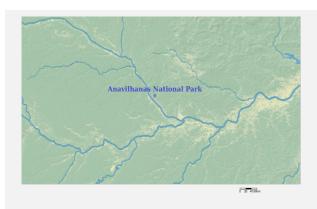


Ramsar Information Sheet

Published on 10 July 2017

BrazilAnavilhanas National Park



Designation date 22 March 2017
Site number 2296
Coordinates 02°28'03"S 60°49'11"W

Area 350 469,80 ha

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 Anavilhanas National Park is located in the state of Amazonas, which hosts the largest Tropical Rainforest (The Amazon) and river basin in the world. Of great scenic beauty, this site features various forest formations that include Tropical Rainforest, flooded forest (igapó), White-sand forest, Caatinga-gapó forest and Campirana (Chavascal forest), as well as river and lake ecosystems. The river park, which has more than 400 islands (approximately 130 km long and 20 km wide on average), represents 60% of the unit, while the proportion of land it represents is 40% (Brasil, 1999).

The area of the ANP has approximately 70 lakes that are generally elongated and elliptical due to the process of the islands' formation in the archipelago, which are elongated and narrow because of the process of sedimentation originating from the Branco River (Sioli, 2006).

On the Anavilhanas islands, located within the boundaries of ANP, 48 species of birds have been recorded (32 aquatic and 19 piscivorous). In the site is also present the margay (L. wiedii) a small feline that has a gestation period of about 82 days and bears only a single pup, which results in a low resiliency when compared to other species of felines (Oliveira, 2008). The Amazonian manatee (T. inunguis) is the largest South American freshwater herbivore, and exists only in the Amazon basin). The biological characteristics and conservation status of these two species reaffirm the Ramsar Site's importance for the preservation of biodiversity in the region.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Compiler 1

Name	Marília Cunha Lignon							
Institution/agency	consultant							
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2.1.2 - Period of collection of data and information used to compile the RIS

From year 2014 To year 2014

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Anavilhanas National Park Spanish)

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image

<1 file(s) uploaded>

Former maps 0

Boundaries description

The Ramsar site boundaries are the same of the Anavilhanas National Park (ANP): Jacaré Island on its Northwestern part; Baependi River at North/Northeast; Apuaú River at East; and Ponta do Seringal on its South. The site is located in the eastern part of the state of Amazonas, stretches along the Negro River, which is the biggest left tributary of the Amazon River.

2.2.2 - General location

a) In which large administrative region does the site lie?	Amazonas state
b) What is the nearest town or population	Manaus

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other Yes O No

Yes O No 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): 350469.8 Area, in hectares (ha) as calculated from 350233.31

2.2.5 - Biogeography

Biogeographic regions	siogeographic regions					
Regionalisation scheme(s)	Biogeographic region					
Freshwater Ecoregions of the World (FEOW)	Rio Negro					

The ANP is located in the Neotropical biogeographical region in the Amazon's biogeographical province (Udvardy, 1975). The Negro River, the main river of ANP, is located on a region of floodplains and tropical and subtropical wetlands (WWF & TNC, 2013). The ANP is located in the Amazon Biome, the largest in Brazil (area of 4,196,943 million km2), and is dominated by Tropical Rainforest (Brasil, 2014).

2010).

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 Negro River is a waterway with important boat traffic, and is used by traditional communities who inhabit the riparian environment of the ANP. This river is the only way to access the municipalities of São Gabriel da Cachoeira, Santa Isabel and Barcelos, and other communities settled along the river. The river also supplies the various riverside communities located around the Ramsar Site, as well as the municipalities of Novo Airão (14,723 inhabitants) and Manaus (1,802,014 inhabitants).

Current research is showing the archipelago works as an "hydric pump", retaining 5 to 10% of water volume from its upper to its lower part during the flood season. During the dry season, the archipelago releases the water retained. This phenomenon potentially increases sediments and nutrients retained in the archipelago (Naziano Filizola, personal communication).

The evapotranspiration of Tropical Rainforest, combined with the large volume of water from the rivers,

means that this region has a key role in the country's climate control (Nobre et al. 2009; Miotto, 2014). Anavilhanas Archipelago is covered by flooded forests, which provide food and shelter for fish and other Other ecosystem services provided aquatic animals, playing a major role in local and regional fishery production. This is specially important due to its proximity to Manaus (30 km from its Southern portion), which represents an increasing market

ANP provides scenic beauty for recreational activities.

☑ Criterion 2 : Rare species and threatened ecological communities

demand for fish.

Criterion 3 : Biological diversity

The ANP is located in the largest biome of Brazil (The Amazon), and is characterised by high biological diversity (Brasil, 2010).

The following plant formations dominate the ANP: 1. Igapó forest; 2. Tropical Rainforest; 3. White-sand forest; 4. Caatinga-gapó forest (floodplains); 5. Campirana (Chavascal forest) (Brasil, 1999), which are detailed in item 20 (General ecological features). The diversity of the environments of the Ramsar Site provides suitable conditions for the species of endemic fauna, and migratory and endangered species.

Regarding the ichthyofauna, a high diversity of species is distributed in lakes, rivers and creeks. The fish that live in the dark waters of the Negro River have a dependence on the vegetation of the Anavilhanas Archipelago and its banks, where it feeds and shelters (Brasil, 1999).

Justification

The bird species found on the islands of the Anavilhanas Archipelago are guite distinct from those that reside in dry land areas (Cintra et al. 2007), stressing the importance of diversity of these environments for the bird species. A number of Nearctic migratory birds inhabit open wetlands, such as rivers, lakes and beaches. The yellow-billed tern (Sternula superciliaris), the large-billed tern (Phaetusa simplex) and the black skimmer (Rynchops niger) use the beaches of the Anavilhanas Archipelago during reproductive periods (Zarza et al., 2013).

The heterogeneity of vegetation types found on the Ramsar Site (especially in Terra-Firme forests that include the White-sand forest and Chavascal forest), are of great importance to the preservation of terrestrial mammals in the ANP (Tardio & Tardio, 2012).

- ☑ Criterion 4 : Support during critical life cycle stage or in adverse conditions
- ☑ Criterion 8 : Fish spawning grounds, etc.

In relation to the fish using microhabitats on the Negro River (such as beaches, banks, lakes and channels), the dominant families are Engraulidae (55.39%), Pimelodidae (30.45%), Auchenipteridae (5.23%), and Sciaenidae (5.13%). The presence of four stages of larval development of the Pimelodidae, Sciaenidae and Engraulidae, suggests that the ANP is an important area for spawning and early development (Oliveira & Ferreira, 2008).

Justification

Because of the Negro River's water dynamics, with the rainy season from December to May, and the dry season from June to November, several animal species have different habitat preferences throughout the year. For example, fish from flooded forests and lakes of the Anavilhanas National Park present distinct feeding behaviour. In general, the diversity of species is greater in flooded forest due to the greater supply of food, including fruit (Noveras et al., 2012).

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

<no data available>

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	Period of pop. Est.	occurrence	IUCN CITE Red Apper List I	S CMS dix Appendix I	Other Status	Justification
Birds										
AVES		Spotted Sandpiper	· - 2							Nearctic migratory bird specie recorded in the National Park Anavilhanas
CHORDATA / AVES	Bartramia Iongicauda									Nearctic migratory bird specie recorded in the National Park Anavilhanas
CHORDATA / AVES	tuscicollis	White-rumped Sandpiper]					Nearctic migratory bird specie recorded in the National Park Anavilhanas
CHORDATA / AVES	melanotos	Pectoral Sandpiper]					Nearctic migratory bird specie recorded in the National Park Anavilhanas
AVES	Calidris minutilla	Least Sandpiper]					Nearctic migratory bird specie recorded in the National Park Anavilhanas
CHORDATA / AVES	Hirundo rustica	Barn Swallow								Nearctic migratory bird specie recorded in the National Park Anavilhanas
	haemastica									Nearctic migratory bird specie recorded in the National Park Anavilhanas
CHORDATA / AVES	Pandion haliaetus	Osprey, Western Osprey]					Nearctic migratory bird specie recorded in the National Park Anavilhanas

Phylum	Scientific name	Common name	Species qualifies under criterion	COL	pecies tributes under iterion 5 7 8	Pop. Size Period of pop. Est.	% IUCN occurrence 1) List	I CITES Appendix I	CMS Appendix I	Other Status	Justification
AVES		American Golden Plover; American Golden-Plover									Nearctic migratory bird specie recorded in the National Park Anavilhanas
AVES	Progne subis	Purple Martin									Nearctic migratory bird specie recorded in the National Park Anavilhanas
AVES	Tringa flavipes	Lesser Yellowlegs									Nearctic migratory bird specie recorded in the National Park Anavilhanas
AVES	melanoleuca	Greater Yellowlegs									Nearctic migratory bird specie recorded in the National Park Anavilhanas
CHORDATA / AVES	Tringa solitaria	Solitary Sandpiper									Nearctic migratory bird specie recorded in the National Park Anavilhanas
	Tryngites subruficollis	Buff-breasted Sandpiper							V		Nearctic migratory bird specie recorded in the National Park Anavilhanas
Others											
	Leopardus wiedii		2 00				EN STRY				
MAMMALIA	Myrmecophaga tridactyla	Giant Anteater	2 00				VU • is				
CHORDATA / MAMMALIA	Panthera onca	Jaguar	2 00				EN STRP				
CHORDATA	Priodontes maximus	Giant Armadillo					VU STSF	V			
MAMMALIA	brasiliensis	Giant Otter	2 00				EN G S	V			
CHORDATA / MAMMALIA	inunguis	Amazonian Manatee					VU ● St ● St	V			

¹⁾ Percentage of the total biogeographic population at the site

The Ramsar Site, with its great diversity of landscapes and ecosystems that includes numerous islands, wetlands, lakes and the Terra Firme forest, is home to several species of fauna that rely on the region in some phase of its lifecycle or throughout.

In the waters of the Negro River's channels and lakes, and on its beaches and banks, fish species from the families Pimelodidae, Sciaenidae and Engraulidae were recorded at all stages of larval development, confirming that the ANP is an important area for spawning and early development of these species (Oliveira & Ferreira, 2008).

On the Anavilhanas islands, located within the boundaries of ANP, 48 species of birds have been recorded (32 aquatic and 19 piscivorous). This reinforces the importance of the Negro River and its natural resources (which are protected by the ANP), because of the need to preserve avifauna in the region (Cintra, 2012).

The margay (L. wiedii) is a small feline that has a gestation period of about 82 days and bears only a single pup, which results in a low resiliency when compared to other species of felines (Oliveira, 2008). The Amazonian manatee (T. inunguis) is the largest South American freshwater herbivore, and exists only in the Amazon basin. The interval between births is at least three years, showing a low reproductive rate, and means it is difficult to recover its population (Silva et al., 2008). The biological characteristics and conservation status of these two species reaffirm the Ramsar Site's importance for the preservation of biodiversity in the region.

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

<no data available>

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

4.1 - Ecological character

The ANP is located in the state of Amazonas, which hosts the largest Tropical Rainforest (The Amazon) and river basin in the world. It is distributed along the waters of the Negro River, the longest river of black water in the world, and includes the biggest left tributary of the Amazon River. The Ramsar Site's ANP is formed by the fluvial archipelago of Anavilhanas, which has approximately 400 islands, and is influenced by the natural variation of the Negro River's water volume throughout the year.

The Park protects a singular diversity of aquatic and terrestrial landscapes (lakes, "paranás", rivers, beaches, forest of igapó, solid ground forest, "chavascal", caatinga-gapó, meadow and "campinarana"), that contribute to its rich biodiversity. It stretches from one margin to another of the Black River and has a composition of species differentiated in other areas of the region, due to the contribution of nutrients from the Branco River, upstream tributary of the Negro river.

The Park protects the second largest river archipelago in the world, which represents 60% of the conservation area, with more than 350 thousand hectares. In the Anavilhanas archipelago, lakes, canals and igapós are important refuges and fish spawning grounds, which constitute an important source of food for the region, including the capital Manaus, about 30km away from the Park.

Still, the Park has scenic beauty and it's a portal of visitation of the Amazon, for its proximity to Manaus, that welcomes thousands of tourists and foreigners annually.

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

Inland 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 >> Mt Permanent rivers/ streams/ creeks		1		Representative
Saline, brackish or alkaline water > Lakes >> R: Seasonal/ intermittent saline/ brackish/ alkaline lakes and flats		3		
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools		4		
Fresh water > Lakes and pools >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils		4		
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands		2		

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Scientific name	Common name	Position in range / endemism / other
Acosmium nitens		
Aiouea maguireana		
Albizia subdimidiata		
Aldina heterophylla		
Aldina latifolia		
Alibertia edulis		
Amanoa oblongifolia		
Ananas comosus microstachys		
Andira parviflora		
Aniba affinis		
Aniba ferrea		
Aniba panurensis		
Aniba parviflora		
Aniba permollis		
Aniba williamsii		
Annona ambotay		
Annona glabra		
Annona hypoglauca		
Anthurium gracile		
Anthurium obtusum obtusum		
Apeiba echinata		
Aspidosperma carapanauba		
Aspidosperma pachypterum		
Bactris simplicifrons		
Banisteriopsis caapi		
Bauhinia alata		
Blastemanthus grandiflorus sprucei		

Scientific name	Common name	Position in range / endemism / other
Bocageopsis multiflora		
Bocoa viridiflora		
Bothriospora corymbosa		
Brosimum guianense		
Brosimum potabile		
Brosimum rubescens		
Brosimum utile		
Buchenavia oxycarpa		
Buchenavia suaveolens		
Burdachia prismatocarpa		
Byttneria fulva		
Campsiandra angustifolia		
Campsiandra comosa		
Caraipa grandifolia		
Cariniana decandra		
Caryocar glabrum		
Caryocar microcarpum		
Caryocar villosum		
Cassia leiandra		
Cassipourea guianensis		
Cattleya violacea		
Cattleya wallisii		
Cecropia latiloba		
Centrosema triquetrum		
Chomelia grandifolia		
Chrysophyllum prieurii		
Chrysophyllum sanguinolentum balata		
Cissus erosa		
Clarisia racemosa		
Clitoria amazonum		
Coccoloba ovata		
Combretum rotundifolium		
Cordia exaltata		
Corythophora alta		
Costus acreanus		
Couepia bracteosa		
Couepia guianensis		
Couepia multiflora		
Couepia obovata		
Couepia paraensis		
Couma macrocarpa		
Couma utilis		
Crepidospermum rhoifolium		
Croton cuneatus		
Croton matourensis		
Crudia amazonica		
Cybianthus reticulatus		
Cynometra bauhiniifolia		
Cynometra spruceana		
Dacryodes microcarpa		
Dacryodes nitens		
Dacryodes roraimensis		
Dalbergia riparia		
Davilla nitida		
Dialium guianense		
Dicorynia paraensis		
Dicranostyles scandens		
Diospyros poeppigiana		
Diospyros tenuiflora		
Diospyros vestita		
Dulacia guianensis		
Duroia eriopila		
Emmotum orbiculatum		
Eperua glabriflora		
Ephedranthus amazonicus		
Erisma calcaratum		
Eschweilera albiflora		
Eschweilera amazonica		
Eschweilera apiculata		
aprounded		<u> </u>

	_	
Scientific name Eschweilera atropetiolata	Common name	Position in range / endemism / other
Eschweilera coriacea		
Eschweilera grandiflora		
Eschweilera micrantha		
Eschweilera parviflora		
Eschweilera parvifolia		
Eschweilera tenuifolia		
Euterpe catinga		
Exellodendron coriaceum		
Faramea corymbosa		
Faramea sessilifolia		
Ferdinandusa guainiae Ficus citrifolia		
Goupia glabra		
Guarea carinata		
Guarea macrophylla		
Guarea pubescens pubiflora		
Guarea purusana		
Guarea velutina		
Guatteria guianensis		
Guatteria olivacea		
Gustavia augusta		
Gustavia elliptica Gustavia hexapetala		
Gustavia longifolia		
Gustavia pulchra		
Haploclathra leiantha		
Haploclathra paniculata		
Hebepetalum humiriifolium		
Heisteria acuminata		
Heisteria laxiflora		
Helianthostylis sprucei		
Helicostylis tomentosa		
Henriettea horridula		
Henriquezia nitida Heterostemon mimosoides		
Hevea spruceana		
Himatanthus attenuatus		
Hippocratea volubilis		
Hirtella racemosa		
Humiriastrum cuspidatum		
Hymenolobium excelsum		
Inga alba		
Inga paraensis		
Iryanthera juruensis Iryanthera laevis		
Iryanthera lancifolia		
Iryanthera sagotiana		
Iryanthera tricornis		
Iryanthera ulei		
Ischnosiphon polyphyllus		
Lacistema aggregatum		
Lacmellea edulis		
Lagenocarpus sabanensis		
Lecythis pisonis Leonia glycycarpa racemosa		
Leonia grycycarpa racernosa Leopoldinia pulchra		
Leretia cordata		
Licania apetala		
Licania caudata		
Licania coriacea		
Licania cuprea		
Licania densiflora		
Licania egleri		
Licania emarginata		
Licania heteromorpha		
Licania hypoleuca Licania incana		
Licania Hicana		
Liberiia Renie ilana	<u> </u>	

Scientific name	Common name	Position in range / endemism / othe
Licania lata		•
Licania latifolia		
Licania longipetala		
Licania longistyla		
Licania macrophylla		
Licania micrantha		
Licania oblongifolia		
Licania octandra		
Licania parviflora		
Licania reticulata		
Licania rodriguesii		
Lorostemon coelhoi		
Lorostemon colombianum		
Mabea angustifolia		
Mabea caudata		
Mabea nitida		
Machaerium ferox		
Macrolobium acaciifolium		
Macrolobium angustifolium		
Macrolobium multijugum		
Macrolobium rubrum		
Malouetia tamaquarina		
Manicaria martiana		
Manilkara bidentata surinamensis		
Manilkara cavalcantei		
Matayba arborescens		
Mezilaurus itauba		
Miconia argyrophylla		
Micrandra siphonioides		
Micropholis guyanensis		
duckeana		
Micropholis venulosa		
Minquartia guianensis		
Monotagma plurispicatum		
Mouriri brevipes		
Mouriri cauliflora Mouriri crassifolia		
Mouriri duckeana		
Mouriri duckeanoides		
Mouriri nigra		
Moutabea guianensis		
Naucleopsis caloneura		
Nectandra amazonum		
Ocotea aciphylla		
Ocotea canaliculata		
Ocotea cernua		
Ocotea fasciculata		
Ocotea longifolia		
Ocotea myriantha		
Ocotea schomburgkiana		
Odontadenia geminata		
Oenocarpus bacaba		
Ormosia excelsa		
Ormosia macrocalyx		
Oryza sativa		
Ouratea salicifolia		
Ouratea spruceana		
Ouratea spruceana Oxandra riedeliana		
Oxandra riedeliana		
Oxandra riedeliana Pachira insignis		
Oxandra riedeliana Pachira insignis Pagamea coriacea		
Oxandra riedeliana Pachira insignis Pagamea coriacea Palicourea guianensis		
Oxandra riedeliana Pachira insignis Pagamea coriacea Palicourea guianensis Panopsis rubescens		
Oxandra riedeliana Pachira insignis Pagamea coriacea Palicourea guianensis Panopsis rubescens Parahancornia fasciculata		
Oxandra riedeliana Pachira insignis Pagamea coriacea Palicourea guianensis Panopsis rubescens Parahancornia fasciculata Parinari campestris		
Oxandra riedeliana Pachira insignis Pagamea coriacea Palicourea guianensis Panopsis rubescens Parahancornia fasciculata Parinari campestris Parinari excelsa		
Oxandra riedeliana Pachira insignis Pagamea coriacea Palicourea guianensis Panopsis rubescens Parahancornia fasciculata Parinari campestris Parinari excelsa Parkia discolor		
Oxandra riedeliana Pachira insignis Pagamea coriacea Palicourea guianensis Panopsis rubescens Parahancornia fasciculata Parinari campestris Parinari excelsa		

0 : 45		
Scientific name	Common name	Position in range / endemism / other
Paypayrola guianensis Peltogyne campestris		
Peltogyne catingae		
Peltogyne paniculata		
Peltogyne venosa		
Pentaclethra macroloba		
Pera distichophylla		
Perama dichotoma		
Philodendron pulchrum		
Piranhea trifoliata		
Poecilanthe amazonica		
Posoqueria longiflora		
Pouteria dominigensis		
cuprea Pouteria elegans		
Pouteria gomphiifolia		
Pouteria guianensis		
Pouteria jariensis		
Pouteria rostrata		
Protium apiculatum		
Protium aracouchini		
Protium decandrum		
Protium ferrugineum		
Protium giganteum		
Protium grandifolium		
Protium guianense		
Protium guianense pilosissimum		
Protium hebetatum		
Protium opacum		
Protium peruvianum		
Pseudobombax munguba		
Pseudolmedia laevigata		
Pseudolmedia laevis		
Pseudoxandra polyphleba		
Psittacanthus cinctus		
Pterocarpus santalinoides		
Qualea acuminata		
Qualea cassiquiarensis		
Qualea retusa		
Quiina brevensis		
Quiina florida		
Rapatea paludosa		
Remijia glomerata		
Remijia hirsuta Retiniphyllum schomburgkii		
Retiniphyllum scnomburgkii Retiniphyllum speciosum		
Rinorea racemosa		
Roucheria columbiana		
Rudgea sclerocalyx		
Salacia gigantea		
Scleronema micranthum		
Securidaca longifolia		
Securidaca paniculata		
Simaba guianensis		
Simaba obovata		
Simaba orinocensis		
Simira rubescens		
Sloanea floribunda		
Sloanea rufa		
Sobralia sessilis		
Solanum uncinellum		
Sorocea guilleminiana		
Sorocea muriculata		
Spathanthus bicolor		
Strychnos guianensis		
Strychnos peckii		
Strychnos sandwithiana		
Strychnos subcordata		
Styrax guianensis		

Scientific name	Common name	Position in range / endemism / other
Swartzia arborescens		
Swartzia auriculata		
Swartzia duckei		
Swartzia laevicarpa		
Swartzia macrocarpa		
Swartzia polyphylla		
Swartzia ulei		
Symmeria paniculata		
Tabernaemontana flavicans		
Tabernaemontana siphilitica		
Talisia cupularis		
Talisia guianensis		
Taralea oppositifolia		
Tillandsia bulbosa		
Tococa subciliata		
Trichilia mazanensis		
Trichilia micrantha		
Trichilia poeppigii		
Trichilia rubra		
Trichilia septentrionalis		
Trichomanes macilentum		
Trymatococcus amazonicus		
Unonopsis guatterioides		
Urospatha sagittifolia		
Vantanea macrocarpa		
Virola calophylla		
Virola elongata		
Virola michelii		
Virola pavonis		
Virola sebifera		
Virola venosa		
Vismia cayennensis		
Vismia guianensis		
Vismia sprucei		
Wallacea insignis		
Xylopia emarginata		
Zygia cataractae		

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/AVES	Accipiter striatus	Sharp-shinned Hawk				
CHORDATA/AVES	Amazilia fimbriata	Glittering-throated Emerald				
CHORDATA/AVES	Amazona amazonica	Orange-winged Amazon				
CHORDATA/AVES	Amazona autumnalis	Red-lored Amazon;Red- lored Parrot				
CHORDATA/AVES	Amazona farinosa	Mealy Amazon; Mealy Parrot				
CHORDATA/AVES	Amazona festiva	Festive Amazon				
CHORDATA/AVES	Anhinga anhinga	Anhinga				
CHORDATA/AVES	Ara ararauna	Blue-and-yellow Macaw				
CHORDATA/AVES	Ara chloropterus					
CHORDATA/AVES	Aramides cajanea	Gray-necked Wood- Rail;Grey-necked Wood Rail				
CHORDATA/AVES	Aratinga leucophthalma					
CHORDATA/AVES	Aratinga pertinax	Brown-throated Parakeet				
CHORDATA/AVES	Ardea alba					
CHORDATA/AVES	Ardea cocoi	Cocoi Heron				
CHORDATA/AVES	Attila cinnamomeus	Cinnamon Attila				

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATAVAVES	Brotogeris chrysoptera					
CHORDATA/AVES	Bubulcus ibis	Cattle Egret;Western Cattle Egret				
CHORDATAVAVES	Buteo nitidus	Gray Hawk; Grey Hawk				
CHORDATA/AVES	Buteogallus urubitinga	Great Black Hawk;Great Black-Hawk				
CHORDATAVAVES	Cacicus cela	Yellow-rumped Cacique				
CHORDATA/AVES	Cairina moschata	Muscovy Duck				
CHORDATA/AVES	Campephilus melanoleucos	Crimson-crested Woodpecker				
CHORDATA/AVES	Camptostoma obsoletum	Southern Beardless Tyrannulet;Southern Beardless-Tyrannulet				
CHORDATAVAVES	Capito niger	Black-spotted Barbet				
CHORDATAVAVES	Caprimulgus nigrescens	Blackish Nightjar				
CHORDATA/AVES	Caryothraustes canadensis	Yellow-green Grosbeak				
CHORDATA/AVES	Cathartes aura	Turkey Vulture				
CHORDATAVAVES	Cathartes melambrotus	Greater Yellow-headed Vulture				
CHORDATAVAVES	Celeus elegans	Chestnut Woodpecker				
CHORDATA/AVES	Celeus flavus	Cream-colored Woodpecker				
CHORDATA/AVES	Cephalopterus ornatus	Amazonian Umbrellabird				
CHORDATAVAVES	Cercomacra cinerascens	Grey Antbird				
CHORDATA/AVES	Chaetura brachyura	Short-tailed Swift				
CHORDATAVAVES	Chaetura cinereiventris	Gray-rumped Swift;Grey- rumped Swift				
CHORDATAVAVES	Chaetura spinicaudus					
CHORDATA/AVES	Chelidoptera tenebrosa	Swallow-wing Puffbird;Swallow-winged Puffbird				
CHORDATA/AVES	Chloroceryle aenea	American Pygmy Kingfisher				
CHORDATAVAVES	Chloroceryle amazona	Amazon Kingfisher				
CHORDATAVAVES	Chloroceryle americana	Green Kingfisher				
CHORDATA/AVES	Chloroceryle inda	Green-and-rufous Kingfisher				
CHORDATA/AVES	Ciccaba huhula					
CHORDATAVAVES	Coccyzus melacoryphus	Dark-billed Cuckoo				
CHORDATAVAVES	Coereba flaveola	Bananaquit				
CHORDATAVAVES	Colaptes punctigula	Spot-breasted Woodpecker				
CHORDATA/AVES	Columbina passerina	Common Ground Dove;Common Ground- Dove				
CHORDATA/AVES	Conopias albovittatus parvus					
CHORDATA/AVES	Conopophaga aurita	Chestnut-belted Gnateater				
CHORDATAVAVES	Coragyps atratus	Black Vulture				
CHORDATAVAVES	Corapipo gutturalis	White-throated Manakin				
CHORDATA/AVES	Corythopis torquatus					
CHORDATA/AVES	Cotinga cayana	Spangled Cotinga				

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATA/AVES	Cranioleuca gutturata	Speckled Spinetail				75186311611761161
CHORDATA/AVES	Cranioleuca vulpina	Rusty-backed Spinetail				
CHORDATA/AVES	Crotophaga ani	Smooth-billed Ani				
CHORDATA/AVES	Crotophaga major	Greater Ani				
CHORDATA/AVES	Crypturellus undulatus	Undulated Tinamou				
CHORDATA/AVES	Crypturellus variegatus	Variegated Tinamou				
CHORDATA/AVES	Cyanocompsa cyanoides	Blue-black Grosbeak				
CHORDATA/AVES	Cyclarhis gujanensis	Rufous-browed Peppershrike				
CHORDATA/AVES	Cyphorhinus arada					
CHORDATA/AVES	Dacnis cayana	Blue Dacnis				
CHORDATA/AVES	Dacnis flaviventer	Yellow-bellied Dacnis				
CHORDATA/AVES	Daptrius ater	Black Caracara				
CHORDATA/AVES	Deconychura longicauda	Long-tailed Woodcreeper				
CHORDATAVAVES	Deconychura stictolaema	Spot-throated Woodcreeper				
CHORDATA/AVES	Dendrocinda fuliginosa	Plain-brown Woodcreeper				
CHORDATA/AVES	Dryocopus lineatus	Lineated Woodpecker				
CHORDATA/AVES	Egretta thula	Snowy Egret				
CHORDATA/AVES	Elaenia chiriquensis	Lesser Elaenia				
CHORDATA/AVES	Elaenia flavogaster	Yellow-bellied Elaenia				
CHORDATA/AVES	Elanoides forficatus	Swallow-tailed Kite				
CHORDATA/AVES	Empidonomus varius	Variegated Flycatcher				
CHORDATA/AVES	Eucometis penicillata	Grey-headed Tanager;Gray-headed Tanager				
CHORDATA/AVES	Euphonia chlorotica	Purple-throated Euphonia				
CHORDATA/AVES	Euphonia chrysopasta	White-lored Euphonia				
CHORDATA/AVES	Euphonia minuta	White-vented Euphonia				
CHORDATA/AVES	Euphonia plumbea	Plumbeous Euphonia				
CHORDATA/AVES	Falco deiroleucus	Orange-breasted Falcon				
CHORDATA/AVES	Falco rufigularis	Bat Falcon				
CHORDATA/AVES	Formicarius colma	Rufous-capped Antthrush				
CHORDATA/AVES	Galbula albirostris	Yellow-billed Jacamar				
CHORDATA/AVES	Galbula dea	Paradise Jacamar				
CHORDATA/AVES	Galbula galbula	Green-tailed Jacamar				
CHORDATA/AVES	Geranospiza caerulescens	Crane Hawk				
CHORDATAAVES	Glyphorynchus spirurus	Wedge-billed Woodcreeper				
CHORDATAVAVES	Gymnopithys rufigula	Rufous-throated Antbird				
CHORDATA/AVES	Heliothryx auritus					
CHORDATA/AVES	Hemithraupis guira	Guira Tanager				
CHORDATA/AVES	Hemitriccus minor	Snethlage's Tody-Tyrant				
CHORDATAVAVES	Hylocharis cyanus	White-chinned Sapphire				
CHORDATA/AVES	Hylophilus semicinereus	Grey-chested Greenlet				

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range
CHORDATAAVES	Hypocnemis cantator	Warbling Antbird				/endemism/other
CHORDATA/AVES	Hypocnemoides melanopogon	Black-chinned Antbird				
CHORDATA/AVES	Ictinia plumbea	Plumbeous Kite				
CHORDATA/AVES	Inezia subflava	Amazonian Inezia				
CHORDATA/AVES	Lathrotriccus euleri	Euler's Flycatcher				
CHORDATA/AVES	Legatus leucophaius	Piratic Flycatcher				
CHORDATA/AVES	Leptotila rufaxilla	Grey-fronted Dove				
CHORDATAAVES	Leptotila verreauxi	White-tipped Dove				
CHORDATA/AVES	Leucopternis schistaceus					
CHORDATA/AVES	Lipaugus vociferans	Screaming Piha				
CHORDATA/AVES	Megarynchus pitangua	Boat-billed Flycatcher				
CHORDATA/AVES	Melanerpes cruentatus	Yellow-tufted Woodpecker				
CHORDATA/AVES	Mesembrinibis cayennensis	Green Ibis				
CHORDATA/AVES	Mcrastur gilvicollis	Lined Forest Falcon				
CHORDATA/AVES	Microcerculus bambla	Wing-banded Wren				
CHORDATA/AVES	MIvago chimachima	Yellow-headed Caracara				
CHORDATA/AVES	Monectes macconnelli	McConnell's Flycatcher				
CHORDATA/AVES	Monasa atra	Black Nunbird				
CHORDATA/AVES	Monasa nigrifrons	Black-fronted Nunbird				
CHORDATA/AVES	Myiarchus ferox	Short-crested Flycatcher				
CHORDATAAVES	Myiarchus tyrannulus	Brown-crested Flycatcher				
CHORDATA/AVES	Myiobius barbatus	Whiskered Myiobius				
CHORDATAAVES	Myiodynastes maculatus	Streaked Flycatcher				
CHORDATA/AVES	Myiopagis flavivertex	Yellow-crowned Elaenia				
CHORDATA/AVES	Mjopagis gaimardii	Forest Elaenia				
CHORDATA/AVES	Myiozetetes luteiventris	Dusky-chested Flycatcher				
CHORDATA/AVES	Myrmeciza ferruginea	Ferruginous-backed Antbird				
CHORDATA/AVES	Myrmoborus lugubris	Ash-breasted Antbird				
CHORDATA/AVES	Myrmornis torquata	Wing-banded Antbird				
CHORDATA/AVES	Myrmothera campanisona	Thrush-like Antpitta				
CHORDATAAVES	Myrmotherula assimilis	Leaden Antwren				
CHORDATAAVES	Myrmotherula axillaris	White-flanked Antwren				
CHORDATA/AVES	Myrmotherula klagesi	Klages's Antwren				
CHORDATA/AVES	Myrmotherula longipennis	Long-winged Antwren				
CHORDATA/AVES	Nasica longirostris	Long-billed Woodcreeper				
CHORDATA/AVES	Notharchus tectus	Pied Puffbird				
CHORDATAAVES	Nyctibius griseus	Common Potoo				
CHORDATA/AVES	Nyctidromus albicollis	Common Pauraque;Pauraque				
CHORDATAVAVES	Nyctiprogne leucopyga	Band-tailed Nighthawk				
CHORDATA/AVES	Onychorhynchus coronatus	Royal Flycatcher;Amazonian Royal Flycatcher				
	1	1	I .	I .	1	

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATA/AVES	Ortalis motmot	Little Chachalaca				
CHORDATAAVES	Oryzoborus angolensis	Lesser Seed Finch				
CHORDATA/AVES	Pachyramphus marginatus	Black-capped Becard				
CHORDATA/AVES	Pachyramphus rufus	Cinereous Becard				
CHORDATA/AVES	Pandion haliaetus haliaetus					
CHORDATA/AVES	Paroaria gularis	Red-capped Cardinal				
CHORDATA/AVES	Penelope jacquacu	Spix's Guan				
CHORDATA/AVES	Percnostola rufifrons	Black-headed Antbird				
CHORDATA/AVES	Phaethornis bourcieri	Straight-billed Hermit				
CHORDATAVAVES	Phaethornis rupurumii	Streak-throated Hermit				
CHORDATA/AVES	Phaethornis superciliosus	Eastem Long-tailed Hermit;Long-tailed Hermit				
CHORDATA/AVES	Phaetusa simplex	Large-billed Tem				
CHORDATA/AVES	Phalacrocorax brasilianus brasilianus					
CHORDATA/AVES	Pharomachrus pavoninus	Pavonine Quetzal				
CHORDATA/AVES	Philydor erythrocercum					
CHORDATAAVES	Phlegopsis erythroptera	Reddish-winged Bare-eye				
CHORDATA/AVES	Piaya cayana	Squirrel Cuckoo				
CHORDATA/AVES	Piculus flavigula	Yellow-throated Woodpecker				
CHORDATAVAVES	Pionites melanocephalus					
CHORDATAVAVES	Pionus menstruus	Blue-headed Parrot				
CHORDATA/AVES	Pipra erythrocephala	Golden-headed Manakin				
CHORDATA/AVES	Pipra filicauda	Wire-tailed Manakin				
CHORDATA/AVES	Pipra pipra	White-crowned Manakin				
CHORDATA/AVES	Pitangus lictor	Lesser Kiskadee				
CHORDATA/AVES	Pitangus sulphuratus	Great Kiskadee				
CHORDATA/AVES	Platyrinchus coronatus	Golden-crowned Spadebill				
CHORDATA/AVES	Polioptila plumbea	Tropical Gnatcatcher				
CHORDATA/AVES	Progne chalybea	Grey-breasted Martin;Gray- breasted Martin				
CHORDATA/AVES	Psarocolius decumanus	Crested Oropendola				
CHORDATA/AVES	Psarocolius viridis	Green Oropendola				
CHORDATA/AVES	Psophia crepitans	Grey-winged Trumpeter				
CHORDATA/AVES	Pteroglossus aracari	Black-necked Aracari				
CHORDATA/AVES	Pulsatrix perspicillata	Spectacled Owl				
CHORDATA/AVES	Pygiptila stellaris	Spot-winged Antshrike				
CHORDATA/AVES	Ramphastos tucanus	White-throated Toucan				
CHORDATA/AVES	Ramphastos vitellinus	Channel-billed Toucan				
CHORDATA/AVES	Ramphocelus carbo	Silver-beaked Tanager				
CHORDATA/AVES	Rhynchocyclus olivaceus	Olivaceous Flatbill				
CHORDATA/AVES	Rynchops niger	Black Skimmer				
CHORDATA/AVES	Sakesphorus canadensis	Black-crested Antshrike				

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATA/AVES	Schiffornis major	Varzea Schiffornis				
CHORDATA/AVES	Sclerurus caudacutus	Black-tailed Leaftosser				
CHORDATA/AVES	Setophaga ruticilla	American Redstart				
CHORDATA/AVES	Sittasomus griseicapillus	Olivaceous Woodcreeper				
CHORDATA/AVES	Sporophila lineola	Lined Seedeater				
CHORDATA/AVES	Stelgidopteryx ruficollis	Southern Rough-winged Swallow				
CHORDATA/AVES	Sternula superciliaris					
CHORDATA/AVES	Streptoprocne zonaris	White-collared Swift				
CHORDATA/AVES	Synallaxis rutilans	Ruddy Spinetail				
CHORDATA/AVES	Tachycineta albiventer	White-winged Swallow				
CHORDATA/AVES	Tachyphonus luctuosus	White-shouldered Tanager				
CHORDATA/AVES	Tachyphonus surinamus	Fulvous-crested Tanager				
CHORDATA/AVES	Tangara mexicana	Turquoise Tanager				
CHORDATA/AVES	Terenotriccus erythrurus	Ruddy-tailed Flycatcher				
CHORDATA/AVES	Thalurania furcata	Fork-tailed Woodnymph				
CHORDATA/AVES	Thamnomanes ardesiacus	Dusky-throated Antshrike				
CHORDATA/AVES	Thamnomanes caesius	Cinereous Antshrike				
CHORDATA/AVES	Thamnophilus nigrocinereus	Blackish-grey Antshrike				
CHORDATA/AVES	Thraupis episcopus	Blue-grey Tanager; Blue- gray Tanager				
CHORDATA/AVES	Thraupis palmarum	Palm Tanager				
CHORDATA/AVES	Tinamus major	Great Tinamou				
CHORDATA/AVES	Tityra cayana	Black-tailed Tityra				
CHORDATA/AVES	Tolmomyias poliocephalus	Grey-crowned Flatbill				
CHORDATA/AVES	Tolmomyias sulphurescens	Yellow-olive Flycatcher;Yellow-olive Flatbill				
CHORDATA/AVES	Troglodytes aedon	House Wren				
CHORDATA/AVES	Trogon viridis	Amazonian White-tailed Trogon;White-tailed Trogon				
CHORDATA/AVES	Turdus albicollis	White-necked Thrush				
CHORDATA/AVES	Turdus fumigatus	Cocoa Thrush				
CHORDATA/AVES	Tyrannopsis sulphurea	Sulphury Flycatcher				
CHORDATA/AVES	Tyrannulus elatus	Yellow-crowned Tyrannulet				
CHORDATA/AVES	Tyrannus melancholicus	Tropical Kingbird				
CHORDATA/AVES	Tyrannus savana	Fork-tailed Flycatcher				
CHORDATA/AVES	Xiphorhynchus obsoletus	Striped Woodcreeper				
CHORDATA/AVES	Xphorhynchus pardalotus	Chestnut-rumped Woodcreeper				
CHORDATA/AVES	Xiphorhynchus picus	Straight-billed Woodcreeper				
CHORDATA/AVES	Zimmerius gracilipes	Slender-footed Tyrannulet				
CHORDATAMAMMALIA	Inia geoffrensis	Amazon River Dolphin;Pink River Dolphin				

4.4.1 - Climate

Climatic region	Subregion
A: Tropical humid climate	Af: Tropical wet (No dry season)

The ANP has a climate type Af (Tropical Rainy), according to the Koppen scale, with small variations in temperature and precipitation throughout the year. The region is characterised by high humidity, constantly elevated rainfall (between 1,750 and 2,500 mm), and an average annual amplitude of monthly temperatures of 5°C. The coldest month's average temperature is always above 18°C. There are two seasons in the region: 1. rainier season between December and June (winter), and 2. A less rainy season between July and November (summer). The relative levels of humidity are high, with an annual average of 83%, and feature little variation. Average temperatures are high, with isotherms varying between 4°C and 26°C (Brasil, 1999).

varying between 4°C and 2			verage o	of 83%, and feature little variation. Average temperatures are high, with isotherms
4.4.2. Cooperation				
4.4.2 - Geomorphic setting				
a) Minimum elevation above s	sea level (in metres)	0		
a) Maximum elevation above s	sea level (in metres)	5		
	,	Entire rive	r basin 🗷	7
	ı	Jpper part of rive	_	
		iddle part of rive	_	_
		ower part of rive	_	
		ore than one rive	_	
		Not in rive	_	_
			Coastal C	
Please name the river hasin or ha	asins If the site			se also name the larger river basin. For a coastal/marine site, please name the sea or ocean.
Negro River, which is the b				
	33	,		
4.4.3 - Soil				
			Mineral C]
		(Organic 🗀	
		lo available info		
Are soil types subject to chang conditions (e	ge as a result o e.g., increased s	f changing hydro alinity or acidific	ological ation)?	res O No
Please provide further information	n on the soil (op	tional)		
				ne Negro River's catchment basin are: 1. fluvial plain; 2. tabular with interfluves plain; and 5. tabular erosive surface (Brasil, 1999).
				plateau, which is characterised by tabular interfluves relief that are prevalent plateau of the Amazon sedimentary basin (Brasil, 1999).
				nd 150 m, and are mostly carved into the Barreira's sediment formation. The a presence of hydromorphic soils in lowland areas that stretches to the Anavilhana
4.4.4.10/2422222				
4.4.4 - Water regime				
Water permanence Presence?				
Usually permanent water present				
Source of water that maintains cha	racter of the site)		
	dominant water	source		
Water inputs from rainfall Water inputs from surface				
water water				
Water destination				
Presence?				
To downstream catchment				

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology.

The frequency and duration of Negro River flooding (and its tributaries) are ecologically important, and have a large impact on the biota of the ANP, since they determine spatial-temporal variations during the year, and aquatic and land phases of plant and animal communities (Junk et al. 1989). The fish species in its lakes during the dry period have a restricted food diet based on insects and small fish (Freitas et al., 2010), which confirms the water dynamic's influence on the local wildlife.

The Negro River, the main river of the ANP, is used as an important means of river transport. Large sailing vessels use the river from Manaus to Novo Airão, as well as to Barcelos, the latter municipality's 25,718 inhabitants (IBGE 2010) have access only by waterway. Small boats are also used to sail through the waters of the ANP to surrounding riverside communities.

The Negro River supplies several small riverside communities located around the Ramsar Site and the town of Novo Airão (14,723 in

Stability of water regime

Presence?

Water levels fluctuating

	_			
4.4.5	- Sec	liment	rea	ıme

Significant erosion of sediments occurs on the site \qed
Significant accretion or deposition of sediments occurs on the site $\ensuremath{\checkmark}$
Significant transportation of sediments occurs on or through the site $\ensuremath{\checkmark}$
Sediment regime is highly variable, either seasonally or inter-annually
Sediment regime unknown

Please provide further information on sediment (optional):

The area of the ANP has approximately 70 lakes that are generally elongated and elliptical due to the process of the islands' formation in the archipelago, which are elongated and narrow because of the process of sedimentation originating from the Branco River (Sioli, 2006).

(ECD) Water turbidity and colour The Negro River (1,700 km long), the main river in the ANP, is the longest black water river in the world. (ECD) Water temperature Between 28.3°C and 31°C

4.4.6 - Water pH

4.4.7 - Water salinity

Acid (pH<5.5) ☑
Circumneutral (pH: 5.5-7.4) □
Alkaline (pH>7.4) □
Unknown □
Fresh (<0.5 g/l) □
Mixohaline (brackish)/Mixosaline (0.5-30 g/l) □
Euhaline/Eusaline (30-40 g/l)

Hyperhaline/Hypersaline (>40 g/l) □

4.4.8 - Dissolved or suspended nutrients in water

Eutrophic Mesotrophic Oligotrophic Dystrophic Unknown 🗹

Unknown 🗹

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

It is known that suspended materials vary from 0.9 to 14.8 mg/L, while in the ebbing period there is a trend towards higher values in the left margin (10.1 ± 3.4 mg/L) comparing to the right margin of the river (3.9 ± 2.5 mg / L). However, there is no further information on the variables used to calculate the trophic state index and, therefore, its trophic classification.

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 O ii) significantly different @ site itself: Surrounding area has greater urbanisation or development $\ensuremath{\ensuremath{\varnothing}}$ Surrounding area has higher human population density \square Surrounding area has more intensive agricultural use \square Surrounding area has significantly different land cover or habitat types $\ \square$

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

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

Regulating Services		
Ecosystem service	Examples	Importance/Extent/Significance
Climate regulation	Regulation of greenhouse gases, temperature, precipitation and other climactic processes	Medium

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Recreational hunting and fishing	Medium
Recreation and tourism	Picnics, outings, touring	Medium
Recreation and tourism	Nature observation and nature-based tourism	Medium
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	Medium
Scientific and educational	Long-term monitoring site	Medium

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

Other ecosystem service(s) not included above:

The Negro River's regional social and environmental diversity is one of the most important of the Amazon. It includes indigenous peoples, farmers, riparian families, an urban population that is distributed in four municipalities (São Gabriel da Cachoeira, Santa Isabel do Rio Negro, Barcelos and Novo Airão) and the large city of Manaus (Cardoso & Tinto, 2011). In the municipality of Novo Airão, there is a presence of a Waimiri-Atroari indigenous community (2,585,911 km2) that has over 1500 members. Traditional riverside communities surrounding the ANP (Figure 12) and live off extractive activities and small plantations.

Artisan indigenous and non-indigenous fishermen.

Within the site:	1000s						
Outside the site:	10 000s						
Have studies or assessments been made of ecosystem services prov	lave studies or assessments been made of the economic valuation of Yes O No O Unknown ecosystem services provided by this Ramsar Site?						

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

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

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Pu				

Category	Within the Ramsar Site	In the surrounding area		
National/Federal government	>			
Provincial/region/state government		V		
Local authority, municipality, (sub)district, etc.		V		

Private ownership

Category	Within the Ramsar Site	In the surrounding area		
Other types of private/individual owner(s)		/		

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

The region surrounding the ANP is occupied by the following protected areas: Jaú National Park, Extractive Reserve of the Rio Unini, Negro River State Park - Southern Sector, Rio Negro State Park - North Sector, Environmental Protection Area on the right border of the Negro River Paduari - Solimões sector, the Environmental Protection Area of the left border of the Negro River Aturiá-Apuauzinho sector, Environmental Protection Area of the left border of the Negro River Tarumã-Açu -Tarumã-Mirim sector, Negro River Sustainable Development Reserve, Puranga Conquista Sustainable Development Reserve, Tupé Sustainable Development Reserve. All these Conservation Units, along with Amanã Sustainable Development Reserve, constitute the Mosaic of Conservation Units of Lower Negro River (MMA, 2010)

5.1.2 - Management authority

	Chico Mendes Institute for Biodiversity Conservation (Instituto Chico Mendes de Conservação da Biodiversidade) Rua Antenor Carlos Frederico, 69 Postal Code 69.750-000 - Novo Airão / AM Brazil Phone: +55 (92) 3365-1345
Provide the name and title of the person or	
people with responsibility for the wetland:	Priscila Maria da Costa Santos, head of the Anavilhanas National Park
poople was responsibility for the westerna.	
	Rua Antenor Carlos Frederico, 69
Postal address:	Postal Code 69.750-000 - Novo Airão / AM
Fostal address.	Brazil
	Phone: +55 (92) 3365-1345
E 7 - 11	and a city a contra Gianghia, and the
E-mail address:	priscila.santos@icmbio.gov.br

5.2 - Ecological character threats and responses (Management)

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

Energy production and mining

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Mining and quarrying	unknown impact		✓	

Biological resource use

	Biological rootal octob							
	Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area			
	Fishing and harvesting aquatic resources	unknown impact	unknown impact	/				
	Logging and wood harvesting	unknown impact	unknown impact	/				
	Hunting and collecting terrestrial animals	unknown impact	unknown impact	1				

Human intrusions and disturbance

i idiridiri iriti doronio diria diotani				
Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Recreational and tourism activities	unknown impact	unknown impact	✓	

Among the key pressures on natural resources found in the ANP are: logging on the archipelago's islands, commercial fishing, hunting, wild animals trafficking and sand mining activity.

The exploitation of illegal timber has occurred in some areas to meet Manaus' demands, particularly for the construction and manufacture of furniture (Cardoso & Tinto, 2011). The logging of most species (except Lauraceae spp., which have the highest market value) was found to be concentrated in the southern region of the Park, with a tendency for harvesting to be higher in sites with concentrations of trees of high market value (Scabin et al. 2011).

Surveys of individual Amazonian manatee (Trichechus inunguis) and its potential threats (hunting, net fishing, trawling, removal of timber) in the Ramsar Site, have stated six main areas of overlap that are considered to be priority areas for conservation measures (Tófoli, 2012) (Figure 14).

Communities' residents carry out 'subsistence hunting' of mammals and bird fauna in the ANP's surroundings and in the municipality of Novo Airão. Some species of the Amazon associated with aquatic environments, such as the muscovy duck (Cairina moschata) and migratory birds (black-bellied whistling duck, Dendrocygna autumnalis; Neotropical cormorant, Phalacrocorax brasilianus; and anhinga, Anhinga anhinga; all species observed with cubs in the ANP) are also hunting targets (Cintra & Rosas, 2011).

Although illegal, the capture of turtles and ornamental fish (of high commercial value) occurs in the ANP (Brasil, 1999) (Table 8). The chelonian red-headed Amazon river turtle (Podocnemis erythrocephala) is widely used for food by residents of the Negro River basin. Thus, the hunting and sale of these species has caused their populations to suffer a significant reduction (Cardoso & Tinto, 2011).

During the dry season on the beaches of the Negro River, illegal bird egg collecting occurs. These include species, such as the large-billed tern (Phaetusa simplex), the Yellow-billed tern (Sterna superciliaris) and the black skimmer (Rynchops niger) (Cintra & Rosas, 2011).

5.2.2 - Legal conservation status

Global legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
UNESCO Biosphere Reserve			whole
World Heritage site		http://whc.unesco.org/en/list/99 8	

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
mosaic of Conservation Units	mosaic of Conservation Units of the Lower Negro River region		whole
protected area	Anavilhanas National Park		whole

5.2.3 - IUCN protected areas categories (2008)

la Strict Nature Reserve
lb 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

Legal protection	
Measures	Status
Legal protection	Implemented

Other:

The advisory board of the Anavilhanas National Park (ANP) has existed since 2006 and has 19 representatives from government organisations, non-governmental organisations and the surrounding communities. There are three standing committees: the Committee of Public Use, the Environmental Education Committee and the Technical-Scientific Committee.

The surroundings of the park are composed of other conservation units, which make up the Mosaic of Protected Areas of the Lower Rio Negro. The Anavilhanas Ecological Station management plan, partially applicable to the Anavilhanas National Park, suggests dividing the area into five zones: 1. Primitive Zone; 2. Extensive Use Zone; 3. Recovery Zone; 4. Special Use Zone; 5. Experimental Interference Zone (Brasil, 1999). The Primitive Zone is where there is little or minimal human intervention, and contains species of flora and fauna and natural phenomena of great scientific value. It must possess the characteristics of an 'Influence Area' between the Intangible Zone and the Zone of Extensive Use. Most of the ANP was designated as Primitive Zone, which includes the Igapó forests, the Terra Firme Forests, the White-sand forests, the Caatinga-gapó and Chavascal forest which covers most of the ANP, and almost occupies the whole area of land beyond the high end and middle of the archipelago and the Negro River.

The Extensive Use Zone is constituted mostly by natural areas, and may present some human changes. It is characterised as an Area of Influence between the Primitive Zone and the Zone of Intensive Use. The second largest area of the ANP is located entirely in the southern part of the archipelago in the region between Novo Airão and Manaus. That zone meets the educational activities since the region is frequented by visitors.

The Recovery Zone contains areas that are considerably altered by man. This area is quite small, and consists of places that have suffered anthropic action in the range of 1 km from the left border of Negro River, located between the community Santo Antônio and the Baependi River. The location, known as Cauixi, is also in the Recovery Zone.

The Special Use Zone contains areas that are necessary for administration, maintenance and services of the Protected Area, covering housing, a factory, among other facilities. These areas will be chosen and controlled so as not to conflict with their natural character and should be located, whenever possible, on the surrondings of the ANP.

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 O No ®

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 oprocesses 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 advisory board of the Anavilhanas National Park (ANP) has existed since 2006 and has 19 representatives from government organisations, non-governmental organisations and the surrounding communities. There are three standing committees: the Committee of Public Use, the Environmental Education Committee and the Technical-Scientific Committee.

In the park, there are several activities for visitors, but the challenge is to promote the structuring for visitation, such as: signage, facilitating equipment and visitor center.

URL of site-related webpage (if relevant):

http://www.icmbio.gov.br/portal/biodiversidade/unidades-de-conservacao/biomas-brasileiros/amazonia/u nidades-de-conservacao-amazonia/1977-parna-de-anavilhanas.html?highlight=WyJhbmF2aWxoYW5hcyJd

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? Please select a value

5.2.7 - Monitoring implemented or proposed

The ANP has priority surveys at the Conservation Unit, which include the monitoring of climatic variables; the study of the formation and dynamics of the archipelago's islands; flow monitoring, sediment discharge and water quality; assessment of the carbon sequestration; monitoring of endangered species; monitoring of selective extraction of wood inside and around the National Park using satellite images.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

The bibliographical references is in annex in the section 6.1.2.6

6.1.2 - Additional reports and documents

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

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

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

iv. relevant Article 3.2 reports

v. site management plan

<no file available>

vi. other published literature

<1 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Priscilla Santos, Rafael Priscilla Santos, Rai aei Pinto, Rodrigo Braga, Josângela Jesus and ANP archive (Priscilla Santos, Rafael Pinto, Rodrigo Braga, Josângela Jesus and ANP archive, 01-01-2014)



Priscilla Santos, Rafael Pinto, Rodrigo Braga, Josângela Jesus and ANP archive (Priscilla Santos, Rafael Pinto, Rodrigo Braga, Josângela Jesus and ANP archive, 01-01-2014)



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6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation 2017-03-22