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Waterbirds around the world

A global overview of the conservation,
management and research of the
world's waterbird flyways

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Cover photography: Whooper Swans *Cygnus cygnus* arriving at Martin Mere, England. Photo: Paul Marshall.
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The development of a database for the Spoon-billed Sandpiper *Eurynorhynchus pygmeus*

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Recent research on the breeding areas of the Spoon-billed Sandpiper *Eurynorhynchus pygmeus* indicated a sharp decline in the population (Tomkovich *et al.* 2002, Zöckler *et al.* 2006, Syroechkovski *et al.* in press). The species has been upgraded in the Red List and is now considered as Endangered (BirdLife 2004). At the seventh Conference of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals (CMS) in Bonn, 2002, it was agreed to promote and support the development of a species Action Plan. Furthermore, the globally threatened status and lack of knowledge about the Spoon-billed Sandpiper led to the formation of a Recovery Team, which had its first meeting at the conference giving rise to these proceedings.

The Action Plan requires accurate, comprehensive and up to date data on species distribution and abundance, in the form of a species database. Although this information is largely available for breeding areas (Lappo *et al.* in press), data on migration or wintering grounds are missing and have not been captured in a central database.

The ultimate aim of the database is to allow easy analysis of the data both over time, to formulate population trends, and

spatially, to assess distribution and migration patterns. However, for cost effectiveness and flexibility, the database structure has been kept as simple as possible. A relational database in MS Access has been constructed, with two linked tables. One contains the information specific to a particular location, while the other details individual sightings.

The Locations table is based on information published by Birdlife (2001). Information on the location of sites is available for each species from the Birdlife web site at www.birdlife.org. As well as a site name and coordinates, to link to GIS, this table contains all available information on habitats. However, information is currently limited and there is scope for further development.

The Observations table is also based on information by Birdlife (2001), textual information from the species account has been converted to tabular form. Key fields include the date of observation, number of birds, observers name or published reference and the site name. Where available, data on age, sex and ring recoveries are also added. Many historical records, which did not contain full date or site information, could not be

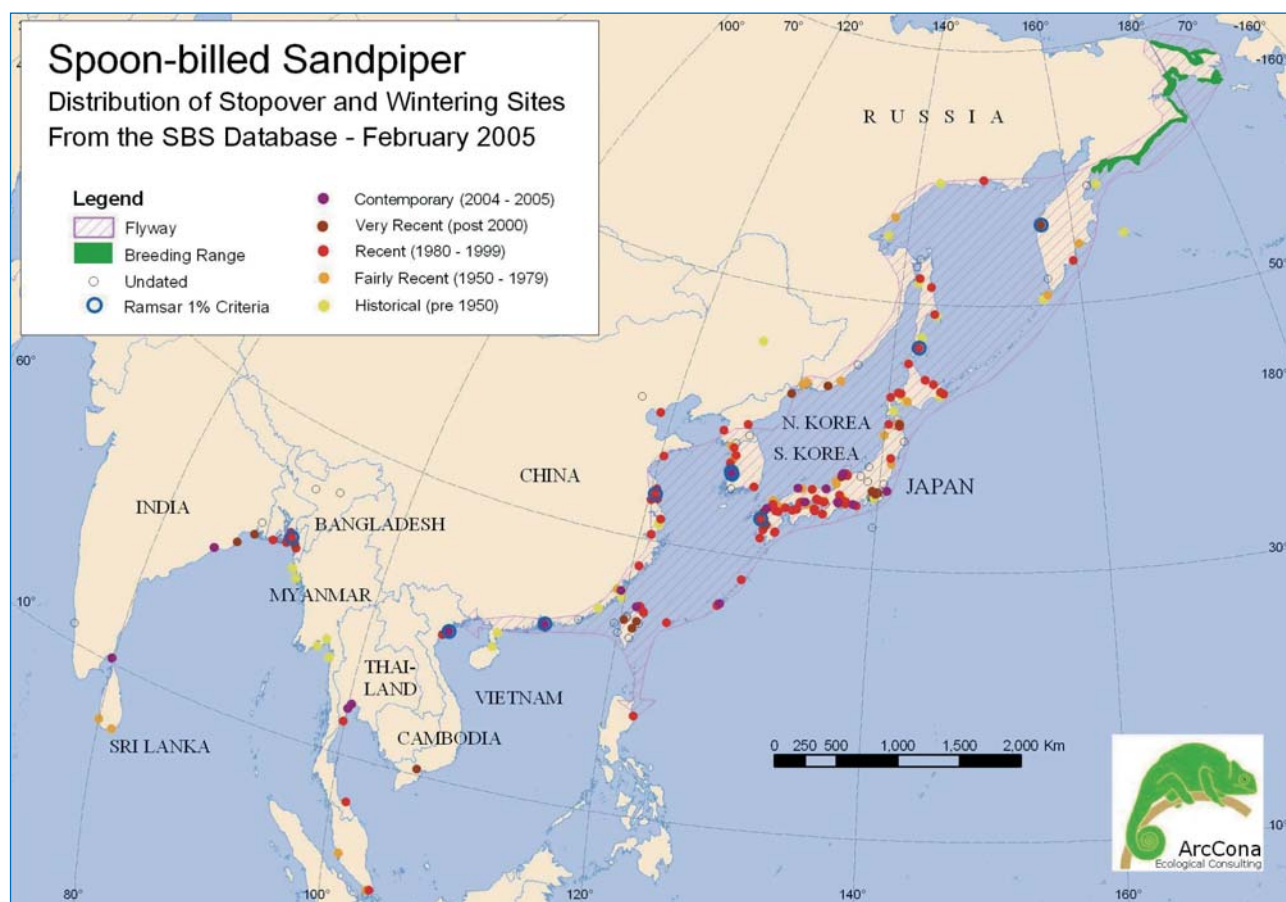


Fig. 1. Distribution of stopover and wintering sites for the Spoon-billed Sandpiper *Eurynorhynchus pygmeus*.

included in this structure. Work is currently progressing to bring the information content of the database up to date, and records published on the internet from 2001 to the present are captured as well as many unpublished observations. At present, the database contains 250 site location records and 300 discrete observations. The authors are aware of many more observations, which are not yet included, and anyone with observations is kindly requested to send it to the authors.

Four new locations have been added to the 'Locations' table. These include the Indian Sunderbans, the Mekong Delta, a new area of the Inner Gulf of Thailand and Yuboo Island in South Korea, all of which are highly significant.

In the Indian Sundarbans delta, Sharma (2003) describes observations from eight different locations made in November and December 2001, with up to 14 sightings recorded. Although these observations were not substantiated in 2005 (Zöckler *et al.* in press) large flocks in neighbouring Bangladesh point to potentially crucial wintering sites in this region. The largest flock ever recorded outside a breeding area was in the outer sandbanks of the Ganges Delta in Bangladesh (Howes & Parish 1989). This evidence, combined with early results from stable isotope analysis (Zöckler *et al.*, this volume) suggest that the Ganges delta may be a core area of the wintering range.

In the Mekong Delta, an observation made in southern Vietnam is significant, as it was the first from that region. Its location, at the southern tip of Indochina, supports the suggestion that at least some birds migrate along the coastline instead of taking an overland route.

The Inner Gulf of Thailand is one of the most closely watched areas within the wintering range, due to its proximity to the city of Bangkok. It is not unexpected, therefore, that Spoon-billed Sandpiper were observed for the first time at Pak Thale in Thailand. However, it is of some concern that this site, and other parts of the Gulf, are apparently under threat from a major infrastructure development project.

Finally, Yuboo Island is the location of one of the very few recoveries of a leg-flagged Spoon-billed Sandpiper. A juvenile bird was seen there in late September 2004, which was ringed in July 2004 in Meinopylgino, Chukotka, Russia.

Continuation of data collection and recording is essential for both species conservation and the development of the Action Plan. The development of the database and the Action Plan are

closely linked and should be developed jointly, in close collaboration with BirdLife International and Wetlands International. The analysis of data feed directly into the Action Plan, which will prioritise future research and conservation efforts.

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Southern Chukotka, breeding habitat of Spoon-billed Sandpiper *Eurhynchus pygmeus*. Photo: Christoph Zöckler.