

The birds of Reserva Ecológica Guapiaçu (REGUA), Rio de Janeiro, Brazil

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É apresentada uma lista da avifauna da Reserva Ecológica de Guapiaçu (REGUA), uma reserva privada de 6.500 ha localizada no município de Cachoeiras de Macacu, vizinha ao Parque Estadual dos Três Picos, Estação Ecológica do Paraíso e Parque Nacional da Serra dos Órgãos, parte de um dos maiores conjuntos protegidos do Estado do Rio de Janeiro. Foram registradas um total de 450 espécies de aves, das quais 63 consideradas de interesse para conservação, como *Leucopternis lacernulatus*, *Harpyhaliaetus coronatus*, *Triclaria malachitacea*, *Myrmotherula minor*, *Dacnis nigripes*, *Sporophila frontalis* e *S. falcirostris*. A reserva também está desenvolvendo um projeto de reintrodução dos localmente extintos *Crax blumembachii* e *Aburria jacutinga*, e de reforço das populações locais de *Tinamus solitarius*.

The Atlantic Forest of eastern Brazil and neighbouring Argentina and Paraguay is among the most imperilled biomes in the world. At least 188 bird species are endemic to it, and 70 globally threatened birds occur there, most of them endemics^{4,8}. The Atlantic Forest is not homogeneous and both latitudinal and longitudinal gradients account for diverse associations of discrete habitats and associated bird communities. Another factor accounting for the heterogeneity of the biome is the frequently steep altitudinal gradient found in parts of south-east Brazil, where the Serra do Mar and associated ranges rise steeply to over 1,000 m from the surrounding lowlands and coastal plain¹⁸. Forest at lower altitudes was the first to be impacted by humans and has been mostly cleared for agriculture and pasture, making it unsurprising that many threatened birds are associated with lowland habitats^{3,4,6,18}.

The Serra dos Órgãos is one of the ornithologically best-known areas in the Atlantic Forest¹⁴. Its foothills have been visited by naturalists since the early 19th century, and are the source of rarities such as Kinglet *Calyptura Calyptura cristata*^{10,14,15}. The foothills were largely cleared to make room for coffee plantations and to obtain timber and firewood, while most of the vast swamp forests covering the lowlands between the hills and Guanabara Bay are gone because of extensive drainage in the early 20th century, mostly as part of efforts to control mosquito-borne diseases^{5,19}. Nevertheless small patches of forest in the lowlands did survive and the steep terrain of higher elevations retains much larger forests, while the abandonment of former plantations has permitted forest regeneration at lower altitudes. In consequence, more forest perhaps remains today than at the peak of the coffee boom in the early 20th century.

Some information has been published on the birds of lower (90–500 m) elevations in the region^{10,13}, but few areas have been subject to long-term surveys. Here we present the cumulative list of a privately protected area, Reserva Ecológica Guapiaçu (REGUA), which includes both low-lying parts of the Serra dos Órgãos massif and nearby higher ground, now mostly incorporated within the recently decreed 46,350-ha Três Picos State Park^{12,13,19}. REGUA, the Três Picos park and Serra dos Órgãos National Park (11,800 ha) form a continuum of some 600 km², one of the most extensive protected patches of Atlantic Forest¹⁶. REGUA is renowned in the ornithological literature as the sole site where Rio de Janeiro Antwren *Myrmotherula fluminensis* has been recorded since its description³.

Study area and Methods

Reserva Ecológica de Guapiaçu (REGUA) is located near the village of Guapiaçu, Cachoeiras de Macacu, Rio de Janeiro. The reserve comprises 6,500 ha of forest, ranging from c.30 to 2,200 m, adjoining the 46,350-ha Três Picos State Park. The reserve is drained by the rio Macacu basin. Most areas of level ground, originally covered by swamp forest, have been drained and are now occupied by pastures with scattered huge fig trees *Ficus clusifolia* and *F. enormis* clad in bromeliads. In some parts (Fazenda São José) man-made wetlands with dense herbaceous cover and open water are used by waterbirds.

In the rolling terrain of the foothills to c.500 m, vegetation is mostly old (>25 years) second growth, with many legumes (*Piptadenia gonoacantha*, *Anadenathera colubrina*, *Schizolobium parahyba* and *Inga* spp.), figs and Myrsinaceae (*Rapanea* spp., mostly at edges), spiny palms *Astrocaryum aculeatissimum* and palmito palms *Euterpe edulis*

Table 1. Bird species recorded in Reserva Ecológica de Guapiaçu (REGUA), Rio de Janeiro, Brazil. Nomenclature follows CBRO (<http://www.ib.usp/cbro>).

Abundance: C = common (recorded in appropriate habitat >80% of field days); F = fairly common (50–80%); U = uncommon (20–50%); R = rare (>20%).

Evidence: S = sight; V = voice; T = tape-recorded; M = mist-netted; P = photographed.

Habitat: W = wetlands; O = pasture and agricultural areas; E = edges; L = old second growth at 90–500 / 600 m; H = forest above 600 m.

* = introduced or feral, ^m = probable migrant, absent during part of year or subject to obvious changes in numbers, + = not recorded by us.

Species	English name	Abundance	Evidence	Habitat
TINAMIDAE				
<i>Tinamus solitarius</i>	Solitary Tinamou	R	S,V,T	H
<i>Crypturellus obsoletus</i>	Brown Tinamou	C	S,V,T	L,H
<i>Crypturellus tataupa</i>	Tataupa Tinamou	C	S,V,T	E,L
ANATIDAE				
<i>Dendrocygna viduata</i>	White-faced Whistling Duck	C	S,V,T,P	W
<i>Dendrocygna autumnalis</i>	Black-bellied Whistling Duck	R	S,V,P	W
<i>Cairina moschata</i>	Muscovy Duck	F	S,P	W
<i>Amazonetta brasiliensis</i>	Brazilian Duck	C	S,V,T,P	W
<i>Nomonyx dominica</i>	Masked Duck	F	S,P	W
CRACIDAE				
<i>Penelope superciliosus</i>	Rusty-margined Guan	U	S,V	E,L
<i>Penelope obscura</i>	Dusky-legged Guan	F	S,V,T,P	H
ODONTOPHORIDAE				
<i>Odontophorus capueira</i>	Spot-winged Wood Quail	F	S,V,T	L,H
PODICIPEDIDAE				
<i>Tachybaptus dominicus</i>	Least Grebe	C	S,V,P	W
<i>Podilymbus podiceps</i>	Pied-billed Grebe	U	S,P	W
PHALACROCORACIDAE				
<i>Phalacrocorax brasilianus</i>	Neotropic Cormorant	R	S,P	W
ANHINGIDAE				
<i>Anhinga anhinga</i>	Anhinga	R	S	W
FREGATIDAE				
<i>Fregata magnificens</i>	Magnificent Frigatebird	R	S	W
ARDEIDAE				
<i>Tigrisoma lineatum</i>	Rufescent Tiger Heron	U	S,V,P	W
<i>Cochlearius cochlearius</i>	Boat-billed Heron	R	S	W
<i>Botaurus pinnatus</i>	Pinnated Bittern	R	S,P	W
<i>Ixobrychus exilis</i>	Least Bittern	R	S	W
<i>Ixobrychus involucris</i>	Stripe-backed Bittern	R	S,P	W
<i>Nycticorax nycticorax</i>	Black-crowned Night Heron	C	S,V,T,P	W
<i>Butorides striata</i>	Striated Heron	C	S,V,T,P	W
<i>Bubulcus ibis</i>	Cattle Egret	C	S,V,T,P	W,O
<i>Ardea cocoi</i>	White-necked Heron	R	S,P	W
<i>Ardea alba</i>	Great Egret	F	S,P	W
<i>Syrigma sibilatrix</i> ^m	Whistling Heron	F	S,P	W
<i>Pilherodius pileatus</i>	Capped Heron	C	S,P	W
<i>Egretta thula</i>	Snowy Egret	C	S,V,T,P	W
<i>Egretta caerulea</i>	Little Blue Heron	R	S,P	W
THRESKIORNITHIDAE				
<i>Theristicus caudatus</i>	Buff-necked Ibis	R	S,V,P	O
<i>Platalea ajaja</i>	Roseate Spoonbill	R	S,P	O
PHOENICOPTERIDAE				
<i>Phoenicopterus chilensis</i> [*]	Chilean Flamingo	R	S,P	W
CATHARTIDAE				
<i>Cathartes aura</i>	Turkey Vulture	C	S,P	W,O,E,L
<i>Cathartes burrovianus</i>	Lesser Yellow-headed Vulture	F	S,P	W,O,E
<i>Coragyps atratus</i>	Black Vulture	C	S,P	W,O,E,L,H
PANDIONIDAE				

Species	English name	Abundance	Evidence	Habitat
<i>Pandion haliaetus</i>	Osprey	R	S	W
ACCIPITRIDAE				
<i>Leptodon cayanensis</i>	Grey-headed Kite	R	S,T,P	L
<i>Chondrohierax uncinatus</i>	Hook-billed Kite	R	S	L
<i>Elanus leucurus</i>	White-tailed Kite	R	S,P	W,O
<i>Rostrhamus sociabilis</i>	Snail Kite	R	S	W
<i>Harpagus diodon</i>	Rufous-thighed Kite	R	S,P	L
<i>Ictinia plumbea</i> ^m	Plumbeous Kite	R	S,P	L
<i>Accipiter striatus</i> ⁺	Rufous-thighed Hawk	R	S	L
<i>Accipiter bicolor</i>	Bicoloured Hawk	R	S	L
<i>Geranospiza caerulescens</i>	Crane Hawk	U	S,P	L
<i>Leucopternis lacernulatus</i>	White-necked Hawk	R	S,P	L
<i>Leucopternis polionotus</i>	Mantled Hawk	U	S,T,P	L,H
<i>Buteogallus urubitinga</i>	Great Black Hawk	R	S	E
<i>Heterospizias meridionalis</i>	Savanna Hawk	C	S,T,P	W,O,E
<i>Harpyhaliaetus coronatus</i>	Crowned Eagle	R	S,V,T,P	L
<i>Parabuteo unicinctus</i>	Harris's Hawk	R	S	W
<i>Pernohierax leucorrhous</i>	White-rumped Hawk	R	S	L
<i>Rupornis magnirostris</i>	Roadside Hawk	C	S,M,T,P	W,O,E,L
<i>Buteo albicaudatus</i>	White-tailed Hawk	R	S,P	W,O
<i>Buteo nitidus</i> ⁺	Grey Hawk	R	S	L
<i>Buteo brachyurus</i>	Short-tailed Hawk	R	S,P	L,H
<i>Spizaetus tyrannus</i>	Black Hawk-Eagle	C	S,V,T,P	L,H
<i>Spizaetus melanoleucus</i>	Black-and-white Hawk-Eagle	U	S,V,T,P	L,H
<i>Spizaetus ornatus</i> ⁺	Ornate Hawk-Eagle	R	S	L
FALCONIDAE				
<i>Caracara plancus</i>	Southern Caracara	C	S,V,P	W,O,E
<i>Milvago chimachima</i>	Yellow-headed Caracara	C	S,V,T,P	W,O,E
<i>Milvago chimango</i> ⁺	Chimango Caracara	R	S	L
<i>Herpetotheres cachinnans</i>	Laughing Falcon	F	S,V,T,P	W,O,E
<i>Micrastur ruficollis</i>	Barred Forest Falcon	U	S,V,T,M,P	L,H
<i>Micrastur semitorquatus</i>	Collared Forest Falcon	R	S,V,T,P	E,L
<i>Falco sparverius</i>	American Kestrel	R	S,V,P	O
<i>Falco rufigularis</i>	Bat Falcon	R	S	W,O
<i>Falco femoralis</i>	Aplomado Falcon	U	S	W,O
ARAMIDAE				
<i>Aramus guarauna</i>	Limpkin	U	S,V,P	W
RALLIDAE				
<i>Aramides cajanea</i>	Grey-necked Wood Rail	R	S,V,T	W
<i>Aramides saracura</i>	Slaty-breasted Wood Rail	F	S,V,T	W
<i>Amaurolimnas concolor</i>	Uniform Crane	R	S,V,T	W
<i>Laterallus viridis</i>	Russet-crowned Crane	C	S,V,T	W
<i>Laterallus melanophaius</i>	Rufous-sided Crane	C	S,V,T,P	W
<i>Porzana albicollis</i>	Ash-throated Crane	C	S,V,T,P	W
<i>Pardirallus nigricans</i>	Blackish Rail	C	S,V,P	W
<i>Pardirallus sanguinolentus</i>	Plumbeous Rail	R	S,V,T,P	W
<i>Gallinula chloropus</i>	Moorhen	C	S,V,T,P	W
<i>Gallinula melanops</i>	Spot-flanked Gallinule	R	S,P	W
<i>Porphyrio martinica</i>	Purple Gallinule	C	S,V,T,P	W
HELIORNITHIDAE				
<i>Heliornis fulca</i>	Sungrebe	R	S,P	W
CARIAMIDAE				
<i>Cariama cristata</i>	Red-legged Seriema	R	S,V,P	O
CHARADRIIDAE				
<i>Vanellus chilensis</i>	Southern Lapwing	C	S,V,T,P	W,O
SCOLOPACIDAE				
<i>Gallinago paraguaiae</i>	South American Snipe	R	S,V,T	W
<i>Gallinago undulata</i>	Giant Snipe	C	S,V,T,P	W
<i>Actitis macularius</i> ⁺	Spotted Sandpiper	R	S	W
<i>Tringa solitaria</i> ^m	Solitary Sandpiper	R	S,V,P	W

Species	English name	Abundance	Evidence	Habitat
JACANIDAE				
<i>Jacana jacana</i>	Wattled Jacana	C	S,V,T,P	W
STERNIDAE				
<i>Sterna hirundinacea</i> ⁺	South American Tern	R	S,P	W
COLUMBIDAE				
<i>Columbina minuta</i>	Plain-breasted Ground Dove	R	S,V,T,P	O
<i>Columbina talpacoti</i>	Ruddy Ground Dove	C	S,V,T,M,P	O
<i>Columbina squamata</i>	Scaled Dove	R	S,V,P	W,E
<i>Claravis pretiosa</i>	Blue Ground Dove	R	S,V,P	E
<i>Columba livia</i>	Rock Pigeon	R	S	O
<i>Patagioenas picazuro</i>	Picazuro Pigeon	C	S,V,P	O
<i>Patagioenas cayennensis</i>	Pale-vented Pigeon	R	S,V	O,E
<i>Patagioenas plumbea</i>	Plumbeous Pigeon	R	S,V	L,H
<i>Leptotila verreauxi</i>	White-tipped Dove	C	S,V,T,M	L
<i>Leptotila rufaxilla</i>	Grey-fronted Dove	F	S,V,T	L,H
<i>Geotrygon montana</i>	Ruddy Quail-Dove	U	S,V,T,M	L
PSITTACIDAE				
<i>Primolius maracana</i>	Blue-winged Macaw	R	S,V	E
<i>Aratinga leucophthalma</i>	White-eyed Parakeet	R	S,V	E
<i>Aratinga aurea</i> *	Peach-fronted Parakeet	R	S,P	E
<i>Pyrrhura frontalis</i>	Maroon-bellied Parakeet	C	S,V,T,P	E,L,H
<i>Forpus xanthopterygius</i>	Blue-winged Parrotlet	C	S,V,T,P	E,L,H
<i>Brotogeris tirica</i>	Plain Parakeet	C	S,V,T,P	L,H
<i>Touit melanonotus</i>	Brown-backed Parrotlet	R	S,V	L,H
<i>Touit surdus</i>	Golden-tailed Parrotlet	F	S,V,T	L,H
<i>Pionopsitta pileata</i>	Pileated Parrot	F	S,V,T,P	L,H
<i>Pionus maximiliani</i>	Scaly-headed Parrot	C	S,V,T	L,H
<i>Amazona amazonica</i>	Orange-winged Parrot	U	S,V,P	W,O,E
<i>Amazona aestiva</i> *	Blue-fronted Amazon	R	S	L
<i>Triclaria malachitacea</i>	Blue-bellied Parrot	C	S,V,T,P	L,H
CUCULIDAE				
<i>Piaya cayana</i>	Squirrel Cuckoo	C	S,V,T,M,P	E,L,H
<i>Coccyzus melacoryphus</i>	Dark-billed Cuckoo	R	S,V,P	E
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo	R	S,P	E
<i>Coccyzus euleri</i>	Pearly-breasted Cuckoo	R	S,P	E
<i>Crotophaga major</i>	Greater Ani	R	S,V,T,P	W,E
<i>Crotophaga ani</i>	Smooth-billed Ani	C	S,V,T,P	W,O
<i>Guira guira</i>	Guira Cuckoo	C	S,V,T,P	W,O
<i>Tapera naevia</i>	Striped Cuckoo	C	S,V,T,P	W,E
TYTONIDAE				
<i>Tyto alba</i>	Barn Owl	U	S,V,P	O
STRIGIDAE				
<i>Megascops choliba</i>	Tropical Screech Owl	F	S,V,P	E,L
<i>Megascops atricapilla</i>	Variable Screech Owl	U	S,V,T,P	L
<i>Pulsatrix koeniswaldiana</i>	Tawny-browed Owl	C	S,V,T,P	E,L
<i>Strix virgata</i>	Mottled Owl	R	S,V	E,L
<i>Strix huhula</i>	Black-banded Owl	R	S,P	L
<i>Glauclidium minutissimum</i>	Least Pygmy Owl	F	S,V,T,P	H
<i>Glauclidium brasilianum</i>	Ferruginous Pygmy Owl	C	S,V,T,M,P	E,L
<i>Athene cunicularia</i>	Burrowing Owl	C	S,V,T,P	O
<i>Asio clamator</i>	Striped Owl	F	S,V,P	E,L
NYCTIBIIDAE				
<i>Nyctibius aethereus</i>	Long-tailed Potoo	R	S,P	L
<i>Nyctibius griseus</i>	Common Potoo	F	S,V,P	W,E,L
CAPRIMULGIDAE				
<i>Lurocalis semitorquatus</i>	Short-tailed Nighthawk	R	S,V	L
<i>Nyctidromus albicollis</i>	Pauraque	C	S,V,P	E,L
<i>Caprimulgus longirostris</i>	Band-winged Nightjar	R	S,V	W,E
<i>Caprimulgus maculicaudus</i>	Spot-tailed Nightjar	R	S,V	W,O
<i>Hydropsalis torquata</i>	Scissor-tailed Nightjar	R	S,P	W,E

Species	English name	Abundance	Evidence	Habitat
APODIDAE				
<i>Cypseloides fumigatus</i>	Sooty Swift	R	S	L
<i>Streptoprocne zonaris</i>	White-collared Swift	C	S,V,T,P	O,L,H
<i>Streptoprocne biscutata</i>	Biscutate Swift	R	S	L
<i>Chaetura cinereiventris</i>	Grey-rumped Swift	C	S,V,T	L,H
<i>Chaetura meridionalis</i> ^m	Ashy-tailed (Sick's) Swift	C	S,V	E,L
<i>Panyptila cayennensis</i>	Lesser Swallow-tailed Swift	R	S	L
TROCHILIDAE				
<i>Ramphodon naevius</i>	Saw-billed Hermit	C	S,V,T,M,P	L,H
<i>Glaucis hirsutus</i>	Rufous-breasted Hermit	C	S,V,T,M,P	E,L
<i>Phaethornis squalidus</i>	Dusky-throated Hermit	R	S,M,P	L,H
<i>Phaethornis idaliae</i> ⁺	Minute Hermit	R	S,M,P	L
<i>Phaethornis ruber</i>	Reddish Hermit	C	S,V,T,M,P	L,H
<i>Phaethornis pretrei</i>	Planalto Hermit	R	S	H
<i>Phaethornis eurynome</i>	Scale-throated Hermit	F	S,V,P	L,H
<i>Eupetomena macroura</i>	Swallow-tailed Hummingbird	C	S,V,M,P	E,L
<i>Aphantochroa cirrochloris</i>	Sombre Hummingbird	R	S	H
<i>Florisuga fusca</i> ^m	Black Jacobin	C	S,V,M,P	E,L,H
<i>Colibri serrirostris</i>	White-vented Violet-ear	R	S,P	E,L
<i>Anthracothorax nigricollis</i>	Black-throated Mango	R	S	E
<i>Stephanoxis lalandi</i>	Plovercrest			
<i>Lophornis magnificus</i>	Frilled Coquette	U	S,P	L
<i>Chlorostilbon lucidus</i>	Glittering-bellied Emerald	R	S	L
<i>Thalurania glaucopis</i>	Violet-capped Woodnymph	C	S,V,M,P	E,L,H
<i>Hylocharis cyanus</i>	White-chinned Sapphire	F	S,V,P	E
<i>Leucochloris albicollis</i>	White-throated Hummingbird	C	S,V,P	L,H
<i>Amazilia versicolor</i>	Versicoloured Emerald	U	S	L,H
<i>Amazilia fimbriata</i>	Glittering-throated Emerald	C	S,P	E,L
<i>Amazilia lactea</i>	Sapphire-spangled Emerald	F	S	L
<i>Clytolaema rubricauda</i>	Brazilian Ruby	U	S,V,T,P	L,H
<i>Calliphlox amethystina</i>	Amethyst Woodstar	R	S	L
TROGONIDAE				
<i>Trogon viridis</i>	White-tailed Trogon	R	S,V	L
<i>Trogon surrucura aurantius</i>	Surucua Trogon	C	S,V,T,P	L,H
<i>Trogon rufus</i>	Black-throated Trogon	F	S,V,T,P	L
ALCEDINIDAE				
<i>Megaceryle torquata</i>	Ringed Kingfisher	C	S,V,P	W
<i>Chloroceryle amazona</i>	Amazon Kingfisher	F	S,V,P	W
<i>Chloroceryle americana</i>	Green Kingfisher	U	S,V,P	W
MOMOTIDAE				
<i>Baryphthengus ruficapillus</i>	Rufous-capped Motmot	F	S,V,T	L
GALBULIDAE				
<i>Galbula ruficauda</i>	Rufous-tailed Jacamar	C	S,V,T,M,P	E,L
BUCCONIDAE				
<i>Notharchus swainsoni</i>	Buff-bellied Puffbird	R	S,V,T,P	L
<i>Nystalus chacuru</i>	White-eared Puffbird	R	S,V,T,P	O
<i>Malacoptila striata</i>	Crescent-chested Puffbird	C	S,V,T,P	E,L
RAMPHASTIDAE				
<i>Ramphastos toco</i>	Toco Toucan	R	S,V	W,E
<i>Ramphastos vitellinus</i>	Channel-billed Toucan	C	S,V,M,T,P	L,H
<i>Ramphastos dicolorus</i>	Red-breasted Toucan	R	S	L,H
<i>Selenidera maculirostris</i>	Spot-billed Toucanet	C	S,V,T,P	L,H
<i>Pteroglossus bailloni</i>	Saffron Toucanet	U	S,V,T,P	L,H
<i>Pteroglossus aracari</i>	Black-necked Aracari	R	S,V	E
PICIDAE				
<i>Picumnus cirratus</i>	White-barred Piculet	C	S,V,T,P	E,L,H
<i>Melanerpes candidus</i>	White Woodpecker	U	S,V,T	W,O,E
<i>Melanerpes flavifrons</i>	Yellow-fronted Woodpecker	C	S,V,T	L,H
<i>Veniliornis maculifrons</i>	Yellow-eared Woodpecker	C	S,V,T,P	L,H
<i>Picus flavigula</i>	Yellow-throated Woodpecker	C	S,V,T,P	L

Species	English name	Abundance	Evidence	Habitat
<i>Picus aurulentus</i>	Yellow-browed Woodpecker	U	S,V,T,P	H
<i>Colaptes melanochloros</i>	Green-barred Woodpecker	R	S,V,T	W,L,H
<i>Colaptes campestris</i>	Campo Flicker	C	S,V,T,P	O
<i>Ceelus flavescens</i>	Blond-crested Woodpecker	C	S,V,M,P	E,L
<i>Dryocopus lineatus</i>	Lineated Woodpecker	R	S,V,T,P	L,H
THAMNOPHILIDAE				
<i>Hypodaedalus guttatus</i>	Spot-backed Antshrike	C	S,V,T,P	L,H
<i>Batara cinerea</i>	Giant Antshrike	R	S,V,T	L,H
<i>Mackenziaena severa</i>	Tufted Antshrike	C	S,V,T,P	L,H
<i>Biatas nigropectus</i>	White-bearded Antshrike	R	S,V,T	H
<i>Thamnophilus ruficapillus</i>	Rufous-capped Antshrike	R	S,V	E
<i>Thamnophilus palliatus</i>	Chestnut-backed Antshrike	C	S,V,T,P	E
<i>Thamnophilus ambiguus</i>	Sooretama Slaty Antshrike	C	S,V,T,P	E,L
<i>Thamnophilus caerulescens</i>	Variable Antshrike	U	S,V,T,P	H
<i>Dysithamnus stictothorax</i>	Spot-breasted Antvireo	C	S,V,T,P	L
<i>Dysithamnus mentalis</i>	Plain Antvireo	C	S,V,T,P	L,H
<i>Dysithamnus xanthopterus</i>	Rufous-backed Antvireo	R	S,V	H
<i>Thammomanes caesioides</i>	Cinereous Antshrike	R	V	L
<i>Myrmotherula gularis</i>	Star-throated Antwren	C	S,V,T,M,P	L,H
<i>Myrmotherula axillaris</i>	White-flanked Antwren	C	S,V,T,M,P	E,L
<i>Myrmotherula minor</i>	Salvadori's Antwren	U	S,V,T,P	L,H
<i>Myrmotherula unicolor</i>	Unicoloured Antwren	C	S,V,T,M,P	L
<i>Herpilochmus rufimarginatus</i>	Rufous-winged Antwren	C	S,V,T	L
<i>Drymophila ferruginea</i>	Ferruginous Antbird	C	S,V,T,P	L,H
<i>Drymophila rubricollis</i>	Bertoni's Antbird	C	S,V,T,P	H
<i>Drymophila genei</i>	Rufous-tailed Antbird	R	S,P	H
<i>Drymophila ochropyga</i>	Ochre-rumped Antbird	F	S,V,T,P	L,H
<i>Drymophila malura</i>	Dusky-tailed Antbird	C	S,V,T,P	H
<i>Drymophila squamata</i>	Scaled Antbird	C	S,V,T,M,P	L
<i>Terenura maculata</i>	Streak-capped Antwren	C	S,V,T	L,H
<i>Pyrgilena leucoptera</i>	White-shouldered Fire-eye	C	S,V,T,M,P	L,H
<i>Myrmeciza loricata</i>	White-bibbed Antbird	C	S,V,T,M,P	L,H
CONOPOPHAGIDAE				
<i>Conopophaga lineata</i>	Rufous Gnateater	F	S,V,T,P	L,H
<i>Conopophaga melanops</i>	Black-cheeked Gnateater	C	S,V,T,M,P	L
GRALLARIIDAE				
<i>Grallaria varia</i>	Variegated Antpitta	C	S,V,T	L,H
RHYNOCRYPTIDAE				
<i>Psilorhamphus guttatus</i>	Spotted Bamboo-wren	F	S,V,T	H
<i>Merulaxis ater</i>	Slaty Bristlefront	C	S,V,T,P	L,H
<i>Scytalopus notorius</i>	Mouse-coloured Tapaculo	R	S,V	H
FORMICARIIDAE				
<i>Formicarius colma</i>	Rufous-capped Antthrush	C	S,V,T,P	L
<i>Chamaeza campanisoma</i>	Short-tailed Antthrush	F	S,V,T	L,H
<i>Chamaeza meruloides</i>	Cryptic Antthrush	F	S,V,T	H
<i>Chamaeza ruficauda</i>	Rufous-tailed Antthrush	R	S,V,T	H
SCLERURIDAE				
<i>Sclerurus scansor</i>	Rufous-breasted Leaf-tosser	C	S,V, T,M,P	L,H
DENDROCOLAPTIDAE				
<i>Dendrocincla turdina</i>	Thrush-like Woodcreeper	C	S,V,T,M,P	L,H
<i>Sittasomus griseicapillus</i>	Olivaceous Woodcreeper	C	S,V,T,M,P	L,H
<i>Xiphocolaptes albicollis</i>	White-throated Woodcreeper	F	S,V,T	L,H
<i>Dendrocolaptes platyrostris</i>	Planalto Woodcreeper	U	S,V,P	L,H
<i>Xiphorhynchus fuscus</i>	Lesser Woodcreeper	C	S,V,T,M,P	L,H
<i>Lepidocolaptes squamatus</i>	Scaled Woodcreeper	F	S,V,T,P	H
<i>Campylorhamphus falcularius</i>	Black-billed Scythebill	U	S,V,T,P	L,H
FURNARIIDAE				
<i>Furnarius figulus</i>	Wing-banded (Band-tailed) Hornero	C	S,V,T,P	W,O
<i>Furnarius rufus</i>	Rufous Hornero	C	S,V,T,P	W,O
<i>Synallaxis ruficapilla</i>	Rufous-capped Spinetail	F	S,V,T	L,H

Species	English name	Abundance	Evidence	Habitat
<i>Synallaxis cinerascens</i>	Grey-bellied Spinetail	U	S,V,T,P	L
<i>Synallaxis albescens</i>	Pale-breasted Spinetail	R	S,V,T,P	W
<i>Synallaxis spixi</i>	Spix's Spinetail	U	S,V,T	E,L
<i>Cranioleuca pallida</i>	Pallid Spinetail	F	S,V,T	H
<i>Certhiaxis cinnamomeus</i>	Yellow-chinned Spinetail	C	S,V,T,P	W
<i>Phacellodomus rufifrons</i>	Rufous-fronted Thornbird	C	S,V,T	O
<i>Phacellodomus erythrophthalmus</i>	Red-eyed Thornbird	C	S,V,P	H
<i>Anabacerthia amaurotis</i>	White-browed Foliage-gleaner	F	S,V,T	H
<i>Syndactyla rufosuperciliata</i>	Buff-browed Foliage-gleaner	F	S,V,T	H
<i>Philydor lichtensteini</i>	Ochre-breasted Foliage-gleaner	F	S,V,P	L,H
<i>Philydor atricapillus</i>	Black-capped Foliage-gleaner	C	S,V,M,P	L,H
<i>Philydor rufum</i>	Buff-fronted Foliage-gleaner	C	S,V,T	L,H
<i>Anabazenops fuscus</i>	White-collared Foliage-gleaner	C	S,V,T	H
<i>Cichlocolaptes leucophrus</i>	Pale-browed Treehunter	F	S,V,T,P	L,H
<i>Automolus leucophthalmus</i>	White-eyed Foliage-gleaner	C	S,V,T,M,P	L,H
<i>Lochmias nematura</i>	Sharp-tailed Streamcreeper	U	S,V,T,M,P	L,H
<i>Heliobletus contaminatus</i>	Sharp-billed Treehunter	F	S,V,P	H
<i>Xenops minutus</i>	Plain Xenops	C	S,V,T,P	L,H
<i>Xenops rutilans</i>	Streaked Xenops	C	S,V,P	L,H
TYRANNIDAE				
<i>Mionectes oleagineus</i>	Ochre-bellied Flycatcher	C	S,V,T,M,P	E,L
<i>Mionectes rufiventris</i>	Grey-hooded Flycatcher	C	S,V,T,M,P	L,H
<i>Leptopogon amaurocephalus</i>	Sepia-capped Flycatcher	C	S,V,T,M,P	L,H
<i>Corythopis delalandi</i>	Southern Antpipit	C	S,V,T,M,P	L
<i>Hemitriccus diops</i>	Drab-breasted Bamboo Tyrant	C	S,V,T,P	H
<i>Hemitriccus orbitatus</i>	Eye-ringed Tody-Tyrant	C	S,V,T,M,P	L
<i>Hemitriccus nidipendulus</i>	Hangnest Tody-Tyrant	R	S,V,P	E,L
<i>Myiornis auricularis</i>	Eared Pygmy Tyrant	F	S,V,T,P	E,L
<i>Poecilotriccus plumbeiceps</i>	Ochre-faced Tody-Tyrant	F	S,V,T,P	L,H
<i>Todirostrum poliocephalum</i>	Yellow-lored Tody-Flycatcher	C	S,V,T,P	E
<i>Todirostrum cinereum</i>	Common Tody-Flycatcher	C	S,V,T,P	W,E
<i>Phyllomyias burmeisteri</i>	Rough-legged Tyrannulet	F	S,V,T,P	L,H
<i>Phyllomyias virescens</i>	Greenish Tyrannulet	U	S,V,P	H
<i>Phyllomyias fasciatus</i> ^m	Planalto Tyrannulet	C	S,V,T,P	L,H
<i>Phyllomyias griseocapilla</i>	Grey-capped Tyrannulet	R	S,V,T,P	L,H
<i>Myiopagis viridicata</i>	Greenish Elaenia	R	S,V,T,P	E
<i>Elaenia flavogaster</i>	Yellow-bellied Elaenia	C	S,V,T,P	W,O,E
<i>Elaenia parvirostris</i> ^m	Small-billed Elaenia	R	S,V,P	E
<i>Elaenia mesoleuca</i> ^m	Olivaceous Elaenia	R	V	H
<i>Ornithion inerne</i>	White-lored Tyrannulet	R	S,V	L
<i>Camptostoma obsoletum</i>	Southern Beardless Tyrannulet	C	S,V,T,P	E,L
<i>Serpophaga nigricans</i>	Sooty Tyrannulet	R	S,P	W
<i>Serpophaga subcristata</i>	White-crested Tyrannulet	R	S	E
<i>Capsiempis flaveola</i>	Yellow Tyrannulet	C	S,V,T,P	E,L,H
<i>Phylloscartes ventralis</i>	Mottled-cheeked Tyrannulet	C	S,V,T	H
<i>Phylloscartes paulista</i>	São Paulo Tyrannulet	R	S	L
<i>Phylloscartes oustaleti</i>	Oustalet's Tyrannulet	F	S,V,T,P	H
<i>Phylloscartes difficilis</i>	Serra do Mar Tyrannulet	R	S,V,P	H
<i>Tolmomyias sulphurescens</i>	Yellow-olive Flycatcher	C	S,V,T,P	L,H
<i>Tolmomyias flaviventris</i>	Yellow-breasted Flycatcher	F	S,V,T,P	E
<i>Platyrinchus mystaceus</i>	White-throated Spadebill	C	S,V,T,P	L,H
<i>Platyrinchus leucoryphus</i>	Russet-winged Spadebill	U	S,V,T,P	L,H
<i>Myiophobus fasciatus</i>	Bran-coloured Flycatcher	F	S,V,T,P	W,O
<i>Myiobius barbatus</i>	Sulphur-rumped Flycatcher	F	S,V,M,P	L,H
<i>Myiobius atricaudus</i>	Black-tailed Flycatcher	U	S,P	H
<i>Hirundinea ferruginea</i>	Cliff Flycatcher	U	S,V,T,P	L,H
<i>Lathrotriccus eulerei</i>	Euler's Flycatcher	C	S,V,T,M,P	L,H
<i>Cnemotriccus fuscatus</i>	Fuscous Flycatcher	U	S,V,T,P	E
<i>Contopus cooperi</i>	Olive-sided Flycatcher	R	S	L
<i>Contopus cinereus</i>	Tropical Pewee	F	S,V,T,P	L,H

Species	English name	Abundance	Evidence	Habitat
<i>Pyrocephalus rubinus</i>	Vermilion Flycatcher	R	S,P	W,O
<i>Knipolegus cyanirostris</i>	Blue-billed Black Tyrant	R	S,P	L,H
<i>Knipolegus lophotes</i>	Crested Black Tyrant	R	S	O
<i>Knipolegus nigerrimus</i>	Velvety Black Tyrant	R	S	H
<i>Satrapa icterophrys</i>	Yellow-browed Tyrant	U	S,P	W,O
<i>Xolmis cinereus</i>	Grey Monjita	U	S,P	O
<i>Xolmis velatus</i>	White-rumped Monjita	U	S,P	O
<i>Gubernetes yetapa</i>	Streamer-tailed Tyrant	R	S,V,P	W
<i>Muscipipra vetula</i>	Shear-tailed Grey Tyrant	F	S,V,T,P	H
<i>Fluvicola nengeta</i>	Masked Water Tyrant	C	S,V,T,P	W
<i>Arundinicola leucocephala</i>	White-headed Marsh Tyrant	C	S,V,T,P	W
<i>Colonia colonus</i>	Long-tailed Tyrant	U	S,V,T,P	L,H
<i>Machetornis rixosa</i>	Cattle Tyrant	C	S,V,T,P	O
<i>Legatus leucophaeus</i> ^m	Piratic Flycatcher	C	S,V,T	L
<i>Myiozetetes cayanensis</i>	Rusty-margined Flycatcher	R	S,V,T,P	W,E
<i>Myiozetetes similis</i>	Social Flycatcher	C	S,V,T,P	W,E,L
<i>Pitangus sulphuratus</i>	Great Kiskadee	C	S,V,T,P	W,O,E
<i>Conopias trivirgatus</i>	Three-striped Flycatcher	R	S	L
<i>Myiodynastes maculatus</i>	Streaked Flycatcher	C	S,V,T,P	L,H
<i>Megarhynchus pitangua</i>	Boat-billed Flycatcher	C	S,V,T,P	E,L,H
<i>Empidonomus varius</i> ^m	Variegated Flycatcher	F	S,V,P	W,E,L
<i>Tyrannus melancholicus</i> ^m	Tropical Kingbird	C	S,V,T,P	W,O,E
<i>Tyrannus savana</i> ^m	Fork-tailed Flycatcher	F	S,V,P	W,O
<i>Rhytipterna simplex</i>	Greyish Mourner	F	S,V,T,M,P	L
<i>Sirystes sibilator</i> ^m	Sirystes	R	S,V,P	L,H
<i>Myiarchus tuberculifer</i>	Dusky-capped Flycatcher	R	S,V,T	L
<i>Myiarchus swainsoni</i>	Swainson's Flycatcher	R	S,V	L
<i>Myiarchus ferox</i>	Short-crested Flycatcher	C	S,V,T,P	W,E
<i>Ramphotrigon megacephalum</i>	Large-headed Flatbill	R	S,V,T,P	L,H
<i>Attila rufus</i>	Grey-hooded Attila	C	S,V,T,P	L,H
COTINGIDAE				
<i>Phibalura flavirostris</i> ^m	Swallow-tailed Cotinga	R	S,P	L,H
<i>Carpornis cucullata</i>	Hooded Berryeater	U	S,V,T,P	L,H
<i>Procnias nudicollis</i> ^m	Bare-throated Bellbird	C	S,V,T,P	L,H
<i>Tijuca atra</i>	Black-and-gold Cotinga	U	S,V,T	H
<i>Pyroderus scutatus</i>	Red-ruffed Fruitcrow	R	S,P	L
PIPRIDAE				
<i>Piprites chloris</i>	Wing-barred Piprites	R	S,V,T	L
<i>Ilicura militaris</i>	Pin-tailed Manakin	C	S,V,T,M,P	L,H
<i>Machaeropterus regulus</i>	Eastern Striped Manakin	U	S,V,T,P	L
<i>Manacus manacus</i>	White-bearded Manakin	C	S,V,T,M,P	E,L
<i>Chiroxiphia caudata</i>	Swallow-tailed (Blue) Manakin	C	S,V,T,M,P	E,L,H
TITYRIDAE				
<i>Oxyruncus cristatus</i>	Sharpbill	F	S,V,T	L,H
<i>Schiffornis virescens</i>	Greenish Schiffornis	F	S,V,T,P	L,H
<i>Schiffornis turdina</i>	Thrush-like Schiffornis	R	S,V,T	L
<i>Lanius elegans</i>	Elegant Mourner	F	S,V,T,P	L,H
<i>Tityra inquisitor</i>	Black-crowned Tityra	R	S	L
<i>Tityra cayana</i>	Black-tailed Tityra	R	S,V,P	L
<i>Pachyramphus viridis</i>	Green-backed Becard	R	S,V,P	L
<i>Pachyramphus castaneus</i>	Chestnut-crowned Becard	C	S,V,T,P	L,H
<i>Pachyramphus polychopterus</i>	White-winged Becard	C	S,V,T,P	E,L
<i>Pachyramphus marginatus</i>	Black-capped Becard	C	S,V,T,P	L
<i>Pachyramphus validus</i>	Crested Becard	F	S,V,P	E,L
VIREONIDAE				
<i>Cydarhis gujanensis</i>	Rufous-browed Peppershrike	C	S,V,T,P	L,H
<i>Vireo olivaceus</i>	Red-eyed Vireo	C	S,V,T,M,P	L,H
<i>Hylophilus poicilotis</i>	Rufous-crowned Greenlet	F	S,V,P	H
<i>Hylophilus thoracicus</i>	Lemon-chested Greenlet	C	S,V,T,P	E

Species	English name	Abundance	Evidence	Habitat
CORVIDAE				
<i>Cyanocorax cristatellus</i>	Curl-crested Jay	R	S,V,P	W,O
HIRUNDINIDAE				
<i>Pygochelidon cyanoleuca</i>	Blue-and-white Swallow	C	S,V,P	O,E
<i>Atticora tibialis</i>	White-thighed Swallow	U	S,V	L
<i>Stelgidopteryx ruficollis</i>	Southern Rough-winged Swallow	C	S,V,P	W,O,E
<i>Progne tapera</i>	Brown-chested Martin	C	S,V,T,P	W,O
<i>Progne chalybea</i> ^m	Grey-breasted Martin	C	S,P	O
<i>Tachycineta leucorrhoa</i> ^m	White-rumped Swallow	F	S,V,T,P	W,O
<i>Hirundo rustica</i> ^m	Barn Swallow	R	S	O
TROGLODYTIDAE				
<i>Troglodytes musculus</i>	House Wren	C	S,V,T,P	W,O,E
<i>Pheugopedius genibarbis</i>	Moustached Wren	F	S,V,T,P	E
<i>Cantorchilus longirostris</i>	Long-billed Wren	C	S,V,T,M,P	E,L
DONACOBIIDAE				
<i>Donacobius atricapilla</i>	Black-capped Donacobius	F	S,V,T,P	W
POLIOPTILIDAE				
<i>Ramphocaenus melanurus</i>	Long-billed Gnatwren	R	S,V	H
TURDIDAE				
<i>Turdus flavipes</i> ^m	Yellow-legged Thrush	C	S,V,T,P	L,H
<i>Turdus rufiventris</i>	Rufous-bellied Thrush	C	S,V,T,M,P	E,L
<i>Turdus leucomelas</i>	Pale-breasted Thrush	C	S,V,T,P	L,H
<i>Turdus amaurochalinus</i> ^m	Creamy-bellied Thrush	C	S,V,T,M,P	E
<i>Turdus subalaris</i> ^m	Eastern Slaty Thrush	R	S,V,P	L
<i>Turdus albicollis</i> ^m	White-necked Thrush	C	S,V,T,M,P	L,H
MIMIDAE				
<i>Mimus saturninus</i>	Chalk-browed Mockingbird	C	S,V,T,P	W,O,E
MOTACILLIDAE				
<i>Anthus lutescens</i>	Yellowish Pipit	C	S,V,T,P	O
<i>Anthus hellmayri</i>	Hellmayr's Pipit	F	S,V,T,P	H
COEREBIDAE				
<i>Coereba flaveola</i>	Bananaquit	C	S,V,T,P	E,L,H
THRAUPIDAE				
<i>Saltator fuliginosus</i>	Black-throated Grosbeak	C	S,V,T,P	L,H
<i>Saltator maximus</i>	Buff-throated Saltator	C	S,V,T,P	E,L
<i>Saltator similis</i>	Green-winged Saltator	F	S,V,T,P	L,H
<i>Orchesticus abeillei</i>	Brown Tanager	F	S,V,T,P	H
<i>Schistochlamys ruficapillus</i>	Cinnamon Tanager	R	S,V	H
<i>Cissopis leverianus</i>	Magpie Tanager	R	S,V,P	H
<i>Nemosia pileata</i>	Hooded Tanager	C	S,V,T,P	E
<i>Orthogonys chloricterus</i>	Olive-green Tanager	F	S,V,T,P	L,H
<i>Pyrrhocomma ruficeps</i>	Chestnut-headed Tanager	R	S	L,H
<i>Trichothraupis melanops</i>	Black-goggled Tanager	C	S,V,T,P	L,H
<i>Tachyphonus cristatus</i>	Flame-crested Tanager	C	S,V,T,M,P	L
<i>Tachyphonus coronatus</i>	Ruby-crowned Tanager	F	S,V,T,M,P	L,H
<i>Ramphocelus bresilius</i>	Brazilian Tanager	C	S,V,T,M,P	E,L
<i>Thraupis sayaca</i>	Sayaca Tanager	C	S,V,T,P	E
<i>Thraupis cyanoptera</i>	Azure-shouldered Tanager	F	S,V,T,P	L,H
<i>Thraupis ornata</i>	Golden-chevroned Tanager	C	S,V,T,P	L,H
<i>Thraupis palmarum</i>	Palm Tanager	C	S,V,T,P	E,L
<i>Pipraeidea melanonota</i>	Fawn-breasted Tanager	R	S,V,P	E,L
<i>Tangara brasiliensis</i>	White-bellied Tanager	C	S,V,T,P	E,L
<i>Tangara seledon</i>	Green-headed Tanager	C	S,T,M,P	L
<i>Tangara cyanocephala</i>	Red-necked Tanager	F	S,V,T,M,P	L,H
<i>Tangara desmaresti</i>	Brassy-breasted Tanager	F	S,V,T,P	L,H
<i>Tangara cyanoventris</i>	Gilt-edged Tanager	R	S	L
<i>Tangara cayana</i>	Burnished-buff Tanager	C	S,V,P	E
<i>Tangara peruviana</i> [†]	Black-backed Tanager	R	S	E,L
<i>Tersina viridis</i> ^m	Swallow Tanager	F	S,V,T,P	E,L
<i>Dacnis nigripes</i> ^m	Black-legged Dacnis	U	S,V,T,P	E,L

Species	English name	Abundance	Evidence	Habitat
<i>Dacnis cayana</i>	Blue Dacnis	C	S,V,T,P	E,L,H
<i>Cyanerpes cyaneus</i>	Red-legged Honeycreeper	R	S,V,T,P	E,L
<i>Hemithraupis ruficapilla</i>	Rufous-headed Tanager	C	S,V,T,P	L,H
<i>Hemithraupis flavicollis</i>	Yellow-backed Tanager	C	S,V,T,P	E,L
<i>Conirostrum speciosum</i>	Chestnut-vented Conebill	C	S,V,T,P	E,L
EMBERIZIDAE				
<i>Zonotrichia capensis</i>	Rufous-collared Sparrow	R	S,V,T,P	O,E
<i>Ammodramus humeralis</i>	Grassland Sparrow	C	S,V,T,P	O,E
<i>Haplospiza unicolor</i> ^m	Uniform Finch	F	S,V,T,M,P	L,H
<i>Sicalis flaveola</i>	Saffron Finch	C	S,V,T,P	O,E
<i>Emberizoides herbicola</i>	Wedge-tailed Grass Finch	F	S,V,T,P	O,E
<i>Volatinia jacarina</i>	Blue-black Grassquit	C	S,V,T,P	O
<i>Sporophila frontalis</i> ^m	Buffy-fronted Seedeater	U	S,V,T,P	L,H
<i>Sporophila falcirostris</i> ^m	Temminck's Seedeater	U	S,V,T	L,H
<i>Sporophila lineola</i> ^m	Lined Seedeater	C	S,V,T,P	O,E
<i>Sporophila nigricollis</i>	Yellow-bellied Seedeater	U	S,P	O
<i>Sporophila caeruleascens</i> ^m	Double-collared Seedeater	C	S,V,T,P	O
<i>Sporophila leucoptera</i>	White-bellied Seedeater	F	S,V,T,P	O,E
<i>Sporophila angolensis</i>	Chestnut-bellied Seed Finch	R	S,V,T	W,O,E
<i>Tiaris fuliginosus</i>	Sooty Grassquit	U	S,V,T,P	L,H
<i>Arremon semitorquatus</i>	Half-collared Sparrow	R	S,V,T	H
<i>Coryphospingus pileatus</i>	Pileated Finch	F	S,V,T,P	W,O,E
<i>Paroaria dominicana</i> [*]	Red-cowled Cardinal	R	S,V,P	O
CARDINALIDAE				
<i>Habia rubica</i>	Red-crowned Ant Tanager	C	S,V,T,M,P	L,H
<i>Caryothraustes canadensis</i>	Yellow-green Grosbeak	C	S,V,T,P	L
PARULIDAE				
<i>Parula pitayumi</i>	Tropical Parula	C	S,V,T,P	L
<i>Dendroica striata</i> ^m	Blackpoll Warbler	R	S,P	E
<i>Geothlypis aequinoctialis</i>	Masked Yellowthroat	U	S,V,T,P	W,E
<i>Basileuterus culicivorus</i>	Golden-crowned Warbler	C	S,V,T,P	L,H
<i>Basileuterus leucoblepharus</i>	White-browed Warbler	F	S,V,T,P	H
<i>Phaeothlypis rivularis</i>	Neotropical River Warbler	R	S,V	L
ICTERIDAE				
<i>Psarocolius decumanus</i>	Crested Oropendola	R	S,V,P	L,H
<i>Cacicus haemorrhous</i>	Red-rumped Cacique	C	S,V,T,P	L,H
<i>Gnorimopsar chopi</i>	Chopi Blackbird	F	S,V,T,P	W,O
<i>Chrysomus ruficapillus</i>	Chestnut-capped Blackbird	C	S,V,T,P	W
<i>Molothrus oryzivorus</i>	Giant Cowbird	R	S,V,T,P	O,E
<i>Molothrus bonariensis</i>	Shiny Cowbird	R	S,V,P	O
<i>Sturnella supercilialis</i> ^m	White-browed Blackbird	C	S,V,P	O
FRINGILLIDAE				
<i>Sporaga magellanica</i> ^m	Hooded Siskin	R	S,V,T,P	O
<i>Euphonia chlorotica</i>	Purple-throated Euphonia	C	S,V,T,P	E
<i>Euphonia violacea</i>	Violaceous Euphonia	C	S,V,T,M,P	E,L
<i>Euphonia chalybea</i>	Green-chinned Euphonia	U	S,V,T,P	H
<i>Euphonia cyanocephala</i>	Golden-rumped Euphonia	R	S,V,P	L,H
<i>Euphonia xanthogaster</i>	Orange-bellied Euphonia	C	S,V,T,M,P	E,L
<i>Euphonia pectoralis</i>	Chestnut-bellied Euphonia	C	S,V,T,P	L,H
<i>Chlorophonia cyanea</i>	Blue-naped Chlorophonia	F	S,V,T,P	E,L,H
ESTRILDIDAE				
<i>Estrilda astrild</i>	Common Waxbill	F	S,V,P	O
PASSERIDAE				
<i>Passer domesticus</i>	House Sparrow	U	S,V	O

but comparatively few epiphytes. Patches of old banana groves and scattered jackfruit *Artocarpus jaca* are testimony to recent cultivation. Damp areas along creeks and in low-lying bowls possess dense Maranthaceae and banana-like *Heliconia* that attract hummingbirds. Higher, forest epiphytes, especially bromeliads, become much more common and there are more Myrtaceae, Sapotaceae and Lauraceae, indicative of more mature forest, as well as scattered very large *Cariniana estrellensis* trees. Above 600 m the forest is much like mature Atlantic Forest elsewhere. Bamboo thickets (especially a large *Guadua* sp.) are common only above 600 m, with only scattered plants in lower areas.

Higher elevation areas (above 900 m) are accessed from the northern edge of the Serra dos Órgãos massif, via Nova Friburgo and Teresópolis and local properties like Fazenda Campestre (22°21'42.50"S 42°40'30.77"E), and from there walking to REGUA through the forest. This area is the source of most high-elevation species. Another higher elevation site, recently incorporated into REGUA, is Casa do Waldenoor (22°25'14.22"S 42°49'00.30"W), near Teresópolis.

The main study sites were the trails leading to and around the research quarters (22°25'14.5"S 42°44'19.3"W; 90 m), Casa do Aníbal (22°24'47.8"S 42°45'17.6"W; 60–355 m), the Green Trail (22°22'52.8"S 42°43'34.7"W; 170–1,300 m), Red Trail (22°23'27.7"S 42°44'22.8"W; 400–950 m), Orange Trail (22°23'03.8"S 42°43'47.7"W), Blue Trail (22°24'22.8"S 42°44'37.8"W; 80–615 m) and the wetlands near the lodge of Vila São José (22°26'52"S 42°46'14"W). A brief description of these follows.

Green Trail: one of the most important and frequently covered, with a length of 4.8 km, starting at the Casa de Pesquisa and cutting a transect from 130 to 1,300 m. Up to 500 m the forest is old second growth with few palms and epiphytes. Above 500 m older, primary-looking forest appears, especially at 600–800 m. There are pockets with large trees >30 m, many *Euterpe edulis* palms, epiphytes and giant bamboos *Guadua* spp.

Red Trail: this cuts through some of the best forest in the reserve, and is a branch of the Green Trail. With a length of 3.3 km at elevations of 400–900 m, the lower montane forest along the trail has many trees >25 m laden with epiphytes, and many palms. Above 700 m the understorey is rich in *Guadua* bamboos, and at 800–900 m to the hilltops there is elfin forest clad in epiphytes such as orchids.

Blue Trail: a branch of the Green Trail, with a length of 4.2 km and a gradient of 80–615 m. Below 500 m the second-growth forest is dominated by legumes, has few palms and epiphytes but many old banana orchards. Higher, the forest is much

better, with trees >25 m, some quite large. *Euterpe* palms are common as well as epiphytes. The highest stretch, at c.600 m, cuts through *Chusquea* bamboo thickets.

Casa do Aníbal: one of the best areas for lowland species. The trail cuts a transect of 2.8 km at 60–350 m, with second-growth forest <80 years old but very few epiphytes and *Euterpe* palms.

Wetland: in 2004 a project aiming to restore the wetlands commenced and this site was created. It is located in the lowest part of the reserve, at c.30 m, and is surrounded by pasture being planted with native trees or secondary forest edge.

Part of the survey was undertaken along the Red Trail, at 600–900 m, during a period when the common giant bamboos (*Guadua* spp.) were seeding, attracting the specialist Buffy-fronted *Sporophila frontalis* and Temminck's Seedeaters *S. falcirostris*. Another area of special attention was the wetland, where monitoring was deemed important, as was the 'antwren trail', near the Casa de Pesquisa, where Rio de Janeiro Antwrens were reportedly recorded. Other sites around the headquarters (younger forest and edge) were also surveyed.

The first bird list for REGUA was compiled during the 1990s by S. Knapp and A. Foster, who made extensive observations and mist-netted over the entire altitudinal gradient, and observed or photographed species not reported since, e.g. Chilean Flamingo *Phoenicopterus chilensis* and Minute Hermit *Phaethornis idaliae*. Subsequently, FO surveyed birds on 5–10 October (Casa de Pesquisa and Casa de Maria) and 9–16 November 2003 (the same), and on 31 May–8 June 2004 (all sites). LP has made observations in the area since November 2005, this paper presenting his results prior to May 2008. His total effort sums c.1,620 field hours.

Surveys were undertaken from dawn to about noon, and in late afternoon before sunset. Bird vocalisations were documented using a Sony TCM-EV5000 tape-recorder and a Sennheiser ME67 microphone. Reference recordings were used to locate selected species through playback. Whenever possible birds were documented with photographs and sound-recordings, the latter being available at <http://www.xeno-canto.org> (cited as XC hereafter).

During October–November 2003 mist-nets were placed along the trail near the Casa de Pesquisa where Rio de Janeiro Antwrens² had been reportedly seen, in an attempt to document the species. Fifteen 10-m nets were placed for two days in October and thirty on two days in November. Another ten mist-nets were used on one day near Casa de Maria in November. Trapped birds were photographed and released.



Figure 1. Black Hawk-Eagle *Spizaetus tyrannus*, Reserva Ecológica Guapiaçu, Rio de Janeiro, south-east Brazil, August 2007 (Leonardo Pimentel)



Figure 2. Male White-bearded Antshrike *Biatas nigropectus*, Reserva Ecológica Guapiaçu, Rio de Janeiro, south-east Brazil, August 2010 (Leonardo Pimentel)



Figure 3. Male Salvadori's Antwren *Myrmotherula minor*, Reserva Ecológica Guapiaçu, Rio de Janeiro, south-east Brazil, May 2008 (Leonardo Pimentel)



Figure 4. Female Slaty Bristlefront *Merulaxis ater*, Reserva Ecológica Guapiaçu, Rio de Janeiro, south-east Brazil, September 2009 (Leonardo Pimentel)



Figure 5. Oustalet's Tyrannulet *Phylloscartes oustaleti*, Reserva Ecológica Guapiaçu, Rio de Janeiro, south-east Brazil, August 2007 (Leonardo Pimentel)



Figure 6. Russet-winged Spadebill *Platyrinchus leucoryphus*, Reserva Ecológica Guapiaçu, Rio de Janeiro, south-east Brazil, October 2007 (Leonardo Pimentel)



Figure 7. Elegant Mourner *Laniisoma elegans*, Reserva Ecológica Guapiaçu, Rio de Janeiro, south-east Brazil, October 2007 (Leonardo Pimentel)

Results and Discussion

A total of 453 bird species has been recorded at REGUA, 443 by us. The cumulative list for REGUA includes birds documented by other observers, such as Minute Hermit *Phaethornis idaliae* and

Rufous-tailed Antbird *Drymophila genei* (both photographed) but not recently. This remarkable total owes much to the dramatic altitudinal gradient and habitat diversity of the area, and the large forest in the adjoining Três Picos State Park.

The presence of wetlands surrounded by young second growth adds to species richness. Some 114 species use the wetlands, most of them restricted to that habitat. Some (Wing-banded Hornero *Furnarius figulus* and Masked Water Tyrant *Fluvicola nengeta*) are recent colonisers that appeared only during the most recent decades^{15,21}. The same appears true of a few open-country species such as Whistling Heron *Syrigma sibilatrix* and Rufous-fronted Thornbird *Phacelodomus rufifrons*. Deforestation has permitted species such as Toco Toucan *Ramphastos toco*, Curl-crested Jay *Cyanocorax cristatellus* and Pale-breasted Spinetail *Synallaxis albens* to invade the environs of the reserve. The record of a pair of Blue-fronted Amazon *Amazona aestiva* certainly refers to escapees, but this species has become established and nests in other parts of south-east Brazil (even in São Paulo city¹¹).

Other species such as Magnificent Frigatebird *Fregata magnificens*, Black-bellied Whistling Duck *Dendrocygna autumnalis*, *Phoenicopterus chilensis* and South American Tern *Sterna hirundinacea* are stragglers from Guanabara Bay, where the first two and last-named are common (A. Aroeira *in litt.* 2009), while the flamingo has been recorded several times²⁰.

The results show an obvious bias to lower elevation areas where most effort was expended. It is probable that many species recorded to date only in the lowlands will be found higher (especially raptors), while more time spent in montane forest and bamboo thickets will produce additional species.

REGUA lies at the southernmost tip of the range of several species of Amazonian affinity that occur in the northern Atlantic Forest lowlands¹⁷. These include White-flanked Antwren *Myrmotherula axillaris luctuosa*, Sooretama Slaty Antshrike *Thamnophilus ambiguus*, Cinereous Antshrike *Thamnomanes caesi*, White-lored Tyrannulet *Ornithion inerme*, Ochre-bellied Flycatcher *Mionectes oleagineus*, Dusky-capped Flycatcher *Myiarchus tuberculifer*, Eastern Striped Manakin *Machaeropterus regulus*, White-bellied Tanager *Tangara brasiliensis*, Yellow-green Grosbeak *Caryothraustes canadensis* and Orange-bellied Euphonia *Euphonia xanthogaster*. Other lowland species include Orange-winged Parrot *Amazona amazonica*, which is common around Rio de Janeiro city and at Poços das Antas Biological Reserve.

REGUA harbours several species of conservation concern, mostly Near Threatened taxa or birds considered threatened in the state of Rio de Janeiro. It should be noted that the populations of some species found at REGUA and elsewhere around the Serra dos Órgãos (e.g. Unicoloured Antwren *Myrmotherula unicolor*, Spot-breasted Antwren *Dysithamnus stictothorax* and Eye-ringed

Tody-Tyrant *Hemitriccus orbitatus*) contributed to their being downlisted by BirdLife International⁴.

As might be expected, following prolonged human impact, several species appear to be locally extinct and others no longer breed. Among the latter, we recorded a single Crested Oropendola *Psarocolius decumanus*, which species has been occasionally recorded along the rio Macacu, near REGUA¹⁴, and may be recolonising the region.

Locally extinct species include Red-billed Curassow *Crax blumenbachii*, Black-fronted Piping Guan *Aburria jacutinga* (all but extinct in Rio de Janeiro except, perhaps, near the border with São Paulo¹⁷), Yellow-legged Tinamou *Crypturellus noctivagus* (considered extinct in Rio de Janeiro¹), Little Tinamou *C. soui* (another lowland bird still found at União and Poço das Antas biological reserves; J. F. Pacheco *in litt.* 2009), Variegated Tinamou *C. variegatus* (apparently extinct in Rio de Janeiro but recorded from lower areas around Cachoeiras de Macacu in the late 1960s^{11,17}) and Blue-headed Parrot *Pionus menstruus reichenowi* (probably extinct in Rio de Janeiro¹). Solitary Tinamou *Tinamus solitarius* is still present above 600 m, but is apparently unknown in the lowlands¹⁴. REGUA is promoting the reintroduction of Red-billed Curassow and Black-fronted Piping Guan^{1,2}, and plans to do likewise with the extinct tinamou and to augment the depleted population of Solitary Tinamou.

These 'missing' birds (and mammals such as Brazilian Tapir *Tapirus terrestris* and White-lipped Peccary *Tayassu pecari*) are poached, showing the impact this activity has on sensitive species, especially those restricted to low elevations. Human persecution may also account for the absence or extreme rarity of cagebirds such as Chestnut-bellied Seed Finch *Sporophila angolensis*, Rusty-collared Seedeater *S. collaris* and Ultramarine Grosbeak *Cyanocopsa brissonii*. Reintroductions and translocations could restore all of these species.

Continuous protection is needed to guarantee populations of species currently uncommon (such as guans and Solitary Tinamou) to increase and, eventually, to reintroduce some of the 'lost' species.

Selected species accounts

Solitary Tinamou *Tinamus solitarius* Uncommon throughout Rio de Janeiro, where considered threatened¹. In the reserve, found only above 500 m, where rare. On 10 October 2008 one observed on the Red Trail following playback, while a nest with four eggs found on 15 November 2007 was predated. Captive-bred birds have been released at lower elevations since early 2009. A globally Near Threatened species⁴.

Bicoloured Hawk *Accipiter bicolor* Not previously recorded in the Serra dos Órgãos¹⁴. Rare with only

two records: one seen perched at 15 m on a *Cecropia* near Casa do Aníbal, on 10 November 2006, and, more recently, one was seen on 15 October 2007, on the São José Trail.

White-necked Hawk *Leucopternis lacernulatus* Found only in the lower part of the reserve, with records year-round, sometimes following army ant swarms. One seen perched low (c.2 m) along the trail to Casa de Maria on 7 October 2003. A large half-eaten *Leptodactylus* frog found nearby was a potential prey. This globally Vulnerable species⁴ seems commonest at lower elevations but does occur higher such as in the outskirts of São Paulo city. A lone Mantled Hawk *L. polionotus* (Near Threatened) was recorded along the same trail on 8 June 2004.

Mantled Hawk *Leucopternis polionotus* Fairly common throughout the reserve, with most observations of soaring birds. Also seen following army ant swarms and catching large insects such as cockroaches. Considered Near Threatened in Rio de Janeiro¹ and globally³. Tape-recorded (XC13726).

Crowned Eagle *Harpyhaliaetus coronatus* Rare in the Serra dos Órgãos, where associated with montane grassland¹⁴. Recorded once, on 5 June 2007, when a pair was observed soaring low above forest until mobbed by a Black-and-white Hawk-Eagle *Spizaetus melanoleucus*. Tape-recorded (XC14006). The Museu de Zoologia da Universidade de São Paulo has two juveniles collected near Rio de Janeiro (Niterói) suggesting dispersal to lower areas. A globally threatened species⁴.

Black Hawk-Eagle *Spizaetus tyrannus* Perhaps the commonest large raptor in the reserve and over much of the southern Atlantic Forest. Detected by its conspicuous calls almost daily in higher areas of REGUA, and commonly seen soaring over lower parts (Fig. 1). Records of juveniles suggest breeding in the area. Considered probably threatened in Rio de Janeiro¹. Tape-recorded (XC14001, XC13981).

Black-and-white Hawk-Eagle *Spizaetus melanoleucus* Recorded throughout the reserve, most frequently in the second half of the year. A pair seen soaring with a Grey-headed Kite *Leptodon cayanensis* on 15 November 2003 at the start of the trail to Casa de Maria and three soaring low over forest in October 2007. Usually at low density and uncommon throughout the Atlantic Forest, it is considered Vulnerable in Rio de Janeiro¹.

Brown-backed Parrotlet *Touit melanonotus* A rare and globally threatened species³ with few records in the Serra dos Órgãos¹⁴. A flock of four heard calling in low flight over the Green Trail on 26 May 2008.

Golden-tailed Parrotlet *Touit surdus* This genus of small, inconspicuous parrots is notoriously difficult to identify to species. Two seen in flight near the Casa de Pesquisa on 7 October 2003 could have been either *T. surdus* or *T. melanonotus*. Calls tape-recorded (XC13972) on 3 June 2004 were identified as being of *T. surdus* (J. F. Pacheco *in litt.* 2009). Positive sightings of small groups have been made with some frequency at 200–700 m. On 5 May 2006 a group of six was observed feeding in the canopy of a Lauraceae. Considered globally Vulnerable⁴.

Blue-bellied Parrot *Triclaria malachitacea* Pairs or small groups (3–4) can be seen or heard daily (sometimes on the ground) above 500 m, especially along the Green, Red and Orange trails. REGUA appears to harbour a significant population of this species, and may be its stronghold in Rio de Janeiro¹². Considered globally Near Threatened⁴. Tape-recorded (XC12828).

Lesser Swallow-tailed Swift *Panyptila cayennensis* Rarely recorded in the Serra dos Órgãos¹⁴, there are several records by visiting birdwatchers, who sometimes misidentified it for the similar Neotropical Palm Swift *Tachornis squamata*, and one by FO of a single bird over the wetlands in 27 November 2006.

White-bearded Antshrike *Biatas nigropectus* A bamboo specialist with a patchy and local distribution, it is globally Vulnerable^{4,17}. Rare in the reserve, where occasionally recorded in *Guadua*-dominated areas above 700 m (Fig. 2).

Cinereous Antshrike *Thamnomanes caesius* One responded to playback (but did not approach), near the Casa de Pesquisa on 7 October 2003, but not recorded since. This species reaches the southern limit of its range in Rio de Janeiro, where it is known from very few sites^{10,14}.

Salvadori's Antwren *Myrmotherula minor* First recorded on 10 November 2003, the species is rare and has been recorded above 400 m along the Green, Red, Grey and Blue trails, always in pairs or small groups of up to five, sometimes with mixed-species flocks, moving c.3–4 m above ground (Fig. 3). Considered globally Vulnerable⁴ and not previously recorded in the Serra dos Órgãos¹⁴.

Rio de Janeiro Antwren *Myrmotherula fluminensis* Documenting this species was one of the main goals of the surveys in 2003–04. Observations along the 'antwren trail' produced only several records of *M. axillaris luctuosa* and *M. unicolor*, and one *M. minor*. Mist-nets covering the area where *M. fluminensis* was reported by other observers produced several *M. minor* and



Figure 8. Male Black-legged Dacnis *Dacnis nigripes*, Reserva Ecológica Guapiaçu, Rio de Janeiro, south-east Brazil, August 2007 (Leonardo Pimentel)



Figure 9. Buffy-fronted Seedeater *Sporophila frontalis*, Reserva Ecológica Guapiaçu, Rio de Janeiro, south-east Brazil, May 2008 (Leonardo Pimentel)

M. a. luctuosa. *M. a. luctuosa* does not show the conspicuous white flanks of other taxa in the *M. axillaris* group (especially Amazonian populations) and the elongated flank plumes are various shades of grey (pearly or bluish) rather than pure white, and some have quite dark plumes, as observed in specimens (L. F. Silveira *in litt.* 2008). For now, we prefer to consider the records of Rio de Janeiro Antwren at REGUA as involving *M. a. luctuosa*, especially as all available *M. fluminensis* sound-recordings are identical to contact calls of *M. a. luctuosa*¹⁰. The taxonomic status of *M. fluminensis* is controversial. That the type (a male) was collected with a female *M. a. luctuosa* suggests it is either a hybrid or even a melanistic *M. a. luctuosa* (L. F. Silveira *in litt.* 2008), something currently being investigated through genetic analysis (A. Aleixo *in litt.* 2009).

Unicoloured Antwren *Myrmotherula unicolor*
Recorded daily below 500 m, both in old second growth and in dense, tangled vegetation along creeks. Formerly considered Vulnerable, this Atlantic Forest endemic is now treated as Near Threatened⁴, and REGUA can be considered as a stronghold. Tape-recorded (XC11809).

Slaty Bristlefront *Merulaxis ater* Common >700 m, but lower only in two areas along the Green and Blue trails (Fig. 4). Globally Near Threatened⁴. Tape-recorded (XC15839).

Pale-breasted Spinetail *Synallaxis albescens*
One record, on 30 October 2007, when two birds called repeatedly from tangled vegetation in the wetland area. They readily approached to playback and were tape-recorded (XC15858).

Eye-ringed Tody-Tyrant *Hemitriccus orbitatus*
Fairly common in lower areas and was mist-netted several times. As in other areas near the Serra

dos Órgãos this species appears to be among the commonest forest insectivores⁷. Considered globally Near Threatened⁴, a designation it perhaps does not merit. Tape-recorded (XC13027).

Greenish Elaenia *Myiopagis viridicata* REGUA is the site of the first record for Rio de Janeiro¹⁵. One foraged at the edge of secondary forest by the reserve headquarters on 5 May 2008 and several times thereafter; also seen around the lodge's gardens in early morning. Tape-recorded (XC20642).

White-lored Tyrannulet *Ornithion inermis* One bird observed on 8 October 2004 by the 'antwren trail' while perched in the lower canopy. The species reaches the southern edge of its range in Rio de Janeiro, where it is considered Vulnerable¹. This appears to be the first record for the Serra dos Órgãos¹⁴.

São Paulo Tyrannulet *Phylloscartes paulista*
One seen in the midstorey on 8 June 2003 with a large mixed-species flock near Casa de Maria. Considered globally Near Threatened⁴, the species' distribution and taxonomy still pose problems (J. F. Pacheco pers. comm.). A globally Near Threatened species⁴, this appears to be the first record for the Serra dos Órgãos region¹⁴.

Oustalet's Tyrannulet *Phylloscartes oustaleti*
Records in the Serra dos Órgãos are based on old specimens and it was considered probably extinct there¹⁴. In 2006 it was rediscovered at Nova Friburgo within the Três Picos park¹². On 6 October 2003 a pair was present in a mixed-species canopy flock in mature forest at Base 1, one individual descending in response to playback. Several records since, always >500 m, especially along the Red, Green and Black trails (Fig. 5). Tape-recorded (XC13714).

Russet-winged Spadebill *Platyrrhynchus leucorhynchus* First recorded by us on 5 June 2007 at c.500 m on the Red Trail. Since found regularly throughout the reserve, always singly in the lower understorey foraging for insects (Fig. 6). Regular in at least five places on the Green, Red and Grey trails. Globally Vulnerable¹⁴. Tape-recorded (XC13716).

Olive-sided Flycatcher *Contopus cooperi* A Nearctic migrant that is uncommon in south-east Brazil²¹. One present for two weeks in March 2006 flycatching from a dead *Cecropia* at Casa do Aníbal is the first record for the Serra dos Órgãos¹⁴.

Bare-throated Bellbird *Procnias nudicollis* Easily recorded throughout the reserve, most conspicuously after May–June, when vocal activity is more intense. Scarce in Rio de Janeiro and elsewhere in the Atlantic Forest because of heavy trapping and considered globally Vulnerable⁴. Tape-recorded (XC12851, XC15833).

Red-ruffed Fruitcrow *Pyroderus scutatus* Rare and threatened in Rio de Janeiro¹, its presence in the Serra dos Órgãos is documented only by old specimens and the species was feared locally extinct¹³. Scattered records available in the reserve, below 200 m. On 14 July 2007, one at the edge of secondary forest in the wetland area responded promptly to playback, and two were seen next day on the Green Trail at c.150 m while perched in the canopy, but were very wary.

Wing-barred Piprites *Piprites chloris* On 18 August 2008 one with a mixed-species canopy flock at c.500 m along the Grey Trail; it responded immediately to playback. The first documented record for Rio de Janeiro¹⁷. Tape-recorded (XC29562).

Thrush-like Mourner *Schiffornis turdina* Uncommon in Rio de Janeiro, where it reaches the southern edge of its range near REGUA. Scattered records along the Blue and Red trails, always responding strongly to playback. Tape-recorded (XC14003).

Elegant Mourner *Laniisoma elegans* Frequent at REGUA, where almost common. During February–August it is found at lower elevations (50–300 m), moving to 500–800 m thereafter. Always found alone, hairy caterpillars are a common food item. This Atlantic Forest endemic is considered globally Near Threatened⁴. Tape-recorded (XC14005) and photographed (Fig. 7).

Long-billed Gnatwren *Ramphocaenus melanurus* A pair observed for several minutes and photographed at Base 1 on 6 October 2003

foraging in the canopy; the species is usually found at lower elevations in the southern Atlantic Forest. Considered Vulnerable in Rio de Janeiro¹, this is the first documented record for the Serra dos Órgãos¹⁴.

Eastern Slaty Thrush *Turdus subalaris* On 2 September 2008 one was singing constantly in the canopy along the Green Trail at c.150 m. The next week two birds were found along the same trail, at 400 m, when photographs were taken. This is the first documented record for the Serra dos Órgãos of this inter-tropical migrant¹⁴.

White-bellied Tanager *Tangara brasiliensis* Formerly treated as a subspecies of *T. mexicana*, *T. brasiliensis* in eastern Brazil is as genetically distinct from *T. mexicana* in Amazonia as other *Tangara*⁶. This Atlantic Forest endemic is considered Vulnerable in Rio de Janeiro, at the southern end of its range, and may merit listing as globally Near Threatened or even Vulnerable. A group of 3–4 were first recorded along the ‘antwren trail’ on 9–11 October 2003, occasionally with other tanagers. Common in open areas and at forest edge, frequently visiting fruiting fig trees in adjoining pastures. Seen in family groups of 2–8 birds. Tape-recorded (XC13062).

Black-legged Dacnis *Dacnis nigripes* First recorded when three females (or immatures) were seen on 8 October 2003 along the ‘antwren trail’ in a canopy flock (including Rufous-winged Antwren *Herpsilochmus rufimarginatus*) that may also have included one male (not seen well). Easily overlooked and few records since, usually involving small flocks of up to five visiting lower areas during winter (Fig. 8). On 20 August 2007 a flock of four was at Casa do Aníbal. Considered globally Near Threatened⁴.

Buffy-fronted Seedeater *Sporophila frontalis* A globally threatened¹⁴ specialist tracking mast-seedings of *Guadua* and *Merostachys* bamboos. First recorded at REGUA on 11 July 2006, when flocks numbering >100 were feeding on seeds of *Guadua* bamboo at 700–1,000 m on the Green and Red trails. When seeding was over in higher areas they moved to secondary forests at c.300 m where they fed on seeds of an abundant Cyperaceae (apparently a *Scleria* sp.) on the forest floor and in clearings. Tape-recorded (XC11727).

Temminck’s Seedeater *Sporophila falcirostris* Another threatened bamboo specialist¹⁴ it was recorded during the same bamboo seeding as the previous species, but in smaller numbers. After the bamboo set seed at higher elevations, the species was also observed between 50 and 400 m. Males

were seen alone singing constantly atop the tallest trees, while females and young occurred in small flocks in the understorey and bamboo tickets. Tape-recorded (XC12826).

Chestnut-bellied Seed Finch *Sporophila angolensis* Considered probably extinct in the Serra dos Órgãos, the last record was made in 1950¹⁴. An adult male was singing in a dead tree at the wetland on 2 April 2007, and was seen for the next three weeks until it disappeared, probably caught by bird trappers living nearby. Tape-recorded (XC13103).

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