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## BORACÉIA BIOLOGICAL STATION: AN ORNITHOLOGICAL REVIEW

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### ABSTRACT

*Boracéia Biological Station, near the city of Salesópolis, SP, is located in one of the most well-defined centers of endemism in eastern Brazil – the Serra do Mar Center. While the station was established only in 1954 under the auspices of the Museu de Zoologia da Universidade de São Paulo, the avifauna of this locality had already attracted the attention of ornithologists by the 1940s, when the first specimens were collected. Here we describe the ornithological history of the Boracéia Biological Station with a review of all the bird species recorded during more than 68 years, including recent transect and mist-netting records. Boracéia's records were found in museums, literature and unpublished reports that totaled 323 bird species when recent data is also considered. Of these, 117 are endemic to the Atlantic forest and 28 are threatened in the state. Although there are a few doubtful records that need to be checked, some species are the only sightings in the state. Boracéia includes a recently discovered species near the station site and is extremely important for the conservation of Atlantic forest birds.*

KEYWORDS: Montane Atlantic forest; Transect counts; Mist-net; Richness; Ornithological collection.

### INTRODUCTION

The region of Brazil that is considered Atlantic forest originally comprised an almost continuous zone of several forest types along the Brazilian coast from the state of Rio Grande do Norte in the north to the state of Rio Grande do Sul in the south (Silva *et al.*, 2004). The coastal mountains of the states of Rio de Janeiro, São Paulo, Paraná and Santa Catarina are known as the Serra do Mar (Almeida & Carneiro,

1998), in which is found an important biogeographical region that is also a well-defined center of endemism for many taxa, including birds (Müller, 1973; Haffer, 1974, 1985; Cracraft, 1985). At least 660 species of birds breed in the nonmarine Atlantic Forest Region, 200 (30%) of which are considered endemic (Goerck, 1997).

The greatest levels of endemism in the Atlantic forest are found in the Serra do Mar (Haffer, 1985) where the complex of mountains has influenced bird

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species composition (Silva *et al.*, 2004). About 140 endemic species are passerine forest birds (Haffer, 1985) of which 88 species are in monotypic genera with no close relatives (Willis, 1992). Endemism is probably even greater because several putative subspecies may prove to be biological (BSC) and/or phylogenetic (PSC) species once detailed taxonomic studies have been carried out (Silveira *et al.*, 2003).

Bird inventories are fundamental and valuable sources of information for conservation and often such knowledge can influence the creation of reserves and other conservation units as well as justify their existence. Therefore these areas may be the last hope for preservation of the rich and diverse Atlantic forest avifauna (Develey, 2004).

While over 60 years have passed since the earliest formal ornithological studies in the area of the Boracéia Biological Station, no concise summary of the avian fauna of the region yet exists, which makes such a summary long past due. Here, we describe the local community of birds and summarize the history of bird studies at the station.

## MATERIAL AND METHODS

### Study Area

Boracéia Biological Station (23°38'S, 45°52'W), established in 1954 (Travassos Filho & Camargo, 1958), is now administered by the Museu de Zoologia da Universidade de São Paulo (MZUSP). It is located near the city of Salesópolis, in the state of São Paulo, southeastern Brazil (Camargo, 1946). The station includes 96 ha of montane Atlantic forest (750-900 m) and is within the Casa Grande Reserve, which belongs to Departamento de Águas e Esgotos (DAEE) do Estado de São Paulo, part of the Serra do Mar State Park. Climate is wet tropical (Cfa; Köppen's classification), with uniform rainfall (average 2010 mm y<sup>-1</sup>) throughout the year and a hot summer (average temperature 17.9°C; Custódio Filho, 1989).

### Data Collection

### Reviews

We searched for all specimens that were collected in "Boracéia" and "Casa Grande" in the MZUSP collection as well as those of the Museu de Zoologia da Universidade Estadual de Campinas and the Coleção Ornitológica da Universidade Federal de

Minas Gerais. Unpublished reports were also included and the visitor's registry book at the station. Unpublished data from collaborators and visits conducted by colleagues of the Departamento de Zoologia (USP), among others, were included and cited in the acknowledgements.

### Recent Records

All birds we found during systematic field surveys were also included. As part of a larger on-going study, here we only included information from transect counts and mist-netting that were carried out from August 2008 – February 2010. Transects with unlimited distance were walked slowly beginning at dawn along dirt roads running through the station. Mist-nets (10; 12 m x 2.5 m x 30 mm) were placed on five different 1.5-4 m wide trails at least 1 km apart. Nets were open around 6:30 AM and closed only after 5:00 PM, though earlier during inclement weather. Collected specimens were deposited at the MZUSP and tape recordings with Panasonic RQ-L31, at the Arquivo Sonoro do Laboratório de Ornitologia da Universidade de São Paulo.

## RESULTS AND DISCUSSION

During 68 years, 323 bird species were found at Boracéia Biological Station. Non-passerines accounted for 117 species in 32 families while Passerines comprised the remaining 206 species in 26 families. Forest species were > 60% of all bird species, 116 (36%) of which are endemic to the Atlantic forest (Parker *et al.*, 1996; Appendix). Boracéia has about 18% of all bird species recorded in Brazil (CBRO, 2008), 41% in the state of São Paulo (Silveira *et al.*, 2009) and 48% in the Atlantic forest (Goerck, 1997). This diversity and endemism is similar to that found elsewhere in the Serra do Mar of São Paulo (Höfling & Lencioni, 1992; Goerck, 1999; Develey, 2004) and in other nearby mountain ranges, such as Serra de Paranapiacaba (Vielliard & Silva, 1994). The difference in the counts at Boracéia is the smaller elevational gradient (200 m).

### Registry for Visitors

Investigators and birdwatchers who wrote their observations in the station comment book included 34 species.

### Specimens Collected

The first specimens collected in the station (housed at MZUSP) were from 1942 by J.L. Lima and E. Dente on 13 April and 17 September. Following this early start, several researchers have worked at the station and a fine collection has been amassed over the years. The first extensive collections were by H.F.A. Camargo and E. Dente in the mid 1940s. Important contributors were D. Seraglia, L. D'Amico, L. Travassos Filho, M. Ventell, W. Bokermann, E.X. Rabelo, F. Novaes, J.L. Silva, P. Schwartz, D.F. Stotz, and others who collected from 1945 through 1992. No collections date from the 1980s. After the contributions of D.F. Stotz in 1992, F.S.R. Amaral and V. Cavarzere both added to the collections. Today, the MZUSP collection includes 784 specimens of a total of 147 species. Adding specimens collected in Casa Grande from the other museums, the total Boracéia collection includes 906 specimens in 159 species.

A.M. Olalla collected four individuals at "Boracéia, Estado de São Paulo" on 30 January and 7 September 1963 and on 23 May 1964 which might have come from Boracéia Beach, in the city of Bertioaga, and were thus excluded from our analyses.

### Publications

Birds from Boracéia first entered the scientific literature with a study by Camargo (1946), with collections dating from 1-12 November 1945. This first bird list included 84 species, of which 62 were sent to MZUSP. During a short, preliminary visit between 31 August and 7 September 1977, Willis & Oniki (1981) found 132 bird species. A few years later, the same Willis & Oniki (2003) included another 11 species here, some of which may also have included species found elsewhere, and were not included in the species list herein.

### Other Sources and Recent Records

Many ornithologists contributed with bird lists produced over 20 years at Boracéia. These included sporadic visits and birdwatching trips. During our recent field trips, we recorded 242 bird species during approximately 270 transect hours and 920 mist-netting hours; 19 species were not recorded before, of which three are Atlantic forest endemics: two forest species (*Sporophila frontalis* and *S. falcirostris*) and another of *campos de altitude* (*Knipolegus nigerrimus*).

**TABLE 1:** Number of species recorded by and years in which investigators conducted bird surveys on Boracéia Biological Station, state of São Paulo, Brazil.

Source	Years	Number of species reported
Camargo (1946)	1945	84
Willis & Oniki (1981)	1977	132
R. Parrini & J. Minns	1998-2000	130
J. Minns	1987-1998	163
D.F. Stotz	1987	233
C. Gussoni & L. Carlos	2002	80
CEO	2003	79
Willis & Oniki (2003)	1977-2002	11
Departamento de Zoologia, USP	2006	144
Registry book at Station	1991-2009	34
Museums	1942-2009	159
This study	2008-2010	242

Numbers of species recorded during such expeditions and years they were conducted are presented in Table 1.

### Doubtful Records

Four species were each reported only once and need to be checked. While climbing down the slopes of the Serra do Mar, E. Dente was said to have heard the fading whistle of the Black-and-gold Cotinga (*Tijuca atra*; Camargo, 1946). This species, known from higher altitudes and found only in northern São Paulo, has never been seen or heard since. Instead, perhaps it was a Sharpbill (*Oxyrunchus cristatus*) which is a common species on those lower slopes (V. Cavarzere, *pers. obs.*).

Camargo (1946) collected a putative female Rusty-backed Antwren (*Formicivora rufa*) which was destroyed by the shot and thus not prepared and deposited in MZUSP. This species is usually found in open, dry habitats (Sick, 1997) and clearly does not belong to the avifauna of Boracéia. Certainly it was instead a recently discovered species related to the Marsh Antwren (*Stymphalornis acutirostris*; Buzzetti *et al.*, in prep.) and collected near the station. Females of the new species and of Rusty-backed Antwren have similar plumage and may indeed be in the same genus, thus explaining the confusion by H.F.A. Camargo. Another example is the Canebrake Ground-creeper (*Clibanornis dendrocolaptoides*) reported by D.F. Stotz. The only documented record of this species from São Paulo was questioned by Willis & Oniki (2003), who suggested it was from the state of Paraná.

J. Minns' sighting of Red-eyed Thornbird (*Phacelodorus erythrophthalmus*) may have been a recently split taxon, Orange-eyed Thornbird (*P. ferrugineigula*; Simon *et al.*, 2008), of swampy areas which are very common around the station. We have only noted this latter species at Boracéia.

A.M. Olalla probably collected the following species at Boracéia Beach: *Charadrius collaris*, *Chiroxiphia caudata* and *Parula pitiayumi*. We did not include these here because *C. collaris* was never seen at Boracéia, yet is quite common on the beach in the city of Bertioga (V. Cavarzere, *pers. obs.*). We followed the same rules with respect to Willis & Oniki (2003) who noted *Calidris pusilla*, *Amazilia fimbriata*, *Drymophila squamata* and *Cantorchilus longirostris*. Although the hummingbird was seen at the station by D.F. Stotz, these species are typically found in aquatic environments or lower elevation Atlantic forest sites and may have come from the homonymous beach instead of the reserve.

D.F. Stotz reported a few interesting low elevation sightings: *Leucopternis lacernulatus*, *Ramphodon naevius*, *Amazilia fimbriata*, *Trogon viridis*, *Myrmotherula unicolor*, *Formicarius colma*, *Hemitriccus orbitatus*, *Phylloscartes paulista* and *Tachyphonus cristatus*. We have documented only *R. naevius*, *T. viridis* and *M. unicolor*.

Two Boracéia species include the only sightings in the state of São Paulo: Swainson's Thrush *Catharus ustulatus* (specimen collected by E. Dente) and the Cerulean Warbler *Dendroica cerulea*. We did not see these boreal migrants and they deserve more attention to document their status.

### Threatened Species

Boracéia has 28 species that are considered threatened in the state (Silveira *et al.*, 2009), seven species threatened in Brazil (MMA, 2003), and nine globally threatened species (IUCN, 2007; Appendix). At least 88 species, 77% of all threatened bird species in Brazil, are from the Atlantic forest (BirdLife International, 2003). It is shocking that this incredible bird diversity includes so many threatened species and unlike the Amazon forest, where large blocks of primary vegetation can be set aside as preserves, the long-term survival of Atlantic forest birds will depend on conservation of the remaining fragments (Goerck, 1997) that will become ecological refuges for many of these species.

We found that 323 bird species were reported during 68 years at Boracéia. Many of these are

threatened or endemic to the Atlantic forest and several others should be considered for future study so that their status may be confirmed. This incredible diversity must be monitored in long-term studies to understand theoretical issues, such as ecological interactions and evolution of the bird communities of the Atlantic forest, as well as conservation issues and to insure that threatened species are adequately monitored and to confirm doubtful records. Boracéia Biological Station is an extremely important site for Atlantic forest bird study and conservation in the state of São Paulo.

### RESUMO

*A Estação Biológica de Boracéia, localizada em Salesópolis, SP, situa-se na Serra do Mar, importante região biogeográfica e um dos centros de endemismo mais bem definidos do Brasil. Apesar de instituída em 1954, quando passou a pertencer ao Museu de Zoologia da Universidade de São Paulo, a avifauna desta localidade já era objeto de pesquisas desde a década de 1940, época em que foram realizadas as primeiras coletas de aves. Aqui é apresentada pela primeira vez uma revisão de todos os registros avifaunísticos realizados nessa localidade ao longo de mais de 68 anos assim como a adição de novos registros com base em dados coletados recentemente com transectos lineares e redes de neblina. Os registros para Boracéia estiveram representados em museus, na literatura e em dados não publicados que, somados aos registros recentes, acumularam 323 espécies de aves para a localidade. Destas, 117 são endêmicas da Mata Atlântica e 28 estão sob diferentes graus de ameaça no Estado. Embora alguns registros possam ser duvidosos e necessitem de confirmação, algumas espécies representam os únicos registros para o Estado. Boracéia inclui ainda uma espécie recém descoberta em áreas próximas, sendo de grande importância para a conservação das aves de Mata Atlântica.*

PALAVRAS-CHAVE: Mata Atlântica Montana; Transectos lineares; Redes de neblina; Riqueza; Coleção ornitológica.

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## APPENDIX

Birds recorded at the Boracéia Biological Station, state of São Paulo, Brazil. SP: threatened status at the state level (Silveira *et al.*, 2010), BR: country level (MMA, 2003) and GL: global level (IUCN, 2007); CR = critically endangered, EN = endangered, VU = vulnerable. End = endemic to the Atlantic forest. [A] Camargo (1946), [B] Willis & Oniki (1981), [C] J. Minns & R. Parrini, [D] J. Minns, [E] D.F. Stotz, [F] C. Gussoni & L. Carlos, [G] CEO, [H] Willis & Oniki (2003), [I] Departamento de Zoologia (USP), [J] Station registry book, [K] Museums, [L] this study. Evidence: A = aural, C = collected, P = photographed, R = tape-recorded, V = visual.

Family/Species	English name	Records	SP	BR	GL	Evidence
Tinamidae (2)						
<i>Tinamus solitarius</i> <sup>end</sup>	Solitary Tinamou	A,D,E,G,I,L	VU			G
<i>Crypturellus obsoletus</i>	Brown Tinamou	A,B,C,D,E,G,I,K,L				C
Anatidae (1)						
<i>Nomonyx dominica</i>	Masked Duck	L				A
Cracidae (2)						
<i>Penelope obscura</i>	Dusky-legged Guan	D,E,I,L				R
<i>Aburria jacutinga</i> <sup>end</sup>	Black-fronted Piping-Guan	E,L	CR	EN	EN	V
Odontophoridae (1)						
<i>Odontophorus capueira</i> <sup>end</sup>	Spot-winged Wood-Quail	A,B,C,D,E,G,I,K,L				C
Podicipedidae (1)						
<i>Podilymbus podiceps</i>	Pied-billed Grebe	E,I,L				P
Phalacrocoracidae (1)						
<i>Phalacrocorax brasilianus</i>	Neotropic Cormorant	L				V
Anhingidae (1)						
<i>Anhinga anhinga</i>	Anhinga	J				V
Fregaridae (1)						
<i>Fregata magnificens</i>	Magnificent Frigatebird	E,L				V
Ardeidae (5)						
<i>Ixobrychus exilis</i>	Least Bittern	J				V
<i>Butorides striata</i>	Striated Heron	E,L				V
<i>Bubulcus ibis</i>	Cattle Egret	E				V
<i>Ardea cocoi</i>	Cocoi Heron	L				V
<i>Ardea alba</i>	Great Egret	E,L				V
Threskiornithidae (1)						
<i>Theristicus caudatus</i>	Buff-necked Ibis	L				V
Cathartidae (2)						
<i>Cathartes aura</i>	Turkey Vulture	E,L				V
<i>Coragyps atratus</i>	Black Vulture	B,C,D,E,F,G,I,L				P
Accipitridae (12)						
<i>Leptodon cayanensis</i>	Gray-headed Kite	A,E,K,L				C
<i>Harpagus diodon</i>	Rufous-thighed Kite	D,E,K,L				C
<i>Accipiter striatus</i>	Sharp-shinned Hawk	D,E,L				P
<i>Accipiter bicolor</i>	Bicolored Hawk	E,I				V
<i>Leucopternis lacernulatus</i> <sup>end</sup>	White-necked Hawk	E	VU	EN	VU	V
<i>Leucopternis polionotus</i> <sup>end</sup>	Mantled Hawk	B,C,D,E,J,L	VU			V
<i>Percnobiaerax leucorrhous</i>	White-rumped Hawk	E,K,L				C
<i>Rupornis magnirostris</i>	Roadside Hawk	B,C,D,E,F,G,I,K,L				C
<i>Buteo albicaudatus</i>	White-tailed Hawk	D				V
<i>Buteo brachyurus</i>	Short-tailed Hawk	D,E,I,L				P
<i>Spizaetus tyrannus</i>	Black Hawk-Eagle	B,C,D,E,L	VU			P
<i>Spizaetus melanoleucus</i>	Black-and-white Hawk-Eagle	H	CR			V
Falconidae (5)						
<i>Caracara plancus</i>	Southern Caracara	F,I,L				P
<i>Milvago chimachima</i>	Yellow-headed Caracara	A,B,C,D,E,F,G,I,L				P

Family/Species	English name	Records	SP	BR	GL	Evidence
<i>Herpotheres cachinnans</i>	Laughing Falcon	E,I,L				A
<i>Micrastur ruficollis</i>	Barred Forest-Falcon	B,C,D,E,F,G,I,K,L				C
<i>Micrastur semitorquatus</i>	Collared Forest-Falcon	D,J,L				R
Rallidae (3)						
<i>Aramides cajanea</i>	Gray-necked Wood-Rail	I				A
<i>Aramides saracura</i> <sup>end</sup>	Slaty-breasted Wood-Rail	D,E,G,L				R
<i>Porzana albicollis</i>	Ash-throated Crane	E,J				A
<i>Pardirallus nigricans</i>	Blackish Rail	L				A
Charadriidae (1)						
<i>Vanellus chilensis</i>	Southern Lapwing	D,F,I,L				V
Scolopacidae (1)						
<i>Actitis macularius</i>	Spotted Sandpiper	I,L				P
Jacanidae (1)						
<i>Jacana jacana</i>	Wattled Jacana	F,L				V
Columbidae (7)						
<i>Columbina talpacoti</i>	Ruddy Ground-Dove	D,J,L				V
<i>Claravis godefrida</i> <sup>end</sup>	Purple-winged Ground-Dove	E	CR	EN	CR	V
<i>Patagioenas picazuro</i>	Picazuro Pigeon	I,L				V
<i>Patagioenas cayennensis</i>	Pale-vented Pigeon	A,F				A
<i>Patagioenas plumbea</i>	Plumbeous Pigeon	B,C,D,E,I,L				V
<i>Leptotila rufaxilla</i>	Gray-fronted Dove	A,B,C,D,E,K,L				C
<i>Geotrygon montana</i>	Ruddy Quail-Dove	A,E,I,K,L				C
Psittacidae (7)						
<i>Pyrhura frontalis</i> <sup>end</sup>	Maroon-bellied Parakeet	B,C,D,E,F,I,K,L				C
<i>Forpus xanthopterygius</i>	Blue-winged Parrotlet	B,C,E,F,L				V
<i>Brotogeris tirica</i> <sup>end</sup>	Plain Parakeet	B,C,D,E,F,G,I,L				R
<i>Touit surdus</i> <sup>end</sup>	Golden-tailed Parrotlet	E				A
<i>Pionopsitta pileata</i> <sup>end</sup>	Pileated Parrot	B,C,D,E,G,I,L				R
<i>Pionus maximiliani</i>	Scaly-headed Parrot	B,C,D,E,F,G,I,L				R
<i>Triclaria malachitacea</i> <sup>end</sup>	Blue-bellied Parrot	A,D,E,F,G,I,J,K,L	VU			C
Cuculidae (4)						
<i>Piaya cayana</i>	Squirrel Cuckoo	B,C,D,E,F,I,L				V
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo	I,J				V
<i>Crotophaga ani</i>	Smooth-billed Ani	E,L				P
<i>Guira guira</i>	Guira Cuckoo	L				V
<i>Tapera naevia</i>	Striped Cuckoo	L				A
Tytonidae (1)						
<i>Tyto alba</i>	Barn Owl	E				V
Strigidae (7)						
<i>Megascops choliba</i>	Tropical Screech-Owl	F				A
<i>Megascops atricapilla</i>	Black-capped Screech-Owl	E,K,L				C
<i>Pulsatrix koenigswaldiana</i> <sup>end</sup>	Tawny-browed Owl	E,K,L				C
<i>Strix hylophila</i> <sup>end</sup>	Rusty-barred Owl	E,K				C
<i>Strix virgata</i>	Mottled Owl	D,L				A
<i>Glaucidium minutissimum</i> <sup>end</sup>	Least Pygmy-Owl	D,E,G,J,L				A
<i>Glaucidium brasilianum</i>	Ferruginous Pygmy-Owl	E,L				R
Nyctibiidae (2)						
<i>Nyctibius aethereus</i>	Large-tailed Potoo	G	CR			R
<i>Nyctibius griseus</i>	Common Potoo	E,F,I,L				A
Caprimulgidae (5)						
<i>Lurocalis semitorquatus</i>	Short-tailed Nighthawk	D,E,I,K,L				C
<i>Chordeiles minor</i>	Common Nighthawk	J				A
<i>Nyctidromus albicollis</i>	Pauraque	F,L				V
<i>Hydropsalis torquata</i>	Scissor-tailed Nightjar	G				V

Family/Species	English name	Records	SP	BR	GL	Evidence
<i>Macropsalis forcipata</i> <sup>end</sup>	Long-trained Nightjar	K,L				C
Apodidae (4)						
<i>Cypseloides fumigatus</i>	Sooty Swift	B,C,E,L				P
<i>Streptoprocne zonaris</i>	White-collared Swift	B,C,D,E,I,K,L				C
<i>Chaetura cinereiventris</i>	Gray-rumped Swift	D,E,K,L				C
<i>Chaetura meridionalis</i>	Sick's Swift	B,C,E,F,I,K,L				C
Trochilidae (18)						
<i>Ramphodon naevius</i> <sup>end</sup>	Saw-billed Hermit	E,K,L				V
<i>Phaethornis eurynome</i> <sup>end</sup>	Scale-throated Hermit	A,B,C,D,E,F,G,K,L				C
<i>Eupetomena macroura</i>	Swallow-tailed Hummingbird	E,L				V
<i>Florisuga fusca</i> <sup>end</sup>	Black Jacobin	A,D,E,K,L				R
<i>Colibri serrirostris</i>	White-vented Violet-ear	E,L				P
<i>Stephanoxis lalandi</i> <sup>end</sup>	Plovercrest	A				V
<i>Lophornis magnificus</i>	Frilled Coquette	A,B,C,J	VU			V
<i>Lophornis chalybeus</i>	Festive Coquette	J				V
<i>Discosura langsdorffi</i>	Racket-tailed Coquette	H		EN		V
<i>Chlorostilbon lucidus</i>	Glittering-bellied Emerald	A,D,E,K,L				C
<i>Thalurania glaucopis</i> <sup>end</sup>	Violet-capped Woodnymph	A,B,C,D,E,F,I,K,L				C
<i>Hylocharis cyanus</i>	White-chinned Sapphire	J,K,L				C
<i>Leucochloris albicollis</i> <sup>end</sup>	White-throated Hummingbird	A,E,I,K,L				C
<i>Amazilia versicolor</i>	Versicolored Emerald	D,E,F,I,K,L				C
<i>Amazilia fimbriata</i>	Glittering-throated Emerald	J				C
<i>Amazilia lactea</i>	Sapphire-spangled Emerald	J,L				P
<i>Clytolaema rubricauda</i> <sup>end</sup>	Brazilian Ruby	A,B,C,D,E,F,G,I,K,L				C
<i>Calliphlox amethystina</i>	Amethyst Woodstar	L				P
Trogonidae (3)						
<i>Trogon viridis</i>	White-tailed Trogon	E,L				P
<i>Trogon surrucura</i> <sup>end</sup>	Surucua Trogon	A,B,C,D,E,G,I,L				R
<i>Trogon rufus</i>	Black-throated Trogon	A,B,C,D,E,I,K,L				C
Alcedinidae (3)						
<i>Megaceryle torquata</i>	Ringed Kingfisher	D,E,FL				V
<i>Chloroceryle amazona</i>	Amazon Kingfisher	E,I,L				V
<i>Chloroceryle americana</i>	Green Kingfisher	E,I,L				V
Momotidae (1)						
<i>Baryphthengus ruficapillus</i> <sup>end</sup>	Rufous-capped Motmot	I,L				R
Bucconidae (1)						
<i>Nystalus chacuru</i>	White-eared Puffbird	L				P
Ramphastidae (3)						
<i>Ramphastos dicolorus</i> <sup>end</sup>	Red-breasted Toucan	B,C,D,E,F,G,I,L				R
<i>Selenidera maculirostris</i> <sup>end</sup>	Spot-billed Toucanet	D,E,L				A
<i>Pteroglossus bailloni</i> <sup>end</sup>	Saffron Toucanet	E,L	VU			R
Picidae (8)						
<i>Picumnus cirratus</i>	White-barred Piculet	D,E,I,K,L				C
<i>Melanerpes flavifrons</i> <sup>end</sup>	Yellow-fronted Woodpecker	G				V
<i>Veniliornis spilogaster</i> <sup>end</sup>	White-spotted Woodpecker	A,B,C,D,E,F,G,I,K,L				C
<i>Piculus aurulentus</i> <sup>end</sup>	Yellow-browed Woodpecker	A,B,C,D,E,I,K,L				C
<i>Colaptes melanochloros</i>	Green-barred Woodpecker	B,C,D,E				V
<i>Colaptes campestris</i>	Campo Flicker	J,L				V
<i>Celeus flavescens</i>	Blond-crested Woodpecker	F,I,L				A
<i>Dryocopus lineatus</i>	Lineated Woodpecker	E,L				V
Thamnophilidae (17)						
<i>Hypoedaleus guttatus</i> <sup>end</sup>	Spot-backed Antshrike	B,C,D,E,I,K,L				C
<i>Batara cinerea</i>	Giant Antshrike	B,C,D,E,G,I,K,L				C
<i>Mackenziaena severa</i> <sup>end</sup>	Tufted Antshrike	D,E				A



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<i>Thamnophilus ruficapillus</i>	Rufous-capped Antshrike	A,E,K				C
<i>Thamnophilus caerulescens</i> <sup>end</sup>	Variable Antshrike	B,C,D,E,F,G,I,K,L				C
<i>Dysithamnus mentalis</i>	Plain Antwreio	B,C,D,E,F,G,I,K,L				C
<i>Dysithamnus xanthopterus</i> <sup>end</sup>	Rufous-backed Antwreio	B,C,D,E,K,L				C
<i>Myrmotherula gularis</i> <sup>end</sup>	Star-throated Antwren	B,C,D,E,F,G,I,K,L				C
<i>Myrmotherula minor</i> <sup>end</sup>	Salvadori's Antwren	G,J,K	VU	EN	VU	C
<i>Myrmotherula unicolor</i> <sup>end</sup>	Unicolored Antwren	E,L	VU			A
<i>Formicivora</i> aff. <i>acutirostris</i> <sup>end</sup>	São Paulo Antwren	A	CR			
<i>Drymophila ferruginea</i> <sup>end</sup>	Ferruginous Antbird	B,C,D,E,I,L				G
<i>Drymophila ochropyga</i> <sup>end</sup>	Ochre-rumped Antbird	B,C,E,K,L				C
<i>Drymophila malura</i> <sup>end</sup>	Dusky-tailed Antbird	B,C,D,E,F,L				G
<i>Terenura maculata</i> <sup>end</sup>	Streak-capped Antwren	B,C,D,E,I,L				G
<i>Pyriglena leucoptera</i> <sup>end</sup>	White-shouldered Fire-eye	A,B,C,D,E,F,G,I,K,L				C
<i>Myrmeciza squamosa</i> <sup>end</sup>	Squamate Antbird	A,B,C,D,E,F,G,I,K,L				C
Conopophagidae (2)						
<i>Conopophaga lineata</i> <sup>end</sup>	Rufous Gnateater	A,D,F,G,K,L				C
<i>Conopophaga melanops</i> <sup>end</sup>	Black-cheeked Gnateater	J,K,L				C
Grallariidae (2)						
<i>Grallaria varia</i>	Variiegated Antpitta	B,C,D,E,G,I,K,L				C
<i>Hylopezus nattereri</i> <sup>end</sup>	Speckle-breasted Antpitta	A,K,L				C
Rhinocryptidae (3)						
<i>Merulaxis ater</i> <sup>end</sup>	Slaty Bristlefront	A,D,E,F,G,K,L				C
<i>Scytalopus notorius</i> <sup>end</sup>	Serra do Mar Tapaculo	B,C,D,E,L				A
<i>Scytalopus indigoticus</i> <sup>end</sup>	White-breasted Tapaculo	E				A
Formicariidae (3)						
<i>Formicarius colma</i>	Rufous-capped Anthrush	E				A
<i>Chamaeza campanisona</i> <sup>end</sup>	Short-tailed Anthrush	A,B,C,D,E,F,G,I,K,L				C
<i>Chamaeza meruloides</i> <sup>end</sup>	Such's Anthrush	D,I,K,L				C
Scleruridae (1)						
<i>Sclerurus scansor</i> <sup>end</sup>	Rufous-breasted Leaf-tosser	A,B,C,D,E,F,G,K,L				C
Dendrocolaptidae (7)						
<i>Dendrocincla turdina</i> <sup>end</sup>	Plain-winged Woodcreeper	B,C,D,E,K,L				C
<i>Sittasomus griseicapillus</i>	Olivaceous Woodcreeper	A,B,C,D,E,F,G,I,K,L				C
<i>Xiphocolaptes albicollis</i>	White-throated Woodcreeper	B,C,D,E,F,G,I,K,L				G
<i>Dendrocolaptes platyrostris</i>	Planalto Woodcreeper	A,B,C,D,E,I,K,L				C
<i>Xiphorhynchus fuscus</i> <sup>end</sup>	Lesser Woodcreeper	A,B,C,D,E,F,G,I,K,L				C
<i>Lepidocolaptes falcinellus</i> <sup>end</sup>	Scalloped Woodcreeper	B,C,D,E,F,G,I,K,L				C
<i>Campylorhynchus falcularius</i> <sup>end</sup>	Red-billed Scythebill	B,C,I				A
Furnariidae (20)						
<i>Furnarius rufus</i>	Rufous Hornero	B,C,E,F,G,I,L				V
<i>Synallaxis ruficapilla</i> <sup>end</sup>	Rufous-capped Spinetail	A,B,C,D,E,F,G,I,K,L				C
<i>Synallaxis cinerascens</i> <sup>end</sup>	Gray-bellied Spinetail	E,K				C
<i>Synallaxis spixi</i>	Spix's Spinetail	A,B,C,D,E,I,K,L				C
<i>Cranioleuca pallida</i> <sup>end</sup>	Pallid Spinetail	A,B,C,D,E,I,K,L				C
<i>Certhiaxis cinnamomeus</i>	Yellow-chinned Spinetail	B,C,E,F,G				A
<i>Phacellodomus ferrugineigula</i> <sup>end</sup>	Red-eyed Thornbird	D,J,L				A
<i>Clibanornis dendrocolaptoides</i> <sup>end</sup>	Canebrake Ground-Creeper	E				A
<i>Anabacerthia amaurotis</i> <sup>end</sup>	White-browed Foliage-gleaner	A,B,C,D,E,F,K,L				C
<i>Syndactyla rufosuperciliata</i>	Buff-browed Foliage-gleaner	A,B,D,E,G,I,K,L				C
<i>Philydor lichensteini</i> <sup>end</sup>	Ochre-breasted Foliage-gleaner	D,J				V
<i>Philydor atricapillus</i> <sup>end</sup>	Black-capped Foliage-gleaner	A,B,C,D,E,I,K,L				C
<i>Philydor rufum</i>	Buff-fronted Foliage-gleaner	D,E,I,K,L				R
<i>Anabazenops fuscus</i> <sup>end</sup>	White-collared Foliage-gleaner	B,C,D,E,I,K,L				C
<i>Cichlocolaptes leucophrus</i> <sup>end</sup>	Pale-browed Treehunter	A,B,C,D,E,I,K,L				C

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<i>Automolus leucophthalmus</i> <sup>end</sup>	White-eyed Foliage-gleaner	D,E,F,G,I,K,L				C
<i>Lochmias nematura</i>	Sharp-tailed Streamcreeper	B,C,D,E,F,G,I,K,L				C
<i>Heliobletus contaminatus</i> <sup>end</sup>	Sharp-billed Treehunter	A,B,C,D,E,K,L				C
<i>Xenops minutus</i>	Plain Xenops	B,C,D,E,K,L				C
<i>Xenops rutilans</i>	Streaked Xenops	B,C,D,E,K,L				C
Tyrannidae (58)						
<i>Mionectes rufiventris</i> <sup>end</sup>	Gray-hooded Flycatcher	B,C,D,E,K,L				C
<i>Leptopogon amaurocephalus</i>	Sepia-capped Flycatcher	B,C,D,E,G,I,K,L				C
<i>Hemitriccus diops</i> <sup>end</sup>	Drab-breasted Bamboo-Tyrant	A,B,C,D,E,K,L				C
<i>Hemitriccus orbitatus</i> <sup>end</sup>	Eye-ringed Tody-Tyrant	E				A
<i>Hemitriccus nidipendulus</i> <sup>end</sup>	Hangnest Tody-Tyrant	B,C,E,I,K,L				C
<i>Myiornis auricularis</i> <sup>end</sup>	Eared Pygmy-Tyrant	A,B,C,D,E,I,L				R
<i>Poecilatriccus plumbeiceps</i>	Ochre-faced Tody-Flycatcher	B,C,D,E,G,I,L				R
<i>Todirostrum poliocephalum</i> <sup>end</sup>	Yellow-lored Tody-Flycatcher	B,C,D,E,L				R
<i>Phyllomyias burmeisteri</i>	Rough-legged Tyrannulet	D,I,K,L				C
<i>Phyllomyias virescens</i>	Greenish Tyrannulet	D,E				V
<i>Phyllomyias fasciatus</i>	Planalto Tyrannulet	B,C,E,F,I,L				R
<i>Phyllomyias griseicapilla</i> <sup>end</sup>	Gray-capped Tyrannulet	B,C,D,E,L				R
<i>Myiopagis caniceps</i>	Gray Elaenia	E				V
<i>Elaenia flavogaster</i>	Yellow-bellied Elaenia	E,L				A
<i>Elaenia albiceps</i>	White-crested Elaenia	E				A
<i>Elaenia parvirostris</i>	Small-billed Elaenia	E				A
<i>Elaenia mesoleuca</i>	Olivaceous Elaenia	E,K,L				C
<i>Elaenia obscura</i>	Highland Elaenia	E,L				R
<i>Camptostoma obsoletum</i>	Southern Beardless-Tyrannulet	B,C,D,E,I,L				R
<i>Serpophaga nigricans</i>	Sooty Tyrannulet	D,E,I,L				P
<i>Serpophaga subcristata</i>	White-crested Tyrannulet	A,B,C,E,I,K,L				C
<i>Phylloscartes eximius</i> <sup>end</sup>	Southern Bristle-Tyrant	E	VU			V
<i>Phylloscartes ventralis</i>	Mottle-cheeked Tyrannulet	A,B,C,D,E,K,L				C
<i>Phylloscartes paulista</i> <sup>end</sup>	Sao Paulo Tyrannulet	E	VU			V
<i>Phylloscartes oustaleti</i> <sup>end</sup>	Oustalet's Tyrannulet	A,B,C,D,E,I,K,L				C
<i>Phylloscartes sylviolus</i> <sup>end</sup>	Bay-ringed Tyrannulet	G				R
<i>Tolmomyias sulphurescens</i>	Yellow-olive Flycatcher	B,C,D,E,F,G,I,K,L				R
<i>Platyrinchus mystaceus</i>	White-throated Spadebill	A,B,C,D,E,F,G,I,K,L				C
<i>Platyrinchus leucoryphus</i> <sup>end</sup>	Russet-winged Spadebill	A,D,J,K	VU		VU	C
<i>Onychorhynchus swainsoni</i> <sup>end</sup>	Atlantic Royal Flycatcher	B,C,J,K	VU		VU	C
<i>Myiophobus fasciatus</i>	Bran-colored Flycatcher	D,E,F,I,K,L				C
<i>Myiobius atricaudus</i>	Black-tailed Flycatcher	E,K				C
<i>Hirundinea ferruginea</i>	Cliff Flycatcher	E,F,I,L				P
<i>Lathrotriccus euleri</i>	Euler's Flycatcher	A,D,E,F,G,I,K,L				C
<i>Cnemotriccus fuscatus</i>	Fuscous Flycatcher	J,K				C
<i>Contopus cooperi</i>	Olive-sided Flycatcher	E,H				V
<i>Contopus cinereus</i>	Tropical Pewee	B,C,E				V
<i>Knipolegus cyanirostris</i>	Blue-billed Black-Tyrant	A,E,K,L				C
<i>Knipolegus nigerrimus</i> <sup>end</sup>	Velvety Black-Tyrant	L				P
<i>Satrapa icterophrys</i>	Yellow-browed Tyrant	L				V
<i>Xolmis velatus</i>	White-rumped Monjita	L				P
<i>Muscipipra vetula</i> <sup>end</sup>	Shear-tailed Gray Tyrant	B,C,E				V
<i>Colonia colonus</i>	Long-tailed Tyrant	L				P
<i>Machetornis rixosa</i>	Cattle Tyrant	A,E,I,K,L				C
<i>Legatus leucophaeus</i>	Piratic Flycatcher	D,E,I,K,L				C
<i>Myiozetetes similis</i>	Social Flycatcher	B,C,D,E,I,L				V
<i>Pitangus sulphuratus</i>	Great Kiskadee	B,C,D,E,F,G,I,L				V
<i>Myiodynastes maculatus</i>	Streaked Flycatcher	A,D,E,I,K,L				C

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<i>Megarynchus pitangua</i>	Boat-billed Flycatcher	D,E,F,G,L				A
<i>Empidonomus varius</i>	Variiegated Flycatcher	E,L				P
<i>Tyrannus melancholicus</i>	Tropical Kingbird	A,D,E,F,I,K,L				C
<i>Tyrannus savana</i>	Fork-tailed Flycatcher	E,H,I,L				C
<i>Sirystes sibilator</i>	Sirystes	B,C				A
<i>Myiarchus swainsoni</i>	Swainson's Flycatcher	E,I,K,L				C
<i>Myiarchus ferox</i>	Short-crested Flycatcher	A,D,E,K				C
<i>Ramphotrigon megacephalum</i>	Large-headed Flatbill	B,C,E				A
<i>Attila phoenicurus</i>	Rufous-tailed Attila	A,D,E,G,I,K,L				C
<i>Attila rufus</i> <sup>end</sup>	Gray-hooded Attila	B,C,D,E,F,G,I,K,L				C
Cotingidae (5)						
<i>Phibalura flavirostris</i>	Swallow-tailed Cotinga	E,J				V
<i>Carpornis cucullata</i> <sup>end</sup>	Hooded Berryeater	A,B,C,D,E,F,G,I,J,K,L				C
<i>Procnias nudicollis</i> <sup>end</sup>	Bare-throated Bellbird	A,B,C,D,E,I,J,K,L	VU			C
<i>Tijuca atra</i> <sup>end</sup>	Black-and-gold Cotinga	A				A
<i>Pyroderus scutatus</i>	Red-ruffed Fruitcrow	D,E,G,I,L	VU			V
Pipridae (5)						
<i>Neopelma chrysolophum</i> <sup>end</sup>	Serra do Mar Tyrant-Manakin	B,I,K,L				C
<i>Piprites chloris</i>	Wing-barred Piprites	B,C,D,E,K,L				C
<i>Ilicura militaris</i> <sup>end</sup>	Pin-tailed Manakin	B,C,D,E,I,J,K,L				C
<i>Manacus manacus</i>	White-bearded Manakin	H,K				C
<i>Chiroxiphia caudata</i> <sup>end</sup>	Blue Manakin	A,B,C,D,E,F,G,I,K,L				C
Tityridae (8)						
<i>Oxyruncus cristatus</i>	Sharpbill	A,B,C,D,E,K,L				C
<i>Schiffornis virescens</i> <sup>end</sup>	Greenish Schiffornis	B,C,D,E,F,G,I,K,L				C
<i>Laniisoma elegans</i>	Shrike-like Cotinga	A,I,K,L	VU			C
<i>Tityra cayana</i>	Black-tailed Tityra	D,E,I,K,L				C
<i>Pachyrhamphus viridis</i>	Green-backed Becard	B,C,D,E,K,L				C
<i>Pachyrhamphus castaneus</i>	Chestnut-crowned Becard	B,C,D,E,G,I,K,L				C
<i>Pachyrhamphus polychopterus</i>	White-winged Becard	A,D,E,I,K,L				C
<i>Pachyrhamphus validus</i>	Crested Becard	A,E,I,K,L				C
Vireonidae (3)						
<i>Cyclarhis gujanensis</i>	Rufous-browed Peppershrike	B,C,D,E,F,G,I,K,L				C
<i>Vireo olivaceus</i>	Red-eyed Vireo	A,D,E,F,I,K,L				C
<i>Hylophilus poicilotis</i> <sup>end</sup>	Rufous-crowned Greenlet	B,C,D,E,I,K,L				C
Hirundinidae (7)						
<i>Pygochelidon cyanoleuca</i>	Blue-and-white Swallow	A,B,C,D,E,F,G,I,K,L				C
<i>Stelgidopteryx ruficollis</i>	Southern Rough-winged Swallow	A,B,C,D,E,F,I,K,L				C
<i>Progne tapera</i>	Brown-chested Martin	D,E,I				V
<i>Progne chalybea</i>	Grey-breasted Martin	A,B,C,D,E,G,I,K,L				C
<i>Tachycineta leucorrhoa</i>	White-rumped Swallow	E				V
<i>Riparia riparia</i>	Bank Swallow	L				P
<i>Petrochelidon pyrrhonota</i>	Cliff Swallow	K				C
Troglodytidae (1)						
<i>Troglodytes musculus</i>	Southern House-Wren	A,B,C,D,E,F,I,K,L				C
Poliopitilidae (1)						
<i>Ramphocaenus melanurus</i>	Long-billed Gnatwren	F				A
Turdidae (6)						
<i>Catharus ustulatus</i>	Swainson's Thrush	K				C
<i>Turdus flavipes</i> <sup>end</sup>	Yellow-legged Thrush	A,B,C,D,E,I,K,L				C
<i>Turdus rufiventris</i>	Rufous-bellied Thrush	B,C,D,E,F,G,I,K,L				C
<i>Turdus leucomelas</i>	Pale-breasted Thrush	L				V
<i>Turdus amaurochalinus</i>	Creamy-bellied Thrush	A,B,C,E,G,I,K,L				C
<i>Turdus albicollis</i>	White-necked Thrush	B,C,D,E,G,I,K,L				C

Family/Species	English name	Records	SP	BR	GL	Evidence
Mimidae (2)						
<i>Mimus saturninus</i>	Chalk-browed Mockingbird	E,L				V
<i>Mimus triurus</i>	White-banded Mockingbird	D,J				V
Coerebidae (1)						
<i>Coereba flaveola</i>	Bananaquit	A,B,C,D,E,F,G,I,K,L				C
Thraupidae (23)						
<i>Orchesticus abeillei</i> <sup>end</sup>	Brown Tanager	A,D,E,I,K				C
<i>Schistochlamys ruficapillus</i>	Cinnamon Tanager	E				V
<i>Cissopis leverianus</i>	Magpie Tanager	I				V
<i>Orthogonyx chloricterus</i> <sup>end</sup>	Olive-green Tanager	A,B,C,D,E,I,K,L				C
<i>Pyrrhocomma ruficeps</i> <sup>end</sup>	Chestnut-headed Tanager	H,K				C
<i>Trichothraupis melanops</i> <sup>end</sup>	Black-goggled Tanager	B,C,D,E,G,I,K,L				C
<i>Habia rubica</i>	Red-crowned Ant-Tanager	A,B,C,D,E,G,K,L				C
<i>Tachyphonus cristatus</i>	Flame-crested Tanager	J				V
<i>Tachyphonus coronatus</i> <sup>end</sup>	Ruby-crowned Tanager	B,C,D,E,F,G,I,K,L				C
<i>Thraupis sayaca</i>	Sayaca Tanager	B,C,D,E,F,G,I,K,L				C
<i>Thraupis cyanoptera</i> <sup>end</sup>	Azure-shouldered Tanager	A,B,C,D,E,G,I,K,L				C
<i>Thraupis ornata</i> <sup>end</sup>	Golden-chevroned Tanager	B,C,D,E,I,K,L				C
<i>Thraupis palmarum</i>	Palm Tanager	D,E,L				V
<i>Pipraeidea melanonota</i>	Fawn-breasted Tanager	B,C,D,E,I,K,L				C
<i>Tangara seledon</i> <sup>end</sup>	Green-headed Tanager	A,B,C,D,E,F,I,K,L				C
<i>Tangara cyanocephala</i> <sup>end</sup>	Red-necked Tanager	A,B,C,D,E,I,K,L				C
<i>Tangara desmaresti</i> <sup>end</sup>	Brassy-breasted Tanager	A,B,C,D,E,K,L				C
<i>Tangara cayana</i>	Burnished-buff Tanager	I,J,L				A
<i>Tersina viridis</i>	Swallow Tanager	L				P
<i>Dacnis nigripes</i> <sup>end</sup>	Black-legged Dacnis	J,K	VU			C
<i>Dacnis cayana</i>	Blue Dacnis	B,C,D,E,G,I,L				V
<i>Hemithraupis ruficapilla</i> <sup>end</sup>	Rufous-headed Tanager	E,K,L				C
<i>Conirostrum speciosum</i>	Chestnut-vented Conebill	G				V
Emberizidae (11)						
<i>Zonotrichia capensis</i>	Rufous-collared Sparrow	A,B,C,D,E,F,G,I,K,L				V
<i>Haplospiza unicolor</i> <sup>end</sup>	Uniform Finch	A,E,F,G,J,K,L				C
<i>Donacospiza albifrons</i>	Long-tailed Reed-Finch	E	VU			V
<i>Sicalis flaveola</i>	Saffron Finch	A,K,L				C
<i>Volatinia jacarina</i>	Blue-black Grassquit	E,L				V
<i>Sporophila frontalis</i> <sup>end</sup>	Buffy-fronted Seedeater	L	CR	EN	VU	A
<i>Sporophila falcirostris</i> <sup>end</sup>	Temmink's Seedeater	L	CR	VU	VU	R
<i>Sporophila lineola</i>	Lined Seedeater	L				P
<i>Sporophila caeruleascens</i>	Double-collared Seedeater	B,C,E,F,K,L				C
<i>Sporophila angolensis</i>	Chestnut-bellied Seed-Finch	K	VU			C
<i>Tiaris fuliginosus</i>	Sooty Grassquit	K				C
<i>Arremon semitorquatus</i> <sup>end</sup>	Half-collared Sparrow	K				C
Cardinalidae (4)						
<i>Saltator fuliginosus</i> <sup>end</sup>	Black-throated Grosbeak	B,C,D,E,F,G,I,K,L				G
<i>Saltator similis</i>	Green-winged Saltator	B,C,D,E,F,G,I,K,L				C
<i>Saltator maxillosus</i> <sup>end</sup>	Thick-billed Saltator	E				V
<i>Cyanoloxia brissonii</i>	Ultramarine Grosbeak	E	VU			V
Parulidae (6)						
<i>Parula pitiayumi</i>	Tropical Parula	D,E,K,L				C
<i>Dendroica cerulea</i>	Cerulean Warbler	J				V
<i>Geothlypis aequinoctialis</i>	Masked Yellowthroat	A,B,C,D,E,F,G,I,K,L				C
<i>Basileuterus culicivorus</i>	Golden-crowned Warbler	A,B,C,D,E,F,I,K,L				C
<i>Basileuterus leucoblepharus</i> <sup>end</sup>	White-browed Warbler	B,C,D,E,K,L				C
<i>Phaeothlypis rivularis</i>	Neotropical River Warbler	D,E,K,L				C

Family/Species	English name	Records	SP	BR	GL	Evidence
Icteridae (2)						
<i>Cacicus chrysopterus</i>	Golden-winged Cacique	A,B,C,D,E,F,G,I,K,L				C
<i>Molothrus bonariensis</i>	Shiny Cowbird	E,L				V
Fringillidae (5)						
<i>Carduelis magellanica</i>	Hooded Siskin	K,L				P
<i>Euphonia chalybea</i> <sup>nd</sup>	Green-chinned Euphonia	E,H,L	VU			P
<i>Euphonia cyanocephala</i>	Golden-rumped Euphonia	E				V
<i>Euphonia pectoralis</i> <sup>nd</sup>	Chestnut-bellied Euphonia	B,C,D,E,F,G,I,K,L				C
<i>Chlorophonia cyanea</i>	Blue-naped Chlorophonia	J				V
Passeridae (1)						
<i>Passer domesticus</i>	House Sparrow	B,C,I,L				V