

Ramsar Information Sheet

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Brazil Rio Juruá



Designation date 29 September 2018 Site number 2362 Coordinates 05°09'35"S 67°13'05"W Area 2 136 489,00 ha

https://rsis.ramsar.org/ris/2362 Created by RSIS V.1.6 on - 21 September 2021

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 Amazon Basin is the largest river basin in the world, occupying a hydrographical area of approximately 6,869,000 km² (Neil et al., 2006), and when the Tocantins basin and estuarine coastal areas are included to define the Amazon Region, the total area is 7.287 million km2 (Venticingue et al, 2016). The Amazon area comprise seven South American countries and important population centres such as Manaus and lquitos. In Central Amazon the flood pulse is monomodal. The floodplains forests and their adjacent shores, located between rivers and the flood plains forests are covered by several meters of flood water from 5-7 months per year, depending on terrain elevation and the height of annual flood (Junk, 1997, Hess et al, 2003). Predictable flood pulse wetlands can be considered as centres of speciation, as evidenced by the many endemic species of terrestrial invertebrates and trees in Amazonian floodplains. (Junk et al, 2013). The Juruá River and its floodplain is one of the most important tributary system of Solimões River basin. The region comprises a continuum of protected areas forming a large conservation block inserted in Inambari endemism area (Cracraft, 1985) and Central Amazon Corridor, regions of high importance for aquatic biota conservation (Avres et al., 2005) and a priority area for reptile and amphibian biodiversity conservation (Capobianco et al., 2001). The following reptile species are found in the region: Yellow-footed Tortoise (Chelonoidis denticulata), Big-headed Amazon River Turtle (Peltocephalus dumerilianus), Six-tubercled Amazon River Turtle (Podocnemis sextuberculata), Yellow-spotted River Turtle (Podocnemis unifilis) all vulnerable to extinction according to IUCN list (IUCN, 2017) and listed in Appendix II of CITES (excepting the Giant Armadillo which is in Appendix I) (CITES, 2017). The Six-tubercled Amazon River Turtle is considered near threatened in the Brazilian list (Brasil, 2014b). In the region there are amphibian species such as: Caecilia sp., Bufo marinus, Epipedobatis hahneli and others. Juruá basin have about 392 fish species for food and commercial importance. Among the mammal species vulnerable to extinction in IUCN list (IUCN, 2017), the following are found in the region: South American Manatee (Trichechus inunguis); the Giant Armadillo (Priodontes maximus), the Bald-headed Uacari (Cacajao calvus) and the Buffy Saki (Pithecia albicans).

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible	compiler
Responsible	complier

Institution/agency Brazilian Ministry of The Environment

Postal address SEPN 505 Ed Marie Prendi Cruz sala 418 Brasilia DF Brazil CEP 7073054

National Ramsar Administrative Authority

Institution/agency	Ministry of Environment
Postal address	Esplanada dos Ministérios - Block B, 8th floor, room 800 700.68-900 Brasília/DF Brazil

2.1.2 - Period of collection of data and information used to compile the RIS

From year	2017
To year	2018

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)

Unofficial name (optional) Rio Juruá Sitio Ramsar

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
^(Update) For secretariat only. This update is an extension
For secretariat only. This update is an extension

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?

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 Juruá river originates in Peru and drains into the Solimões River, in Brazil. The limits of the site correspond to the limits of the Juruá River and the protected areas and indigenous land located in the area. The Ramsar Site enclosed the area of Baixo Juruá Extractivist Reserve until the Deni Indigenous Land.

2.2.2 - General location

a) In which large administrative region does	Amazonas State
the site lie?	
b) What is the nearest town or population centre?	Carauari, Itamarati and Juruá.

2.2.3 - For wetlands on national boundaries only

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

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

2.2.4 - Area of the Site

Official area, in hectares (ha): 2136489

Area, in hectares (ha) as calculated from 2136490.545 GIS boundaries

2.2.5 - Biogeography

Biogeographic regions								
Regionalisation scheme(s)	Biogeographic region							
WWF Terrestrial Ecoregions	Amazon southwest							
Udvardy's Biogeographical Provinces	Neotropic							
Freshwater Ecoregions of the World (FEOW)	Amazon lowlands							

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 Amazon basin is one of the most important ecological systems in the world due to a large area of tropical rainforest that has the world's biggest biological diversity (Dirzo and Raven, 2003). Different types of forested wetlands cover about 30% of the humid tropics of the Amazon lowlands. The main-stem Amazonian river floodplains, locally known as várzeas, cover 98.110 km2 (Junk, 2011). The low varzea forests were composed of different successional stages subjected to annual floods between 3 and 7 mts (Wittmann et al, 2004). In this context, the Juruá River basin, its tributaries, streams and lake systems inserted within the várzea matrix in a highly preserved region are essential for the maintenance of the Amazon ecosystem, its biodiversity, the climate and the local populations. In addition, the rivers within the Juruá River Basin are considered as "white water rivers" because their yellowish coloration (muddy water) resulting from the high transport of suspended matter (Sioli, 1984). Their waters have near neutral ph and deposit their sediments the várzeas, making them fertile and covered with highly productive terrestrial and aquatic herbaceous plant communities and floodplain forests (Junk et al, 2011). The Juruá river is direct or indirect a source of water supply for at least six municipalities. The floodplain is important for its high biodiversity (Junk et al., 2000), the high productivy of flooded forests (Parolin et al., 2004) and aquatic macrophytes (Piedade et al., 1994; Silva et al., 2010), providing the main energy source for Amazonian aquatic food chain (Forsberg et al., 1993; Arraut et al., 2010). The várzea along the Juruá are perhaps the most structurally intact of all major white-water tributaries of the Amazon river (Peres et al, 2018).
Other ecosystem services provided	There are three Sustainable Use protected areas on the site which aim nature conservation with the sustainable use of natural resources. The traditional population in the region carry out extractives activities of low impact, agriculture, fishing and subsistence hunting, ensuring not only the ecosystem preservation but also the traditional livelihood and culture.
Other reasons	The Ramsar Site encompasses three municipalities that are supplied through wells, rivers and streams. Although water supply is large, all supply systems need expansion and/or new sources to meet future demand. In this context, the site will guarantee springs and rivers preservation and securing water availability (in quantity and quality) for future generations and at least six municipalities. The Juruá River is also the main communication channel system integrating municipalities and localities (traditional communities) to larger cities, as for most of them the river is the only interconnection, through which their supplies and production are transported. The region has large waterways in the Juruá River totalizing 4,343 km of navigable patches (ANA, 2005, 2012). However, navigability in these rivers follows the flood dynamics. During the lower river level period at Jurua River, sand beaches are exposed complicating the navigability especially for cargo ferries that must wait for small flood pulses to continue the trip. This is a characteristic from várzea forests. This site represents an example of freshwater of Amazon floodplain forests and it is important for the reproduction of animals and plants endemic to the region. The Juruá river is probably the most protected large sub basin in the Amazon.

☑ Criterion 2 : Rare species and threatened ecological communities

Criterion 3 : Biological diversity

The site region is part of the Central Amazon Corridor, an important area for biodiversity conservation of regional and national relevance (Avres et al., 2005). The Ramsar Site is near two Important Bird and Biodiversity Areas (IBAs) designated by Birdlife: Mamirauá and Alto Juruá (Birdlife.2017). The Juruá river basin has one of the highest amphibian richness and diversity (Carvalho et al., 2006, Waldez and Souza, 2008). The terrestrial fauna makes regular seasonal movements between várzea forest and the adjacent terra firme forest to take advantage of abundant plant resources provided by annual flood pulse of up to 12 meters (Peres et al. 2018). The Juruá river represents a unique area to conserve wild populations of terrestrial and aquatic species, acting as a strong source area to ensure the replenishment of natural populations. In the region of Baixo Juruá it can be found reptilia and amphibia. Records in Resex Baixo Juruá identified 362 bird species, such as: Lepidothrix coronata, Gymnophitis salvini and Willisornis poecilinotus. There are migratory species (such as the Swallow-tailed Kite, Elanoides Justification forficatus, included in CITES Appendix II) and sp associated to the "tabocais" vegetation: Long-crested

Pygmy-tyrant (Lophotriccus eulophotes), the Dot-winged Antwren (Microrhopias guixensis), and Ramphotrigon fuscicauda.

According to Anciães et al. (2006), some records reveal the geographic distribution limits of some bird species so far inaccurate (eg Odonthophorus stellatus, Amazona farinosa, Galbula leucogastra, Conirostrum margaritae, Topaza pyra). It was also observed typically Amazonian species with historical records of occurrence in the region suggesting migratory behaviour (eg Piranga flava, Sporophila caerulescens, Buteo albonotatus), and a known migratory species (Attila phoenicurus). In the region there are also the Chelonoidis denticulata. Eunectes murinus: the Podocnemis expansa: Podocnemis unifilis and Podocnemis sextuberculata. The Mammalia species are: Cuniculus paca; Dasyprocta fuliginosa and the Sciurus spadiceus. There are records of endemism such as Pithecia irrorata Vanzolinii.

Criterion 4 : Support during critical life cycle stage or in adverse conditions

Criterion 7 : Significant and representative fish

The Jurua river basin has about 392 fish species (Amazon-Fish Project, 2018) and there are many fish species of extreme importance for subsistence fishery (the main food/protein resource) in the region, such as Triportheus spp. (sardines), piranhas (Serrasalmus elongatus, Pygocentrus nattereri and Serrasalmus sp.). Osteoglossum bicirrhosum. Astronotus ocellatus. Potamorhina spp.. Pseudoplatystoma tigrinum. Prochilodus nigricans. Leiarius marmoratus. Brycon melanopterus. Pimelodus spp., Hypophthalmus marginatus., Mylossoma duriventri, Plagioscion squamosissimus, Leporinus friderici, Serrasalmus spp., Piaractus brachypomus, Phractocephalus hemioliopterus (Pirarara), Pseudoplatystoma punctifer, Cichla kelberi., Hoplis spp. and Psectrogaster rutiloides (Florentino et al. 2012, Rosa-Ribeiro, 2009). The most frequently caught species are curimatã, mandim. Justification pacu, surubim and sardines. Among the species that carry out reproductive, trophic and dispersal migrations and are adapted to the annual precipitation period, we can mention Curimata sp., jaraqui (Semaprochilodus spp.), matrinxã (Brycon spp.). Since 2006 the Pirarucu Management Plan has been implemented in the conservation units [Resex Medio Jurua and RDS Uacari (Silva, 2014)]. This successful initiative started in 1999 in Mamirauá Sustainable Development Reserve (a Ramsar site) and is being replicated in several Protected Areas in the Amazon. Since then there was an increase up to 200% in pirarucu abundance in Mamirauá lakes (Viana et al., 2007; Arantes et al., 2006).

Criterion 8 : Fish spawning grounds, etc.

The site serves as a spawning ground of several fish species on the extensive river beaches and margins, floodplains ravines, lakes and streams. The region is formed by a complex system of rivers, channels, lakes, islands, and barriers that are periodically modified by the flood pulse that transforms terrestrial environments into seasonally aquatic environments (Junk et al., 1997). This dynamic provides a diversity of habitats for many plants and animals species (Junk and Silva, 1997), and provides food source, nesting and refuge from predators for several fish species (Goulding et al., 1996; Sanchez-Botero and Araújo-Lima, 2001).

Justification

Among the fish species found in the region we mention the Redtail catfish (Phractocephalus hemioliopterus), tambaqui (Colossoma macropomum), dourada (Brachyplatystoma rousseauxii) and piramutaba catfish (Brachyplatystoma vaillantii) and pirarucu (Arapaima gigas), species that carry out reproductive, trophic and dispersal migrations from August to October, with total spawning occurring in the beginning of the flood period (from December to February).

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

Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Plantae								
TRACHEOPHYTA/ MAGNOLIOPSIDA	Aniba rosaeodora		×					
TRACHEOPHYTA/ MAGNOLIOPSIDA	Bauhinia angulosa		X					
TRACHEOPHYTA/ MAGNOLIOPSIDA	Beilschmiedia brasiliensis		×	×				rare
TRACHEOPHYTA/ MAGNOLIOPSIDA	Bertholletia excelsa	×	V		VU			VU National List
TRACHEOPHYTA/ MAGNOLIOPSIDA	Bowdichia nitida		Ø		LC			
TRACHEOPHYTA/ MAGNOLIOPSIDA	Cariniana legalis	×	V		VU			
TRACHEOPHYTA/ MAGNOLIOPSIDA	Cariniana micrantha		×					
TRACHEOPHYTA/ MAGNOLIOPSIDA	Cedrela odorata	×.			VU		CITES App III	Economic value intense logging pressure
TRACHEOPHYTA/ MAGNOLIOPSIDA	Copaifera multijuga		×		LC			
TRACHEOPHYTA/ MAGNOLIOPSIDA	Curupira tefeensis		×	×				rare
TRACHEOPHYTA/ MAGNOLIOPSIDA	Dinizia excelsa		×		LC			
TRACHEOPHYTA/ LILIOPSIDA	Euterpe oleracea		X					
TRACHEOPHYTA/ MAGNOLIOPSIDA	Euxylophora paraensis		S		EN			IUCN Red list
TRACHEOPHYTA/ LILIOPSIDA	Heliconia acuminata		×.					
TRACHEOPHYTA/ LILIOPSIDA	Heliconia chartacea		S					
TRACHEOPHYTA/ LILIOPSIDA	Heliconia densiflora		S					
TRACHEOPHYTA/ LILIOPSIDA	Heliconia hirsuta		S					
TRACHEOPHYTA/ LILIOPSIDA	Heliconia juruana		S					
TRACHEOPHYTA/ LILIOPSIDA	Heliconia lasiorachis		S					
TRACHEOPHYTA/ LILIOPSIDA	Heliconia marginata		S					
TRACHEOPHYTA/ LILIOPSIDA	Heliconia psittacorum		L					

Why is the Site important?, S3 - Page 3

Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
TRACHEOPHYTA/ LILIOPSIDA	Heliconia spathocircinata		×					
TRACHEOPHYTA/ LILIOPSIDA	Heliconia stricta		×					
TRACHEOPHYTA/ LILIOPSIDA	Heteropsis flexuosa	V					VU	National Red List
TRACHEOPHYTA/ MAGNOLIOPSIDA	Hevea brasiliensis		×		LC			
TRACHEOPHYTA/ MAGNOLIOPSIDA	Hymenaea courbaril courbaril		×					
TRACHEOPHYTA / MAGNOLIOPSIDA	Inga edulis edulis		×					
TRACHEOPHYTA/ MAGNOLIOPSIDA	Mouriri angulicosta		×					
TRACHEOPHYTA/ LILIOPSIDA	Oenocarpus bacaba		×					
TRACHEOPHYTA/ MAGNOLIOPSIDA	Platonia esculenta		×					
TRACHEOPHYTA/ MAGNOLIOPSIDA	Pouteria erythrochrysa	×			VU			
TRACHEOPHYTA/ MAGNOLIOPSIDA	Sapium glandulosum		×		LC			
TRACHEOPHYTA/ LILIOPSIDA	Socratea exorrhiza		×					
TRACHEOPHYTA/ MAGNOLIOPSIDA	Uncaria tomentosa		X					
TRACHEOPHYTA/ MAGNOLIOPSIDA	Vatairea heteroptera		V					
TRACHEOPHYTA/ MAGNOLIOPSIDA	Virola surinamensis	V	V	Ø	EN			Endangered to extinction in IUCN and vulnerable in national list / extractive resource

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

Phylum	Scientific name	Species qualifies under criterion2469	Species contributes under criterion 3 5 7 8	Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
Others											
CHORDATA/ AMPHIBIA	Adelphobates quinquevittatus						LC				
CHORDATA/ AMPHIBIA	Allobates femoralis		ØOOO				LC				
CHORDATA/ MAMMALIA	Alouatta seniculus		ØOOO				LC			App II Cites	
CHORDATA/ AMPHIBIA	Ameerega hahneli		2000				LC				
CHORDATA/ AMPHIBIA	Ameerega trivittata		ØOOO				LC				
CHORDATA/ MAMMALIA	Aotus nigriceps		2000				LC			App II Cites	
CHORDATA/ MAMMALIA	Ateles chamek	Rooo					EN			CITES app II	
CHORDATA/ MAMMALIA	Atelocynus microtis	Rooo					NT			VU Brazilian Red List	Brazilian Red List VU
CHORDATA/ REPTILIA	Boa constrictor		ØOOO								
CHORDATA/ MAMMALIA	Bradypus variegatus		2000				LC				

			Spo qua	ecie alifie	es es	с	Spe ontr	cies ibut	es	Pop			%	IUCN	CITES	CMS			
Phylum	Scientific name		ur crit	ndei erio	n on		un crite	der erior	1	Size	Period of pop.	Est.	occurrence 1)	Red List	Appendix I	Appendi	ix I	Other Status	Justification
	Casaiga aglutus	2	4	6	9) 3	5	7	8						_	_			
MAMMALIA	calvus	2															P	Antes VU en la IUCN red list	
CHORDATA/ MAMMALIA	Cacajao calvus novaesi	5	0		00												T h	This species is on the IUCN red list as VU - https://www.iucnredlist.org/species/3421/17992061	
CHORDATA/ REPTILIA	Caiman crocodilus	C		D][I													
CHORDATA/ MAMMALIA	Callimico goeldii	5												VU	V				
CHORDATA/ REPTILIA	Chelonoidis carbonarius	C				J													
CHORDATA/ REPTILIA	Chelonoidis denticulatus	5	0														C	CITES App II	
CHORDATA/ MAMMALIA	Cheracebus purinus	C			10	1								LC					
CHORDATA/ REPTILIA	Corallus hortulanus	C												LC			A	App II Cites	
CHORDATA/ AMPHIBIA	Ctenophryne geayi	C												LC					
CHORDATA/ MAMMALIA	Cuniculus paca	C			10	J								LC					
CHORDATA/ MAMMALIA	Dasyprocta fuliginosa	C		D	10	J								LC					
CHORDATA/ AMPHIBIA	Dendropsophus triangulum	C			10									LC					
CHORDATA/ REPTILIA	Eunectes murinus	C															C	CITES app II	
CHORDATA/ REPTILIA	Iguana iguana	C			00									LC					
CHORDATA/ MAMMALIA	Inia geoffrensis	5	0		00	J								EN			C	CITES App II	
CHORDATA/ MAMMALIA	Lagothrix Iagothricha cana	5															T h	This species is classified as EN https://www.iucnredlist.org/species/39962/17927710	
CHORDATA/ MAMMALIA	Lagothrix Iagothricha poeppigii		0														E	EN in IUCN https://www.iucnredlist.org/species/39927/17928152	
CHORDATA/ MAMMALIA	Leopardus pardalis	C			10	J								LC	×				
CHORDATA/ MAMMALIA	Leopardus wiedii	5	0											NT	×				
CHORDATA/ MAMMALIA	Leopardus wiedii glauculus	8	0		10										×		V	VU	Brazilian List
CHORDATA/ AMPHIBIA	Leptodactylus petersii	C			10	J								LC					
CHORDATA/ MAMMALIA	Lontra longicaudis	5	0		10	J								NT	1				
CHORDATA/ REPTILIA	Mabuya mabouya	C			10	J								CR					
CHORDATA/ REPTILIA	Melanosuchus niger	C			10	J									×				
CHORDATA/ MAMMALIA	Myrmecophaga tridactyla		0											VU			C	CITES App II	VU Brazilian Red List
CHORDATA/ REPTILIA	Paleosuchus palpebrosus	C				I								LC			A	App II Cites	
CHORDATA/ MAMMALIA	Panthera onca	5	0][NT	V				
CHORDATA/ MAMMALIA	Pecari tajacu	C												LC					

		Sp qu	oeci alifi	es es	C	Spe ontr	cies ibute	s F	Pop.		%	IUCN	CITES	CMS		
Phylum	Scientific name	u cri	inde iteri	r on		un crite	der erion		Size	Period of pop. Est.	occurrence 1)	e Red List	Appendix I	Appendix I	Other Status	Justification
CHORDATA/	Peltocephalus					5		8				VU				
CHORDATA/ MAMMALIA	Pithecia albicans				I							LC			Before it was VU	
CHORDATA/ MAMMALIA	Pithecia vanzolinii											DD				
CHORDATA/ REPTILIA	Podocnemis expansa		20											ø		support during reproduction phases
CHORDATA/ REPTILIA	Podocnemis sextuberculata	26	20									VU				support during reproduction
CHORDATA/ REPTILIA	Podocnemis unifilis	26	20									VU				support during reproduction
CHORDATA/ MAMMALIA	Priodontes maximus	Ø										VU	V			
CHORDATA/ MAMMALIA	Pteronura brasiliensis	Ø			I							EN	V			Vu Brazilian list
CHORDATA/ MAMMALIA	Puma yagouaroundi	Ø											V		VU Brazilian List	Brazilian Llst VU
CHORDATA/ AMPHIBIA	Ranitomeya ventrimaculata				I							LC				
CHORDATA/ AMPHIBIA	Rhinella margaritifera				V							LC				
CHORDATA/ AMPHIBIA	Rhinella marina											LC				
CHORDATA/ REPTILIA	Rhinoclemmys punctularia				Z											
CHORDATA/ MAMMALIA	Saguinus imperator subgrisescens			וכ											App II Cites	
CHORDATA/ MAMMALIA	Saguinus mystax mystax				I										App II Cites	
CHORDATA/ MAMMALIA	Saimiri boliviensis			וכ	I							LC			App II Cites	
CHORDATA/ MAMMALIA	Saimiri sciureus			וכ	I							LC			App II Cites	
CHORDATA/ MAMMALIA	Sapajus apella											LC				
CHORDATA/ MAMMALIA	Sciurus spadiceus				Z							LC				
CHORDATA/ MAMMALIA	Sotalia fluviatilis	Ø			V							DD	V			
CHORDATA/ MAMMALIA	Speothos venaticus	Ø		וכ								NT	V			VU Brazilian Red List
CHORDATA/ AMPHIBIA	Sphaenorhynchus Iacteus				Ø							LC				
CHORDATA/ REPTILIA	Stenocercus fimbriatus				Z							LC				
CHORDATA/ MAMMALIA	Tapirus terrestris	Ø		וכ	I							VU			CITES Appli	VU Brazilian List
CHORDATA/ MAMMALIA	Tayassu pecari	Ø										VU			CITES App II	VU Brazilian List
CHORDATA/ MAMMALIA	Trichechus inunguis											VU	V		VU	Brazilian red list
CHORDATA/ REPTILIA	Tupinambis teguixin			וכ	I											
Fish, Mollusc a	nd Crustacea															

			Spec	cies fies		S	peci trib	ies utes				%	ILICN				
Phylum	Scientific name		und	ler		l	unde	er	P	op. ize	Period of pop. Est	ccurrence	e Red	CITES Appendix I	CMS Appendix	Other Status	Justification
		2	rite	rion	a	2 /	riteri 5	ion 78	Ĩ	20		1)	List	Арреник і	Арреник		
CHORDATA/ ACTINOPTERYGII	Arapaima gigas		Ø			20		20	ו				DD				reproduction and feeding
CHORDATA/ ACTINOPTERYGI	Astronotus ocellatus]6	20]								
CHORDATA/ ACTINOPTERYGI	Brachyplatystoma filamentosum					2]6	20									
CHORDATA/ ACTINOPTERYGII	Brachyplatystoma rousseauxii					2			ו				LC				
CHORDATA/ ACTINOPTERYGII	Brachyplatystoma vaillantii		V			2	5	20									reproduction
CHORDATA/ ACTINOPTERYGII	Brycon amazonicus					2	5	0					LC				
CHORDATA/ ACTINOPTERYGII	Brycon melanopterus]6	20	ו								
CHORDATA/ ACTINOPTERYGI	Cichla kelberi						5	2									
CHORDATA/ ACTINOPTERYGII	Colossoma macropomum		Ø			20]6	20									reproduction
CHORDATA/ ACTINOPTERYGII	Hemiodus unimaculatus					2	36	20									
CHORDATA/ ACTINOPTERYGII	Hoplias malabaricus					20]6	20					LC				
CHORDATA/ ACTINOPTERYGII	Hoplosternum littorale					2	5	20									
CHORDATA/ ACTINOPTERYGII	Hypophthalmus marginatus						5	2									
CHORDATA/ ACTINOPTERYGII	Leiarius marmoratus						5	2									
CHORDATA/ ACTINOPTERYGII	Leporinus friderici						5	20									
CHORDATA/ ACTINOPTERYGII	Mylossoma duriventre]6	20									
CHORDATA/ ACTINOPTERYGII	Osteoglossum bicirrhosum]6	20									
CHORDATA/ ACTINOPTERYGII	Phractocephalus hemioliopterus		V			2	5	20									wetlands important for reproduction
CHORDATA/ ACTINOPTERYGII	Piaractus brachypomus		Ø			20		20	ו								reproduction
CHORDATA/ ACTINOPTERYGII	Pimelodus blochii					2	5	20									
CHORDATA/ ACTINOPTERYGII	Plagioscion squamosissimus]6	00					LC				
CHORDATA/ ACTINOPTERYGII	Potamorhina altamazonica					20]6	20									
CHORDATA/ ACTINOPTERYGII	Prochilodus nigricans					2	5	0									
CHORDATA/ ACTINOPTERYGII	Psectrogaster amazonica					2	5	2									
CHORDATA/ ACTINOPTERYGII	Psectrogaster rutiloides]	0									
CHORDATA/ ACTINOPTERYGII	Pseudoplatystoma fasciatum		V			2]6	20									reproduction
CHORDATA/ ACTINOPTERYGII	Pseudoplatystoma tigrinum						5	20									
CHORDATA/ ACTINOPTERYGII	Pygocentrus nattereri					2	5	20									
CHORDATA/ ACTINOPTERYGI	Semaprochilodus kneri					2	5	0									
CHORDATA/ ACTINOPTERYGII	Serrasalmus elongatus						5	2									

Phylum	Scientific name	Species qualifies under criterion	s Speci s contrib unde n criter	ies outes er ion 7 8	Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
CHORDATA/	Serrasalmus	ĥôô	non	20								
CHORDATA/	Triportheus			20								
ACTINOPTERYGI	l elongatus											
Birds							1					
CHORDATA/ AVES	Amazona farinosa							NT				
CHORDATA/ AVES	Amazona festiva							NT				
CHORDATA/ AVES	Amazona kawalli							NT				
CHORDATA/ AVES	Anhima cornuta							LC				
CHORDATA/	Anhinga anhinga							LC				
CHORDATA/	Anthracothorax							LC				
CHORDATA/	Ara chloropterus							LC				
CHORDATA/	Aramides cajanea											
CHORDATA/	Aramus guarauna							LC				
CHORDATA/	Ara severus							LC				
CHORDATA/	Aratinga											
CHORDATA/	Aratinga weddellii							LC				
CHORDATA/ AVES	Ardea alba							LC				support during migration
CHORDATA/ AVES	Ardea cocoi							LC				
CHORDATA/ AVES	Attila phoenicurus							LC				
CHORDATA/ AVES	Attila spadiceus							LC				
CHORDATA/ AVES	Brotogeris sanctithomae							LC				
CHORDATA/ AVES	Brotogeris versicolurus							LC				
CHORDATA/ AVES	Bubulcus ibis							LC				migratory species
CHORDATA/ AVES	Busarellus							LC				
CHORDATA/ AVES	Buteo albonotatus							LC				
CHORDATA/ AVES	Buteogallus meridionalis							LC				
CHORDATA/ AVES	Buteogallus urubitinga							LC				
CHORDATA/ AVES	Butorides striata							LC				Migratory
CHORDATA/ AVES	Cairina moschata							LC				
CHORDATA/ AVES	Cathartes aura							LC				support during migration
CHORDATA/ AVES	Cathartes burrovianus							LC			App II Cites	

Phylum	Scientific name	Species qualifies under criterion 2 4 6 9	Species contributes under criterion	Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
CHORDATA/ AVES	Cathartes melambrotus						LC			App II Cites	
CHORDATA/ AVES	Celeus flavus						LC			CR Brazilian List	Brazilian Red List
CHORDATA/ AVES	Celeus torquatus						NT				
CHORDATA/ AVES	Cercomacra nigrescens										endemic
CHORDATA/ AVES	Chloroceryle aenea						LC				
CHORDATA/ AVES	Chloroceryle amazona						LC				
CHORDATA/ AVES	Chloroceryle americana						LC				
CHORDATA/ AVES	Chloroceryle inda						LC				associated with igapo and varzea forests
CHORDATA/ AVES	Chondrohierax uncinatus						LC				
CHORDATA/ AVES	Coccyzus melacoryphus						LC				migratory
CHORDATA/ AVES	Colonia colonus						LC				migratory
CHORDATA/ AVES	Conirostrum bicolor						NT				
CHORDATA/ AVES	Conirostrum margaritae	ØOOC					VU				
CHORDATA/ AVES	Coragyps atratus						LC			App II Cites	
CHORDATA/ AVES	Crax globulosa	ØOOC					EN				threatened in IUCN and in the brazilian list
CHORDATA/ AVES	Crotophaga major						LC				
CHORDATA/ AVES	Crypturellus atrocapillus						NT				NT IUCN red list
CHORDATA/ AVES	Cymbilaimus sanctaemariae						LC				
CHORDATA/ AVES	Daptrius ater						LC				
CHORDATA/ AVES	Egretta thula						LC				
CHORDATA/ AVES	Elaenia spectabilis						LC				
CHORDATA/ AVES	Elanoides forficatus						LC				migratory and feeding area
CHORDATA/ AVES	Eurypyga helias						LC				
CHORDATA/ AVES	Falco peregrinus						LC	×			support during migration
CHORDATA/ AVES	Falco rufigularis						LC				
CHORDATA/ AVES	Formicarius rufifrons						NT				IUCN List
CHORDATA/ AVES	Galbula Ieucogastra						LC				
CHORDATA/ AVES	Gallinula chloropus galeata										

			Spe qual	cies ifies	5	co	Spe ontri	cies bute	s ,	Jon				%	IUCN	CITES	0	MS		
Phylum	Scientific name		uno crite	der rio	ı	с	und rite	der rion		Size	Period	l of pop	o. Est.	occurrence 1)	Red List	Appendix I	Appe	endix I	Other Status	Justification
		2	4	6	9	3	5	7	8											
CHORDATA/ AVES	Geranospiza caerulescens					1									LC		0			CITES App II
CHORDATA/ AVES	Glaucidium brasilianum					V									LC		0			
CHORDATA/ AVES	Glaucidium hardyi														LC		0		App II Cites	
CHORDATA/ AVES	Harpagus bidentatus														LC		0		App II Cites	
CHORDATA/ AVES	Harpia harpyja	V				J.									NT	×	0			threatened in IUCN, vulnerable in the Brazilian list and listed in Appendix I of CITES
CHORDATA/ AVES	Heliornis fulica														LC		0			
CHORDATA/ AVES	Hemitriccus griseipectus					1									LC		0			
CHORDATA/ AVES	Herpetotheres cachinnans					1									LC		0		App II Cites	
CHORDATA/ AVES	Hirundo rustica					1									LC		0			
CHORDATA/ AVES	Hylophilus ochraceiceps					1											0			
CHORDATA/ AVES	lctinia plumbea		V			V									LC		0			migratory and feeding area
CHORDATA/ AVES	Jabiru mycteria		Ø			1									LC	я.	0			migratory
CHORDATA/ AVES	Jacana jacana					1									LC		0			
CHORDATA/ AVES	Laterallus melanophaius					1									LC		0			
CHORDATA/ AVES	Lathrotriccus euleri		Ø												LC		0			migratory
CHORDATA/ AVES	Legatus leucophaius Ieucophaius					1											0			
CHORDATA/ AVES	Lepidothrix coronata coronata					V											0			
CHORDATA/ AVES	Leptodon cayanensis					Ø									LC		0		App II Cites	
CHORDATA/ AVES	Leucopternis kuhli					V									LC		0		App II Cites	
CHORDATA/ AVES	Lophostrix cristata					1									LC		0		App II Cites	
CHORDATA/ AVES	Lophotriccus eulophotes					1									LC		0			
CHORDATA/ AVES	Megaceryle torquata					Ø									LC		0			
CHORDATA/ AVES	Megarynchus pitangua		Ø			V									LC		0			migratory
CHORDATA/ AVES	Megascops choliba														LC		(App II Cites	
CHORDATA/ AVES	Mesembrinibis cayennensis		V			1									LC		0			migratory
CHORDATA/ AVES	Micrastur gilvicollis					1									LC		0		App II Cites	
CHORDATA/ AVES	Micrastur mirandollei														LC		0		App II Cites	
CHORDATA/ AVES	Micrastur ruficollis					Ø									LC		0		App II Cites	

		Spe qua	ecie Ilifie	s s	Spe contr	ecies ribute	es Bor				%	IUCN	CITES	CMS		
Phylum	Scientific name	ur crit	nder erio	n	un crit	nder erion	Siz	e Per	iod of p	oop. Est.	occurrence 1)	Red List	Appendix I	Appendix I	Other Status	Justification
CHORDATA/	Microrhopias	2 4	6	9 :	3 5	7	8									
AVES	quixensis Milvege				2							LC			A	
AVES	chimachima											LC			App II Cites	
CHORDATA/ AVES	Monasa morphoeus	2C			20							LC			EN Brazilian List	threatened in the brazilian list
CHORDATA/ AVES	Morphnus guianensis				Z							NT				
CHORDATA/ AVES	Mycteria americana											LC				migratory
CHORDATA/ AVES	Myiodynastes maculatus				20							LC				
CHORDATA/ AVES	Myiozetetes cayanensis				00							LC				
CHORDATA/ AVES	Myiozetetes similis				00							LC				
CHORDATA/ AVES	Myrmotherula sunensis				20							LC				endemic
CHORDATA/ AVES	Neochen jubata				0							NT				migratory. feeding area
CHORDATA/ AVES	Neomorphus geoffroyi				0							VU				
CHORDATA/ AVES	Nonnula sclateri				0							LC				endemic species
CHORDATA/ AVES	Nyctibius aethereus	ØC			20							LC			Endangered	Braziljan red list
CHORDATA/ AVES	Odontophorus stellatus				20							LC				Near Threatenead IUCN Red List
CHORDATA/ AVES	Ortalis guttata	ØC			20							LC			CR Brazilian List	National Red List CR
CHORDATA/ AVES	Orthopsittaca manilata				20										App II Cites	
CHORDATA/ AVES	Pandion haliaetus				20							LC				
CHORDATA/ AVES	Paroaria gularis				20							LC				
CHORDATA/ AVES	Patagioenas sub vinacea	II			20							VU				support during migration
CHORDATA/ AVES	Phaethornis bourcieri				20							LC				
CHORDATA/ AVES	Phaethornis hispidus				20							LC			App II Cites	
CHORDATA/ AVES	Phaethornis malaris				20							LC			App II Cites	
CHORDATA/ AVES	Phaethornis philippii				0							LC			App II Cites	
CHORDATA/ AVES	Phaethornis ruber				20							LC			App II Cites	
CHORDATA/ AVES	Phaetusa simplex				0							LC				migratory
CHORDATA/ AVES	Phalacrocorax brasilianus				20											migratory
CHORDATA/ AVES	Pilherodius pileatus				20							LC				
CHORDATA/ AVES	Pionites Ieucogaster	ØC			20							EN			CITES app II	threatened in IUCN and listed in Appendix II of CITES

			Spo qua	eci alifi	es es	c	Spe ontr	cies ibut	es	Don				%	IUCN	CITES	0	Me		
Phylum	Scientific name		ur crit	nde teri	r on		un crite	ider erior	1	Size	Peric	od of po	op. Est	occurren 1)	ce Red List	Appendix	I Appe	endix I	Other Status	Justification
	N	2	4	(6	9 3	5	7	8											
AVES	Pionopsitta barrabandi	C][0			
CHORDATA/ AVES	Pionus menstruus	C		ומ	וכ										LC		0		App II Cites	
CHORDATA/ AVES	Piprites chloris	C		10	וכ										LC		0			
CHORDATA/ AVES	Piranga flava	C		10											LC		0			
CHORDATA/ AVES	Primolius couloni		0	10											VU	V	0			
CHORDATA/ AVES	Progne tapera	Γ		90	וכ										LC		0			aquatic
CHORDATA/ AVES	Psophia Ieucoptera	Γ		10		J									NT		0			NT IUCN List
CHORDATA/ AVES	Pteroglossus castanotis	С		10			90								LC		0		App II Cites	
CHORDATA/ AVES	Pulsatrix perspicillata	С		0			90								LC		0			
CHORDATA/ AVES	Pyrocephalus rubinus	Γ		10											LC		0			
CHORDATA/ AVES	Ramphastos tucanus	Γ		10											VU		0			
CHORDATA/ AVES	Ramphastos vitellinus	J	0][VU		0			CITES app II
CHORDATA/ AVES	Ramphotrigon fuscicauda	C		10]									LC		0			
CHORDATA/ AVES	Rostrhamus sociabilis	Γ		0											LC		0			migratory
CHORDATA/ AVES	Rupornis magnirostris	C		10			90								LC		0		App II Cites	
CHORDATA/ AVES	Schiffornis turdina	С		10	ום		90								LC		0			
CHORDATA/ AVES	Sirystes sibilator	C		0											LC		0			migratory
CHORDATA/ AVES	Spizaetus ornatus	Γ][NT		0			
CHORDATA/ AVES	Spizaetus tyrannus	C		מ											LC		0		App II Cites	
CHORDATA/ AVES	Sporophila caerulescens	С][90								LC		0			
CHORDATA/ AVES	Stelgidopteryx ruficollis	C	J	0											LC		0			migratory
CHORDATA/ AVES	Sternula superciliaris	Γ][LC		0			
CHORDATA/ AVES	Sublegatus modestus	Γ][LC		0			
CHORDATA/ AVES	Tangara callophrys	C		0											LC		0			endemic
CHORDATA/ AVES	Tangara schrankii	C	J	90			90								LC		0			endemic
CHORDATA/ AVES	Tangara velia	Γ		10											LC		0			
CHORDATA/ AVES	Thalurania furcata	С		10											LC		0		App II Cites	
CHORDATA/ AVES	Thamnomanes caesius	Γ					90								LC		0			
CHORDATA/ AVES	Threnetes Ieucurus	Γ													LC		0		App II Cites	

Phylum	Scientific name	Species qualifies under criterion 2 4 6 9	Species contributes under criterion 3 5 7 8	Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
CHORDATA/ AVES	Tigrisoma lineatum		Rooo				LC				
CHORDATA/ AVES	Tinamus guttatus		Rooo				NT				NT IUCN list
CHORDATA/ AVES	Tinamus major		Rooo				NT				NY IUCN List
CHORDATA/ AVES	Topaza pyra						LC				
CHORDATA/ AVES	Touit huetii	ØOOO					VU				
CHORDATA/ AVES	Tringa solitaria						LC				
CHORDATA/ AVES	Trogon collaris	ØDDD	Rooo				LC			Endagered Brazilian Red List	Brazilian Red List
CHORDATA/ AVES	Turdus amaurochalinus		Rooo				LC				migratory
CHORDATA/ AVES	Tyrannus melancholicus		Rooo				LC				
CHORDATA/ AVES	Tyrannus savana		Rooo				LC				
CHORDATA/ AVES	Vireo olivaceus		Rooo				LC				
CHORDATA/ AVES	Volatinia jacarina		Rooo				LC				
CHORDATA/ AVES	Willisornis poecilinotus		Rooo				LC				
CHORDATA/ AVES	Xiphorhynchus guttatus	ØDDD	Ø000				LC			Endagered Brazilian Red List	
CHORDATA/ AVES	Zebrilus undulatus		Ø000				NT				NT IUCN List

1) Percentage of the total biogeographic population at the site

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
Community of "chavascal"	Ø	Extensive areas along the floodplain of shrubby and low vegetation, marshy and almost impossible to transpose during drought (Ayres, 1995).	Important for biodiversity with high degree of Bird endemism
Community of bamboo (tabocais)	Ø	Open forests with bamboo (Guanda genus) occurring in flooded and terra firme forests	Important area for 3 migratory Bird species
High and low várzea plant communities.		Floodplain Forests that occur in whitewater inundated forests	They produce fruits and food for ichthyofauna

Optional text box to provide further information

Community of chavascal is a dense and species poor forests that establishes in depression or oxbows.As an alluvial relict developing in the old river oxbows or lakes the chavascal is characterized by the slow silting up of clayish deposits and organiz matter in stil water. Extensive areas along the floodplain of shrubby and low vegetation, marshy and almost impossible to transpose during drought Community of bamboo (tabocais) is an Open forests with bamboo (Guanda genus) occurring in flooded and terra firme forests and it is an important area for migratory birds.

High and low várzea plant communities are floodplain Forests - varzea that occur in wihitewaters inundated forests.

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

4.1 - Ecological character

The Ramsar site includes the Juruá River basin floodplain, a complex system of rivers, canals, lakes, islands and barriers that are constantly modified due to the sedimentation and transport of suspended sediments (Junk, et al., 1997). The rivers are classified in the category of "white water rivers" due to their yellowish coloration (muddy water) resulting from the high suspended material (Sioli, 1984).

The Juruá river is one of the most important contributors of the Solimões river, extending for over 177,300 km², corresponding to 4.6% of the 3.89 million km² of the Amazon river basin. Its headwater is in the Peruvian portion of the Contamana Mountain, and it is named as Toroltuc River before entering in Brazil.

The river drains areas of Cretaceous and Cenozoic sedimentary cover represented by the Solimões, Cruzeiro do Sul and Içá Formations downstream of the river (Maia and Marmo 2010, Caputo 2014).

The Juruá river exhibits a meandric pattern, forming lakes and bays inserted in the floodplain matrix, regulated by the flood dynamics that provides a variety of habitats for many plant and animal species (Junk and Silva, 1997). The region is extremely important for ichthyofauna and herpetofauna reproduction through its complex lake system, contemplating also dozens of beaches important for chelonians spawning. The river drains regions with dominance of Dense and Open tropical Forest, with or without palm and / or bamboo (Brasil, 1977), which makes the region a highly diverse area. It is considered of very high importance "For the conservation of local fauna and flora (Ayres et al., 2005), and inserted in the Central Amazon Corridor and in the Inambari endemism area (Cracraft, 1985).

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 >> M: Permanent rivers/ streams/ creeks		2		Representative
Fresh water > Flowing water >> N: Seasonal/ intermittent/ irregular rivers/ streams/ creeks	Flood plain forests and igapó	1		Representative
Fresh water > Lakes and pools >> P: Seasonal/ intermittent freshwater lakes	Juruá	2		Representative

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
Upland forest (open and dense)	

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

RIS for Site no. 2362, Rio Juruá, Brazil

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/LILIOPSIDA	Astrocaryum aculeatum	
TRACHEOPHYTA/LILIOPSIDA	Astrocaryum murumuru	
TRACHEOPHYTA/MAGNOLIOPSIDA	Campsiandra comosa Iaurifolia	
TRACHEOPHYTA/MAGNOLIOPSIDA	Carapa guianensis	
TRACHEOPHYTA/MAGNOLIOPSIDA	Ceiba pentandra	
TRACHEOPHYTA/MAGNOLIOPSIDA	Conceveiba guianensis	
TRACHEOPHYTA/MAGNOLIOPSIDA	Copaifera brasiliensis	
TRACHEOPHYTA/MAGNOLIOPSIDA	Copaifera officinalis	
TRACHEOPHYTA/MAGNOLIOPSIDA	Dipteryx odorata	
TRACHEOPHYTA/MAGNOLIOPSIDA	Duroia hirsuta	
TRACHEOPHYTA/MAGNOLIOPSIDA	Eschweilera andina	
TRACHEOPHYTA/MAGNOLIOPSIDA	Eschweilera coriacea	
TRACHEOPHYTA/MAGNOLIOPSIDA	Eschweilera micrantha	
TRACHEOPHYTA/MAGNOLIOPSIDA	Eschweilera truncata	
TRACHEOPHYTA/MAGNOLIOPSIDA	Eschweilera wachenheimii	
TRACHEOPHYTA/LILIOPSIDA	Euterpe precatoria	
TRACHEOPHYTA/MAGNOLIOPSIDA	Hura crepitans	
TRACHEOPHYTA/MAGNOLIOPSIDA	Iryanthera laevis	
TRACHEOPHYTA/MAGNOLIOPSIDA	Ocotea cymbarum	
TRACHEOPHYTA/MAGNOLIOPSIDA	Parahancornia fasciculata	
TRACHEOPHYTA/MAGNOLIOPSIDA	Paypayrola grandiflora	
TRACHEOPHYTA/MAGNOLIOPSIDA	Piper demeraranum	
TRACHEOPHYTA/MAGNOLIOPSIDA	Pouteria cuspidata	
TRACHEOPHYTA/MAGNOLIOPSIDA	Pouteria guianensis	
TRACHEOPHYTA/MAGNOLIOPSIDA	Rinorea guianensis	
TRACHEOPHYTA/MAGNOLIOPSIDA	Sclerolobium chrysophyllum	
TRACHEOPHYTA/MAGNOLIOPSIDA	Simarouba amara	
TRACHEOPHYTA/MAGNOLIOPSIDA	Sterculia frondosa	
TRACHEOPHYTA/MAGNOLIOPSIDA	Swartzia polyphylla	
TRACHEOPHYTA/MAGNOLIOPSIDA	Theobroma cacao	

4.3.2 - Animal species

<no data available>

4.4 - Physical components

4.4.1 - Climate

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

Changes in rainfall patterns were observed in northern Amazonia in years of intense El-Niño and the increase in intensity and quantity of extreme events (drought and flood) are in accordance with long-term projections of Amazon climate models until the end of the 21st century (Marengo, 2011).

	4.4.2 - Geomorphic setting
32	a) Minimum elevation above sea level (in metres)
650	a) Maximum elevation above sea level (in metres)
Entire river basin 🗹	
Upper part of river basin \square	
Middle part of river basin \Box	
Lower part of river basin 🛛	
More than one river basin \square	
Not in river basin 🗖	
Coastal 🗖	

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

Juruá River basin, sub-basin of Solimões / Amazonas. The site region comprises the Juruá River main channel. The Juruá River headwaters is in the Peruvian portion of Contamana Mountains (Serra da Contamana), running for 380 km before crossing the Brazilian border in Marechal Thaumaturgo municipality, in the state of Acre (ANA, 2017). The river has approximately 3,280 km in length. In the Brazilian territory, the Juruá River watershed covers an area of 177,300 km2 between Acre and Amazonas states (ANA, 2012). In its high portion, with 425 km in width there are the main tributaries. The middle and low portions are narrow, with a minimum width of 40 km but with an extensive floodplain (ANA, 2017). The Juruá Ramsar Site is located at Amazonas State and the area that encompass the Resex Baixo Juruá until de Deni Indigenous Land.

4.4.3 - Soil

Mineral 🗹

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

 Organic
 Image: Constraint of the constrain

Please provide further information on the soil (optional)

The Juruá River basin occurs mainly on luvisols and argisols, which correspond to two-thirds of the basin soils, and also on cambisols, gleysols, plinthosols and latosols (Brasil, 2009, 2010, ICMBIO, 2017). The luvisols represents 33.9% of Juruá river basin. They are mineral, non-hydromorphic soils, with textural B horizon like argisols, and contain high clay activity. The argisols comprises 32,8% of Juruá river basin. They are mineral soils that present a gradual increase of clay from the surface horizon A to B, leading to a clear abrupt or gradual transition that characterizes them as textural type (Bt). These soils are vulnerable to water erosion processes and are found in the central and western portions of Amazonas state and are originated from sediments of the Cretaceous and Paleogene periods, commonly classified as dystrophic or alic.

4.4.4 - Water regime

Water permanence		
Presence?	Changes at RIS update	
Usually permanent water present	No change	

Source of water that maintains character of the site

Presence?	Predominant water source	Changes at RIS update
Water inputs from groundwater	V	No change
Water inputs from precipitation		No change

Water destination

Presence?	Changes at RIS update
To downstream catchment	No change

Stability of water regime

Presence?	Changes at RIS update
Water levels fluctuating (including tidal)	No change

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

The hydrographic system in the region is represented by the Juruá River basin, its tributaries and lakes inserted into the floodplain matrix. The floodplain relief is formed by fluvial terraces of the main rivers and streams that are periodically flooded. The Juruá River has approximately 3 thousand km of extension covering the site area from south to north.

In the Middle Juruá the highest rainfall period occurs between December and March (320.80 mm to 319.38 mm), and the average river level can reach 1263.15 cm above the sea in April. The lowest rainfall period is from June to September. During this period the mean values range from 96.07 to 112.10 mm. In the lower Juruá, the highest rainfall incidence starts in September / October (136.21 to 213.21 mm), with a maximum between December and March (310.09 mm), reaching a quota of 1428.42 cm above the sea. The period of lower rainfall occurs between June and August with a lower precipitation of 96.90 mm, reaching a height of 170 cm in this period.

At Middle Juruá River the flow increased in November reaching higher values in April with 3,210.85 m3 / s. The water volume begins to decrease in June and reaches the lowest values between September and October presenting 373.75 m3 / s. In the lower Juruá the flow begins to increase November reaching a maximum of 11,413.71 m3 / s in March. This parameter starts to decrease from April showing lower values between August and October with lower average value of 1480.13 m3 / s (Silva, 2017)

4.4.5 - Sediment regime

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

Significant accretion or deposition of sediments occurs on the site III

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

Significant transportation of sediments occurs on or through the site $\ensuremath{\overline{\mathcal{M}}}$

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

Sediment regime is highly variable, either seasonally or inter-annually $\hfill\square$

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

Sediment regime unknown \Box

Please provide further information on sediment (optional):

The extensive Solimões / Amazonas river floodplain and its tributaries form a complex system of rivers, canals, lakes, islands and barriers that are constantly modified due to the sedimentation and the transport of suspended sediments.

The Solimões River is responsible for 60% of the sediment load of the Amazon Basin (Meade, 1985). This floodplain is seasonally flooded by different types of water that vary widely, depending on their origin, type of soil and climatic conditions (Junk, 1997). The Amazonian waters can be divided into three large groups based on the solid and dissolved content and the pH: black waters (such as Rio Negro), with a high content of humic components, poor in suspended solids and with pH between 3.8 -4.9; white waters (such as Rio Solimões and Juruá), with high content of suspended and dissolved particles, and with pH between 6.2 - 7.2; and the clear waters (such as the Tapajós River), with low turbidity and low content of suspended matter and humic substances,

(ECD) Water turbidity and colour	Middle Juruá, turbidity reached 390 NTU in the flood and 103 NTU in dry season
(ECD) Light - reaching wetland	Whitewater river such Juruá River is turbid, with water transparency that varies between 20 and 60 cm
(ECD) Water temperature	24C

4.4.6 - Water pH

Acid (pH<5.5)

^(Update) Changes at RIS update No change O Increase O Decrease O Unknown
Circumneutral (pH: 5.5-7.4)
^(Update) Changes at RIS update No change Increase O Decrease O Unknown O
Alkaline (pH>7.4)
^(Update) Changes at RIS update No change O Increase O Decrease O Unknown
Unknown

Please provide further information on pH (optional):

In the Middle Juruá the PH varies from 7.05 (HWP) to 7.01 (LWP) (Silva, 2017).

4.4.7 - Water salinity

Fresh (<0.5 g/l)</td> Image (Update) Changes at RIS update No change ● Increase ○ Decrease ○ Unknown ○ Mixohaline (brackish)/Mixosaline (0.5-30 g/l) Image (Update) Changes at RIS update No change ○ Increase ○ Decrease ○ Unknown ● (Update) Changes at RIS update No change ○ Increase ○ Decrease ○ Unknown ● (Update) Changes at RIS update No change ○ Increase ○ Decrease ○ Unknown ● (Update) Changes at RIS update No change ○ Increase ○ Decrease ○ Unknown ● (Update) Changes at RIS update No change ○ Increase ○ Decrease ○ Unknown ● (Update) Changes at RIS update No change ○ Increase ○ Decrease ○ Unknown ● (Update) Changes at RIS update No change ○ Increase ○ Decrease ○ Unknown ● (Update) Changes at RIS update No change ○ Increase ○ Decrease ○ Unknown ● (Update) Changes at RIS update No change ○ Increase ○ Decrease ○ Unknown ● (Update) Changes at RIS update No change ○ Increase ○ Decrease ○ Unknown ● (Unknown □ Implement

Please provide further information on salinity (optional):

The Site ins in Central Amazon Forest.

4.4.8 - Dissolved or suspended nutrients in water

Eutrophic 🗹
^(Update) Changes at RIS update No change Increase O Decrease O Unknown O
Mesotrophic 🗹
^(Update) Changes at RIS update No change Increase O Decrease O Unknown O
Oligotrophic
^(Update) Changes at RIS update No change O Increase O Decrease O Unknown 🔍
Dystrophic
^(Update) Changes at RIS update No change O Increase O Decrease O Unknown 🖲

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

Due to site extent and water level variability throughout the year, the suspended and dissolved nutrient concentration can vary greatly among the different environments (Affonso et al., 2011). A study carried out at Juruá River shows that the average physico chemical characteristics of Juruá River waters are: PH – 7.27, electric conductivity – 191.14 uS/cm, Total suspended solid – 51.42 mg/L, Ca- 32.55 mg/L, Mg - 4.42 mg/L, Na- 10.19 mg/L, Total P – 0.080 mg/L, Total N – 0.39 mg/L, SO4 – 2.56 mg/L, Color – 41.61 mg pt/L, CI- 4.75 mg/L.(Rios- Villamizar, et al, 2014).

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 O site itself:

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning	Services
	001110000

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	High
Wetland non-food products	Timber	High
Biochemical products	Extraction of material from biota	Medium
Genetic materials	Genes for resistance to plant pathogens	High

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Storage and delivery of water as part of water supply systems for agriculture and industry	Low
Erosion protection	Soil, sediment and nutrient retention	High
Climate regulation	Regulation of greenhouse gases, temperature, precipitation and other climactic processes	High

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Nature observation and nature-based tourism	Medium
Spiritual and inspirational	Cultural heritage (historical and archaeological)	High
Scientific and educational	Major scientific study site	High
Scientific and educational	Educational activities and opportunities	High
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or 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
Nutrient cycling	Carbon storage/sequestration	High
Nutrient cycling	Storage, recycling, processing and acquisition of nutrients	High

Other ecosystem service(s) not included above:

The local population extract oils, seeds, wood, fibber, honey and fruits from local plant species such as copaiba (Copaifera langsdorfii), murmuru (Astrocaryum murumuru), buriti (Mauritia flexuosa), açaí (Euterpe oleracea), jarina (Phytelephas aequatorialis) and vines, such as the Titicaca (Heteropsis flexuosa) (for handicrafts) listed as vulnerable in the Brazilian List of Endangered Flora Species (Brasil, 2014a). The Fauna is also used by the inhabitants for its subsistence and among the captured fish species are branquinha (Curimata sp.), Jaraqui (Semaprochilodus spp.), matrinxã (Brycon spp.), pacu comum (Mylassoma aureum), tambaqui (Colossoma macropomum), dourada Catfish (Brachyplatystoma rousseauxii), piramutaba catfish (Brachyplatystoma vaillantii) and pirarucu (Arapaima gigas). Since 2006, the pirarucu fishery is regulated by the Pirarucu Management Plan (PMP) in the RESEXs of Médio and Baixo Juruá and RDS Uacari. The PMP determines fishing quotas based on the pirarucu abundance determined by the number of adults counted in the previous year (Castello, 2004). This initiative began in 1999 in RDS Mamirauá and is being widely and successfully replicated in several RESEX and RDS in the Amazon region (ICMBIO, 2017). Although ornamental fishery is not an activity commonly undertake in the region, there are at least 88 species with economic potential in the area. The species Apistogramma agassizi, Copella nigrofasciata, Pygocentrus nattereri (red-bellied piranha), Ancistrus sp. (bodó), Aphyocharax alburnus (Goldencrown tetra), Carnegiella strigata (Marbled hatchetfish) and Nannostomus trifasciatus (Threestripe pencilfish) were collected in the region and are listed in IBAMA ornamental species list (Brasil,2005) and on the "exported fish species list" from Amazonas state in 2007, showing that local ornamental fishery is as an alternative income source for residents.

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Vithin the site:	49545
tside the site:	83441

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes O No O Unknown ()

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 \swarrow civilizations that have influenced the ecological character of the wetland

Description if applicable

There is one Indigenous Land(IL) in the site, in Amazonas State, called Deni.

iii) the ecological character of the wetland depends on its interaction is interaction with local communities or indigenous peoples

Description if applicable

The traditional Amazon population, indigenous people and local communities, are characterized by their depth knowledge of local flora and fauna, plant growth, ecology of cinegenic species, extractive activities and species preservation. The traditional population in the region uses animal and plants extracted from the nature as medicine, food and handcrafts. Besides that, the concern with one of the most important food resource in the region made the communities of RESEX Médio Juruá voluntarily initiated conservation actions to preserve the spawning beaches of chelonians (Podocnemis expansa, and P. unifilis). The oldest spawning ground (tabuleiro) has been protected for the last 18 years, and tens of thousands of chelonians have been released in RESEX lakes. In addition, the protected beaches are full of nesting birds contributing to biodiversity maintenance. However, most of the beaches in the RESEX and nearby are unprotected and suffering from an intense predation on bird and chelonian eggs. The nonstop increase in the illegal capture of chelonians in the region has jeopardized population perpetuation. The species are widely used in regional food and are captured in Juruá river to supply mainly the cities of Juruá, Carauari, Fonte Boa, Tefé, Manacapuru and Manaus.

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

Description if applicable

The site presents a great quantity of fossiliferous deposits. The RADAM Brasil Project (Brazil, 1977) has inventoried deposits which are legally protected (decree Law No 4.146 de 4/03/1942).

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

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

Private ownership

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

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

The site is composed of Protected Areas (federal and state spheres) and Indigenous Lands. Two Protected Areas (PAs) are under the accountability of ICMBio (Chico Mendes Institute for Biodiversity Conservation), a federal institution and one Protected Area is under the accountability of Amazonas environmental state Secretariat. The Indigenous Land is under the management and administration of FUNAI (National Indian Foundation). The PA of state sphere is: Sustainable Development Reserve Uacari and the PAs of federal sphere: Extractive Reserves Médio Juruá and Baixo Juruá (MDS, 2010).

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:	 i) Brazilian Ministry of the Environment/ Department of Ecossystem; iii) Fórum Território Médio Juruá (Local community - AANE, AMAB, AMARU, AMECSARA, ASMAMJ, ASPODEX, ASPROC, CODAEMJ -; Fundação Amazonas Sustentável; Instituto Juruá; Memorial Chico Mendes; OPAN - Operação Amazônia Nativa; Secretaria Executiva do Fundo de Repartição de Benefícios/Natura; SITAWI; ICMBio; Prefeitura Municipal de Carauari; SEMA/AM; Coca-Cola; Natura; Açaí Tupã); ASTRUJ - Associação de Trabalhadores Rurais de Juruá; Associação dos Produtores Rurais de Itamarati; and CNS - Conselho Nacional das Populações Extrativistas; iii) Instituto Chico Mendes de Conservação da Biodiversidade - ICMBio; iv) Fundação Nacional do Índio - FUNAI; v) Secretaria Estadual de Meio Ambiente do Estado do Amazonas -SEMA/AM;
Provide the name and/or title of the person or people with responsibility for the wetland:	Fabio Chicuta - Manager at Ecosystem Department of the Ministry of the Environment (DECO/MMA); and Felipe Pires, Executive Secretary of Forum Medio Juruá
Postal address:	- DECO/SBio/MMA: Departamento de Conservação de Ecossistemas / Secretaria de Biodiversidade - SBio / Ministério do Meio Ambiente - MMA Esplanada dos Ministérios, Bloco "B", Sala 830. CEP: 70068.900 - Brasília/DF - Brazil; E-mail address: cnzu@mma.gov.br and - forumtmj@gmail.com
E-mail address:	cnzu@mma.gov.br

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)							
Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes	
Housing and urban areas	Low impact	Medium impact	×	No change	V	No change	
Tourism and recreation areas	Low impact	Medium impact	X	No change	X	No change	

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Water abstraction	Low impact	Medium impact	×	No change	×	No change

Agriculture and aquaculture

RIS for Site no. 2362, Rio Juruá, Brazil

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Annual and perennial non-timber crops	Low impact	High impact	×	No change	×	No change
Livestock farming and ranching	Low impact	High impact	X	No change	S	No change

Energy production and mining						
Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Mining and quarrying	Low impact	High impact	×	No change	×	No change
Oil and gas drilling	Low impact	High impact	×	No change	×	No change

Transportation and service corridors

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	X	No change

Biological resource use						
Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Logging and wood harvesting	High impact	High impact	V	No change	×	No change
Fishing and harvesting aquatic resources	Medium impact	High impact	×	No change	×	No change
Hunting and collecting terrestrial animals	High impact	High impact	V	No change	V	No change
Gathering terrestrial plants	High impact	High impact	V	No change	V	No change

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Recreational and tourism activities	Low impact	Medium impact	×	No change	×	No change
(Para)military activities	Low impact	Medium impact	1	No change	×	No change

Natural system modification	ins					
Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Vegetation clearance/ land conversion	Low impact	High impact	×	No change	V	No change
Fire and fire suppression	Low impact	Medium impact	Ø	No change	Ø	No change

Climate change and severe weather						
Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Droughts	Medium impact	High impact	s.	No change	×	No change
Storms and flooding	Medium impact	High impact		No change	×	No change

5.2.2 - Legal conservation status

Global legal designations			
Designation type	Name of area	Online information url	Overlap with Ramsar Site
UNESCO Biosphere Reserve	Central Amazon	http://www.unesco.org/mabdb/br/b rdir/directory/biores.asp?mode=a II&code=BRA+05	partly

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Extractive Reserve Federal	Federal Baixo Jurua Resex	http://www.icmbio.gov.br/portal/ unidadesdeconservacao/biomas-bra sileiros/amazonia/unidades-de-co nservacao-amazonia/2012-resex-do- baixo-jurua	whole
Extractive Reserve Federal	Federal Medio Jurua Resex	http://www.icmbio.gov.br/portal/ unidadesdeconservacao/biomas-bra sileiros/amazonia/unidades-de-co nservacao-amazonia/2036-resex-me dio-jurua	whole
Indigenous Land	Deni	https://terrasindigenas.org.br/p t- br/terras-indigenas/3655	partly
Sustainable Development State Reserve	RDS Uacari	https://uc.socioambiental.org/uc/6818	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	

Habita

Measures	Status	
Faunal corridors/passage	Partially implemented	

Species

Measures	Status	
Threatened/rare species	Implemented	
management programmes	Implemented	

Human Activities

Measures	Status
Fisheries management/regulation	Implemented

Other

CEUC/SDS/Amazonas. 2010.RDS Uacari: http://observatorio.wwf.org.br/site media/upload/gestao/planoManejo/rds uacari.pdf Brasil. 2011.RESEX Médio Juruá: http://www.icmbio.gov.br/portal/images/stories/imgs-unidadescoservacao/RESEX_M%C3%89DIO_JURU%C3%81.pdf Brasil. 2009. RESEX Baixo Juruá: http://www.icmbio.gov.br/portal/images/stories/imgs-unidadescoservacao/PM%20Baixo%20Juru%C3%A1.pdf< br>

5.2.5 - Management planning

Is there a site-specific management plan for the site? No

Has a management effectiveness assessment been undertaken for the

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:

site?

Environmental education activities have already been carried out in the conservation units with students from public schools from the municipalities near Resex Medio Juruá (Brasil, 2013). Such activities were developed to show the PAs importance for fauna and flora conservation, especially for species threatened to extinction. A training course for community Biodiversity monitoring, a course for teachers in Carauari rural area, a course for community monitoring of alligators nesting spots and environmental education activities during the release of chelonians in the RDS Uacari (CEUC/SDS/Amazonas, 2010).

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No, but restoration is needed

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Animal community	Implemented
Animal species (please specify)	Implemented

Monitoring Biodiversity and Natural Resources use in Amazonas State Conservation Units: actions to monitor the chelonians nesting beaches of the Middle Juruá.) (Podocnemis expansa; Podocnemis sextuberculata, Podocnemis unifilis e Chelonoides denticulata). Pirarucu fishery management plan in Middle Juruá River (Manejo da pesca do Pirarucu no Médio Juruá). Project Delphin (Inia geoffrensis) WWF and Mamirauá Institute is been implemented. ProBUC – Natural Resources Use in State PA. Medio Jurua long term research project https://ppbio.inpa.gov.br/sitios/mediojurua.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

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Arantes, C.C.; Garcez, D.S.; Castello, L. Densidades de pirarucu (Arapaima gigas, Teleortei, Osteoglossidae) em lagos das reservas de desenvolvimento sustentável Mamirauá e Amanã, amazonas, Brasil. Uakari, v.2, n.1, p. 37-43, 2006.

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:http://institutolife.org/wp-content/uploads/2015/01/Caderno-Tecnico-Ecorregioes-do-Brasil.pdf . Accessed Dec.2017 Brasil. 1977. Departamento Nacional da Produção Mineral. Projeto RADAMBRASIL. (1977). Levantamento de Recursos Naturais. Folha SC-

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> Fabio Chicuta (Fchicuta, 12-09-2018)

(Complete list in Section: 6.1.2 Additional Reports and Documents. VI Other Published Literature)

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)

<no file available>

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

iv. relevant Article 3.2 reports

<no file available>

v. site management plan <2 file(s) uploaded>

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:



6.1.4 - Designation letter and related data

Designation letter

Data of Designation 201

Date of Designation 2018-09-29