about risks and impacts.

Bonn, 7 May 2007: "Birds in a changing climate" is this year's theme for **World Migratory Bird Day**, an international public awareness event focusing every year on a different threat or obstacle to the movement and survival of avian species. The initiative promoted by the African Eurasian Migratory Waterbirds Agreement (AEWA) and the Convention on Migratory Species (CMS), two UNEP-led Treaties for the conservation of wildlife.

The decision to devote this year's campaign to the impacts of climate change on birds followed a recent report by CMS highlighting that 84 % of the species listed by the Convention have the potential to be affected by climate change from changes in water regimes, such as lowered water tables, mismatch in food supplies; rise in sea levels; changes in prey range and increased storm frequency.

Climatic changes such as increased global mean surface temperature, alteration of regional rainfall patterns, droughts, storms and sea level surges are occurring more frequently. Animals, ecosystems, birds, economic systems and people are affected. "Migratory birds are particularly vulnerable because of their use of several habitats during migration as stopover sites for feeding, resting or to sit out bad weather." said Mr. Bert Lenten, Executive Secretary of the AEWA Agreement and initiator of the WMBD campaign.

The habitats that migratory birds depend on are in danger of changing or disappearing due to increasing desertification, flooding and rising temperatures. Climate-induced changes in habitats are predicted to be greatest in the Arctic where many of the species migrate. However there are limited options for range shifts, due to inadequate availability of land at high latitudes and altitudes

Adverse climate change has led to alterations in location, timing and length of migration routes as well. A lot of migratory birds migrate earlier, change their routes or in extreme cases abandon migration all together. "Examples include Cranes which normally migrate to Spain and Portugal but now stay in Germany. However as they are not used to low temperatures, there is a danger that most of them would not survive a hard winter in Germany" added Mr. Lenten.

Mr. Hepworth, Executive Secretary of CMS stressed that adaptation and mitigation measures are needed to ensure that migratory birds cope better with a changing climate. " We can certainly continue to gather evidence, but the message of this year's World Migratory Bird Day is that we need to act faster!" he said. "In order to combat the extra threat of climate change, we need to protect or create more habitats for migratory birds and other animals, including ponds and other wetland sites to help waders and other waterbirds complete their exhausting journeys in even more difficult climatic conditions.

The Deputy Executive Secretary of CMS, Mr Lahcen el Kabiri, briefly addressed the opening session of the 26th Session of the UNFCCC Subsidiary Body for Implementation today. During his speech he announced a new initiative, led by the UK and the United Arab Emirates to negotiate a CMS Agreement for African and Eurasian birds of prey for which climate change is one of several threats.

Notes and examples:

Lowered water tables will reduce habitat availability for species like the Baikal Teal (*Anas Formosa*) and reduce food for terrestrial species that forage in such areas such as Chestnut Seedeater (*Sporophila cinnamomea*). (WMBD, 2007)

Rise in sea level will reduce habitat availability of species that nest or forage in low-lying coastal areas. This may be particularly problematic for migratory species as many important stopover areas are in such habitats and often in limited number of isolated areas. Species that could be affected include Spoon-billed Sandpiper (*Eurynorhynchus pygmeus*) and waterfowl such as Lesser White-fronted Goose (*Anser erythropus*). (Defra, 2005)

Maintaining stopover sites is especially important for migratory birds as they use them to rest and feed during their journeys. Therefore, habitat loss may compromise migrants' ability to complete their migratory journeys. (Robinson *et al*, 2006)

The timing of migration is changing as well. The results of several studies investigated show that as the temperatures becomes warmer, migrant species in temperate latitudes, such as the Pied Flycatcher (*Ficedula hypoleuca*) arrive on their breeding grounds earlier than expected. The timing of arrival on breeding grounds is important especially as it has to be synchronized with availability of prey. (Robinson *et al*, 2006)

The forecast increased drought is also likely to extent the width of the deserts which will present significant barriers to migratory birds. This will especially affect the ability of Afro-European migrants to fatten sufficiently prior to crossing the desert. (Defra, 2005)

The nesting zones have also been affected by climate change. Increased storm frequency is likely to affect the productivity of species nesting in low lying coastal regions, particularly on tropical islands, while a shift in vegetation zones affects many bird species that nest and winter in such habitats. (Defra, 2005)

Habitats rich in food supply are also necessary to maintain the populations and reproduction of species. Migratory birds often require highly productive areas in which to fatten prior to migration and when this fails, disastrous declines can take decades to recover. An example is the Sahel drought in 1968-69 that led to a massive decline (ca. 80%) in Whitethroat Warblers not returning to the UK and their numbers are still only 25% of their former abundance. (Crick, 2006)

In North Scotland, internationally important populations of sea birds have suffered massive breeding failures which appear to be due to warmer waters leading to a loss of plankton and thus the fish that they feed on. (Crick, 2006)

Climate change will impact on the species of prey just as they impact on the birds themselves severely impacting on the populations of many species. Early spring might lead to a shift in the prey (insect hatching) or a shift in vegetation bloom. Unfortunately these shifts are not in line and may occur before the young birds hatch. As a result the birds may not provide enough food for their offspring. (Defra, 2005)

The changes in relative timing of caterpillar food supplies for woodland birds, such as Pied Flycatcher (*Ficedula hypoleuca*) in Europe, are already having impacts on the reproduction success of these species who are not able not able to adjust their timing in synchrony (phenological dysfunction). (Crick, 2006)

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