Noteworthy records and range extensions from the Caura River watershed, Bolívar state, Venezuela

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Reportamos 482 especies detectadas en el bajo y medio río Caura, Venezuela, como parte de un proyecto de documentación y desarrollo del conocimiento indígena de nombres y cantos de aves. Estas especies fueron detectadas durante seis diferentes visitas por los autores, y por los análisis de grabaciones de audio hechas por los participantes del proyecto entre 2006 y 2009. Destacamos 16 especies sobresalientes y varias extensiones de rango menores para el país, y proveemos una lista completa de las especies detectadas durante todo el proyecto. El río Caura sigue siendo el mayor tributario del río Orinoco con menos perturbación, por lo tanto recomendamos continuar con exploraciones ornitológicas adicionales.

The Caura River, a major tributary of the Orinoco, lies entirely in the state of Bolívar in southern Venezuela. The Caura basin (45,336 km²) ranges from just 40 m elevation (and 1,300 mm annual rainfall) near the convergence with the Orinoco to >2,300 m (and 3,000-4,000 mm rainfall) in the south⁶. Approximately 90% of the basin is covered by humid lowland or pre-montane forest, with the remainder comprising seasonally inundated riverine forest and savannas. A nutrient-poor river, the Caura experiences a phytogeographical break at La Mura rapids (in the lower river) such that lower tree species richness occurs in the unconstrained and more deeply flooded northern forests downstream of the rapids8. In the northernmost section of the river (between the town of Maripa and its confluence with the Orinoco) savannas with tree islands dominate as the landscape transitions into the *llanos* of central Venezuela. Along this 580-km river, the diversity of the underlying geology and the climactic gradient associated with altitude contribute to exceptional



Figure 1. The lower Caura River as viewed from near Pará Falls; this point is generally considered the cut-off between the lower and middle Caura (Ivan Samuels)

species richness², which makes this relatively intact watershed a high priority for conservation (Fig. 1).

The avifauna of the Caura basin is primarily Amazonian. Its geographical location adds numerous Guianan endemics to the avifauna, although its westerly location and lower elevation places it outside the primary area of endemism within the Guiana Shield⁵; we detected 36 Guianan endemic taxa (species and subspecies). At the river's confluence with the Orinoco, Amazonian avifauna is replaced by species characteristic of the *llanos*. This change in biomes means that many species reach their northern range limit here, and overall species richness is extremely high due to the turnover that occurs within a small geographical area.

Here we report 482 species detected along the lower and middle Caura and its tributaries (Fig. 2) and at sites near the town of Maripa and near the confluence with the Orinoco (Si'pao River lagoon; site 1), although comparatively less time was spent in *llanos* habitats. Highland sites in the upper Caura were not visited, but a montane element was detected in the cooler foothills of the Tabaro watershed; our study area ranged from c.30 m to 300 m. Our primary purpose was to assist members of two indigenous groups, the Ye'kwana and Sanema, to develop a database of indigenous bird names throughout the Caura basin. Several individuals from both groups were trained to use binoculars, a field guide4 and to record bird vocalisations using Sony MZ-RH1 minidisc recorders and Audio Technica AT 835b shotgun microphones. Recordings were sent to the USA where identification was verified by IS & BO. Most of the species listed here were detected by us during six visits to the region in 2006–09: 2–11 March 2006 (JC, TM, IS); 19 May-3 June 2007 (PB, JC, TM, IS); 23 January-4 February 2008 (JC, TM, IS); 15-29 April 2008 (PB, TM, IS); 2-26 April 2009 (TM, IS); and 30 October-11 November 2009 (JC, TM, BO, IS). Additional species were identified

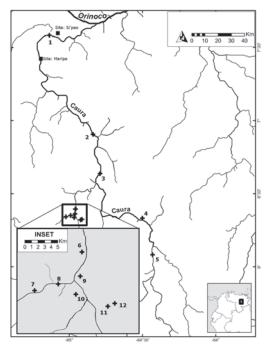


Figure 2. Map of the study area showing the Caura River and its location within Venezuela. Numbers correspond to specific sightings mentioned in the text. The inset highlights locations on the Nichare and Tabaro rivers, where survey effort by the authors and project participants was greatest.

on recordings made by project participants. We also received reports from project participants of 'seen only' species, but these are not included here because skills varied considerably, and verification of species identification was only possible from sound-recordings. Special mention is given below to noteworthy species and range extensions within Venezuela. A complete species list is presented in Table 1.

Orinoco Goose Neochen jubata

Near Threatened. One observed on a large sandbar in the middle of the Caura (at 07°33'60"N 65°06'04"W) on 27 January 2008, between the town of Maripa and the confluence with the Orinoco, an area where hunting pressure is probably high, making this sighting especially noteworthy.

Black Curassow Crax alector / Crestless Curassow Mitu tomentosum

Although expected within the watershed, both were fairly common throughout our study area. This is encouraging considering the persistent pressure on both species, which were regularly encountered in the vicinity of indigenous communities, suggesting that their populations are still resilient to current hunting levels.

White-rumped Sandpiper Calidris fuscicollis

One foraging on mats of algae on a rocky, channelised section of the Caura on 28 April 2008 at 06°54′22″N 64°50′18″W (site 2; IS & TM). Regular migrant through the *llanos* in late April—mid May⁹ and the north—south-running Caura may orient migrants; a few other sight records near Caurama, lower Caura (D. Ascanio pers. comm.). Also detected in autumn in Amazonas state¹².

Tepui Parrotlet Nannopsittaca panychlora

A flock of 40–60 seen flying high above the Tabaro River on 4 November 2009 at 06°21'05"N 64°59'26"W (site 8; JC, BO & IS). This represents a range extension, with most Bolívar records from the tepuis of the Gran Sabana⁴ and Cerro Guaiquinima⁷. The Tabaro, a major tributary of the Nichare River, drains from the remote Serranía de Maigualida in the south-west of the Caura basin, and *N. panychlora* may be more common at inaccessible locations upslope.

Sapphire-rumped Parrotlet Touit purpuratus

At least one heard calling from a canopy perch on 10 November 2009 at 06°19'16"N 64°55'22"W (site 11), c.2 km from the Nichare River, was recorded by JC. Although previously detected in the upper río Caura (Sabana Canaracuni)⁴, this represents a small range extension to the lower Caura.

Pearly-breasted Cuckoo Coccyzus euleri

One observed on 25 April 2009 at 06°20'11"N 64°58'01"W (site 10) as it foraged silently in secondary vegetation c.15 m above ground near the Nichare River (IS). Old specimens exist for the upper Caura, with recent specimens from the lower río Caroni and south-east Venezuela near Santa Elena (D. Ascanio pers. comm.).

Oilbird Steatornis caripensis

A feather was found by BO on 5 November 2009 at 06°19'16"N 64°55'22"W (site 11). Colonies are almost unknown in Bolívar, with a few exceptions in the south and south-east of the state³. We noted several large rock faces and outcrops, which might harbour colonies.

Paradise Jacamar Galbula dea

Although reported for the upper Caura⁴, one at 06°38'44"N 64°47'28"W on 23 May 2008, one sound-recorded at 06°19'58"N 64°30'04"W on 2 June 2010 and one seen by J. Kvarnbäck in the lower Caura on 18 June 2012, are the first records for the lower and middle Caura and slightly extend the known range of the Guianan endemic subspecies (*G. d. dea*) within Venezuela.

English name

Agami Heron

Zigzag Heron

Cochlearius cochlearius Boat-billed Heron

Scientific name

Agamia agami

Zebrilus undulatus

Distribution

MC, M

MC

MC, M S, R

S, R

Table I. Bird species detected in the Caura River watershed, Bolívar, southern Venezuela. Scientific nomenclature follows SACC classification version 29 June 2012.

Distribution: MC = middle and lower Caura, including Nichare and Tabaro rivers; M = Maripa and vicinity, including Si'pao River and lagoon.

Evidence: S = sight record; R = sound-recorded

Threat (following IUCN Red List): NT = Near Threatened, V = Vulnerable; all others are LC (Least Concern)

			,						-,
	estricted to the Gu subspecies level fol			endem	nism	Nyctanassa violacea	Yellow-crowned Night Heron	MC	S
		e G			_	Butorides striata	Striated Heron	MC, M	S
		buti	nce	#	misn	Bubulcus ibis	Cattle Egret	М	S
		Distribution	Evidence	Threat	Endemism	Ardea cocoi	Cocoi Heron	MC, M	S
Scientific name	English name	Δ	ú	Н	ш	Ardea alba	Great Egret	MC, M	S
TINAMIDAE						Syrigma sibilatrix	Whistling Heron	М	S
Tinamus major	Great Tinamou	MC	S, R			Pilherodius pileatus	Capped Heron	MC, M	S
Crypturellus cinereus	Cinereous Tinamou	MC, M	R			Egretta thula	Snowy Egret	MC, M	S
Crypturellus soui	Little Tinamou	MC	S, R			Egretta caerulea	Little Blue Heron	MC, M	S
Crypturellus variegatus	Variegated Tinamou	MC	R			THRESKIORNITH		-,	
ANATIDAE						Mesembrinibis	Green Ibis	MC, M	S R
Dendrocygna	Black-bellied	MC, M	S			cayennensis			
autumnalis Neochen jubata	Whistling Duck Orinoco Goose	М	S	NT		Phimosus infuscatus	Bare-faced Ibis	MC, M	S
Cairina moschata	Muscovy Duck	MC, M	S			Platalea ajaja	Roseate Spoonbill	М	S
	Huscovy Duck	ric, ri	3			CATHARTIDAE			
CRACIDAE						Cathartes aura	Turkey Vulture	MC, M	S
Penelope jacquacu	Spix's Guan	MC	S			Cathartes burrovianus	Lesser Yellow-headed	М	S
Pipile cumanensis	Blue-throated Piping Guan	MC	S			Cathartes melambrotus	Vulture Greater Yellow-	MC	S
Ortalis motmot	Variable Chachalaca	MC	S, R			Caulaites melanibiotas	headed Vulture	110	
Crax alector	Black Curassow	MC	S, R			Coragyps atratus	Black Vulture	MC, M	S
Mitu tomentosum	Crestless Curassow	MC, M	S, R			Sarcoramphus papa	King Vulture	MC	S
ODONTOPHORII	DAE					PANDIONIDAE			
Colinus cristatus	Crested Bobwhite	М	S, R			Pandion haliaetus	Osprey	MC, M	S, R
Odontophorus	Marbled Wood Quail	MC	S, R			ACCIPITRIDAE			
gujanensis	· iai oida · voda Quaii		٥,			Gampsonyx swainsonii	Pearl Kite	MC, M	S
CICONIIDAE						Chondrohierax	Hook-billed Kite	MC	S
Mycteria americana	Wood Stork	MC, M	S			uncinatus Leptodon cayanensis	Grey-headed Kite	MC, M	S
PHALACROCOR	ACIDAE						,	MC	S, R
Phalacrocorax brasilianus	Neotropic Cormorant	MC, M	S			Elanoides forficatus	Swallow-tailed Kite		
ANHINGIDAE	Cormorant					Busarellus nigricollis	Black-collared Hawk	М	S
Anhinga anhinga	Anhinga	MC, M	S			Harpagus bidentatus	Double-toothed Kite	MC	S
ARDEIDAE	Ü	•				lctinia plumbea	Plumbeous Kite	MC, M	S
Tigrisoma lineatum	Rufescent Tiger	MC, M	S P			Accipiter poliogaster	Grey-bellied Hawk	MC	S
הקווטוווע ווווכענעווו	Heron	110,17	J, IX			Geranospiza caerulescens	Crane Hawk	MC, M	S

Scientific name	English name	Distribution	Evidence	Threat	Endemism	Scientific name	English name	Distribution	Evidence	Threat	Endemism
Buteogallus meridionalis	Savanna Hawk	MC, M	S			JACANIDAE					
Buteogallus urubitinga	Great Black Hawk	MC, M	S, R			Jacana jacana	Wattled Jacana	М	S		
Rupornis magnirostris	Roadside Hawk	MC, M	S, R			LARIDAE					
Geranoaetus albicaudatus	White-tailed Hawk	М	S			Sternula superciliaris	Yellow-billed Tern	MC, M	S		
Pseudastur albicollis	White Hawk	MC	S, R			Phaetusa simplex	Large-billed Tern	MC, M	S, R		
Buteo nitidus	Grey Hawk	MC, M	S, R			RYNCHOPIDAE					
Buteo brachyurus	Short-tailed Hawk	М	S			Rynchops niger	Black Skimmer	MC, M	S		
Buteo albonotatus	Zone-tailed Hawk	MC, M	S			COLUMBIDAE					
Morphnus guianensis	Crested Eagle	MC	S	NT		Columbina passerina	Common Ground Dove	М	S, R		
Нагріа һагруја	Harpy Eagle	MC	S, R	NT		Columbina talpacoti	Ruddy Ground Dove	М	S, R		
Spizaetus tyrannus	Black Hawk-Eagle	MC	S, R			Columbina squammata	Scaled Dove	М	S, R		
Spizaetus ornatus	Ornate Hawk-Eagle	MC	S, R			Claravis pretiosa	Blue Ground Dove	MC, M	S, R		
PSOPHIIDAE						Patagioenas speciosa	Scaled Pigeon	MC, M	S, R		
Psophia crepitans	Grey-winged	MC	S, R		E	Patagioenas cayennensis	Pale-vented Pigeon	MC, M	S		
RALLIDAE	Trumpeter					Patagioenas subvinacea	Ruddy Pigeon	MC	S, R		
Aramides cajaneus	Grey-necked	MC	S, R			Zenaida auriculata	Eared Dove	М	S		
ŕ	Wood Rail					Leptotila verreauxi	White-tipped Dove	MC, M	S, R		
HELIORNITHIDA		МС	c			Leptotila rufaxilla	Grey-fronted Dove	MC	S, R		
Heliornis fulica	Sungrebe	MC	S			Geotrygon montana	Ruddy Quail-Dove	MC	S, R		
EURYPYGIDAE	C 15:	мс	C D			OPISTHOCOMIDA	AE				
Eurypyga helias	Sunbittern	MC	S, R			Opisthocomus hoazin	Hoatzin	MC, M	S, R		
CHARADRIIDAE	B. 11		•			CUCULIDAE					
Vanellus cayanus	Pied Lapwing	MC, M	S			Coccycua minuta	Little Cuckoo	MC	S, R		
Vanellus chilensis	Southern Lapwing	M	S, R			Piaya cayana	Squirrel Cuckoo	MC	S, R		
Charadrius collaris	Collared Plover	М	S			Piaya melanogaster	Black-bellied Cuckoo	MC	S		
RECURVIROSTRI			_			Coccyzus melacoryphus	Dark-billed Cuckoo	М	S		
Himantopus mexicanus BURHINIDAE	Black-necked Stilt	М	S			Coccyzus euleri	Pearly-breasted Cuckoo	MC	S		
Burhinus bistriatus	Double-striped	М	S			Crotophaga major	Greater Ani	MC, M	S		
	Thick-knee					Crotophaga ani	Smooth-billed Ani	MC, M	S, R		
SCOLOPACIDAE	0 10 11		_			Tapera naevia	Striped Cuckoo	М	S, R		
Actitis macularius	Spotted Sandpiper	MC, M	S			Neomorphus rufipennis		MC	S, R		
Tringa solitaria	Solitary Sandpiper	MC	S			TYTONIDAE	Ground Cuckoo				
Calidris minutilla	Least Sandpiper	MC	S			Tyto alba	Barn Owl	М	S		
Calidris fuscicollis	White-rumped Sandpiper	MC	S			. 100 000			•		

Scientific name English name STRIGIDAE	Distribution	Evidence	Threat	Endemism	Scientific name TROCHILIDAE	English name	Distribution	Evidence	Threat	Endemism
Megascops choliba Tropical Screech Owl	MC	R			Topaza pella	Crimson Topaz	MC	S, R		Е
• '	MC				' '	·	MC	s, r.		_
Megascops watsonii Tawny-bellied Screech Owl	MC	R			Florisuga mellivora	White-necked Jacobin				
Lophostrix cristata Crested Owl	MC	R			Phaethornis rupurumii	Streak-throated Hermit	MC	S, R		
Pulsatrix perspicillata Spectacled Owl	MC	S, R			Phaethornis ruber	Reddish Hermit	MC	S, R		
Ciccaba huhula Black-banded Owl	MC	R			Phaethornis augusti	Sooty-capped Hermit	MC	S		
Glaucidium brasilianum Ferruginous Pygmy Owl	MC	R			Phaethornis hispidus	White-bearded Hermit	MC	S		
Pseudoscops clamator Striped Owl	MC	S^2			Phaethornis bourcieri	Straight-billed Hermit	MC	S		
STEATORNITHIDAE					Phaethornis superciliosus	Long-tailed Hermit	MC	S		
Steatornis caripensis Oilbird	MC	SI			Heliothryx auritus	Black-eared Fairy	MC	S		
NYCTIBIIDAE	МС	C D			Chrysolampis mosquitus	Ruby-topaz Hummingbird	М	S		
Nyctibius grandis Great Potoo	MC	S, R			Anthracothorax	Black-throated Mango	М	S		
Nyctibius aethereus Long-tailed Potoo	MC	R			nigricollis Lophornis chalybeus	Festive Coquette	MC	S		
Nyctibius griseus Common Potoo	MC, M	R			Heliomaster longirostris	Long-billed Starthroat	MC	S		
CAPRIMULGIDAE					Calliphlox amethystina	Amethyst Woodstar	М	S		
Chordeiles nacunda Nacunda Nighthawk	М	S			Chlorostilbon mellisugus	,	M	S		
Chordeiles pusillus Least Nighthawk	М	S						S		
Chordeiles rupestris Sand-coloured Nighthawk	MC, M	S			Chlorestes notata Campylopterus	Blue-chinned Sapphire Grey-breasted	MC MC	S		
Chordeiles acutipennis Lesser Nighthawk	М	S			largipennis	Sabrewing	МС			
Nyctidromus albicollis Common Pauraque	MC, M	S, R			Thalurania furcata	Fork-tailed Woodnymph	MC	S		
Antrostomus rufus Rufous Nightjar	MC	S ²			Amazilia versicolor	Versicoloured Emerald	MC	S		
Caprimulgus White-tailed Nightjar cayennensis	MC, M	S			Amazilia brevirostris	White-chested Emerald	MC, M	S		
Caprimulgus Spot-tailed Nightjar maculicaudus	MC, M	S			Amazilia fimbriata	Glittering-throated Emerald	MC, M	S		
Caprimulgus parvulus Little Nightjar	MC	R			Hylocharis sapphirina	Rufous-throated	MC	S, R		
Hydropsalis Ladder-tailed Nightjar climacocerca	MC	S			TROGONIDAE	Sapphire				
APODIDAE					Trogon melanurus	Black-tailed Trogon	MC	S, R		
Cypseloides cryptus White-chinned Swift	М	S^2			Trogon viridis	Green-backed Trogon	MC, M	S, R		
Streptoprocne zonaris White-collared Swift	MC, M	S			Trogon violaceus	Guianan Trogon	MC, M	S, R		
Chaetura spinicaudus Band-rumped Swift	MC	S			Trogon rufus	Black-throated	MC	S, R		Ε
Chaetura cinereiventris Grey-rumped Swift	MC	S			•	Trogon	МС	C D		
Chaetura chapmani Chapman's Swift	MC	S			Trogon collaris	Collared Trogon	MC	S, R		
Chaetura brachyura Short-tailed Swift	MC, M	S			ALCEDINIDAE	D: 11/2 0.1	мс ::			
Tachornis squamata Fork-tailed Palm Swift	MC, M	S			Megaceryle torquata	Ringed Kingfisher	MC, M	S		
Panyptila cayennensis Lesser Swallow-tailed Swift	MC	S			Chloroceryle amazona Chloroceryle americana	Amazon Kingfisher Green Kingfisher	MC, M	S, R S		

Scientific name	English name	Distribution	Evidence	Threat	Endemism	Scientific name	English name	Distribution	Evidence	Threat	Endemism
Chloroceryle inda	Green-and-rufous	MC, M	S			Veniliornis passerinus	Little Woodpecker	MC	S		
Chloroceryle aenea	Kingfisher American Pygmy Kingfisher	MC	S, R			Piculus flavigula	Yellow-throated Woodpecker	MC	S		E
MOMOTIDAE	Kinghanei					Celeus grammicus	Scale-breasted Woodpecker	MC	S, R		
Momotus momota	Amazonian Motmot	MC	S, R		Е	Celeus elegans	Chestnut Woodpecker	MC	S		
GALBULIDAE						Celeus flavus	Cream-coloured	MC	S, R		
Galbula albirostris	Yellow-billed Jacamar	MC	S, R		E	Celeus torquatus	Woodpecker Ringed Woodpecker	MC	S, R		Е
Galbula ruficauda	Rufous-tailed Jacamar	М	S			,	Lineated	MC, M	,		_
Galbula galbula	Green-tailed Jacamar	MC	S, R			Dryocopus lineatus	Woodpecker	ric, ri	3, K		
Galbula dea	Paradise Jacamar	MC	S, R		E	Campephilus rubricollis	Red-necked Woodpecker	MC	S, R		
Jacamerops aureus	Great Jacamar	MC	S, R			Campephilus melanoleucos	Crimson-crested Woodpecker	MC	S, R		
BUCCONIDAE						FALCONIDAE	тобарсексі				
Notharchus tectus	Pied Puffbird	MC	S			Herpetotheres	Laughing Falcon	MC, M	S, R		
Bucco macrodactylus	Chestnut-capped Puffbird	MC	S			cachinnans Micrastur ruficollis	Barred Forest Falcon	MC	S, R		
Bucco capensis	Collared Puffbird	MC	S, R			Micrastur gilvicollis	Lined Forest Falcon	MC	S, R		
Hypnelus ruficollis	Russet-throated Puffbird	М	S			Micrastur mirandollei	Slaty-backed Forest Falcon	MC	S		
Monasa atra	Black Nunbird	MC	S, R		E	Micrastur semitorquatus	Collared Forest	MC	S, R		
Chelidoptera tenebrosa	Swallow-winged Puffbird	MC	S			Caracara cheriway	Falcon Crested Caracara	М	S		
CAPITONIDAE						lbycter americanus	Red-throated	MC	S, R		
Capito auratus	Gilded Barbet	MC	S, R			,	Caracara				
RAMPHASTIDAE						Daptrius ater	Black Caracara	MC	S, R		
Ramphastos tucanus	White-throated Toucan	MC, M	S, R		E	Milvago chimachima	Yellow-headed Caracara	М	S, R		
Ramphastos vitellinus	Channel-billed	MC, M	S, R		Е	Falco sparverius	American Kestrel	М	S		
Selenidera nattereri	Toucan Tawny-tufted	MC	S			Falco rufigularis	Bat Falcon	MC, M	S		
	Toucanet				_	Falco femoralis	Aplomado Falcon	М	S ²		
Pteroglossus viridis	Green Aracari	MC, M	S		E	PSITTACIDAE					
Pteroglossus aracari	Black-necked Aracari	MC	S		E	Ara macao	Scarlet Macaw	MC	S, R		
Pteroglossus pluricinctus	Many-banded Aracari					Ara chloropterus	Red-and-green Macaw	MC	S, R		
Pteroglossus azara	Ivory-billed Aracari	MC	S			Ara severus	Chestnut-fronted Macaw	MC, M	S, R		
PICIDAE			_			Orthopsittaca manilata	Red-bellied Macaw	MC	S		
Picumnus exilis	Golden-spangled Piculet	MC	S			Diopsittaca nobilis	Red-shouldered Macaw	М	S		
Picumnus squamulatus	Scaled Piculet	М	S			Aratinga leucophthalma	White-eyed Parakeet	М	S		
Melanerpes cruentatus	Yellow-tufted Woodpecker	MC	S, R			Aratinga pertinax	Brown-throated Parakeet	М	S		
Melanerpes rubricapillus	Red-crowned Woodpecker	М	S			Pyrrhura picta	Painted Parakeet	MC	S, R		Е
Veniliornis cassini	Golden-collared Woodpecker	MC	S		E						

Scientific name	English name	Distribution	Evidence	Threat	Endemism	Scientific name	English name	Distribution	Evidence	Threat	Endemism
Forpus passerinus	Green-rumped Parrotlet	М	S			Myrmotherula axillaris	White-flanked Antwren	MC	S, R		Ε
Brotogeris chrysoptera	Golden-winged Parakeet	MC	S, R			Myrmotherula longipennis	Long-winged Antwren	MC	S, R		
Nannopsittaca panychlora	Tepui Parrotlet	MC	S			Myrmotherula menetriesii	Grey Antwren	MC	S, R		
Touit purpuratus	Sapphire-rumped Parrotlet	MC	S, R			Herpsilochmus sticturus	Spot-tailed Antwren	MC	S, R		Ε
Pionites melanocephalus		MC	S, R			Herpsilochmus dorsimaculatus	Spot-backed Antwren	MC	R		
Deroptyus accipitrinus	Red-fan Parrot	MC	S, R			Herpsilochmus rufimarginatus	Rufous-winged Antwren	MC, M	R		
Pyrilia caica	Caica Parrot	MC	S, R		E	Formicivora grisea	White-fringed Antwren	MC, M	S, R		
Pionus menstruus	Blue-headed Parrot	MC	S, R			Hypocnemis flavescens	Imeri Warbling	MC	S, R		
Pionus fuscus	Dusky Parrot	MC	S, R S ²	٧		Terenura spodioptila	Antbird Ash-winged Antwren	MC	S, R		
Amazona festiva	Festive Parrot	MC		٧		Cercomacra cinerascens		MC	S, R		
Amazona ochrocephala	Yellow-crowned Parrot	М	S, R			Cercomacra tyrannina	Dusky Antbird	MC, M	S, R		Е
Amazona amazonica	Orange-winged Parrot	М	S, R			Cercomacra nigricans	Jet Antbird	MC	S ²		
Amazona farinosa	Mealy Parrot	MC	S, R			Myrmoborus leucophrys		MC	S, R		
THAMNOPHILID	AE					Myrmoborus	Antbird Black-faced Antbird	MC	S, R		
Cymbilaimus lineatus	Fasciated Antshrike	MC	S, R			myotherinus			,		
Frederickena viridis	Black-throated Antshrike	MC	S, R		E	Hypocnemoides melanopogon	Black-chinned Antbird	MC	S, R		
Taraba major	Great Antshrike	MC	S, R			Sclateria naevia	Silvered Antbird	MC	S, R		
Sakesphorus canadensis	Black-crested Antshrike	MC, M	S, R			Schistocichla caurensis	Caura Antbird	MC	S, R		
Thamnophilus doliatus	Barred Antshrike	MC, M	S, R			Myrmeciza longipes	White-bellied Antbird	MC, M	S, R		
Thamnophilus murinus	Mouse-coloured Antshrike	MC	S, R			Myrmeciza atrothorax	Black-throated Antbird	MC	S, R		
Thamnophilus	Northern Slaty	М	S, R			Myrmornis torquata	Wing-banded Antbird	MC	S, R		
punctatus Thamnophilus aethiops	Antshrike White-shouldered	MC	S, R			Pithys albifrons	White-plumed Antbird	MC	S, R		Е
	Antshrike					Gymnopithys rufigula	Rufous-throated Antbird	MC	S, R		Ε
Megastictus margaritatus	Pearly Antshrike	MC	S, R			Hylophylax naevius	Spot-backed Antbird	MC	S, R		
Dysithamnus mentalis	Plain Antvireo	MC	R			Hylophylax punctulatus	Dot-backed Antbird	MC	S, R		
Thamnomanes ardesiacus	Dusky-throated Antshrike	MC	S, R			Willisornis poecilinotus	Common Scale- backed Antbird	MC	S, R		Ε
Thamnomanes caesius	Cinereous Antshrike	MC	S, R			FORMICARIIDAE	backed / litbii d				
Isleria guttata	Rufous-bellied Antwren	MC	S, R		E	Formicarius colma	Rufous-capped Antthrush	MC	S, R		
Pygiptila stellaris	Spot-winged Antshrike	MC	S, R			FURNARIIDAE	Antunusn				
Epinecrophylla haematonota	Stipple-throated Antwren	MC	S, R			Sclerurus mexicanus	Tawny-throated Leaftosser	MC	R		
Myrmotherula brachyura	Pygmy Antwren	MC	S, R			Deconychura longicauda	Long-tailed Woodcreeper	MC	S, R		
Myrmotherula surinamensis	Guianan Streaked Antwren	MC	S, R			Dendrocincla fuliginosa	Plain-brown Woodcreeper	MC	S, R		

Scientific name	English name	Distribution	Evidence	Threat	Endemism	Scientific name	English name	Distribution	Evidence	Threat	Endemism
Dendrocincla merula	White-chinned	MC	S			Camptostoma	Southern Beardless	MC, M	S, R		
Glyphorynchus spirurus		МС	S, R			obsoletum Phaeomyias murina	Tyrannulet Mouse-coloured Tyrannulet	М	S		
Dendrocolaptes certhia	Woodcreeper Amazonian Barred	MC	S, R		E	Capsiempis flaveola	Yellow Tyrannulet	М	S, R		
Xiphorhynchus	Woodcreeper Striped Woodcreeper	М	S			Polystictus pectoralis	Bearded Tachuri	М	S^2	NT	
obsoletus						Corythopis torquatus	Ringed Antpipit	MC	S, R		
Xiphorhynchus pardalotus	Chestnut-rumped Woodcreeper	MC	S, R		E	Zimmerius gracilipes	Slender-footed	MC	S, R		
Xiphorhynchus guttatus	Buff-throated Woodcreeper	MC, M	S, R		E	Mionectes oleagineus	Tyrannulet Ochre-bellied	MC	S, R		
Dendroplex picus	Straight-billed Woodcreeper	М	S			Leptopogon	Flycatcher Sepia-capped	MC	S		
Campylorhamphus	Red-billed Scythebill	MC	R			amaurocephalus	Flycatcher				
trochilirostris Lepidocolaptes	Streak-headed	М	S			Sublegatus obscurior	Amazonian Scrub Flycatcher	М	S ²		
souleyetii	Woodcreeper					Inezia caudata	Pale-tipped Tyrannulet	М	S		
Lepidocolaptes albolineatus	Lineated Woodcreeper	MC	S, R			Myiornis ecaudatus	Short-tailed Pygmy Tyrant	MC, M	S, R		
Xenops minutus	Plain Xenops	MC, M	-,		E	Lophotriccus galeatus	Helmeted Pygmy	MC	S, R		
Berlepschia rikeri	Point-tailed Palmcreeper	MC	S ²			Hemitriccus	Tyrant Pearly-vented	М	S, R		
Philydor ruficaudatum	Rufous-tailed Foliage- gleaner	MC	S			margaritaceiventer	Tody-Tyrant				
Philydor pyrrhodes	Cinnamon-rumped	MC	S			Poecilotriccus sylvia	Slate-headed Tody-Flycatcher	MC	S, R		
Automolus infuscatus	Foliage-gleaner Olive-backed Foliage-	MC	S, R			Taeniotriccus andrei	Black-chested Tyrant	MC	S		
Automolus rufiþileatus	gleaner Chestnut-crowned	MC	R			Todirostrum cinereum	Common Tody-Flycatcher	М	S, R		
	Foliage-gleaner					Todirostrum pictum	Painted Tody-Flycatcher	MC	S, R		Ε
Cranioleuca vulpina	Rusty-backed Spinetail	M	S			Rhynchocyclus olivaceus		MC	S		
Cranioleuca gutturata	Speckled Spinetail	MC	S			Tolmomyias assimilis	Yellow-margined	MC	S, R		
Synallaxis albescens	Pale-breasted Spinetail	М	S, R			Tolmomyias	Flycatcher Grey-crowned	MC	S, R		
Synallaxis gujanensis	Plain-crowned Spinetail	MC	S, R			poliocephalus	Flycatcher Yellow-breasted	MC, M	СВ		
TYRANNIDAE						Tolmomyias flaviventris	Flycatcher	,			
Phyllomyias griseiceps	Sooty-headed Tyrannulet	MC	R			Platyrinchus saturatus	Cinnamon-crested Spadebill	MC	S		
Tyrannulus elatus	Yellow-crowned Tyrannulet	MC, M	S, R			Platyrinchus platyrhynchos	White-crested Spadebill	MC	S, R		
Myiopagis gaimardii	Forest Elaenia	MC, M	S, R			Onychorhynchus coronatus	Royal Flycatcher	MC	S, R		Ε
Myiopagis caniceps	Grey Elaenia	MC	S			Myiobius barbatus	Sulphur-rumped Flycatcher	MC	S		
Elaenia flavogaster	Yellow-bellied Elaenia	М	S, R			Terenotriccus erythrurus	,	MC	S, R		
Elaenia parvirostris	Small-billed Elaenia	М	S			Lathrotriccus euleri	Flycatcher Euler's Flycatcher	MC	R		
Elaenia cristata	Plain-crested Elaenia	М	S			Cnemotriccus fuscatus	Fuscous Flycatcher	MC, M			
Elaenia chiriquensis	Lesser Elaenia	М	S, R			Pyrocephalus rubinus	Vermilion Flycatcher	M	s, R		
Ornithion inerme	White-lored Tyrannulet	MC	R			Ochthornis littoralis	Drab Water Tyrant	MC, M			
	· /· aimuicc					Conditional litterals	- ao macer i ji ailt	,	٥, ١٠		

Scientific name	English name	Distribution	Evidence	Threat	Endemism	Scientific name	English name	Distribution	Evidence	Threat	Endemism
Arundinicola	White-headed Marsh	М	S^2			Procnias averano	Bearded Bellbird	MC	R		
leucocephala Machetornis rixosa	Tyrant Cattle Tyrant	М	S^2			Xipholena punicea	Pompadour Cotinga	MC	S		
Legatus leucophaius	Piratic Flycatcher	MC, M	S, R			Gymnoderus foetidus	Bare-necked	MC	S		
Myiozetetes cayanensis	Rusty-margined Flycatcher	MC, M	S, R			PIPRIDAE	Fruitcrow				
Myiozetetes similis	Social Flycatcher	М	S			Tyranneutes stolzmanni	Dwarf Tyrant- Manakin	MC	S, R		
Myiozetetes granadensis	Grey-capped Flycatcher	MC	S			Corapipo gutturalis	White-throated Manakin	MC	R		Ε
Myiozetetes luteiventris	Dusky-chested Flycatcher	MC	S, R			Machaeropterus regulus	Striped Manakin	MC	S		
Pitangus sulphuratus	Great Kiskadee	М	S, R			Lepidothrix coronata	Blue-crowned Manakin	MC	S, R		
Pitangus lictor	Lesser Kiskadee	MC, M	S			Manacus manacus	White-bearded Manakin	MC	S, R		
Conopias parvus	Yellow-throated Flycatcher	MC	S			Pipra pipra	White-crowned Manakin	MC	S, R		
Myiodynastes maculatus	Streaked Flycatcher	MC, M	S, R			Pipra erythrocephala	Golden-headed	MC	S, R		
Megarynchus pitangua	Boat-billed Flycatcher	MC, M	S, R			TITYRIDAE	Manakin				
Tyrannopsis sulphurea	Sulphury Flycatcher	М	S^2			Tityra inquisitor	Black-crowned Tityra	М	S		
Empidonomus varius	Variegated Flycatcher	М	S			Tityra cayana	Black-tailed Tityra	MC, M	S, R		
Tyrannus albogularis	White-throated Kingbird	MC	S			Schiffornis turdina	Brown-winged	MC	S, R		
Tyrannus melancholicus	Tropical Kingbird	MC, M	S, R			Laniocera hypopyrra	Schiffornis Cinereous Mourner	MC	S, R		
Tyrannus savana	Fork-tailed Flycatcher	MC, M	S			Pachyramphus	White-winged Becard	MC, M	S, R		
Tyrannus dominicensis	Grey Kingbird	М	S^2			polychopterus					
Rhytipterna simplex	Greyish Mourner	MC, M	S, R			Pachyramphus marginatus	Black-capped Becard	MC	S, R		
Myiarchus tuberculifer	Dusky-capped Flycatcher	MC, M	S, R			Pachyramphus surinamus	Glossy-backed Becard	MC	R		
Myiarchus swainsoni	Swainson's Flycatcher	MC, M	S			Pachyramphus minor	Pink-throated Becard	MC	S		
Myiarchus ferox	Short-crested Flycatcher	MC, M	S, R			INCERTAE SEDIS					
Myiarchus tyrannulus	Brown-crested Flycatcher	MC, M	R			Piprites chloris	Wing-barred Piprites	MC	S, R		E
Ramphotrigon ruficauda	,	MC	S, R			VIREONIDAE	D ()	ис и	C D		
Attila cinnamomeus	Cinnamon Attila	MC	R			Cyclarhis gujanensis	Rufous-browed Peppershrike	MC, M	5, K		
Attila spadiceus	Bright-rumped Attila	MC	S, R			Vireo olivaceus	Red-eyed Vireo	MC, M	S, R		
COTINGIDAE						Vireo altiloquus	Black-whiskered Vireo	MC	S		
Rupicola rupicola	Guianan Cock-of- the-Rock	MC	S			Hylophilus thoracicus	Lemon-chested Greenlet	MC	S, R		
Querula purpurata	Purple-throated Fruitcrow	MC	S, R			Hylophilus semicinereus	Grey-chested Greenlet	MC	R		
Perissocephalus tricolor	Capuchinbird	MC	S			Hylophilus muscicapinus	Buff-cheeked Greenlet	MC, M	S, R		Е
Cotinga cayana	Spangled Cotinga	MC	S			Hylophilus flavipes	Scrub Greenlet	MC	S^2		
Lipaugus vociferans	Screaming Piha	MC	S, R			Hylophilus ochraceiceps		MC	S, R		
Procnias albus	White Bellbird	MC	S, R				Greenlet				

Scientific name	English name	Distribution	Evidence	Threat	Endemism	Scientific name	English name	Distribution	Evidence	Threat	Endemism
CORVIDAE						Tachyphonus surinamus		MC	S		Е
Cyanocorax violaceus	Violaceous Jay	MC, M	S, R			Tachyphonus luctuosus	Tanager White-shouldered	MC	S		
Cyanocorax cayanus	Cayenne Jay	MC	R		Е	,,	Tanager		•		
HIRUNDINIDAE						Tachyphonus rufus	White-lined Tanager	М	S		
Pygochelidon	Black-collared	MC	S			Lanio fulvus	Fulvous Shrike- Tanager	MC	S, R		
melanoleuca Atticora fasciata	Swallow White-banded	MC, M	S			Ramphocelus carbo	Silver-beaked Tanager	MC	S, R		
•	Swallow					Thraupis episcopus	Blue-grey Tanager	MC, M	S		
Stelgidopteryx ruficollis	Southern Rough- winged Swallow	MC, M	S			Thraupis palmarum	Palm Tanager	MC, M	S, R		
Progne tapera	Brown-chested Martin	MC, M	S, R			Tangara cayana	Burnished-buff Tanager	М	S		
Progne chalybea	Grey-breasted Martin	MC, M	S			Tangara nigrocincta	Masked Tanager	MC	S		
Tachycineta albiventer	White-winged Swallow	MC, M	S, R			Tangara þunctata	Spotted Tanager	MC	S		
Hirundo rustica	Barn Swallow	MC, M	S			Tangara mexicana	Turquoise Tanager	MC, M	S		
TROGLODYTIDA	ιE					Tangara chilensis	Paradise Tanager	MC	S, R		
Microcerculus bambla	Wing-banded Wren	MC	S, R			Tangara velia	Opal-rumped Tanager	MC	S		
Troglodytes aedon	House Wren	М	S, R			Tangara gyrola	Bay-headed Tanager	MC	S		
Campylorhynchus	Stripe-backed Wren	М	S			Tersina viridis	Swallow Tanager	MC	S		
nuchalis Campylorhynchus	Bicoloured Wren	М	S ²			Dacnis flaviventer	Yellow-bellied Dacnis	MC	S		
griseus						Dacnis cayana	Blue Dacnis	MC	S		
Pheugopedius coraya	Coraya Wren	MC	S, R			Cyanerpes nitidus	Short-billed Honeycreeper	MC	S		
Cantorchilus leucotis	Buff-breasted Wren	MC, M	S, R			Cyanerpes caeruleus	Purple Honeycreeper	MC	S		Ε
Henicorhina leucosticta	White-breasted Wood Wren	MC	S, R			Cyanerpes cyaneus	Red-legged Honeycreeper	MC	S		
POLIOPTILIDAE						Chlorophanes spiza	Green Honeycreeper	MC	S		
Ramphocaenus melanurus	Long-billed Gnatwren					Hemithraupis flavicollis	Yellow-backed Tanager	MC	S		
Polioptila plumbea	Tropical Gnatcatcher	М	S, R			Sicalis flaveola	Saffron Finch	М	S		
TURDIDAE Catharus minimus	Grey-cheeked Thrush	MC	R			Emberizoides herbicola	Wedge-tailed Grass Finch	М	S^2		
Turdus leucomelas	Pale-breasted Thrush	М	S, R			Volatinia jacarina	Blue-black Grassquit	М	S, R		
Turdus nudigenis	Spectacled Thrush	М	S			Sporophila schistacea	Slate-coloured Seedeater	MC	S, R		
Turdus lawrencii	Lawrence's Thrush	MC	S, R			Sporophila plumbea	Plumbeous Seedeater	М	S^2		
Turdus albicollis	White-necked Thrush	MC	S, R			Sporophila intermedia	Grey Seedeater	М	S		
MIMIDAE						Sporophila bouvronides	Lesson's Seedeater	MC	S		
Mimus gilvus	Tropical Mockingbird	М	S, R			Sporophila lineola	Lined Seedeater	MC	S		
THRAUPIDAE						Sporophila nigricollis	Yellow-bellied	М	S		
Paroaria gularis	Red-capped Cardinal	М	S			Oryzoborus angolensis	Seedeater Chestnut-bellied Seed	М	S, R		
Tachyphonus cristatus	Flame-crested	MC	S			,	Finch				
	Tanager					Coereba flaveola	Bananaquit	MC, M	5, R		

		Distribution	Evidence	Threat	Endemism			Distribution	Evidence	Threat	Endemism
Scientific name	English name	Ω	ú	F	ш	Scientific name	English name	Ω	ú	Н	ш
INCERTAE SEDIS						Psarocolius bifasciatus	Olive Oropendola	MC	S, R		
Saltator grossus	Slate-coloured Grosbeak	MC, M	S, R			Cacicus cela	Yellow-rumped Cacique	MC	S, R		
Saltator maximus	Buff-throated Saltator	MC, M	S, R			Cacicus haemorrhous	Red-rumped Cacique	MC	S, R		
Saltator coerulescens	Greyish Saltator	М	S			Icterus auricapillus	Orange-crowned Oriole	М	S^2		
EMBERIZIDAE						Icterus nigrogularis	Yellow Oriole	М	S, R		
Ammodramus humeralis	Grassland Sparrow	М	S, R			Gymnomystax mexicanus	Oriole Blackbird	М	S		
Arremon taciturnus	Pectoral Sparrow	MC	S, R			Molothrus oryzivorus	Giant Cowbird	MC	S, R		
CARDINALIDAE						Molothrus bonariensis	Shiny Cowbird	М	S		
Granatellus pelzelni	Rose-breasted Chat	MC	S, R			Quiscalus lugubris	Carib Grackle	М	S^2		
Caryothraustes canadensis	Yellow-green Grosbeak	MC	S, R			Sturnella militaris	Red-breasted Blackbird	М	S, R		
Cyanocompsa cyanoides	Blue-black Grosbeak	MC, M	S, R			Sturnella magna	Eastern Meadowlark	М	S, R		
Spiza americana	Dickcissel	MC	S			FRINGILLIDAE					
PARULIDAE						Euphonia chlorotica	Purple-throated	М	S		
Leiothlypis peregrina	Tennessee Warbler	MC	S			,	Euphonia				
Parula pitiayumi	Tropical Parula	М	S			Euphonia trinitatis	Trinidad Euphonia	М	S		
Dendroica petechia	Yellow Warbler	MC. M	S			Euphonia violacea	Violaceous Euphonia	MC	S, R		
Dendroica striata	Blackpoll Warbler	MC, M	S			Euphonia chrysopasta	Golden-bellied Euphonia	MC	S		
Dendroica fusca	Blackburnian Warbler	MC	S			Euphonia rufiventris	Rufous-bellied Euphonia	MC	S		
Setophaga ruticilla	American Redstart	М	S			SI: Sight record b	pased on feather onl	v			
Parkesia noveboracensis	Northern Waterthrush	MC, M	S, R			S2: Species added	I to list by J. Kvarnbard the lower Caura,	, äck in v			ripa,
ICTERIDAE						15–18 June 2012					
Psarocolius viridis	Green Oropendola	MC	S, R								

Tawny-throated Leaftosser *Sclerurus mexicanus* One sound-recorded by a project participant (subsequently identified by the authors) on 25 June 2009 at 06°19'58"N 64°30'04"W (site 4), near the top of the Pará Falls. This represents a small range extension into the Caura watershed, and at c.170 m, is also significant for being lower than other records in Venezuela; typically 300–1,100 m south of the Orinoco⁴. The middle and upper Caura support extensive foothill and pre-montane forests where this species may occur, but access is very limited.

Glossy-backed Becard *Pachyramphus surinamus* One sound-recorded on 5 November 2009 at 06°23'42"N 64°57'29"W (site 6) is the third record for Venezuela (BO); the first was also from the

Caura watershed. This infrequently seen canopy / subcanopy species occurs locally in French Guiana, Surinam and the lower Amazon of Brazil, but species limits north of Manaus are poorly known¹⁰.

White-throated Kingbird Tyrannus albogularis

One on 12 April 2009 at 06°04′57″N 64°25′53″W (site 5) on a small river island in the middle of the Caura (IS). Probably breeds in extreme south-east Venezuela, with records elsewhere in country suspected to be austral migrants⁴. Migratory behaviour between southern Bolívar and the Orinoco is known (D. Ascanio pers. comm.; El Manteco, Bolívar, 16 August 2010). The individual reported here was perhaps following the Caura on migration.

White Bellbird Procnias albus

Uncommon but regular over much of the Caura watershed; recordings on 29 June 2007 (06°21'43"N 64°57'37"W, site 9), 15 November 2008 (06°20'33"N 65°01'21"W, site 7), 9 November 2009 (06°19'30"N 64°54'48"W, site 12) and a sight record by D. Ascanio, at Pará Falls on 13 August 2009. Well known to the Ye'kwana as 'Quecau' (which mimics the species' distinctive call), suggesting that it has been previously overlooked, despite its distinctiveness.

Bare-necked Fruitcrow Gymnoderus foetidus

Detected on four of six visits, with other reports by project participants. Also noted by D. Ascanio on the Nichare River (4 August 2009), considered 'uncommon' by C. Marantz & A. Nagy on the lower Caura in April / May 2009, and seen by J. Kvarnbäck in the lower Caura on 1 April and 18 June 2012. Collectively, these sightings suggest the species has been overlooked in the watershed despite its distinctive appearance.

Lawrence's Thrush Turdus lawrencii

A noteworthy range extension for Venezuela, we found it fairly common in our study area, especially in the vicinity of the Nichare River. Called 'Wishichaimö' by the Ye'kwana and 'Kāíatimawai' by the Sanema, local familiarity with this distinctive song mimic suggests that the species is a regular part of the avifauna.

Tennessee Warbler Leiothlypis peregrina

One on 9 March 2006 at 06°20'11"N 64°58'01"W (site 10) foraging in a vine tangle in secondary vegetation near the Nichare River (IS). Outside its known range, although a few records exist for Bolívar including singles at the lower Caura¹ and in the Gran Sabana on 25 April 2011 (M. Pyhälä).

Slate-coloured Seedeater *Sporophila schistacea* Poorly known throughout its range, it was sound-recorded at two locations, on 10 June 2008 (06°38'16"N 64°47'23"W, site 3) and 10 August 2009 (06°19'58"N 64°30'04"W, site 4).

In addition, the following less significant range extensions were noted. An asterisk indicates the species was also detected by C. Marantz & A. Nagy between 1 April and 14 May 2009, in the vicinity of Maripa, Las Trincheras or El Raudalo, which are all in the lower Caura).

Barred Forest-Falcon *Micrastur ruficollis** Fairly common, and sound-recorded 11 times, mostly along the Nichare River, but also near the confluence of the Nichare and Caura.

Red-and-green Macaw Ara chloropterus* Uncommon, and greatly outnumbered by Scarlet

Macaw A. macao, yet regularly encountered throughout the study area.

White-eyed Parakeet Aratinga leucophthalma* Uncommon in the vicinity of Maripa.

Hoatzin *Opisthocomus hoazin** Very common at Si'pao River lagoon (near the Caura / Orinoco confluence), where expected, but also encountered along the Nichare River, south of the known range.

White-chinned Swift Cypseloides cryptus Three seen by J. Kvarnbäck over Maripa on 15 June 2012. Known from few, widely scattered records in Venezuela⁴, although the very similar Black Swift C. niger cannot be entirely eliminated.

Tawny-tufted Toucanet Selenidera nattereri One record, from the middle Nichare River.

Painted Tody-Flycatcher Todirostrum pictum* Uncommon in forest canopy throughout the study area

Yellow-throated Flycatcher Conopias parvus One record, from the upper Nichare River.

Cinnamon Attila Attila cinnamomeus Uncommon; sound-recorded three times on the middle Nichare River

Grey-chested Greenlet Hylophilus semicinereus* Sound-recorded once on the middle Nichare River.

Blackburnian Warbler Dendroica fusca One seen with a mixed flock near the Nichare River at site 10 on 2 February 2008. A widespread transient and non-breeding resident in Venezuela, but at c.60 m this record is significant for being well below the species' usual elevation range (1,000–2,800 m) south of the Orinoco⁴.

More than 70 years ago, the Caura Basin was described as Venezuela's most sparsely populated region¹¹, and today it remains the last major tributary of the Orinoco that has not been subjected to hydroelectric development or large-scale deforestation. In recent years gold mining has dramatically increased in the watershed, and this poses a significant and expanding threat to both fauna and the Caura's indigenous population. Market hunting for bushmeat, including large birds, is common. Despite these pressures, we found an abundance of both large mammals and birds such as tinamous and curassows, and 99% of bird species we detected have an IUCN threat status of Least Concern.

Access beyond the lower Caura is difficult. Many visiting birders do not travel south of Las Trincheras, as the watershed lacks road south of this point, and river travel requires the ability to navigate small motorboats through rapids subject to frequent fluctuations in water level. With the exception of species noted at Maripa, our study sites were 2–3 days upriver from the nearest

road, and we relied upon our indigenous hosts for navigation on the river and in the forest. Despite this, we were unable to access many of the steep and remote foothill and montane forests that border the Caura and its tributaries. Additional ornithological expeditions to the Caura that can breach these barriers will surely improve our understanding of the status and distribution of Venezuela's avifauna.

Acknowledgements

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