

The avifauna of Estación Biológica Caparú, Bolivia

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La Estación Biológica Caparú (EBC) se encuentra en la región norte del departamento de Santa Cruz, Bolivia. La EBC cuenta con diversos hábitats como cerrado, bosque húmedo de *terra firme*, bosque estacionalmente inundado y bosque seco Chiquitano. Registramos 545 especies de aves en la EBC durante aproximadamente cuatro años de trabajo. Encontramos la presencia de rapaces raramente observados en Bolivia, como *Leucopternis schistacea* y *Buteo albonotatus*. También registramos la presencia de especies para las cuales existe poca información en el oriente Boliviano, como *Tryngites subruficollis*, *Coccyzus euleri* y *Lophornis chalybeus*. Por otra parte, registramos la presencia de algunas especies que han sido observados en Bolivia principalmente en el Parque Nacional Noel Kempff Mercado. Los resultados indican que la EBC cuenta con un alto nivel de diversidad de aves y que la conservación de la comunidad de aves allí se beneficiaría de un enfoque amplio entre los diferentes hábitats del lugar para garantizar la protección no solo de las especies raras, pero también de las comunes, las cuales juegan un rol ecológico importante en los hábitats que ocupan.

With 1,379 bird species^{9,11,26}, Bolivia has the highest bird richness of any landlocked country, due to its central location in South America at the meeting place of several major ecoregions. Recent decades have witnessed increasing interest in Bolivia's birds, evidenced by publications on bird species distributions^{2,3,5,12,19,27,28} and the description of new species¹³. One of the largest protected areas in Bolivia is Parque Nacional Noel Kempff Mercado (PNNKM), encompassing >1.5 million ha in northern dpto. Santa Cruz. Numerous ornithological studies have been conducted there in recent years, and over 600 bird species have been recorded therein^{1,3,4,27}. However, current knowledge of the distribution of the fauna and flora of eastern Bolivia at small spatial scales and outside publicly owned lands is poor. Estación Biológica Caparú (EBC) lies close to the south-west border of PNNKM and within Important Bird Area B0020²⁵. During 2004–07 we recorded the presence and habitat use of 545 bird species in the EBC (Appendix 1). Part of the EBC is a Private Natural Heritage Reserve (Reserva Privada del Patrimonio Natural), established via a government programme that sponsors conservation of the country's natural resources through private means²⁴.

Study area and Methods

The EBC (14°48'S 61°10'W; 170 m), in eastern Bolivia, is composed of a mosaic of habitat types, principally: humid forest, dry forest, *cerrado*, seasonally inundated grassland and permanent wetlands. There is strong seasonality in rainfall between the wet and dry seasons, with daily mean rainfall of 6.3 mm between mid September and mid February, and a daily mean of 2.9 mm during the rest of the year. Temperature variation is less

marked, although the mean daily temperature in mid September–mid February (27.5°C) is warmer than at other times of year (26.4°C). Most observations were made at two sites: Puesto Lagunitas in the north-west corner of the EBC, and Puesto Caparú in the south-east sector of the property.

We sampled the bird community by trapping and banding birds using mist-nets (12 m and 18 m × 2.6 m, with 36 mm and 38 mm mesh size) over 48 days (430.4 net-hours) during the dry season (September–October 2004 and 2005) and the wet season (November 2004–May 2005, November 2005–May 2006). Mist-nets were opened from dawn until midday and again in late afternoon until dusk. Their locations were changed every 2–3 days. We also conducted daily counts of birds on 220 days in October 2005–March 2007, by walking through various habitats, from dawn and during most hours of the day (less so during midday hours) until dusk, using binoculars, telescopes and sound-recorders (Sony HiMD recorder with a Sennheiser ME66 shotgun microphone) to record bird presence¹⁷, and used South American field guides to identify species^{21,22}.

We reviewed the literature to determine range extensions and new departmental and country records. To evaluate previous records of birds in Bolivia, we also used the Armonía / BirdLife International database of Bolivian birds. Categories of threat are based upon the BirdLife International / IUCN Red List¹⁴. References to records within protected areas in Bolivia are based on Hennessey *et al.*⁹. Protected areas in the vicinity of the study site include the PNNKM and Área Natural de Manejo Integrado San Matías (ANMI).

Habitats in which bird species were recorded are: (1) *Cerrado*: grassland with a layer of trees 4–6 m tall, dominated by *Curatella americana*, (2) Chiquitano dry forest: restricted to high ground in the south-east of the EBC, (3) Grasslands: these cover most of the property and are seasonally inundated January–May, (4) Humid *terra firme* forest (hereafter ‘humid forest’), and (5) Inundated forest: found adjacent to the grasslands and flooded during the same months. Two other habitats are primarily restricted to Puesto Lagunitas: (6) Cattle pasture: an area of 1.0 × 0.5 km of formerly humid forest, planted with introduced grasses (*Brachyaria decumbens* and *B. humidicola*), and (7) Palm-dominated grassland, which has a tree layer dominated by *Astrocaryum aculeatum*.

Results

We recorded 545 bird species in the EBC (Appendix 1) or almost 40% of bird species in Bolivia¹¹. We captured 1,768 individuals of 186 species, including Black-and-tawny Seedeater *Sporophila nigrorufa* (Vulnerable), and we observed several other species of conservation concern, e.g. Crowned Eagle *Harpyhaliaetus coronatus* (Endangered) and Crested Eagle *Morphnus guianensis* (Near Threatened).

We recorded 24 Nearctic–Neotropical migratory species, e.g. Mississippi Kite *Ictinia mississippiensis* and Bobolink *Dolichonyx oryzivorus*, as well as 64 austral migrants, including Hudson’s Black Tyrant *Knipolegus hudsoni* and White-banded Mockingbird *Mimus triurus*.

Our observations indicate that the EBC supports a highly diverse bird community, principally due to the variety of major habitats, in part a product of the site’s central location on the continent, with the Amazon Basin to the north and dry forest ecosystems to the south¹⁶.

Conservation

The occurrence of several rare species in *cerrado* vegetation at the site highlights the importance of this extremely threatened habitat for birds. One of the *Cerrado*’s principal threats is extensive agricultural mechanisation; by 1993, only c.35% of *cerrado* was undisturbed¹⁶. Conservation of birds on the property and in the region around the EBC would benefit from protecting a wide range of habitat types, not only to guarantee protection for rare species, but also for more common species, which probably serve important ecological roles.

Species accounts

Species of particular interest are listed below in taxonomic order, following the list of the South American Checklist Committee (SACC), see www.museum.lsu.edu/~Remsen/SACCBaseline.html.

Slate-coloured Hawk *Leucopternis schistacea*

There are few previous records from dpto. Santa Cruz^{4,8}. One observed in February 2007 (JQV) on the ground beside a dirt road in Chiquitano dry forest, with a land snail in its talons. Our record is the first from this habitat and is perhaps the southernmost record in Bolivia.

Crowned Eagle *Harpyhaliaetus coronatus*

Recorded at several sites in dptos. Santa Cruz and Beni⁹, but very little known in Bolivia. This Endangered species has not been reported from any protected area in the north-east of the country. On 4 February 2005 an adult was observed for c.5 minutes soaring c.50 m above seasonally inundated grassland (JQV). On 15 November 2005 another adult was soaring at c.100 m on a thermal alongside a Black Vulture *Coragyps atratus* for several minutes (JQV).

Zone-tailed Hawk *Buteo albonotatus*

No previously published records from dpto. Santa Cruz. The only records from eastern Bolivia of which we are aware are from the Santa Cruz Botanical Garden in 1994 (S. Mayer /Armonía database) and at the Chaco locality of Boyuibe in 1996 (N. Renaudin / Armonía database). On 11 February 2006 an adult was observed in a dead tree in Chiquitano dry forest (JQV), which is the first record of the species in this habitat.

Crested Eagle *Morphnus guianensis*

Few reports from north-east Bolivia⁴. On 17 April 2005, one was observed flying low over humid forest at dusk (JQV). This was not a *Harpia* because it had at least two black bands in the tail, had a grey crown and dark barring over the breast and belly, and was smaller than *Harpia*.

Harpy Eagle *Harpia harpyja*

One observed in July 2007 (A. Martinez), perched high in a tree just south of the EBC, in humid forest along the entrance road. Another (probably a male) perched c.20 m high in a dead tree on 23 July 2008 (JQV & S. Robinson) in Chiquitano dry forest, where various primates (Silvery Marmoset *Callithrix argentata* and Tufted Capuchin *Cebus apella*) are present. The presence of this species in dry forest is notable, as it typically occurs in lowland evergreen forest²⁶.

Slaty-backed Forest Falcon *Micrastur mirandollei*

Heard early in the morning in humid forest on 15 May 2005 and 5 February 2006 (JQV). On the second occasion, the bird called for c.8 minutes and Collared Forest Falcon *M. semitorquatus* and Barred Forest Falcon *M. ruficollis* were heard at the same time. On 21 March 2005, one was seen and heard near a humid forest edge (JQV). The

possibility that it was a Cryptic Forest Falcon *M. mintoni* was eliminated because its tarsi and cere were yellow and it was white below, without any barring. Above the bird was dark grey, not black. This species had not previously been recorded in the region of PNNKM.

Buff-breasted Sandpiper *Tryngites subruficollis*

Recorded once previously in dpto. Santa Cruz¹⁸. On 7 October 2004 a flock of seven of this Near Threatened species was seen in grassland (JQV) no more than c.20 cm tall due to grazing. They were with several Upland Sandpipers *Bartramia longicauda* and remained several minutes before flying east. One was photographed (AEJ, AMM & JQV) foraging in short grass on 6 October 2005, after a cold front from the south had passed.

Pearly-breasted Cuckoo *Coccyzus euleri*

The only previous record in Bolivia is a bird collected by Steinbach on 2 May 1915 at Cercado, Santa Cruz²⁰. One was seen for several minutes in October 2004 in *cerrado* (JQV & AEJ), perched in a *Curatella americana* tree. Unlike Yellow-billed Cuckoo *C. americanus*, it had no rufous in the primaries and had a grey breast. This is an easily overlooked species and might be more common than records suggest.

Stygian Owl *Asio stygius*

Apparently rare in north-east Bolivia. In eastern dpto. Santa Cruz it has only been found in PNNKM⁴. On 16–17 March 2005 two were heard in *cerrado* around midnight (JQV), counter-calling over a period of c.5 minutes. On 27 April 2006 one was heard in *cerrado* for a period of 30 minutes (JQV). This species' calls are given at a slower rate than the potentially similar vocalisations of Striped Owl *Pseudoscops clamator*.

Semicollared Nighthawk *Lurocalis semitorquatus*

Few records from north-east Bolivia⁴. On 9–10 October 2005 one was observed flying low over *cerrado* and cattle pasture (JQV), alongside Nacunda Nighthawk *Podager nacunda*, drinking water from a man-made pond while in flight.

Lesser Nighthawk *Chordeiles acutipennis*

Rarely observed in eastern Bolivia⁴. In November 2004 one was seen at dawn (JQV & A. M. Saavedra) perched c.4 m up in a dead tree, where it remained for a few minutes before flying. On 2 October 2005 two were over *cerrado* at dusk (JQV). On 28 September–4 October one or two were seen each day at dusk (AEJ & JQV).

Lesser Swallow-tailed Swift *Panyptila cayennensis*

Few records from north-east Bolivia⁴. On 3–4 May 2005 three were seen over *cerrado* alongside Short-

tailed Swift *Chaetura brachyura* and Cliff Swallow *Petrochelidon pyrrhonota*. Mostly seen flying c.50 m above ground, but on 18 January 2006 one at dusk was no more than 10 m over cattle pasture (AEJ & JQV). On 21 January 2005 and 23 February 2006 one was observed with *C. brachyura* (JQV).

Fork-tailed Palm Swift *Tachornis squamata*

Few records for north-east Bolivia, but locally common in PNNKM⁴. On 7 March 2005 a flock of five was seen in the afternoon (AEJ & JQV) flying over grassland and adjacent semi-deciduous dry forest, at the edge of which are extensive patches of *Mauritia flexuosa*. Several flocks of four were seen on 3 April and 24 October 2005 (JQV).

Ruby-topaz Hummingbird *Chrysolampis mosquitus*

Only one previous record from dpto. Santa Cruz²³. On 21 October 2005 a male was observed early in the morning, perched c.5 m up in a bush in tall-grass *cerrado* (JQV), with patches of *Curatella americana*, some *Astrocaryum aculeatum* and the palm *Mauritiella armata*. It had some spotting on the head and a pale rufous tail, suggesting that it was a young bird. This migratory species probably occurs in small numbers on passage in eastern Bolivia²⁸.

White-bellied Hummingbird *Amazilia chionogaster*

Very common in drier areas of dpto. Santa Cruz, the species makes significant, albeit little understood seasonal movements. On 6 April 2005 one was trapped in cattle pasture and another in *cerrado*, the latter photographed (AEJ, AMM & JQV). On 9 April 2005 one was trapped in *cerrado* (AEJ & JQV). On 8 October 2005 two were seen in *cerrado* and humid forest edge (JQV). Notably, there are many flowering plants at the site in October, especially trees. Our records represent a significant north-east extension of the species' known range in Bolivia, from the nearest record at Santa Cruz de la Sierra, 390 km to the south-west (JQV pers. obs.).

Sapphire-spangled Emerald *Amazilia lactea*

Status in eastern Bolivia poorly known, with just two previous records from PNNKM^{4,27}. On 15 April 2005 a male was observed drinking nectar from ground bromeliad flowers (*Bromelia serra*), each visit lasting c.5 minutes. A male was observed in *cerrado* on 7 October and again on 22 October 2005 (JQV), and five males were seen in *cerrado* on 25 October (JQV). On 19 November 2005 a male was seen in humid forest (JQV).

White-crested Elaenia *Elaenia albiceps*

There are no previous records from north-east dpto. Santa Cruz. On 1 November 2005 two were captured in *cerrado* (AEJ, JQV & AMM). They had moderate levels of subcutaneous fat. On 3 October

2005 two were observed foraging in *cerrado* on fruit along with other *Elaenia* spp. (AEJ & JQV). On 6 October 2005 one was seen in *cerrado* (JQV).

Crested Doradito *Pseudocolaptes sclateri*

Locally fairly common in Bolivia (J. A. Tobias *in litt.* 2009). On 29 November 2005 c.8 were seen in seasonally inundated grassland (JQV). Individuals perched on the highest grass stems and in dry bushes c.2 m in height, from which they counter-called over an area of c.100 m². Their vocalisations were sound-recorded.

Rufous-sided Pygmy Tyrant *Euscarthmus rufomarginatus*

Few populations in Bolivia and among protected areas is only found in PNNKM⁴. On 4 May 2006 one was seen in a cattle pasture near *cerrado* habitat, foraging <50 cm above ground (JQV).

Sulphury Flycatcher *Tyrannopsis sulphurea*

EBC is only the second site in dpto. Santa Cruz from which this poorly known species has been recorded. On 5 October 2005 one was observed in *cerrado* (JQV) perched on the low branches of a *Curatella americana* tree, before going to roost at the base of a palm leaf (*Mauritella armata*). On 14 January 2006 one was seen making a series of short flights for fruit of *Cecropia concolor* at the edge of humid forest (AEJ, AMM & JQV).

Black Manakin *Xenopipo atronitens*

On 11 February 2007 a probable juvenile (its skull was two-thirds ossified) was trapped at the edge of humid forest and cattle pasture (AMM & JQV). This is the second record of the species for dpto. Santa Cruz⁴.

Swainson's Thrush *Catharus ustulatus*

Previously recorded in PNNKM²⁷. On 29 October 2004 one was trapped and photographed at the edge of *cerrado* and humid forest (AEJ & JQV). It is perhaps a rare migrant in north-east Bolivia.

Tooth-billed Wren *Odontorchilus cinereus*

On 3 December 2007 two were observed and sound-recorded in a mixed flock at Puesto Lagunitas (JQV). They were moving rapidly and vocalising, in a manner similar to that described by Davis⁶. The species has been recorded in PNNKM⁹ and is endemic to southern Amazonia²⁶.

Lesson's Seedeater *Sporophila bouvronides*

One previous record from dpto. Santa Cruz²⁹. On 29 January 2005 one was in palm-dominated grassland (JQV) foraging in the grass with a Double-collared Seedeater *S. caeruleascens*. On 21–22 February 2005 one was at the same site (JQV & B. Freeman). On 13 January 2006 one was photographed in

cattle pasture, foraging in the grass (*Brachyaria decumbens* and *B. humidicola*) with Tawny-bellied Seedeater *S. hypoxantha*, Black-and-tawny Seedeater *S. nigrorufa*, and Lined Seedeater *S. lineola* (JQV).

Yellow-bellied Seedeater *Sporophila nigricollis*

The only previously published records from Bolivia are from Espiritu, dpto. Beni⁷. Additional unpublished observations are from Estancia Parapaú, dpto Beni, on 6 May 2004 (A. McCormick / Armonía database), and Rurrenabaque, on 26 September 1996 (A. B. Hennessey / Armonía database). On 12 January 2006 an adult male was observed in cattle pasture (JQV) foraging with a flock of *S. nigrorufa* and *S. hypoxantha*.

Black-and-tawny Seedeater *Sporophila nigrorufa*

Considered Vulnerable¹⁴, this species has a restricted range. There are eight known localities for this species in Bolivia^{3,4,6,10}. On 2–5 February 2005 a flock was observed foraging in grass in palm-dominated grassland (AEJ, JQV & B. Freeman). Five were seen on 11 February 2005 and on 15 February 2005 six were seen at the same site (JQV). On 12 January 2006 seven (three adult and four juvenile males) were in cattle pasture (JQV), vocalising and foraging with *S. hypoxantha*, *S. lineola* and *S. nigricollis*. This species has likewise been seen in Brazil foraging with other species of *Sporophila*¹⁵.

Great-billed Seed Finch *Oryzoborus maximiliani*

Few records from north-east Bolivia and none from a protected area. On 19 March 2005 a male was seen perched at the edge of seasonally inundated grassland and Chiquitano dry forest (JQV).

Bobolink *Dolichonyx oryzivorus*

Few records for north-east Bolivia. On 14 March 2005 a pair was seen at midday perched in a dead tree in cattle pasture (JQV & B. Freeman). On 15 March 2005 several flocks of c.15 were seen and heard flying north, c.50 m high, with 2–3 males in each flock (AEJ, AMM & JQV). On 17 March 2005 two flocks of c.8 individuals were seen in the morning (AEJ, AMM & JQV). On 5 April 2005 three flocks flew north in the morning (JQV). On 13–14 April 2005 two flocks of c.6 were seen (AEJ, AMM & JQV). On 19 April 2005 a flock was seen flying north in the morning. On 23 March 2006 one was seen (JQV) and on 1 April 2006 two were seen flying north.

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Appendix 1. List of 545 bird species recorded at Estación Biológica Caparú, dpto. Santa Cruz, Bolivia. Order and scientific nomenclature principally follow those of the South American Checklist Committee (www.museum.lsu.edu/~Remsen/SACCBaseline.html). The evidence category notes whether birds were captured, tape-recorded or photographed. No specimens were collected.

Abundance

C = Common, several individuals encountered daily in appropriate habitat
 FC = Fairly common, encountered almost daily in small numbers
 U = Uncommon, encountered infrequently
 R = Rare, only a few records
 H = Hypothetical, requires documentation and visual confirmation

Seasonality

AM = Austral migrant
 AM/RE = Austral migrants augment numbers of local residents
 BM = Boreal migrant
 LW = Migrant present only during low water in the grassland

Habitat

CE = Cerrado (*cerradão*)
 CF = Chiquitano dry forest
 G = Grasslands
 HF = Humid forest
 IF = Inundated forest
 L = Lagoons, rivers and lakes
 O = Overhead (flying over)

Evidence

C = Capture (with mist-nets)
 P = Photograph
 T = Tape-recorded

Scientific name	English name	Abundance	Seasonality	Habitat	Evidence
RHEIDAE					
<i>Rhea americana</i>	Greater Rhea	U		CE, G	
TINAMIDAE					
<i>Tinamus tao</i>	Grey Tinamou	U		HF	T
<i>Tinamus major</i>	Great Tinamou	U		HF	T
<i>Crypturellus cinereus</i>	Cinereous Tinamou	FC		HF	T
<i>Crypturellus soui</i>	Little Tinamou	FC		HF	T
<i>Crypturellus undulatus</i>	Undulated Tinamou	C		HF, CE, CF, G	T
<i>Crypturellus strigulosus</i>	Brazilian Tinamou	U		HF	T
<i>Crypturellus parvirostris</i>	Small-billed Tinamou	FC		HF, CE, CF, G	C, P, T
<i>Crypturellus tataupa</i>	Tataupa Tinamou	FC		HF, CF	T
<i>Rhynchotus rufescens</i>	Red-winged Tinamou	FC		CE, G	T
ANHIMIDAE					
<i>Anhima cornuta</i>	Horned Screamer	R		G	
<i>Chauna torquata</i>	Southern Screamer	FC		G	
CRACIDAE					
<i>Ortalis guttata</i>	Speckled Chachalaca	U		HF, CE, CF	T
<i>Penelope superciliaris</i>	Rusty-margined Guan	R		HF	

Scientific name	English name	Abundance	Seasonality	Habitat	Evidence
<i>Penelope jacquacu</i>	Spix's Guan	FC		HF	T
<i>Pipile cumanensis</i>	Blue-throated Piping Guan	FC		HF, CE, CF	T
<i>Pipile cujubi</i>	Red-throated Piping Guan	R		HF	
<i>Mitu tuberosa</i>	Razor-billed Curassow	FC		HF	
<i>Crax fasciolata</i>	Bare-faced Curassow	R		HF, CE, CF	T
ODONTOPHORIDAE					
<i>Odontophorus gujanensis</i>	Marbled Wood Quail	U		HF	T
PODICIPEDIDAE					
<i>Tachybaptus dominicus</i>	Least Grebe	R		L	
<i>Podilymbus podiceps</i>	Pied-billed Grebe	R		L	
PHALACROCORACIDAE					
<i>Phalacrocorax brasilianus</i>	Neotropic Cormorant	C		L	
ANHINGIDAE					
<i>Anhinga anhinga</i>	Anhinga	FC		L	
ARDEIDAE					
<i>Tigrisoma lineatum</i>	Rufescent Tiger Heron	FC		L, G	T
<i>Agamia agami</i>	Agami Heron	U		IF	
<i>Nycticorax nycticorax</i>	Black-crowned Night Heron	FC		L, G	
<i>Butorides striatus</i>	Striated Heron	C		L, G, IF	C, P, T
<i>Bubulcus ibis</i>	Cattle Egret	FC		L, G	
<i>Ardea cocoi</i>	Cocoi Heron	C		L, G	
<i>Ardea alba</i>	Great Egret	C		L, G	
<i>Syrigma sibilatrix</i>	Whistling Heron	U		L, G	
<i>Pilherodius pileatus</i>	Capped Heron	FC		L, G	
<i>Egretta thula</i>	Snowy Egret	FC		L, G	
<i>Cochlearius cochlearius</i>	Boat-billed Heron	R		IF, G	
THRESKIORNITHIDAE					
<i>Mesembrinibis cayennensis</i>	Green Ibis	FC		HF, IF, G, L	T
<i>Phimosus infuscatus</i>	Bare-faced Ibis	U	LW	G, L	
<i>Theristicus caerulescens</i>	Plumbeous Ibis	FC		G, L	T
<i>Theristicus caudatus</i>	Buff-necked Ibis	FC		CE, G, L	T
<i>Platalea ajaja</i>	Roseate Spoonbill	FC	LW	G, L	
CICONIIDAE					
<i>Ciconia maguari</i>	Maguari Stork	FC	LW	G, L	
<i>Jabiru mycteria</i>	Jabiru	FC		G, L	
<i>Mycteria americana</i>	Wood Stork	C	LW	G, L	
CATHARTIDAE					
<i>Cathartes aura</i>	Turkey Vulture	C		O	
<i>Cathartes burrovianus</i>	Lesser Yellow-headed Vulture	FC		O	
<i>Cathartes melambrotos</i>	Greater Yellow-headed Vulture	U		O	
<i>Coragyps atratus</i>	Black Vulture	C		O	
<i>Sarcorampus papa</i>	King Vulture	FC		O	
PANDIONIDAE					
<i>Pandion haliaetus</i>	Osprey	R	BM	L	
ACCIPITRIDAE					
<i>Leptodon cayanensis</i>	Grey-headed Kite	R		HF	
<i>Chondrohierax uncinatus</i>	Hook-billed Kite	U		HF, CE, CF, G	
<i>Elanoides forficatus</i>	Swallow-tailed Kite	U	BM	HF, CF	

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<i>Gampsonyx swainsonii</i>	Pearl Kite	FC	AM/RE	CE, G	T
<i>Elanus leucurus</i>	White-tailed Kite	U		CE, G	
<i>Rostrhamus sociabilis</i>	Snail Kite	C		G, L	T
<i>Harpagus bidentatus</i>	Double-toothed Kite	U		HF	
<i>Ictinia mississippiensis</i>	Mississippi Kite	U	BM	CE	
<i>Ictinia plumbea</i>	Plumbeous Kite	C	AM	HF, CE, CF	T
<i>Circus buffoni</i>	Long-winged Harrier	U		CF, G	
<i>Accipiter poliogaster</i>	Grey-bellied Hawk	R		HF	
<i>Accipiter superciliosus</i>	Tiny Hawk	R		HF	
<i>Accipiter striatus</i>	Sharp-shinned Hawk	R		CE, CF	
<i>Accipiter bicolor</i>	Bicoloured Hawk	R		CE, CF	
<i>Geranospiza caerulescens</i>	Crane Hawk	U		HF, CE, CF, G	T
<i>Leucopternis schistacea</i>	Slate-coloured Hawk	R		CF	
<i>Leucopternis albicollis</i>	White Hawk	U		HF	
<i>Asturina nitida</i>	Grey Hawk	FC		HF, CE, CF	T
<i>Buteogallus urubitinga</i>	Great Black Hawk	FC		CE, G	T
<i>Buteogallus meridionalis</i>	Savanna Hawk	C		CE, G	T
<i>Busarellus nigricollis</i>	Black-collared Hawk	FC		G, L	T
<i>Buteo magnirostris</i>	Roadside Hawk	C		HF, CE, CF, IF, G	C, P, T
<i>Buteo platypterus</i>	Broad-winged Hawk	R	BM	HF	
<i>Buteo brachyurus</i>	Short-tailed Hawk	U		HF	
<i>Buteo albicaudatus</i>	White-tailed Hawk	U		CE, G	
<i>Buteo albonotatus</i>	Zone-tailed Hawk	R		CF	
<i>Harpyhaliaetus coronatus</i>	Crowned Eagle	R		G	
<i>Morphnus guianensis</i>	Crested Eagle	R		HF	
<i>Harpia harpyja</i>	Harpy Eagle	R		HF, CF	
<i>Spizaetus melanoleucus</i>	Black-and-white Hawk-Eagle	FC		HF, CE, CF	
<i>Spizaetus tyrannus</i>	Black Hawk-Eagle	U		HF, CE, CF	T
<i>Spizaetus ornatus</i>	Ornate Hawk-Eagle	R		HF	
FALCONIDAE					
<i>Daptrius ater</i>	Black Caracara	FC		HF, CE	T
<i>Ibycter americanus</i>	Red-throated Caracara	R		HF	
<i>Caracara plancus</i>	Southern Caracara	C		CE, CF, G	T
<i>Milvago chimachima</i>	Yellow-headed Caracara	FC		CE, CF, G	T
<i>Herpetoheres cachinnans</i>	Laughing Falcon	FC		CE, CF, G	T
<i>Micrastur ruficollis</i>	Barred Forest Falcon	U		HF, CF	T
<i>Micrastur mirandollei</i>	Slaty-backed Forest Falcon	U		HF	T
<i>Micrastur semitorquatus</i>	Collared Forest Falcon	U		HF, IF	T
<i>Falco sparverius</i>	American Kestrel	FC		CE, G	
<i>Falco rufigularis</i>	Bat Falcon	FC		HF, CE, CF	C, P
<i>Falco femoralis</i>	Aplomado Falcon	U		CE, G	T
<i>Falco deiroleucus</i>	Orange-breasted Falcon	R		CE	
<i>Falco peregrinus</i>	Peregrine Falcon	R		CE	
ARAMIDAE					
<i>Aramus guarana</i>	Limpkin	C		G, L	T
RALLIDAE					
<i>Microbygia schomburgkii</i>	Ocellated Crane	R		CE	
<i>Aramides cajana</i>	Grey-necked Wood Rail	FC	AM	IF, G, L	
<i>Anurolimnas viridis</i>	Russet-crowned Crane	FC	AM	CE	T
<i>Laterallus melanophaius</i>	Rufous-sided Crane	FC		G	T
<i>Porzana albicollis</i>	Ash-throated Crane	FC		G, L	T
<i>Pardirallus maculatus</i>	Spotted Rail	R		G	
<i>Gallinula chloropus</i>	Common Moorhen	C		G, L	
<i>Porphyrio martinica</i>	Purple Gallinule	FC		G, L	
<i>Porphyrio flavirostris</i>	Azure Gallinule	U		G, L	C, P

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HELIORNITHIDAE					
<i>Helionis fulca</i>	Sungrebe	U		IF, L	T
EURYPYGIDAE					
<i>Eurypyga helias</i>	Sunbittern	U	AM	CF, L	
CARIAMIDAE					
<i>Cariama cristata</i>	Red-legged Seriema	U		CE, G	P
CHARADRIIDAE					
<i>Vanellus cayanus</i>	Pied Lapwing	FC		G, L	
<i>Vanellus chilensis</i>	Southern Lapwing	C		G, L	T
<i>Pluvialis dominica</i>	American Golden Plover	U	BM	G, L	
<i>Charadrius collaris</i>	Collared Plover	U		G, L	
RECURVIROSTRIDAE					
<i>Himantopus mexicanus</i>	Black-necked Stilt	U		G, L	
SCOLOPACIDAE					
<i>Gallinago paraguaiiae</i>	South American Snipe	U		G, L	
<i>Bartramia longicauda</i>	Upland Sandpiper	U	BM	CE, G	C, P
<i>Tringa melanoleuca</i>	Greater Yellowlegs	U	BM	G, L	
<i>Tringa flavipes</i>	Lesser Yellowlegs	R	BM	G, L	
<i>Tringa solitaria</i>	Solitary Sandpiper	C	BM	G, L	C, P, T
<i>Actitis macularius</i>	Spotted Sandpiper	U	BM	G, L	T
<i>Calidris fuscicollis</i>	White-rumped Sandpiper	U	BM	G, L	
<i>Calidris bairdii</i>	Baird's Sandpiper	U	BM	G, L	
<i>Calidris melanotos</i>	Pectoral Sandpiper	U	BM	G, L	
<i>Tryngites subruficollis</i>	Buff-breasted Sandpiper	R	BM	G	P
JACANIDAE					
<i>Jacana jacana</i>	Wattled Jacana	C		G, L	C, P, T
LARIDAE					
<i>Sterna superciliaris</i>	Yellow-billed Tern	R		G, L	
<i>Phaetusa simplex</i>	Large-billed Tern	U		G, L	T
RYNCHOPIDAE					
<i>Rynchops niger</i>	Black Skimmer	R		G, L	
COLUMBIDAE					
<i>Patagioenas speciosa</i>	Scaled Pigeon	C		HF, CE, CF, IF	C, P, T
<i>Patagioenas picazuro</i>	Picazuro Pigeon	FC		G	
<i>Patagioenas cayennensis</i>	Pale-vented Pigeon	FC		CE, CF, G	C, P, T
<i>Patagioenas plumbea</i>	Plumbeous Pigeon	FC		HF, CF	T
<i>Zenaida auriculata</i>	Eared Dove	R	AM	G	
<i>Columbina minuta</i>	Plain-breasted Ground Dove	FC		CE, G	C, P
<i>Columbina talpacoti</i>	Ruddy Ground Dove	FC		CE, G	C, P
<i>Columbina picui</i>	Picui Ground Dove	FC	AM	CE, G	C, P
<i>Claravis pretiosa</i>	Blue Ground Dove	FC		HF, CE, CF	C, P
<i>Uropelia campestris</i>	Long-tailed Ground Dove	FC		CE, G	C, P, T
<i>Leptotila verreauxi</i>	White-tipped Dove	FC		CE, G	C, P, T
<i>Leptotila rufaxilla</i>	Grey-fronted Dove	FC		HF, CE, CF, IF	C, P, T
<i>Geotrygon violacea</i>	Violaceous Quail-Dove	R		HF	
<i>Geotrygon montana</i>	Ruddy Quail-Dove	U		HF	C, P
PSITTACIDAE					
<i>Ara ararauna</i>	Blue-and-yellow Macaw	C		HF, CE, CF, G	T

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<i>Ara chloroptera</i>	Red-and-green Macaw	R		HF	
<i>Ara auricollis</i>	Golden-collared Macaw	U		CE	
<i>Ara severa</i>	Chestnut-fronted Macaw	FC		HF, CE	T
<i>Orthopsittaca manilata</i>	Red-bellied Macaw	FC		HF, CE, CF, G	T
<i>Diopsittaca nobilis</i>	Red-shouldered Macaw	C		HF, CE, CF, G	C, P, T
<i>Aratinga acuticaudata</i>	Blue-crowned Parakeet	U		CE	T
<i>Aratinga leucophthalmus</i>	White-eyed Parakeet	C		CE, CF	C, P, T
<i>Aratinga aurea</i>	Peach-fronted Parakeet	FC		CE, G	C, P, T
<i>Brotogeris chiriri</i>	Yellow-chevroned Parakeet	C		HF, CE, CF, G	C, P, T
<i>Brotogeris cyanoptera</i>	Cobalt-winged Parakeet	U		HF, CE, CF	T
<i>Pionus menstruus</i>	Blue-headed Parrot	FC		HF, CE, CF, IF	T
<i>Amazona aestiva</i>	Blue-fronted Parrot	FC		HF, CE, CF	C, P, T
<i>Amazona ochrocephala</i>	Yellow-crowned Parrot	U		HF, CE	
<i>Amazona amazonica</i>	Orange-winged Parrot	FC		HF, CE, CF	T
OPISTHOCOMIDAE					
<i>Opisthocomus hoazin</i>	Hoatzin	U		G	
CUCULIDAE					
<i>Coccyzus cinereus</i>	Ash-coloured Cuckoo	U	AM	CE	
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo	U	BM	HF, CE, CF, G	
<i>Coccyzus euleri</i>	Pearly-breasted Cuckoo	R	AM	CE	
<i>Coccyzus melacoryphus</i>	Dark-billed Cuckoo	U	AM	CE, G	C, P
<i>Piaya cayana</i>	Squirrel Cuckoo	FC		HF, CE, CF, IF, G	C, P, T
<i>Piaya minuta</i>	Little Cuckoo	U		HF, CE, G	T
<i>Crotophaga major</i>	Greater Ani	FC		HF, CE, CF, G	C, P, T
<i>Crotophaga ani</i>	Smooth-billed Ani	C		CE, G	C, P, T
<i>Guira guira</i>	Guira Cuckoo	FC		CE, G	C, P, T
<i>Tapera naevia</i>	Striped Cuckoo	FC		CE, G	C, P, T
<i>Dramococcyx phasianellus</i>	Pheasant Cuckoo	R		HF	T
TYTONIDAE					
<i>Tyto alba</i>	Barn Owl	U		CE, CF	
STRIGIDAE					
<i>Otus choliba</i>	Tropical Screech Owl	FC		HF, CE, CF, IF	T
<i>Otus watsonii</i>	Tawny-bellied Screech Owl	FC		HF, CE, IF	T
<i>Lophotrix cristata</i>	Crested Owl	U		HF	T
<i>Pulsatrix perspicillata</i>	Spectacled Owl	U		HF, CF	T
<i>Bubo virginianus</i>	Great Horned Owl	R		G	
<i>Ciccaba virgata</i>	Mottled Owl	R		HF	
<i>Ciccaba huhula</i>	Black-banded Owl	R		HF	
<i>Glaucidium brasilianum</i>	Ferruginous Pygmy Owl	FC		HF, CE, CF, IF, G	C, P, T
<i>Athene cucularia</i>	Burrowing Owl	FC		CE, G	
<i>Pseudoscops clamator</i>	Striped Owl	U		CE	
<i>Asio stygius</i>	Stygian Owl	R		CE	
NYCTIBIIDAE					
<i>Nyctibius grandis</i>	Great Potoo	U		HF, CE, G	T
<i>Nyctibius aethereus</i>	Long-tailed Potoo	R		HF	
<i>Nyctibius griseus</i>	Common Potoo	FC		HF, CE, CF, G	T
CAPRIMULGIDAE					
<i>Lurocalis semitorquatus</i>	Semicollared Nighthawk	R	AM	HF	
<i>Chordeiles pusillus</i>	Least Nighthawk	U		HF, CE	
<i>Chordeiles acutipennis</i>	Lesser Nighthawk	R		CE	
<i>Chordeiles minor</i>	Common Nighthawk	FC	BM	HF, CE	
<i>Nyctiprogne leucopyga</i>	Band-tailed Nighthawk	U		CE	

Scientific name	English name	Abundance	Seasonality	Habitat	Evidence
<i>Podager nacunda</i>	Nacunda Nighthawk	FC		G	C
<i>Nyctidromus albigollis</i>	Pauraque	FC		HF, CE, CF, IF, G	C, P, T
<i>Nyctiphrynus ocellatus</i>	Ocellated Poorwill	FC		HF	
<i>Caprimulgus rufus</i>	Rufous Nightjar	U		CE	
<i>Caprimulgus sericeicaudatus</i>	Silky-tailed Nightjar	U		HF	
<i>Caprimulgus maculicaudus</i>	Spot-tailed Nightjar	U		CE, G	
<i>Caprimulgus parvulus</i>	Little Nightjar	FC	AM/RE	HF, CE, CF, IF, G	C, P, T
<i>Hydropsalis torquata</i>	Scissor-tailed Nightjar	U		G	
APODIDAE					
<i>Streptoprocne zonaris</i>	White-collared Swift	U		O	
<i>Chaetura cinereiventris</i>	Grey-rumped Swift	U		O	
<i>Chaetura egregia</i>	Pale-rumped Swift	R		O	
<i>Chaetura meridionalis</i>	Sick's Swift	R	AM	O	
<i>Chaetura brachyura</i>	Short-tailed Swift	C		O	C, P, T
<i>Tachornis squamata</i>	Fork-tailed Palm Swift	FC		O	T
<i>Panyptila cayennensis</i>	Lesser Swallow-tailed Swift	U		O	
TROCHILIDAE					
<i>Glaucis hirsuta</i>	Rufous-breasted Hermit	R		HF, CE	C, P
<i>Phaethornis ruber</i>	Reddish Hermit	C		HF	C, P
<i>Phaethornis subochraceus</i>	Buff-bellied Hermit	U		HF, CF	
<i>Campylopterus largipennis</i>	Grey-breasted Sabrewing	R		HF	
<i>Eupetomena macroura</i>	Swallow-tailed Hummingbird	FC		CE, G	C, P, T
<i>Florisuga mellivora</i>	White-necked Jacobin	R		HF	
<i>Colibri serrirostris</i>	White-vented Violet-ear	R		HF	C, P
<i>Anthracothorax nigricollis</i>	Black-throated Mango	FC		CE, CF, G	C, P
<i>Chrysolampis mosquitus</i>	Ruby-topaz Hummingbird	R		CE	
<i>Lophornis chalybea</i>	Festive Coquette	U		HF, CE	C, P, T
<i>Chlorostilbon mellisugus</i>	Blue-tailed Emerald	R		HF	
<i>Chlorostilbon aureoventris</i>	Glittering-bellied Emerald	U		CE, G	
<i>Thalurania furcata</i>	Fork-tailed Woodnymph	FC		HF, CE, CF, IF	C, P, T
<i>Hylocharis sapphirina</i>	Rufous-throated Sapphire	U		CE, G	T
<i>Hylocharis cyanus</i>	White-chinned Sapphire	FC		HF, CE, CF, IF	C, P, T
<i>Hylocharis chrysur</i>	Gilded Hummingbird	FC		CE, G	
<i>Polytmus guainumbi</i>	White-tailed Goldenthrroat	FC		CE, G	C, P, T
<i>Amazilia chionogaster</i>	White-bellied Hummingbird	U		HF	C, P
<i>Amazilia versicolor</i>	Versicoloured Emerald	FC		HF, CE,	C, P
<i>Amazilia fimbriata</i>	Glittering-throated Emerald	C		HF, CE, CF, IF, G	C, P, T
<i>Amazilia lactea</i>	Sapphire-spangled Emerald	U		CE, G	C, P
<i>Heliophryx aurita</i>	Black-eared Fairy	R		HF	
<i>Heliactin bilophus</i>	Horned Sungem	R		CE	
<i>Heliomaster longirostris</i>	Long-billed Starthroat	U		CE, CF, G	C, P
<i>Heliomaster furcifer</i>	Blue-tufted Starthroat	U		CE, CF, G	
<i>Calliphlox amethystina</i>	Amethyst Woodstar	R		CE	
TROGONIDAE					
<i>Trogon viridis</i>	White-tailed Trogon	R		HF	
<i>Trogon curucui</i>	Blue-crowned Trogon	FC		HF, CE, CF, IF	T
<i>Trogon collaris</i>	Collared Trogon	U		HF, CF	T
<i>Trogon melanurus</i>	Black-tailed Trogon	FC		HF	T
ALCEDINIDAE					
<i>Ceryle torquata</i>	Ringed Kingfisher	C		G, L	T
<i>Chloroceryle amazona</i>	Amazon Kingfisher	FC		G, L	T
<i>Chloroceryle americana</i>	Green Kingfisher	FC		G, L	
<i>Chloroceryle inda</i>	Green-and-rufous Kingfisher	FC		HF, CE, CF, IF, L	C, P, T
<i>Chloroceryle aenea</i>	American Pygmy Kingfisher	U		HF, CE, CF, IF, L	C, P, T

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MOMOTIDAE					
<i>Momotus momota</i>	Blue-crowned Motmot	C		HF, CF, IF	C, P, T
GALBULIDAE					
<i>Brachygalba lugubris</i>	Brown Jacamar	U		HF, CF, G	T
<i>Galbula ruficauda</i>	Rufous-tailed Jacamar	C		HF, CE, CF	C, P, T
BUCCONIDAE					
<i>Notharchus macrorhynchos</i>	White-necked Puffbird	U		HF, CF	T
<i>Notharchus tectus</i>	Pied Puffbird	U		HF	
<i>Bucco tamatia</i>	Spotted Puffbird	FC		HF, CE, IF	C, P, T
<i>Nystalus striolatus</i>	Striolated Puffbird	U		HF	
<i>Nystalus chacuru</i>	White-eared Puffbird	FC		CE, G	C, P, T
<i>Nonnula ruficapilla</i>	Rufous-capped Nunlet	U		HF, CE, IF	C, P, T
<i>Monasa nigrifrons</i>	Black-fronted Nunbird	C		HF, CF, IF	C, P, T
<i>Chelidoptera tenebrosa</i>	Swallow-winged Puffbird	C		HF, CE	C, P, T
CAPITONIDAE					
<i>Capito dayi</i>	Black-girdled Barbet	R		HF	
RAMPHASTIDAE					
<i>Pteroglossus inscriptus</i>	Lettered Aracari	FC		HF, CE, CF	C, P
<i>Pteroglossus bitorquatus</i>	Red-necked Aracari	R		HF	
<i>Pteroglossus castanotis</i>	Chestnut-eared Aracari	FC		HF, CE, CF	C, P, T
<i>Selenidera gouldii</i>	Gould's Toucanet	U		HF	
<i>Ramphastos vitellinus</i>	Channel-billed Toucan	C		HF, CE, IF	T
<i>Ramphastos toco</i>	Toco Toucan	FC		CE, CF, G	T
<i>Ramphastos tucanus</i>	White-throated Toucan	C		HF, CE, IF	T
PICIDAE					
<i>Picumnus aurifrons</i>	Bar-breasted Piculet	FC		HF, CE, IF	C, P, T
<i>Picumnus cirratus</i>	White-barred Piculet	R		G	T
<i>Melanerpes candidus</i>	White Woodpecker	U		CE, G	C, P, T
<i>Melanerpes cruentatus</i>	Yellow-tufted Woodpecker	FC		HF, CF	C, P, T
<i>Veniliornis passerinus</i>	Little Woodpecker	FC		CE, CF	C, P, T
<i>Veniliornis affinis</i>	Red-stained Woodpecker	FC		HF, CF	T
<i>Piculus flavigula</i>	Yellow-throated Woodpecker	U		HF, CF	
<i>Piculus chrysochloros</i>	Golden-green Woodpecker	U		IF	T
<i>Colaptes melanochloros</i>	Green-barred Woodpecker	FC		CE, G	C, P, T
<i>Colaptes campestris</i>	Campo Flicker	FC		CE, G	C, P, T
<i>Celeus grammicus</i>	Scale-breasted Woodpecker	U		HF, IF	
<i>Celeus elegans</i>	Chestnut Woodpecker	R		HF, IF	C, P
<i>Celeus lugubris</i>	Pale-crested Woodpecker	U		CF	
<i>Celeus flavus</i>	Cream-coloured Woodpecker	U		CF, IF	C, P
<i>Celeus spectabilis</i>	Rufous-headed Woodpecker	R		IF	
<i>Celeus torquatus</i>	Ringed Woodpecker	FC		HF	T
<i>Dryocopus lineatus</i>	Lineated Woodpecker	FC		HF, CE, CF	C, P, T
<i>Campephilus rubricollis</i>	Red-necked Woodpecker	U		HF, CF	T
<i>Campephilus melanoleucos</i>	Crimson-crested Woodpecker	U		CF	
FURNARIIDAE					
<i>Furnarius rufus</i>	Rufous Hornero	C		CE, G	C, P
<i>Synallaxis frontalis</i>	Sooty-fronted Spinetail	R		CF	
<i>Synallaxis albescens</i>	Pale-breasted Spinetail	U		CE, G	C, P, T
<i>Synallaxis rutilans</i>	Ruddy Spinetail	U		HF	C, P, T
<i>Synallaxis gujanensis</i>	Plain-crowned Spinetail	FC		CF	T
<i>Certhiaxis cinnamomea</i>	Yellow-throated Spinetail	FC		G, L	C, P, T
<i>Phacellodomus ruber</i>	Greater Thornbird	FC		G, L	T

Scientific name	English name	Abundance	Seasonality	Habitat	Evidence
<i>Automolus ochrolaemus</i>	Buff-throated Foliage-gleaner	FC		HF	C, P, T
<i>Xenops minutus</i>	Plain Xenops	U		HF	C, P, T
<i>Xenops rutilans</i>	Streaked Xenops	U		HF, CF	
<i>Dendrocincla fuliginosa</i>	Plain-brown Woodcreeper	U		IF	C, P
<i>Dendrocincla merula</i>	White-chinned Woodcreeper	FC		HF, IF	C, P
<i>Deconychura longicauda</i>	Long-tailed Woodcreeper	U		HF, IF	C, P
<i>Sittasomus griseicapillus</i>	Olivaceous Woodcreeper	FC		HF, CF	C, P
<i>Glyphorhynchus spirurus</i>	Wedge-billed Woodcreeper	U		HF, IF	C, P
<i>Hylexetastes stresemanni</i>	Bar-bellied Woodcreeper	U		HF	
<i>Xiphocolaptes promeropirhynchus</i>	Strong-billed Woodcreeper	U		HF	
<i>Xiphocolaptes major</i>	Great Rufous Woodcreeper	R		CF	
<i>Dendrocolaptes picumnus</i>	Black-banded Woodcreeper	U		CF	T
<i>Xiphorhynchus picus</i>	Straight-billed Woodcreeper	C		HF, CE, CF	C, P, T
<i>Xiphorhynchus elegans</i>	Elegant Woodcreeper	U		HF	
<i>Xiphorhynchus guttatus</i>	Buff-throated Woodcreeper	C		HF, CF	C, P, T
<i>Lepidocolaptes angustirostris</i>	Narrow-billed Woodcreeper	FC		CE	C, P, T
<i>Lepidocolaptes albolineatus</i>	Lineated Woodcreeper	U		HF, IF	T
<i>Campylorhynchus trochilirostris</i>	Red-billed Scythebill	U		HF	
THAMNOPHILIDAE					
<i>Taraba major</i>	Great Antshrike	FC		CE, G	T
<i>Thamnophilus doliatus</i>	Barred Antshrike	FC		CE, G	C, P, T
<i>Thamnophilus palliatus</i>	Chestnut-backed Antshrike	R		HF	
<i>Thamnophilus aethiops</i>	White-shouldered Antshrike	U		HF	T
<i>Thamnophilus schistaceus</i>	Plain-winged Antshrike	FC		HF	T
<i>Thamnophilus sticturus</i>	Bolivian Slaty Antshrike	FC		CE, CF	T
<i>Thamnophilus amazonicus</i>	Amazonian Antshrike	FC		HF, IF	C, P, T
<i>Thamnomanes caesius</i>	Cinereous Antshrike	R		HF	
<i>Myrmotherula brachyura</i>	Pygmy Antwren	R		HF	T
<i>Myrmotherula axillaris</i>	White-flanked Antwren	FC		HF, IF	C, P, T
<i>Myrmotherula assimilis</i>	Leaden Antwren	R		IF	
<i>Herpsilochmus rufimarginatus</i>	Rufous-winged Antwren	FC		HF	
<i>Formicivora grisea</i>	White-fringed Antwren	FC		HF, CE, IF	C, P, T
<i>Formicivora rufa</i>	Rusty-backed Antwren	FC		CE	C, P, T
<i>Cercomacra cinerascens</i>	Grey Antbird	C		HF	T
<i>Cercomacra nigrescens</i>	Blackish Antbird	U		HF	T
<i>Pyriglena leuconota</i>	White-backed Fire-eye	U		HF, CF	
<i>Hypocnemis ochrogyna</i>	Rondonia Warbling Antbird	C		HF, IF	C, P, T
<i>Hypocnemoides maculicauda</i>	Band-tailed Antbird	U		HF, IF	C, P, T
<i>Sclateria naevia</i>	Silvered Antbird	U		IF	
<i>Myrmeciza hemimelaena</i>	Southern Chestnut-tailed Antbird	C		HF, IF	C, P, T
<i>Myrmeciza atrothorax</i>	Black-throated Antbird	C		HF, CF, IF	C, P, T
<i>Willisornis poecilinota</i>	Scale-backed Antbird	U		HF, IF	C, P, T
FORMICARIIDAE					
<i>Formicarius colma</i>	Rufous-capped Antthrush	U		HF	C, P, T
<i>Hyllopezus berlepschi</i>	Amazonian Antpitta	U		HF	T
TYRANNIDAE					
<i>Phyllomyias fasciatus</i>	Planalto Tyrannulet	H		CE	
<i>Tyrannulus elatus</i>	Yellow-crowned Tyrannulet	U		HF	
<i>Myiopagis gaimardii</i>	Forest Elaenia	C		HF, IF	T
<i>Myiopagis caniceps</i>	Grey Elaenia	U	AM	HF	T
<i>Myiopagis viridicata</i>	Greenish Elaenia	U	AM	CE, CF	
<i>Elaenia flavogaster</i>	Yellow-bellied Elaenia	FC		CE, G	C, P, T
<i>Elaenia spectabilis</i>	Large Elaenia	U	AM	CE, G	C, P, T
<i>Elaenia albiceps</i>	White-crested Elaenia	R	AM	CE	C
<i>Elaenia parvirostris</i>	Small-billed Elaenia	FC	AM	CE, G	C, P

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<i>Elaenia cristata</i>	Plain-crested Elaenia	U		CE	
<i>Elaenia chiriquensis</i>	Lesser Elaenia	U	AM/RE	CE	T
<i>Ornithion inermis</i>	White-lored Tyrannulet	FC		HF, IF	T
<i>Camptostoma obsoletum</i>	Southern Beardless Tyrannulet	FC	AM/RE	CE, CF, G	C, P, T
<i>Suiriri suiriri</i>	Suiriri Flycatcher	R	AM	CF	
<i>Suiriri islerorum</i>	Chapada Flycatcher	U		CE	
<i>Serpophaga subcristata</i>	White-crested Tyrannulet	U	AM	CE	
<i>Serpophaga munda</i>	White-bellied Tyrannulet	U	AM	CE	
<i>Phaeomyias murina</i>	Mouse-coloured Tyrannulet	FC	AM/RE	CE, G	C, P, T
<i>Pseudocolaptes sclateri</i>	Crested Doradito	U		G	T
<i>Corythopis torquata</i>	Ringed Antpiper	C		HF	C, P, T
<i>Euscarthmus meloryphus</i>	Tawny-crowned Pygmy Tyrant	FC	AM	HF, CE, CF, G	T
<i>Euscarthmus rufomarginatus</i>	Rufous-sided Pygmy Tyrant	R		CE	
<i>Zimmerius gracilipes</i>	Slender-footed Tyrannulet	R		HF	
<i>Mionectes oleagineus</i>	Ochre-bellied Flycatcher	R		HF	C, P, T
<i>Leptopogon amaurocephalus</i>	Sepia-capped Flycatcher	U		HF, CF, IF	C, P
<i>Sublegatus modestus</i>	Southern Scrub Flycatcher	FC	AM	CE, G	C, P, T
<i>Inezia inornata</i>	Plain Tyrannulet	FC	AM	CE, CF, IF	C, P, T
<i>Myiornis ecaudatus</i>	Short-tailed Pygmy Tyrant	FC		HF, CF	T
<i>Hemitriccus minor</i>	Snethlage's Tody-Tyrant	U		HF	T
<i>Hemitriccus flammulatus</i>	Flammulated Tody-Tyrant	FC		HF	T
<i>Hemitriccus striatocollis</i>	Stripe-necked Tody-Tyrant	FC		HF, CE	C, P, T
<i>Hemitriccus margaritaceiventer</i>	Pearly-vented Tody-Tyrant	FC		CE, G	C, P, T
<i>Poecilatriccus latirostris</i>	Rusty-fronted Tody-Flycatcher	FC		CE, G	C, P, T
<i>Todirostrum cinereum</i>	Common Tody-Flycatcher	FC		CE, G	T
<i>Rhynchocyclus olivaceus</i>	Olivaceous Flatbill	R		HF	
<i>Tolmomyias sulphurescens</i>	Yellow-olive Flycatcher	C		HF, CF	T
<i>Tolmomyias assimilis</i>	Yellow-margined Flycatcher	U		HF	
<i>Tolmomyias poliocephalus</i>	Grey-crowned Flycatcher	U		HF	
<i>Tolmomyias flaviventris</i>	Yellow-breasted Flycatcher	U		HF, CE	T
<i>Onychorhynchus coronatus</i>	Royal Flycatcher	U		HF, IF	C, P
<i>Myiophobus fasciatus</i>	Bran-coloured Flycatcher	FC	AM	HF, CE, CF, G	C, P, T
<i>Terentriccus erythrurus</i>	Ruddy-tailed Flycatcher	U		HF	T
<i>Lathrotriccus euleri</i>	Euler's Flycatcher	U	AM	HF, CE, IF	T
<i>Gnemotriccus fuscatus</i>	Fuscous Flycatcher	FC	AM	HF, CE, CF	C, P, T
<i>Empidonax alorum</i>	Alder Flycatcher	FC	BM	HF, CE	C, P
<i>Pyrocephalus rubinus</i>	Vermilion Flycatcher	FC	AM	CE, G	C, P
<i>Knipolegus striaticeps</i>	Cinereous Tyrant	R	AM	G	
<i>Knipolegus hudsoni</i>	Hudson's Black Tyrant	FC	AM	CE, G	C, P
<i>Hymenops perspicillatus</i>	Spectacled Tyrant	U	AM	CE, G	
<i>Satrapa icterophrys</i>	Yellow-browed Tyrant	U	AM	CE, G	C, P
<i>Xolmis cinereus</i>	Grey Monjita	FC		CE, G	
<i>Xolmis velatus</i>	White-rumped Monjita	FC		CE, G	
<i>Fluvicola albiventer</i>	Black-backed Water Tyrant	FC	AM/RE	G, L	C, P
<i>Arundinicola leucocephala</i>	White-headed Marsh Tyrant	FC		G, L	
<i>Machetornis rixosus</i>	Cattle Tyrant	C		CE, G	C, P, T
<i>Legatus leucophaeus</i>	Piratic Flycatcher	FC	AM/RE	HF, CE, CF	T
<i>Myiozetetes cayanensis</i>	Rusty-margined Flycatcher	FC		CE, G	T
<i>Pitangus sulphuratus</i>	Great Kiskadee	C		CE, G, L	C, P
<i>Pitangus lictor</i>	Lesser Kiskadee	U		G, L	T
<i>Myiodynastes luteiventris</i>	Sulphur-bellied Flycatcher	R	BM	HF	
<i>Myiodynastes maculatus</i>	Streaked Flycatcher	FC	AM	HF, CE, CF, G	C, P, T
<i>Megarynchus pitangua</i>	Boat-billed Flycatcher	FC		HF, CE, CF, G	C, P, T
<i>Tyrannopsis sulphurea</i>	Sulphury Flycatcher	U		HF, CE	
<i>Empidonomus varius</i>	Variiegated Flycatcher	FC	AM	CE, CF	C, P, T
<i>Empidonomus aurantioatrocristatus</i>	Crowned Slaty Flycatcher	FC	AM	CE, CF, G	C, P, T
<i>Tyrannus albogularis</i>	White-throated Kingbird	C	AM	CE, G	C, P, T
<i>Tyrannus melancholicus</i>	Tropical Kingbird	C	AM/RE	HF, CE, CF, IF, G	C, P, T

Scientific name	English name	Abundance	Seasonality	Habitat	Evidence
<i>Tyrannus savana</i>	Fork-tailed Flycatcher	C	AM	HF, CE, CF, G	C, P
<i>Tyrannus tyrannus</i>	Eastern Kingbird	FC	BM	HF, CE, CF, G	C, P
<i>Rhytipterna simplex</i>	Greyish Mourner	FC		HF, IF	C, P, T
<i>Sirystes sibilator</i>	Sirystes	U	AM	HF, CE	
<i>Casiornis rufa</i>	Rufous Casiornis	U	AM	CE, CF	T
<i>Myiarchus tuberculifer</i>	Dusky-capped Flycatcher	U	AM	HF, CF	
<i>Myiarchus swainsoni</i>	Swainson's Flycatcher	C	AM	CE, G	C, P, T
<i>Myiarchus ferox</i>	Short-crested Flycatcher	C		CE, G	C, P, T
<i>Myiarchus tyrannulus</i>	Brown-crested Flycatcher	FC	AM	HF, CE, CF	T
<i>Ramphotrigon megacephala</i>	Large-headed Flatbill	R		HF	
<i>Ramphotrigon ruficauda</i>	Rufous-tailed Flatbill	U		HF	T
<i>Ramphotrigon fuscicauda</i>	Dusky-tailed Flatbill	U		HF, IF	T
<i>Attila cinnamomeus</i>	Cinnamon Attila	U		HF, CF, IF	T
<i>Attila bolivianus</i>	Dull-capped Attila	FC		CF, IF	C, P, T
<i>Attila spadiceus</i>	Bright-rumped Attila	FC		HF, IF	T
COTINGIDAE					
<i>Cotinga cayana</i>	Spangled Cotinga	R		HF	
<i>Lipaugus vociferans</i>	Screaming Piha	C		HF, IF	T
<i>Gymnoderus foetidus</i>	Bare-necked Fruitcrow	FC		HF, IF	
<i>Cephalopterus ornatus</i>	Amazonian Umbrellabird	FC		HF, CE, IF	
PIPRIDAE					
<i>Neopelma sulphureiventer</i>	Sulphur-bellied Tyrant-Manakin	C		HF, CE, IF	C, P, T
<i>Tyrannutes stolzmanni</i>	Dwarf Tyrant-Manakin	U		HF	
<i>Machaeropterus pyrocephalus</i>	Fiery-capped Manakin	FC		HF, CE, IF	C, P, T
<i>Lepidothrix nattereri</i>	Snow-capped Manakin	R		IF	C, P
<i>Manacus manacus</i>	White-bearded Manakin	U		HF	C, P, T
<i>Chiroxiphia pareola</i>	Blue-backed Manakin	R		HF	C
<i>Xenopipo atronitens</i>	Black Manakin	R		HF	C, P
<i>Heterocercus linteatus</i>	Flame-crowned Manakin	R		IF	C, P
<i>Pipra fasciicauda</i>	Band-tailed Manakin	C		HF, CE, CF, IF	C, P, T
<i>Pipra rubrocapilla</i>	Red-headed Manakin	FC		HF, CE, IF	C, P
TITYRIDAE					
<i>Schiffornis turdina</i>	Thrush-like Schiffornis	U		HF	
<i>Tityra inquisitor</i>	Black-crowned Tityra	U		HF, CE	T
<i>Tityra cayana</i>	Black-tailed Tityra	FC		HF, CE, CF	C, P, T
<i>Tityra semifasciata</i>	Masked Tityra	FC		HF, CE	T
<i>Laniocera hypopyrrha</i>	Cinereous Mourner	R		HF	C, P
<i>Xenopsaris albinucha</i>	White-naped Xenopsaris	R	AM	CE	
<i>Pachyramphus polychopterus</i>	White-winged Becard	C	AM/RE	CE, CF	C, P, T
<i>Pachyramphus marginatus</i>	Black-capped Becard	U		CE, CF	
<i>Pachyramphus minor</i>	Pink-throated Becard	R		CE	
<i>Pachyramphus validus</i>	Crested Becard	U		CE, CF	
INCERTAE SEDIS					
<i>Piprites chloris</i>	Wing-barred Piprites	R		HF	
VIREONIDAE					
<i>Cyclarhis gujanensis</i>	Rufous-browed Peppershrike	FC	AM/RE	HF, CE, CF, G	C, P, T
<i>Vireo olivaceus</i>	Red-eyed Vireo	FC	AM	HF, CE, CF, G	C, P
<i>Hylophilus semicinctus</i>	Grey-chested Greenlet	U		HF	T
<i>Hylophilus pectoralis</i>	Ashy-headed Greenlet	U		CF	T
<i>Hylophilus hypoxanthus</i>	Dusky-capped Greenlet	U		CF	T
<i>Hylophilus muscicapinus</i>	Buff-cheeked Greenlet	U		HF	T

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CORVIDAE					
<i>Cyanocorax cyanomelas</i>	Purplish Jay	C		HF, CE, CF	C, P, T
<i>Cyanocorax chrysops</i>	Plush-crested Jay	R		CF	
HIRUNDINIDAE					
<i>Tachycineta albiventer</i>	White-winged Swallow	U		G, L	
<i>Tachycineta leucorhoa</i>	White-rumped Swallow	R	AM	G, L	
<i>Progne tapera</i>	Brown-chested Martin	FC	AM/RE	CE, G, L	T
<i>Progne subis</i>	Purple Martin	U	BM	G	
<i>Progne chalybea</i>	Grey-breasted Martin	C		CE, G, L	C, P
<i>Stelgidopteryx ruficollis</i>	Southern Rough-winged Swallow	U		CE, G, L	
<i>Riparia riparia</i>	Bank Swallow	FC	BM	CE, G, L	
<i>Hirundo rustica</i>	Barn Swallow	FC	BM	CE, G, L	C, P
<i>Petrochelidon pyrrhonota</i>	Cliff Swallow	FC	BM	CE, G, L	
TROGLODYTIDAE					
<i>Campylorhynchus turdinus</i>	Thrush-like Wren	C		CF, G	T
<i>Odontorchilus cinereus</i>	Tooth-billed Wren	R		HF	T
<i>Cistothorus platensis</i>	Sedge Wren	R		G	
<i>Thryothorus genibarbis</i>	Moustached Wren	C		HF, CF	C, P, T
<i>Thryothorus guarayanus</i>	Fawn-breasted Wren	C		HF, CF	C, P, T
<i>Troglodytes aedon</i>	House Wren	C		CE, CF, G	C, P, T
POLIOPTILIDAE					
<i>Ramphocaenus melanurus</i>	Long-billed Gnatwren	R		HF	T
<i>Polioptila dumicola</i>	Masked Gnatcatcher	C		CE, G	C, P, T
DONACOBIIDAE					
<i>Donacobius atricapilla</i>	Black-capped Donacobius	C		G, L	T
TURDIDAE					
<i>Catharus ustulatus</i>	Swainson's Thrush	U	BM	HF, CE	C, P
<i>Turdus rufiventris</i>	Rufous-bellied Thrush	R		CF	
<i>Turdus leucomelas</i>	Pale-breasted Thrush	U		IF	C, P
<i>Turdus amaurochalinus</i>	Creamy-bellied Thrush	C	AM	HF, CE, CF, G, IF	C, P
<i>Turdus hauxwelli</i>	Hauxwell's Thrush	U		HF, CE	C, P
<i>Turdus albicollis</i>	White-necked Thrush	U		HF, CE	
MIMIDAE					
<i>Mimus saturninus</i>	Chalk-browed Mockingbird	FC		CE, G	C, P, T
<i>Mimus triurus</i>	White-banded Mockingbird	U	AM	CE	
MOTACILLIDAE					
<i>Anthus lutescens</i>	Yellowish Pipit	C		CE, G	C, P, T
THRAUPIIDAE					
<i>Schistochlamys melanopsis</i>	Black-faced Tanager	FC		CE, G	C, P, T
<i>Nemosia pileata</i>	Hooded Tanager	U		CF	
<i>Thlypopsis sordida</i>	Orange-headed Tanager	U		CF, G	C, P
<i>Gypsnagra hirundinacea</i>	White-rumped Tanager	U		CE	T
<i>Eucometis penicillata</i>	Grey-headed Tanager	U		CF, IF	C, P
<i>Tachyphonus cristatus</i>	Flame-crested Tanager	FC		HF, CF	
<i>Tachyphonus luctuosus</i>	White-shouldered Tanager	FC		HF, CF	
<i>Tachyphonus rufus</i>	White-lined Tanager	R		CE	
<i>Ramphocelus carbo</i>	Silver-beaked Tanager	C		HF, CE, CF, IF	C, P, T
<i>Thraupis sayaca</i>	Sayaca Tanager	C		HF, CE, CF, G	C, P, T
<i>Thraupis palmarum</i>	Palm Tanager	C		CE, G	C, P, T
<i>Tangara mexicana</i>	Turquoise Tanager	FC		HF, CE	C, P, T

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<i>Tangara chilensis</i>	Paradise Tanager	FC		HF	T
<i>Tangara gyrola</i>	Bay-headed Tanager	R		HF	
<i>Tangara cayana</i>	Burnished-buff Tanager	FC		CE	C, P, T
<i>Tersina viridis</i>	Swallow Tanager	R		CE	
<i>Dacnis lineata</i>	Black-faced Dacnis	U		HF	
<i>Dacnis cayana</i>	Blue Dacnis	FC		HF, CE, CF	C, P, T
<i>Cyanerpes cyaneus</i>	Red-legged Honeycreeper			HF	T
<i>Chlorophanes spiza</i>	Green Honeycreeper	U		HF	
<i>Hemithraupis guira</i>	Guira Tanager	FC		HF, CF	
<i>Hemithraupis flavicollis</i>	Yellow-backed Tanager	FC		HF	T
<i>Conirostrum speciosum</i>	Chestnut-vented Conebill	R		CF	
INCERTAE SEDIS					
<i>Coereba flaveola</i>	Bananaquit	FC		HF, CE	C, P, T
<i>Tiaris obscura</i>	Dull-coloured Grassquit	R	AM	CE	
<i>Saltator grossus</i>	Slate-coloured Grosbeak	R		HF, IF	C, P
<i>Saltator maximus</i>	Buff-throated Saltator	FC		HF, CE	C, P, T
<i>Saltator coerulescens</i>	Greyish Saltator	C		G	C, P, T
<i>Saltator atricollis</i>	Black-throated Saltator	R		CE	
EMBERIZIDAE					
<i>Ammodramus humeralis</i>	Grassland Sparrow	C		CE, G	C, P, T
<i>Sicalis flaveola</i>	Saffron Finch	R		G	
<i>Sicalis luteola</i>	Grassland Yellow Finch	R	AM	CE	T
<i>Emberizoides herbicola</i>	Wedge-tailed Grass Finch	FC		CE, G	T
<i>Volatinia jacarina</i>	Blue-black Grassquit	FC	AM/RE	CE, G	C, P, T
<i>Sporophila plumbea</i>	Plumbeous Seedeater	R		CE, G	
<i>Sporophila collaris</i>	Rusty-collared Seedeater	FC	AM/RE	CE, G, L	C, P
<i>Sporophila bouvronides</i>	Lesson's Seedeater	R		CE	
<i>Sporophila lineola</i>	Lined Seedeater	U	AM	CE, G	C, P
<i>Sporophila nigricollis</i>	Yellow-bellied Seedeater	R		CE	
<i>Sporophila caerulescens</i>	Double-collared Seedeater	FC	AM/RE	CE, G	C, P
<i>Sporophila leucoptera</i>	White-bellied Seedeater	FC		CE, G	T
<i>Sporophila nigrorufa</i>	Black-and-tawny Seedeater	U		CE, G	
<i>Sporophila hypoxantha</i>	Tawny-bellied Seedeater	FC		CE, G	C, P
<i>Sporophila hypochroma</i>	Rufous-rumped Seedeater	U		CE, G	
<i>Sporophila ruficollis</i>	Dark-throated Seedeater	U	AM	CE, G	C, P
<i>Oryzoborus angolensis</i>	Lesser Seed Finch	FC		CE, G	C, P, T
<i>Oryzoborus maximiliani</i>	Great-billed Seed Finch	R		G	
<i>Coryphospingus cucullatus</i>	Red-crested Finch	FC	AM	CE, G	C, P
<i>Paroaria gularis</i>	Red-capped Cardinal	FC		G	C
CARDINALIDAE					
<i>Habia rubica</i>	Red-crowned Ant Tanager	R		HF, IF	C, P
<i>Pheucticus aureoventris</i>	Black-backed Grosbeak	R	AM	HF, CE	
<i>Passerina cyanooides</i>	Blue-black Grosbeak	R		HF, IF	C, P, T
PARULIDAE					
<i>Parula pitayumi</i>	Tropical Parula	FC		HF, CE, CF, G	C, P, T
<i>Basileuterus flaveolus</i>	Flavescent Warbler	U		HF, CE	T
<i>Basileuterus culicivorus</i>	Golden-crowned Warbler	FC		CF	T
<i>Granatellus pelzelni</i>	Rose-breasted Chat	R		HF	T
ICTERIDAE					
<i>Psarocolius decumanus</i>	Crested Oropendola	C		HF, CE, CF, G	C, P, T
<i>Psarocolius bifasciatus</i>	Amazonian Oropendola	FC		HF, CE, CF	T
<i>Cacicus solitarius</i>	Solitary Black Cacique	FC		CF, G	C, P
<i>Cacicus cela</i>	Yellow-rumped Cacique	C		HF, CE, CF, G	C, P, T

Scientific name	English name	Abundance	Seasonality	Habitat	Evidence
<i>Cacicus haemorrhous</i>	Red-rumped Cacique	FC		HF, CF	T
<i>Icterus icterus</i>	Troupial	FC		CE, G	C, P
<i>Icterus cayanensis</i>	Epaulet Oriole	FC		HF, CE, CF, G	C, P, T
<i>Gnorimopsar chopi</i>	Chopi Blackbird	FC		CE, G	T
<i>Amblyramphus holosericeus</i>	Scarlet-headed Blackbird	FC		G	
<i>Chrysosomus cyanopus</i>	Unicoloured Blackbird	FC		G	C, P
<i>Chrysosomus ruficapillus</i>	Chestnut-capped Blackbird	U		G	
<i>Molothrus rufoaxillaris</i>	Screaming Cowbird	R		G	
<i>Molothrus oryzivorus</i>	Giant Cowbird	C		HF, CE, G	C, P, T
<i>Molothrus bonariensis</i>	Shiny Cowbird	C		CE, G	
<i>Sturnella superciliaris</i>	White-browed Blackbird	FC		G	
<i>Dolichonyx oryzivorus</i>	Bobolink	U	BM	CE	
FRINGILLIDAE					
<i>Carduelis magellanica</i>	Hooded Siskin	R		G	
<i>Euphonia chlorotica</i>	Purple-throated Euphonia	C		HF, CE, CF, G	C, P, T
<i>Euphonia laniirostris</i>	Thick-billed Euphonia	FC		HF, CE, G	C, P, T
<i>Euphonia chrysopasta</i>	Golden-bellied Euphonia	R		HF	T
<i>Euphonia minuta</i>	White-vented Euphonia	R		HF	
<i>Euphonia rufiventris</i>	Rufous-bellied Euphonia	U		HF	T
PASSERIDAE					
<i>Passer domesticus</i>	House Sparrow	FC		G	