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## DIRECTORY OF INDIAN WETLANDS

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together they are crucial for a wide variety of resident and migratory waterfowl. Common and widespread residents include Tachybaptus ruficollis, Phalacrocorax carbo, P. fuscicollis, P. niger, Anhinga melanogaster, eight species of herons and egrets, Mycteria leucocephala, Anastomus oscitans, Ciconia episcopus, Threskiornis melanocephalus, Pseudibis papillosa, Platalea leucorodia, Dendrocygna javanica, Nettapus coromandelianus, Anas poecilorhyncha, Gallinula chloropus, Porphyrio porphyrio, Fulica atra, Hydrophasianus chirurgus, Metopidius indicus, Esacus recurvirostrous, and Sterna aurantia. In addition, the tanks support significant populations of several less common species such as Pelecanus philippensis, Ephippiorhynchus asiaticus, Leptoptilos javanicus, and Grus antigone. Pelecanus philippensis was found nesting in a colony of Mycteria leucocephala at Kokrebellur, near Tailur Tank in 1976. Common passage migrants and winter visitors include Ciconia ferina, Anthropoides virgo, many species of shorebirds, Larus brunnicephalus, Childonias hybrida, and Circus melanoleucos.

In January 1987, waterfowl counts were carried out at Heggeri, Naregal, Tailur, Dodda Gubbi, Lalbagh, Yelahanaka, and Jakkur Tanks. Heggeri, Naregal, and Tailur held large concentrations of waterfowl, and accounted for about 85% of the total birds observed. Over 10,300 waterfowl of 47 species were recorded, including 450 herons and egrets of seven species, 2600 ducks of nine species (mainly *Anas penelope, A. acuta*, and *A. querquedula*), 5000 *Anthropoides virgo* (at Heggeri and Naregal), and:

15 Ciconia episcopus 45 Pseudibis papillosa 190 Anser indicus 90 Porphyrio porphyrio 850 Fulica atra 190 Himantopus himantopus 340 Glareola lactea 240 Limosa limosa

and 520 shorebirds of 12 other species

There are reported to be large numbers of frogs at some of the tanks

Special floral values: None known

Research and facilities: Waterfowl counts were conducted at seven tanks in January 1987

References: Neginhal (1985); van der Ven (1987)

Criteria for inclusion: 1b, 2a, 2b, 3a

Source: J.C. Uttangi

## RANGANTHITTOO WILDLIFE SANCTUARY (111)

Location: 12°25′N, 76°45′E; 15 km northeast of Mysore,

Mandya district, Karnataka

Area: 67 ha

Altitude: 700 m

Biogeographical province: 4.14.4

Wetland type: 11, 12

Description of site: The wetland is a stretch of the river Kaveri (Cauvery) flowing through Ranganthittoo Sanctuary. The river flows relatively swiftly through an area of rocky terrain; there are many rocks as well as sandy islands, more or less neglected by the local human population. The larger islands are wooded and these, together with the wooded river banks, support a large breeding colony of waterbirds

Climatic conditions: Tropical monsoon climate. The area receives some benefit from both the southwest and northeast monsoons

Principal vegetation: The smaller islands have a fringe of Pandanus; the larger islands and the river banks support a variety of shrubs and trees. The islands harbouring the heronries are covered by Samania saman, Terminalia arjuna, Ponamia glabra, Salix tetrasperma, Combretum oblifolium, Polygonum barbatum, and Pandanus species

Land tenure: Under the control of the Karnataka State Forest Department

Conservation measures taken: Protected as the Ranganthittoo Wildlife Sanctuary (67 ha), established in January 1975 and administered by the Conservator of Forests, Mysore. Although visitors are allowed to go round the islets, they are not permitted to land on them. After the July 1991 floods, some of the islets have been strengthened and revegetated. Several of the uprooted and displaced *Pandanus* clumps have been





allowed to regenerate

Landuse: Nature-oriented outdoor recreation. The Sanctuary is an important regional tourist centre with several hundred people visiting it each day during the bird breeding season

Disturbances and threats: A serious threat to the Sanctuary is posed by the sudden release of excess water from the Krishnarajasagar Reservoir; a 12-km dam upstream on the Kaveri river. On several occasions, many low-lying nests have been washed away by a sudden rise in the water level. Industrial effluents pour into the river upstream. The large number of tourists who visit the colony disturb the nesting birds, particularly at certain points. Over-zealous photographers, who tend to move close to the islets, have caused most of the problems in the past. An extension of the visitor facilities at the Sanctuary would encourage picnickers and pose a threat to some of the breeding species. Monkeys (Macaca radiata) are known to swim across the river and feed on the nests of breeding birds. Ranganthittoo has been flooded in the past whenever the monsoon rains have been heavy in the western hill ranges of Karnataka, which contain the catchment of three rivers that feed the reservoir upstream. A flash flood in July 1991 raised the water level in the Sanctuary by five metres and washed away many of the islets and nests. Vegetation was destroyed, and an estimated 1500 pairs of birds were affected, but most commenced re-nesting after the waters receded

Economic and social values: A very popular area for bird-watching and other nature-oriented recreation; over 100,000 visitors have been recorded in one year. The nutrient-rich water flowing from the Sanctuary into surrounding agricultural land is highly valued by the local farmers, who also refrain from disturbing the herons, egrets, ibises and storks that forage in inundated rice fields as the birds keep their fields free from pests and snakes

Fauna: The Sanctuary is a breeding ground for as many as 14 species of waterbirds, including Phalacrocorax carbo, P. fuscicollis, P. niger, Anhinga melanogaster, Nycticorax nycticorax, Ardeola grayii, Bubulcus ibis, Egretta garzetta, E. intermedia, E. alba, Ardea purpurea, Anastomus

oscitans, Threskiornis melanocephalus, and Platalea leucorodia. The large number of A. oscitans is particularly noteworthy. The majority of birds begin breeding in June though several birds such as P. fuscicollis, P. niger, A. purpurea, and P. leucorodia nest between January and April. Several birds of prey such as Haliastur indus, Milvus migrans, Circus aeruginosus, Spilornis cheela, Pandion haliaeetus, and Ichthyophaga ichthyaetus frequent the sanctuary. Birds such as Esacus recurvirostris. Vanellus indicus, and Sterna aurantia regularly nest on the rocks exposed in midstream. A colony of cliff swallow (Hirundo fluvicola) regularly nest in the sanctuary. During the summer of 1991, a few pairs of Mycteria leucocephala were observed nesting in the sanctuary for the first time. A large colony of fruit bats (Pteropus giganteus) roost on trees fringing the river on the main island. A healthy population of marsh crocodile (Crocodylus palustris) thrives in the deep pools between the islets. A family of common otters (Lutra lutra) have been sighted in the past

Special floral values: No information

Research and facilities: The nesting birds have been studied by a group from the Indian Institute of Science, Bangalore, under the supervision of Madhav Gadgil. Pesticide levels in the eggs of several species, soil samples, and bird droppings have been estimated. Many tourist facilities are available in the Sanctuary

References: Gantzer & Gantzer (1983); IUCN (in prep); Karpowicz (1985); Neginhal (1985); Gadgil (1988); Sharatchandra (1979); Shetty et al (1991); Subramanya et al (1991)

Criteria for inclusion: 1b, 2b, 2c, 3a Source: S.Subramanya, Madhav Gadgil

## BHAVANISAGAR RESERVOIR (112)

Location: 11° 28′N, 77° 06′E; 50 km NNE of Coimbatore, Periyar district, Tamil Nadu

Area: 3,695 ha Altitude: 260 m

Biogeographical province: 4.14.4

Wetland type: A large water-storage reservoir of relatively recent construction, fed by the Bhavani and