



NON-PASSERIFORMES BIRDS SPECIES OF THE PARAGUAY RIVER, PANTANAL WETLAND, CÁCERES - MT BRAZIL

ORIGINAL ARTICLE

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ABSTRACT

The Pantanal has about 730 bird species, of about 80 are aquatic birds, being the richest and abundant region with aquatic birds of the continent. This study was realized with the aim to register the occurrence and distribution of the birds, over 140 km of the Paraguay river, between the urban area of Cáceres-MT county and Descalvados farm, and in 13 parental lakes over the Rivers. The samples were realized by boat with constant speed, all the individuals observed or heard were registered. It was registered in total 177 species of non Passeriformes birds in the Paraguay river and 13 parental lakes. In the excerpt RIOIII of the Paraguay river was registered bigger diversity, between the lake, BJCRE shown bigger richness. It was evidenced the importance of the area by the elevated number of registered species.

Key-words: birds, diversity, lakes, Pantanal.

1. INTRODUCTION

In the context of singularity, conservation and priority, Olson *et al.* (1998) consider the Pantanal as “with global accent, vulnerable and with high priority for conservation on a regional scale”. The existing data of biological diversity of the Pantanal are small and fragmented yet (NUNES; SILVA and FERRAZ, 2017).



The fragile balance of the Pantanal ecosystem, maintained by the flood pulse (JUNK *et al.*, 1989), are threatened by the new direction of the economic politics. Navigation on the Paraguay River, highways and dam building are the main troubles within of the Pantanal. Before another factor like deforestation (SILVA *et al.*, 2015; SEIDL; SILVA and MORAES, 2001), change on the hydraulic geometry of the rivers, change the natural vegetation on the head waters (SILVA *et al.*, 2000; NUNES *et al.*, 2000)

The Pantanal is the region with high number of aquatic birds in the continent (SICK, 1997). Research estimate about 730 species in the region, including migratory birds, accidental visitors and introduced species, being about 500 species in the region (SILVA *et al.*, 2000; VITORINO *et al.*, 2017; ENDRIGO; PIVATTO and BERNARDON, 2012; STRAUBE e PIVATTO, 2012; NUNES *et al.*, 2020; QUEIROZ *et al.*, 2021).

The purpose of this research is registration the occurrence and distribution of the birds into the different environments of the Paraguay River and parental lakes, between the urban area of the Cáceres city to the Descalvados farm (140 km).

2. MATERIAL AND METHODS

2.1 STUDY AREA

The Pantanal of Mato Grosso state is situated in the western of Brazilian territory, in the Mato Grosso and Mato Grosso do Sul states. Is a depression floodable seasonally, fully contained in the drainage watershed of the Paraguay River and comprises about 140.000 Km² (BRASIL, 1982) (Figure 1).

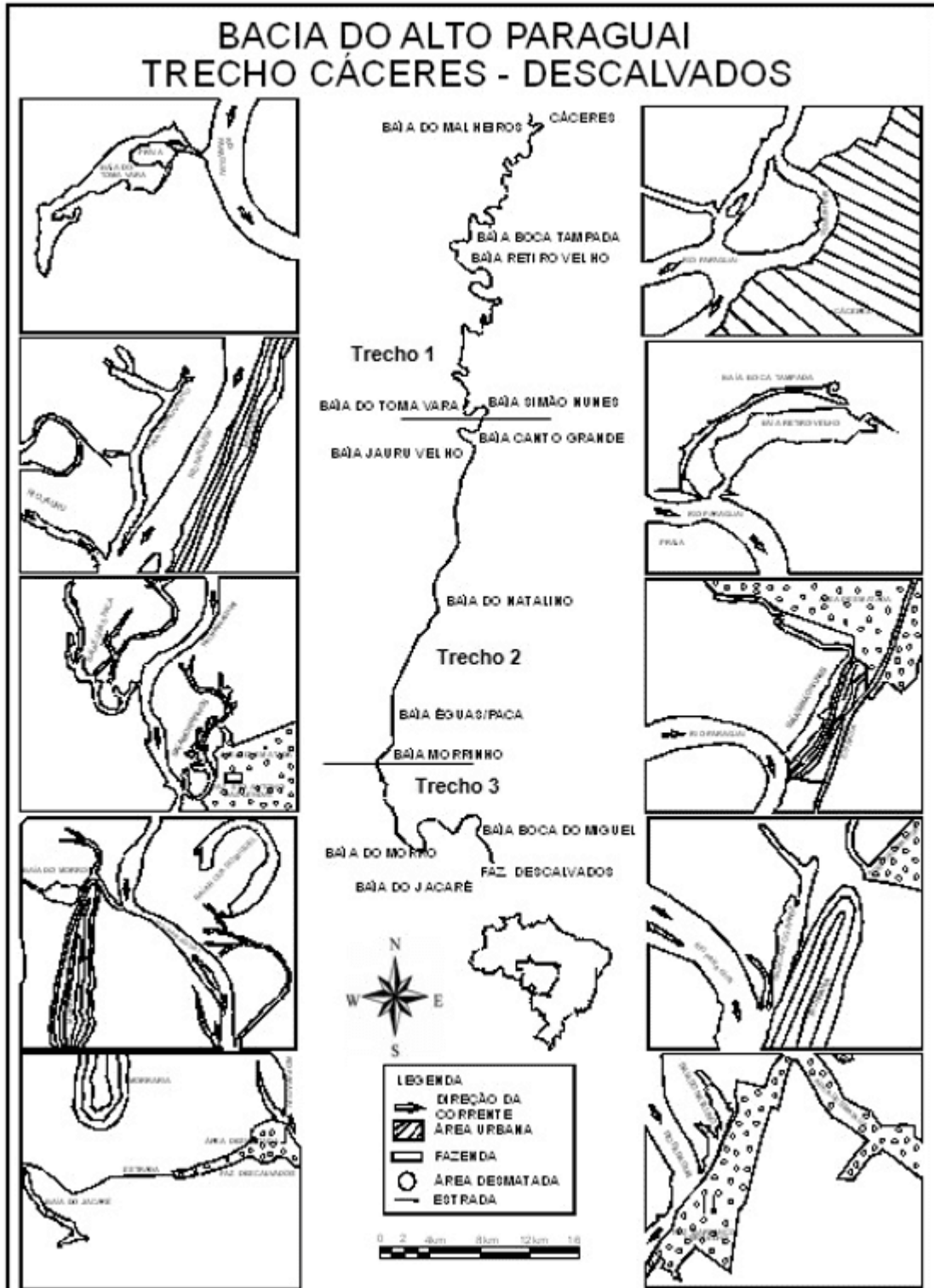
The field samples were carried out along the Paraguay River, from the urban area of the Cáceres municipality to the Descalvados farm, traversing 134km of river, between may/2008 to may/2009, trying to sample on all hydrologic periods (Figure1). It was divided into three snippets, being RIO I, characterized like a highly meandric, located between Cáceres city to the *Canto Grande* lake, RIO II shown the most straightened river and more wide, located between Canto Grande lake and *Das Éguas/Paca* lakes, the snippets RIO III is the transition of straightened to plain and is located between



Das Éguas/Paca lakes to *Descalvados* farm. Surveys were carried out also in 13 parental lakes of the Paraguay River.

The samples collect were realized using boat (25hp, 2t, Yamaha), by medium speed of 15 km/h in the river and lakes. To observation it was used binoculars (7 x 50 mm) and photographic register by means of a digital camera Canon Rebel XTI, with 12 mega pixel. The sample points were marked using GPS, Garmim etrax vista. The nomenclature used followed NBRO (2014).

Figure 1. Study area at the Paraguay river, from Cáceres municipality to Descalvados Farm, Cáceres - MT. Drowned by Landsat, 2008. SEMA-MT.



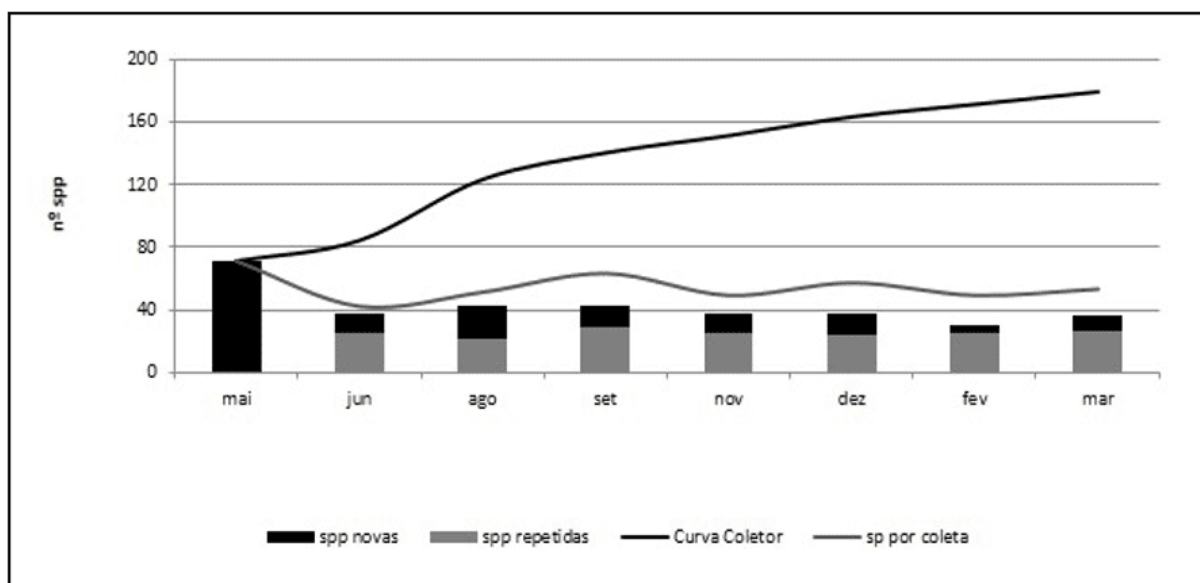
Source: authors.

3. RESULTS AND DISCUSSION

During sample collects, it was registered 177 species distributed on 21 orders and 42 families, totalizing 480 hours of observation. This is the first systematic survey in this area.

The figure 2, show new species on each collect, repeated species per collect, species cumulative curve, and the number of species per collect on the study area, evidences the tendency to stabilization. Although is it possible to exists not sampled species in the region, we believe that the survey was satisfactory, because the kind of environment mainly aquatic or riverine not shown a bigger variation.

Figure 2. Species cumulative curve at the Paraguay River, from Caceres municipality to *Descalvados* farm, Pantanal of Caceres - MT.



Source: authors.

Nunes; Tomas and Ticianeli (2005), studying the Nhumirin farm on the Pantanal of Nhecolandia, identify 272 species including passeriformes and non passeriformes. Tubelis and Tomas (2003) published a list with 465 species of passeriformes and non passeriformes for the Pantanal and surrounding area, Pessoa *et al.* (2013) found 169



species studying passeriformes and non passeriformes in the Paragay river in the Barra do Bugres municipality.

In the PCBAP (BRASIL, 1997) it were identified 656 bird species on the Pantanal matogrossense for the states of Mato Grosso and Mato Grosso do Sul, being that it was visited ten localities, for these authors the number of bird species can reach 700.

Of the 21 orders found, Falconiformes showed 24 species being that the total of the species for this order in Brazil is of 69. In this research it was found 35% of this amount, Nunes; Tomas and Ticianeli (2005), Nunes; Silva and Dias Filho (2012a), Nunes *et al.* (2020a; 2020b), Fieker *et al.* (2013) e Farias *et al.* (2015) found the same standard, studying the Pantanal of Mato Grosso do Sul and the same area and Nunes *et al.* (2018) studding the wetlands of Guaporé River.

For the Ciconiiformes it was identified 21 species. The Brazil had 36 species of this order, being that for the Pantanal region, it was found 66% of this amount, because the biggest part of the species of this order, are aquatic bird, and this is the main environment in the region, allowing that those species to be very common in the Pantanal.

The Psittaciformes showed 16 species, being that the total number for Brazil is of 84, so in this study it was observed 18% of these species. Columbiformes was the fourth order in number of species (13), being that, the total for Brazil is 22 species, reaching 60% on this research.

The orders who shown the small number of bird species were, Struthioniformes with one specie, Pelecaniformes with two species. Podicepediformes showed two species. Trogoniformes two species and Galbuliformes three species.

We registered the following orders Psittaciformes, Pelecaniformes, Ciconiiformes, Cathartiiformes, Coraciiformes, Columbiformes, Galliformes, Cuculiformes and Falconiformes in all sample points.



The most representative families were Psittacidae with 16 species, totalizing 18% of the total, which reach 84 species. Accipitridae with 15 species totalize 34% of the total of species of this family, which in Brazil is about 45 species. It were found 14 species belonging to the Ardeidae family, in the Brazil the number os species belonging to this family is of 21 species, being that the species found in this study, make up 67% of this total.

The families Psittacidae, Phalacrocoracidae, Anhingidae, Ardeidae, Cathartidae, Alcedinidae, Columbidae, Cracidae and Accipitridae were observed on all samples points.

The table 2 shown a list of species as well as their distribution per sample unit, though the presence absence of the individulas into the localities, totalizing 177 species, distributed unto the 16 samples points, along Paraguay River to Descalvados farm.

The major influence in the bird fauna in the Pantanal is certainly the Cerrado biome, being this contributes with the biggest part of the species found, this due to the occurrence of a typical vegetation of Cerrado into the Pantanal. Another factor that favors the presence of species from Cerrado, including the endemics one, is the low endemism in the Pantanal (FROTA *et al.*, 2020a; FROTA *et al.*, 2000b; VITORINO *et al.*, 2018; NUNES; SILVEIRA and SILVA, 2012; NUNES and TOMAS, 2004).

Table 1. Registered species on all sample points along of Paraguay River and the parental lakes.

Taxa Name	Popular name	B M L H	R I O T P	B R T V L	R I O II	B T M V R	B S M N	R I O III	B C T D	B J R V L	B B C N T	B E P C	B M O R R I	B M O R R O	B B C M G	B J C R E
RHEIFORMES Forbes, 1884																
Rheidae Bonaparte 1849																
<i>Rhea americana</i>	Ema															



<i>na</i> (Linnaeus 1758)																		
TINAMIFORMES Huxley 1872																		
Tinamidae Gray 1840																		
<i>Crypturus parvirostris</i> (Wagler 1827)	Nhm abuxororô																	
<i>Crypturus tataupa</i> (Temminck 1815)	Inhambuchintã																	
<i>Crypturus undulatus</i> (Temminck 1815)	Jaó																	
<i>Rhynchotus rufescens</i> (Temminck 1815)	Perdiz																	
ANSERIFORMES Linnaeus 1758																		
Anhimidae Stejneger 1885																		
<i>Anhima cornuta</i> (Linnaeus 1766)	Tachã, Anhuma																	



<i>Chauna torquata</i> (Oken 1816)	Inhu ma, tachã																		
Anatida e Leach 1820																			
Anatina e Leach 1820																			
<i>Amazonetta brasiliensis</i> (Gmelin 1789)	Sinha zinha																		
<i>Cairina moschata</i> (Linnaeus 1758)	Pato-do-mato																		
Dendrocygnina e Reichenbach 1850																			
<i>Dendrocygna autumnalis</i> (Linnaeus 1758)	Asa-branca																		
<i>Dendrocygna bicolor</i> (Vieillot 1816)	Marr eca-caneira																		
<i>Dendrocygna viduata</i> (Linnaeus 1766)	Irerê																		
GALLIFORMES Linnaeus 1758																			
Cracida de Rafines																			



que 1815																	
<i>Crax fasciolata</i> Spix 1825	Mutu m pinim a																
Taxa Name	Popu lar nam e	B M L H	R I O I	B B C T P	B R T V L	R I O II	B T M V R	B S M N N	R I O III	B C T G D	B J R V L	B B C N T	B E P C	B M O R R I	BM OR RO	B B C M G	B J C R E
<i>Ortallia canicollis</i> (Wagler 1830)	Arac uã- do- papnt anal																
<i>Penelope ocrogaster</i> Pelzein 1870	Jacu- barrig a- casta nha																
<i>Aburria kujubi</i> (Pelzein 1858)	Cuju bi																
<i>Aburria cumane nsis</i> (Spix 1825)	Jacut inga																
PODICE PEDIFOR MES Furbrin g 1888																	
Podice pedidae Bonapa rte 1831																	
<i>Podilymbus podiceps</i> (Linnaeus 1758)	Merg ulhão caça dor																
<i>Tachybatus dominicus</i>	Merg ulhão zinho																



(Linnaeus 1766)																			
CICONIIFORMES Bonaparte 1854																			
Ciconiidae Sundevall 1836																			
<i>Ciconia maguari</i> (Gmelin 1789)	Tabuíaia, maguari																		
<i>Jabiru mycteria</i> (Lichtenstein 1819)	Tuiuí																		
<i>Mycteria americana</i> (Linnaeus 1758)	Cabeça-seca																		
SULIFORMES Sharpe 1891																			
Anhingiidae Reichenbach 1849																			
<i>Anhinga anhinga</i> (Linnaeus 1766)	Biguátinga, biuá																		
Phalacrocoracidae Reichenbach 1849																			
<i>Nannopterum brasilianus</i>	Biguá																		



(Gmelin 1789)																	
PELEC ANIFORMES Sharpe 1891																	
Ardeida e Leach 1820																	
<i>Ardea alba</i> Linnaeus 1758	Garça-branca-grande																
<i>Ardea cocoi</i> Linnaeus 1766	maguari, garçamoura																
<i>Botaurus pinnatus</i> (Wagler 1829)	Socóboi baio																
<i>Bubulcus íbis</i> (Linnaeus 1758)	Garça vaqueira																
Taxa Name	Populardame	BMLH	RI	BBCTP	BR	RI	BTMV	BSMN	RI	BC	BJ	BB	BE	BM	BM	BB	BJ
<i>Butorides striata</i> (Linnaeus 1758)	Socozinho																
<i>Cochlearius cochlearius</i> (Linnaeus 1766)	Arapapa																
<i>Egretta caerulea</i> (Linnaeus 1758)	garcinha azulada																



<i>Egretta thula</i> (Molina 1782)	Garça-pequena													
<i>Nycticorax nycticorax</i> (Linnaeus 1758)	Socó-dorminhoco													
<i>Ptilerodius pileatus</i> (Boddaert 1783)	Garça-real													
<i>Syrigma sibilatrix</i> (Temminck 1824)	Maria-Faceira													
<i>Tigrisoma lineatum</i> (Boddaert 1783)	Socó-boi													
<i>Zebrilus undulatus</i> (Gmelin 1789)	Socó-zigue-zaguite													
Threskiotidae Poche, 1904														
<i>Mesembrinibis cayennensis</i> (Gmelin 1789)	Franco-d'água													
<i>Phimosus infuscatus</i> (Lichtenstein 1823)	Tapicuru-carapela-da													
<i>Platalea ajaja</i>	Colhereiro													



Linnaeus 1758																			
<i>Theristicus caudatus</i> (Boddaert 1783)	Curicaca																		
<i>Theristicus coerulescens</i> (Vieillot 1817)	Curicacincinza, real																		
CATHARTIFORMES Seebohm 1890																			
Cathartidae Lafresnaye 1839																			
<i>Cathartes aura</i> (Linnaeus 1758)	Urubu-caçador																		
<i>Cathartes burrovianus</i> Cassin 1845	Urubu-caçador																		
<i>Coragyps atratus</i> (Bechstein 1793)	Urubu-preto																		
<i>Sarcornis papa</i> (Linnaeus 1758)	urubu-rei																		
ACCIPITRIFORMES Bonaparte 1831																			



Pandionidae Bonaparte 1854																	
<i>Pandion haliaetus</i> (Linnaeus 1758)	Águia pescadora																
Taxa Name	Popular name	B M L H	R I O I	B B C T P	B R T V L	R I O II	B T M V R	B S M N N	R I O III	B C T G D	B J R V L	B B C N T	B E P C	B M O R R I	B M O R R O	B B C M G	B J C R E
Accipitridae Vigors 1824																	
<i>Busarellus nigricollis</i> (Latham 1790)	Gavião-belo																
<i>Rupornis magnirostris</i> (Gmelin 1788)	Gavião carijó																
<i>Buteo nitidus</i> (Latham 1790)	gavião-cigarrã																
<i>Buteo platypterus</i> (Vieillot 1823)	gavião de asa-larga																
<i>Urubutunga urubutunga</i> (Gmelin 1788)	Gavião preto																
<i>Circus buffoni</i> (Gmelin 1788)	Gavião-dobrejo																



<i>Elanoides forficatus</i> (Linnaeus 1758)	gaviõesotesoura																		
<i>Elanus leucurus</i> (Vieillot, 1818)	gavião peneira																		
<i>Gampsonyx swainsonii</i> (Vigors 1825)	Gaviãozinho																		
<i>Geranospiza coerulescens</i> (Vieillot 1818)	gavião pernilongo																		
<i>Heterospiza meridionalis</i> (Latham 1790)	Gavião casa ca couro																		
<i>Leptodon cayenensis</i> (Latham 1790)	gavião cabeca cinza																		
<i>Pseudastrorhynchus albicollis</i> (Kaup 1847)	gavião obranco																		
<i>Helicolestes hamatus</i> (Temminck 1821)	gavião-do-igapó																		
<i>Rostrhamus sociabilis</i>	Caramujeiro																		



(Vieillot 1817)																	
EURYP YGIFORMES Furbringer 1888																	
Eurypygidae Selby 1840																	
<i>Eurypyga helias</i> (Pallas 1781)	Pavãozinho																
GRUIFORMES Bonaparte 1854																	
Aramidae Bonaparte 1852																	
<i>Aramus guarauna</i> (Linnaeus 1766)	Carão																
Heliornithidae Gray 1840																	
<i>Heliornis fulica</i> (Boddaert 1783)	Picaparra																
CARIAMIFORMES																	
Cariamiidae Bonaparte 1850																	
Taxa Name	Popular name	B	R	B	B	R	B	B	R	B	B	B	B	B	BM	B	B
		M	I	B	R	I	T	S	I	C	J	B	E	M	OR	B	J
		L	O	C	T	O	M	M	O	T	R	C	P	O	RO	C	C
		H	I			II			III			C	C				



				T P	V L		V R	N N		G D	V L	N T		RR I		M G	R E
<i>Cariama cristata</i> (Linnaeus 1766)	Serie ma																
Rallidae Rafinesque 1815																	
<i>Aramides cajaneus</i> (Statius Muller, 1776)	Saracura-três-potes																
<i>Gallinula galeata</i> (Lichtenstein, 1918)	Franco-d'água																
<i>Porphyrio martinica</i> (Linnaeus 1766)	Saracura preta																
<i>Mustelirallus albicollis</i> (Vieillot 1819)	joão canhão sanã																
CHARADRIIFORMES Huxley 1867																	
Charadriidae Leach, 1820																	
<i>Charadrius collaris</i> (Vieillot 1818)	Batuira-de-coleira																



<i>Vanellus cayanus</i> (Latham 1790)	Mexericuquera																		
<i>Vanellus chilensis</i> (Molina 1782)	Queroquero																		
Recurvirostridae Bonaparte 1831																			
<i>Himantopus melanurus</i> (Vieillot 1817)	Maçarico																		
Scolopacidae Rafinesque 1815																			
<i>Actitis macularia</i> (Linnaeus 1766)	Maçarico pintado																		
<i>Bartramia longicauda</i> (Bachstein 1812)	Maçarico-do-campo																		
<i>Calidris fuscicollis</i> (Vieillot 1819)	Maçariquinho																		
<i>Calidris melanotos</i> (Vieillot 1819)	Maçarico-de-colete																		
<i>Tringa flavipes</i> (Gmelin 1789)	Maçarico																		



<i>Tringa solitaria</i> (Wilson 1813)	Maçã ricolitária																
<i>Calidris subruficollis</i> (Vieillot, 1819)	Maçã ricolacanelado																
Jacaniidae Chenu & Des Murs 1854																	
<i>Jacana jacana</i> (Linnaeus 1766)	Cafezinho																
Laridae Vigors 1825																	
Taxa Name	Popular name	BMLH	RI	BCP	BRTVL	RI	RTMVR	BSMNN	RI	BC	JR	BC	BEPC	BMORRI	BMORRO	BCMG	BJCRE
<i>Phaethon simplex</i> (Gmelin 1789)	Taiamã																
<i>Sternula superciliosa</i> (Vieillot 1819)	Trinta-réis-anão																
Rynchopidae Bonaparte 1838																	
<i>Rynchops niger</i> (Linnaeus, 1758)	Talhamar																
COLUMBIFORMES																	



Latham 1790																			
Columbidae Leach 1820																			
<i>Claravis pretiosa</i> (Ferrari-Perez 1886)	Pom ba- do- mato																		
<i>Columba livia domestica</i> (Gmelin 1789)	Pom bo domé stico																		
<i>Columbina minuta</i> (Linnaeus 1766)	Rolin ha- asa- canel a																		
<i>Columbina picui</i> (Temminck 1813)	Rolin ha- branc a																		
<i>Columbina squamata</i> (Lesson 1831)	Rolin ha fogo apag ou																		
<i>Columbina talpacoti</i> (Temminck 1811)	Rolin ha caldo feijão																		
<i>Leptotila rufaxilla</i> (Rich.& Bernard 1792)	Juriti- geme deira																		
<i>Leptotila verreauxi</i> (Bonaparte 1855)	Juruti -pupu																		



<i>Patagioenas cayenensis</i> (Bonnat 1792)	Paulistinha																			
<i>Patagioenas picazuro</i> (Temminck 1813)	Asabranca																			
<i>Patagioenas speciosa</i> (Gmelin 1789)	Troca																			
<i>Urupelia campestris</i> (Spix 1825)	Rolinhavaqueira																			
<i>Zenaidauriculata</i> (Desmurs 1847)	Avante																			
CUCULIFORMES Wagler 1830																				
Cuculidae Leach 1820																				
Cuculinae Leach 1820																				
<i>Coccyzus euleri</i> Cabanis 1873	Papagalartaseuler																			
Taxa Name	Popular name	BMLH	RI	BCP	BRTVL	RI	BTMVR	BSMNN	RI	ICTGD	BJRVL	BB	BCNT	BEPC	B	BMORRO	BB	BCMG	BJ	CRE



<i>Coccyzus melacoryphus</i> (Vieillot 1817)	Papagalartas																		
<i>Piaya cayana</i> (Linnaeus 1766)	Alma de gato																		
<i>Piaya melanogaster</i> (Vieillot 1817)	Alma-de-gato																		
Crotophaginae Swainson 1837																			
<i>Crotophaga ani</i> (Linnaeus 1758)	Anu preto																		
<i>Crotophaga major</i> (Gmelin 1788)	Anu corococa																		
<i>Guiraguira</i> (Gmelin 1788)	Anu Branco																		
Taperinae Verheyen 1956																			
<i>Dromococcyphasianellus</i> (Spix 1824)	Peixe-frito																		
<i>Taperevia</i> (Linnaeus 1766)	Saci																		
STRIGIFORMES																			



Wagler 1830																			
Strigida e Leach 1920																			
<i>Athene cunicula ria</i> (Molina 1782)	Coruj a buraq uiera																		
<i>Bubo virginian us</i> (Gmelin 1788)	João Muru cutut u																		
<i>Glaucidi um brasílian um</i> (Gmelin 1788)	Cabu rezin ho																		
<i>Megasc ops choliba</i> (Vieillot 1817)	Coruj inha- do- mato																		
<i>Pulsatrix perspici ata</i> (Lathan 1790)	João Muru cutut u																		
Tytonid ae Mathew s 1912																			
<i>Tyto furcata</i> (Scopoli 1769)	Suind ara																		
CAPRI MULGIF ORMES Ridgwa y 1881																			
Caprim ulgidae Vigors 1825																			



<i>Hydropsalis parvula</i> Gould, 1837	Bacurauzinho																			
<i>Antrostomus rufus</i> (Boddaert, 1783)	João-cortapau																			
<i>Nannocordeus pusillus</i> (Gould, 1861)	Bacurauzinho																			
<i>Hydropsalis torquata</i> (Gmelin 1789)	Curia-tesoureira																			
<i>Nyctidromus albicollis</i> (Gmelin 1789)	Bacurau																			
Taxa Name	Popular name	BMLH	RI	BCP	BRTVL	RI	BTMVR	BSMNN	RI	BC	BJRVL	BB	BCNT	BEPC	B	BMORRO	B	BCMG	B	JCRE
<i>Nyctiprocne leucopyga</i> (Spix 1825)	Curia-preto																			
<i>Podager nacunda</i> (Vieillot 1817)	Coruçã																			
NYCTIBIFORMES Yuriet al 2013																				
Nyctibiidae Chenu & Des																				



Murs 1851																			
<i>Nyctibius grandis</i> (Gmelin 1789)	Urutu ou mãe da lua																		
<i>Nyctibius griseus</i> (Gmelin 1789)	Urutu ou mãe da lua																		
APODIFORMES Peters 1940																			
Apodidae Olphe-Galliard 1887																			
<i>Chaetura meridionalis</i> (Hellmayr 1907)	Andorinhão																		
<i>Tachornis squamata</i> (Cassin 1853)	Anorinhão-tesoura																		
Trochilidae Vigors 1825																			
Trochilinae 1825																			
<i>Chionomesa fimbriata</i> (Gmelin, 1788)	Beija-flor-verde																		
<i>Anthraxothorax nigricollis</i>	Beija-flor-veste																		



(Vieillot 1817)	- preta																		
<i>Chlorostilbon lucidus</i> (Shaw 1812)	Beso- urinh- o- verm- elho																		
<i>Euptomena macroura</i> (Gmelin 1788)	Beija- flor- tesou- ra																		
<i>Hylocichla crisura</i> (Shaw 1812)	Beija- flor- doura- do																		
Phaethornithinae Jardine, 1833																			
<i>Phaethornis pretrei</i> (Lesson & Delatre 1839)	Limp- a- casa																		
<i>Phaethornis ruber</i> (Linnaeus 1758)	Rabo- - branc- o- rubro																		
TROGONIFORMES AOU 1886																			
Trogonidae Lesson 1828																			
<i>Trogon curucui</i> (Linnaeus 1766)	Suru- cuá- verm- elho																		



Taxa Name	Popular name	BMLH	RIOI	BBCPTP	BRTVL	RIOII	BTMVR	BSMNN	RIOIII	BCTGD	BJRVL	BBCNT	BEP C	B MORR I	BMORRO	BBCMG	BJCRE
CORACIFORMES Forbes 1844																	
Alcedinidae Rafinesque 1815																	
<i>Megasceryle torquata</i> (Linnaeus 1766)	Martim-pescador																
<i>Chloroceryle aenea</i> (Pallas 1764)	Martim-pescador-anão																
<i>Chloroceryle inda</i> (Linnaeus 1766)	Martim-pescador-mata																
<i>Chloroceryle amazona</i> (Latham 1790)	Martim-pescador-verde																
<i>Chloroceryle americana</i> (Gmelin 1788)	Martim-pescador-pequeno																
Momotidae Gray 1840																	
<i>Momotus momota</i>	Ude-de-coroa-azul																



(Linnaeus 1766)																			
GALBULIFORMES Furbringer 1888																			
Galbulidae Vigors 1825																			
<i>Galbula ruficauda</i> (Cuvier 1816)	Bico-de-agulha																		
Bucconidae Horsfield 1821																			
<i>Monasa nigrifrons</i> (Spix 1824)	Choracha-pretado																		
<i>Nystalus chacuru</i> (Viellot 1816)	João bobo																		
PICIFORMES Meyer & Wolf 1810																			
Picidae Leach 1820																			
<i>Campephilus malanoleucus</i> (Gmelin 1788)	Pica-pau-vermelho																		
<i>Celeus lugubris</i> (Malherbe 1851)	João-velho																		



<i>Colaptes melanochloros</i> (Gmelin 1788)	Pica-pau-verde																
<i>Colaptes campestris</i> (Vieillot 1818)	Pica-pau-do-campo																
<i>Dryocopus lineatus</i> (Linnaeus 1766)	Pica-pau																
<i>Melanerpes candidus</i> (Otto 1796)	Pica-pau-branco																
Taxa Name	Popular name	B M L H	R I O I	B B C T P	B R T V L	R I O II	B T M V R	B S M N N	R I O III	B C T G D	B J R V L	B B C N T	B E P C	B M O R R I	BM OR RO	B B C M G	B J C R E
<i>Melanerpes cruentatus</i> (Boddaert 1783)	Benedito-testa-vermelha																
<i>Piculus chrysochloros</i> (Vieillot 1818)	Pica-pau-dourado-escuro																
<i>Picumnus albusquamatus</i> (D'Orbigny 1840)	Pica-pau-anão-escamado																
<i>Veniliornis passerinus</i>	Picapauzinho-anão																



(Linnaeus 1766)																				
Ramphastidae Vigors 1825																				
<i>Pteroglossus castanotis</i> (I Gould 1834)	Araçari-castanho																			
<i>Ramphastos toco</i> (Statius Muller 1776)	Tucanuçu																			
FALCONIFORMES																				
Falconidae Leach 1820																				
<i>Caracara plancus</i> (Miller 1777)	Carcará																			
<i>Falco deiroleucus</i> Temminck 1825	falçã o-peito-laranja																			
<i>Falco femoralis</i> Temminck 1822	falçã o-de-coleira																			
<i>Falco rufigularis</i> Daudin 1800	gaviã o-carijó, cauré																			
<i>Falco sparverius</i>	Quiriquiri																			



linnaeus 1758																	
<i>Herpetot heres cachinn ans</i> (Linnae us 1758)	Acau ã, Pinhé																
<i>Micrastu r semitorq uatus</i> (Vielliot 1817)	Gavi ão relógi o																
<i>Milvago chimach ima</i> (Vieillot 1816)	Gavi ão pinhé																
PSITTA CIFOR MES Wagler 1830																	
Psittaci dae Rafines que 1815																	
<i>Amazon a aestiva</i> (Linnae us 1758)	Papa gaio verda deiro																
<i>Amazon a amazoni ca</i> (Linnae us 1766)	Papa gaio tromb eteiro																
Taxa Name	Popu lar nam e	B M L H	R I O I	B B C T P	B R T V L	R I O II	B T M V R	B S M N N	R I O III	B C T G D	B J R V L	B B C N T	B E P C	B M O R R I	BM OR RO	B B C M G	B J C R E
<i>Anodorh ynchus hyacinth inus</i> (Lat 1790)	Arara una																



<i>Ara ararauna</i> (Linnaeus 1758)	Arara Canindé																		
<i>Ara chloropterus</i> Gray 1859	Arara-vermelha																		
<i>Diopsittaca nobilis</i> (Linnaeus 1758)	Mara-canã																		
<i>Eupsittula aurea</i> (Gmelin, 1788)	Nandua, periquito-rei																		
<i>Psittacara leucophthalmus</i> (Statius Muller, 1776)	Periquitão																		
<i>Brotogeris chiriri</i> (Vieillot 1818)	Periquito verde																		
<i>Forpus xanthopterygius</i> (Spix 1824)	Tuim																		
<i>Myopsittacus monachus</i> (Boddaert 1783)	Periquito baroso																		
<i>Aratinga nenday</i> (Vieillot 1823)	Príncipe negro																		
<i>Pionus maximiliani</i> (Kuhl 1820)	Papagaio marrom																		



<i>Primolius auricollis</i> (Cassin 1853)	Mara canã de coleira																			
<i>Primolius maracana</i> (Vieillot 1816)	Mara canã-verdadeira																			
<i>Alipiopsitta xanthops</i> (Spix 1824)	Papagaio-galego																			

Source: authors. Legend: BMLH: Lake Malheiros; RIOI: Paraguay River I; BBCTP: Lake Boca Tampada; BRTVL: Lake Retiro Velho; RIOII: Paraguay River II; BTMVR: Lake Toma Vara; BSMNN: Lake Simão Nunes; RIOIII: Paraguay River III; BCTGD: Lake Canto Grande; BJRVL: Lake Jauru Velho; BBCNT: Lake Natalino; BEPC: Lake Éguas/Paca; BMORRI: Lake Morrinhos; BMORRO: Lake Morro; BBCMG: Lake Miguel; BJCRE: Lake Jacaré.

4. CONCLUSION

The biggest richness were observed on the plain region, also for river and lakes, followed by meandric river and in the straight part was registered the small number of species, before it was big when compared with other regions of Mato Grosso.

The study area are very important for the bird conservation, because of its diversity of habitats for birds species and not only because of the number of registered species but also for the amount of each.

The area is important for the bird conservation, and for tourism, mainly birdwatching, due to "ninhã" nursery presence, this area need more attention from the local people and government.



The number of species identified proves the importance of the place for the birds life.

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