

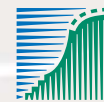
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Waterbirds around the world

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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Residential, population and conservation status of Indian wetland birds

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Kumar, A., Tak, P.C. & Sati, J.P. 2006. Residential, population and conservation status of Indian wetland birds. *Waterbirds around the world*. Eds. G.C. Boere, C.A. Galbraith & D.A. Stroud. The Stationery Office, Edinburgh, UK. p. 308.

Wetland birds play a significant cultural and social role in local communities as well as being an important component of wetland ecosystem. Increasing attention to the conservation of wetlands in India has resulted in extensive research; this paper assesses the current status of 310 Indian wetland birds (Kumar *et al.* in press) with the emphasis on threatened species.

Out of 310 Indian wetland species 130 (c. 42%) are migrant, 173 resident, however the status is unknown for seven species. Of the migrants, 107 are winter migrants, six have some passage population(s), 13 are summer migrants, and the remaining four are purely passage migrants. Of the 173 resident species, 53 are completely resident, 38 are part resident and part winter migrant, and 50 undertake local movements chiefly depending on water conditions. In terms of abundance, Indian wetland birds can be categorized as Very Common (four species), Common (26), Locally Common (115), Un-Common (45), Rare (67), Very Rare (five), Vagrant (47) and Probably Extinct (one).

Wetland drainage and conversion is the major threat for Asian waterbirds, including the infilling (or 'reclamation') of intertidal coastal wetlands, principally for agriculture and aquaculture. The most recently published checklist was the "Threatened Birds of Asia: the BirdLife International Red Data Book (2001)", followed by "Saving Asia's Threatened Birds: A Guide for Government and Civil Society (2003)".

The Waterbird Population Estimates Third edition by Wetlands International (2002) lists 2 271 biogeographical populations of 868 species. The largest number of waterbird populations (697) is found in Asia, followed by Africa (611) and the Neotropics (540). Out of 310 Indian wetland birds, seven species are endemic, three fall in to the Restricted Range Species category and one comes under data deficient category; 11 are Biome-Restricted Species of which five species are from Eurasian High Mountain (Biome 05), three from Sino-Himalayan Subtropical Forest (Biome 08), one from Indo-Chinese Tropical Moist Forest (Biome 09), and two from Indo-Malayan Tropical Dry Zone (Biome 11) (Jhunjhunwala *et al.* 2001).

Regarding distribution and status, 51 species occur in wetlands, six in forests, five in grasslands, and one is a seabird. Of the 51 wetland species, five are found in wetlands of Tibetan Plateau (W09), 15 in North Indian Wetlands (W12), five in South Indian and Sri Lankan Wetlands (W13), 16 in Assam and Sylhet Plains (W14), and 10 in Bay of Bengal Coast (W15); of six forest dwelling species, one occur in Sino-Himalayan Mountain Forests (F04), two in Indian Peninsula and Sri Lankan Forests (F05), and three in Indo-Burmese Forests. Of the five grassland species, four are found in Indo-Gangetic Grassland (G02) and one in South Asian Arid Habitats (G03). Only one species is a seabird (S01).

Altogether 23 species are listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES 2002). A total of 51 species come under the

Convention on Migratory Species (CMS); 21 are listed under Schedule-I and 231 under Schedule-IV of the Wildlife (Protection) Act, 1972 (WL(P) Act).

Approximately 12% of Asian birds are globally threatened with extinction. Many species are edging close to extinction through disturbance or habitat loss as well as intensive hunting pressure. An analysis of threatened wetland birds indicates that of a total of 242 species, 82 species are in Asia and 39 in India. Of the 310 wetland bird species in India, 51 (ca. 16%) are Threatened of which 34 are Globally Threatened (four Critical, seven Endangered, 23 Vulnerable); 16 Near Threatened (NT) and one Data Deficient (DD). Of the 51 Threatened species, 39 show a declining population trend, while three are increasing, five are stable, and the trends of three species are indeterminate. The remaining one species, Pink-headed Duck *Rhodonessa caryophyllacea* globally threatened, has probably disappeared from India.

Of the 34 globally threatened species, only 16 are listed under CITES (11 in Appendix I and five in Appendix II), while the others are not listed in CITES Appendices, thus imposing no restriction on their trade. Eight of the 34 species are listed under Schedule-I of the WL (P) Act, while 22 are relegated to Schedule-IV; two species, Masked Finfoot, *Heliornis fulica* and Indian Skimmer, *Rynchops albicollis* (with an estimated total population for the South Asian region of 5 000 birds each), are not included under the WL (P) Act at all. Similarly, two of the most highly threatened Indian Waterbirds, Sarus Crane *Grus antigone* and Black-necked Stork *Ephippiorhynchus asiaticus*, are again listed under Schedule-IV with threshold populations of 90 and four respectively.

A broad range of national policies on forestry, agriculture, wetlands and fisheries can have significant impacts on biodiversity conservation. By ensuring that policies and laws at local, provincial and national levels also take into account the principle of conservation, threats to species can be minimized.

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