

Ramsar Information Sheet

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Brazil

Private Reserve of Natural Heritage Sesc Pantanal (Reserva Particular do Patrimonio Natural SESC Pantanal)



Designation date 6 December 2002

Site number 1270

Coordinates 16°40'37"S 56°15'52"W

Area 87 871,44 ha

RIS for Site no. 1270, Private Reserve of Natural Heritage Sesc Pantanal (Reserva Particular do Patrimonio Natural SESC Pantanal), Brazil	

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

Summary

The Private Reserve of Natural Heritage (RPPN, acronym in Portuguese) Sesc Pantanal, established in 1998, is a significant sample of the large Pantanal wetland, located in its northeastern portion, known as the Barão de Melgaço Pantanal. This expanse is a mix of permanent rivers, seasonal streams, permanent and seasonal floodplain freshwater lakes, shrub-dominated wetlands, and seasonally flooded forests. This area is an excellent ecological complement to the nearby Pantanal National Park, already included in the List. Since its establishment, the Reserve is the largest private conservation unit in Brazil, and one of the most important references for governance, management, scientific research, and infrastructure. In addition to be a Ramsar Site, the Reserve is also a Core Zone of the Pantanal Biosphere Reserve, a title designated by UNESCO. To date, almost 150 scientific publications (articles, theses, dissertations, books, and course-completion papers) have been produced, as a result of almost 70 research projects, many long-lasting ones, involving over 170 researchers from Brazil and other countries, from approximately 50 research institutions. Some of the relevant results underscore the importance of the Reserve for conservation of endangered species (animal species: (Harpia harpyja), (Chrysocyon brachyurus), (Myrmecophaga tridactyla), (Tapirus terrestris), (Anodorhynchus hyacinthinus); and plant species: (Cedrela fissilis), (Trichilia stellato-tomentosa), and others), and also for migratory species such as birds banded at the Reserve and found on the beaches of Argentina (1,485 km distant). The goal of all the work to maintain the area in good conditions is to reduce the vulnerability of the Reserve in relation to the main pressures and threats that are monitored and tackled on a daily basis—predatory fishing, forest fires, hunting, and drug trafficking—and scientific research plays a major role on this conversation.

2 - Data & location

2.1 - Formal data

2.1.1 - N	lame and	address	of the	compiler	of this	RIS
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2.1.2 - Period of collection of data and information used to compile the RIS

From year 2016

To year 2017

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)

Private Reserve of Natural Heritage Sesc Pantanal (Reserva Particular do Patrimonio Natural SESC Pantanal)

Unofficial name (optional)

RPPN Sesc Pantanal

2.1.4 - Changes to the boundaries and area of the Site since its designation or earlier update

(Update) A Changes to Site boundary Yes O No

(Update) B. Changes to Site area

No change to area

2.1.5 - Changes to the ecological character of the Site

(Update) 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS?
(Update) Are the changes Positive ○ Negative ○ Positive & Negative ●
(Update) Positive % 50
(Update) Negative % 50
(Update) No information available
(Update) Changes resulting from causes operating within the existing boundaries? ✓
(Update) Changes resulting from causes operating beyond the site's boundaries?
(Update) Changes consequent upon site boundary reduction alone (e.g., the exclusion of some wetland types formerly included within the site)?
(Update) Changes consequent upon site boundary increase alone (e.g., the inclusion of different wetland types in the site)?
(I bdata)

(Update) Please describe any changes to the ecological character of the Ramsar Site, including in the application of the Criteria, since the previous RIS for the site.

The Ecological character of the Ramsar Site has likely changed and since the designation of Reserve the ecosystem is recovering. Before the creation of the Reserve the area had pasture and cattle farming. There was less vegetation due to pasture area and problems with fire. The problems that affect the conservation of the biodiversity are illegal fishing and illegal hunting but there are park rangers that protected the Reserve.

(Update) Is the change in ecological character negative, human-induced AND a significant change (above the limit of acceptable change)

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image

<2 file(s) uploaded>

Former maps 0

Boundaries description

The Private Reserve of Natural Heritage Sesc Pantanal is located in the municipality of Barão de Melgaço, Mato Grosso State, Midwestern region of Brazil. The nearest city is Poconé, a mid-sized city nearing 30,000 inhabitants, having a small airport, one healthcare unit for emergencies, and local commerce. This city is the main access to the Transpantaneira, a Park Road very important to visitors and tourists discovering the Pantanal. The nearest large city is Cuiabá, the capital of the Mato Grosso State. The access to the Reserve from Cuiabá to Poconé is by paved road (100 kilometers), the MT-060, and by the Porto Cercado Park Road, the MT-370, 46 kilometers from Poconé to the Sesc Porto Cercado Hotel, in front of the Reserve. The Reserve is accessible from the Hotel by boat. Another means of access to the Reserve is from Cuiabá, by boat or plane. There is a small private airport near the Hotel, and five landing strips at the Environmental Protection Bases of the Reserve. During the dry season, one may access the Reserve by car from Cuiabá, via the MT-040. The total perimeter has almost 300 kilometers, with one of its borders stretching 80 kilometers on the left side of the Cuiabá river to the northwest, and 30 kilometers on the São Lourenço river to the east. The south border has cattle ranches and an Indian reservation. On the northern border, in addition to cattle ranches, there is a district named São Pedro de Joselândia, with a rural population of approximately 2,000 inhabitants dispersed in small villages.

2.2.2 - General location

a) In which large administrative region does the site lie?	Mato Grosso
b) What is the nearest town or population centre?	Cuiabá - MT

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries?

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party?

GIS boundaries

2.2.4 - Area of the Site

Official area, in hectares (ha): 87871.44

Area, in hectares (ha) as calculated from 87459.168

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region							
WWF Terrestrial Ecoregions	Neotropical							

Other biogeographic regionalisation scheme

The Pantanal is one of the world's largest wetland complexes and one of the best examples of flooded savannas in southern South America, comprising a mosaic of flooded grasslands, savannas, gallery forests, and dry forests. During the rainy season, over 80% of the region flood—a process that helps modify the severity and frequency of floods downstream along the Paraguay River (WWF, 2017). With a territorial extension of about 171,000 km², the Pantanal is geographically located in the central region of South America, in Brazil, Bolivia, and Paraguay, and its habitat is classified as Flooded Grasslands and Savannas, with conservation status defined as critical/endangered (WWF, 2017). Several scientific studies have identified differences in Pantanal landscapes in Brazil, dividing them into sub regions according to the heterogeneity of the geomorphological, hydrological, and ecological characteristics. The climate may be defined as tropical with a marked wet season, being influenced by the subtropical southern Atlantic anticyclone. The annual rainfall is 1,000 – 1,500 mm across the basin, with most rainfall between November and March (McClain, 2002). The Private Reserve of Natural Heritage Sesc Pantanal is in the Upper Paraguay River Watershed in Brazil, around the Barão de Melgaço Pantanal and Poconé, in the Mato Grosso State.

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

☑ Criterion 1: Representative, rare or unique natural or near-natural wetland types

Hydrological services provided

The temporal variation of the chemical, physical, and biotic factors in the floodplain systems in tropical regions is mainly associated with changes in the hydrometric levels. Intense temporal variations have been observed, and the ecological and limnological processes are controlled by the flooding pulse. The Pantanal is the key factor of water regulation in one of the largest watersheds of the South American continent—the Paraguay watershed. This watershed is the main tributary of the La Plata basin, covering a large portion of Brazil, Paraguay, Bolivia, Argentina, and Uruguay, where millions of people live. The Private Reserve of Natural Heritage Sesc Pantanal is an important initiative that contributes to this context, being the largest private reserve in Brazil encompassing a relevant continuous area of landscape mosaics between the Cuiabá and São Lourenço rivers, integrating a rare complex of bays, channels covered with herbaceous and woody plants, swamps, seasonally flooded savannas, grassland and other natural habitats. This dynamic rhythm of the waters sets the richness and abundance of the plant and animal species, whose ecological relationship is associated with the flooding pulse, such as seed dispersal by water, fish and other animals, breeding and nesting of migratory birds, use of habitats and living areas by reptiles and mammals, among other aspects already studied within the scope of the Reserve.

Other ecosystem services provided

Wetlands provide many services for society: water storage and purification, buffering of river and stream discharge, groundwater replenishment, erosion retention, microclimate regulation, recreation and tourism, organic carbon storage, timber production, nontimbered products, medicinal plants, fish, produce, drinking water for humans and livestock, and pasturelands for animal husbandry. Furthermore, they contribute to cultural preservation by providing home for traditional communities (Millennium Ecosystem Assessment, 2005). Conservation of ecosystem services is the foundation on which actions are built, i.e., the provision of quality water in quantity, protection of the biodiversity, adaptation to climate change, and reduction of risks associated with extreme natural phenomena. These services are possible by management and care of protected natural areas, especially extensive and continuous areas, such as the Private Reserve of Natural Heritage Sesc Pantanal, which is the largest conservation unit in Brazil in this category.

- ☑ Criterion 2 : Rare species and threatened ecological communities
- ☑ Criterion 3 : Biological diversity

Thirty species of amphibians have been found in the Reserve, being the species of the genus Leptodactylus and Hyla the most abundant. Fifty-three species of reptiles have been found in the Reserve: 2 species of turtles, 18 sauria, 3 amphisbaenia, 32 snakes, and 1 crocodilian. Among lizards, the most conspicuous are the Ameiva ameiva, Tupinambis merianae, Cnemidophorus ocellifer, and Dracaena paraguavensis. The most commonly found snakes in the Reserve are the Hydrodynastes gigas. Eunectes notaeus, Liophis poecilogyrus, Thamnodynastes cf. strigilis, and Helicops leopardinus. Of course, the Pantanal Cayman (Cayman crocodylus yacare) is, by far, the most common large animal seen in the Pantanal. There are about 340 species of birds in the Reserve, which represents 50% of all species in the biome and Pantanal. Guia de Aves (Antas. Palo Jr., 2009) is the publication that shows these species. with emphasis on endangered ones (Oryzoborus angolensis, Chondrohierax uncinatus, Spyzaetus ornatus) and migratory species (Numenius borealis, Tringa flavipes, Tringa solitaria, Micropalamahimantopus, Calidris fusciollis, Bartramia longicauda, Actitis macularis, Ictinia misisippiensis, Coccyzus americanus, Progne subis, Pandion haliaetus, Hirundo rustica, Petrochelidon pyrrhonota, Istinia plumbea, Coccyzus euleri, Tyrannus savana, Myiodynastes maculatus, Empidonomus varius. Empidonomus aurantioatrocristatus. Progne chalvbea. Phaeoprogne tapera. Sporophila lineola. Rosthramus sociabilis. Turdus amaurochalinus. Pyrocephalus rubinus. Notiochelidon cyanoleuca. Sporophila cinamomea, Alopochelidon fucata, Sporophila hypoxantha). Fish species most representative of the Reserve are the Salminus maxillosus (threatened species), Brycon microlepis, Piaractus mesopotamicus, and Pseudoplatystoma corruscans. The total number of identified species is 157. A total of 83 species of mammals has been recorded. One of the most emblematic mammals of the Pantanal, an endangered species, is the Panthera onca, whose population is estimated at 50 individuals. Other endangered species are: Chrysocyon brachyurus, Myrmecophaga tridactyla, Speothos venaticus, Pteronura brasiliensis. Tapirus terrestres. Blastocerus dichotomus. Tavassu pecari. A botanical survey has not yet been completed, but has already indicated other threatened species: Cedrela fissilis, Myracrodruon urundeuva, and Trichilia stellato-tomentosa Kuntze. There is a total of 189 recorded species (aquatic and terrestrial).

- Criterion 4 : Support during critical life cycle stage or in adverse conditions
- ✓ Criterion 5 : >20.000 waterbirds

Overall waterbird numbers 44000

Start year 1999

Source of data: Antas, Paulo de Tarso Zuquim 2009; Antas, Paulo de Tarso Zuquim 2016

☑ Criterion 7 : Significant and representative fish

Already recorded in the area, among popular fishes, are: several species of Pimelodella, Salminus maxillosus. Sorubim lima. Paulicea luetkeni. Megalonema platanus. Pinirampus pinirampu. Pseudoplatystoma fasciatum, P. corruscans, Piaractus mesopotamicus, several species of Astyanax, two Justification species of Serrasalmus, Raphiodon vulpinus, several species of Leporinus, Prochilodus lineatus, two species of Metynnis and Myloplus levis. In the Pantanal, fish reproductive migration is a very noticeable phenomenon locally known as 'piracema' that may take some species over hundreds or thousands of kilometers.

☑ Criterion 8 : Fish spawning grounds, etc.

Defaunation is disrupting plant—animal interactions worldwide. Overhunting of frugivore disrupts seed dispersal and diminishes plant regeneration, yet investigations of frugivore overexploitation neglect an ancient quild: the fruit-eating fish. For nearly five decades, Neotropical frugivorous fishes have been intensively harvested. These fishing activities have reduced population sizes of some species by up to 90% and have likely altered populations to younger, smaller individuals. In the Reserve Sesc Pantanal. potential ecological consequences of overfishing of frugivore for seed dispersal and recruitment dynamics have been assessed. Dietary data have been analyzed for seven fruit-eating fish species in Amazonian and Pantanal wetlands, seeking to test the hypothesis that seed dispersal effectiveness increases with fish size within and across species. Relatively to small individuals, larger fishes disperse more seeds of a higher diversity of plants and a greater range of seed sizes. For some seed species, dispersal by larger fishes augmented germination success, in relation to seeds dispersed by smaller fishes. Large Piaractus mesopotamicus in the Pantanal disperse seeds of 27% more species than fishes under the minimum size limit for this fishery. These results indicate that the ongoing overexploitation of multiple frugivorous fish species could depress the quantity and diversity of seeds dispersed, as well as the quality of seed dispersal in wetland habitats that extend over 15% of the area of South America. Source of data: http://www.sciencedirect.com/science/article/pii/S0006320715002426

Justification

3.2 - Plant species whose presence relates to the international importance of the site

Scientific name	Common name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Bactris glaucescens			✓		LC			
Brosimum lactescens			✓		LC			
Cassia grandis	Coral Shower; Pink Coral Shower		2		LC			
Cedrela fissilis		✓			EN			
Celtis iguanaea			✓		LC			
Hymenaea courbaril	West Indian Locust Tree		✓		LC			
Mouriri guianensis			✓		LC			
Pouteria ramiflora			✓		LC			
Sapium obovatum			✓					
Spondias dulcis			✓					
Tabebuia aurea			✓					
Trichilia stellatotomentosa		2					Endangered	
Vochysia divergens			✓					

A very preliminary flora inventory of the Reserve has recognized 189 species of plants. The most common species of trees in the Cerrado are Tabebuia stigonocarpa, Pouteria ramiflora, Tabebuia aurea, and Curatella americana. In the Cerradão, the dominating tree species are Tabebuia impetiginosa, Hymenaea courbaril, and Hymenaea stigonocarpa. In the Cerrado and Cerradão, the lower vegetation strata is mostly covered by a diversity of grasses, specially Elionorus candidus. The most frequent tree species in the forest along the Cuiabá River are Sapium obovatum. Cassia grandis, and Celtis pubescens. The tallest trees in this section may reach 20 meters or more. Along the smaller rivers, the most common tree species are Mouriri quianenesis, Vochysia divergens, and Brosimum lactescens. In other smaller streams, tree composition is dominated by Spondias lutea. Albizzia polycephala, and Licania parvifolia, in the São Lourenco River, the dominating tree species are Inga uruguensis, Vochysia divergens, and Scheelea phalerata. Several palm trees occur in the Reserve: Scheelea phalerata and Bactris glaucescens. Most of tree species are important fruit producers for fishes and terrestrial fauna. Bromeliads and cactus are also found. Campos that remain flooded part of the year are often covered by a mix of species of Pontederia, Andropogon, Mesosetum, Panicum, Scleria, Eleocharis, Oryza, Thalia, Axonopus, Nymphoides, and Luziola, Also common are vegetation types known as Macegal (see above) and Canjiqueiral (mostly Byrsonima orbignyana). The portions that are permanently flooded are covered by species of Echhornia, Nymphaea, Reussia, and many more. No specific local studies have been conducted on algae and groups of aquatic vegetation. Endemic species of plants are probably to be found among algae and other groups of inferior plants, but none has been recorded so far. There are, among the species of plants recorded in the Reserve, a few that are considered nationally endangered. The Cerrado and Pantanal biomes have 510 grass species endemics to these regions.

Additional species: Tabebuia stigonocarpa (2), Tabebuia impetiginosa (2) and Myracrodruon urundeuva (3), Scheelea phalerata, (3), Pontederia (3), Andropogon (3), Mesosetum (3), Panicum (3), Scleria (3), Eleocharis (3), Oryza (3), Thalia (3), Axonopus (3), Nymphoides (3), Luziola (3), Echhornia (4), Nymphaea (3), Reussia (3).

3.3 - Animal species whose presence relates to the international importance of the site

Phylum	Scientific name	Common name	Species qualifies under criterion	Species contributes under criterion 3 5 7 8	Size	Period of pop. Es	% occurrence 1)		CITES Appendix I	CMS Appendix I	Other Status	Justification		
Birds														
CHORDATA/ AVES	Alopochelidon fucata							LC				Mgration		
CHORDATA/ AVES	Amazonetta brasiliensis	Brazilian Teal]			LC						
CHORDATA/ AVES	Anhinga anhinga]			LC						
CHORDATA/ AVES	Anodorhynchus hyacinthinus]			W	V					
CHORDATA/ AVES	Aramus guarauna	Limpkin]			LC						
CHORDATA/ AVES	Bartramia Iongicauda							LC				Mgration		
CHORDATA/ AVES	Cairina moschata	Muscovy Duck						LC						
CHORDATA/ AVES	Calidris fuscicollis	White-rumped Sandpiper						LC						
CHORDATA/ AVES	Ceryle torquata]									
CHORDATA/ AVES	Chloroceryle aenea	American Pygmy Kingfisher]			LC						
CHORDATA/ AVES	Chloroceryle amazona	Amazon Kingfisher]			LC						
CHORDATA/ AVES	Chloroceryle americana	Green Kingfisher						LC						
CHORDATA/ AVES	Chloroceryle inda	Green-and-rufous Kingfisher						LC						
CHORDATA/ AVES	Chondrohierax uncinatus	Hook-billed Kite]			LC						

Phylum	Scientific name	Common name	Species qualifies under criterion 2 4 6 9	Species contributes under criterion 8 5 7 8	Pop. Size Period of pop. Est.	% occurrence 1)		CITES Appendix /	CMS Appendix I	Other Status	Justification
CHORDATA/ AVES	Coccyzus americanus	Yellow-billed Cuckoo					LC				Mgration
CHORDATA/ AVES	Coccyzus euleri	Pearly-breasted Cuckoo					LC				Mgration
CHORDATA/ AVES	Cochlearius cochlearius		0000				LC				
CHORDATA/ AVES	Dendrocygna autumnalis						LC				
CHORDATA/ AVES	Dendrocygna viduata	White-faced Whistling-Duck; White-faced Whistling Duck	0000				LC				
CHORDATA/ AVES	Empidonomus aurantioatrocristatus	S									Mgration
CHORDATA/ AVES	Empidonomus varius	Variegated Flycatcher					LC				Mgration
CHORDATA/ AVES	Eurypyga helias	Sunbittern					LC				
CHORDATA/ AVES	Gallinula chloropus	Common Moorhen					LC				
CHORDATA/ AVES	Harpia harpyja	Águila arpía					NT	\checkmark		Endangered, Brazil	
CHORDATA/ AVES	Heliornis fulica	Sungrebe					LC				
CHORDATA/ AVES	Himantopus himantopus	Black-winged Stilt	0000				LC				
CHORDATA/ AVES	Hirundo rustica	Barn Swallow					LC				Mgration
CHORDATA/ AVES	Ictinia mississippiensis						LC				Mgration
CHORDATA/ AVES	Jacana jacana	Wattled Jacana					LC				
CHORDATA/ AVES	Myiodynastes maculatus	Streaked Flycatcher					LC				Mgration
CHORDATA/ AVES	Notiochelidon cyanoleuca										Mgration
CHORDATA/ AVES	Numenius borealis	Eskimo Curlew					CR	\checkmark	\checkmark		Mgration
CHORDATA/ AVES	Pandion haliaetus	Western Osprey, Osprey					LC				Mgration
CHORDATA/ AVES	Petrochelidon pyrrhonota						LC				Mgration
CHORDATA/ AVES	Phaetusa simplex	Large-billed Tern			44000 2013-2016		LC				
CHORDATA/ AVES	Phalacrocorax brasilianus brasilianus	Cormoran			20000 1999-2016						
CHORDATA/ AVES	Phimosus infuscatus	Bare-faced lbis					LC				
CHORDATA/ AVES	Platalea ajaja						LC				
CHORDATA/ AVES	Porphyrio flavirostris	Azure Gallinule					LC				
CHORDATA/ AVES	Porphyrio martinica	Purple Gallinule									

Phylum	Scientific name	Common name	Species qualifie under criterio 2 4 6	s (contri un crite	cies ibutes der erion	Pop. Size	Period of pop. E	% occurrence		CITES Appendix .	CMS Appendix I	Cother Status	Justification
CHORDATA/ AVES	Progne chalybea	Gray-breasted Martin; Grey- breasted Martin			00]			LC				Mgration
CHORDATA/ AVES	Progne subis	Purple Martin]			LC				Migration
CHORDATA/ AVES	Pyrocephalus rubinus	Vermilion Flycatcher)			LC				Migration
CHORDATA/ AVES	Rynchops niger	Black Skimmer					20000	2013-2016		LC				
CHORDATA/ AVES	Sporophila cinnamomea	Chestnut Seedeater]			W		1		Migration
CHORDATA/ AVES	Sporophila hypoxantha	Tawny-bellied Seedeater]			LC				Migration
CHORDATA/ AVES	Sporophila lineola	Lined Seedeater)			LC				Migration
CHORDATA/ AVES	Tringa flavipes	Lesser Yellowlegs)			LC				Migration
CHORDATA/ AVES	Tringa solitaria	Solitary Sandpiper)			LC				Migration
CHORDATA/ AVES	Turdus amaurochalinus	Creamy-bellied Thrush)			LC				Migration
CHORDATA/ AVES	Tyrannus savana	Fork-tailed Flycatcher)			LC				Mgration
	and Crustacea													
CHORDATA/ ACTINOPTERYGI						J	9							
CHORDATA/ ACTINOPTERYGI	l platanum					V]							
CHORDATA/ ACTINOPTERYGI						J	9							
CHORDATA/ ACTINOPTERYGI		Streaked prochilod				1]							
CHORDATA/ ACTINOPTERYGI	Pseudoplatystoma corruscans	Spotted sorubim; Spotted sorubim				1	1							
	Pseudoplatystoma	-				V]							
CHORDATA/ ACTINOPTERYGI	Rhaphiodon	Biara; Biara; Biara				1]							
CHORDATA/ ACTINOPTERYGI	Salminus					1	9							Mgration
CHORDATA/ ACTINOPTERYGI	Sorubim lima	Duckbill catfish; Duckbill catfish				77	1							
Others														
CHORDATA/ REPTILIA	Ameiva ameiva]			LC				
CHORDATA/ REPTILIA	Ameivula ocellifera]			LC				
CHORDATA/ MAMMALIA	Blastocerus dichotomus	marsh deer]			W	₽			
CHORDATA/ MAMMALIA	Chrysocyon brachyurus	Maned Wolf]			NT			Endangered, Brazil	
CHORDATA/ REPTILIA	Dracaena paraguayensis				70]			LC				
CHORDATA/ REPTILIA	Helicops leopardinus]			LC				

Phylum	Scientific name	Common name	qu u cr		ies er ion	co	ntrik und rite	cies outes ler rion 7 8	Size	Period of pop. Est	% occurrence 1)	IUCN Red List		CMS Appendix I	Other Status	Justification
MAMMALIA	Myrmecophaga tridactyla	Giant Anteater	V			1						W				
CHORDATA/ MAMMALIA	Panthera onca					1			50			NT	\checkmark			
CHORDATA/ MAMMALIA	Pteronura brasiliensis	Giant Otter	1			Ø						EN	\checkmark			
CHORDATA/ MAMMALIA	Speothos venaticus	Bush Dog				•						NT	V			
CHORDATA/ MAMMALIA	Tapirus terrestris	Brazilian Tapir; South American Tapir	V	0								W				
CHORDATA/ MAMMALIA	Tayassu pecari	white-lipped peccary				/						VU				
CHORDATA/ REPTILIA	Thamnodynastes lanei					/										
CHORDATA/ REPTILIA	Tupinambis teguixin					/										

¹⁾ Percentage of the total biogeographic population at the site

breeding area for waterbirds + crocodilians present + important for reproduction of fishes + outstanding range of amphibian species + outstanding range of bird species + outstanding range of fish species + outstanding range of mammal species + outstanding range of reptile species + staging area for migratory waterbird species + supports endemic fish species + supports endemic invertebrate species + supports endemic species + supports rare/endangered bird species + supports rare/endangered mammal species + waterbird wintering/non-breeding/dry season area

3.4 - Ecological communities whose presence relates to the international importance of the site

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification	
Marshland	2		recognized as an enormous ecotone located between the Amazon, the Cerrado, the Atlantic Forest, and the Chaco biomes, with some influence from the Andes.	

4 - What is the Site like? (Ecological character description)

4.1 - Ecological character

The Pantanal has been recognized as an enormous ecotone located between the Amazon, the Cerrado, the Atlantic Forest, and the Chaco biomes, with some influence from the Andes. The area of the Reserve is dominated by vegetal formations known as Cerrado (savanna) and Cerradão (dense wooded savanna), covering 45% of the area; Matas (or forests) (35%), Campos and Capões or prairies (10%), Campo Sujo and Campo Úmido or mixed prairies and wet prairies (5%), and aquatic vegetation (4%). Less than 1% of the area is considered anthropized land, utilized as roads and homesteads. The Cerrado formation dominates the center portion of the proposed area, as it does in the entire Pantanal. Nevertheless, the area shows a variety of Cerrado forms, between the open Cerrado and the very dense Cerradão. The forests are of six types: the semideciduous seasonal forest and what is locally known as mixed Cerrado forest. These two types are mostly located bordering the Cuiabá River. The Mata Alta (High Forest) is located on hills or Cordilheiras. Alluvial Forest, Mixed Forest, Cambarazal (almost sole stands of Vochysia divergens) are areas mostly located along the São Lourenço river and also bordering several smaller rivers, lakes, and lagoons. Natural prairies in the area are also very diverse: Campos include several types of prairies in function of the dominating species, including Campo Sujo, a form of prairie with intrusion of pioneer shrubs and trees, and the Macegal (dominated by Mimosa pellita, Combretum lanceolatus, and Ipomoea alba). Of course, aquatic vegetation, including floating vegetation, is abundant everywhere water is permanent. While during the rainy season most of the area is flooded, the dry season shows extensive sand beaches along the rivers.

4.2 - What wetland type(s) are in the site?

	lands

nland wetlands				
Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Flowing water >> N: Seasonal/ intermittent/ irregular rivers/ streams/ creeks	Corixos, Vazantes	2		Representative
Fresh water > Lakes and pools >> O: Permanent freshwater lakes	Baías	3		Representative
Fresh water > Lakes and pools >> P: Seasonal/ intermittent freshwater lakes	Baías	4		Representative
Fresh water > Marshes on inorganic soils >> W: Shrub- dominated wetlands				
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands	Mata inundável, Mata ciliar	1		

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
Permanently terrestrial system: Paleo-levees Capões and Cordilheiras	
Intermittent terrestrial systems: natural grassland Campo limpo natural	
Systems covered with herbaceous plants, shrubs, and isolated trees: termite savanna flooded for several weeks Campo de	
Systems covered with herbaceous plants, shrubs, and isolated trees: woodlands flooded for periods < 3 or < 6 months Ca	
Monospecific systems predominantly covered with shrubs and trees: savannas flooded up to 4 to 8 months Paratudal Carand	
Monospecific systems predominantly covered with shrubs and trees: evergreen forests flooded up to 8 months Cambarazal	
Polyspecific systems predominantly covered with shrubs and trees: deciduous forests	
Poly specific systems predominantly covered with shrubs and trees: semi-deciduous forests	
Swamp systems covered with herbaceous plants and trees Buritizal	
Systems covered with shrubs: flooded during intermediate to long periods (shrubland flooded up to 4 to 8 months)	

4.3 - Biological components

4.3.1 - Plant species

Scientific name	Common name	Position in range / endemism / other
Byrsonima cydoniifolia		
Curatella americana		
Hymenaea stigonocarpa		
Inga uraguensis		
Licania parvifolia		

Not applicable	

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATA/REPTILIA	Erythrolamprus poecilogyrus					
CHORDATA/REPTILIA	Eunectes notaeus					
CHORDATA/REPTILIA	Hydrodynastes gigas					
CHORDATA/AVES	Oryzoborus angolensis angolensis					

Ontional	toxt how to	provido	further	information
Oblidiai	IEXL DUX IU	DIONUE	ıuııı	II IIOITTIAUOTT

- 1	Not applicable	
- 1	NOLADDICADIE	
- 1		
- 1		
- 1		
- 1		

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
A: Tropical humid climate	Aw: Tropical savanna (Winter dry season)

4.4.2 - Geomorphic setting

a) Mnimum elevation above sea level (in metres)
a) Maximum elevation above sea level (in metres)
Entire river basin
Upper part of river basin 🗹
Mddle part of river basin □
Lower part of river basin
More than one river basin □
Not in river basin

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

Coastal

reace harre the basin of basins. If the site has basin, preace also harre the target men basin. For a coastal marine site, preace harre the search	
Paraguay Hydrographic Region	

4.4.3 - Soil

Mneral

(Update) Changes at RIS update

No change

Increase

Decrease

Unknown

No available information

□

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)?

Please provide further information on the soil (optional)

The soil of the Reserve is defined as Alic and Distrofic red-yellow Lato-soils. This type of soil is characterized by its low fertility and elevated aluminum levels that affect root development.

Classes of soils are: Solonetzs, Plinthosols, Cambisols, Gleysols, Luvisols, Fluvisols, and Arenosols (WRB/FAO System).

4.4.4 - Water regime

Water permanence

vaco permanence		
Presence?	Changes at RIS update	
Usually seasonal, ephemeral or intermittent water present	unknown	
Usually permanent water present	unknown	

Source of water that maintains character of the site

Presence?	Predominant water source	Changes at RIS update
Water inputs from surface water	2	unknown
Water inputs from rainfall		unknown

Water destination

Presence?	Changes at RIS update
To downstream catchment	unknown
Feeds groundwater	unknown

Stability of water regime

Presence?	Changes at RIS update	
Water levels fluctuating (including tidal)	unknown	

4.4.5 - Sediment regime

Sediment regime is highly variable, either seasonally or inter-annually

(Update) Changes at RIS update No change O Increase O Decrease O Unknown ●

Sediment regime unknown

Please provide further information on sediment (optional):

The Reserve has a Phyto physiognomy called "flood plains". The flood plains are flat areas that occur laterally to river dynamics, subject to permanent or periodic flooding. In these areas, the sedimentation processes are active and occur concurrently with processes of soil formation. In the Reserve, the fluvial plains of the Cuiabá and São Lourenço rivers have soils of the class Flossic Neosols, Fluvic Gleissolos. They occur from eutrophic soils with sodium and/or nitric character to dystrophic soils with high Al3 + saturation. The floodplain areas of the Cuiabá river in the Reserve are more representative than those of Rio São Lourenço, which present little occurrence of this geomorphic feature in the Reserve. In the floodplain of the Cuiabá River, it was possible to verify the occurrence of sedimentation (Figure 7) concomitantly with pedogenetic processes related to structuring (formation of structural units of "aggregate" soils) and redistribution of iron and manganese in the soil

4.4.6 - Water pH

Circumneutral (pH: 5.5-7.4)

(Update) Changes at RIS update No change O Increase O Decrease O Unknown

O

Unknown

4.4.7 - Water salinity

Fresh (<0.5 g/l)

(Update) Changes at RIS update No change

● Increase

O Decrease

O Unknown

O

Unknown

4.4.8 - Dissolved or suspended nutrients in water

Eutrophic 🗹

(Update) Changes at RIS update No change O Increase O Decrease O Unknown

O

Oligotrophic 🗹

 $^{\text{(Update)}}$ Changes at RIS update No change O Increase O Decrease O Unknown \odot

Unknown

Please provide further information on dissolved or suspended nutrients (optional):

Due to the seasonal regime in the Reserve, called "flooding pulse", the trophic state is variable between Eutrophic and Oligotrophic. The trophic state changes according to the dry and rainy seasons and the degree of connectivity between bays, rivers, and wetlands.

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the i) broadly similar ii) significantly different iii) site itself:

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	High
Fresh water	Drinking water for humans and/or livestock	Medium
Wetland non-food products	Other	Medium

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	not relevant for site
Erosion protection	Soil, sediment and nutrient retention	not relevant for site
Pollution control and detoxification	Water purification/waste treatment or dilution	not relevant for site
Climate regulation	Local climate regulation/buffering of change	not relevant for site

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Recreational hunting and fishing	High
Spiritual and inspirational	Aesthetic and sense of place values	High
Scientific and educational	Educational activities and opportunities	High
Scientific and educational	Long-term monitoring site	High

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganizms, the genes they contain, and the ecosystems of which they form a part	High
Soil formation	Sediment retention	High
Nutrient cycling	Storage, recycling, processing and acquisition of nutrients	High
Nutrient cycling	Carbon storage/sequestration	High
Pollination	Support for pollinators	High

Within the site:	50
Outside the site:	35,000
Have studies or assessments been made of the economic valuation of Yes No O Unknown O ecosystem services provided by this Ramsar Site?	
Where economic studies or assessments of economic valuation have been undertaken at the site, it would be helpful to provide information on where the results of such studies	

may be located (e.g. website links, citation of published literature):

http://www.sescpantanal.com.br/hotel.aspx?s=12&i=24#!p6_3

4.5.2 - Social and cultural values

i) the site provides a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland
ii) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland
iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples
iv) relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland

<no data available>

4.6 - Ecological processes

<no data available>

5 - How is the Site managed? (Conservation and management)

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

ı ub	lic owners	u III

Category	Within the Ramsar Site	In the surrounding area
National/Federal		□
government		E.

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Foundation/non- governmental organization/trust	2	
Other types of private/individual owner(s)		✓

Provide further information on the land tenure / ownership regime (optional):

The Reserve is entirely a private estate, fully owned by the Social Service of Commerce (Sesc). This estate was transformed by Sesc, partially in July 1998 and partially in November 9th, 1998, into a Private Reserve of Natural Heritage (Reserva Particular do Patrimônio Natural - RPPN), recognized by the Brazilian Institute of the Environment and Natural Renewable Resources (IBAMA). This category of conservation area is established by Federal Law No. 9985/2000, Article 21. The RPPN was created for perpetuity, and its objective of preserving nature can never be modified. This Reserve is managed using a management plan and under supervision of the IBAMA. The only difference of an RPPN vis-à-vis a National Park land is the ownership, i.e., private. If the owner wishes to sell the area, this can be done only if the objective of nature protection is not changed. Of course, being the Sesc a nonprofit entity, the Reserve will never be sold.

5.1.2 - Management authority

,	
agency or organization responsible for	Serviço Social do Comércio (Sesc)
managing the site:	
Provide the name and title of the person or	Cristina Cuiabália Rodrigues Pimentel Neves, Head of Research and Environment
people with responsibility for the wetland:	Cristina Culaballa Nourigues Filmentel Neves, Flead of Nesearch and Environment
Postal address:	Serviço Nacional do Comércio (Sesc) Avenida Filinto Müller, 218, Jardim Aeroporto Várzea Grande - MT 78125-044 Contact: +55 (65) 3688-2004 www.sescpantanal.com.br https://www.facebook.com/sescpantanal/ cuiabalia@sescp antanal.com.br
	cuiabalia@gmail.com
E mail address:	quiabalia@soscnantanal.com.hr

5.2 - Ecological character threats and responses (Management)

5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Human settlements (non agricultural)

Trainer outonic (nor agricultura)						
Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Tourism and recreation areas	Medium impact	High impact	2	unknown	2	unknown

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes	
Canalisation and river regulation	Medium impact	High impact		No change	V	unknown	

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
anecting site				_		_
Livestock farming and ranching	Low impact	Low impact		No change	/	increase

Energy production and mining

Energy production and mil	iii ig					
Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Mining and quarrying	Medium impact	Medium impact		No change	✓	unknown

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Roads and railroads	Low impact	Medium impact	₽	No change	✓	increase
iological resource use						
Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Hunting and collecting terrestrial animals	Low impact	unknown impact	/	No change	✓	increase
Fishing and harvesting aquatic resources	High impact	High impact	V	increase	V	unknown
luman intrusions and distur	rbance					
Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Recreational and tourism activities	Medium impact	unknown impact		No change	2	unknown
Unspecified/others	Medium impact	unknown impact		No change	✓	unknown
latural system modifications Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Fire and fire suppression	High impact	High impact	2	increase	✓	increase
Pollution						
Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Agricultural and forestry effluents	Medium impact	High impact		No change	✓	increase
Garbage and solid waste	High impact	High impact		No change	2	increase
limate change and severe	weather					
Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Storms and flooding	unknown impact	unknown impact	✓	unknown	✓	unknown

5.2.2 - Legal conservation status

Global legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
UNESCO Biosphere Reserve	Core Zone of Biosphere Reserve of Pantanal	http://www.mma.gov.br/areas-prot egidas/instrumentos-de-gestao/re serva-da-biosfera	whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Private Natural Heritage Reserve(RPPN)			whole

5.2.3 - IUCN protected areas categories (2008)

la Strict Nature Reserve □
Ib Wilderness Area: protected area managed mainly for wilderness protection
II National Park: protected area managed mainly for ecosystem protection and recreation
III Natural Monument: protected area managed mainly for conservation of specific natural features
IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

5.2.4 - Key conservation measures

Legal protection

Measures	Status	
Legal protection	Implemented	

Habitat

Measures	Status
Catchment management initiatives/controls	Implemented
Re-vegetation	Implemented
Soil management	Implemented
Land conversion controls	Implemented
Faunal corridors/passage	Proposed

Species

Measures	Status
Threatened/rare species management programmes	Implemented

Human Activities

Turrian Activities	
Measures	Status
Communication, education, and participation and awareness activities	Implemented
Regulation/management of recreational activities	Implemented
Fisheries management/regulation	Partially implemented
Research	Implemented
Regulation/management of wastes	Implemented

5.2.5 - Management planning

Is there a site-specific management plan for the site? Yes

Has a management effectiveness assessment been undertaken for the site? Yes ◎ No O

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning Yes O No opprocesses with another Contracting Party?

Please indicate if a Ramsar centre, other educational or visitor facility, or an educational or visitor programme is associated with the site:

The Reserve is open for guided tours of students and any other group of local people. Indeed, Sesc is often financing not only tours in the Reserve but also the cost of travel. All Sesc Hotel guests are also visitors of the Reserve. The rangers work as guides, even the professional staff of the Reserve, on special occasions.

URL of site-related webpage (if relevant): https://www.sescpantanal.com.br/hotel.aspx?s=12&i=18#!p1 0

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No, the site has already been restored

5.2.7 - Monitoring implemented or proposed

0 1	
Monitoring	Status
Water regime monitoring	Implemented
Soil quality	Implemented
Plant community	Implemented
Animal community	Implemented

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

https://www.sescpantanal.com.br/hotel.aspx?s=12&i=24#!p6_3

https://peerj.com/articles/4200/

https://link.springer.com/article/10.1007/s10531-014-0773-8

http://www.ecologia.u frgs.br/labgeo/arquivos/Publicacoes/Livros_ou_capitulos/2010/Hoffman_et_al_2010_O_clima_na_RPPN_SESC Pantanal.pdf

http://www.sescpantanal.com.br/arquivos/cadastro-itens/layout-6/arquivos/file -636004641363334343.pdf

http://www.icmbio.gov.br/portal/images/stories/docs-planos-de-manej o/rppn sesc pantanal.pdf

https://www.researchgate.net/publication/267764255_Plants_from_dee r_diet_in_the_Brazilian_Pantanal_Wetland_as_potential_source_of_antiviral_and_antioxidant_compounds< br>http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0074-02762011000400009

htt ps://www.arca.fiocruz.br/handle/icict/20159

https://repositorio.unesp.br/handle/11449/72567

http://www.scielo.br/scielo.php?pid=S1676-06032011000100022&script=sci abstract&tlng=pt

https://www.researchgate.net/profile/Gabriel_Hofmann/publication/313877150_Taiassuideos_simpa tricos_no_norte_do_Pantanal_brasileiro_implicacoes_da_estacionalidade_climatica_do_uso_da_terra_e_da __presenca_de_uma_especie_invasora_nas_interacoes_competitivas_entre_caititus_Pecar/links/58aca31a928 51c3cfda05849/Taiassuideos-simpatricos-no-norte-do-Pantanal-brasileiro-implicacoes-da-estacionalidad e-climatica-do-uso-da-terra-e-da-presenca-de-uma-especie-invasora-nas-interacoes-competitivas-entre- caititus-Peca.pdf

http://ria.ua.pt/handle/10773/4720

http://www.dominiopublico.gov.br/pesquisa/DetalheObraForm.do?select_action=&co_obra=66610

http://www.bioone.org/doi/full /10.1644/1545-1542%282002%29083%3C0207%3ACOPAFH%3E2.0.CO%3B2

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)

<no file available>

ii. a detailed Ecological Character Description (ECD) (in a national format)

<no file available>

iii. a description of the site in a national or regional wetland inventory

<no file available>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

<no file available>

vi. other published literature

<no file available>

<no data available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



SESC Pantanal (Haroldo



Campo Alagado - Pantanal MT (*Haroldo Palo, 30-07-*



SESC Pantanal (Ricardo Martins, 21-01-2010)



RPPN Sesc Pantanal Photo : Haroldo Palo Jr. (Serviço Social do Conércio - Sesc, 04/04/2006)



RPPN Sesc Pantanal Photo : Haroldo Palo Jr. (Serviço Social do Comércio - Sesc, 04/04/2006)



RPPN Sesc Pantanal Photo: : Haroldo Palo Jr. (Serviço Social do Corrércio - Sesc, 04/04/2006)



RPPN Sesc Pantanal Photo : Haroldo Palo Jr. (Serviço Social do Comércio - Sesc, 04/04/2006)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation 2002-12-06