## The birds of Hill Bank, northern Belize

Andrew C. Vallely and Andrew A. Whitman

Se describe la avifauna del Area de Conservación y Manejo Río Bravo, en el noroeste de Belize. Hill Bank tiene una rica avifauna a nivel local con 331 especies, y ha sido poco modificada por actividades humanas. Los hábitats más comunes incluyen selvas húmeda siempreverde de hoja ancha, seca, ribereña y bosque pantanoso bajo, bañados, pantanos de mangle y lagunas abiertas. El hábitat dominante es la selva subtropical, húmeda, siempreverde de hoja ancha. El promedio anual de lluvias es c. 1.650 mm. Los dos grandes crácidos de la región son comunes. Especies endémicas o fáciles de ver incluyen: Jabiru mycteria, Amazona ochrocephala beliziensis, Schiffornis turdinus, Aimpohila botteri petenica, Ammodramus savannarum cracens, Spizella passerina pinetorum, Piranga roseogularis y Granatellus sallaei. Si bien se pueden encontrar especies similares en los vecinos Chan Chich Lodge y Los Milpa Research Station, la avifauna del área de Hill Bank es diferente de estos y otros destinos de observación de aves debido a la presencia de especies de humedales y sabanas de pinos.

#### Introduction

Belize has earned a growing reputation among birders as a destination of easy access and with an interesting list of Neotropical-Nearctic migrant and Neotropical species. One of the best known areas in northern Belize is Chan Chich Lodge in west Orange Walk District. Here, we describe a less well-known site 45 km to the east, Hill Bank, where 331 species have been found. Its many different terrestrial and aquatic habitats are largely intact and little-disturbed by human activities. The diversity and good quality of habitats near Hill Bank make it important to conservation and, coupled with a fully operational field station, presents many research opportunities. Nomenclature follows the American Ornithologists' Union Checklist of North American Birds' and subsequent supple $ments^{2,3,4}$ .

# Description of the Area Study Area

The area of this checklist largely lies within the south-east portion of the Rio Bravo Conservation and Management Area (RBCMA, 17° 36' N 88° 42' W), Orange Walk District, Belize (Fig. 1). The RBCMA is owned and managed for conservation and sustainable use by Programme for Belize (PfB), a non-profit conservation organization. The dominant forest type is sub-tropical, moist, broadleaf evergreen forest receiving c. 1,650 mm per annum<sup>6</sup>. A dry season extends from late January-May, although the timing and amount of rainfall in the dry and wet seasons may vary substantially from year-to-year. Topography is relatively flat. Elevation ranges from near sea-level to 100 m a.s.l. The number of tree species can reach 56 species per ha6.

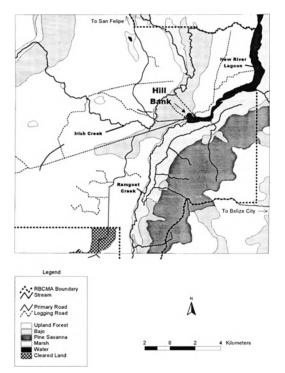


Figure I. A map of the Hill Bank area, Orange Walk District, Belize including the checklist area (within the boundaries of the Rio Bravo Conservation and Management Area) major habitats, primary roads, and logging roads.

Historically, forests in north Belize have been affected by deforestation by Maya, hurricanes and selective logging. Much of this region may have been deforested by the Maya during the period 0–1000 AD<sup>6</sup>. Minor Maya ruins and agricultural





Figure 2. Upland broadleaf forest on logging road south of the Gallon Jug Road. (A. Whitman)



Figure 2a. From upper left: Thrush-like Schiffornis Schiffornis turdinus, Rose-throated Tanager Piranga rosegularis, Rufous-breasted Spinetail Synallaxis erythrothoras, Swainson's Warbler Helmitheros swainsonii and Grey-throated Chat Granatellus sallaei. (Andrew Vallely)

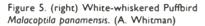


Figure 6 (far right). Barred Antshrike, female Thamnophilus doliatus. (Valerie Giles)

Figure 7 (above right). Yellow-billed Cacique Amblycercus holosericeus. (Valerie Giles)





structures are moderately common throughout the area. The Yucatan area, including the Hill Bank region, has been struck with moderate frequency by hurricanes and occasional, subsequent fire 12,23. Since the early 1800s, selective logging for mahogany Swietenia macrophylla and Spanish cedar Cedrela odorata has infrequently occurred throughout north-west Belize<sup>6</sup>. Recent logging has occurred at a low density of c. 1 mahogany tree per 4.5 ha and directly altered 6.7% of the logged area<sup>21</sup>. Stands logged ten or more years ago have an intact canopy. Logging has reduced only mahogany and Spanish cedar abundance and thus does not appear to have significantly altered the forest's structure and composition<sup>6,20</sup>. However, a reduction in mahogany and Spanish cedar densities may have lead to a reduction in the overall density of canopy emergents. In 1993 and 1994, PfB acquired land surrounding Hill Bank through land donations from Coca-Cola Foods Corporation and purchases, with the goal of sustainably managing it for the benefit of Belizeans.

### Visiting the Site

PfB maintains a year-round visitors' lodge and forestry research station at Hill Bank. From there, upland habitats can be reached by truck within one hour and most others reached on foot within four hours. Wetland habitats can reached by motor boat within one hour, or three hours by paddled canoe. Visitors should check in advance with PfB about transport to and accommodations at Hill Bank. Because there is no public transport to Hill Bank, access requires renting a four-wheel-drivetruck in Belize City or making travel arrangements with PfB. Staff travel in and out almost daily.

The drive from Belize City is c. 3-5 hours depending on the road conditions. Visitors should drive the Northern Highway and turn west on the road to Burrell Boom (c. 9 km north of the International Airport). This road is mostly paved until Burrell Boom and dirt thereafter. One can find gasoline and diesel fuel as well as cold drinks and most foods in Burrell Boom. The remaining villages have small shops that sell canned and dry goods, and cold drinks. Visitors should drive c. 30 km (19 miles) to Rancho Dolores, In Rancho Dolores, cross Spanish Creek and the road bends sharply left. Take the first right to Yalbac Ranch and Cattle Company past a few homesteads and then through broadleaf forest and pine savanna. After c. 10 km, there is an access gate staffed by PfB rangers on the edge of the pine savanna. Approximately 10 km further, after climbing a low escarpment called Young Girl's Bump, the Yalbac access gate is

reached, on the edge of a citrus grove; c. 2 km further take a road heading north. This passes through more citrus and after c. 3 km crosses from Yalbac onto the RBCMA. This road leads 10 km north to Gallon Jug Road and visitors should turn east to reach Hill Bank. Although some may try to reach Chan Chich Lodge by turning west toward Gallon Jug, this road is only passable in late March–April, and then only in some years.

From Orange Walk, the drive is c. 2–4 hours, depending on road conditions. Take the dirt road to San Felipe passing through Yo Creek, San Lazero and August Pine Ridge, which all have dry-good stores with cold drinks. Gasoline and diesel fuel can be purchased in San Lazero (before San Felipe) or Blue Creek (west of San Felipe). At San Felipe, the main road bends sharply west (right) toward Blue Creek but continue straight through the village and after c. 2 km take the first large road heading south (right). Continue c. 30 km, heading south past small farms, then larger Mennoniteowned farms, to the RBCMA, and finally reaching the Gallon Jug Road. Hill Bank is is reached after a 1 km drive east.

#### **Major Habitats**

Upland broadleaf forest accounts for over 70% of the checklist area and includes moist semi-tropical evergreen broadleaf forest (Fig. 2), cohune palm forest, and dry semi-tropical evergreen broadleaf forest. It occurs on moderately deep, well-drained soils underlain by porous limestone and has a canopy height ranging from 16-24 m with some taller canopy emergents. Moist semi-tropical evergreen broadleaf forest is by far the most common forest type. Common tree species include Alseis yucatanensis, Aspidosperma cruenta, Brosimum alicastrum, Pouteria reticulata, Manilkara chicle and Terminalia amazonia. Cohune palm Orbignya cohune forest is moderately common. Dry semitropical evergreen broadleaf forest is restricted to shallow soils on low rocky hills and severely burned areas, which are uncommon throughout the study area. Its dominant tree species includes Brosimum alicastrum, Bursera simaruba, Manilkara chicle and Metopium brownei and its canopy is 14–18 m.

These forest types support a number of regional endemics as well as a diverse community of raptors. The region's two species of forest cracids are common, most likely due to the prohibition of hunting on this privately owned land. The barred morph of the Great Currasow *Crax rubra* occurs here alongside the more common dark morph<sup>8</sup>. Among the more notable passerines in this habitat is the very common Thrush-like Schiffornis *Schiffornis* 



Figure 3. Pine Ridge east of Hill Bank. (Valerie Giles)

turdinus, easily located by its frequent song once learnt. Grey-throated Chat Granatellus sallaei is best looked for in mid-storey and canopy vine tangles in dry semi-tropical forest. In Hill Bank, this species is not found in the understorey or at low levels as reported elsewhere. Forest raptors, e.g. Crane Hawk Geranospiza caerulescens, Ornate Hawk-eagle Spizaetus ornatus and Short-tailed Hawk Buteo brachyurus, are most easily located from the roads in late morning as they soar over the forest.

Two swamp broadleaf forest types occur: riparian forest and "bajo". Riparian forest is limited to the temporarily flooded margins of Irish and Ramgoat Creeks. The canopy is often broken, with much liana cover and occasional large emergent trees. Its tree species composition can be similar to surrounding uplands, except with the addition of a few species including bullet tree *Bucida buceras*, pterocarpus *Pterocarpus hayesii* and royal palm *Roystonea oleracea*. This habitat type may be of special conservation value because it is species-rich<sup>11</sup> and may have food resources such as fruits of the spiny understorey palm, porknoboy *Bactris* spp. perhaps vital for wildlife during periods of drought<sup>14</sup>.

Bajo occurs along the Gallon Jug Road for c. 5 km west from Hill Bank. Its vegetation is low and very dense and sometimes includes dense patches of "sawgrass" *Scleria bracteata*. Common tree species include crabboo *Byrsonima bucidaefolia*, pigeon

plum Coccoloba reflexiflora and tea bark Myrica cerifera<sup>6</sup>.

The birds of the bajo best reflect the Yucatan component of Hill Bank's avifuana and include many species commonly found in upland forest, and is poorly explored. Hence, its avifauna is not listed separately from upland broadleaf forest. The following species, rare at Hill Bank, have only been found in this habitat: Grey-collared Becard Pachyramphus major, Green Jay Cyanocorax yncas and Golden-crowned Warbler Basileuterus culicivorus.

Pine savanna is characterised by stands of pine *Pinus caribaea* and oak *Quercus oleoides* 10–14 m tall interspersed with palmetto *Acoelorraphe wrightii* thickets (Fig. 3) and grasslands. It occurs on excessively well-drained sands overlaying a clay hardpan. This habitat can vary from excessively wet to excessively dry depending on season, although water can be found throughout the year, and many small wetlands are dispersed throughout the pine savanna, which occurs in the south-east of the checklist area.

The avifauna includes a number of endemic forms difficult to find elsewhere in Belize. These include the beliziensis race of Yellow-headed Parrot Amazona ochrocephala, which, as noted over 30 years ago<sup>20</sup>, can be seen in significant numbers each evening as pairs fly across New River Lagoon. The open park-like areas harbour the petenica race of the Botteri's Sparrow Aimophila botteri, the cracens race of the Grasshopper Sparrow Ammodramus savannarum and the pinetorum race of the Chipping Sparrow Spizella passerina. Other species of interest in the pine savanna include: Aplomado Falcon *Falco femoralis*, Ladder-backed Woodpecker Dendrocopus lateralis, Black-throated Bobwhite Colinus nigrogularis, Grace's Warbler Dendroica graciae and Hepatic Tanager Piranga flava. Jabiru Jabiru mycteria may be seen overhead almost anywhere in the area, but is perhaps best looked for in small wetlands in the savanna.

Scrub includes disturbed vegetation of varying heights surrounding the old Hill Bank logging camp and marl pits (where road surfacing material is mined), along roads, in areas recently cleared and burned, including slash-and-burn agricultural areas ("milpas"). The tree species composition usually comprises shade-intolerant species of surrounding forest types. These areas harbour many of the more widespread Central American birds, e.g. Striped Cuckoo Tapera naevia, Rufous-browed Peppershrike Cyclarhis gujanensis and Whitenecked Puffbird Notharachus macrorhynchus. Some species typical of the Yucatan area, e.g. Rose-



Figure 4. View from Hill Bank overlooking the New River Lagoon and marshes and pine ridge and savanna beyond. (A. Whitman)

throated Tanager *Piranga roseogularis*, also occur in dense scrub at Hill Bank.

Three types of marshes are identifiable, based on the dominance of sawgrass Cladium spp., rushes Eleocharis spp. or cattails Typha domingensis<sup>18</sup>. Small areas of woody vegetation, including buttonwood Conocarpus erecta and bobwood Annona glabra<sup>6</sup> occur along the edges, and freshwater mangroves Rhizophora mangle where carbonate and sulphates are highly concentrated<sup>18</sup>. Large marshes surround the open waters of New River and Botes Lagoons (Fig. 4). Smaller marshes can be found around Irish Creek and small pools of water in the pine savanna.

Because this habitat is mostly inaccessible, its avifauna is the least well documented in this checklist. White-throated Flycatcher Empidonax albigularis winters in small numbers in the shrubby borders of the marsh. Our only record of Agami Heron Agami agami was an individual flushed along a creek on the east edge of the New River Lagoon. Little Blue Heron Egretta caerula is perhaps the most common heron in this habitat. Flocks of over 200 Black-bellied Whistling-duck Dendrocygna autumnalis are sometimes present in these marshes as well as much smaller numbers of Muscovy Ducks Cairina moschata.

# Summary of the avifuana and comparison with other sites

Below we describe the Hill Bank avifauna in terms of its component elements and suggest certain geographic trends in the distribution of birds in north Belize. We agree with Remsen<sup>19</sup> that comparisons between different sites may reveal no more than artifacts such as differences in quality and amount of sampling effort. Nevertheless, we offer the following because real geographic trends appear to exist, although these require verification through more extensive and rigorous sampling.

Hill Bank lies along a south-west to north-west gradient of decreasing rainfall and declining forest stature and extent. Forest species such as Rufous Piha and Golden-crowned Warbler reach their easternmost limit near Hill Bank. As one moves east, these tall-forest species become scarce or absent, and are replaced by species of open habitats, marsh and savanna.

Two-hundred and thirty-two of the 331 species at Hill Bank are year-round residents, 82 are migrants, three are visitors and the remainder have an indeterminate status. Of the migrants, 48 are overwintering Neotropical-Nearctic migrants, 25 are transient Neotropical-Nearctic migrants, three Neotropical-Neartic migrants overwintering or transient individuals, five are intratropical migrants which presumably breed at Hill Bank and one is a transient intratropical migrant. Broadleaf forest and scrub possess the most species of the four habitats included in the checklist, although the marshland species list contains the highest percentage of unique species and migrants (Table 1). However, the pine ridge and savanna, and marsh have been subject to less intensive surveying and may yield even more species with modest effort.

The Hill Bank checklist was compared with those of Tikal<sup>5</sup>, La Milpa Research Station<sup>13</sup>, Chan Chich Jungle Lodge<sup>16</sup>, Bermudian Landing<sup>10</sup>, Shipstern Nature Reserve<sup>15</sup> and Freshwater Creek Forest Reserve<sup>17</sup> (Table 2). Hill Bank has fewer species than the well-surveyed Tikal, a similar

Table 1. Number of species, percentage of migrant species, percentage of species unique to a habitat and approximate field effort in broadleaf forest, pine ridge and savanna, marsh and scrub habitat near Hill Bank, Belize.

habitat	number of species	% migrants	% unique to habitat approx. days in fiel						
Broadleaf forest	208	17	35	700					
Pine ridge and savanna	60	25	18	~5					
Marsh	59	32	62	~5					
Scrub	200	21	17	~180					
Total	331	21	•	~900					

**Table 2.** Species number, percentage of unique species at a site, percentage species shared with other sites and percentage of migrant species at Hill Bank, and four other sites in northern Belize.

Site		% unique	% share	d with Hill Bank	%
	number	to a site	all	widespread	migrants
Tikal (5)	404	11.0	84	96	18
Chan Chich (15)	322	0.3	76	90	21
La Milpa (6)	353	2.3	81	95	24
Hill Bank	331	3.4	100	100	21
Bermudian Landing (10)	189	1.0	53	58	19
Freshwater Creek Forest Reserve (16)	190	2.1	53	59	15
Shipstern Nature Reserve (15)	242	2.0	53	56	26

number of species to Chan Chich and La Milpa, and more species than Bermudian Landing, Shipstern Nature Reserve, and Freshwater Creek. Tikal, Hill Bank, La Milpa and Chan Chich are all well-sampled sites and possess old-growth forest little-disturbed by humans or hurricanes because they are further inland than the other two sites. The fewer species recorded at Bermudian Landing and Freshwater Creek reflects less sampling effort and lack of extensive tall forest habitat compared to the other four sites. After Tikal, Hill Bank has the greatest percentage of unique species, probably reflecting its greater habitat diversity compared with other sites. Hill Bank has more bird species and core species (species found at three or more sites) in common with Tikal. Chan Chich Lodge and La Milpa Research Station than Bermudian Landing, Shipstern Nature Reserve and Freshwater Creek Forest Reserve. All sites held similar proportions of migrants, except Freshwater Creek Forest Reserve whose lower proportion of migrants was probably due to lack of sampling.

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### Table 3. The birds of Hill Bank, Belize.

Fieldwork was conducted in January—April, 1994–1996. These months span the dry season in Belize and do not include the peak periods of passage of northern migrants. Fieldwork in other months would have yielded additional records and a more complete account of local movements, habitat use, and relative abundance.

As we conducted studies on the effects of logging on forest and forest birds in broadleaf forest during this period<sup>21,22</sup> we compiled this list. We used point-counting and mist-netting as bird surveying techniques for our study. We also mist-netted for several days each year in the scrub surrounding the old Hill Bank logging camp. Other habitats were surveyed more casually. Most species listed in the checklist were encountered by the first or both authors except for 19 species recorded at Hill Bank by Russell<sup>20</sup>. Habitat, abundance and status codes are listed below.

### Habitats:

- Bf Broadleaf forest
- Ps Pine ridge and savanna
- M Marsh (including mangrove swamp)
- Sc Scrub (at Hill Bank and along roads)

#### Abundance codes9:

		a few individuals	many individuals
		encountered on:	encountered on:
С	Common	> 90% of days	> 50% of days
F	Fairly common	50-90% of days	10-50% of days
U	Uncommon	10-50% of days	< 10% of days
R	Rare	< 10% of days	•
~	Evenomaly name	In an favor record	e for area

#### Status codes11:

- sr summer resident (breeding late March-September)
- nm neotropical-nearctic migrant (non-breeding visitor primarily October-March although some individuals may be present year-round)
- r breeding resident
- t neotropical migrant mainly transient (present during migration, April-early June and/or August-September
- v non-breeding visitor that may occur in any season, mainly coastal waterbird species

FAMILY Species / scientific name		<b>S</b> c	e <b>t</b> Ps		Status	FAMILY Species / scientific name		<b>S</b> c	<b>at</b> Ps		tatus
TINAMIDAE						Short-tailed Hawk Buteo brachyurus	С	С			
Great Tinamou Tinamus major	C	R			r	White-tailed Hawk Buteo albicaudatus		R	R		r
Slaty-breasted Tinamou Crypturellus boucardi	F	F			r	Black Hawk-eagle Spizaetus tyrannus	R	R			r
Little Tinamou Crypturellus soui	R	С			r	Ornate Hawk-eagle Spizaetus ornatus	U				r
Thicket Tinamou Crypturellus cinnamomeus		U			r						
						FALCONIDAE					
PODICIPEDIDAE						Laughing Falcon Herpototheres cachinnans	F	F			r
Least Grebe Tachybaptus dominicus				X <sup>20</sup>	?	Barred Forest-falcon Microstur ruficollis	U				r
Pied-billed Grebe Podilymbus podiceps				R	nm+t	Collared Forest-falcon Micrastur semitorquatus	U	U			r
DELECANIDAE						American Kestrel Falco sparverius		R			nm
PELECANIDAE Brown Pelican Pelecanus occidentalis				~		Bat Falcon Falco rufigularis	R	С	U		r
brown relican relections occidentalis				Х	٧	Aplomado Falcon Falco femoralis		R R	R	v	r
PHALACROCORACIDAE						Peregrine Falcon Falco peregrinus		r	ĸ	^	nm
Neotropic Cormorant Phalacrocorax brasilianus				С	r	CRACIDAE					
Treotropic Cormorane Manderocords Brasilianas				_	'	Plain Chachalaca Ortalis vetula	U	С			r
ANHINGIDAE						Crested Guan Penelope purpurescens	Ü	_			r
Anhinga Anhinga anhinga				R	r	Great Curassow Crax rubra	Ü				r
,8a8a						Great Carasson Storragia	Ū				
FREGATIDAE						PHASIANIDAE					
Magnificent Frigatebird Fregata magnificens				Х	٧	Ocellated Turkey Meleagris ocellata		Χ			r
ARDEIDAE						ODONTOPHORIDAE					
American Bittern Botaurus lentiginosus				$X^{20}$	nm	Spotted Wood-quail Odontophorus guttatus	X				r
Least Bittern Ixobrychus exilis				R	r?	Yucutan Bobwhite Colinus nigrogularis			U		r
Bare-throated Tiger-heron Tigrisoma mexicanum	R			R	r	5 5					
Great Blue Heron Ardea herodias				R	nm	RALLIDAE					
Great Egret Egretta alba				С	r	Ruddy Crake Laterallus ruber		С		С	r
Snowy Egret Egretta thula				C	nm	Grey-necked Wood-rail Aramides cajanea	U	C		С	r
Little Blue Heron Egretta caerulea				С	nm+t	Uniform Crake Amaurolimnas concolor	R	R			r
Tricolored Heron Egretta tricolor				F	?	Sora Porzana carolina				<b>X</b> <sup>20</sup>	nm
Cattle Egret Bubulcus ibis	_	R		R	r	American Coot Fulica americana			)	<b>X</b> <sup>20</sup>	nm
Green Heron Butorides striatus	R			F	r						
Yellow-crowned Night-heron Nycticorax violaceus					r	HELIORNITHIDAE					
Boat-billed Heron Cochlearius cochlearius				n	r	Sungrebe Heliornis fulica	U				r
White Ibis Eudocimus albus				R	v?	ADAMIDAE					
CICONIIDAE						ARAMIDAE				С	r
Jabiru Jabiru mycteria	R		R	U	r	Limpkin Aramus guarauna				_	ı
Wood Stork Mycteria americana	IX		11	R	r?	CHARADRIIDAE					
**Ood Stork Mytteria americana				IX.	1:	Killdeer Charadrius vociferus				R	nm+t
CATHARTIDAE		4				American Golden Plover Pluvialis dominica				X	t
Black Vulture Coragyps atratus	С	С			r	, and real dollars to the random dollars				•	
Turkey Vulture Cathartes aura	Č	Č			r	RECURVIROSTRIDAE					
Lesser Yellow-headed Vulture Cathartes burrovianus	_	_	U	U	r	Black-necked Stilt Himantopus mexicanus			)	<b>(</b> 20	?
King Vulture Sarcoramphus papa	U		-	-	r				-		
						IACANIDAE					
ANATIDAE						Northern Jacana Jacana spinosa				С	r
Black-bellied Whistling-Duck Dendrocygna autumnalis				U	r?						
Muscovy Duck Cairina moschata				R	r	SCOLOPACIDAE					
Northern Pintail Anas acuta				$X^{20}$	t	Greater Yellowlegs Tringa melanoleuca				R	t
Lesser Scaup Aytha affinis				$X^{20}$	t	Lesser Yellowlegs Tringa flavipes				U	τ
						Solitary Sandpiper Tringa solitaria				U	nm
ACCIPITRIDAE						Willet Catoptrophorus semipalmatus			1	₹20	t
Osprey Pandion haliaetus				Χ	nm	Spotted Sandpiper Actitis macularia				U	nm
Grey-headed Kite Leptodon cayanensis	R	R			r	Pectoral Sandpiper Calidris melanotes				Χ	t
Hook-billed Kite Chondrohierax uncinatus	R	R			r						
Swallow-tailed Kite Elanoides forficatus	R	R	R		t	LARIDAE					
White-tailed Kite Elanus leucurus		С		_	r	Herring Gull Larus argentatus				<b>(</b> 20	t
Snail Kite Rostrhamus sociabilis				С	r	Black Tern Chlidonias niger			>	<b>(</b> 20	t
Double-toothed Kite Harpagus bidentatus	U	U			r	COLUMBIDAE	_	_			
Plumbeous Kite Ictinia plumbea	U	U		_	sr	Pale-vented Pigeon Columba cayennensis	C	C			r
Black-collared Hawk Busarellus nigricollis				R	r	Scaled Pigeon Columba speciosa	C	C			r
Crane Hawk Geranospiza caerulescens	U	U			r	Red-billed Pigeon Columba flavirostris	C	С			r
White Hawk Leucopternis albicollis	U		P		r	Short-billed Pigeon Columba nigrirostris	С	<b>V</b> 20			r
Great Black Hawk Buteogallus urubitinga Grey Hawk Asturnia nitidus	Ü	U	R		r 	Mourning Dove Zenaida macroura		X <sup>20</sup>	1.1		t
LATOV MONUV ACTURNIA NIFIAUC	С	C	С		r	Plain-breasted Ground-dove Columbina minuta			U		r
Roadside Hawk Buteo magnirostris	U	С	С		r	Ruddy Ground-dove Columbina talpacoti		U			r

FAMILY Species / scientific name		<b>sbita</b> Sc	e <b>t</b> Ps	*Status M	FAMILY Species / scientific name		<b>abit</b> : Sc	<b>at</b> Ps		tatus
Blue Ground-dove Claravis pretiosa	F	С	-	r						
White-tipped Dove Leptotila verrauxi		F	U	r	ALCEDINIDAE					
Grey-headed Dove Leptotila plumbeiceps	С			r	Ringed Kingfisher Ceryle torquata		R		С	r
Ruddy Quail-dove Geotrygon montana	С			r	Belted Kingfisher Ceryle alcyon				R	nm
, , , ,					Amazon Kingfisher Chloroceryle amazona	R			С	r
PSITTACIDAE					Green Kingfisher Chloroceryle americana	U			U	1
Olive-throated Parakeet Aratinga astec	С	С		r	American Pygmy Kingfisher Chloroceryle aenea	U			U	1
Brown-hooded Parrot Pionopsitta haematotis	С	U		r						
White-crowned Parrot Pionus senilis	C	C		r	BUCCONIDAE	_				
White-fronted Parrot Amazona albifrons Yellow-lored Parrot Amazona xantholora	С	C	U	r	White-necked Puffbird Notharachus macrorhynchus	R U	R			r
Red-lored Parrot Amazona autumnalis	С	Ċ	U	r r	White-whiskered Puffbird Malacoptila panamensis	U				1
Mealy Parrot Amazona farinosa	Ü	_		r	GALBULIDAE					
Yellow-headed Parrot Amazona oratrix	Ū	U	U	r	Rufous-tailed Jacamar Galbula ruficauda	U				r
CHCHIDAE					DAMPILLATIDA 5					
CUCULIDAE Squirrel Cuckoo Piaya cayana	С	С			RAMPHASTIDAE	_	U			_
Striped Cuckoo Tapera naevia	C	U		r r	Collared Araçari Pteroglossus torquatus Keel-billed Toucan Ramphastos sulfuratus	C	C			r
Pheasant Cuckoo Dromococcyx phasianellus	Х	U		r	Emerald Toucanet Anlacorhynchus prasinus	X <sup>20</sup>	C			r r?
Groove-billed Ani Crotophaga sulcirostris	^	U		r	2 aid Todeanee/iiideoniynenda prosinus	^				11
		-		•	PICIDAE					
TYTONIDAE					Acorn Woodpecker Melanerpes formicivorus			С		r
Barn Owl Tyto alba		Χ		r	Black-cheeked Woodpecker Melanerpes pucherani	С				r
					Golden-fronted Woodpecker Melanerpes aurifrons		U			r
STRIGIDAE					Yellow-bellied Sapsucker Sphyrapicus varius	R				nm
Vermiculated Screech-owl Otus guatamalae	С			r	Ladder-backed Woodpecker Picoides scalaris			U		r
Central American Pygmy-owl Glaucidium griseiceps	R			r	Smoky-brown Woodpecker Veniliornis fumigatus	U	R			r
Mottled Owl Ciccaba virgata Black-and-white Owl Ciccaba nigrolineata	C	U		r	Golden-olive Woodpecker Piculus rubiginosus	U	Ū			r
black-and-white Owi Ciccoba nigrolineata	U			r	Chestnut-coloured Woodpecker Celeus castaneus Lineated Woodpecker Dryocopus lineatus	U	R C			r
CAPRIMULGIDAE					Pale-billed Woodpecker Campephilus guatemalensis	C	_			r
Lesser Nighthawk Chordeilis acutipennis		R		nm	Tale-billed **Oddpecker Campepillas gaatemalensis	_				
Pauraque Nyctidromus albicollis	C?			r	FURNARIIDAE					
Yucatan Poorwill Nyctiphymus yucatanicus	Х	Χ		r	Rufous-breasted Spinetail Synallaxis erythrothorax	R	С			r?
Yucatan Nightjar Caprimulgus badius	Χ	Χ		r	Buff-throated Foliage-gleaner Automolus ochrolaemus	R				r
					Plain Xenops Xenops minutus	С	U			r
NYCTIBIIDAE		.,			Scaly-throated Leaftosser Sclerurus guatemalensis	U				r
Northern Potoo Nyctibius jamaicensus		X		r	DENDROCOLAPTIDAE					
APODIDAE					Tawny-winged Woodcreeper Dendrocincla anabatina	С	U			r
White-collared Swift Streptoprocne zonaris	Х	Х		r?	Ruddy Woodcreeper Dendrocincla homochroa	C	U			r
Vaux' Swift Chaetura vauxi	Û	Û		r?	Olivaceous Woodcreeper Sittasomus griseicapillus	Č	R			r
Lesser Swallow-tailed Swift Panyptila cayennensis	F	F		r	Wedge-billed Woodcreeper Glyphoryncus spirurus	R				r
,, ,					Strong-billed Woodcreeper					
TROCHILIDAE					Xiphocolaptes promeropirhyncus	Х				r
Long-tailed Hermit Phaethornis superciliosus	U			r	Northern Barred Woodcreeper					
Little Hermit Phaethornis longuemareus	С			r	Dendrocolaptes sanctithomae	U				r
Scaly-breasted Hummingbird Phaeochroa cuvierii	R			r	Ivory-billed Woodcreeper Xiphorhynchus flavigaster	С	R			r
Wedge-tailed Sabrewing Campylopterus curvipennis	U			r	Streak-headed Woodcreeper Lepidocolaptes souleyetii	Х		R		r
White-necked Jacobin Florisuga mellivora Brown Violetear Colibri delphinae	R	R <sup>20</sup>		r v	THAMNOPHILIDAE					
Green-breasted Mango Anthracothorax prevosti		U		r	Great Antshrike Taraba major		Χ			
Canivet's Emerald Chlorostilbon canivetii		R		r	Barred Antshrike Thamnophilus doliatus	R	ĉ			r r
White-bellied Emerald Amazilia candida	С	Ü		r	Plain Antvireo Dysithamnus mentalis	X	_			r
Azure-crowned Hummingbird Amazilia cyanocephala	R	R		r	Dot-winged Antwren Microrhopias quixensis	C	R			r
Rufous-tailed Hummingbird Amazilia tzacatl	С	C	С	r	Dusky Antbird Cercomacra tyrannina	Ū	R			r
Buff-bellied Hummingbird Amazilia yucatensis			R	r	·					
Purple-crowned Fairy Heliothryx burroti	R	R			FORMICARIDAE	_				
TROGONIDAE					Black-faced Antthrush Formicarius analis	С	U			r
Black-headed Trogon Trogon melanocephalus	С	С		r	TYRANNIDAE					
Violaceous Trogon Trogon violaceus	C	C		r	Yellow-bellied Tyrannulet Ornithion semiflavum	С				r
Collared Trogon Trogon collaris	F	_		r	Northern Beardless Tyrannulet Camptostoma imberbe		U	U		r
Slaty-tailed Trogon Trogon massena	Ċ			r	Greenish Elaenia Myiopagis viridicata	С	Ū			r
,					Yellow-bellied Elaenia Elaenia flavogaster	R	Ċ	U?		r
MOMOTIDAE					Ochre-bellied Flycatcher Mionectes oleagineus	С	U			r
Tody Motmot Hylomanes momotula	R			r	Sepia-capped Flycatcher Leptopogon amaurocephalus	R				r
Blue-crowned Motmot Momotus momota	U			r	Northern Bentbill Oncostoma cinereigulare	С	С			r

FAMILY Species / scientific name		<b>sbit</b> a Sc	a <b>t</b> Ps		atus	FAMILY Species / scientific name		s <b>bit</b> a Sc	e <b>t</b> Ps		atus
Slate-headed Tody-flycatcher Poecilotriccus sylvia		R			r	Barn Swallow Hirundo rustico		U		U	t
Common Tody-flycatcher Todirostrum cinereum	_	U	U		r	TROCLODYTIDAE					
Eye-ringed Flatbill Rhynchocyclus brevirostris	C	С			r	TROGLODYTIDAE	С	С			
Yellow-olive Flycatcher Tolmomyias sulphurescens Stub-tailed Spadebill Platyrinchus cancrominus	C	C			r r	Spot-breasted Wren Thryothorus maculipectus House Wren Troglodytes aedon	C	U			r
Royal Flycatcher Onychorhynchus coronatus	R	U			r	White-bellied Wren Uropsila leucogastra	С	Ü			r
Ruddy-tailed Flycatcher Terenotriccus erythrurus	R	Ü			r	White-breasted Wood-wren Henicorhina leucosticta	C	٠			r
Sulphur-rumped Flycatcher Myiobius sulphureipygius					r	Trinco di casca Troda Wieni Temedinina leacosticta	Č				•
Eastern Wood Pewee Contopus virens	U	U			t	SYLVIDAE					
Tropical Pewee Contopus cinereus		U	U		r	Long-billed Gnatwren Ramphocaenus melanurus	С				r
Yellow-bellied Flycatcher Empidonax flaviventris	С				nm	Blue-grey Gnatcatcher Polioptila caerulea		U	С	n	m+r
Acadian Flycatcher Empidonax virescens	Х				t	Tropical Gnatcatcher Poliptila plumbea	C				r
Least Flycatcher Empidonax minimus		С			nm						
Vermilion Flycatcher Pyrocephalus rubinus	_	U	С		r	TURDIDAE	_				
Bright-rumped Attila Attila spadiceus	C	U			r	Swainson's Thrush Catharus ustulatus	R				t
Speckled Mourner Laniocera rufescens	U				r	Wood Thrush Hylocichla mustelina	C				nm
Rufous Mourner Rhytipterna holerythra	Ū	С			r	Clay-colored Robin Turdus grayi	R	U			r
Dusky-capped Flycatcher Myjarchus tuberculifer	C R	U			r	White-throated Robin Turdus assimilis	R				r
Yucatan Flycatcher Myiarchus yucatanensis Great Crested Flycatcher Myiarchus crinitus	C	F			r	MIMIDAE					
Brown-crested Flycatcher Mylarchus tyrannulus	U	Ú			nm r	Grey Catbird Dumetella carolinensis	С	С	С		nm
Great Kiskadee Pitangus sulphuratus	R	C	F		r	Tropical Mockingbird Mimus gilvus	C	C	C		r
Boat-billed Flycatcher Megarynchus pitangua	Ü	Ü			r	Tropical Flocking bird Trimina's girvas		_			'
Social Flycatcher Myiozetetes similis	F	Č	С		r	PARULIDAE					
Streaked Flycatcher Myiodynastes maculatus	Ü	Ū			sr	Blue-winged Warbler Vermivora pinus	R	U			nm
Sulphur-bellied Flycatcher Myjodynastes luteiventris		Ü			sr	Tennessee Warbler Vermivora peregrina	R	Ŕ			nm
Piratic Flycatcher Legatus Ieucophaius		R			sr	Northern Parula Parula americana	U	U			nm
Tropical Kingbird Tyrannus melancholicus		С	С		r	Yellow Warbler Dendroica petechia		U	U		nm
Couch's Kingbird Tyrannus couchii		U	Ų		r	Chestnut-sided Warbler Dendroica pensylvanica	С	С	С		nm
Eastern Kingbird Tyrannus tyrannus		R			t	Magnolia Warbler Dendroica magnolia	С	С	С		nm
Fork-tailed Flycatcher Tyrannus savana		R	С	U	r	Yellow-rumped Warbler Dendroica coronata			Χ		nm
(incertae sedis)						Black-throated Green Warbler Dendroica virens	С	U			nm
Cinnamon Becard Pachyramphus cinnamomeus	X <sup>20</sup>				r	Blackburnian Warbler Dendroica fusca	X <sup>20</sup>				t
Grey-collared Becard Pachyramphus major	R	X			r	Yellow-throated Warbler Dendroica dominica	R	U	_		nm
Rose-throated Becard Pachyramphus aglaiae	R	R			r	Grace's Warbler Dendroica graciae			С		r
Masked Tityra Tityra semifasciata	U X <sup>20</sup>				r	Bay-breasted Warbler Dendroica castanea	U	1.1			t
Black-crowned Tityra Tityra inquisitor Rufous Piha Lipaugus unirufus	R				r r	Black-and-white Warbler Mniotilta varia American Redstart Setophaga ruticilla	C	U			nm nm
Thrush-like Schiffornis Schiffornis turdinus	Ċ				r	Prothonotary Warbler Protonotaria citrea	X	C			t
Thi dan-like Selinornia Selipornia turdinas	_					Worm-eating Warbler Helmitheros vermivorus	Û				nm
PIPRIDAE						Swainson's Warbler Limnothlypis swainsonii	X	Х			nm
White-collared Manakin Manacus candei		U			r	Ovenbird Seiurus aurocapillus	ΰ	Ĉ			nm
Red-capped Manakin Pipra mentalis	С	U			r	Northern Waterthrush Seiurus noveboracensis	U	U			nm
, ,						Louisiana Waterthrush Seiurus motacilla	С	R			nm
VIREONIDAE						Kentucky Warbler Oporornis formosus	C				nm
White-eyed Vireo Vireo griseus	R	U			nm	Common Yellowthroat Geothlypis trichas		С	C	С	nm
Mangrove Vireo Vireo pallens	R	С			r	Grey-crowned Yellowthroat Geothlypis poliocephala		C	С		r
Yellow-throated Vireo Vireo flavifrons	R				nm	Hooded Warbler Wilsonia citrina	C	С			nm
Red-eyed Vireo Vireo olivaceus	С	С			t	Golden-crowned Warbler Basileuterus culicivorus	R				r
Yellow-green Vireo Vireo flavoviridis	Ū	С			am	Yellow-breasted Chat Icteria virens		U	U		nm
Tawny-crowned Greenlet Hylophilus ochraceiceps	C				r	Grey-throated Chat Granatellus sallaei	U				r
Lesser Greenlet Hylophilus decurtatus	C	U			r						
Green Shrike-vireo Vireolanius pulchellus	С				r	THAUPIDAE	.,	_			
Rufous-browed Peppershrike Cyclarhis gujanensis		ĸ	U		r	Scrub Euphonia Euphonia affinis	X	R			r?
CODVIDAT						Yellow-throated Euphonia Euphonia hirundinacea	C	C			r
CORVIDAE	R	R			_	Olive-backed Euphonia Euphonia gouldi	C R	R R			r ")
Green Jay Cyanocorax yncas Brown Jay Cyanocorax morio	Č	Ċ	С		r r	Golden-hooded Tanager Tangara larvata Red-legged Honeycreeper Cyanerpes cyaneus	C	Û			r? r?
Yucatan Jay Cyanocorax yucatanicus	X <sup>20</sup>		_		r	Blue-grey Tanager Thraupis episcopus	C	Ü			r
. acata jaj cjanocoras jacatanicas		. `			'	Yellow-winged Tanager Throupis abbas	R	Ü			r?
HIRUNDINIDAE						Grey-headed Tanager Eucometis penicillata	ΰ	_			r
Purple Martin Progne subis		С			t	Black-throated Shrike-tanager Lanio aurantius	Ċ				r
Grey-breasted Martin Progne chalybea		Č		С	sr	Red-crowned Ant-tanager Habia rubica	č				r
Tree Swallow Tachycineta bicolor		Ū		Ū	nm	Red-throated Ant-tanager Habia fuscicauda	Č	U			r
•		C		C	r	Rose-throated Tanager Piranga roseogularis	R	R			r
Mangrove Swallow Tachycineta albilinea											
Northern Rough-winged Swallow						Hepatic Tanager Piranga flava			С		r
		U R	R	U	nm	Summer Tanager Piranga ribra Scarlet Tanager Piranga olivacea	F	C R	C		nm

FAMILY		Habitat			FAMILY	H	abita	*Status		
Species / scientific name	Bf	Sc	Ps	М	Species / scientific name	Bf	Sc	Ps	М	
					Indigo Bunting Passerina cyanea	R	С	С		nm
EMBERIZIDAE					Dickcissel Spiza americana		U			t
Blue-black Grassquit Volatinia jacarina		U	U	r						
Variable Seedeater Sporophila aurita		U	U	r	ICTERIDAE					
White-collared Seedeater Sporophila torqueola	R	C	С	r	Red-winged Blackbird Agelaius phoeniceus		X		U	1
Thick-billed Seed-finch Oryzoborus funereus		U	U	r	Eastern Meadowlark Sturnella magna		X	U		- 1
Olive Sparrow Arremonops rufivirgatus		C	С	r	Melodious Blackbird Dives dives		С			
Green-backed Sparrow Arremonops chloronotus	C	С		r	Great-tailed Grackle Quiscalus mexicanus		C		R	- 1
Botteri's Sparrow Aimophila botteri		U	U	r	Black-cowled Oriole Icterus dominicensis	С	U			
Chipping Sparrow Spizella passerina		U	U	r	Orchard Oriole Icterus spurius	U	С			nm
Grasshopper Sparrow Ammodramus savannarum			U	r	Hooded Oriole Icterus cucullatus		U			1
					Yellow-backed Oriole Icterus chrysater			U		
CARDINALIDAE					Yellow-tailed Oriole Icterus mesomelas	U	U	U		
Greyish Saltator Saltator coerulescens		$X^{20}$		r	Altamira Oriole Icterus gularis		R			1
Black-headed Saltator Saltator atriceps	С	C		r	Baltimore Oriole Icterus galbula	С	С	С		nn
Black-faced Grosbeak Caryothraustes poliogaster	С			r	Yellow-billed Cacique Amblycercus holosericeus	R	F			1
Northern Cardinal Cardinalis cardinalis		U		r	Montezuma Oropendola Psarocolius montezuma	С	С			-
Rose-breasted Grosbeak Pheucticus Iudovicianus		Х		t						
Blue-black Grosbeak Cyanocompsa cyanoides	С	С		r	FRINGILLIDAE					
Blue Bunting Cyanocompsa parellina	U	U		r	Red Crossbill Loxia curvirostra			$X^{20}$		
Blue Grosbeak Guiraca caerulea		U	U	nm						