

**Report on a bird survey at PROCOSARA
in the forest of San Rafael NP
Paraguay**

February-March 2008

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Tuká pakova, 9-3-2008

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Introduction

This is a report on a bird survey which was carried out under the assignment as a volunteer during the period of February 24th to March 18th 2008. The project was made possible by ECOSARA, part of PROCOSARA, (www.fauparaguay.com/ecosara.html). As a volunteer you're pretty much free to do what you like, so the main objective was to do as many observations on birds (and mammals) as possible.

Methods

Birds were inventoried using auditory and visual encounter surveys, complemented with opportunistic observations. Only birds accurately identified by myself qualified as positive recordings. For identification the *Birds of Southern South America and Antarctica* (de la Peña & Rumboll, 1998) was used, complemented with pictures of the *Handbooks of the Birds of the World* (del Hoyo *et al.*, 1992-2007). The database of ECOSARA (photo's and sounds) was used for reference too. For viewing birds binoculars (10x42) were used.

Locations and trails are shown in figure 1. All trails at PROCOSARA have been visited several times. They are situated in the southernmost part of the forest of National Park San Rafael. The most distant points are at circa 5 kilometers north of the compound (measured in a straight line). In table 1 an overview is given of the length of the trails, both starting from the compound as well as the trail length *sensu stricto*. The total area covered is about 400 hectares of forest and marsh.

Table 1. Trails and time spent.

| Location | distance (km) | times | duration (hours) | total (hours) |
|-------------------------|----------------|-------|------------------|---------------|
| Garden and around lake | ca 2.3 | 15 | 2.5 | 32 |
| Sendero Suruku'a Sa'yju | 1.1 (0.7 ss) | 12 | 1.0 | 1 |
| Sendero Urutau | 2.6 (1.3 ss) | 14 | 2.0 | 14 |
| Sendero Chachí | 6.3 (3.0 ss) | 17 | 4.5 | 107 |
| Sendero Tukâ Pakova | 4.7 (0.9 ss) | 8 | 2.0 | 16 |
| Total | ca 17.0 | | | 170 |

Surveys mostly took place during daytime hours, with an emphasis on early mornings and late afternoons. About half the time surveys were carried out in the company of others. In total 170 hours of effective bird watching were done, this is approximately seven hours a day. The time spent watching birds during breakfast, lunch, resting and so on is not given.

The exact GPS coordinates at the compound (middle of the garden) are S 26°38'15.9" - W 55°39'50.3", 299 m.

The weather was generally good (about 30°C, little or no wind and some clouds). The first week was very humid with some thunderstorms and rain. The last week austral autumn started with colder nights, clear sunny skies and some wind, which wasn't particularly good for birding.

The area

Most time was spent in the forest. The forest at San Rafael is lowland Atlantic rainforest. This habitat is severely threatened by logging and converting to grasslands or soy fields. In Brazil little Atlantic rainforest is left, only a few remnants hold out at steep slopes on hillsides. In Paraguay two larger patches of Atlantic forest remain: Mbaracayu and San Rafael.

The forest around the compound is good secondary forest. The biggest trees are gone here, but the structure of the forest is more or less intact. At several places inside the forest there are natural open areas. These swamps, for instance at Tukâ Pakova, are covered with Bamboo (*Chusquea sp.*). At the western edge of the forest there's a Pine plantation (*Pinus sp.*) and a Tungs plantation. Everywhere outside the forest vast areas are covered with soy. Birds (or other living things) do not occur here, biodiversity is close to one species.

There is also some disturbance in the forest: illegal cutting of trees, illegal hunting, settlers (especially farther north in San Rafael).

A detailed map of the area around the compound and around the lake is given in figure 2.

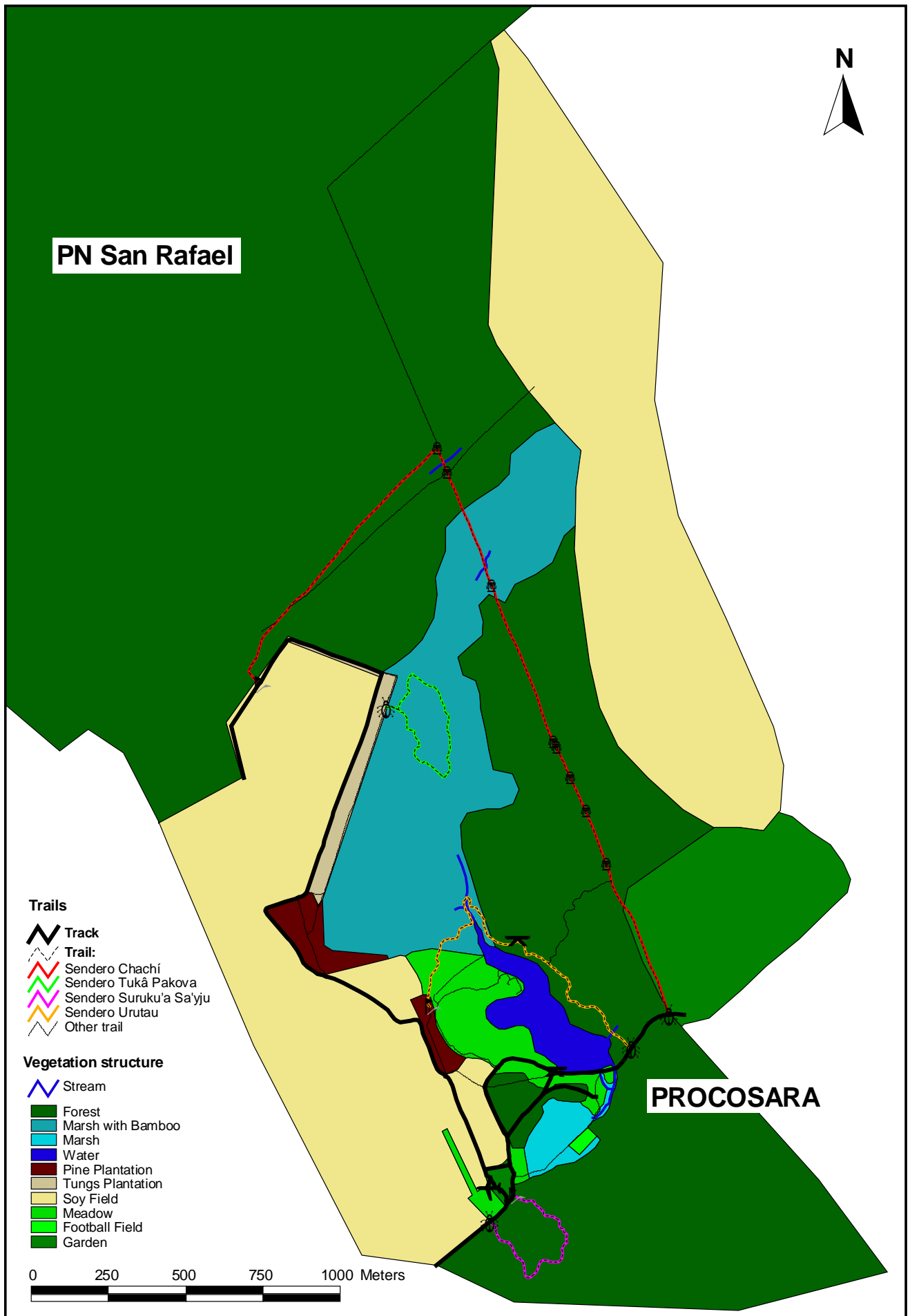


Figure 1. Simplified vegetation structure map with the trails at PROCOSARA.

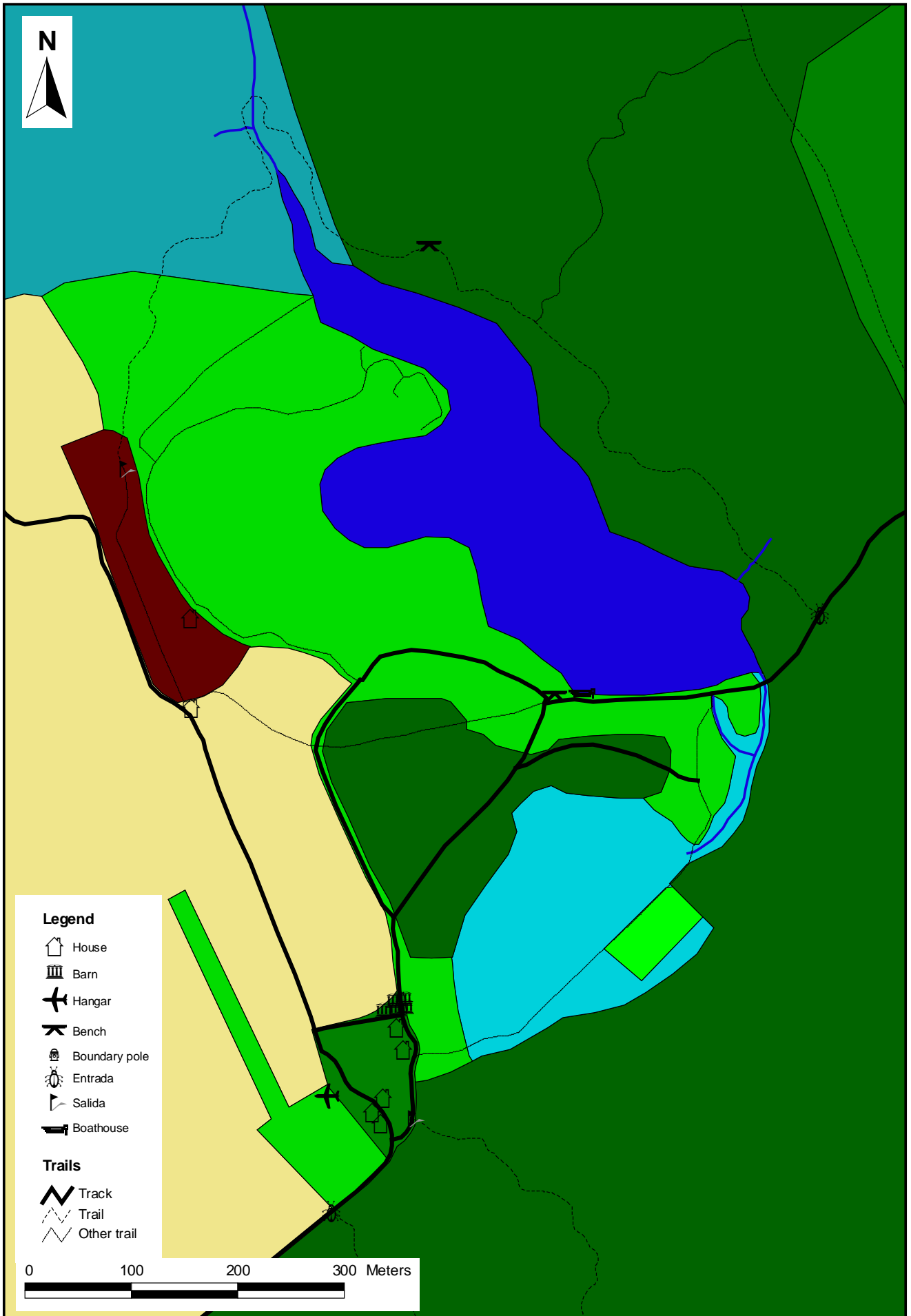


Figure 2. Area around the lake and the garden at PROCOSARA.

Results

The results of the bird survey are given in the table on the following pages.

For every species the English, scientific and Spanish name is given, mostly according to the *Handbook of the Birds of the World* (del Hoyo *et al.*, 1992-2007). IUCN is the IUCN category for threatened birds of the world (NT means Near-threatened). Finally the recorded larger mammals are given (Emmons & Feer, 1997).

Abundance indices indicate abundance estimates for all birds encountered at the 5 different locations, see table.

| Abundance estimates for birds at PROCOSARA | | |
|--|---------------|--|
| A | Abundant | more than 20 individuals encountered daily |
| C | Common | more than 5 and less than 20 individuals encountered daily |
| F | Fairly common | less than 5 individuals encountered daily |
| U | Uncommon | small numbers recorded, but not encountered daily |
| R | Rare | very scarce, fewer than 5 individuals recorded during survey |
| X | | species recorded, status uncertain |

Some comment on the observations is given for 'special' birds in the section below. A total of 172 species were recorded at PROCOSARA, out of more than 415 ever recorded here. Of course some bird species could not be identified and also some sounds could not be assigned to a species. The total list reflects what can be expected at this time of the year when birding at one location without knowing all the sounds.

The most species rich parts are found around the lake (good visibility, different habitats) and along the Chachí (good forest). The Suruku'a Sa'yju and the Tukâ Pakova are a bit under recorded. Often these trails were visited at a less favourable time of the day.

Birds

Tinamous

The **Brown Tinamou** was heard far more often than seen. One crossed the Urutau on 25-2-2008, one was flushed on the Chachí. The **Tataupa Tinamou** was heard regularly too. A nesting bird was present at the start of the Urutau on 25-2-2008, close to the main track. The nest contained five eggs and was situated in secondary vegetation. Unfortunately, after a week the nest was disturbed by one of the guards. After returning three eggs to the nest the female Tataupa Tinamou continued breeding, but in the afternoon of 8-3-2008 the nest was plundered by an animal.

Rusty-margined Guan

Two very shy individuals were seen on 3-3-2008 and again on 4-3-2008 at the Chachí.

Parrots

Maroon-(or Reddish-) **bellied Parakeet** and **Scaly-headed Parrot** were common, with flocks flying over the forest at the lake. **White-eyed** and **Yellow-chevroned** (or Canary-winged) **Parakeet** were seen only occasionally.

Nightjars

A **Common Potoo** was found resting near the lake on 27-2-2008. **Semi-collared** (or Short-tailed) **Nighthawk** was flying over the forest at dusk almost daily, sometimes in the company of **Common Nighthawk**. A Common Nighthawk was found near the lake during the day resting on a branch on 5-3-2008 and was also present the next day. **Pauraque** was flushed off the track at the western border of the forest during an evening walk.

Toucans

The **Saffron Toucanet** is considered Near-threatened by BirdLife International. Three individuals were first seen on 8-3-2008 on the Suruku'a Sa'yju. The birds stayed in the neighbourhood and were seen again the next morning. In the afternoon four individuals paid a visit to the garden foraging on a small fruiting tree (again on the 10th). A flock of about six birds were seen north of the Chachí on 12-3-2008 and on the next day. The **Red-breasted Toucan** was seen several times in small flocks, mostly halfway the Chachí near some fruiting trees, but sometimes at the Urutau. **Chestnut-eared Araçari** sometimes accompanied the Red-breasted Toucan. Despite many attempts, making imitations of its sound, the Spot-billed Toucanet could not be found.

Woodpeckers

Nine species of woodpecker were seen in the forest, especially at the northern part of the lake (a lot of dead trees with nesting and sleeping holes). Most are fairly common, but a small group of the **White Woodpecker** was seen only once on 29-2-2008 and a female **Blond-crested Woodpecker** only on 8-3-2008. The **Robust Woodpecker** was found several times, but the Helmeted Woodpecker could not be found.

Sharp-tailed Streamcreeper

This nice bird was first seen at the crossing of the stream on the Urutau on 25-2-2008 and again on 4-3-2008. On 2-3-2008 a bird was seen very well at the lower end of the lake. Another observation was made near a little stream far north of the Chachí on 29-2-2008.

Sharpbill

Only seen once between the Urutau and the Chachí on 7-3-2008. The bird was foraging together with a canopy flock of tanagers.

Red-ruffed Fruitcrow

This beautiful bird was seen very well on 4-3-2008 halfway the Chachí. It was sitting high up in a fruiting tree together with some Chestnut-eared Araçari and Red-breasted Toucan. On 11-3-2008 another one was seen on the Chachí.

Bay-ringed Tyrannulet

Two birds were foraging high up in the canopy on the Chachí on 11-3-2008. It is considered Near-threatened by BirdLife International, because it's habitat lowland Atlantic forest is being destroyed.

Southern Bristle-tyrant

This species is also considered Near-threatened by BirdLife International. The first one was seen on the Suruku'a Sa'yju on 2-3-2008. The species was seen again at the northern part of the Chachí on 4-3-2008 and on 14-3-2008.

Blackish-blue Seedeater

Two females of this Near-threatened bird were observed on 7-3-2008 at the Bamboo part of the Urutau (north-west of the lake). A male and female were seen by Paul Smith the day before.

Uniform Finch

This bird was seen almost daily on the Chachí and on the Tukâ Pakova. At places with a lot of Bamboo males were singing and displaying. Occasionally a female was seen. Along the Chachí at least twelve males were singing and along the Tukâ Pakova at least five.

Mammals

Tufted Capuchin

Seen (or heard) almost daily around the Chachí. Most times they were very shy and fled deeper into the forest as soon as they noticed human presence. Group size is about twelve individuals, including mothers with babies. One group stayed halfway the Chachí, another group at the northern end of the Chachí. A third group was present at the most northerly visited part.

Red Brocket Deer

One individual crossed the Chachí early morning on 28-2-2008.

Capybara

Seen several times at the northern part of the lake, early morning or just before dark. The largest group consisted of at least 12 individuals. On 8-3-2008 a mother and young crossed the Urutau.

Azara's Agouti

Only one individual seen on the Urutau in the late afternoon on 4-3-2008.

Other mammals include foraging bats at the lake.

| English name | Latin name | Spanish name | IUCN | First date PROCOSARA | Sendero | | | | |
|------------------------------|-----------------------------------|-------------------------|------|-------------------------|---------|--------------------|--------|--------|----------------|
| | | | | | Lake | Suruku'a sa'yju | Urutau | Chachí | Tuká Pakova |
| Brown Tinamou | <i>Crypturellus obsoletus</i> | Tataupá rojizo | | 25-2-2008 | | F | F | F | |
| Tataupa Tinamou | <i>Crypturellus tataupa</i> | Tataupá | | 25-2-2008 | | | F | F | |
| Pied-billed Grebe | <i>Podilymbus podiceps</i> | Macá pico grueso | | 26-2-2008 | F | | | | |
| Neotropic Cormorant | <i>Phalacrocorax olivaceus</i> | Cormoran | | 24-2-2008 | C | | C | | |
| Whistling Heron | <i>Syrigma sibilatrix</i> | Garza silbadora | | 25-2-2008 | F | | | | |
| Snowy Egret | <i>Egretta thula</i> | Garcita blanca | | 25-2-2008 | R | | | | |
| Green-backed Heron | <i>Butorides striatus</i> | Garcita azulada | | 24-2-2008 | R | | | | |
| Black-crowned Night-heron | <i>Nycticorax nycticorax</i> | Garza bruja | | 25-2-2008 | U | | | | |
| Rufescent Tiger-heron | <i>Tigrisoma lineatum</i> | Hocó colorado | | 25-2-2008 | F | | U | | |
| Brazilian Teal | <i>Amazonetta brasiliensis</i> | Alita azul | | 24-2-2008 | C | | | | |
| Turkey Vulture | <i>Cathartes aura</i> | Cuervo cabeza roja | | 24-2-2008 | F | | F | F | |
| American Black Vulture | <i>Coragyps atratus</i> | Cuervo negro | | 24-2-2008 | F | | F | | |
| Grey-headed Kite | <i>Leptodon cayanensis</i> | Milano cabeza gris | | 6-3-2008 | | | | R | |
| American Swallow-tailed Kite | <i>Elanoides forficatus</i> | Milano tijereta | | 1-3-2008 | R | | | | |
| Roadside Hawk | <i>Buteo magnirostris</i> | Taguató | | 28-2-2008 | | | | U | |
| Short-tailed Hawk | <i>Buteo brachyurus</i> | Aguilucho cola corta | | 25-2-2008 | R | | | | |
| Crested Caracara | <i>Polyborus plancus</i> | Carancho | | 28-2-2008 | | | | U | U |
| American Kestrel | <i>Falco sparverius</i> | Halconcito | | 24-2-2008 | U | | | | |
| Rusty-margined Guan | <i>Penelope superciliaris</i> | Pava de monte chica | | 3-3-2008 | | | | U | |
| Spot-winged Wood-quail | <i>Odontophorus capueira</i> | Urú | | 28-2-2008 | | U | | F | |
| Slaty-breasted Wood-rail | <i>Aramides saracura</i> | Saracura | | 6-3-2008 | F | F | | F | |
| Blackish Rail | <i>Pardirallus nigricans</i> | Gallineta negruzca | | 6-3-2008 | U | | | | |
| Common Moorhen | <i>Gallinula chloropus</i> | Polla negra | | 24-2-2008 | F | | | | |
| Wattled Jacana | <i>Jacana jacana</i> | Jacana | | 17-3-2008 | R | | | | |
| Southern Lapwing | <i>Vanellus chilensis</i> | Tero tero | | 24-2-2008 | F | | | | |
| Rock Pigeon | <i>Columba livia</i> | Paloma casera | Int | 24-2-2008 | C | | | | |
| Picazuro Pigeon | <i>Columba picazuro</i> | Paloma turca | | 26-2-2008 | F | F | | | F |
| Pale-vented Pigeon | <i>Columba cayennensis</i> | Paloma colorada | | 7-3-2008 | U | | | | |
| Eared Dove | <i>Zenaida auriculata</i> | Torcaza | | 24-2-2008 | F | | | | |
| Ruddy Ground-dove | <i>Columbina talpacoti</i> | Tortolita colorada | | 24-2-2008 | F | | | | |
| Picui Dove | <i>Columbina picui</i> | Tortolita | | 26-2-2008 | F | | | | |
| White-tipped Dove | <i>Leptotila verreauxi</i> | Yerutí | | 24-2-2008 | F | | | F | |
| Grey-fronted Dove | <i>Leptotila rufaxilla</i> | Yerutí colorada | | 13-3-2008 | | | | U | |
| White-eyed Parakeet | <i>Aratinga leucophthalmus</i> | Maracaná ala roja | | 12-3-2008 | | | | U | |
| Maroon-bellied Parakeet | <i>Pyrrhura frontalis</i> | Chiripepé cabeza verde | | 28-2-2008 | | | | C | F |
| Yellow-chevroned Parakeet | <i>Brotogeris chiriri</i> | Catita chiriri | | 25-2-2008 | U | | | | |
| Scaly-headed Parrot | <i>Pionus maximiliani</i> | Loro choclero | | 24-2-2008 | F | | C | C | |
| Squirrel Cuckoo | <i>Piaya cayana</i> | Tingazú | | 25-2-2008 | | | F | F | |
| Greater Ani | <i>Crotophaga major</i> | Anó grande | | 25-2-2008 | C | | C | F | |
| Smooth-billed Ani | <i>Crotophaga ani</i> | Anó chico | | 24-2-2008 | C | | | | |
| Guira Cuckoo | <i>Guira guira</i> | Piririta | | 24-2-2008 | C | | F | | |
| Common Barn-owl | <i>Tyto alba</i> | Lechuza de campanario | | 28-2-2008 | U | | | | |
| Tropical Screech-owl | <i>Otus choliba</i> | Lechucita | | 28-2-2008 | | | U | | |
| Ferruginous Pygmy-owl | <i>Glaucidium brasilianum</i> | Caburé | | 28-2-2008 | U | | F | U | |
| Common Potoo | <i>Nyctibius griseus</i> | Urutaú | | 27-2-2008 | R | | | | |
| Semi-collared Nighthawk | <i>Lurocalis semitorquatus</i> | Añapero castaño | | 28-2-2008 | U | | U | | U |
| Common Nighthawk | <i>Chordeiles minor</i> | Añapero boreal | | 24-2-2008 | F | | | | F |
| Pauraque | <i>Nyctidromus albicollis</i> | Curiango | | 28-2-2008 | | | | | F |
| Grey-rumped Swift | <i>Chaetura cinereiventris</i> | Vencejo chico | | 4-3-2008 | | | U | | |
| Ashy-tailed Swift | <i>Chaetura andrei</i> | Vencejo de tormenta | | 25-2-2008 | C | | | | |
| Scale-throated Hermit | <i>Phaethornis eurynome</i> | Ermitaño escamado | | 25-2-2008 | F | | F | F | |
| Black-throated Mango | <i>Anthracothorax nigricollis</i> | Picaflor vientre negro | | 26-2-2008 | U | | | | |
| Plovercrest | <i>Stephanoxis lalandi</i> | Picaflor copetón | | 26-2-2008 | | | F | F | U |
| Glittering-bellied Emerald | <i>Chlorostilbon aureoventris</i> | Picaflor verde | | 4-3-2008 | | | U | | |
| Black-throated Trogon | <i>Trogon rufus</i> | Surucúa amarillo | | 2-3-2008 | | U | | | |
| Surucua Trogon | <i>Trogon surrucura</i> | Surucúa | | 25-2-2008 | | | F | F | |
| Amazon Kingfisher | <i>Chloroceryle amazona</i> | Martín pescador mediano | | 24-2-2008 | F | | | | |
| Saffron Toucanet | <i>Bailloniopsis bailloni</i> | Arasarí banana | NT | 8-3-2008 | U | U | | U | |
| Chestnut-eared Araçari | <i>Pteroglossus castanotis</i> | Arasarí fajado | | 4-3-2008 | | | | U | |

| English name | Latin name | Spanish name | IUCN | First date PROCOSARA | Sendero | | | | |
|--------------------------------|-------------------------------------|------------------------------|------|----------------------|---------|-----------------|--------|--------|-------------|
| | | | | | Lake | Suruku'a sa'yju | Urutau | Chachí | Tuká Pakova |
| Red-breasted Toucan | <i>Ramphastos dicolorus</i> | Tucán pico verde | | 1-3-2008 | | | U | U | |
| Ochre-collared Piculet | <i>Picumnus temminckii</i> | Carpinterito cuello canela | | 7-3-2008 | U | | U | U | |
| White Woodpecker | <i>Melanerpes candidus</i> | Carpintero blanco | | 29-2-2008 | R | | | | |
| Yellow-fronted Woodpecker | <i>Melanerpes flavifrons</i> | Carpintero arco iris | | 24-2-2008 | F | | F | | |
| White-spotted Woodpecker | <i>Veniliornis spilogaster</i> | Carpinterito barrado | | 24-2-2008 | F | U | F | F | |
| Green-barred Woodpecker | <i>Colaptes melanochloros</i> | Carpintero real | | 26-2-2008 | U | | U | U | |
| Campo Flicker | <i>Colaptes campestris</i> | Carpintero campestre | | 25-2-2008 | F | | U | | |
| Blond-crested Woodpecker | <i>Celeus flavescens</i> | Carpintero copete amarillo | | 8-3-2008 | | | R | | |
| Lineated Woodpecker | <i>Dryocopus lineatus</i> | Carpintero garganta estriada | | 1-3-2008 | | | | R | |
| Robust Woodpecker | <i>Campephilus robustus</i> | Carpintero grande | | 25-2-2008 | | R | | R | |
| Rufous Hornero | <i>Furnarius rufus</i> | Hornero | | 24-2-2008 | F | | | | |
| Rufous-capped Spinetail | <i>Synallaxis ruficapilla</i> | Pijuí corona rojiza | | 27-2-2008 | | | F | F | |
| Grey-bellied Spinetail | <i>Synallaxis cinerascens</i> | Pijuí ceniciento | | 29-2-2008 | | | | U | |
| Yellow-chinned Spinetail | <i>Certhiaxis cinnamomeus</i> | Curutié colorado | | 29-2-2008 | U | | | | |
| Ochre-breasted Foliage-gleaner | <i>Philydor lichtensteini</i> | Ticotico ocráceo chico | | 24-2-2008 | U | | F | F | |
| Buff-fronted Foliage-gleaner | <i>Philydor rufum</i> | Ticotico ocráceo grande | | 26-2-2008 | | F | F | F | |
| White-eyed Foliage-gleaner | <i>Automolus leucophthalmus</i> | Ticotico ojo blanco | | 29-2-2008 | | | | U | |
| Sharp-tailed Streamcreeper | <i>Lochmias nematura</i> | Macuquiño | | 25-2-2008 | | | U | R | |
| Plain Xenops | <i>Xenops minutus</i> | Picolezna chico | | 26-2-2008 | | U | U | | |
| Plain-winged Woodcreeper | <i>Dendrocincla turdina</i> | Trepador pardo | | 11-3-2008 | | | | R | |
| Olivaceous Woodcreeper | <i>Sittasomus griseicapillus</i> | Tarefero | | 25-2-2008 | | | U | U | U |
| White-throated Woodcreeper | <i>Xiphocolaptes albicollis</i> | Trepador garganta blanca | | 29-2-2008 | | | | R | |
| Planalto Woodcreeper | <i>Dendrocolaptes platyrostris</i> | Trepador oscuro | | 28-2-2008 | | | | F | |
| Lesser Woodcreeper | <i>Xiphorhynchus fuscus</i> | Chincheró enano | | 27-2-2008 | | | | U | |
| Scalloped Woodcreeper | <i>Lepidocolaptes falcinellus</i> | Chincheró escamado | | 1-3-2008 | | U | | | |
| Spot-backed Antshrike | <i>Hypodaleus guttatus</i> | Batará goteado | | 1-3-2008 | | U | | U | |
| Large-tailed Antshrike | <i>Mackenziaena leachii</i> | Batará pintado | | 5-3-2008 | | | U | | R |
| Tufted Antshrike | <i>Mackenziaena severa</i> | Batará copetón | | 27-2-2008 | | | | U | |
| Variable Antshrike | <i>Thamnophilus caerulescens</i> | Batará plumizo | | 26-2-2008 | | | U | F | |
| Plain Antvireo | <i>Dysithamnus mentalis</i> | Batará amarillo | | 29-2-2008 | | | | U | |
| Black-capped Antwren | <i>Herpsilochmus atricapillus</i> | Tiluchí plumizo | | 14-3-2008 | | | | R | |
| Rufous-winged Antwren | <i>Herpsilochmus rufimarginatus</i> | Tiluchí ala rojiza | | 9-3-2008 | | U | | U | |
| Dusky-tailed Antbird | <i>Dryophila malura</i> | Tiluchí estriado | | 27-2-2008 | | | | U | |
| White-shouldered Fire-eye | <i>Pyriglena leucoptera</i> | Batará negro | | 27-2-2008 | | | U | | |
| Short-tailed Anthrush | <i>Chamaeza campanisona</i> | Tovaca | | 3-3-2008 | | U | | U | |
| Rufous Gnateater | <i>Conopophaga lineata</i> | Chupadientes | | 27-2-2008 | | | | F | U |
| Sharpbill | <i>Oxyruncus cristatus</i> | Picoagudo | | 7-3-2008 | | | | R | |
| Red-ruffed Fruitcrow | <i>Pyroderus scutatus</i> | Yacutoro | | 4-3-2008 | | | | R | |
| Blue Manakin | <i>Chiroxiphia caudata</i> | Bailarín azul | | 2-3-2008 | | R | | F | U |
| Wing-barred Piprites | <i>Piprites chloris</i> | Bailarín verde | | 8-3-2008 | | U | | U | |
| Greenish Mourner | <i>Schiffornis virescens</i> | Bailarín oliváceo | | 27-2-2008 | | | | R | |
| Rough-legged Tyrannulet | <i>Phyllomyias burmeisteri</i> | Mosqueta pico curvo | | 14-3-2008 | | | | R | |
| Grey Elaenia | <i>Myiopagis caniceps</i> | Fiofio ceniciento | | 1-3-2008 | R | | | | |
| Yellow Tyrannulet | <i>Capsiempis flaveola</i> | Mosqueta ceja amarilla | | 2-3-2008 | | | | U | |
| Mottle-cheeked Tyrannulet | <i>Phylloscartes ventralis</i> | Mosquetita | | 14-3-2008 | | | | R | |
| Bay-ringed Tyrannulet | <i>Phylloscartes sylviolus</i> | Mosquetita cara canela | NT | 11-3-2008 | | | | R | |
| Southern Bristle-tyrant | <i>Pogonotriccus eximius</i> | Mosqueta media luna | NT | 2-3-2008 | | R | | U | |
| Sepia-capped Flycatcher | <i>Leptopogon amaurocephalus</i> | Cabezudo | | 4-3-2008 | | | R | | |
| Eared Pygmy-tyrant | <i>Myiornis auricularis</i> | Mosqueta enana | | 4-3-2008 | | | U | U | |
| Drab-breasted Tody-tyrant | <i>Hemitriccus diops</i> | Mosqueta de anteojos | | 26-2-2008 | | | U | F | |
| Ochre-faced Tody-flycatcher | <i>Poecilatriccus plumbeiceps</i> | Mosqueta cabeza canela | | 29-2-2008 | | | U | U | |
| Yellow-olive Flycatcher | <i>Tolmomyias sulphurescens</i> | Picochato grande | | 26-2-2008 | | | U | | |
| White-throated Spadebill | <i>Platyrinchus mystaceus</i> | Picochato enano | | 28-2-2008 | | | | U | |
| Fuscous Flycatcher | <i>Cnemotriccus fuscatus</i> | Mosqueta ceja blanca | | 27-2-2008 | | | | U | |
| Vermilion Flycatcher | <i>Pyrocephalus rubinus</i> | Churrinche | | 1-3-2008 | U | | | | |
| Long-tailed Tyrant | <i>Colonia colonus</i> | Yetapá negro | | 24-2-2008 | U | | R | | |
| Cattle Tyrant | <i>Machetornis rixosa</i> | Caballerizo | | 24-2-2008 | U | | | | |
| Social Flycatcher | <i>Myiozetetes similis</i> | Pitogüé mediano | | 24-2-2008 | F | | | | |
| Great Kiskadee | <i>Pitangus sulphuratus</i> | Pitogüé | | 24-2-2008 | | | C | | |
| Three-striped Flycatcher | <i>Conopias trivirgatus</i> | Pitogüé chico | | 8-3-2008 | | | U | | |

| English name | Latin name | Spanish name | IUCN | First date PROCOSARA | Sendero | | | | |
|----------------------------|------------------------------------|-----------------------------|------|----------------------|-----------|-----------------|-----------|-----------|-------------|
| | | | | | Lake | Suruku'a sa'yju | Urutau | Chachí | Tuká Pakova |
| Streaked Flycatcher | <i>Myiodynastes maculatus</i> | Pitogüé rayado | | 24-2-2008 | F | | | | |
| Boat-billed Flycatcher | <i>Megarynchus pitangua</i> | Ñei ñei | | 24-2-2008 | C | | C | | |
| Variiegated Flycatcher | <i>Empidonomus varius</i> | Tuquito chorreado | | 27-2-2008 | | | U | | |
| Tropical Kingbird | <i>Tyrannus melancholicus</i> | Juan Caballero | | 24-2-2008 | C | | | F | |
| Fork-tailed Flycatcher | <i>Tyrannus savana</i> | Tijereta | | 24-2-2008 | F | | | | |
| Sirystes | <i>Sirystes sibilator</i> | Suiriri silbón | | 3-3-2008 | | U | | U | |
| Short-crested Flycatcher | <i>Myiarchus ferox</i> | Burlisto pico negro | | 25-2-2008 | | | U | | |
| Black-crowned Tityra | <i>Tityra inquisitor</i> | Tueré chico | | 24-2-2008 | F | | F | | |
| Black-tailed Tityra | <i>Tityra cayana</i> | Tueré grande | | 24-2-2008 | F | | F | | |
| Green-backed Becard | <i>Pachyramphus viridis</i> | Anambé verdoso | | 10-3-2008 | | | | | R |
| Chestnut-crowned Becard | <i>Pachyramphus castaneus</i> | Anambé castaño | | 5-3-2008 | | | R | | |
| Plain Becard | <i>Pachyramphus validus</i> | Anambé grande | | 26-2-2008 | R | | | | |
| Grey-breasted Martin | <i>Progne chalybea</i> | Golondrina doméstica | | 24-2-2008 | A | | | | |
| Cliff Swallow | <i>Petrochelidon pyrrhonota</i> | Golondrina rabadilla canela | | 24-2-2008 | F | | | | |
| Southern House Wren | <i>Troglodytes musculus</i> | Ratona | | 24-2-2008 | F | | | | |
| Pale-breasted Thrush | <i>Turdus leucomelas</i> | Zorzal alas canelas | | 26-2-2008 | F | | | | |
| Rufous-bellied Thrush | <i>Turdus rufiventris</i> | Zorzal colorado | | 26-2-2008 | F | | | | |
| Plush-crested Jay | <i>Cyanocorax chrysops</i> | Urraca | | 24-2-2008 | F | F | F | F | |
| Rufous-browed Peppershrike | <i>Cyclarhis gujanensis</i> | Juan chiviro | | 7-3-2008 | | | U | U | |
| Rufous-crowned Greenlet | <i>Hylophilus poicilotis</i> | Chiví coronado | | 6-3-2008 | | | | U | |
| Red-eyed Vireo | <i>Vireo olivaceus</i> | Chiví | | 11-3-2008 | | | | R | |
| Golden-crowned Warbler | <i>Basileuterus culicivorus</i> | Arañero coronado | | 24-2-2008 | C | | C | C | C |
| White-rimmed Warbler | <i>Basileuterus leucoblepharus</i> | Arañero silbón | | 25-2-2008 | C | C | C | C | C |
| River Warbler | <i>Basileuterus rivularis</i> | Arañero ribereño | | 4-3-2008 | | | U | | |
| Masked Yellowthroat | <i>Geothlypis aequinoctialis</i> | Arañero cara negra | | 26-2-2008 | U | | | | |
| Tropical Parula | <i>Parula pitiayumi</i> | Pitiayumí | | 26-2-2008 | F | | F | F | |
| Blue-naped Chlorophonia | <i>Chlorophonia cyanea</i> | Tangará bonito | | 28-2-2008 | R | | | | R |
| Magpie Tanager | <i>Cissopis leveriana</i> | Frutero overo | | 25-2-2008 | | | F | U | |
| Chestnut-vented Conebill | <i>Conirostrum speciosum</i> | Mielerito azul | | 1-3-2008 | U | U | U | | |
| Blue Dacnis | <i>Dacnis cayana</i> | Saí azul | | 4-3-2008 | | | U | U | |
| Purple-throated Euphonia | <i>Euphonia chlorotica</i> | Tangará | | 8-3-2008 | U | | | | |
| Chestnut-bellied Euphonia | <i>Euphonia pectoralis</i> | Tangará alcalde | | 6-3-2008 | | R | | U | |
| Red-crowned Ant-tanager | <i>Habia rubica</i> | Fueguero morado | | 28-2-2008 | | U | F | F | |
| Guira Tanager | <i>Hemithraupis guira</i> | Saíra dorada | | 27-2-2008 | F | F | F | F | F |
| Chestnut-headed Tanager | <i>Pyrrhocomma ruficeps</i> | Frutero cabeza castaña | | 27-2-2008 | | | | U | |
| Ruby-crowned Tanager | <i>Tachyphonus coronatus</i> | Frutero coronado | | 26-2-2008 | F | | F | F | F |
| Burnished-buff Tanager | <i>Tangara cayana</i> | Tangará pecho negro | | 6-3-2008 | | | | R | |
| Swallow Tanager | <i>Tersina viridis</i> | Tersina | | 25-2-2008 | U | | U | | |
| Sayaca Tanager | <i>Thraupis sayaca</i> | Celestino | | 24-2-2008 | U | | U | U | |
| Black-goggled Tanager | <i>Trichothraupis melanops</i> | Frutero corona amarilla | | 25-2-2008 | | | F | F | U |
| Blackish-blue Seedeater | <i>Amaurospiza moesta</i> | Reinamora enana | NT | 7-3-2008 | | | R | | |
| Grassland Sparrow | <i>Ammodramus humeralis</i> | Chingolo ceja amarilla | | 1-3-2008 | F | | | | |
| Red-crested Finch | <i>Coryphospingus cucullatus</i> | Brasita de fuego | | 4-3-2008 | R | | | | |
| Uniform Finch | <i>Haplospiza unicolor</i> | Afrechero plumizo | | 28-2-2008 | | | | C | F |
| Saffron Finch | <i>Sicalis flaveola</i> | Canario paraguay | | 24-2-2008 | U | | | | |
| Double-collared Seedeater | <i>Sporophila caeruleascens</i> | Corbatita | | 27-2-2008 | U | | | | |
| Rufous-collared Sparrow | <i>Zonotrichia capensis</i> | San Francisco | | 4-3-2008 | U | | | | |
| Unicoloured Blackbird | <i>Agelaius cyanopus</i> | Varillero negro | | 9-3-2008 | U | | | | |
| Red-rumped Cacique | <i>Cacicus haemorrhous</i> | Cacique | | 25-2-2008 | | U | U | F | |
| Golden-winged Cacique | <i>Cacicus chrysopterus</i> | Boyero ala amarilla | | 24-2-2008 | F | U | F | | |
| Chopi Blackbird | <i>Gnorimopsar chopi</i> | Chopí | | 12-3-2008 | U | | | U | |
| Epaulet Oriole | <i>Icterus cayanensis</i> | Boyerito | | 4-3-2008 | U | | | | |
| Screaming Cowbird | <i>Molothrus rufoaxillaris</i> | Tordo pico corto | | 26-2-2008 | U | | | | |
| Total | | | | 172 | 88 | 26 | 66 | 85 | 19 |
| Mammals | | | | | | | | | |
| Tufted Capuchin | <i>Cebus apella</i> | Mono capuchino marrón | | 28-2-2008 | | | | U | |
| Red Brocket Deer | <i>Mazama americana</i> | Venado rojo | | 28-2-2008 | | | | R | |
| Capybara | <i>Hydrochoerus hydrochaeris</i> | Capibara | | 29-2-2008 | F | | R | | |
| Azara's Agouti | <i>Dasyprocta azarae</i> | Agoutí de Azara | | 4-3-2008 | | | R | | |

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References

- BirdLife International, 2000. **Threatened Birds of the World**. Lynx Editions, Barcelona, Spain and BirdLife International, Cambridge, UK.
- Emmons, L.H., & F. Feer, 1997. **Neotropical Rainforest Mammals, A Field Guide**. Second Edition.
- del Hoyo, J., A. Elliott & J. Sargatal (eds.), 1992 - 2002. **Handbook of the Birds of the World. Volume I to VII**. Lynx Editions, Barcelona, Spain.
- del Hoyo, J., A. Elliott & D. A. Christie (eds.), 2003 - 2007. **Handbook of the Birds of the World. Volume VIII to XII**. Lynx Editions, Barcelona, Spain.
- de la Peña, M. & M. Rumboll, 1998. **Birds of Southern South America and Antarctica**. Princeton University Press, Princeton, New Jersey.