

## APPENDIX 4

### Ramsar Sites in Indonesia

#### Information Sheet on Ramsar Wetlands

Categories approved by Rec.C.4.7 of the Conference of the Contracting Parties, Montreux, Switzerland - July 1990.

NOTE: Please read the accompanying guidelines before attempting this form. Use properly labelled extra paper if any space on this form is too small to accommodate the existing information. Completed sheets should be returned to: Scott Frazier, Ramsar Database, IWRB, Slimbridge, Gloucestershire, GL2 7BX, England.

1. Country: Indonesia

2. Date: March 1991

3. Ref: ce use only

4. Name of wetland: Berbak National Park

5. Ramsar Criteria: (state and justify which Ramsar criteria - as adopted by Rec.C.4.15 of the Montreux Conference - are applicable).

- *Criteria for representative wetlands.* There are 23 palm species (Arecaceae) recorded at Berbak, making it the most palm-rich peatswamp forest yet known.
- *It is a particularly good representative example of a natural or near natural wetland, common to more than one biogeographical region.* Berbak represents the largest and only peatswamp forest in Sumatra which is presently protected by Indonesian law. Berbak is unique in Southeast Asia. At 175,000 ha, it represents the largest undisturbed peatswamp forest reserve in Southeast Asia.
- *General criteria based on plants and animals.* The biodiversity of the area is regarded as extremely high, though its full extent has not yet been ascertained owing to few surveys. Giesen (1991) recorded over 260 plant species including 23 palms (Aracaceae), making it the most palm-rich peatswamp forest yet known.
- *It supports an appreciable assemblage of rare, vulnerable or endangered species of plants or animals or appreciable number of individuals of any one or more of these species.* A large number of species listed in IUCN Red data list (1990), CITES and species protected by the Indonesian law, occurs in the area.
- *It is of special value for maintaining the genetic and ecological diversity of the region because of the quality and peculiarities of its flora and fauna.* Berbak is of special value for maintaining genetic and ecological diversity of the coastal lowlands of Sumatra. The Reserve constitutes a diversified gene pool of plants and animals and includes species of pharmacological and horticultural potential. The total number of plant species is as high as 260, with 23 palm species. There are about 250 species of birds from 49 families (22 species are migratory waders). 13 reptile species have been recorded, although not many surveys on reptiles and amphibians have been undertaken. The reserve is ecologically diverse with extensive and mostly undisturbed peatswamp forest, large expanses of freshwater swamp (6,000 ha) and some 1,500 ha of (degraded) mangrove forest.
- *It is of special value as the habitat of plants or animals at a critical stage of their biological cycle.* Berbak's mangroves are likely to have an important function as breeding and nursery site of many marine animals, such as Penaeid shrimps, mullet, milkfish, sea perch, groupers, etc.
- *It regularly supports substantial numbers of individuals from particular groups of waterfowl indicative of wetland values, productivity or diversity.* The reserve includes several important sites for waterbirds, one of the most important areas being the sandy beach near the mouth of Cemeral river. At least 24 species of shorebirds have been recorded, including Asian Dowitcher (*Limnodromus semipalmatus*) and Nordmann's Greenshank (*Tringa guttifer*).




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**6. Wetland type:** (as presented in guidelines, based on Montreux Rec.C.4.7)

*Marine and coastal wetlands*

Type # 6 Estuarine waters, vegetated

Type # 5 Sand, shingle or pebble beaches.

Type # 7 Intertidal flats

Type # 9 Intertidal forested wetlands; includes mangrove swamps, nipa swamps, tidal freshwater swamp forests.

*Inland wetlands*

Type # 1 Permanent rivers and streams

Type # 4 Riverine floodplains, includes river flats, flooded river basins, seasonally flooded grassland.

Type # 11 Freshwater swamp forest, seasonally flooded forest, wooded swamps

Type # 13 Forested peatlands; peat swamp forest

Cultivated freshwater swamp

Cultivated peat swampland

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**7. Date of Ramsar designation:** November 19, 1991

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**8. Geographical coordinates:**

Latitude  $01^{\circ} 23' S$

Longitude  $104^{\circ} 20' E$

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**9. Altitude:** (average and/or maximum & minimum)

0 - 20 m above sea level 162,700 ha

**10. Area:** (in hectares)

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**11. General location:** (e.g. administrative region and nearest large town)

Berbak National Park is situated in Jambi province, Sumatra. Located on the east coast, this site begins approximately 10 km inland of Berhala Strait, extending down the coast to Benu river. The eastern boundary was revised in 1985 to exclude the coastal settlements that extend from Benu river in the south to Remau river in the north. The city of Jambi lies approximately 50 km to the west and reserve headquarters are located at Nipa Panjang, 10 km to the northwest. Access is difficult and time-consuming due to poor infrastructure. The entrance to the park at Desa Air Hitam Laut can be reached in approximately 5 hours by boat from the reserve headquarters, although travel time may double during the wet season.

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**12. Overview:** (general summary, in two or three sentences, of the wetland's principal characteristics)

Berbak N.P. forms part of the vast alluvial plain of East Sumatra, which occupies approximately one quarter of the island, and is one of Indonesia's largest swamp forest reserves. The region is entirely flat, being dissected by a number of levee-banked, meandering rivers that drain in a northeasterly direction toward the coast. Along the coast and lower sections of the rivers, extensive beach ridges and intertidal mudflats occur. The area contains 60,000 ha of freshwater swamp forest and 110,000 ha of undisturbed peatswamp forest. Its eastern boundary is bordered by villages, some muddy coast and a small fringe of mangrove forest (1,500 ha). The southern border is the Benu river and the site is bisected by the river Air Hitam Laut. The rivers are edged with *Nypa fruticans* then *Pandanus tectorius* and, further inland, riverine forest dominated by *Mammee* sp. The maximum coastal tidal range is 2-2.5 m decreasing to 1 m a further 10 km upstream. The rivers are up to 20 m deep and contain acid peatwater. In the dry season, brackish water penetrates up to 10 km inland.

The reserve includes several important sites for waterbirds and other fauna.