The birds of Serra da Canastra National Park and adjacent areas, Minas Gerais, Brazil

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É apresentada uma listagem da avifauna do Parque Nacional da Serra da Canastra e regiões próximas, e complementada com observações realizadas por outros autores. São relatadas algumas observações sobre espécies ameaçadas ou pouco conhecidas, bem como a extensão de distribuição para outras.

Introduction

Located in the south-west part of Minas Gerais state, south-east Brazil, Serra da Canastra National Park (SCNP, 71,525 ha⁸, 20°15′S 46°37′W)⁹ is regularly visited by birders as it is a well-known area in which to see cerrado specialities and a site for Brazilian Merganser *Mergus octosetaceus*. However, Forrester's⁶ checklist constitutes the only major compilation of records from the area. Here, I list the species recorded at Serra da Canastra National Park and surrounding areas (Appendix 1), with details of threatened birds and range extensions for some species.

Material and methods

The dominant vegetation of Serra da Canastra National Park is cerrado sensu lato, but more than 90% of its total area is covered by subdivisions of this formation, known as campo limpo and campo sujo; the park has small portions of campo rupestre, and cerrado sensu stricto, and patches of gallery forest with Atlantic forest characteristics. The relief is undulating, with streams in the valleys. The climate has a marked seasonality, with a rainy season in September–February and a dry season in March–August.

I studied the avifauna during February 1996–February 1998, with most fieldwork conducted in April–December 1996, when I undertook population surveys and investigated the habitat requirements of Brazilian Merganser¹⁷. This project's methodology involved considerable activity in gallery forest adjacent to watercourses apparently suitable for *Mergus octosetaceus*. Over c.45 km of the river São Francisco—from its source as far as the village of Vargem Bonita—were surveyed. Downstream of the village, water conditions and environmental degradation have made the area unsuitable for Brazilian Merganser. Observations were made in both of the area's major drainage systems—the rios São Francisco and Paraná—within and outside the park. I also undertook an avifaunal inventory, documenting most species recorded with photographs or tape-recordings, using a Sony TCM 5000EV and Sennheiser ME 66 directional microphone. Tape-recordings are deposited at Arquivo Sonoro Elias Pacheco Coelho, in the Universidade Federal do Rio de Janeiro, Brazil (ASEC).

A problem with many avifaunal lists concerns the evidence of a species' presence in a given area. Many species are similar in plumage and vocalisations, resulting in identification errors and making avifaunal lists the subject of some criticism¹. Several ornithologists or experienced birders have presented such lists without specifying the evidence attached to each record—in many cases it is unknown if a species was tape-recorded, or a specimen or photograph taken. However, Hayes⁷ provides a source for all species recorded in Paraguay, and in Brazil, Cohn-Haft et al.3 explicitly provided evidence for species' occurrences north of Manaus. These lists class evidence according to rank, the highest being a specimen and the lowest being a heard-only record. I did not collect specimens at Canastra, although this is undoubtedly the most surefire method of identification (and a specimen has considerable additional value¹²). In the list presented here, I rank evidence as follows: the highest evidence is a species cited in Forrester⁶ (1) also observed by me (two independent records), followed by a tape-recording (R), a photo which conclusively identifies a species (P), a sight observation (O) and, the lowest category, a record based only on a vocalisation and not tape-recorded (H) (Appendix 1). For some species more than one type of evidence is available, increasing the value of the record, if it was made only by me (e.g. Small-billed Tinamou Crypturellus parvirostris was observed and tape-recorded). I accessed unpublished data from other ornithologists (see Appendix 1) who visited SCNP, and species recorded by more than one of these observers or for which specific documentation exists were included in the main list. Thirty-four species were recorded by only one author (26 in Forrester⁶—see Table 1) and these were considered hypothetical because specific evidence was unavailable. Many hypothetical species are almost certainly present in the area, but better documentation is required.

Species recorded were classified with respect to threatened status⁵ or relative abundance (in suitable habitat), which was determined subjectively, and changes can be expected through further research. The taxonomy and species sequence follows Sick 1997¹⁵, except *Aratinga auricapilla*, which follows Collar et *al.*⁴.

Results and species accounts

Forrester⁶, through compilation of various unpublished reports, presents a list of 260 species recorded from

Serra da Canastra National Park. The list presented here for the Serra da Canastra region includes 282 species (Appendix 1) for which some evidence for its occurrence is available.

Twelve species are endemic to the cerrado sensu latu¹⁶ and 13 species are endemic to Brazil¹⁵. Twenty-one species recorded in the region are classified as threatened or near-threatened⁴, nine of which occur in one of three categories: Critically Endangered (Brazilian Merganser), Endangered (Ochre-breasted Pipit Anthus nattereri) and Vulnerable (seven, e.g. Lesser Nothura Nothura minor, Dwarf Tinamou Taoniscus nanus and Crowned Eagle Harpyhaliaetus coronatus). According Wege & Long¹⁸, SCNP is one of the most important sites harbouring threatened species of the campos and cerrados of Brazil (habitats disappearing rapidly yet receiving comparatively little attention by conservationists, and which require urgent protection, as noted by Parker & Willis¹⁰).

Table 1. Species recorded by only one author, and thus regarded as hypothetical at Serra da Canastra.

Podilymbus podiceps	WDB						
Leptodon cayanensis	BCF						
Accipiter striatus	BCF						
Spizastur melanoleucus	WDB						
Micrastur semitorquatus	BCF						
Falco rufigularis	BCF						
Bartramia longicauda	RAR						
Gallinago undulata	BCF						
Columba speciosa	BCF						
Columba plumbea	BCF						
Columbina picui	BCF						
Brotogeris tirica	BCF						
Asio flammeus	BCF						
Caprimulgus parvulus	RAR						
Polytmus guainumbi	BCF						
Veniliornis spilogaster	BCF						
Furnarius figulus	BCF						
Xiphocolaptes albicollis	BCF	BCF					
Hemitriccus margaritaceiventer							
Myiopagis gaimardii	BCF						
Todirostrum plumbeiceps	BCF						
Knipolegus cyanirostris	BCF						
Arundinicola leucocephala	RAR						
Casiornis rufa	BCF						
Myiarchus tuberculifer	BCF						
Schiffornis virescens	JFP						
Turdus subalaris	RAR						
Hemithraupis guira	BCF						
Tachyphonus rufus	BCF						
Pipraeidea melanonota	BCF						
Euphonia cyanocephala	RAR						
Oryzoborus maximiliani	BCF						
Oryzoborus angolensis	BCF						
Coryphospingus cucculatus	BCF						

Observers are coded as follows: BCF = Bruce C. Forrester 6 ; JFP = José Fernando Pacheco (pers. comm.); RAR: Rose Ann Rowlett (pers. comm); and WDB: Wolf Dieter Bartmann 2 .

Species accounts

Species accounts are presented for those taxa for which I obtained new information from within SCNP or nearby. Each species is coded as follows: (C) = Critical; (E) = Endangered; (V) = Vulnerable; (NT) = near-threatened⁴; and (RE) = range extension.

Brazilian Merganser Mergus octosetaceus (C). My research at SCNP commenced with a population census of this species: six mature pairs and 22 individuals were found along the main rivers and streams of the region¹⁷. Below, I present observations on the six pairs found in the study area. Breeding in SCNP occurs in July². Mergus octosetaceus has two significant ecological requirements which limit its distribution: one is a lack of

suitable trees, in much of the gallery forest, with holes of a sufficient size for the species to use for nesting. Some pairs studied since 1996 have not bred, probably because there are no suitable trees in the gallery forest adjoining their territories. The second requirement has meant a lack of vacant territories for juveniles to occupy. *Mergus octosetaceus* is a highly territorial species, and each pair requires a minimum of 8 km of river with high water quality (Silveira & Bartmann in prep.). Such conditions exist in few areas, all occupied by mature pairs. It is unknown what happens to fledged young. Other potential areas are disturbed by diamond mining and ecological tourism; local farmers are renting properties by the São Francisco river to tourists who increase water pollution and disturb the environment.

Pair 1. Studied by Bartmann², this pair occupies a territory on the São Francisco river, above the Casca d'Anta waterfall. Bartmann and I observed this pair with four small ducklings in September 1996. In February 1997, Henrique R. Nobre (pers. comm.) observed the same pair and its young in this area. I returned to the territory in April—June 1997 and failed to find any birds there, but in July 1998, Juan Mazar Barnett (pers. comm.) found the pair with two ducklings in the same place and I was also able to observe them there during 21–23 August 1998

Pair 2. Also studied by Bartmann², this pair occupies a territory on the São Francisco river, between the Casca d'Anta waterfall and a point near São José do Barreiro village. Breeding was not recorded in 1996–1997.

Pair 3. A newly discovered pair on the São Francisco river which occupy a territory between São José do Barreiro to c.4 km downstream of there. No breeding records in 1996–1997.

Pair 4. Studied by Bartmann², this pair occupies a territory in an area known as Retiro das Pedras. In August 1997, the pair had four ducklings, and was seen regularly in this area.

Pair 5. Another newly discovered pair, which occupy the Ribeirão das Posses stream, part of the Paraná drainage basin. No breeding records.

Pair 6. This pair occupies a territory c.8 km dowsntream of pair 5; it had two ducklings in October 1996.

Brasília Tapaculo Scytalopus novacapitalis (V). Occurs in almost all humid forest where the fern Blechnum sp. is found, in densities of 1–2 pairs per patch. In October–December, pairs sing throughout the day (males and females have different songs), and are easily attracted to playback. S. novacapitalis is very common in and outside the park in areas with other typical cerrado species, e.g. Herpsilochmus longirostris and Antilophia galeata.

Dusky-tailed Antbird *Drymophila malura* (RE). Although mapped in Minas Gerais¹⁴, I have found no published records of the species from the state. Unpublished records have been made at several localities in Serra da Mantiqueira, e.g. a male tape-recorded at Fazenda São Francisco do Jordão, near Delfim Moreira (22°30'S 45°16'W), in April 1994 (Flávio C. T. Lima pers. comm.). The species has been regularly recorded at Caraça Natural Park (20°08'S 43°30'W), Santa Bárbara municipality (J. F. Pacheco pers. comm.), and I have found it at Tripuí Ecological Station (20°17'S 43°30'W), where it is fairly common in secondary forest. At SCNP, I tape-recorded a pair in a gallery forest near Ribeirão das Posses in September 1996. This record represents a range extension of c.350 km west from Tripuí, the nearest traceable locality, and demonstrates the need to publish records clarifying the status and distribution of common birds.

Sharp-tailed Tyrant Culicivora caudacuta (NT) and Cock-tailed Tyrant Alectrurus tricolor (NT). C. caudacuta is easily found year-round, in small groups of 3–7 birds in tall grass. In December 1996, a family group with two dependent young was found. The young were similar in shape to that briefly described in Parker & Willis¹⁰. I have never seen Culicivora caudacuta in mixed groups of cerrado species, as noted by the last-named authors. Alectrurus tricolor is a migrant, arriving in

mid-August–September and leaving in December–January. In December 1996, a female was noted feeding two young with small fruits. The structure of the immature birds was very similar to that of the female. In SCNP, Cock-tailed Tyrant utilises *campo sujo* and *campo limpo*, where the males perform the territorial displays described by Sick¹⁵.

Southern Bristle-tyrant *Phylloscartes eximius* (NT, RE). Inhabits mid-strata of humid forests in south-east Brazil, Argentina and Paraguay¹⁴. There are few recent records of *P. eximius* in Brazil (Silveira & Develey in prep.). In Minas Gerais, Pinto¹¹ documented a pair obtained by A. M. Olalla in Fazenda Boa Esperança, north of São José da Lagoa (now Nova Era, 19°45′S 43°03′W, at 530 m) in September 1940. Another pair was obtained in March 1926 by Snethlage at Fazenda Taveira, Mariana municipality (20°22′S 43°24′W, at 712 m) (retained at Museu Nacional do Rio de Janeiro: J. F. Pacheco pers. comm.). I found two pairs in the Atlantic forest below Casca d'Anta waterfall, in September 1996 and on all visits in 1997–1998. They were very responsive to

playback (remaining in an upright position) different to typical *Phylloscartes*. Ridgely & Tudor¹⁴ draw attention to the fact that *P. eximius* may be declining substantially due to deforestation throughout its range, but many ornithologists are unfamiliar with this species' vocalisations. I have never recorded it following mixed-species flocks, and it often perches quietly and unobtrusively. More records will almost certainly be made once its voice becomes more widely known amongst fieldworkers in the region. The records at SCNP extend its known range c.300 km west. It is interesting to note that other typical Atlantic forest species occur at SCNP, e.g. *Pyroderus scutatus* and *Ilicura militaris*.

Ochre-breasted Pipit Anthus nattereri (E) (RE). This scarce species is known in Minas Gerais from Monte Belo (21°19'S 46°22'W), Alfenas (21°25'S 45°46'W) and Morro do Ferro, Poços de Caldas municipality (21°47'S 46°33'W)⁴. This record extends its distribution by c.100 km north-west from Monte Belo, the nearest locality. The species was identified by Juan Mazar Barnett, on 16 December 1997, and we tape-recorded at least three birds in a grassy field near the source of the São Francisco river. Following this, I found A. nattereri in other areas of the park. The species is easily identified by its vocalisations and display, which differ from those of A. lutescens and A. hellmayri, which are also present here. Displaying Ochre-breasted Pipit perform a spiralling descent while singing, unlike A. lutescens, which descends in a near-straight line, and A. hellmayri, which also makes a spiral descent but with a more open helix than A. nattereri. I also observed this phenonomen at Ibitipoca State Park (21°33'S 43°55'W) in January 1997. The three species' songs are easily recognisable. Open areas inhabited by A. nattereri are threatened by the development of pasture and agriculture¹⁰. Following grass-burning, Ochre-breasted Pipit would disappear, but was one of the first species to return once the grass had regenerated. Parker & Willis¹⁰ have also noted the species' preference for recently burnt areas. The area in SCNP where A. nattereri was recorded for the first time also supports other near-threatened species: Taoniscus nanus, Coryphaspiza melanotis, Culicivora caudacuta and Alectrurus tricolor.

Rufous-rumped Seedeater Sporophila hypochroma (NT). In Brazil, this species was previously known from just two localities in the centre-west of the country. I observed two males in a mixed flock of Sporophila bouvreuil and S. melanogaster (see below) in October 1996, when seeds are abundant. Important field marks are the rump and belly coloration, more rufous than in S. hypoxantha (the colour in Rufous-rumped is similar to that in S. b. saturata: specimens at Museu de Zoologia da Universidade de São Paulo) and providing more of a contrast with the greyish upperparts. It is interesting to note that the other Brazilian records were also in October, and the birds I recorded did not vocalise. This suggests that Rufous-rumped Seedeater is an austral migrant in Brazil, as noted by Ridgely & Tudor, and illustrates the conservation importance of grasslands in central-east Brazil, which are rapidly disappearing and are very important areas for migrant seedeaters.

Black-bellied Seedeater Sporophila melanogaster (NT). Sick¹⁵ recorded the species from three localities in Minas Gerais: Campanha (21°50'S 45°24'W)⁹ and Poços de Caldas (21°47'S 46°33'W)⁹, without additional data, and Pirapora (17°20'S 44°56'W)⁹, in September. I saw four adult males in October 1996 in the same mixed flock with the S. hypochroma noted above. Mixed Sporophila flocks are frequent at SCNP in October, and always include resident S. bouvreuil. An additional record of S. melanogaster was one mist-netted (with two others seen) at Várzea do Rio Jacaré, near Morro do Ferro village (20°46'S 44°34'W), Minas Gerais, on 27 December 1997. This bird possessed significant abdominal fat, a clear sign of a migrant. Migration routes of Sporophila in Brazil require more accurate study before effective conservation measures can be designed.

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Appendix 1. Species recorded in Serra da Canastra National Park and adjacent areas

Family/Subfamily	StatusE	Evidence	Rel. Ab.					
TINAMIDAE (7) Crypturellus obsoletus Brown Tinamo	u	H, R, 1	U					
Crypturellus parvirostris Small-billed	Γinamou		O, R	С	Crypturellus tatau	pa Tataupa Tinamou		H, 1
•	UF	Rhyncho	tus ru	fescens l	Red-winged Tinamou	P, R, 1	С	
Nothura minorer. Lesser Nothura	V	O, H, 1	R		Š.			
Nothura maculosa Spotted Nothura		O, R, 1	С					
Taoniscus nanus 'Dwarf Tinamou RHEIDAE (1)	V	R	R					
Rhea americana Greater Rhea PODICIPEDIDAE (1)	NT	P, 1	FC					
Tachybaptus dominicus Least Grebe PHALACROCORACIDAE (1)		O, 1	FC					
Phalacrocorax brasilianus Neotropic (ANHINGIDAE (1)	Cormorar	nt	O, 1	FC				

Anhinga anhinga Anhinga	O, 1	U			
ARDEIDAE (6)	0, 1	U			
Ardea cocoi White-necked Heron	0	U	Casmerodius albus Great Egret O, 1	С	Egretta
thula Snowy Egret	0, 1	С	Bubulcus ibis Cattle Egret O, 1	С	Butorides
striatus Striated Heron	0	С	Syrigma sibilatrix Whistling Heron Theristicus caudatus Buff-necked Ibis	O, 1	U FC
THRESKIORNITHIDAE (1)			Theristicus caudatus Bull-necked ibis	O, R, 1	FC
CICONIIDAE (1)			Mycteria americana Wood Stork P	R	
CATHARTIDAE (3)			•		
Sarcoramphus papa King Vulture	P, 1	С	Coragyps atratus Black Vulture O, 1	С	Cathartes
aura Turkey Vulture	O, 1	С			
ANATIDAE (4) Dendrocygna viduata White faced Whistling-d	uck C), R, 1	FC Amazonetta brasiliensis Brazilian Duck		O, 1
			Muscovy Duck O R	Mergus o	ctosetaceus
Brazilian Merganser C	P, R, 1, 3		•	Ŭ	
ACCIPITRIDAE (11)			Elanus leucurus White-tailed Kite	0, 1	C
Ictinia plumbea Plumbeous Kite	FC	0	R Geranoaetus melanoleucus Black-chestee	d Buzzard-e	eagle
P, 1 Buteo albicaudatus White-tailed Hawk	0, 1	С	Buteo brachyurus Short-tailed Hawk	O, 1	FC
Rupornis magnirostris Roadside Hawk), R, 1	C	O , .	. •
Parabuteo unicinctus Harris's Hawk	O, 1	R	Buteogallus meridionalis Savanna Hawk	O, 1	С
Buteogallus urubitinga Great Black-hawk		1, 5	- Harpyhaliaetus coronatus Crowned Eagle	V	0
R	Circus bu	ttoni Lon	g-winged Harrier O, 1 R		
FALCONIDAE (6)					
Herpetotheres cachinnans Laughing Falcon	O, R, 1, 4	С			
Milvago chimachima Yellow-headed Caracara		O, 1	C Milvago chimango Chimango Caracara		O, 1
			Crested Caracara P, 1 C	Falco fen	
Aplomado Falcon	0, 1	FC	Falco sparverius American Kestrel	O, 1	С
CRACIDAE (1) Penelope superciliaris Rusty-margined Guan	O, 1	U			
RALLIDAE (3)	0, 1	U			
Rallus nigricans Blackish Rail	R	U	Aramides cajanea Grey-necked Wood-rail	O, R, 1	С
Gallinula chloropus Common Moorhen	O, 1	FC			
CARIAMIDAE (1)					
Cariama cristata Red-legged Seriema	P, R, 1	С			
JACANIDAE (1) Jacana jacana Wattled Jacana	O, H, 1	FC			
CHARADRIIDAE (1)	O , , .	. •	Vanellus chilensis Southern Lapwing	O, H, 1	С
SCOLOPACIDAE (1)					
Gallinago paraguaiae Common Snipe	O, H, 1	U			
COLUMBIDAE (9) picazuro Picazuro Pigeon	O, 1	С	Columba livia Rock Dove O Columba cayennensis Pale-vented Pigeon	C O, R, 1	Columba
Zenaida auriculata Eared Dove	0, 1 0, 1	FC	Columbina minuta Plain-breasted Ground-dove	O, K, 1	C O, 1
R		. 0	Columbina minuta i idin bicastca Cicana dove		O, 1
Columbina talpacoti Ruddy Ground-dove	O, 1	С	Scardafella squammata Scaled Dove	O, R, 1	С
Leptotila verreauxi White-tipped Dove	O, R, 1	С			
Leptotila rufaxilla Grey-fronted Dove PSITTACIDAE (8)	R, 1	FC	Propyrrhura maracana Blue-winged Macaw	V	O, R, 1
R			Propyrmura maracana Blue-willigeu Macaw	V	O, K, 1
Aratinga leucophthalmus White-eyed Parakee), R, 1	С		
Aratinga auricapilla BR. Golden-capped Parakee	et VC), R, 1	C		
Aratinga aurea Peach-fronted Parakeet	O, R, 1	С			
Pyrrhura frontalis Reddish-bellied Parakeet Forpus xanthopterygius Blue-winged Parrotlet	O, R, 1	C), R, 1	С		
Brotogeris chiriri Yellow-chevroned Parakeet		C C	Pionus maximiliani Scaly-headed Parrot	O, R, 1	FC
CUCULIDAE (4)	٠, ٠٠, ١		The state of the s	٠, ٠٠, ١	
Piaya cayana Squirrel Cuckoo	O, 1	С	Crotophaga ani Smooth-billed Ani	O, H, 1	С
Guira guira Guira Cuckoo	O, H, 1	C			
Tyronipae (1)	O, R, 1	FC			
TYTONIDAE (1) Tyto alba Barn Owl	0	FC			
STRIGIDAE (4)	Ŭ				
Otus choliba Tropical Screech-owl		FC	Bubo virginianus Great Horned Owl	R, 1	U
Glaucidium brasilianum Least Pygmy-owl), R, 1	С		
Speotyto cunicularia Burrowing Owl NYCTIBIIDAE (1)	P, H, 1	С			
Nyctibius griseus Common Potoo	н	U			
CAPRIMULGIDAE (6)					
Chordeiles pusillus Least Nighthawk	0, 1		Podager nacunda Nacunda Nighthawk	O, 1	U
Nyctidromus albicollis Pauraque), R, 1	C	tia	
Caprimulgus maculicaudus Spot-tailed Nightja	II FO	O, 1	U Hydropsalis brasiliana Scissor-tailed Nigh tus anomalus Sickle-winged Nightjar NT	tjar P	R
O, 1 APODIDAE (4)	FUE	Jeouriepi	ius anomaius sickie-winged Nightjal - NT		IX.
Streptoprocne zonaris White-collared Swift	O, R, 1	С			

Cypseloides senex Great Dusky Swift O, 1 U Chaetura andrei Ashy-tailed Swift O, 1	Cypseloides fumigatus Sooty Swift O, 1 FC	U
TROCHILIDAE (10) Phaethornis pretrei Planalto Hermit O, R, 1 C Eupetomena macroura Swallow-tailed Hummingbird O, 1 Collibria particular Violence (1) Col	С	
Colibri serrirostris White-vented Violetear O, R, 1 C Lophornis magnifica ^{ex.} Frilled Coquette O R	Chlorostilbon aureoventris Glittering-bellied Emerald	O, 1
FC Thalurania furcata Fork-tailed Woodnymph O, 1 FC	Thalurania glaucopis Violet-capped Woodnymph	1, 5
Amazilia fimbriata Glittering-throated Emerald O Heliomaster squamosus ^{BR} Stripe-breasted Starthroat O, 1 Calliphlox amethystina Amethyst Woodstar O FC TROGONIDAE (1)	U U	
Trogon surrucura Surucua Trogon R, P, 1 C	ALCEDINIDAE (3)	
Ceryle torquata Ringed Kingfisher O, 1 FC Chloroceryle americana Green Kingfisher O, R, 1 C MOMOTIDAE (1)	Chloroceryle amazona Amazon Kingfisher O, R, 1	С
Baryphthengus ruficapillus Rufous-capped Motmot O, 1 GALBULIDAE (1)	U	
Galbula ruficauda Rufous-tailed Jacamar O, R, 1 FC BUCCONIDAE (1) RAMPHASTIDAE (2)	Nystalus chacuru White-eared Puffbird O, 1 Ramphastos dicolorus Red-breasted Toucan	C O, R, 1
Ramphastos toco Toco Toucan O, R, 1 C		
PICIDAE (8) Picumnus cirratus White-barred Piculet O, R, 1 C Colaptes campestris Campo Flicker O, R, 1 C Colaptes melanochloros Green-barred Woodpecker O, R, 1	C Celeus flavescens Blond crested Woodpecker	
P, R, 1 FC <i>Dryocopi</i>	us lineatus Lineated Woodpecker O, R, 1 FC	
Melanerpes candidus White Woodpecker O, R, 1 C Veniliornis passerinus Little Woodpecker O, 1 C R	Campephilus robustus Robust Woodpecker	O, R
RHINOCRYPTIDAE (2) Melanopareia torquata Collared Crescentchest P, R, 1 C	C Scytalopus novacapitalis ^{BR*} Brasília Tapaculo	V
THAMNOPHILIDAE (9)	Taraba major Great Antshrike O, H FC	
Thamnophilus punctatus Eastern Slaty-antshrike O, R, 1 Thamnophilus caerulescens Variable Antshrike O, R, 1 Thamnophilus torquatus Rufous-winged Antshrike O, R, 1 FC	FC FC Dysithamnus mentalis Plain Antvireo	O, R, 1
Herpsilochmus atricapillus Black-capped Antwren 6	- Herpsilochmus longirostris` Large-billed Antwren nila malura Dusky-tailed Antbird O, R R	Pyriglena
leucoptera White-shouldered Fire-eye O, R, 1 C	ina maidra Busky-tailed Aribina 5, iX	r yngiena
Conopophaga lineata Rufous Gnateater O, R, 1 FC FURNARIIDAE (14)		
Geobates poecilopterus Campo Miner O, 1 R Synallaxis spixi Spix's Spinetail O, R, 1 C	Furnarius rufus Rufous Hornero O, R, 1 C	
Synallaxis ruficapilla Rufous-capped Spinetail O, R	U Synallaxis frontalis Sooty-fronted Spinetail	O, R, 1
Synallaxis albescens Pale-breasted Spinetail O, R, 1 FC Synallaxis cinerascens Grey-bellied Spinetail O, R U C	Phacellodomus rufifrons Common Thornbird	O, R, 1
Anumbius annumbi Firewood-gatherer O, 1 C Philydor rufus Buff-fronted Foliage-gleaner O, R, 1 U O U	Philydor dimidiatus [*] Russet-mantled Foliage-gleaner NT Automolus leucophthalmus White-eyed Foliage-gleaner	1, 6
Xenops rutilans Streaked Xenops O, R, 1 U Lochmias nematura Sharp-tailed Streamcreeper O, R, 1 DENDROCOLAPTIDAE (4)	С	
Sittasomus griseicapillus Olivaceous Woodcreeper O, R, 1 Dendrocolaptes platyrostris Planalto Woodcreeper O, 1 O, R, 1 CLepidoco	C FC Lepidocolaptes angustirostris Narrow-billed Valaptes squamatus Scaled Woodcreeper O, 1	Woodcreeper U
TYRANNIDAE (54) Camptostoma obsoletum Southern Beardless-tyrannulet	Phyllomyias fasciatus Planalto Tyrannulet O, H O, R, 1 C Suiriri suiriri Campo Suiriri Flycatcher is caniceps Grey Elaenia O, H, 1 U	Ü
Elaenia flavogaster Yellow-bellied Elaenia O, R, 1 C Elaenia mesoleuca Olivaceous Elaenia 1, 4, 5 - Elaenia cristata Plain-crested Elaenia O, R, 1 FC	3,1,1	
Elaenia obscura Highland Elaenia O, R, 1 FC	0 / / 2 - 5	
Elaenia chiriquensis Lesser Elaenia O, R R Serpophaga subcristata White-crested Tyrannulet O, R, 1	Serpophaga nigricans Sooty Tyrannulet O, R, 1 FC Culicivora caudacuta Sharp-tailed Tyrant NT	C O, R, 1
FC Polystictus superciliaris ^{ar.} * Grey-backed Tachuri NT P, 1	U Mionectes rufiventris Grey-hooded Flycatcher	

O, R, 1 C		
Leptopogon amaurocephalus Sepia-capped Flycatcher	O, R, 1 C	
Phylloscartes eximius Southern Bristle-tyrantNT O, R R	Phylloscartes ventralis Mottle-cheeked Tyrannulet ola Yellow Tyrannulet O, R, 1 R	O, R, 1
Corythopis delalandi Southern Antpipit O, R R	Todirostrum poliocephalum ^{BR.} Yellow-lored Tody-flycatcher	O, R, 1
C Todirostrum cinera Tolmomyias sulphurescens Yellow-olive Flycatcher O, R, 1	eum Commom Tody-flycatcher O, R, 1 C	
Platyrinchus mystaceus White-throated Spadebill O, R, 1	C	
Myiophobus fasciatus Bran-coloured Flycatcher O, R, 1	C	
Lathrotriccus euleri Euler's Flycatcher O, R, 1 FC Pyrocephalus rubinus Vermilion Flycatcher O, 1 U	Xolmis cinerea Grey Monjita O, R, 1 C	
Xolmis velata White-rumped Monjita O, R, 1 C		
Knipolegus lophotes Crested Black-tyrant O, 1 C	Knipolegus nigerrimus ^{BR.} Velvety Black-tyrant Masked Water-tyrant O, R, 1 C	0, 1
Colonia colonus Long-tailed Tyrant O, R, 1 C	iviasked water-tyranit O, K, I C	
Alectrurus tricolor Cock-tailed Tyrant NT P,1 C	Gubernetes yetapa Streamer-tailed Tyrant R, P, 1	C
Satrapa icterophrys Yellow-browed Tyrant O, 1 FC Machetornis rixosus Cattle Tyrant O, 1 C	Hirundinea ferruginea Cliff Flycatcher O, R, 1 Sirystes sibilator Sirystes O, R, 1 U	FC
Myiarchus ferox Short-crested Flycatcher O, R, 1 C		
Myiarchus tyrannulus Brown-crested Flycatcher O, H, 1 U	FC Myiarchus swainsoni Swainson's Flycatcher	
Pitangus sulphuratus Great Kiskadee O, H, 1 C		
Megarynchus pitangua Boat-billed Flycatcher O, R, 1 C		
Myiozetetes similis Social Flycatcher O, H, 1 C Myiodynastes maculatus Streaked Flycatcher O, R	FC Legatus leucophaius Piratic Flycatcher	O, R, 1
U	· · · · · · · · · · · · · · · · · · ·	
Empidonomus varius Variegated Flycatcher O, R FC O R Tyrannus	Griseotyrannus aurantioatrocristatus Crowned Slaty savana Fork-tailed Flycatcher O, H, 1 C	Flycatcher
Tyrannus melancholicus Tropical Kingbird O, H, 1 C	Savana i dik-talled i lycatchei 0, ii, i 0	
Tyrannus albogularis White-throated Kingbird O, R, 1	FC	
Pachyramphus castaneus Chestnut-crowned Becard O, 1 Pachyramphus polychopterus White-winged Becard O, R, 1	R FC	
Tityra cayana Black-tailed Tityra O, R R		
PIPRIDAE (3) Antilophia galeata Helmeted Manakin O, R, 1 C		
Ilicura militaris ^{BR.} Pin-tailed Manakin O, R, 1 U		
Manacus manacus White-bearded Manakin O U COTINGIDAE (1)		
Pyroderus scutatus Red-ruffed Fruitcrow R, P, 1 C		
HIDHNDINIDAE (7)	Tachyoinata albiyantar White winged Swellow	0
HIRUNDINIDAE (7) CTachycineta leuco	Tachycineta albiventer White-winged Swallow orthoa White-rumped Swallow O, 1 FC	O
Phaeoprogne tapera Brown-chested Martin O, R,1	C	
Progne chalybea Grey-breasted Martin O, R, 1 C Notiochelidon cyanoleuca Blue-and-white Swallow P, 1	C Alopochelidon fucata Tawny-headed Swallow	
O, 1 RStelgidop	teryx ruficollis Southern Rough-winged Swallow	O, R, 1
C CORVIDAE (2)		
Cyanocorax cristatellus* Curl-crested Jay O, R, 1 C		
Cyanocorax chrysops Plush-crested Jay O, 1 U TROGLODYTIDAE (3)		
Donacobius atricapillus Black-capped Donacobius O, R, 1	C Cistothorus platensis Grass Wren	O, R, 1
C		
Troglodytes aedon House Wren O, H, 1 C MUSCICAPIDAE / TURDINAE (3)	Turdus rufiventris Rufous-bellied Thrush O, H, 1	С
Turdus leucomelas Pale-breasted Thrush O, H, 1 C		
Turdus amaurochalinus Creamy-bellied Thrush O, H, 1 MIMIDAE (1)	FC	
Mimus saturninus Chalk-browed Mockingbird O, H, 1 C		
MOTACILLIDAE (3) Anthus hellmayri Hellmayr's Pipit 1, 2, 4, 5 -		
Anthus lutescens Yellowish Pipit O, R, 1 FC		
Anthus nattereri Ochre-breasted Pipit E P, R R		
VIREONIDAE (3) Cyclarhis gujanensis Rufous-browed Peppershrike O, H, 1	C Vireo chivi Chivi Vireo O, R	FC
Hylophilus amaurocephalus Grey-eyed Greenlet O, H, 1	U	
EMBERIZIDAE/PARULINAE (5) Geothlypis aequinoctialis Masked Yellowthroat O, H, 1	Parula pitiayumi Tropical Parula O, R, 1 C	
Basileuterus culicivorus Golden-crowned Warbler O, R, 1	C Basileuterus leucophrys ^{BR.*} White-striped Warbler	
O, R, 1 FC Basileuterus leucoblepharus White-rimmed Warbler O, R, 1	С	
COEREBINAE (1)		
Coereba flaveola Bananaquit O, R, 1 C	THRAUPINAE (18)	
Schistochlamys ruficapillus Cinnamon Tanager O, R, 1	FC	

ruficapilla ^{BR.} Rufous-headed T	anager	0), 1
O, 1	FC T	achyphonu	IS
inga flava Hepatic Tanager	0	F	C
aupis palmarum Palm Tanage	er	0), 1
ed Euphonia	O, R C	; т	angara
na Burnished-buff Tanager	0), R, 1 C	;
	EMBERIZIN	AE (21)	
		` '	
	-, , -		
albifrons Long-tailed Reed Fin	ich	0)
			flaveola
-, -, -			
herbicola Wedge-tailed Grass	s-finch	0), R, 1
			, , .
	0,, .		
ricollis Yellow-bellied Seedea	ter	C), R, 1
			Sporophila
	-, ,		
arroan Cappoa Cocacaio.	Ŭ	, ,	Ŭ
emon flavirostris Saffron-billed	Sparrow	C), R, 1
mon navnostno Samon Smo	a opanon	Ŭ	, , , ,
caerulescens* Blue Finch	NT O) 1 R	
caeralescens blue i inch		, 1	•
orimonear choni Choni Blackh	ird	C), R, 1
лторзаг спорт опортываска	ni u	J	, IX, I
rzivora Giant Cowbird	0		
eliariicus Hooded Siskiii	C	, K, I F	C
	O, 1 anga flava Hepatic Tanager raupis palmarum Palm Tanager de Euphonia na Burnished-buff Tanager red Sparrow albifrons Long-tailed Reed Fin -finch O, R, 1 herbicola Wedge-tailed Grass pa-finch aricollis Yellow-bellied Seedea collared Seedeater curreuil Capped Seedeater emon flavirostris Saffron-billed	anga flava Hepatic Tanager aupis palmarum Palm Tanager ad Euphonia O, R C na Burnished-buff Tanager red Sparrow O, R, 1 C albifrons Long-tailed Reed Finch refinch O, R, 1 C sherbicola Wedge-tailed Grass-finch pa-finch O, R, 1 C aricollis Yellow-bellied Seedeater collared Seedea	O, 1 FC Tachyphonu. anga flava Hepatic Tanager O Faupis palmarum Palm Tanager O Red Euphonia O, R C Tana Burnished-buff Tanager O, R, 1 C Ted Sparrow O, R, 1 C Ted Sparrow O, R, 1 C Tellibritrons Long-tailed Reed Finch

enotes a species endemic (12) to the cerrado region¹⁶.

Status (following Collar et al.)⁵: C = Critical (one); E = Endangered (one); V = Vulnerable (seven); and NT = Near-threatened (12).

Evidence type: O = sight record; P = photographed; H = heard; R = tape-recorded; 1 = record in Forrester^e; 2 = recorded by José Fernando Pacheco 3 = recorded by Bartmann²; 4 = recorded by Rose Ann Rowlett; 5 = recorded by Derek Scott and Luiz Antônio Pedreira Gonzaga;

6 = tape-recorded by Bret Whitney.

Relative abundance (Rel. Ab.) based on the author's observations:

C = common (recorded on all visits); FC = fairly common (recorded on at least half of all visits); U = uncommon (recorded on less than half of all visits); R = rare (recorded 1-2 occasions during all visits, and including some migrant species)