动物学报 52(Supplement): 53–54, 2006
Acta Zoologica Sinica

RTD16 Shorebird conservation in the East Asian-Australasian flyway: time is running out

convener: Philip J. STRAW
Avifauna Research Services, P.O. Box 2006, Rockdale Delivery Centre, NSW 2216, Australia; pstraw@optusnet.com.au

1 Issues

Wetlands International-Oceania presented an overview of threats in the East Asian-Australasian flyway (EAAF). Each year millions of shorebirds (waders) migrate along the flyway between breeding grounds in arctic east Russia, Alaska and northern China to overwintering grounds in southern Asia and Australasia. The birds need to stop at various staging areas en route to feed in order to replace body reserves before continuing their migration. At August 2002 the East Asian-Australasian Shorebird Site Network had 31 monitoring sites along the EAAF, with the aim of establishing 100 by 2005. The Network, an international cooperative program rather than a politico-legal project, provides the key data-gathering framework for shorebird conservation on the flyway. The ensuing discussion addressed some of the survival problems facing shorebirds within the EAAF, as well as management and conservation issues.

2 Outcomes

2.1 Threats

It was felt that the biggest threat to shorebird conservation in the EAAF was the continuing loss of foraging habitat in staging areas, especially the intertidal mud-flats along the shores of the Yellow Sea. These mud-flats are the largest staging area in the flyway and the furthest north that the birds can feed before reaching icebound breeding grounds; large proportions of shorebirds rely on them, including most of the world's population of great knots (*Calidris tenuirostris*). In China, 37% of intertidal habitat has been lost since 1950 and there are plans for reclaiming a further 45%. In South Korea, 43% of the intertidal feeding area has been lost since the early 1900s and there are plans to reclaim a further 37%. Jeong-yeon Yi from South Korea highlighted the situation at Saemangum where 400 km^2 is being reclaimed, largely for agriculture. This area alone has been identified as internationally important for 17 species of shorebirds and up to 50% of the world's great knots.

Other threats from human interference were considered secondary. Nevertheless, their collective impact, from product harvesting (e.g. shellfish and crustacea) to water extraction and hunting, was still considerable.

2.2 Management and conservation

To be effective, conservation must be initiated at national levels and then followed up by contact at local levels, particularly in China. Governments and the public need to be made aware of the issues relating to the loss of important habitat and the threat to many species of birds, some facing extinction. Management needs to include national biodiversity plans and coastal protection policies. Although there are some bilateral agreements between countries in the Flyway, the need for comprehensive multilateral international agreements between countries has become pressing.

Bringing international attention to bear is useful. In China, international opinion counts as long as it is handled with tact and sensitivity. In Taiwan, where international attention has focused on the endangered black-faced spoonbill, political leaders have received international communications almost every day. In Japan, international attention has been sought in a number of instances when important shorebird sites were threatened. There have been some notable successes, although Japan is still forging ahead with reclamation of intertidal mud-flats at some localities.

2.3 Establishment of compensatory wetlands

Re-establishing lost or replacement wetlands may take many years to achieve. In the UK, intertidal mud-flats have been created within 5 years but they may take 20 years or more to develop a foraging structure comparable with "natural" sites. The principle of "no net loss mitigation" needs to be practised by creating new habitat *before* original habitat is lost.

2.4 Information needs

Improved networking between researchers is vital to facilitate sharing of data; such information can be disseminated via media such as "The Tattler" (newsletter for the Flyway). Research along the flyway as a whole appears to be low. While there has been good work in Russia over many years, this is now becoming more difficult because only 20% of the former environmental agency still exists. At

Topai University in Taiwan, one or two out of every three masters students in the biological sciences usually work on shorebirds.

2.5 Endangered species

In 2002, Evgeni Syroechkovski identified a dramatic decline (60%) in the population of spoon-billed sandpipers (*Eurynorhynchus pygmaeus*) at study sites that had been monitored over 17 years. The sandpiper has a very limited breeding range associated with lagoons in far eastern Siberia. The recent publication of the Asian Red Data Book placed the world population at about 5 000 pairs, but this appears to be overly optimistic, Syroechkovski suggesting that the population is closer to a maximum of 1 000 pairs, and probably between 500 and 800. Urgent action is needed to prevent further loss and possible extinction. For this, better knowledge of feeding ecology outside breeding grounds is essential, together with clarification of migration routes, staging areas and overwintering grounds.

2.6 Next steps

There is a need for international networking between shorebird researchers, conservationists and government agencies. Critical issues such as the plight of the spoon-billed sandpiper and Nordmann's greenshank would benefit from attention from an international taskforce.

Obtaining international recognition of sites of international importance is crucial. Increased work at such sites, especially scientific effort, is needed. There are many gaps in knowledge on even common species. Population monitoring is important, especially in Australia and New Zealand, for assessing trends in flyway populations.