

INFORMATION SHEET ON RAMSAR WETLANDS

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- 1. Date this sheet was completed/updated:** November 1997
- 2. Country:** Brazil
- 3. Name of wetland:** Pantanal Matogrossense National Park
Creation: Federal Decree no. 86,392, 24 Sept 1981
- 4. Geographical coordinates:** 17°26 - 17°52'S, 57°10 - 57°41'W
- 5. Altitude:** Plain with elevation below 200 m.
- 6. Area:** Perimeter: 260 km; Total area: 135,000 ha.

7. Overview:

The Mato Grosso "Pantanal" has singular features which distinguish it and make it a unique physiographical and morphostructural unit.

Located in the far western extreme of the Brazilian territory, the "Pantanal" is considered the largest periodically flooded area of the American continent. Moreover, it concentrates the largest and the most spectacular wildlife populations in the neotropics.

- 8. Wetland type:** O N P
- 9. Ramsar Criteria:** 1c, 2b, 3b, 4a
- 10. Map of site included:** Yes (annex I)
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12. Justification of the criteria selected under point 9:

1c - it is a particularly good representative example of wetlands, as it has significant hydrological, biological and ecological role in the River Basin.

2b & 3b - no information available

4a - supports a significant share of subspecies, species and families of indigenous fish, biological cycle stages of species interaction and contributes to world biological diversity.

13. General location:

Municipalities: Poconé - State of Mato Grosso.

14. Physical features:

14.1 Climate: Tropical: Hot, semi-humid, with 4 to 5 dry months. Temperature mean - 24° C, high - 42° C, low - 0° C. Rainfall: 1,250 mm a year.

14.2 Geology and morphology: The Park area is located in the Mato Grosso Plains and Marshlands geomorphological unit. Fluvial-lacustrine Plains are the predominant type of accumulation. To the Northeast of the area one can find, in a smaller number, accumulation areas that can be temporarily

flooded. They are flat areas with a sandy covering, periodically or permanently flooded, precariously linked to the drainage system and rated as very humid.

14.3 Soils: The park is in the area of Recent Alluvions, formed basically by sand, silt and clay and other older sediments, silty-argillaceous and argil-arenaceous. The quality of the soils is not good. They are predominantly of the Low humidity eutrophic Gley group, along the river valleys and Eutrophic Planosols towards the center of the plain.

15. Hydrological values:

15.1 Drainage and hydrography: The formation of the Pantanal is a result of the large concave pre-Andean depression of the earth's crust, related to the Andean orogenesis of the Tertiary. It constitutes an enormous internal delta, in which several rivers flowing from the Plateau merge, depositing their sediments and erosion residues, which have been filling, throughout the years, the large depression area of the Pantanal.

During the rainy season, from December to April, this pre-Andean depression is almost totally flooded, due to its low declivity and to the large amount of rainfall.

During the dry periods, from July to December, the land is dry, though with some small scattered lagoons, several of which are perennial during this period, constituting shelters for thousands of animals.

15.2 Water quality: No data available.

16. Ecological features:

The vegetation of the Pantanal, this vast ecosystem, is considered an extension of the Brazilian "Cerrado" (woods composed of stunted twisted trees, growing on cattle-grazing land). It is influenced, in the North, by the Amazon region and bears features of both ecosystems.

At the site, one can find the vegetation of the Savannah region ("Cerrado") and Environmental Stress Areas. The latter is the contact Savannah/Seasonal Forest.

The name Savannah has been used for some time and is of Venezuelan origin. In the Brazilian Midwest it is known as "Cerrado" and, in the South, as "Gerais". These names are recognized by popular usage, and are employed by some phytogeographers, and will also be used here.

The Cerrado can be defined as a xeromorphic vegetation, with diverse appearance, which varies from dense arboreal to shrub vegetation.

17. Noteworthy flora:

In the Mato Grosso "Pantanal" National Park, one finds shrub Cerrado (Fields), which is an exclusively grassy formation, made up by gramineous substratum interspersed with brittle ligneous plants and small acaulescent palm trees. It is generally found in the lower areas, which are periodically flooded, and which are, during the dry season, the "domain of the fields". Its chief feature is the green it has during the rainy season, and the straw-like colour that it acquires during the dry season. The most frequent are species of the *Paspalum*, *Hemarthra*, *Penicum* and *Axonopus* genus among other *Graminae*. In the fields, one frequently finds clusters of aboriginal vegetation. The different species are normally attached to the bottoms of lagoons, to the beds and the banks of the streams. During prolonged periods of drought, these species dry out completely and reappear when the Pantanal is flooded. The most common are the *Sagittaria* sp., *Ludwigia* sp., *Salvinia* sp., among other types. Large groups of "buriti" (*Mauritia* sp.) are also common in the fields.

The areas of environmental stress in the area are the Cerrado/Seasonal Forest contacts.

The floristic and structural aspects which characterize these contacts are always reflected by the dominant subformation.

When there are forest clusters within the Shrub Formation, their physiognomic aspect can be identified more easily, since they are always in the mostly flooded area. Among the species, the most frequent are *Cabomba* sp., *Nymphaea ampla*, *Ludwigia* spp., *Pontederia lanceolata*, *Eichhornia* sp. and some *Cyperus* species.

When there are forest clusters in the Semi-deciduous Seasonal Forest, the gramineous formations penetrate this type of forest. Their main features are the fact that they occur mainly in areas which are flooded for short periods, a reasonable amount of woody lianas and trees which are less than 20 meters tall. Among them one finds the “cambará” (*Vochysia divergens*), which is the typical species, the “pau-d’alhão” (*Galesia* sp.), the “aroeirinha” (*Astronium* sp.) and (*Ocotea* sp.).

18. Noteworthy fauna:

Cariri-Bororó Zoogeographical Province.

The Mato Grosso “Pantanal” is one of the richest wildlife sanctuaries. This diversity is made possible by the different types of environment and their transition areas.

During the breeding period, birds such as the jabiru stork (*Jabiru mycteria*), the wood ibis (*Mycteria americana*), the cocoi heron (*Ardea cocoi*) and the white herons (*Casmerodius albus*) choose the large trees to build their nests, and are often seen feeding close to the capped herons (*Pilherodius pileatus*), the “colhereiros” (*Ajaia ajaia*), in the various canals and still waters.

The alligator (*Caiman crocodylus*) stays close to the nests, waiting for some inexperienced young to fall and become an easy prey. As part of their feeding habits, they keep the shoals of piranhas (*Pugocentrus* spp., *Pygopristis* spp. and *Serrasalmus* spp.) in balance.

In the wettest spots, one can observe the swamp deer (*Blastocerus dichotomus*) and the capybaras (*Hydrochaeris hydrochaeris*). “Pintados” (*Pseudoplatystoma curruiscans*), “dourados” (*Salminus maxillosus*) and “pacus” and numerous small freshwater fishes hide in the rivers. Because of their tasty flesh, they are preys for otters (*Lutra* sp.) and the “ariranha” (giant river otter of Brazil, *Ptenonura brasiliensis*).

In the sky one can admire the beautiful flocks of macaws (*Anodorhynchus hiacynthinus*), and observe the lonesome flight of several birds of prey, such as the “cará-cará” (*Polyborus plancus*) and the “gaviao caramujeiro” (*Rosthramus sociabilis*).

Among the trees, which are characteristically twisted, one can spot the great anteater (*Myrmecophaga tridactyla*), the agouara (*Chrysocyon brachyurus*), the “onça” (*Panthera onca*) and the rhea (*Rhea americana*).

The anaconda (*Eunectes murinus*), one of the world’s largest ophidians, though not venomous, wanders in the streams hunting for its preys.

In this rich environment, there are several endangered species, among them the wild cat, the agouara, the swamp deer, the otter and the giant river otter of Brazil. One also finds the tiger heron (*Tigrisoma fasciatum*) and the giant armadillo (*Priodontes giganteus*), which make this a region of great importance for the perpetuation of many animal and plant species.

19. Social and cultural values:

no data available

20. Land tenure and ownership:

(a) of the area: the area of Pantanal National Park is property of the Federal Government.

(b) surrounding area: private property.

21. Current land use:

(a) at the site: conservation.

(b) in the surrounding area and/or basin: basically used in cattle raising.

22. Factors (past, present or potential) adversely affecting the site’s ecological character, including changes in land use and development projects:

(a) at the site: the major problems are uncontrolled recreational fishing, hunting and smuggling of endangered species (cayman, panther, wild cats, psittacids), uncontrolled tourism, deforestation and forest fires in neighbouring areas for agricultural use, among other activities.

In the last rainy season, the flood was very high and caused the inundation of many cultivated areas surrounding the park, carrying large amounts of pesticides into the rivers and lakes and killing a great number of fish.

(b) around the site: as above.

23. Conservation measures taken:

no data available

24. Conservation measures proposed, but not yet implemented:

Though the park does not yet have an infrastructure for the accommodation of visitors, visitation is allowed, but only with an authorization granted by the Departamento de Unidades de Conservação (Department of Conservation Unites/IBAMA), in Brasilia.

An Emergency Action Plan (January 1996/January 1997) is being implemented.

25. Current scientific research and facilities:

The PARNA Research Plan is being concluded.

26. Current conservation education:

The Center of Environmental Awareness installations are being finalized this year, where they plan to promote environmental public awareness.

27. Current recreation and tourism:

no information available

28. Jurisdiction:

The area is part of the State of Mato Grosso, with the jurisdiction of the Federal Government through IBAMA - the Brazilian Institute for the Environment and Renewable Natural Resources.

29. Management authority:

Brazilian Institute for the Environment and Renewable Natural Resources - IBAMA

Superintendency of Mato Grosso

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30. Bibliographical references:

Jorge de Pádua, M.T. and Coimbra Filho, A.F. - Os Parques Nacionais do Brasil. INCAFO - Madrid. 1979. 224 p.

Pádua, M.T. - Os Parques Nacionais e Reserves Biológicas do Brasil. Brasília, Instituto Brasileiro de Desenvolvimento Florestal, 1983. 162 p.

Annex

Annex I - Map of site