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Avifauna of the Upper Purus River, State of Acre, Brazil

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RESUMO: **Avifauna do Alto Rio Purus, Estado do Acre, Brasil.** Realizou-se, no período de 17 a 31 de agosto de 2007, um inventário ornitológico na calha do rio Purus dentro do estado do Acre, no trecho compreendido entre a balsa do Purus (encontro da BR-364 com o rio) até a foz do rio Chandless. Após 980 horas rede e sete horas de gravações, registrou-se 325 espécies de Aves na região. Dentre as espécies registradas 5,9% (19), possuem distribuição geográfica restrita às terras baixas da Amazon sul-occidental. Foram registradas também diversas espécies migratórias setentrionais e austrais e ampliou-se a distribuição geográfica de alguns táxons dentro da Amazônia brasileira.

PALAVRAS-CHAVE: Amazonia; Rio Purus; Acre; Extensões de distribuição.

ABSTRACT: **Avifauna of the Upper Purus River, State of Acre, Brazil.** An inventory of bird fauna was carried out on August 17-31, 2007, in the Purus River Basin, state of Acre. The area surveyed is located in the stretch between the "balsa do Purus" (location where the Brazilian road BR-364 meets the Purus River) and the mouth of the Chandless River. A total of 325 bird species was registered during 980 net.hours of mist-netting and seven hours of vocalization recordings. Nearly six percent of the species recorded (19) are endemic to the southwestern Lowland Amazon Basin. A number of important observations were made of northern and southern migrants, as well as range extension of many taxa in the Brazilian Amazon.

KEY-WORDS: Amazon; Purus River; Acre; Range extension.

The Purus River raises in Peru (Department of Ucayali) in a protected area of Peruvian Amazon, encompassing around 2.7 million hectares known as the "Zona Reservada Del Alto Purus" (Pitman 2003). In its precursor of about 3.218 km, the river cuts the Brazilian states of Acre and Amazonas until it empties into the Solimões River, not very distant from the city of Manaus, in central Amazon (Sousa-Júnior *et al.* 2006).

In Acre, the Purus River forms the second largest hydrographic basin of the state, losing only to the Juruá Basin (Acre 2000). The Purus River Basin at its headwaters is little inhabited. Most inhabitants, known in the region as 'ribeirinhos', are concentrated along both margins of the main river. The course of the Purus is meandering and sinuous (Sousa-Júnior *et al.* 2006). Owing to the dynamic of erosion/sedimentation, many stretches of the river have been abandoned through time and have formed environments known regionally as 'lakes' or 'lagoons'. During periods of heavy rain, between October and March, extensive areas of earth are flooded, resulting in *várzeas*. In contrast, during dry months the volume of water drastically diminishes, forming sandy beaches along the margins and some rapids along some determined stretches of the river bed. Locals call these rapids 'waterfalls'.

In relation to fauna and flora, the Purus Basin is poorly known. Yet the few studies conducted in the

region of the river's headwaters in Peruvian territory have demonstrated unequaled biological diversity (Pitman *et al.* 2003). The large species diversity found in the upper Purus surely is related to the diversity of habitats present in the region. One part of these habitats is formed by the dynamic of the river itself. Other habitats consist of periodically inundated forests (*várzeas*), marshes and sandy beaches, and of course, the ombrophilous forests of terra-firme dominated by palm trees and/or bamboos (Pitman *et al.* 2003).

The first known avifaunistic records of the Purus Basin in Brazil were done by Snethlage (1908) from a study of 565 specimens of birds collected by a team from the Museu Paraense Emílio Goeldi in 1903 and 1904, at the central portion of the Purus, state of Amazonas. Some decades later, the Swedish Count Nils Gyldenstolpe studied in detail 1,600 specimens of birds collected in 1935-36 by the professional collector and taxidermist Sr. Alfonso M. Olalla along the central and lower Purus, also in the state of Amazonas (Gyldenstolpe 1951). Nevertheless, it is at the upper Purus River on Peruvian territory that ornithological surveys revealed an impressive diversity of birds. These were realized in the 1960s and 1970s by the American John P. O'Neill. Studies done in the region of the Curanja River, a tributary originating from the left bank of the upper Purus, registered more than 400 local

species (O'Neill 1974, 2003), besides bringing to light various species new to science (Lowery and O'Neill 1965, 1966, 1969; O'Neill 1966, 1969). According to O'Neill (2003), species records of this large quantity in one sole region had made the district of Balta in Peru the area with the greatest diversity of birds on the planet for many years. The impressive number of bird species identified from Balta was only surpassed in the 1980s with the register of more than 500 species in other localities. Examples of these localities are Cocha Cashu (Terborg *et al.* 1984) and Tambopata in Peru (Parker III *et al.* 1994), and the Alto Juruá Extractive Reserve, in Brazil (Whittaker *et al.* 2002; Brown and Freitas, 2002).

Despite the surveys mentioned above, the portion of the Purus River that cuts through the state of Acre had never again been visited from an ornithological perspective. The scarcity of biological surveys along this portion of the Purus contributes to the central region of Acre being the least known in relation to all faunistic groups (Capobianco *et al.* 2001). Therefore, aiming to augment ornithological knowledge of a distant and remote region of Brazilian Amazon, it had been decided to mount an expedition to the upper Purus Channel with the objective of recording and collecting voucher specimens for the

Museu Paraense Emílio Goeldi, according to the measures outlined in the thesis project of EG entitled "Avifauna of the State of Acre: Composition, Geographic Distribution and Conservation" (Guilherme 2009).

MATERIAL AND METHODS

Study Area

The survey took place during the period of August 17-31, 2007. Three localities were visited: (a) the locality of Santa Cruz Velha, right bank of the Purus, directly upriver from where BR-364 meets with the river ($09^{\circ}00'48.1''S$; $69^{\circ}32'02.6''W$; Figure 1); (b) Seringal Terra-Nova, left bank of the Purus, shortly upriver from the mouth of the Chandless River ($09^{\circ}07'20.8''S$; $69^{\circ}49'39.1''W$; Figure 1); (c) left bank of the Chandless River, approximately 3 km from its mouth ($09^{\circ}09'26.4''S$; $69^{\circ}50'48.3''W$). Beyond these localities, additional observations were made in the region of encounter between BR-364 and the river, known as the "porto da balsa do Purus" (Purus ferry port), as well as along the river at the length between the Purus ferry and inventoried localities.

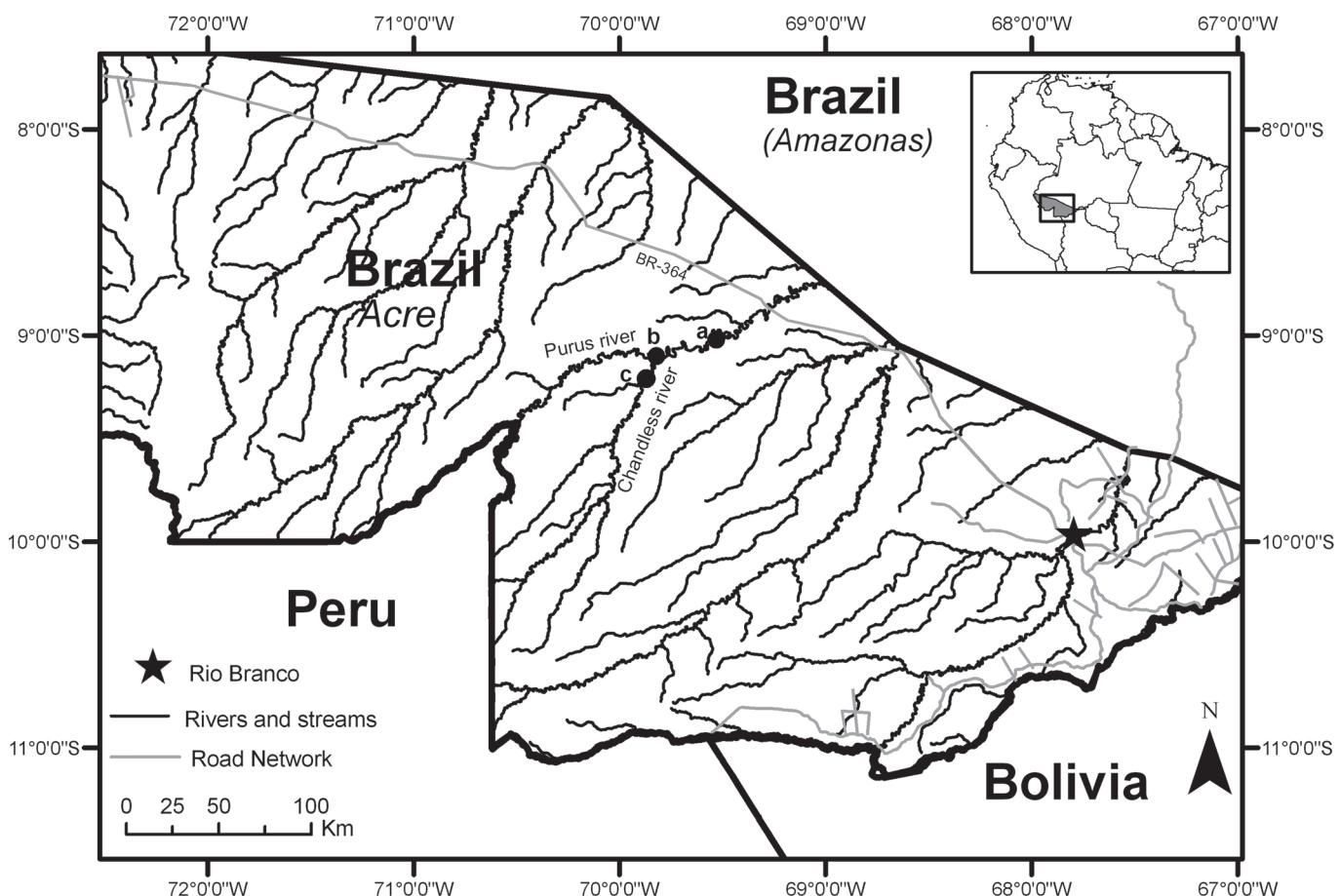


FIGURE 1: Study area: a = Locality Santa Cruz Velha, right bank of the Purus River ($09^{\circ}00'48.1''S$; $69^{\circ}32'02.6''W$); b = Seringal Terra Nova, left bank of the Purus River, just upstream of the Chandless River mouth ($09^{\circ}07'20.8''S$; $69^{\circ}49'39.1''W$); c = left bank of the Chandless River, approximately 3 km from its mouth ($09^{\circ}09'26.4''S$; $69^{\circ}50'48.3''W$).

The sampled environments were: Ombrophilous forest of terra-firme with palm trees and/or bamboos; periodically inundated forest (*várzea*); sandy beaches, river banks and creeks (Table 1).

Survey of Species

Two approaches were taken to inventory the avifauna: (a) a quantitative approach, through the use of 20 (twenty) mist-nets of 12 m in length by 2 m in height and 36 mm mesh; and (b) a qualitative approach, through field observations using binoculars and recordings (with a Marantz analogical recorder, and a Sennheiser ME66 directional microphone). Recordings on cassette tapes were digitalized posteriorly using the program Adobe Audition 2.0. The nets were framed in linear transects, containing 10 nets each in the following environments: (a) open ombrophilous terra-firme forest dominated by palm trees and bamboos; and (b) *várzea* forest. The nets were opened at dawn at 05:30 h and remained open until 15:00 h to maximize the number of captures. Voucher specimens were collected for further lab studies. All collected specimens were prepared using standard taxidermic procedures (Hidasi-Filho, 1991).

The collection of specimens was authorized by the Instituto Brasileiro do Meio Ambiente e Recursos Naturais Renováveis through the SISBIO license № 10765-1/2007. All specimens collected were deposited in the Laboratory of Ornithology of the Museu Paraense Emílio Goeldi – MPEG. Scientific nomenclature used in this manuscript is that proposed by the CBRO (2010).

RESULTS AND DISCUSSION

After 14 days of sampling and an effort of 980 net/hours, as well as seven hours of recordings, 325 species of birds in the region were recorded (Table 1). This represents 76.4% of the 425 species recorded by O'Neill (1974) in the Balta region of the upper Purus on the Peruvian side after 18 months of sampling. Of the species recorded during this expedition, 5.8% (19) possessed geographic distribution restricted to the Inambari Area of Endemism, according to the list compiled by Cracraft (1985). This represents 42.2% of all birds restricted to this area of endemism. Some of the species recorded represent an increase in the known geographical distribution of the taxon on Brazilian territory (e.g., *Chrysolampis mosquitos* (Linnaeus 1758), *Xiphorhynchus chunchotambo* (Tschudi 1844) and *Picumnus subtilis* Stager 1968). Some are poorly known in the Brazilian Amazon like, for example, *Crypturellus atrocapillus* (Tschudi 1844), *Brachygalba albogularis* (Spix 1824), *Conioptilon mcilhennyi* Lowery

and O'Neill 1966, among others. Furthermore, this survey also reveals the presence of important septentrional migratory species (Guilherme and Dantas in press; Table 1), as well as austral ones (e.g., *Tyrannus albogularis* Burmeister 1856; Table 1).

Records of Biogeographical Relevance

Crypturellus bartletti (Sclater and Salvin 1873)

Species with geographical distribution restricted to the Inambari Area of Endemism (Haffer 1978; Cracraft 1985). This species has been recorded all over the state of Acre (Novaes, 1957; Whittaker and Oren 1999; Whittaker *et al.* 2002; Aleixo and Guilherme 2010). Three male species were collected; one in the locality of Santa Cruz Velha (MPEG 63242), and two in Seringal Terra Nova (MPEG 63243-44; Table 1). All individuals of *C. bartletti* collected were in *várzea* forest, corroborating with the ideas of Stotz *et al.* (1996) and the observations of Schulenberg *et al.* (2007) that associated this species with periodically inundated forests in the Amazonian southwest.

Crypturellus atrocapillus (Tschudi 1844)

This is an endemic species of the southwestern lowlands of Amazon, near the foothills of the Andes Mountains (Cracraft 1985; Schulenberg *et al.* 2007). It was registered in Brazil for the first time by Whittaker and Oren (1999) from recordings of its vocalization in diverse localities of the upper Juruá River, west of Acre. After the first register of this species in Acre, various others were made in practically the whole state (Guilherme 2009; Guilherme and Santos 2009; Aleixo and Guilherme 2010; Mestre *et al.* 2010). Besides no other specimen having yet to be collected in Brazilian territory (Guilherme 2009), *C. atrocapillus* has an easily recognizable call, which facilitates its identification. This species was registered practically every day in diverse environments, including terra-firme ombrophilous forests with bamboos and *várzea* forests along the entire Purus Channel covered during this survey.

Anhima cornuta (Linnaeus 1766)

Even though this species is widely distributed in the Amazon and occurs in many regions of Brazil (Sick 1997; Erize *et al.* 2006), *A. cornuta* still had not been confirmed in the state of Acre. The only reference of this species in the state was from a supplementary list by Whittaker *et al.* (2002), which indicated its probable occurrence at the limits of the Alto Juruá Extractive Reserve. During our trip on the river from the ferry port until Seringal

TABLE 1: List of families and species of birds recorded in upper Purus, central region of the state of Acre.

Habitat: FP = Ombrophilous forest of terra-firme with palm trees; FB = Open ombrophilous forest with bamboos; FV = Periodically inundated forest (várzea); R = River banks and sandy beaches; A = Open area; AP = Open area with pasture; BF = Border of the forest.

Records: E = Specimen collected and deposited at the Museu Paraense Emílio Goeldi; O = Observed; V = Vocalization recorded and recognized. In the Records column, the superscript letter after the catalogue number indicates the locality of: a = Santa Cruz Velha; b = Seringal Terra Nova; c = left bank of the Chandless River, approximately 3 km from its mouth.

SPECIES	ENGLISH NAME	HABITAT	RECORDS
Tinamidae (6)			
<i>Tinamus tao</i> Temminck 1815	Gray Tinamou	FP	Vb
<i>Crypturellus cinereus</i> (Gmelin 1789)	Cinereous Tinamou	FP; FB	Va,b
<i>Crypturellus soui</i> (Hermann 1783)	Little Tinamou	FP	Va,b
<i>Crypturellus undulatus</i> (Temminck 1815)	Undulated Tinamou	FP	Va,b
<i>Crypturellus atrocapillus</i> (Tschudi 1844)	Black-capped Tinamou	FB	Va,b
<i>Crypturellus bartletti</i> (Slater and Salvin 1873)*	Bartlett's Tinamou	FP; FB, FV	E (MPEG- 63242a; 63243b, 63244b)
Anhimidae (1)			
<i>Anhima cornuta</i> (Linnaeus 1766)	Horned Screamer	R	Oa,b
Cracidae (3)			
<i>Ortalis guttata</i> (Spix 1825)	Speckled Chachalaca	FP, FV, BF	E (MPEG 63245b); Va
<i>Penelope jacquacu</i> Spix 1825	Spix's Guan	FP, FV	Va,b
<i>Aburria cumanensis</i> (Jacquin 1784)	Blue-throated Piping-Guan	FV, FP	Vb
Odontophoridae (1)			
<i>Odontophorus stellatus</i> (Gould 1843)	Starred Wood-Quail	BF, FP	Vb
Ardeidae (7)			
<i>Tigrisoma lineatum</i> (Boddaert 1783)	Rufescent Tiger-Heron	R, FV	Oa,b
<i>Butorides striata</i> (Linnaeus 1758)	Striated Heron	R, FV	Oa,b
<i>Bubulcus ibis</i> (Linnaeus 1758)	Cattle Egret	R, AP	Oa,b
<i>Ardea cocoi</i> Linnaeus 1766	Cocoi Heron	R, FV	Oa,b
<i>Ardea alba</i> Linnaeus 1758	Great Egret	R	Oa,b
<i>Pilherodius pileatus</i> (Boddaert 1783)	Capped Heron	R, FV	Oa,b
<i>Egretta thula</i> (Molina 1782)	Snowy Egret	R	Oa,b
Threskiornithidae (1)			
<i>Mesembrinibis cayennensis</i> (Gmelin 1789)	Green Ibis	R, FV	E(MPEG 63241a); Ob
Ciconiidae (1)			
<i>Mycteria americana</i> Linnaeus 1758	Wood Stork	R	Oa,b
Cathartidae (4)			
<i>Cathartes aura</i> (Linnaeus 1758)	Turkey Vulture	A	Oa,b
<i>Cathartes melambrotus</i> Wetmore 1964	Greater Yellow-headed Vulture	A, R	Oa,b
<i>Coragyps atratus</i> (Bechstein 1793)	Black Vulture	A	Oa,b
<i>Sarcoramphus papa</i> (Linnaeus 1758)	King Vulture	A	Oa,b
Pandionidae (1)			
<i>Pandion haliaetus</i> (Linnaeus 1758)	Osprey	FV	Oa,b
Accipitridae (9)			
<i>Elanoides forficatus</i> (Linnaeus 1758)	Swallow-tailed Kite	A, BF	Oa,b
<i>Ictinia plumbea</i> (Gmelin 1788)	Plumbeous Kite	BF	Oa,b
<i>Buteogallus schistaceus</i> (Sundevall 1851)	Slate-colored Hawk	FP; BF	Oa
<i>Urubitinga urubitinga</i> (Gmelin 1788)	Great Black-Hawk	FV, BF	Oa,b
<i>Rupornis magnirostris</i> (Gmelin 1788)	Roadside Hawk	FP; FV, BF	Oa,b; Va,b
<i>Buteo nitidus</i> (Latham 1790)	Gray Hawk	FP, FV, BF	Oa,b; Va,b
<i>Spizaetus tyrannus</i> (Wied 1820)	Black Hawk-Eagle	FP, FV	Oa,b; Va,b
<i>Spizaetus melanoleucus</i> (Vieillot 1816)	Black-and-white Hawk-Eagle	FP, FV	Oa
<i>Spizaetus ornatus</i> (Daudin 1800)	Ornate Hawk-Eagle	FP	Ob
Falconidae (8)			
<i>Daptrius ater</i> Vieillot 1816	Black Caracara	FV	Oa,b
<i>Ibycter americanus</i> (Boddaert 1783)	Red-throated Caracara	FP, FV	Oa,b
<i>Herpetotheres cachinnans</i> (Linnaeus 1758)	Laughing Falcon	FV, BF	Oa,b
<i>Micrastur ruficollis</i> (Vieillot 1817)	Barred Forest-Falcon	FP	Oa
<i>Micrastur gilvicollis</i> (Vieillot 1817)	Lined Forest-Falcon	FP	Oa
<i>Micrastur semitorquatus</i> (Vieillot 1817)	Collared Forest-Falcon	FP	Ob

SPECIES	ENGLISH NAME	HABITAT	RECORDS
<i>Micrastur buckleyi</i> Swann 1919	Buckley's Forest-Falcon	FP	Oa
<i>Falco rufigularis</i> Daudin 1800	Bat Falcon	FV, BF	Oa,b
Phalacrocoracidae			
<i>Phalacrocorax brasiliianus</i> (Gmelin 1789)	Neotropic Cormorant	FV	O
Psophiidae (1)			
<i>Psophia leucoptera</i> Spix 1825*	Pale-winged Trumpeter	FP	Oa,b
Rallidae (2)			
<i>Aramides cajanea</i> (Statius Muller 1776)	Gray-necked Wood-Rail	FV, R	Oa,b
<i>Porphyrio martinica</i> (Linnaeus 1766)	Purple Gallinule	FV	Oa,b
Heliorhithidae (1)			
<i>Heliorhinus fulica</i> (Boddaert 1783)	Sungrebe	R	Oa
Eurypygidae (1)			
<i>Eurypyga helias</i> (Pallas 1781)	Sunbittern	R, FV	Ob
Charadriidae (3)			
<i>Vanellus cayanus</i> (Latham 1790)	Pied Lapwing	R	E (MPEG 63248b); Oa
<i>Vanellus chilensis</i> (Molina 1782)	Southern Lapwing	AP	Oa,b
<i>Charadrius collaris</i> Vieillot 1818	Collared Plover	R	E (MPEG 63249b, 63250b); Oa
Scolopacidae (4)			
<i>Actitis macularius</i> (Linnaeus 1766)	Spotted Sandpiper	R	Oa,b
<i>Tringa solitaria</i> Wilson 1813	Solitary Sandpiper	R	E (MPEG 63252b); Oa
<i>Tringa flavipes</i> (Gmelin 1789)	Lesser Yellowlegs	R	Oa,b
<i>Calidris melanotos</i> (Vieillot 1819)	Pectoral Sandpiper	R	E (MPEG 63251b); Oa
Jacanidae (1)			
<i>Jacana jacana</i> (Linnaeus 1766)	Wattled Jacana	R, FV	Oa,b
Sternidae (2)			
<i>Sternula superciliaris</i> (Vieillot 1819)	Yellow-billed Tern	R	Oa,b
<i>Phaetusa simplex</i> (Gmelin 1789)	Large-billed Tern	R	Oa,b
Rynchopidae (1)			
<i>Rynchops niger</i> Linnaeus 1758	Black Skimmer	R	E (MPEG 63247b); Oa
Columbidae (6)			
<i>Columbina talpacoti</i> (Temminck 1811)	Ruddy Ground-Dove	A, AP, BF	Oa,b
<i>Patagioenas plumbea</i> (Vieillot 1818)	Plumbeous Pigeon	FP, FB	E (MPEG 63253b)
<i>Patagioenas subvinacea</i> (Lawrence 1868)	Ruddy Pigeon	FP, FB	Oa,b
<i>Leptotila verreauxi</i> Bonaparte 1855	White-tipped Dove	A, FP, BF	Oa,b
<i>Leptotila rufaxilla</i> (Richard and Bernard 1792)	Gray-fronted Dove	A, FP, BF	E (MPEG 63254b); Oa
<i>Geotrygon montana</i> (Linnaeus 1758)	Ruddy Quail-Dove	FP, FB	E (MPEG 63255b); Oa
Psittacidae (14)			
<i>Ara ararauna</i> (Linnaeus 1758)	Blue-and-yellow Macaw	FP	Oa,b
<i>Ara macao</i> (Linnaeus 1758)	Scarlet Macaw	FP	Oa,b
<i>Ara chloropterus</i> Gray 1859	Red-and-green Macaw	FP	Oa,b
<i>Ara severus</i> (Linnaeus 1758)	Chestnut-fronted Macaw	FP, FV	Ob
<i>Orthopsittaca manilata</i> (Boddaert 1783)	Red-bellied Macaw	FP	Oa,b
<i>Aratinga leucophthalma</i> (Statius Muller 1776)	White-eyed Parakeet	FP, BF	Oa,b
<i>Aratinga weddellii</i> (Deville 1851)	Dusky-headed Parakeet	FP, FV, BF	Oa,b
<i>Brotogeris cyanoptera</i> (Pelzeln 1870)	Cobalt-winged Parakeet	FP, FV, BF	E (MPEG 63256b); Oa
<i>Pyrrhura rupicola</i> (Tschudi 1844)*	Black-capped Parakeet	FP, FV	Va,b
<i>Pionites leucogaster</i> (Kuhl 1820)	White-bellied Parrot	FP	Oa,b
<i>Pyrilia barrabandi</i> (Kuhl 1820)	Orange-cheeked Parrot	FV	Oa,b
<i>Pionus menstruus</i> (Linnaeus 1766)	Blue-headed Parrot	FP, FV	E (MPEG 63852a, 63853a); Ob
<i>Amazona ochrocephala</i> (Gmelin 1788)	Yellow-crowned Parrot	FP, FV	Oa,b
<i>Amazona farinosa</i> (Boddaert 1783)	Mealy Parrot	FP, FV	E (MPEG 63257b); Oa
Opisthocomidae (1)			
<i>Opisthocomus hoazin</i> (Statius Muller 1776)	Hoatzin	FV	Oa
Cuculidae (5)			
<i>Coccycua minuta</i> (Vieillot 1817)	Little Cuckoo	FP, FB	E (MPEG 63286a)
<i>Piaya cayana</i> (Linnaeus 1766)	Squirrel Cuckoo	FP, FB	Oa,b
<i>Piaya melanogaster</i> (Vieillot 1817)	Black-bellied Cuckoo	FP, FB	E (MPEG 63258b); Oa
<i>Crotophaga major</i> Gmelin 1788	Greater Ani	FV, BF	Oa,b; Va,b

SPECIES	ENGLISH NAME	HABITAT	RECORDS
<i>Crotophaga ani</i> Linnaeus 1758	Smooth-billed Ani	FV, AP	Oa,b
Strigidae (6)			
<i>Megascops choliba</i> (Vieillot 1817)	Tropical Screech-Owl	FP, BF	E (MPEG 63259b); Va,b
<i>Megascops usta</i> (Sclater 1858)	Austral Screech-Owl	FP, BF	Va,b
<i>Lophostrix cristata</i> (Daudin 1800)	Crested Owl	FP	Vb
<i>Asio clamator</i> (Vieillot 1808)	Striped Owl	FV, BF	Vb
<i>Glaucidium brasiliianum</i> (Gmelin 1788)	Ferruginous Pygmy-Owl	FV, BF	Va,b
<i>Glaucidium hardyi</i> Vielliard 1990	Amazonian Pygmy-Owl	FP	Vb
Nyctibiidae (2)			
<i>Nyctibius grandis</i> (Gmelin 1789)	Great Potoo	BF	Vb
<i>Nyctibius griseus</i> (Gmelin 1789)	Common Potoo	BF	Vb
Caprimulgidae (4)			
<i>Nyctiphrynus ocellatus</i> (Tschudi 1844)	Ocellated Poorwill	AP	Vb
<i>Hydropsalis parvulus</i> (Gould 1837)	Little Nightjar	AP	Vb
<i>Hydropsalis albicollis</i> (Gmelin 1789)	Pauraque	A, AP	Vb
<i>Hydropsalis climacocerca</i> (Tschudi 1844)	Ladder-tailed Nightjar	R	E (MPEG 63260b); Oa,b
Apodidae (2)			
<i>Chaetura brachyura</i> (Jardine 1846)	Short-tailed Swift	A	Oa,b
<i>Panyptila cayennensis</i> (Gmelin 1789)	Lesser Swallow-tailed Swift	A	Oa,b
Trochilidae (11)			
<i>Glaucis hirsutus</i> (Gmelin 1788)	Rufous-breasted Hermit	FP, FV, BF	E (MPEG 63270a, 63271a, 63425a; 63267b, 63268b, 63269b)
<i>Threnetes leucurus</i> (Linnaeus 1766)	Pale-tailed Barbthroat	FP, BF	E (MPEG 63261b, 63262b)
<i>Phaethornis hispidus</i> (Gould 1846)	White-bearded Hermit	FP, FB	E (MPEG 63263b, 63264b)
<i>Phaethornis ruber</i> (Linnaeus 1758)	Reddish Hermit	FP, BF	Ob
<i>Phaethornis bourcieri</i> (Lesson 1832)	Straight-billed Hermit	FP	E (MPEG 63265b)
<i>Phaethornis malaris</i> (Nordmann 1835)	Great-billed Hermit	FP	E (MPEG 63266b)
<i>Chrysolampis mosquitor</i> (Linnaeus 1758)	Ruby-topaz Hummingbird	BF	Oa
<i>Chlorostilbon mellisugus</i> (Linnaeus 1758)	Blue-tailed Emerald	BF	E (MPEG 63272a)
<i>Thalurania furcata</i> (Gmelin 1788)	Fork-tailed Woodnymph	BF	E (MPEG 63273a)
<i>Hylocharis cyanus</i> (Vieillot 1818)	White-chinned Sapphire	BF	E (MPEG 63277b)
<i>Amazilia láctea bartletti</i> (Sclater and Salvin 1866)*	Sapphire-spangled Emerald	A, BF	E (63274a; 63275a; 63276a)
Trogonidae (3)			
<i>Trogon melanurus</i> Swainson 1838	Black-tailed Trogon	FP, FV, BF	E (MPEG 63289b)
<i>Trogon curucui</i> Linnaeus 1766	Blue-crowned Trogon	FP, FV, BF	E (MPEG 63288a)
<i>Trogon rufus</i> Gmelin 1788	Black-throated Trogon	FP	Oa
Alcedinidae (3)			
<i>Megacyrle torquata</i> (Linnaeus 1766)	Ringed Kingfisher	R, FV	E (MPEG 63290b); Oa,b
<i>Chloroceryle amazona</i> (Latham 1790)	Amazon Kingfisher	R, FV	Oa,b
<i>Chloroceryle americana</i> (Gmelin 1788)	Green Kingfisher	R, FV	Oa,b
Momotidae (3)			
<i>Baryphthengus martii</i> (Spix 1824)	Rufous Motmot	FP	Ob
<i>Momotus momota</i> (Linnaeus 1766)	Amazonian Motmot	FP, FB	E (MPEG 63278b)
<i>Electron platyrhynchum</i> (Leadbeater 1829)	Broad-billed Motmot	FP	Vb
Galbulidae (5)			
<i>Galbalcyrhynchus purusianus</i> Goeldi 1904*	Purus Jacamar	FV, BF	E (MPEG 63287a)
<i>Brachygalba albogularis</i> (Spix 1824)*	White-throated Jacamar	FV, BF	Ob
<i>Galbulia cyanescens</i> Deville 1849*	Bluish-fronted Jacamar	FP, FV, BF	Oa
<i>Galbulia dea</i> (Linnaeus 1758)	Paradise Jacamar	FP, FV	Ob
<i>Jacamerops aureus</i> (Statius Muller 1776)	Great Jacamar	FP	Ob
Bucconidae (10)			
<i>Bucco macrodactylus</i> (Spix 1824)	Chestnut-capped Puffbird	FP, BF	E (MPEG 63280b)
<i>Bucco tamatia</i> Gmelin 1788	Spotted Puffbird	BF	Oa
<i>Notharchus hyperrhynchus</i> (Sclater 1856)	White-necked Puffbird	FV	Vb
<i>Nystalus striolatus</i> (Pelzeln 1856)	Striolated Puffbird	FP, FB, BF	E (MPEG 63279b)
<i>Malacoptila semicincta</i> Todd 1925*	Semicollared Puffbird	FP	E (MPEG 63283b, 63284b)
<i>Nonnula sclateri</i> Hellmayr 1907*	Fulvous-chinned Nunlet	FB	Vb

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<i>Nonnula ruficapilla</i> (Tschudi 1844)	Rufous-capped Nunlet	FV	Ob
<i>Monasa nigrifrons</i> (Spix 1824)	Black-fronted Nunbird	FP, FV, BF	Oa,b
<i>Monasa morphoeus</i> (Hahn and Küster 1823)	White-fronted Nunbird	FP,FB	Oa,b
<i>Chelidoptera tenebrosa</i> (Pallas 1782)	Swallow-winged Puffbird	BF, FV, R	E (MPEG 63285a; 63282b)
Capitonidae (2)			
<i>Eubucco richardsoni</i> (Gray 1846)	Lemon-throated Barbet	FP, BF, FV	Oa
<i>Capito auratus</i> (Dumont 1816)	Gilded Barbet	FP, BF	Oa
Ramphastidae (7)			
<i>Ramphastos tucanus</i> Linnaeus 1758	White-throated Toucan	FP, BF, FV	Oa,b; Va,b
<i>Ramphastos vitellinus</i> Lichtenstein 1823	Channel-billed Toucan	FP	E (MPEG 63296b); Va
<i>Aulacorhynchus atrogularis</i> (Sturm and Sturm 1841)	Black-throated Toucanet	FP, FB, FV	E (MPEG 63299a)
<i>Selenidera reinwardtii langsdorffii</i> (Wagler 1827)*	Golden-collared Toucanet	FP	E (MPEG 63293b, 63292b)
<i>Pteroglossus mariae</i> Gould 1854*	Brown-mandibled Aracari	FP	E (MPEG 63295b, 63294b)
<i>Pteroglossus castanotis</i> Gould 1834	Chestnut-eared Aracari	FP, BF, FV	Oa,b; Va,b
<i>Pteroglossus beauharnaesii</i> Wagler 1832	Curl-crested Aracari	FP	Ob
Picidae (12)			
<i>Picumnus rufiventris</i> Bonaparte 1838	Rufous-breasted Piculet	FB	E (MPEG 63298c)
<i>Picumnus subtilis</i> Stager 1968*	Fine-barred Piculet	FB	Oa
<i>Veniliornis passerinus</i> (Linnaeus 1766)	Little Woodpecker	BF	Ob
<i>Melanerpes cruentatus</i> (Boddaert 1783)	Yellow-tufted Woodpecker	BF	Oa,b
<i>Colaptes punctigula</i> (Boddaert 1783)	Spot-breasted Woodpecker	FP	Oa,b
<i>Celeus grammicus</i> (Natterer and Malherbe 1845)	Scaly-breasted Woodpecker	FP	Ob
<i>Celeus flavus</i> (Statius Muller 1776)	Cream-colored Woodpecker	FP	E (MPEG 63297b)
<i>Celeus spectabilis</i> Sclater and Salvin 1880	Rufous-headed Woodpecker	FB	Ob
<i>Celeus torquatus</i> (Boddaert 1783)	Ringed Woodpecker	FP	Oa
<i>Dryocopus lineatus</i> (Linnaeus 1766)	Lineated Woodpecker	BF	Oa,b
<i>Campephilus melanoleucus</i> (Gmelin 1788)	Crimson-crested Woodpecker	BF	Oa,b
<i>Campephilus rubricollis</i> (Boddaert 1783)	Red-necked Woodpecker	FP	Vb
Thamnophilidae (28)			
<i>Cymbilaimus lineatus</i> (Leach 1814)	Fasciated Antshrike	FP	Vb
<i>Cymbilaimus sanctaemariae</i> Gyldenstolpe 1941	Bamboo Antshrike	FB	Vb
<i>Taraba major</i> (Vieillot 1816)	Great Antshrike	FV	Va
<i>Thamnophilus doliatus</i> (Linnaeus 1764)	Barred Antshrike	A, BF	E (MPEG 63330a); Va,b
<i>Thamnophilus aethiops</i> Sclater 1858	White-shouldered Antshrike	FP	E (MPEG 63336b, 63337b)
<i>Thamnophilus schistaceus</i> d'Orbigny 1835	Plain-winged Antshrike	FP	Ob
<i>Thamnomanes ardesiacus</i> (Sclater and Salvin 1867)	Dusky-throated Antshrike	FP	E (MPEG 63332a, 63428a; 63338b)
<i>Thamnomanes schistogynus</i> Hellmayr 1911 *	Bluish-slate Antshrike	FP, FB	E (MPEG 63331a; 63333c, 63334c)
<i>Pygmyptila stellaris</i> (Spix 1825)	Spot-winged Antshrike	FP	Vb
<i>Epinecrophylla leucophthalma</i> (Pelzeln 1868)	White-eyed Antwren	FP	E (MPEG 63348b)
<i>Epinecrophylla ornata</i> (Sclater 1853)	Ornate Antwren	FP	Oa
<i>Myrmotherula hauxwelli</i> (Sclater 1857)	Plain-throated Antwren	FP, FB	E (MPEG 63353a; 63349b, 63350b, 63351b, 63352b)
<i>Myrmotherula axillaris</i> (Vieillot 1817)	White-flanked Antwren	FP, FB	E (MPEG 63339b, 63340b, 63341b, 63342b); Va,b
<i>Myrmotherula longipennis</i> Pelzeln 1868	Long-winged Antwren	FP, FB	E (MPEG 63343b, 63344b, 63345b, 63346b, 63347b)
<i>Cercomacra cinerascens</i> (Sclater 1857)	Gray Antbird	FP	Oa,b
<i>Cercomacra nigrescens</i> (Cabanis and Heine 1859)	Blackish Antbird	FP	Oa,b
<i>Cercomacra manu</i> Fitzpatrick and Willard 1990	Manu Antbird	FB	Vb
<i>Myrmoborus leucophrys</i> (Tschudi 1844)	White-browed Antbird	FP, FB	E (MPEG 63429a)
<i>Myrmoborus myotherinus</i> (Spix 1825)	Black-faced Antbird	FP, FFV	E (MPEG 63359c; 63360b, 63361b); Va,b
<i>Hypocnemis peruviana</i> Taczanowski 1884	Peruvian Warbling-Antbird	FP, BF	E (MPEG 63370b, 63371b); Va,b
<i>Myrmeciza hemimelaena</i> Sclater 1857	Chestnut-tailed Antbird	FP, FB	E (MPEG 63358c; 63357b); Va,b
<i>Myrmeciza goeldii</i> (Snethlage 1908)*	Goeldi's Antbird	FB, FV	E (MPEG 63354a); Va,b
<i>Myrmeciza fortis</i> (Sclater and Salvin 1868)	Sooty Antbird	FP	E (MPEG 63355c; 63356b)
<i>Myrmeciza atrothorax</i> (Boddaert 1783)	Black-throated Antbird	FP	Oa

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<i>Gymnopithys salvini</i> (Berlepsch 1901)*	White-throated Antbird	FP	E (MPEG 63367c; 63368b, 63369b)
<i>Hylophylax naevius</i> (Gmelin 1789)	Spot-backed Antbird	FP	E (MPEG 63430a; 63362b)
<i>Willisornis poecilinotus</i> (Cabanis 1847)	Scale-backed Antbird	FP	E (MPEG 63363b, 63365b, 63364b, 63366b)
<i>Phlegopsis nigromaculata</i> (d'Orbigny and Lafresnaye 1837)	Black-spotted Bare-eye	FP, FV	E (MPEG 63373c; 63372b)
Formicariidae (2)			
<i>Formicarius colma</i> Boddaert 1783	Rufous-capped Antthrush	FP	E (MPEG 63376b, 63377b)
<i>Formicarius analis</i> (d'Orbigny and Lafresnaye 1837)	Black-faced Antthrush	FP	E (MPEG 63374a; 63375b)
Grallariidae (1)			
<i>Hylopezus berlepschi</i> (Hellmayr 1903)	Amazonian Antpitta	BF	Oa
Scleruridae (2)			
<i>Sclerurus mexicanus</i> Sclater 1857	Tawny-throated Leafcutter	FP	E (MPEG 63326a)
<i>Sclerurus caudacutus</i> (Vieillot 1816)	Black-tailed Leafcutter	FP	E (MPEG 63327b, 63328b, 63329b)
Dendrocolaptidae (12)			
<i>Dendrocincla fuliginosa</i> (Vieillot 1818)	Plain-brown Woodcreeper	FP, FB	E (MPEG 63304c; 63300b, 63301b, 63302b, 63303b)
<i>Dendrocincla merula</i> (Lichtenstein 1829)	White-chinned Woodcreeper	FP, FB	E (MPEG 63305c; 63306b)
<i>Deconychura longicauda</i> (Pelzeln 1868)	Long-tailed Woodcreeper	FP, FB	Vb
<i>Sittasomus griseicapillus</i> (Vieillot 1818)	Olivaceous Woodcreeper	FP	E (MPEG 63307b)
<i>Glyphorynchus spirurus</i> (Vieillot 1819)	Wedge-billed Woodcreeper	FP	Ob
<i>Dendrocolaptes picumnus</i> Lichtenstein 1820	Black-banded Woodcreeper	FP	Vb
<i>Dendrexetastes rufigula</i> (Lesson 1844)	Cinnamon-throated Woodcreeper	FP, FV	Oa
<i>Dendroplex picus</i> (Gmelin 1788)	Straight-billed Woodcreeper	FP, FB, BF	O
<i>Xiphorhynchus chunchotambo</i> (Tschudi 1844)	Tschudi's Woodcreeper	FP, FB	E (MPEG 63313a; 63314c)
<i>Xiphorhynchus elegans</i> (Pelzeln 1868)	Elegant Woodcreeper	FP	E (MPEG 63308b, 63609b)
<i>Xiphorhynchus guttatus</i> (Lichtenstein 1820)	Buff-throated Woodcreeper	FP, FB, FV	E (MPEG 63310b, 63311b, 63312b); Va,b
<i>Lepidocolaptes albolineatus</i> (Lafresnaye 1845)	Lineated Woodcreeper	FP	Vb
Furnariidae (9)			
<i>Cranioleuca gutturalis</i> (d'Orbigny and Lafresnaye 1838)	Speckled Spinetail	FP	E (1b)
<i>Furnarius leucopus</i> Swainson 1838	Pale-legged Hornero	FV, R	O
<i>Synallaxis gujanensis</i> (Gmelin 1789)	Plain-crowned Spinetail	BF	Va
<i>Philydor ruficaudatum</i> (d'Orbigny and Lafresnaye 1838)	Rufous-tailed Foliage-gleaner	FP	E (MPEG 63316b)
<i>Philydor pyrrhodes</i> (Cabanis 1848)	Cinnamon-rumped Foliage-gleaner	FP	E (MPEG 63317b, 63318b)
<i>Automolus ochrolaemus</i> (Tschudi 1844)	Buff-throated Foliage-gleaner	FP	E (MPEG 63426a, 63427a; 63319b)
<i>Automolus infuscatus</i> (Sclater 1856)	Olive-backed Foliage-gleaner	FP, FB	E (MPEG 63320b)
<i>Automolus rufigularis</i> (Pelzeln 1859)	Chestnut-crowned Foliage-gleaner	FP	E (MPEG 63321b, 63322b)
<i>Xenops minutus</i> (Sparrman 1788)	Plain Xenops	FP	E (MPEG 63325a; 63323b, 63324b)
Rynchocyclidae (9)			
<i>Cnipodectes subbrunneus</i> (Sclater 1860)	Brownish Twistwing	FP	E (MPEG 63395b, 63396b)
<i>Rhynchocyclus olivaceus</i> (Temminck 1820)	Olivaceous Flatbill	FP	E (MPEG 63386a)
<i>Tolmomyias sulphureus</i> (Spix 1825)	Yellow-olive Flycatcher	BF	Vb
<i>Tolmomyias poliocephalus</i> (Taczanowski 1884)	Gray-crowned Flycatcher	BF	Vb
<i>Todirostrum maculatum</i> (Desmarest 1806)	Spotted Tody-Flycatcher	BF, FV	Vb
<i>Lophotriccus euphotos</i> Todd 1925*	Long-crested Pygmy-Tyrant	FB	E (MPEG 63400c)
<i>Hemitriccus flammulatus</i> Berlepsch 1901	Flammulated Pygmy-Tyrant	FB	Va,b
<i>Leptopogon amaurocephalus</i> Tschudi 1846	Sepia-capped Flycatcher	FP, FV	E (MPEG 63392b)
<i>Corythopis torquatus</i> (Tschudi 1844)	Ringed Antpitta	FP, FB	E (MPEG 63432a; 63390b, 63391b)
Tyrannidae (31)			
<i>Tyrannulus elatus</i> (Latham 1790)	Yellow-crowned Tyrannulet	BF	V
<i>Myiopagis gaimardi</i> (d'Orbigny 1839)	Forest Elenia	A, BF	Va,b
<i>Elaenia spectabilis</i> Pelzeln 1868	Large Elenia	BF	E (MPEG 63388a, 63431a; 63389b)
<i>Ornithion inerme</i> Hartlaub 1853	White-lored Tyrannulet	FP	Vb

SPECIES	ENGLISH NAME	HABITAT	RECORDS
<i>Zimmerius gracilipes</i> (Sclater and Salvin 1868)	Slender-footed Tyrannulet	FP	Vb
<i>Piprites chloris</i> (Temminck 1822)	Wing-barred Piprites	FP, FB	E (MPEG 63382c)
<i>Platyrinchus platyrhynchos</i> (Gmelin 1788)	White-crested Spadebill	FP, FV	Ob
<i>Platyrinchus coronatus</i> Sclater 1858	Golden-crowned Spadebill	FV	E (MPEG 63384a, 63385a) Oa
<i>Myiophobus fasciatus</i> (Statius Muller 1776)	Bran-colored Flycatcher	BF	E (MPEG 63394b)
<i>Lathrotriccus euleri</i> (Cabanis 1868)	Euler's Flycatcher	FV	Vb
<i>Pyrocephalus rubinus</i> (Boddaert 1783)	Vermilion Flycatcher	BF, FV	Oa,b
<i>Ochthornis littoralis</i> (Pelzeln 1868)	Drab Water-Tyrant	R, FV	Oa,b
<i>Colonia colonus</i> (Vieillot 1818)	Long-tailed Tyrant	FV, BF	Ob
<i>Legatus leucophaius</i> (Vieillot 1818)	Piratic Flycatcher	BF	Vb
<i>Myiozetetes cayanensis</i> (Linnaeus 1766)	Rusty-margined Flycatcher	A, BF	Oa,b; Va,b
<i>Myiozetetes similis</i> (Spix 1825)	Social Flycatcher	A, BF	Oa,b; Va,b
<i>Pitangus sulphuratus</i> (Linnaeus 1766)	Great Kiskadee	A, BF	E (MPEG 63404b); Oa,c
<i>Megarynchus pitangua</i> (Linnaeus 1766)	Boat-billed Flycatcher	A, BF	E (MPEG 63387a); Va,b,
<i>Tyrannus albogularis</i> Burmeister 1856	White-throated Kingbird	A, BF	Oa
<i>Tyrannus melancholicus</i> Vieillot 1819	Tropical Kingbird	A, BF	E (MPEG 63405b); Va,b
<i>Tyrannus savana</i> Vieillot 1808	Fork-tailed Flycatcher	A, BF	Oa
<i>Myiarchus tuberculifer</i> (d'Orbigny and Lafresnaye 1837)	Dusky-capped Flycatcher	BF	E (1b)
<i>Myiarchus ferox</i> (Gmelin 1789)	Short-crested Flycatcher	BF	Va,b
<i>Rhytipterna simplex</i> (Lichtenstein 1823)	Grayish Mourner	FP	Vb
<i>Sirystes sibilator</i> (Vieillot 1818)	Sirystes	BF, A	Oa
<i>Ramphotrigon megacephalum</i> (Swainson 1835)	Large-headed Flatbill	FP, FB	E (MPEG 63433a; 63401c, 63402c; 64403b)
<i>Ramphotrigon ruficauda</i> (Spix 1825)	Rufous-tailed Flatbill	FV	Vb
<i>Ramphotrigon fuscicauda</i> Chapman 1925	Dusky-tailed Flatbill	FB, FV	Ob; Vb
<i>Attila bolivianus</i> Lafresnaye 1848	Dull-capped Attila	FP, FV	Va,b
<i>Attila cinnamomeus</i> (Gmelin 1789)	Cinnamon Attila	FV	Vb
<i>Attila spadiceus</i> (Gmelin 1789)	Bright-rumped Attila	FP, BF	E (MPEG 63406b)
Cotingidae (4)			
<i>Lipaugus vociferans</i> (Wied 1820)	Screaming Piha	FP, FV	Va,b
<i>Conioptilon mcilhennyi</i> Lowery and O'Neill 1966*	Black-faced Cotinga	FV, BF	Ob; Va,b
<i>Gymnoderus foetidus</i> (Linnaeus 1758)	Bare-necked Fruitcrow	FP, FV, BF	Oa,b
<i>Querula purpurata</i> (Statius Muller 1776)	Purple-throated Fruitcrow	FP, FV	Oa,b; Va,b
Pipridae (4)			
<i>Neopelma sulphureiventer</i> (Hellmayr 1903)*	Sulphur-bellied Tyrant-Manakin	FP, FB	E (MPEG 63383a)
<i>Tyranneutes stolzmanni</i> (Hellmayr 1906)	Dwarf Tyrant-Manakin	FV	E (MPEG 64530a)
<i>Pipra fasciicauda</i> Hellmayr 1906	Band-tailed Manakin	FP, FB	E (MPEG 63378b, 63379b, 63380b, 6338b)
<i>Pipra rubrocincta</i> Temminck 1821	Red-headed Manakin	FP	Vb
Tityridae (8)			
<i>Onychorhynchus coronatus</i> (Statius Muller 1776)	Royal Flycatcher	FP	E (MPEG 63393b)
<i>Terenotriccus erythrurus</i> (Cabanis 1847)	Ruddy-tailed Flycatcher	FP, FB	E (MPEG 63398c, 63399c); Oa
<i>Laniocera hypopyrra</i> (Vieillot 1817)	Cinereous Mourner	FV	Vb
<i>Tityra cayana</i> (Linnaeus 1766)	Black-tailed Tityra	FP, BF	Oa,b
<i>Tityra semifasciata</i> (Spix 1825)	Masked Tityra	FV, BF	Oa,b
<i>Pachyramphus polychopterus</i> (Vieillot 1818)	White-winged Becard	FV, BF	Ob
<i>Pachyramphus marginatus</i> (Lichtenstein 1823)	Black-capped Becard	FP	Oa,b
<i>Pachyramphus minor</i> (Lesson 1830)	Pink-throated Becard	FP	Ob
Vireonidae (5)			
<i>Clytorhynchus gujanensis</i> (Gmelin 1789)	Rufous-browed Peppershrike	BF	Va,b
<i>Vireolanius leucotis</i> (Swainson 1838)	Slaty-capped Shrike-Vireo	FP	Vb
<i>Vireo olivaceus</i> (Linnaeus 1766)	Red-eyed Vireo	BF	E (MPEG 63412a)
<i>Hylophilus hypoxanthus</i> Pelzeln 1868	Dusky-capped Greenlet	FP	Vb
<i>Hylophilus pectoralis</i> Sclater 1866	Ashy-headed Greenlet	FV	Ob
Corvidae (1)			
<i>Cyanocorax violaceus</i> Du Bus 1847	Violaceous Jay	FV, BF	Oa,b; Va,b
Hirundinidae (5)			
<i>Atticora fasciata</i> (Gmelin 1789)	White-banded Swallow	R	E (MPEG 63411a); Oa,b

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<i>Stelgidopteryx ruficollis</i> (Vieillot 1817)	Southern Rough-winged Swallow	R	Oa,b
<i>Progne chalybea</i> (Gmelin 1789)	Gray-breasted Martin	A	O
<i>Progne tapera</i> (Vieillot 1817)	andorinha-do-campo	R	E (63408, 63409a; 63407b)
<i>Tachycineta albiventer</i> (Boddaert 1783)	White-winged Swallow	R	E (MPEG 63410a); Oa,b
Troglodytidae (4)			
<i>Microcerculus marginatus</i> (Sclater 1855)	Scaly-breasted Wren	FP	E (MPEG 63416, 63417b)
<i>Troglodytes musculus</i> Naumann 1823	Southern House Wren	AP, BF	Oa,b; Va,b
<i>Pheugopedius genibarbis</i> (Swainson 1838)	Moustached Wren	FP, FB	Va,b
<i>Campylorhynchus turdinus</i> (Wied 1831)	Thrush-like Wren	BF	Vb
Polioptilidae (2)			
<i>Ramphocaenus melanurus</i> Vieillot 1819	Long-billed Gnatwren	FP	Vb
<i>Polioptila plumbea</i> (Gmelin 1788)	Tropical Gnatcatcher	FP	Oa
Donacobiidae (1)			
<i>Donacobius atricapilla</i> (Linnaeus 1766)	Black-capped Donacobius	FV	O
Turdidae (2)			
<i>Turdus hauxwelli</i> Lawrence 1869	Hauxwell's Thrush	FP, BF	E (MPEG 63415b); Va,b
<i>Turdus ignobilis</i> Sclater 1858	Black-billed Thrush	A, FV, BF	E (MPEG 63413a; 63414b)
Thraupidae (22)			
<i>Saltator maximus</i> (Statius Muller 1776)	Buff-throated Saltator	A, FV, BF	Oa,b; Va,b
<i>Saltator grossus</i> (Linnaeus 1766)	Slate-colored Grosbeak	FP	Vb
<i>Saltator coerulescens</i> Vieillot 1817	Grayish Saltator	A, FV, BF	Oa,b; Va,b
<i>Cissopis leverianus</i> (Gmelin 1788)	Magpie Tanager	FV, BF	Oa,b
<i>Lanio luctuosus</i> (d'Orbigny and Lafresnaye 1837)	White-shouldered Tanager	FP, FB	Ob
<i>Lanio surinamus</i> (Linnaeus 1766)	Fulvous-crested Tanager	FP	Ob
<i>Lanio versicolor</i> (d'Orbigny and Lafresnaye 1837)	White-winged Shrike-Tanager	FP	Ob
<i>Ramphocelus nigrogularis</i> (Spix 1825)	Masked Crimson Tanager	FV, BF	Oa,b
<i>Ramphocelus carbo</i> (Pallas 1764)	Silver-beaked Tanager	A, FV, BF	Oa,b; Va,b
<i>Tangara episcopus</i> (Linnaeus 1766)	Blue-gray Tanager	A, FV, BF	Oa,b; Va,b
<i>Tangara palmarum</i> (Wied 1823)	Palm Tanager	A, FV, BF	Oa,b; Va,b
<i>Tangara mexicana</i> (Linnaeus 1766)	Turquoise Tanager	FP, FV, BF	Oa,b
<i>Tangara chilensis</i> (Vigors 1832)	Paradise Tanager	FP, FV	Oa,b
<i>Tangara schrankii</i> (Spix 1825)	Green-and-gold Tanager	FP, FV	Oa,b
<i>Tangara gyrola</i> (Linnaeus 1758)	Bay-headed Tanager	FP	Ob
<i>Tangara callophrys</i> (Cabanis 1849)	Opal-crowned Tanager	FP	Ob
<i>Paroaria gularis</i> (Linnaeus 1766)	Red-capped Cardinal	R, FV	E (MPEG 63421a); Oa,b
<i>Tersina viridis</i> (Illiger 1811)	Swallow Tanager	FV, BF	Ob
<i>Dacnis flaviventer</i> d'Orbigny and Lafresnaye 1837	Yellow-bellied Dacnis	FP, FV	Oa,b
<i>Chlorophanes spiza</i> (Linnaeus 1758)	Green Honeycreeper	FP, FV	E (MPEG 63418b)
<i>Hemithraupis guira</i> (Linnaeus 1766)	Guira Tanager	FP	Ob
<i>Conirostrum speciosum</i> (Temminck 1824)	Chestnut-vented Conebill	FV, BF	Va
Emberizidae (6)			
<i>Ammodramus aurifrons</i> (Spix 1825)	Yellow-browed Sparrow	AP, BF	E (MPEG 63420b); Oa,b
<i>Volatinia jacarina</i> (Linnaeus 1766)	Blue-black Grassquit	AP	E (MPEG 63422a); Oa,b
<i>Sporophila caerulescens</i> (Vieillot 1823)	Double-collared Seedeater	AP	Ob
<i>Sporophila angolensis</i> (Linnaeus 1766)	Chestnut-bellied Seed-Finch	AP	E (MPEG 63424a); Va,b
<i>Sporophila castaneiventris</i> Cabanis 1849	Chestnut-bellied Seedeater	AP	Oa,b
<i>Arremon taciturnus</i> (Hermann 1783)	Pectoral Sparrow	FP, BF	Vb
Cardinalidae (1)			
<i>Cyanoloxia cyanoides</i> (Lafresnaye 1847)	Blue-black Grosbeak	FP	E (MPEG 63423a)
Parulidae (1)			
<i>Phaeothlypis fulvicauda</i> (Spix 1825)	Buff-rumped Warbler	FV	Ob
Icteridae (7)			
<i>Psarocolius angustifrons</i> (Spix 1824)	Russet-backed Oropendola	FP, FV	Oa,b
<i>Psarocolius decumanus</i> (Pallas 1769)	Crested Oropendola	FP, FV	Oa,b
<i>Psarocolius bifasciatus</i> (Spix 1824)	Olive Oropendola	FP, FV	Oa,b
<i>Cacicus cela</i> (Linnaeus 1758)	Yellow-rumped Cacique	A, FV, BF	Oa,b
<i>Cacicus latirostris</i> (Swainson 1838)	Band-tailed Oropendola	FV	Ob
<i>Molothrus oryzivorus</i> (Gmelin 1788)	Giant Cowbird	R, FV, BF	Oa,b

SPECIES	ENGLISH NAME	HABITAT	RECORDS
<i>Sturnella militaris</i> (Linnaeus 1758)	Red-breasted Blackbird	AP	Oa,b
Fringillidae (2)			
<i>Euphonia laniirostris</i> d'Orbigny and Lafresnaye 1837	Thick-billed Euphonia	FP	Ob
<i>Euphonia rufiventris</i> (Vieillot 1819)	Rufous-bellied Euphonia	AP	Oa,b
<i>Euphonia chrysopasta</i> Sclater and Salvin 1869	Golden-bellied Euphonia	BF	Vb

* Species restricted to the Inambari Area of Endemism according the list released by Cracraft (1985).

Terra Nova, just upriver of the Chandless River mouth, we had an opportunity to observe and photograph numerous individuals of this species on the sandy beaches of both banks of the Purus (Guilherme and Dantas 2007; Figure 2). This species is known regionally as "Alencó", and although it is a bird with a large physique, indigenous people and ribeirinhos in the region do not consume its meat because they consider it unhealthy. The observation of diverse populations of *A. cornuta* in the upper Purus definitively confirms its occurrence in the state of Acre.

Chrysolampis mosquitus (Linnaeus 1758)

This species is commonly found on Brazilian territory in cerrado and caatinga environments of the northeast region (Sick 1997). In Brazilian Amazon, it has been registered punctually from the left bank of the Solimões River (Cohn-Haft *et al.* 1997; Borges *et al.* 2001), as well as from the right bank of the Amazonas River in the state of Pará (Pacheco *et al.* 2007). On August 28 and 29, 2007, a male *C. mosquitus* was observed and photographed while feeding among flowers of a liana species of the genus *Arrabidaea* and among inflorescence of *Inga* sp. at the border of *várzea* forest, near a small pasture area within the locality of Santa Cruz Velha (Guilherme and Dantas 2008). Recently, Tobias and Seddon (2007) registered this species at the Departments of Pando and Beni in Bolivian Amazon. Nevertheless, the record of *C. mosquitus* in upper Purus, certainly being a migrant individual, extends the distribution of this taxon at least 400 km to the west, making this register the westernmost of the species in the lowlands of Amazon.

Galbalcyrynchus purusianus Goeldi 1904

Typical species from the Amazonian southwest, including the Purus and Juruá River Basins (Snethlage, 1908; Gyldenstolpe 1945; 1951; Whittaker *et al.* 2002; Schulenberg 2007). It was registered in Acre for the first time in upper Juruá (Whittaker *et al.* 2002) and more recently in the upper Acre River (Aleixo and Guilherme 2010). On August 29, 2007 we collected a female *G. purusianus* (MPEG 63287) in *várzea* forest in the locality of Santa Cruz Velha. The species is relatively common in *várzea* forest of upper Purus and was often seen in groups of four to six individuals perched on embaúbas

(*Cecropia* sp.) and in trees of median stature on both banks of the river.

Brachygalba albogularis (Spix 1824)

Restricted to the Inambari Area of Endemism (Cracraft 1985). *B. albogularis* occurs in the entire state of Acre, including upper Juruá (Whittaker and Oren 1999) and east of the state (Guilherme 2001; Guilherme and Santos 2009). This species was observed various times in Seringal Terra Nova, perched alone or in couples in trees of median stature, including embaúbas (*Cecropia* sp.), on both banks of the Purus River and in small streams in the interior of *várzea* forest. On August 21, 2007 one individual was photographed by SMD in the Seringal Terra Nova (Guilherme and Dantas 2007) and one day later (August 22nd) one male individual (MPEG 63291) was collected along the left bank of the Chandless River, just upriver of its mouth.

Malacoptila semicincta Todd 1925

Endemic species of southwestern Amazon and also restricted to the Inambari Area of Endemism (Cracraft, 1985). It had been registered throughout the whole state of Acre (Novaes 1957; Guilherme 2007; Guilherme and

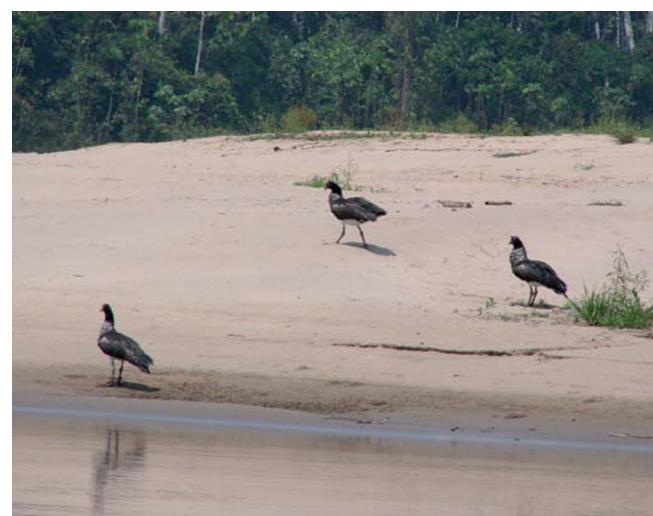


FIGURE 2: Horned Screamer (*Anhima cornuta*) photographed on the right bank of the Purus River on August 17, 2008. (Photo: Sidnei M. Dantas).

Santos 2009; Aleixo and Guilherme 2010). On August 20 and 25, 2007 we collected one male (MPEG 63284) and one female (MPEG 63283). Both specimens were collected in a *várzea* forest dominated by bamboos (*Guanua weberbaueri*) in Seringal Terra Nova.

***Aulacorhynchus atrogularis* (Sturm and Sturm 1841)**

This species, previously considered a subspecies of *A. prasinus* (see Navarro *et al.* 2001), was recorded for the first time in Brazil by Forrester (1993) as a result of an observation close to the city of Plácido de Castro, east of Acre. Posteriorly, in 1994 D. C. Oren and his team collected in *várzea* forest inside the Alto Juruá Extractive Reserve the first skin of *A. atrogularis* on Brazilian territory (Whittaker and Oren 1999). On August 31, 2007, a female (MPEG 63299) was collected in *várzea* forest in the locality of Santa Cruz Velha. This specimen from upper Purus is the third of this taxon collected on Brazilian territory.

***Picumnus subtilis* Stager 1968**

This species is considered, until very recently, endemic to the foothills of the Andes Mountains in Peru (Clements and Shany 2001; Schulenberg *et al.* 2007). However, the record of *P. subtilis* was confirmed on Brazilian territory in 1998 after the collection of an individual male (MZUSP 76408) inside the Floresta Nacional do Macauá, municipality of Sena Madureira, state of Acre (Rego *et al.* 2009). On August 30, 2007, SMD observed an example and recorded the vocalization of *P. subtilis* in a terra-firme forest dominated by bamboos in the locality of Santa Cruz Velha. The record of this species in upper Purus amplifies the distribution of *P. subtilis* inside the lowlands of Amazon (Rego *et al.* 2009).

***Picumnus rufiventris* Bonaparte, 1838**

Although it possesses a relatively ample geographic distribution at the extreme western Amazon, including Bolivia, Peru, Brazil, Ecuador and Colombia (Restall *et al.* 2006; Erize *et al.* 2006), *P. rufiventris* is very little known on Brazilian territory (Sick 1997). The first record of this species in Brazil was made from the collection of a skin at the left bank of the Purus in a locality known as "Ponto Alegre", a region that currently belongs to the municipality of Boca do Acre in the state of Amazonas (Snethlage 1908; Gyldenstolpe 1951). After this first record, all subsequent communications regarding the occurrence of *P. rufiventris* on Brazilian territory came from the state of Acre (Pinto and Camargo 1954; Guilherme 2001; Guilherme 2009). It is a specialist that explores forests dominated by bamboos and vines (EG. *pers. obs.*). On August 22, 2007 we collected one male (MPEG

63298) in *várzea* forest dominated by bamboos on the left bank of the Chandless River approximately three kilometers from its mouth. The record of *P. rufiventris* in upper Purus indicates that this species occurs throughout the whole state of Acre in areas where the forest is dominated by bamboos.

***Myrmeciza goeldii* (Snethlage 1908)**

Endemic species of southwestern Amazon (Zimmer and Isler 2003). It occurs throughout the whole state of Acre (Whittaker and Oren 1999; Guilherme 2001; Guilherme 2009; Guilherme and Santos 2009; Aleixo and Guilherme 2010). A vocalization of *M. goeldii* was registered daily in *várzea* forest and in terra-firme forest dominated by bamboos during our entire expedition. On August 30, 2007, a male (MPEG 63354) was collected in the locality of Santa Cruz Velha.

***Xiphorhynchus chunchotambo* (Tschudi 1844)**

Recently found on Brazilian territory through a record in east Acre (Guilherme and Aleixo 2008; Guilherme 2009; Mestre *et al.* 2010). During our expedition, two females were collected (MPEG 63313-14), one from the Chandless River mouth and the other in the locality of Santa Cruz Velha (Table 1). It is remarkable that both specimens were collected at localities situated along the right bank of the Purus. Even after having concentrated most of our efforts on collecting and observing on the left bank of the river (*e.g.*, 10 days of sampling in Seringal Terra Nova) we did not register any individuals in that portion of the river. In spite of this, we consider it premature to affirm that *X. chunchotambo* has limited geographical distribution along the Purus River. It is necessary to realize new surveys inside the Purus/Juruá interfluvium in order to come to a precise conclusion regarding this question. The register of *X. chunchotambo* in upper Purus extends the geographical distribution of this species on Brazilian territory.

***Tyrannus albogularis* Burmeister 1856**

Species considered as austral migrant from the northwest of South America (Fitzpatrick *et al.* 2004). According to Chesser (1997), *T. albogularis* is a summer resident of Bolivia. This species also possesses status of austral migrant in the lowlands of Peruvian Amazon (Walker *et al.* 2006). The first record of *T. albogularis* for the state of Acre was done by EG through a male (MPEG 61483) captured in a mist-net on February 09, 2005 inside the Campus of the Universidade Federal do Acre – UFAC. On August 28, 2007 we observed an individual of *T. albogularis* perched on a tree on the edge of the Purus River around our camp base in the Santa Cruz Velha locality. At

the moment of observation, *T. albogularis* was capturing insects in flight and subsequently returning to the same branch from which it would leave. This behavior, typical of Tyrannidae, permitted SMD to take a good photo of the animal (Figure 3). According to Chesser (1997), this species arrives on Bolivian territory in the middle of August and remains in the region until the month of April. This permits us to suppose that the individual observed in upper Purus was arriving in western Amazon soon after the end of its reproductive cycle which occurs in the mid-south of the continent.

***Lophotriccus euphantes* Todd 1925**

Species with restricted geographic distribution to the lowlands of the Amazon in Peru, Brazil and Bolivia (Fitzpatrick *et al.* 2004). This is a specialist that explores forests dominated by bamboos (Stotz *et al.* 1996). In recent years, *L. euphantes* has been recorded throughout the whole state of Acre (Whittaker and Oren 1999; Rasmussen *et al.* 2005; Guilherme 2009; Guilherme and Santos 2009). On August 20, 2007, a male (MPEG 63400) was collected in a *várzea* forest dominated by bamboos along the left bank of the Chandless River. The next day, SMD was able to photograph another individual at the same locality (Guilherme and Dantas 2007).

***Conioptilon mcilhennyi* Lowery and O'Neill 1966**

This is a species known only in lowlands of the Peruvian southeast (Ucayali and Madre de Dios), in the department of Pando in Bolivia and in the state of Acre (Snow 2004), the only Brazilian state in which this species was



FIGURE 3: *Tyrannus albogularis* perched on a guava tree (*Psidium guajava L.*) in the locality of Santa Cruz Velha on August 28, 2008. (Photo: Sidnei M. Dantas).

registered until now (Whittaker and Oren 1999; Aleixo and Guilherme 2010; Mestre *et al.* 2010). *C. mcilhennyi* prefers the wood's edge and possesses an easy call to identify. In the period of August 17-26, 2007 various individuals were audio recorded by SMD in Seringal Terra Nova, one of them being photographed (Guilherme and Dantas 2007). Recently, EG registered *C. mcilhennyi* in the Humaitá Reserve, pertaining to UFAC in the municipality of Porto Acre (09°45'S; 67°36'W), and in the ramal da Gameleira (10°38'S; 67°48'W), municipality of Capixaba (Guilherme 2009). Together, these registers considerably extends the distribution of this species in the lowlands of the Amazon.

***Conirostrum speciosum* (Temminck 1824)**

Despite possessing ample distribution in Brazil (Sick, 1997) and its occurrence being expected in Acre (see Ridgely and Tudor 1994), *C. speciosum* still has not been registered at the limits of the state. On August 30, 2007, SMD audio recorded an individual at the locality of Santa Cruz Velha, in a secondary forest dominated by embaúbas (*Cecropia* sp.), a typical environment for this species. The register of this species in upper Purus was the first for the state of Acre.

FINAL CONSIDERATIONS

This survey confirms the high avifaunistic diversity of the upper Purus River. Various species were recorded whose geographic distribution is restricted to the area of transition between the foothills of the Andes Mountains and the lowlands of the Amazon. For this reason, we designate the region of upper Purus as a priority area for the realization of new ornithological surveys, from which new species will certainly emerge to increase the list of Brazilian birds.

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REFERENCES

- Acre. (2000). *Governo do Estado do Acre. Programa Estadual de Zoneamento Ecológico-Econômico do Estado do Acre – ZEE – Documento Final*. Volume 1. SECTAMA. Rio Branco, Acre, Brasil.

- Aleixo A. e Guilherme, E. (2010).** Avifauna da Estação Ecológica do Rio Acre, estado do Acre, na fronteira Brasil/Peru: composição, distribuição ecológica e registros relevantes. *Boletim do Museu Paraense Emílio Goeldi. Ciências Naturais*, 5(3):279-309.
- Borges, S. H.; Cohn-Haft, M.; Carvalhaes, A. M. P.; Henriques, L. M.; Pacheco, J. F. e Whittaker, A. (2001).** Birds of Jaú National Park, Brazilian Amazon: Species Check-list, Biogeography and Conservation. *Ornitologia Neotropical*, 12:109-140.
- Brown, K. e Freitas, A. V. L. (2002).** Diversidade Biológica no alto Juruá: Avaliação, Causas e Manutenção. In: M. C. Cunha e M. B. Almeida (Orgs.): *Enciclopédia da Floresta. O Alto Juruá: práticas e conhecimentos das populações*: 33-42. Companhia das Letras, São Paulo.
- Capobianco, J. P.; Veríssimo, A.; Moreira, A. L.; Sawyer, D.; Santos, I. e Pinto, L. P. S. (2001).** *Biodiversidade na Amazon brasileira: Avaliação e ações prioritárias para conservação, uso sustentável e repartição de benefícios*: 1-540. Instituto Socioambiental: Estação Liberdade, São Paulo.
- CBRO. (2010).** Comitê Brasileiro de Registros Ornitológicos. *Lista das aves do Brasil*, 9ª Edição. Disponível em: <www.cbro.org.br/CBRO/listabr.htm>. Acesso em: 12 de Dezembro 2010.
- Chesser, R. T. (1997).** Patterns of seasonal and geographical distribution of austral migrant flycatchers (Tyrannidae) in Bolivia. *Ornithological Monographs*, 48:171-204.
- Clements, J. F. e Shany, N. (2001).** *A field guide to the birds of Peru*: 1-283. Temecula, Ibis Publishing Company, Califórnia.
- Cohn-Haft, M.; Whittaker, A. e Stouffer, C. (1997).** A new look at the "species-poor" central Amazon: the avifauna north of Manaus, Brazil. *Ornithological Monographs*, 48:205-235.
- Cracraft, J. (1985).** Historical biogeography and patterns of differentiation within the South American avifauna: areas of endemism. *Ornithological Monographs*, 36:49-84.
- Erize, F.; Mata, J. R. R. e Rumboll, M. (2006).** *Birds of South America. Non-Passerines: Rheas to Woodpeckers*: 1-384. Princeton University Press, Princeton and Oxford.
- Fitzpatrick, J.; Bates, J.; Bostwick, K.; Caballero, I.; Clock, B.; Farnsworth, A.; Hosner, P.; Joseph, L.; Langham, G.; Lebbin, D.; Mobley, J.; Robbins, M.; Scholes, E.; Tello, J.; Walther, B. e Zimmer, K. (2004).** Family Tyrannidae. In del Hoyo, J., A. Elliott, e D. Christie (Eds.), *Handbook of the birds of the world*: 170-463. Vol. 9. Cotingas to Pipits and Wagtails. Lynx Edicions, Barcelona, Spain.
- Forrester, B. C. (1993).** *Birding Brazil – A check-list and site guide*: 1-251. Irvane: John Geddes, Scotland.
- Guilherme, E. (2001).** Comunidade de Aves do Campus e Parque Zoobotânico da Universidade Federal do Acre, Brasil. *Tangara*, 1(2):57-73.
- Guilherme, E. (2007).** Levantamento preliminar da avifauna do complexo de florestas públicas estaduais do Mogno e dos rios Liberdade e Gregório, município de Tarauacá, estado do Acre, como subsídio para elaboração de seus planos de manejo. *Atualidades Ornitológicas*, 136:1-8.
- Guilherme, E. (2009).** *Avifauna do Estado do Acre: Composição, Distribuição Geográfica e Conservação*: 1-729. Tese de Doutorado. Universidade Federal do Pará/Museu Paraense Emílio Goeldi. Belém, Pará, Brasil.
- Guilherme, E. e Aleixo, A. (2008).** Primeiros registros de *Xiphorhynchus chunchotambo* (Tschudi, 1884) (Dendrocolaptidae) no Brasil. *Revista Brasileira de Ornitologia*, 16(1):44-46.
- Guilherme, E. e Dantas, S. M. (2007).** Registros fotográficos de uma expedição ornitológica ao alto Rio Purus, Estado do Acre, Brasil. *Atualidades Ornitológicas*, 139:14-15.
- Guilherme, E. e Dantas, S. M. (2008).** First record of Ruby Topaz *Chrysocolaptes mosquitos* in Acre, Brazil. *Cotinga*, 30:84-85.
- Guilherme, E. e Dantas, S. M. (no prelo).** Alto rio Purus, foz do rio Chandless. In: R. M. Valente, J. M. C. Silva, F. C. Straube, e J. L. X. Nascimento (Eds.). *Conservação de Aves Migratórias Neárticas no Brasil*. Conservação Internacional, Belém, Pará.
- Guilherme, E. e Santos, M. P. D. (2009).** Birds associated with bamboo forests in eastern Acre, Brazil. *Bulletin of the British Ornithological Club*, 129(4):229-240.
- Gyldenstolpe, N. (1945).** A contribution to the ornithology of northern Bolivia. *Kungl. Svenska Vetenskapsakademiens Handlingar*, 23:1-301.
- Gyldenstolpe, N. (1951).** The Ornithology of the rio Purús region in western Brasil. *Arkiv För Zoologi*, 2:1-320.
- Haffer, J. (1978).** Distribution of Amazon forest birds. *Bonner Zoologische Beiträge*, 29:38-78.
- Hidasi-Filho, J. (1991).** *Taxidermia – Técnica Paramédica*: 1-45. Fundação Museu de Ornitologia, Goiania, GO.
- Lowery, G. H. e O'Neill, J. P. (1965).** A new species of *Cacicus* (Aves: Icteridae) from Peru. *Occasional Papers of the Museum of Zoology of Louisiana State University*, 33:1-5.
- Lowery, G. H. e O'Neill, J. P. (1966).** A new genus and species of cotinga from eastern Peru. *Auk*, 83:1-9.
- Lowery, G. H. e O'Neill, J. P. (1969).** A new species of antpitta from Peru and a revision of the subfamily Grallariinae. *Auk*, 86:1-12.
- Mestre, L. A. M.; Thom, G.; Cochrane, M. A. e Barlow, J. (2010).** The birds of Reserva Extrativista Chico Mendes, South Acre, Brazil. *Boletim do Museu Paraense Emílio Goeldi. Ciências Naturais*, 5(3):311-333.
- Navarro, A.; Peterson, A.; López-Medrano, E. e Benítez-Díaz, H. (2001).** Species limits in Mesoamerican *Aulacorhynchus* Toucans. *The Wilson Bull.*, 113(4):363-372.
- Novaes, F. C. (1957).** Contribuição à ornitologia do noroeste do Acre. *Boletim do Museu Paraense Emílio Goeldi, Nova Série Zoologia*, 9:1-29.
- O'Neill, J. P. (1966).** Notes on the distribution of *Conothraupis speculigera* (Gould). *Condor*, 68(6):598-600.
- O'Neill, J. P. (1969).** Distributional notes on the birds of Peru, including twelve species previously unreported from the republic. *Occasional Papers of the Museum of Zoology of Louisiana State University*, 37:1-11.
- O'Neill, J. P. (1974).** *The birds of Balta, a Peruvian dry tropical forest locality with an analysis of their origins and relationships*. Tese de Doutorado. Louisiana State University, Baton Rouge, USA.
- O'neill, J. P. (2003).** Avifauna de la región de Balta, un poblado cashinahua en el río Curanja. In: R. L. Pitman, N. Pitman e P. Álvarez (Eds.): *Alto Purús: Biodiversidad, Conservación y Manejo*: 97-107. Capítulo 11. Nicholas School of the Environment, Duke University.
- Pacheco, J. F.; Kirwan, G. M.; Aleixo, A.; Whitney, B. M.; Whittaker, A.; Minns, J.; Zimmer, K. J.; Fonseca, P. S. M.; Lima, M. F. C. e Oren, D. C. (2007).** An avifaunal inventory of the CVRD Serra dos Carajás project, Pará, Brazil. *Cotinga*, 27:15-30.
- Parker III, T. A.; Donahue, P. K. e Schulenberg, T. S. (1994).** Birds of the Tambopata Reserve (Explorer's Inn Reserve). In: R. B. Foster, T. A. Parker III, A. H. Gentry, L. H. Emmons, A. Chicchón, T. Schulenberg, L. Rodríguez, G. Lamas, H. Ortega, J. Icochea, W. Wust, M. Romo, J. A. Castillo, O. Phillips, C. Reynal, A. Kratter, P. K. Donahue e L. J. Barkley (Eds.): *The Tambopata-Candamo Reserved Zone of Southeastern Peru: A Biological Assessment Rapid Assessment Program Working Papers nº.6*: 106-124. Conservation International, Washington, D.C.
- Pinto, O. M. O. e Camargo, E. A. (1954).** Resultados ornitológicos de uma expedição ao território do Acre pelo Departamento de Zoologia. *Papéis Avulsos do Departamento de Zoologia*, 23:371-418.
- Pitman, N. (2003).** Una evaluación del paisaje, clima y suelos de la región del alto Purús. In: R. L. Pitman, N. Pitman e P. Álvarez (Eds.): *Alto Purús: Biodiversidad, Conservación y Manejo*: 31-36. Capítulo 03. Nicholas School of the Environment, Duke University.
- Pitman, R. L.; Pitman, N. e Álvarez, P. (2003).** *Alto Purús: Biodiversidad, Conservación Y Manejo*: 1-350. Center for Tropical Conservation. Nicholas School of the Environment, Duke University.

- Rasmussen, D. T.; Rehg, J. e Guilherme, E. (2005).** Avifauna da Fazenda Experimental Catuaba: Uma pequena reserva florestal no leste do Estado do Acre, Brasil. In: P. M. Drumond (Org.): *Fauna do Acre*: 173-198. EDUFAC, Rio Branco.
- Rego, M. A.; Dantas, S. M.; Guilherme, E. e Martuscelli, P. (2009).** First records of the Fine-barred Piculet (*Picumnus subtilis*) for Brazil. *Bulletin of the British Ornithological Club*, 129(3):182-185.
- Restall, R.; Rodner, C. e Lentino, M. (2006).** *Birds of Northern South America: An Identification Guide*: 1:1-880. Yale University Press, New Haven and London.
- Ridgely, R. S. e Tudor, G. (1994).** *The birds of South America*: 2:1-814. University of Texas Press, Austin.
- Schulenberg, T. S.; Stotz, D. F.; Lane, D. F.; O'Neill, J. P. e Parker III, T. A. (2007).** *Birds of Peru*: 1-656. Princeton University Press, New Jersey.
- Sick, H. (1997).** *Ornitologia Brasileira*: 1-862. Editora Nova Fronteira, Rio de Janeiro.
- Snethlage, E. (1908).** Sobre uma coleção de Aves do rio Purus. *Boletim do Museu Goeldi*, 5:43-75.
- Snow, D. W. (2004).** Family Pipridae (manakins). In del Hoyo, J., A. Elliott, e D. Christie (Eds.). *Handbook of the birds of the world*: 110-169. Vol. 9. Cotingas to Pipits and Wagtails. Lynx Edicions, Barcelona, Spain.
- Sousa-Júnior, W. C.; Waichman, A. V.; Jaime, A. L. G.; Sinigallì, P. A. A. (2006).** Gestão das águas na Amazonia: a bacia do rio Purus. Anais I – Workshop Gestão Estratégica de Recursos Hídricos. Brasília, DF.
- Stotz, D. F.; Fitzpatrick, J. W.; Parker III, T. A. e Moskovits, D. K. (1996).** *Neotropical birds: ecology and conservation*: 1-481. The University of Chicago Press, Chicago.
- Terborgh, J. W.; Fitzpatrick, J. W. e Emmons, L. (1984).** Annotated checklist of bird and mammal species of Cocha Cashu Biological Station, Manu National Park, Peru. *Fieldiana Zoology*, 21:1-29.
- Tobias, J. A. e Seddon, N. (2007).** Nine bird species new to Bolivia and notes on other significant records. *Bulletin of the British Ornithological Club*, 127(1):49-84.
- Walker, B.; Stotz, D. F.; Pequeño, T. e Fitzpatrick, J. W. (2006).** Birds of the Manu Biosphere Reserve. *Fieldiana (Zoology)*, 110:23-49.
- Whittaker, A. e Oren, D. C. (1999).** Important ornithological records from the Rio Juruá, western Amazonia, including twelve additions to the Brazilian avifauna. *Bulletin of the British Ornithological Club*, 119:235-260.
- Whittaker, A.; Oren, D. C.; Pacheco, J. F.; Parrini, R. e Minns, J. C. (2002).** Aves registradas na Reserva extrativista do alto Juruá. In: M. C. Cunha e M. B. Almeida (Orgs.): *Encyclopédia da Floresta. O Alto Juruá: práticas e conhecimentos das populações*: 81-99. Companhia das Letras, São Paulo.
- Zimmer, K. J. e Isler, M. L. (2003).** Family Thamnophilidae (Typical Antbirds). In del Hoyo, J., A. Elliott, e D. Christie (Eds.). *Handbook of the birds of the world*: 448-681. Vol. 8: Broadbills to Tapaculos. Lynx Edicions, Barcelona, Spain.