

Shape of the postocular stripe

State 1.—‘Teardrop’ MZFC 3975

State 2.—Longer and thicker, almost surrounding the eye MZFC 9715

State 3.—Longer, almost surrounding the eye MZFC

State 4.—Only behind the eye MZFC 8802

Whitish ‘ear’

Absent MZFC 9584

Present MZFC 3975

Throat colour

State 1.—Dark MZFC 3975

State 2.—Intermediate MZFC 7203

State 3.—Light MZFC 9584

Breast-band colour

State 1.—Orange yellow (18) MZFC 3975

State 2.—Spectrum yellow (55) MZFC 9749

State 3.—Chartreuse (158) MZFC 9576

State 4.—Olive Green (48) MZFC 9584

State 5.—Lime Green (59) + Spectrum Orange (17) NHM 85.6.8.21

Throat pattern

State 1.—Conspicuous whiskers, only laterally speckled MZFC 3975

State 2.—Speckled, whiskers ‘washed’ MZFC 9715

State 3.—Speckled, no whiskers MZFC 8802

State 4.—Conspicuous whiskers NHM 85.6.8.21

Head stripes

Thin blackish MZFC 8802

Thick, black NHM 98.12.14.573

© British Ornithologists’ Club 2007

Nine bird species new to Bolivia and notes on other significant records

by J. A. Tobias & N. Seddon

Received 3 February 2006

During field studies in 2001–05 we travelled widely in northern Bolivia, from the puna of Oruro to lowland rainforest of Pando, and compiled many ornithological records, some interesting from a national or biogeographical standpoint. These include the first Bolivian records of eight species (all of them documented): Wire-crested Thorntail *Discosura popelairii*, Green-tailed Goldenthrroat *Polytmus theresiae*, Ocellated Woodcreeper *Xiphorhynchus ocellatus*, Chestnut-throated Spinetail *Synallaxis cherriei*, White-cheeked Tody-tyrant *Poecilatriccus albifacies*, Sulphur-rumped Flycatcher *Myiobius barbatus*, Citron-bellied Attila *Attila citriniventris* and Pale-bellied Mourner *Rhytipterna immunda*. We also report the first documented record of Ruby-topaz Hummingbird *Chrysolampis mosquitos*, previously known from three published reports, all either dubious or provisional. In addition, we include details of the first Bolivian records of Chimney Swift *Chaetura pelagica* (undocumented), and two taxa currently considered races of Fuscous Flycatcher *Cnemotriccus fuscatus*, namely *fuscator* and *duidae*, both of which probably warrant recognition as separate species. In effect, therefore, this paper adds 12 new species to the avifauna of Bolivia.

During these surveys we recorded several other species known from very few previous records. Thus we report the second Bolivian localities for Uniform Crake *Amaurolimnas concolor*, Rufous-faced Crake *Laterallus xenopterus*, Collared Puffbird *Bucco capensis*, Parker's Spinetail *Cranioleuca vulpecula*, Brownish Elaenia *Elaenia pelzelni*, Pearly-breasted Conebill *Conirostrum margaritae* and Green Oropendola *Psarocolius viridis*; our sightings of Brownish Elaenia and Cerulean Warbler *Dendroica cerulea* were the first in Bolivia for over 60 years.

Although political boundaries have little biogeographical relevance, bird distributions in Bolivia have been expressed by department (dpto.) ever since an annotated avifaunal inventory was published by Remsen & Traylor (1989). This approach is useful because it produces finer detail and, as noted by Whitney *et al.* (1994), it provides an unparalleled basis for assessing the importance of new records, particularly as data are periodically updated, most recently by Hennessey *et*

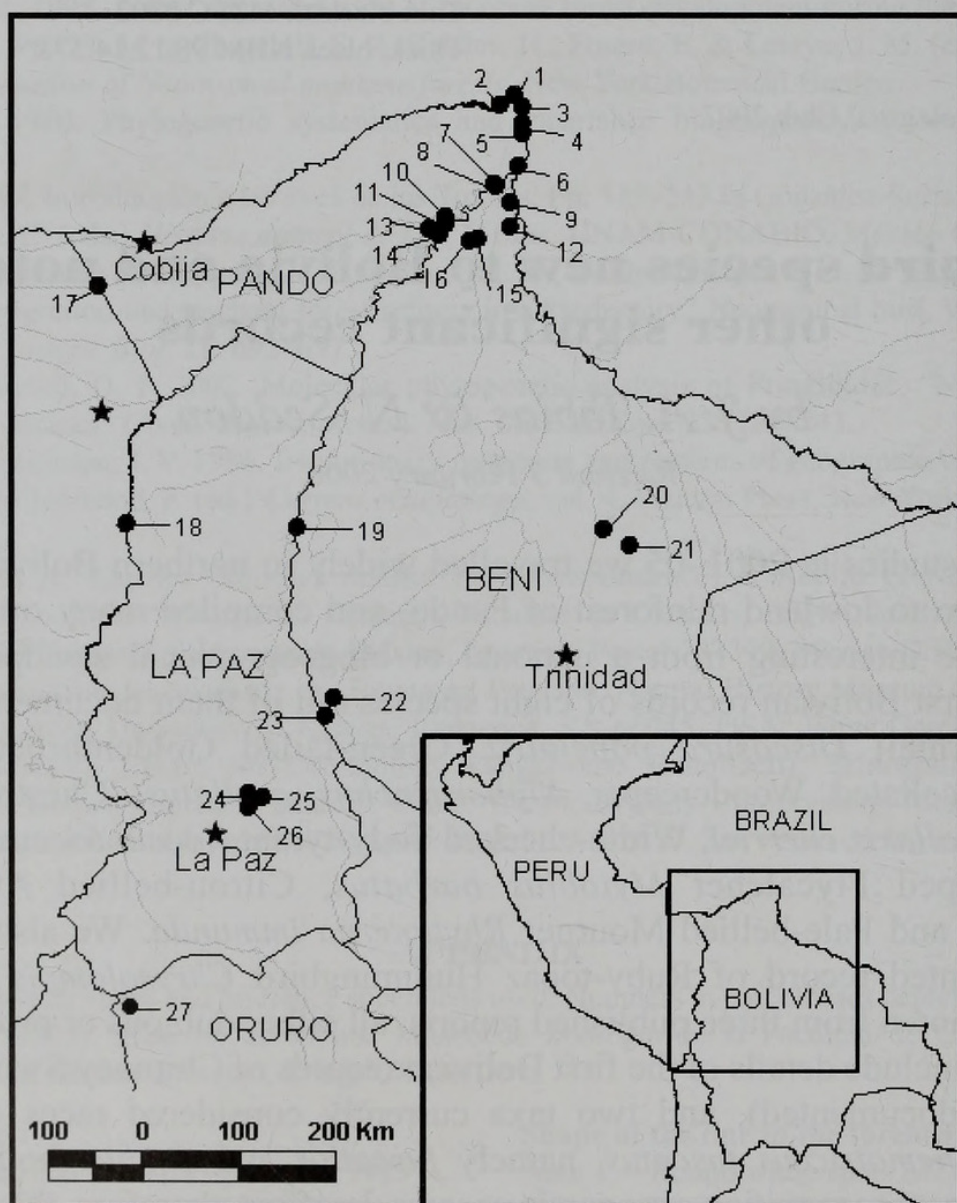


Figure 1. Map of relevant Bolivian departmental boundaries with survey sites, arranged from north to south and numbered as in the text.

al. (2003b). In line with this, we present 37 new departmental records (20 for Pando, four for La Paz and 13 for Beni). Expressing distributions by geopolitical unit is certainly valuable, but has a tendency either to over-emphasise minor range extensions or under-emphasise substantial ones, depending on the whereabouts of these artificial boundaries. For this reason, we include a few noteworthy sightings that do not represent new departmental records.

Photographic and video documentation of our records will be published separately, aside from four images included here as Figs. 2–5; sound-recordings have been archived at the Macaulay Library of Natural Sounds, Cornell University, USA. We use the sequence and taxonomy proposed by Remsen *et al.* (2005), except for Ocellated Woodcreeper, which we consider to be a separate species from Tschudi's Woodcreeper *X. chunchotambo*, following Marantz *et al.* (2003).

Habitats

Most of the terms we use are well known—seasonally flooded Amazonian forests associated with white-water systems are *várzea*, adjacent forests on uplands or terraces that never flood are *terra firme*, lowland grasslands with scattered shrubs and fire-resistant trees are *cerrado*, humid grasslands above the treeline are *páramo*, and dry bunchgrass on level plains at high altitude are *puna*. The term ‘stunted forest,’ however, requires clarification.

A variety of low-stature forests grow on infertile soils in lowland Bolivia, but the most typical form in dpto. Pando has been called ‘dwarf hummock forest’ (Montambault 2002) and *sartenejal* (Moskovits *et al.* 2003). Similar habitat lies across the río Madeira in Rondônia, Brazil, where it has been described as ‘white-sand forest’ or *campina* (Whittaker 2004). Rather than sandy substrates, the low-stature forests in Rondônia and Bolivia are usually associated with poorly drained weathered clays or with thin soils on ancient rock outcrops. Therefore, we avoid terms used to describe vegetation on different substrates elsewhere in the Neotropics (e.g. *varillal*, *campina*, *campinarana* or white-sand forest). We also avoid the local names *chaparral* and *sartenejal*, the former because it is elsewhere linked with dry thorny vegetation and the latter because it describes the ground layer and can equally be applied to poorly drained pampas vegetation. Given the range of low-stature forests in lowland Bolivia, we elect to use the general term ‘stunted forest’ as this describes the essential feature of the habitat and correctly implies that edaphic conditions impede vegetation growth.

We surveyed stunted forest in dptos. Beni and Pando, where it occurs in patches surrounded by well-drained *terra firme*. Typically, canopy height varies from 5 to 20 m, the understorey is relatively open and characterised by low ferns (*Trichomanes*) and varied melastomes (Melastomataceae), whilst the ground surface is spongy with a deep litter mat and patterned with a maze of raised bumps. Despite differences in underlying substrate, the overall vegetation structure means that Bolivian stunted forests support a range of bird species associated with similar

habitats throughout Amazonia (see Alonso & Whitney 2003). These include Brown-banded Puffbird *Notharchus ordii*, Bronzy Jacamar *Galbula leucogastra*, Zimmer's Tody-tyrant *Hemitriccus minimus*, Yellow-throated Flycatcher *Conopias parva*, Campinarana (or Varillal) Flycatcher *Cnemotriccus fuscatus duidae*, Black Manakin *Xenopipo atronitens* and Pale-bellied Mourner *Rhytipterna immunda*, most of which are poorly known in Bolivia. Otherwise, their richness in terms of species diversity is relatively low.

A different type of low-stature forest, which we term *Scleria* forest, occurs patchily near Manoa, in north-east Pando. This habitat is probably seasonally flooded, with a 15–20 m canopy and abundant vine-like razor-sedge (*Scleria*: Cyperaceae) in an otherwise open understorey (Moskovits *et al.* 2003). An equivalent semi-deciduous forest type, with a 15–30 m canopy, occurs in drier parts of northern dpto. Beni, where it is called *garrabatal*. *Scleria* appeared to be absent there and terrestrial bromeliads were present in patches. In general, Bolivian stunted forests and *Scleria* forests (but not *garrabatal*) appear to be associated with the Brazilian shield, a geological feature that extends marginally west of the río Madeira. Stunted forest of one type or another is extensive but virtually unexplored in north-east dpto. Pando (Moskovits *et al.* 2003), and similar habitats are found patchily further south in northern and eastern dpto. Beni, wherever the substrate is infertile or poorly drained. Further surveys will doubtless produce interesting ornithological records, but access is generally difficult.

Another suite of poorly surveyed habitats in Bolivia are those associated with river islands. We visited 11 islands of varying sizes and underlying geology, from Isla Valparaiso on the río Madre de Dios, downstream to the Falls of the Madeira. Islands upstream from Cachuela Esperanza are usually formed by accretion of midstream sediment or by new river channels severing the narrow neck of meanders. Islands further downstream, from Cachuela Esperanza to Manoa, tend to be formed around rocky intrusions associated with the Brazilian shield. The greater age and shallower substrate of these rocky islands means that they do not support the classic *Tessaria*–*Gynerium*–*Cecropia* succession of younger sediment-rich islands, instead being characterised by low tangled woodland. For this reason, and perhaps because they tend to be smaller, rocky islands seem almost bereft of birds considered to be river-island specialists (Rosenberg 1990). Indeed, the rocky islands and cataracts along a major non-navigable stretch of the ríos Madeira and Beni, from above Porto Velho to Cachuela Esperanza, may explain the absence of several river-island specialists in the upper Madeira system. Despite a concerted effort and use of playback at all suitable sites, we failed to encounter Zimmer's Woodcreeper *Xiphorhynchus kienerii*, Lesser Hornero *Furnarius minor*, Lesser Wagtail-tyrant *Stigmatura napensis* or Bicolored Conebill *Conirostrum bicolor*, and several other species known from insular or riverine habitats downstream. Some of these approach within 100 km of the Bolivian border (Cohn-Haft *et al.* 2005), and future surveys may well produce Bolivian records, but they appear to be rare in the region.

Survey sites

The following is a numbered list of Bolivian locality names mentioned in this paper and mapped in Fig. 1. Coordinates, given in degrees and decimal minutes, were read from a Garmin GPS 60, except where stated otherwise. Localities are arranged from north to south.

(1) **Manoa** (09°41'S, 65°24'W), 120 m above sea level, Pando, 27 April–2 May 2005. Coordinates were taken from a camp on the west bank of the río Madeira (Madera), *c.*3 km north of the existing Manoa military post and *c.*3 km south of the confluence with the río Abuna, at the north-east tip of Bolivia. We cut a trail west from the camp, passing through a strip of tall evergreen forest, followed by seasonally flooded riverine forest, then a large tract of lower stature *Scleria* forest. Moskovits *et al.* (2003) surveyed the same site in 2002 and provide a detailed habitat description.

(2) **Abuna** (09°47'S, 65°32'W), 120 m, Pando, 6–8 November 2006. Coordinates were taken at the manned military station roughly opposite the Brazilian town of Fortaleza da Abunã. We worked a trail along an old logging road heading south-east through well-drained humid *terra firme* on terraces away from the río Abuna. Canopy height was relatively low (15–30 m), suggesting low substrate fertility, but the habitat was structured like forests on more fertile soil in western Pando and southern Peru.

(3) **Dos de Junio** (09°48'S, 65°20'W), 120 m, Pando, 9 November 2005. Coordinates were taken *c.*2 km from the west bank of the río Madeira, at the edge of poorly drained stunted forest with a canopy of *c.*20 m.

(4) **Piedritas** (09°57'S, 65°20'W), 120 m, Pando, 3–7 May 2005 and 1–3 November 2005. This abandoned military camp stands on the west bank of the río Madeira. Trails inland passed through swampy habitats, tall *várzea* with abundant palms, and eventually reached extensive stunted forest with a 12-m canopy (our main survey plot in this habitat was at 09°57'S, 65°22'W). A more detailed habitat description was published by Moskovits *et al.* (2003).

(5) **Nueva Esperanza** (10°03'S, 65°19'W: coordinates from Moskovits *et al.* 2003). A village close to the west bank of the río Madeira, opposite the town of Araras, Rondônia, Brazil. Scrubby habitats at the periphery of the village were surveyed on 30 October and 5 November 2005.

(6) **Falls of the Madeira** (10°21'S, 65°22'W), 150 m, Pando, 26–29 October 2005. We surveyed four islands between 50 and 1,000 m long, within an archipelago of dozens of rocky islets associated with the Falls of the Madeira, a series of small cataracts situated where the ríos Beni and Mamoré join to form the río Madeira. This

locality has received no ornithological attention since being surveyed briefly by the botanist H. H. Rusby in the late 19th century (Allen 1889).

(7) **Los Indios** (10°32'S, 65°35'W), 150 m, Pando, 11–13 May 2005 and 6–23 October 2005. Coordinates were taken at the north bank of the río Beni, at the start of the road to a major sawmill (Los Indios, in a large concession of the same name), c.10 km to the north. Roads continue north and east to the río Negro and Nueva Esperanza. A Conservation International Rapid Assessment Program (RAP) team surveyed the region of San Juan de Nuevo Mundo (10°46'S, 66°44'W), at the headwaters of the río Negro and c.40 km north of the río Beni, for c.5 days in July 1992 (Montambault 2002). The only other recent work in the region was conducted by Moskovits *et al.* (2003) who visited Campamento Caimán (10°13'S, 65°22'W), near the río Madeira, for a similar period. Aside of these visits, the southern sector of dpto. Pando remains inadequately surveyed.

(8) **Cachuela Esperanza** (10°32'S, 65°34'W), 150 m, Beni, 9–13 May 2005. This old rubber-trading settlement stands roughly opposite the Los Indios road, on the south bank of the río Beni, adjacent to a non-navigable cataract. The surrounding habitat consists of selectively logged evergreen forest, most of it highly disturbed, and small patches of grassland. In 1937 this site was visited by A. M. Olalla (Gyldenstolpe 1945), although he and his collectors appear to have ignored the opposite bank in dpto. Pando.

(9) **Guayaramerin** (site A) (10°41'S, 65°26'W), 150 m, Beni, 25–26 April and 15 October 2005. This area of open *cerrado* and adjacent stunted forest (canopy 7–15 m) lies c.30 km north of Guayaramerin on the road to Cachuela Esperanza, and a few km south of the río Yata barge-crossing.

(10) **Isla Boca Orthon** (10°49'S, 66°01'W), 150 m, Pando, 13 November 2005. This small island lies at the mouth of the río Orthon. Mature forest covers the northern half, with early successional vegetation at the more disturbed southern end, including mixed age-classes of *Gynerium* cane and *Tessaria* shrubs.

(11) **Isla Riberalta** (10°53'S, 66°02'W), 150 m, Pando/Beni, 14 November 2005. This large, unnamed island is roughly circular and 1–2 km in diameter. It is the first major island downstream of Riberalta, and being midstream in the río Beni is shared between dptos. Pando and Beni. Much of the surface area supports a pure stand of *Cecropia* (10–30 m canopy), with a few other tree species admixed on the eastern shore; this woodland lacks a midstorey and the understorey is mostly low and tangled, with vines predominating, suggesting brief but annual inundation. The disturbed fringe, at least on the southern and western shores, is characterised by extensive mixed-age *Tessaria* and other pioneer species.

(12) **Guayaramerin** (site B) (10°55'S, 65°26'W), 150 m, Beni, 22 and 25 April and 1–3 October 2005. A small area of disturbed grassland and larger area of stunted forest (canopy 5–15 m) c.16 km west of Guayaramerin on the main highway to Riberalta. Habitat in this part of dpto. Beni seems roughly equivalent to the *sartenejales* of north-east dpto. Pando described by Moskovits *et al.* (2003), though the ground is broken by what looked like loose volcanogenic deposits, apparently iron ore, suggesting a different geological history.

(13) **Isla Valparaiso** (10°56'S, 66°11'W: read from 1:250,000 map SC19–12 Riberalta), 150 m, Pando, 19 and 21 October 2003. This slender island in the río Madre de Dios is a few km upstream of the confluence with the río Beni, and is the first permanent island met by upstream traffic from Riberalta. Most of the surface area supports a monoculture of *Cecropia* (20–30 m canopy), whilst the northern tip is more disturbed, characterised by lower trees, shrubs, creepers and *Gynerium* cane.

(14) **Boca Madre de Dios** (10°59'S, 66°05'W), 150 m, Pando, 18 and 21 October 2003 and 13–14 May 2005. This large unnamed peninsula, formed by the confluence of the ríos Madre de Dios and Beni, is probably isolated when the rivers are in spate, and, like a new or highly disturbed Amazonian river island, supports abundant *Tessaria*, including a dense marginal growth of young saplings (1–4 m canopy) and larger areas of scattered trees (c.5–12 m canopy). A few low *Cecropia* trees (5–12 m canopy) grow on the south side, whilst rough grassland and wetland dominate the east side. In the dry season (April–October) retreating waters expose large sandy beaches on the north shore. The site is a few km downstream of Victoria, río Beni, a collecting locality visited by A. M. Olalla in 1937 (Gyldenstolpe 1945).

(15) **San Lorenzo de Pampa** (11°01'S, 65°44'W), 150 m, Beni, 18 October 2003 and 12 November 2005. Coordinates were taken at the start of an unsurfaced road which cuts south from the main Riberalta–Guayaramerin highway, c.36 km from Riberalta, to a settlement named San Lorenzo de Pampa. The habitat immediately south of the junction consists of *cerrado* with scattered tall trees and low shrubs, surrounded by tall evergreen forest. Patches of similar habitat lie to the south, but these were not visited.

(16) **Riberalta** (km 27E) (11°02'S, 65°49'W), 150 m, Beni, 16 October 2003. This waypoint marks the beginning of a narrow track which leaves the main Riberalta–Guayaramerin highway, c.27 km from the central plaza in Riberalta, and runs south for several km through selectively logged evergreen forest with a canopy of 25–35 m. Riberalta itself, and the opposite bank in Pando, were worked by A. M. Olalla in 1937 (Gyldenstolpe 1945), and the area has been visited by several observers since the mid 1990s.

(17) **Extrema** (11°28'S, 69°15'W), 250 m, Pando, 7–11 November 2004. This military outpost is situated on the río Tahuamanu where it flows into Bolivia. It is reached via a newly constructed road linking Cobija (the capital of Pando) and San Lorenzo, a small village between Puerto Maldonado and Iñapari, dpto. Madre de Dios, Peru. Habitat in the immediate vicinity is highly disturbed, with an open canopy and much bamboo (*Guadua* sp.). Further afield there were large areas of tall *terra firme* lacking bamboo, but this was being cleared to make way for agricultural smallholdings (*chakras*) along the new road.

(18) **Alto Madidi** (13°40'S, 69°00'W: coordinates from Parker *et al.* [1991]), La Paz, 1–7 December 2001. We surveyed the vicinity of the Alto Madidi guard post on the upper río Madidi (previously a logging camp and high-security prison). We also worked a path between here and another guard post, named Candelaria, on the road to Ixiamas. A full habitat description is presented by Parker & Bailey (1991).

(19) **San Marcos** (13°42'S, 67°25'W: coordinates taken on the banks of the río Negro [A. B. Hennessey *in litt.* 2006]), 200 m, Beni, 1–3 September 2005. JAT and J. del Hoyo surveyed a trail from the south bank of the río Beni at San Marcos Viejo to the río Negro, several hours walk. The trail begins and ends in tall riverine forest, but passes through some tracts of lower stature semi-deciduous forest rich in vines and terrestrial bromeliads, a habitat known locally as *garrabatal*.

(20) **Estancia Cristalino** (13°43'S, 64°34'W), Beni, 200 m, 9–10 November 2003. Coordinates were taken at Isla Senisa, a site 3–4 km distant (Tobias 2003). Habitat is open *cerrado* interspersed with large areas of marsh and scattered islands of humid forest.

(21) **Paraparau** (13°52'S, 64°19'W), near the río Negro, 200 m, Beni, 3–13 November 2003. Coordinates were taken at an estancia in a raised forest island surrounded by extensive seasonally flooded meadows and grasslands.

(22) **Pilon** (15°16'S, 67°04'W), 900 m, Beni, 28–30 March 2005. This village is near the summit of the first low ridge of the Andes in a region characterised by linear north–south synclines. Despite its low altitude, the Pilon ridge captures high rainfall and habitat is consequently lush and epiphyte-laden near the summit. There have been several surveys of this and adjacent higher ridges in recent decades (Schmitt & Schmitt 1987, Parker 1989, Parker *et al.* 1991, Hennessey *et al.* 2003a).

(23) **Illampu** (15°26'S, 67°08'W), 1,350 m, La Paz, 26–30 March 2005. We surveyed a 2-km trail cut through ridgetop forest in the Serranía de Marimonos, near the village of Illampu. Some original forest remains on steeper slopes, but most habitat is highly degraded, dominated in some areas by a tall *Guadua* bamboo and in others by low-stature shrubby regrowth (canopy 2–5 m) with scattered mature trees (canopy 25 m). We also surveyed humid forest at 1,000 m, below Illampu.

(24) **Tunquini** (16°10'S, 67°52'W: coordinates supplied by S. K. Herzog *in litt.* 2005), 1,500 m, La Paz, 4–8 February 2005. A research station (now defunct) in the province of Nor Yungas, accessible from the new road linking La Paz and Coroico. Below 1,500 m habitat consists of steep patches of relatively dry forest interspersed with landslides and agricultural smallholdings. Above 1,500 m it is relatively humid and intact to the elfin forest–*páramo* ecotone and beyond.

(25) **Coroico** (16°11'S, 67°43'W), 1,800 m, La Paz, various dates, 2001–05. Remnant patches of cloud forest on the slopes of Cerro Uchumachi above and to the south of town. These are more or less contiguous with a larger area of habitat at the south end of the ridge.

(26) **Cotapata** (16°17'S, 67°51'W), 3,100 m, La Paz, various dates, 2001–05. Cloud forest extends along the upper reaches of the La Paz–Coroico road, but is generally difficult to access. One well-known entry point is the 'Cotapata Trail,' which begins at Cotapata petrol station, runs over a low ridge, then steeply downhill to an active mine. The site and its avifauna were described by Remsen (1985).

(27) **Sajama** (18°08'S, 68°58'W), 4,100 m, Oruro, 7–10 December 2005. A village in Sajama National Park in far western Bolivia, adjacent to Lauca National Park in Chile. Surrounding habitat includes extensive bunchgrass *puna* and rocky slopes with scattered *Polylepis tarapacana* trees.

Species accounts

LONG-WINGED HARRIER *Circus buffoni*

A dark-phase individual was photographed at Boca Madre de Dios on 18 and 21 October 2003. It spent much time hunting over grassy seasonal beaches beside the río Madre de Dios. This is the first documented record for dpto. Pando. It may have involved a wanderer from the breeding range in the Llanos do Moxos and associated grasslands of dpto. Beni, or the bird may have been an austral migrant from further south in Bolivia or even Argentina. The record fits a growing pattern of extralimital records in the austral winter from sites such as the isolated grasslands of the Pampas del Heath (e.g. Montambault 2002), the río Madre de Dios, Peru (T. S. Schulenberg *in litt.* 2006), and Rondônia, Brazil, where the first record for the state, and for Amazonian Brazil, involved a single (also a dark phase) at Palafitas Island in July 2002 (Whittaker 2004). Given the dispersive tendencies of the species, a Pando record was to be expected and it may be a regular non-breeding visitor to the poorly surveyed grasslands of south-central Pando (Alverson 2003).

WHITE-BROWED HAWK *Leucopternis kuhli*

An adult heard at Riberalta (km 27E) and then seen in flight was the first record for dpto. Beni, though there is an unconfirmed report from Antofagasta, also east of

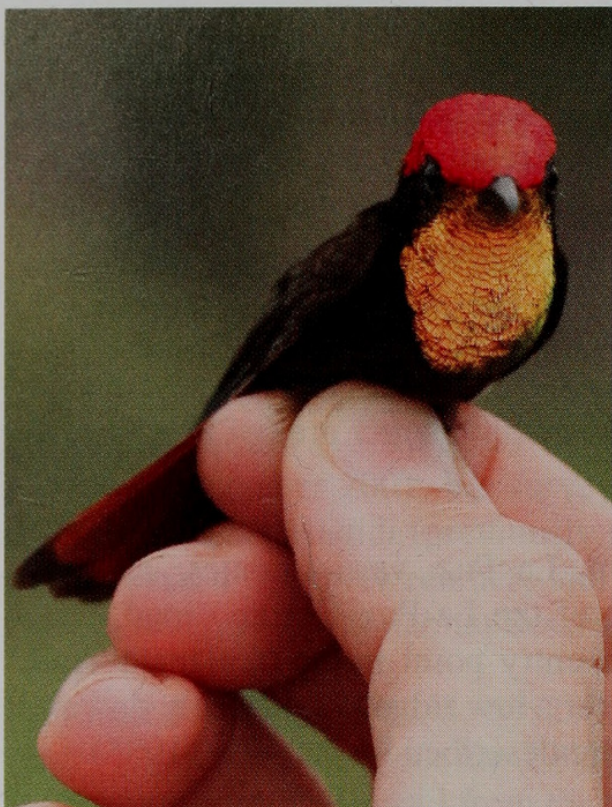


Figure 2. Adult male Ruby-topaz Hummingbird *Chrysolampis mosquitus*, trapped near Guayaramerin, dpto. Beni, Bolivia, April 2005 (J. A. Tobias)



Figure 3. Ocellated Woodcreeper *Xiphorhynchus ocellatus perplexus*, Manoa, dpto. Pando, Bolivia, May 2005 (J. A. Tobias)



Figure 4. Chestnut-throated Spinetail *Synallaxis cherriei*, Extrema, dpto. Pando, Bolivia, November 2004 (J. A. Tobias)



Figure 5. White-cheeked Tody-tyrant *Poecilotriccus albifacies*, Extrema, dpto. Pando, Bolivia, November 2004 (J. A. Tobias)

Riberalta, in July 1997 (J. Hornbuckle *in litt.* 2004). Slightly further downstream, 2–3 were tape-recorded and photographed in May and October 2005, within 2 km of the north bank of the río Beni at Los Indios, dpto. Pando. Our records confirm that this hawk occurs on both banks of the río Beni, suggesting that it is distributed thinly but continuously from the lowlands of dpto. La Paz (Hennessey *et al.* 2003b) and northern dpto. Pando (Parker & Remsen 1987), through the extensive humid forests of northern and eastern dpto. Beni, to eastern Santa Cruz, where it occurs in Noel Kempff Mercado National Park (Killeen & Schulenberg 1998). Like many inconspicuous forest raptors, the species is much more easily detected by voice. The main advertising-call, often given in a well-spaced series, is a shrill, emphatic descending whistle; contact-calls are shorter, weaker versions of the same.

UNIFORM CRAKE *Amaurolimnas concolor*

In December 2001, at least two vocalised shortly before nightfall at Alto Madidi, c.100 m from the río Madidi, in dense, low-stature seasonally flooded forest. The song was tape-recorded and the birds observed in the open following playback. The only previous record for Bolivia involves a bird tape-recorded near Buena Vista, dpto. Santa Cruz, in December 1994 (Mayer 2000). Our record is thus the first for both dpto. La Paz and Madidi National Park, where predicted by Remsen & Parker (1995). The only previous record of a large dark rallid at the Alto Madidi site involved Blackish Rail *Pardirallus nigricans* (Parker & Bailey 1991), which is more often associated with low rank vegetation around Amazonian wetlands. Vocalisations of the two species are quite similar in tone but very different in pattern.

CHESTNUT-HEADED CRAKE *Anurolimnas castaneiceps*

A single sound-recorded at Los Indios on 10–11 May 2005 was only the fifth record for Bolivia. It was calling from within dense undergrowth of selectively logged forest, in a slightly damp depression with abundant palms and *Heliconia*. In Bolivia, the species was first recorded around Cobija (Parker & Remsen 1987), then at Puesto Militar Abuna, opposite the Brazilian town of Fortaleza, on the río Abuna (Montambault 2002); we tape-recorded one at the same locality in November 2005. It has also been recorded at Piedritas and Campamento Caimán near the río Madeira (Moskovits *et al.* 2003). Though the current record also is in dpto. Pando, it extends the known range south to the north bank of the río Beni and suggests that the species should be searched for in northern dpto. Beni.

RUSSET-CROWNED CRAKE *Anurolimnas viridis*

At least two were heard in low brushy regrowth and associated grassland near Nueva Esperanza at dusk on 30 October 2005, and were tape-recorded and photographed there on 5 November 2005. Three more were heard in similar habitat by the airstrip of Puesto Militar Abuna, in November 2005. These are the first and second records for dpto. Pando, but it appears to be *the* common crane in young successional vegetation, with or without standing water, in eastern Beni and Pando;

it was certainly so around Cachuela Esperanza and Guayaramerin, dpto. Beni. We include this form in *Anurolimnas* with reservations because its vocalisations appear much closer to *Laterallus* (Ridgely & Greenfield 2001).

RUFOUS-FACED CRAKE *Laterallus xenopterus*

A pair was seen well in flight at Estancia Cristalino, near the río Negro, dpto. Beni, on 9 November 2003. They were flushed from a small grassy marsh, with a water depth of *c.* 3 cm and a sward height of *c.* 30 cm, between Isla Senisa and Estancia Cristalino, and flew with typically slow progress across the marsh, permitting several distinctive features to be seen. Foremost were the chunky head and bill, the black upperwings boldly striped white and rufous nape contrasting with the mantle. During field work in this area and in flooded grasslands around Paraparau, several more crakes were heard or flushed, but all showed characteristics of the similar Rufous-sided Crake *L. melanophaius*. This is the second Bolivian record (both are from dpto. Beni) and its presence in the río Negro catchment fulfils the prediction of Brace *et al.* (1998) that the species is probably more widespread in the Beni llanos than records suggest. Given its threat status (Vulnerable), *xenopterus* should be searched for in suitable habitat throughout lowland dptos. Beni and Santa Cruz.

LEAST SANDPIPER *Calidris minutilla*

On 1 September 2005, JAT and J. del Hoyo observed large numbers of Nearctic shorebirds foraging along the río Beni between Rurrenabaque (14°30'S, 67°32'W) and San Marcos. The most common species were Pectoral Sandpiper *Calidris melanotos*, White-rumped Sandpiper *C. fuscicollis*, Lesser Yellowlegs *Tringa flavipes* and Greater Yellowlegs *T. melanoleuca*. We could not check these shorebirds carefully but, once, *c.* 2 hours downstream of Rurrenabaque we made a detour to the north bank to identify a small group of *Calidris*. Three of these were Least Sandpipers, easily identified by their small size, dark upperparts, short decurved bills and pale off-yellow legs. This record, the first for dpto. La Paz, was expected given the scatter of Bolivian records during passage periods: there are *c.* 8 previous records for the country, including one from a locality downstream on the río Beni (Gyldenstolpe 1945) and another in December 1976 from near the río Yata (Remsen 1986).

BLUE-HEADED MACAW *Primolius couloni*

There are several records of this species from dpto. Pando, where it is known from the Cobija region at Porvenir, Filadelfia and Camino Mucden (Parker & Remsen 1987), and from further west at Ingavi, on the río Orthon, and opposite Fortaleza on the río Abuna (Montambault 2002), as well as at Manoa, on the río Madeira (Moskovits *et al.* 2003). Elsewhere, the only previously published Bolivian records are from dpto. La Paz, where this macaw is known from the lower río Heath (Parker & Bailey 1991), the río San Antonio (M. Kessler *in litt.* 2006), and 2–8 km north of Rurrenabaque (Parker *et al.* 1991).

We found it fairly common around Extrema, dpto. Pando, where we encountered c.10 in three days, all in flight, making the species amongst the most frequently detected parrots in the area. It was not reported during recent field work a little way downstream along the río Tahuamanu (Alverson *et al.* 2000). We observed a pair fly across the río Madeira from Manoa, entering Brazil near the town of Abunã. This appears to be the first record for Rondônia (A. Whittaker *in litt.* 2005). Elsewhere, we sound-recorded a pair flying over extensive humid forest interspersed with small patches of *cerrado* at Guayaramerin (site A), on 26 April 2005, and watched six fly over Cachuela Esperanza, on 11 May 2005. These constitute the first records for dpto. Beni. Interestingly, we spent over two weeks at Cachuela Esperanza in October 2005 and failed to note the species, suggesting that it is either rare or sporadic in this region.

A range extension for Blue-headed Macaw is of interest given that its conservation status has recently been classified as Endangered (BirdLife International 2005). Our records indicate that it occurs along the lower río Beni, and across into dpto. Beni around Guayaramerin, at least occasionally. Future field work in the extensive forests of the río Yata drainage and in humid forest further upstream along the río Mamoré may find it even more widespread. Given the significance of these records, a note on identification is appropriate, especially as this macaw is usually encountered in distant flight and thus can be difficult to recognise using visual cues alone. Its two types of call, an oddly nasal disyllable and a soft rolling squawk, are, however, both instantly recognisable at long range. By virtue of its tone and the rolling 'r' sound which predominates, the main flight-call is distinctive. The only confusion species are its two congeners, Yellow-collared Macaw *P. auricollis* and Blue-winged Macaw *P. maracana*, both of which could occur in northern dpto. Beni—*auricollis*, a smaller bird, is fairly common in the *llanos* area to the south, and *maracana* has been recorded close to Bolivia in the *cerrado* of Mato Grosso, western Brazil. Their flight-calls are distinctly higher pitched than those of *couloni* and the rolling effect is slightly reduced, features which can be heard on commercial collections (e.g. Whitney *et al.* 2002). Given reasonable views, *P. couloni* can also be separated by the lack of a bare whitish ocular patch.

AMAZONIAN PARROTLET *Nannopsittaca dachilleae*

We observed a group of five flying over patchy roadside *Guadua* bamboo, near the río Tahuamanu, at Extrema, dpto. Pando, in November 2004. The sighting was too brief to take sound-recordings or photographs, but the following diagnostic characters were noted; the slightly elongated body, blunt wedge-shaped tail, and distinctive upwardly inflected, almost disyllabic flight-notes. The only possible confusion species here, Dusky-billed Parrotlet *Forpus sclateri*, was also present at the site, but easily distinguished by its smaller size, shorter tail, and weaker, more even-pitched flight-notes. An association with *Guadua* bamboo, especially along small rivers, has been noted previously (O'Neill *et al.* 1991) and is obvious at sites such as Estación Biológica Cocha Cashu and Boca Los Amigos, Madre de Dios,

Peru, where we have much experience of the species. There are several previous records for dpto. La Paz, including the first for Bolivia at Alto Madidi in 1990 (Parker & Bailey 1991), and repeated sightings from the río Heath, around Enahuipa and Puerto Moscoso, near the Pampas del Heath (O'Neill *et al.* 1991, Montambault 2002). Our record is the first for dpto. Pando. The species occurs in adjacent dpto. Madre de Dios, Peru, where seen recently at Noaya, c.50 km north-west of Extrema, in November 2005 (D. F. Lane *in litt.* 2005).

COMMON NIGHTHAWK *Chordeiles minor*

Sight records were reported by Pearson (1975) and, tentatively, by Dott (1985), but the species was not included on subsequent inventories of Bolivian avifauna because of the possibility of misidentification (Remsen & Traylor 1989). More recently, Common Nighthawk was found fairly commonly during passage periods at Noel Kempff Mercado National Park, with records from the 1980s (Killeen & Schulenberg 1998), in 1995 (D. Stotz & T. S. Schulenberg *in litt.* 2004) and October–November 2002 (JAT). Given acceptance of these sight records by Hennessey *et al.* (2003b), we report the following observations with some notes on identification.

Three large *Chordeiles* flew high over Boca Madre de Dios, dpto. Pando, heading south in a tightly knit group, 30 minutes before dark, on 18 October 2003. Similarly, a group of four nighthawks was seen flying south high over Los Indios, dpto. Pando, 30 minutes before dark, on 5 October 2005. As Least Nighthawk *C. pusillus* is a much smaller resident of *cerrado* habitats, with shorter wings and tail, the only serious identification pitfall is Lesser Nighthawk *C. acutipennis*. Aside of the high, direct and purposeful flight and their emergence long before dark, our birds were identifiable as *C. minor* by their relatively heavy build and long, sharply tapered wings with broad, conspicuous white patches in the primaries. In contrast, *C. acutipennis* is sligher, with a more fluttering flight and slightly blunter wingtips; it also tends to emerge closer to dusk and rarely flies high above the ground in flocks.

These, the first records of *C. minor* for dpto. Pando, were expected given that the species is known over much of eastern Peru on migration (T. S. Schulenberg *in litt.* 2005), and winters south to Argentina (Mazar Barnett & Pearman 2001).

WHITE-COLLARED SWIFT *Streptoprocne zonaris*

A strong cold front from the south arrived at Extrema, dpto. Pando, on 7 November 2004. In its wake, and as heavy rain enveloped the Andean chain, thousands of swifts fed over lowland Amazonian forest far from the foothills. The bulk of these were *Chaetura* swifts of at least four species, with small numbers of larger swifts. Of these latter, c.20 individuals that were identified were all White-collared Swifts, (adults and juveniles). According to Hennessey *et al.* (2003b) this is the first record of this easily identified species for Pando.

CHIMNEY SWIFT *Chaetura pelagica*

The large flock of swifts seen at Extrema, dpto. Pando, on 8–9 November 2004, included many Grey-rumped Swifts *Chaetura cinereiventris* and smaller numbers of Short-tailed *C. brachyura* and Pale-rumped Swifts *C. egregia*. Careful searching resulted in prolonged views of 2–3 distinctly larger *Chaetura* with a much stronger, less fluttering flight. We realised these were either Amazonian *C. viridipennis*, Sick's *C. meridionalis* or Chimney Swifts, which are structurally similar, and identified them as *pelagica* using a combination of features. Their upperparts were dark, only slightly paler on the rump, uppertail-coverts and lower back, and their throats were distinctly pale, creating a capped impression, and blending gradually with the rest of the underparts, which were mid brown, darkening towards the tail. Sick's Swift—which seems unlikely in this region in November because its breeding range lies further south—has a better defined and more restricted pale throat, pale undertail-coverts (noticeable in good light) and a paler rump and uppertail-coverts. We have little field experience with Amazonian Swift, but examination of specimens at the Natural History Museum (Tring) indicates that this form lacks a contrastingly pale throat, certainly insufficient to afford a capped impression, and that the rump and uppertail-coverts are noticeably paler.

In addition, we observed two large *Chaetura* in excellent light at Candelaria, near Alto Madidi, dpto. La Paz, in December 2001. We are almost certain these were also Chimney Swifts, but as our observation was brief the species cannot yet be added to the list of birds occurring in dpto. La Paz and Madidi National Park.

Our record from Extrema is the first of this long-distance Nearctic migrant for Bolivia. We treat the sighting as confirmed despite the lack of a photograph or specimen, because 1) it was made under ideal conditions, 2) our description is consistent with known field characters, and 3) the species was to be expected in Bolivia. Peruvian records span the Amazonian lowlands from Loreto in the north to Madre de Dios in the south (T. S. Schulenberg *in litt.* 2005), and a large proportion of the population is thought to winter in western Amazonia (Parker *et al.* 1982). In Brazil it is rare throughout much of Amazonia, but flocks of hundreds have been seen in Acre, not far north of Bolivia (Whittaker & Oren 1999). As further corroboration, the species was identified in November 2005 amongst swifts near Puerto Maldonado, Madre de Dios, Peru, c. 120 km due south of Extrema (D. F. Lane *in litt.* 2005). Its occurrence in north Bolivia is therefore expected, and further work at suitable seasons will probably reveal the species to be a regular visitor.

RUBY-TOPAZ HUMMINGBIRD *Chrysolampis mosquitus*

In April 2005, we found this spectacular hummingbird in the shrubby borders of grassland and low stunted forest at Guayaramerin (site B), dpto. Beni. A female was photographed in the field, and another was mist-netted and photographed along with two adult males (Fig. 2). During intensive field work, the only other hummingbird detected at this site was Green-tailed Goldenthrout *Polytmus theresiae*; both were very common. Interestingly, the goldenthrout was still abundant and conspicuous in

October 2005, whereas the *Chrysolampis* appeared to be absent. In November 2005, we observed a male feeding at a flowering *Inga* sp. tree at Isla Riberalta, in dpto. Pando. This tree was also visited repeatedly by a pair of Black-throated Mango *Anthracothorax nigricollis* and a single Sapphire-spangled Emerald *Amazilia lactea*. This Amazonian river island is otherwise almost entirely covered with *Cecropia* woodland and flanked on both sides of the river by tall forest, and is thus a rather unusual locality for the species.

Previous records of Ruby-topaz Hummingbird in Bolivia are undocumented and—one might argue—unreliable. Augusto Ruschi reported sight observations from San Matías in eastern dpto. Santa Cruz (Ruschi 1967), but as he has published notorious misidentifications (Hinkelmann 1988) and is now known to have ‘falsified a considerable part of [his] research’ (Willis 2003), this record is best discarded. Since then, the species has been reported from Noel Kempff Mercado National Park, dpto. Santa Cruz, in 1991 (Killeen & Schulenberg 1998), and San Joaquín, dpto. Beni, in 1996 (Mitchell 1997). However, in the first instance the species was listed only provisionally, and in the second the observer was ‘extremely unconfident’ about the identification. The only other Bolivian record is that from Baures, Beni, undated (F. Sagot *in litt.* to Asociación Armonía), but the original document is no longer traceable. None of these is accompanied by a description, photograph or specimen, and thus our sightings at Guayaramerin are the first documented records for Bolivia. Those at Isla Riberalta are the first for dpto. Pando. The appearance of the species here, in unusual habitat, along with the fluctuating seasonal abundance at Guayaramerin, points to some form of migration or movement within or through Bolivia. This tallies with the fact that *Chrysolampis* is one of the most migratory hummingbirds in the Neotropics (Sick 1993, Schuchmann 1999).

WIRE-CRESTED THORNTAIL *Discosura popelairii*

A female, observed feeding for several minutes, was photographed at Candelaria, near Alto Madidi, in December 2001. Given the low altitude, we initially assumed that we were dealing with either Black-bellied Thorntail *D. langsdorffi*, for which a single documented Bolivian record exists (from Camino Mucden, near Cobija, dpto. Pando: Parker & Remsen 1987), or Coppery Thorntail *D. letitiae*, a mysterious taxon known from three 19th-century specimens, probably collected in Bolivia. Having paid special attention to mantle colour, confirming this was bright green, unlike *letitiae*, we concluded that we had found Black-bellied Thorntail. However, subsequent research and experience led us to re-identify the Candelaria bird as Wire-crested Thorntail, which we had previously eliminated on account of its geographical and altitudinal distribution. In plumage, the extensive deep-black underparts contrasting sharply with the large, broad-based white moustachial are typical of female *popelairii*, but not *langsdorffi*. The upperparts were uniform green, abutting the white rump band, which was clearly bordered below by black, thus differing from female *langsdorffi*, and the tail was not as long or bifurcated as that

of female *langsдорffi*. Candelaria lies at 400 m, near the foot of an outlying Andean ridge, the 1,000-m Serranía del Tigre, and thus resembles sites on the upper río Madre de Dios, Peru (e.g. Amazonia Lodge and Pantiacolla Lodge), where *popelairii* far outnumbers *langsдорffi*.

This record is the first for Bolivia, but is not the southernmost ever. Until recently, the nearest known locality was Hacienda Cadena, in the Marcapata Valley (Berlepsch & Stolzmann 1906), which is c. 180 km to the west. There have been two recent observations (21 and 23 January 2006) further south of adult males, in shade-coffee plantations at Palmerani (1,100 m, 14°03'S, 68°54'W), prov. Sandia, dpto. Puno, Peru, within 2 km of the border with Bolivia (V. H. García-Soliz *per* S. K. Herzog *in litt.* 2006). These new data suggest that the status of Black-bellied Thorntail in Bolivia needs re-evaluating; in particular, we would argue that no conclusive record exists for dpto. La Paz or Madidi National Park, for which it is listed by Hennessey *et al.* (2003b). This listing now rests on a provisional report of a male observed near the río Yariape (14°12'S, 67°58'W), in November 1996 (Ohlson 1996). The observers were uncertain of the identification and the accompanying description does not eliminate other thornails. Moreover, the locality is at 600 m and the record thus probably involved *D. popelairii*. On the basis of nearby records, Remsen & Parker (1995) speculated that Black-bellied Thorntail, and perhaps Coppery Thorntail, would be found in Madidi National Park, but made no mention of Wire-crested Thorntail.

GREEN-TAILED GOLDENTHROAT *Polytmus theresiae*

Though this hummingbird does not appear on a recent list of Bolivian birds (Hennessey *et al.* 2003b), two undocumented records have since come to light, both from the Puerto Moscoso area, adjacent to the río Heath, in dpto. La Paz. Independent sightings in pampas near the south bank of the río Heath in February 1995 (T. Valqui *in litt.* 2005) and June 1997 (B. Walker *in litt.* 2005) went unpublished, mainly because the species had already been collected nearby in southern Peru, in the Pampas del Heath sector of Bahuaja-Sonene National Park (Montambault 2002). Retrospectively, the species can be added to the list for Madidi National Park, on which it was included as a likely candidate (Remsen & Parker 1995).

Given that all other open-country species found at the Pampas del Heath are more widespread in Bolivia than Peru, the distribution of *P. theresiae* suggests that it may have been overlooked across a wider area. These suspicions were borne out when the species was found to be the most abundant hummingbird in shrubland and stunted forest at Guayaramerin (site B), dpto. Beni, on 22–25 April 2005. Of eight birds trapped in mist-nets, five were caught in dense shrubland with an uneven canopy of 1–6 m and three in the shaded understorey of stunted forest with a canopy at 10 m. They seemed to avoid open grassland favoured by White-tailed Goldenthrroat *P. guainumbi*. Both sexes were photographed and sound-recorded;

nearby, at Guayaramerin (site A) others were sound-recorded on 26 April and 15 October 2005.

BLUE-CHEEKED JACAMAR *Galbula cyanicollis*

We found this species on four occasions at Los Indios, dpto. Pando, October 2005, including one trapped and photographed. Following records from the lower río Negro (Montambault 2002), Piedritas and Campamento Caimán (Moskovits *et al.* 2003), our locality is the fourth for Bolivia and confirms that the species occurs across eastern Pando, south to the north shore of the río Beni; it should be looked for on the south bank in suitable habitat. Both Blue-cheeked and Yellow-billed Jacamars *G. albirostris* are listed for Bolivia by Hennessey *et al.* (2003b), the latter in error.

BRONZY JACAMAR *Galbula leucogastra*

An adult was seen at Riberalta (km 27E), perched *c.* 18 m above ground in the subcanopy of selectively logged forest, in October 2003. It loosely associated with a mixed-species flock of canopy insectivores, including Paradise Jacamar *G. dea*. Subsequently, in April 2005, another adult was observed at Guayaramerin (site B), foraging *c.* 12 m up in the canopy of low-stature forest. Both were easily identified by their very dark plumage, with contrasting white throats and rear underparts. These are the first records for dpto. Beni. In May 2005, a pair was also sound-recorded and photographed at Los Indios, in southern dpto. Pando, 1 km from the río Beni, and birds were regularly heard here in October 2005. Until this series of records, Bronzy Jacamar was known only from northern dpto. Pando, with records from the Cobija area (Parker & Remsen 1987) and Federico Román (Moskovits *et al.* 2002). At Manoa and Piedritas it is a rather common and conspicuous inhabitant of stunted forest and *Scleria* forest.

BROWN-BANDED PUFFBIRD *Notharchus ordii*

Rare in collections and always considered 'very difficult to detect' (Parker & Remsen 1987), but the species is quite vocal and much more obvious now that the distinctive song is known (see Zimmer *et al.* 1997, Alonso & Whitney 2003). Indeed, familiarity with its voice has resulted in its discovery at many new localities throughout Amazonia in recent years. In Bolivia, the only two previous records are both from dpto. Pando, the first at Camino Mucden, near Cobija (Parker & Remsen 1987) and the other at Campamento Caimán, 15 km south of Nueva Esperanza, at 10°13'S, 65°22'W (Moskovits *et al.* 2003). We added four new localities, all in dpto. Pando: Manoa (three encounters), Dos de Junio (one), Piedritas (five) and Los Indios (eight). At each, birds were heard in the upper levels of stunted forest, in adjacent *várzea*, or in the canopy of tall selectively logged forest. Only once were birds seen, but we documented its presence at Manoa and Los Indios with sound-recordings. The latter record extends the known range to the north bank of the río Beni, and, given that the species is often found alongside Bronzy Jacamar *Galbula leucogastra*, it seems plausible that the range also extends into dpto. Beni.

CHESTNUT-CAPPED PUFFBIRD *Bucco macrodactylus*

A single was seen at Candelaria, near Alto Madidi, in December 2001. The species is known from the Tambopata and río Heath regions, Madre de Dios/Puno, southern Peru (Foster *et al.* 1994), and is generally fairly common in dptos. Pando and Beni, Bolivia, particularly in secondary forest and at the shrubby edges of clearings (pers. obs.). This record follows two unpublished records in dpto. La Paz, one at Chalalan Lodge in September 1996 (P. Burke *per* S. K. Herzog *in litt.* 2006) and another at the río San Antonio in August 1997 (S. K. Herzog *in litt.* 2006). Chalalan and Candelaria are within Madidi National Park, where the species was predicted to occur by Remsen & Parker (1995).

COLLARED PUFFBIRD *Bucco capensis*

A single was photographed in stunted forest at Piedritas, in November 2005. This is the second documented record for Bolivia, the first having been recently found at Campamento Caimán, c.35 km to the south (Moskovits *et al.* 2003). The species is difficult to detect unless the song is known, and it probably occurs thinly across lowlands of dptos. La Paz and Pando.

STRIOLATED PUFFBIRD *Nystalus striolatus*

A single was heard above Coroico, on 22 November 2005. It approached a whistled imitation of its song, permitting photography. Because of a slight morphological and behavioural resemblance to pygmy-owls *Glaucidium*, the species tends to be mobbed more than most puffbirds. In this case, the bird was being buzzed by the hummingbirds *Phaethornis superciliosus*, *Chlorostilbon mellisugus* and *Amazilia chionogaster* as it perched in a tall *Eucalyptus*. At 1,850 m, this locality is higher than the upper elevational limit of 1,500 m previously reported for Bolivia (Hennessey *et al.* 2003b), and indeed is the highest on record. It has been found to 1,700 m in Ecuador, where essentially a foothill bird (Ridgely & Greenfield 2001), but in Bolivia is more commonly found in lowland Amazonia.

CINNAMON-THROATED WOODCREEPER *Dendrexetastes rufigula*

At least one was seen daily and sound-recorded at 1,050 m in humid forest near Illampu, in April 2005. The previous upper elevational limit in Bolivia was 800 m (Hennessey *et al.* 2003a). This tallies with the situation in Peru and Ecuador, where it is usually found below 500 m, sometimes to 950 m, and only once at 1,200 m (Ridgely & Greenfield 2001, Marantz *et al.* 2003).

OCELLATED WOODCREEPER *Xiphorhynchus ocellatus*

This species was fairly common in *Scleria* forest and streamside *várzea* at Manoa, dpto. Pando, in May 2005. On the basis of our sound-recordings, B. M. Whitney (*in litt.* 2006) identified the race involved as *perplexus*. The Andean foothill and west Amazonian forms of the Ocellated Woodcreeper complex (*napensis*, *chunchotambo*, *brevirostris*) are now often treated as a separate species, Tschudi's Woodcreeper *X. chunchotambo* (Aleixo 2002, Marantz *et al.* 2003). If this

arrangement is accepted—and there appears to be ample justification on vocal grounds—our record confirms the occurrence of ‘true’ Ocellated Woodcreeper in Bolivia, which we documented with photographs of two mist-netted individuals (Fig. 3).

The expanded species, including the *X. chunchotambo* group, is listed for dpto. Pando by Hennessey *et al.* (2003b), based on an undocumented sighting in 2000 near Chive, on the río Madre de Dios (listed in an unpublished report on the Reserva Nacional de Vida Silvestre Amazónica Manuripi, by R. Miserendino). The racial identity was not specified, but it seems certain that the record would pertain to *X. chunchotambo*, given that this form has been recorded east of the Andes in the Amazonian lowlands of Peru as far as Balta, near the Brazilian border, and the Reserva Amazónica lodge, also on the río Madre de Dios, close to the Pando border (D. F. Lane *in litt.* 2006, T. S. Schulenberg *in litt.* 2006). Given the difficulty of separating *Xiphorhynchus* in the field, further confirmation of *X. chunchotambo* in dpto. Pando is desirable, but it seems likely that both Tschudi’s and Ocellated Woodcreepers occur in the region, perhaps in close proximity. Incidentally, Hennessey *et al.* (2003b) listed one other race of *X. ocellatus* for Bolivia in error: *bangsi* is a form of a different highland species, the Olive-backed Woodcreeper *X. triangularis*.

Given current knowledge, *X. o. perplexus* appears to be a scarce and patchily distributed taxon. In Peru it occurs in the northern lowlands, in the watersheds of the río Napo and río Javari, south of which it is apparently absent (D. F. Lane *in litt.* 2006, partly on the basis of information supplied by B. M. Whitney). In Brazil *perplexus* occurs from western Amazonas east at least to the rio Tefé, and south to Acre (Marantz *et al.* 2003), but there are few recent records (A. Whittaker *in litt.* 2005). The voice of *X. o. perplexus* differs significantly from forms east of the rio Madeira (e.g., *X. o. ocellatus*), and a case can be made for further subdividing the Ocellated Woodcreeper complex. A review of vocal, morphological and genetic data is underway (B. M. Whitney *in litt.* 2006).

CHESTNUT-THROATED SPINETAIL *Synallaxis cherriei*

One, presumably of the race *saturata*, was tape-recorded and photographed at Extrema, dpto. Pando, on 7 November 2004, representing the first documented record for Bolivia (Fig. 4). This bird, the only one found during an intensive three-day search, was difficult to observe, but easily lured into a mist-net using playback. It was holding territory in a highly disturbed area of forest with few tall trees, abundant *Guadua* cf. *weberbaueri* bamboo and patches of dense low shrubbery. Surveys of forest mixed with bamboo c.30 km distant at San Sebastián (11°24’S, 69°01’W) and other localities downstream on the río Tahuamanu, failed to find the species (Alverson *et al.* 2000), as did earlier surveys near Cobija, Pando (Parker & Remsen 1987). This suggests that its distribution in Bolivia is inexplicably patchy, much as elsewhere in its range. The closest documented localities of *saturata* are from the río Madre de Dios, Peru, where specimens (in Yale Peabody Museum)

were collected at Altamira by C. Kalinowski in 1962 (T. S. Schulenberg *in litt.* 2005), and Cocha Cashu, Manu National Park, where a bird was sound-recorded (at 11°50'S, 70°23'W) in July 2004 (D. J. Lebbin *in litt.* 2005). Further afield, *saturata* and the closely related *napoensis* are known from scattered localities in the Apurímac and Urubamba valleys, Peru, and in northern Peru, Ecuador and Colombia (Collar *et al.* 1992).

The relationship with *Guadua* merits comment. No association with bamboo has previously been noted in Colombia, Ecuador or most of Peru, where the favoured habitat is the understorey of humid second growth, and occasionally tall humid forest (Collar *et al.* 1992). In contrast, at Alta Floresta, Mato Grosso, Brazil, the nominate race inhabits 'larger, more mature and homogenous stands of bamboo within the forest interior' (Zimmer *et al.* 1997; pers. obs.). Elsewhere, the only record from Cocha Cashu, Madre de Dios, Peru (of *saturata*), involved a bird whose territory was restricted to a patch of degraded bamboo tentatively identified as *G. sarcocarpa purpuracea* (D. J. Lebbin *in litt.* 2005). As at Extrema, the bamboo at Cocha Cashu was a broad-stemmed variety but the canopy was low (c.4 m at most, often less) because the absence of stabilising trees had caused mature bamboos to collapse (D. J. Lebbin *in litt.* 2005). In conclusion, Chestnut-throated Spinetail is absent from most large areas of bamboo in dpto. Madre de Dios, Peru, and dpto. Pando, Bolivia, but present at some *Guadua*-dominated sites where the bamboo canopy is low.

PARKER'S SPINETAIL *Cranioleuca vulpecula*

The only record of this river-island species in Bolivia is from Victoria, on the north bank of the río Beni, where collected in 1937 (Gyldenstolpe 1945). We found it c.10 km away at Boca Madre de Dios, in May 2005, and further upstream on the río Madre de Dios at Isla Valparaíso, where two birds were attending a nest in October 2003. Downstream on the río Beni, the species was present at Isla Boca Orthon and Isla Riberalta in November 2005, but apparently absent from several other islands near Cachuela Esperanza and the Falls of the Madeira. These records, the second to fifth for Bolivia and the first for dpto. Beni, are all documented by photographs and/or sound-recordings.

MOUSE-COLOURED ANTSHRIKE *Thamnophilus murinus*

Known in Bolivia by one published record from the lower río Negro, dpto. Pando, at the border with Brazil (Montambault 2002), and a sound-recording from Arroyo Tulupa (12°12'S 68°22'W), also in dpto. Pando, by Omar Rocha (Mayer 2000), we found it fairly common (2–4 encounters daily) at Abuna, Manoa, Dos de Junio and Piedritas, where Plain-winged Antshrike *T. schistaceus* appears absent (the opposite scenario was reported by Moskovits *et al.* (2003). Surprisingly, we found both species on the north bank of the río Beni at Los Indios, Pando, within sight of dpto. Beni. Diagnostic tape-recordings were obtained at three localities (not Dos de Junio), and a male was photographed at Manoa. These records, the third to seventh for Bolivia, suggest that *T. murinus* is the common form of this species-pair in

north-east dpto. Pando, where it probably replaces *T. schistaceus*, at least locally. Given the preponderance of poorly drained or seasonally flooded forests in this remote area, we might conclude that *murinus* favours this habitat where its range meets that of *schistaceus*. However, the opposite appears to hold true elsewhere (Zimmer & Isler 2003). To add a further layer of complexity to an already confusing issue, these forms were syntopic and roughly equally abundant at Los Indios, both accompanying mixed-species flocks at mid levels in *terra firme*. They were heard counter-calling on several occasions, but we never found a flock containing both species, suggesting inter-specific territoriality.

SPOT-WINGED ANT BIRD *Pernostola leucostigma*

Several were found at Los Indios, dpto. Pando, in May and October 2005. Like most members of the *P. leucostigma* complex they foraged near the ground, in the vicinity of water, in this case small streams in selectively logged forest. Judging by its distinctive song (tape-recorded), the form involved was *P. l. humaythae*, which possibly represents a separate species from *P. l. brunneiceps*, a form inhabiting the lower Andean foothills in Bolivia (Zimmer & Isler 2003). Previous Bolivian records of *P. l. humaythae* are from Camino Mucden (Parker & Remsen 1987), Piedritas and Campamento Caimán (Moskovits *et al.* 2003), all in dpto. Pando, but the Los Indios record is the first as far south as the río Beni.

Intriguingly, two recent unpublished records of 'Spot-winged Antbird' are from much further south, in Noel Kempff Mercado National Park (L. Navarrete *in litt.* 2005). If this population is also *P. l. humaythae*, it represents a southward extension of several hundred km though dpto. Beni to eastern dpto. Santa Cruz. It seems equally likely, given the tendency for south Brazilian forms to cross the río Iténez into Noel Kempff Mercado National Park (Killeen & Schulenberg 1998), that these might be *P. l. rufifacies*, a form otherwise known only east of the río Madeira. Though morphologically similar, its song is distinctive and it probably represents a species-level taxon (B. M. Whitney *in litt.* 2006). Further surveys are required.

BROWNISH ELAENIA *Elaenia pelzelni*

The first and only record of this riverine species in Bolivia involved a small series collected by A. M. Olalla *et al.*, at Victoria on the north bank of the río Beni, dpto. Pando, in 1937 (Gyldenstolpe 1945). We found it fairly common on Isla Valparaíso and in *Cecropia*-dominated regrowth along adjacent banks of the río Madre de Dios, in October 2003. This appears to be the second record for Bolivia, the first for 66 years, and the first for the río Madre de Dios itself. We also report the third Bolivian locality, from further downstream on the río Beni, at Isla Riberalta, in November 2005, representing the first record for dpto. Beni. Several were seen and heard at this site, in the midstorey and edge of extensive *Cecropia*-woodland. In both cases, birds were sound-recorded and photographed. The species is apparently absent from islands further downstream around Cachuela Esperanza and the Falls of the Madeira.

PLAIN-CRESTED ELAENIA *Elaenia cristata*

Encountered near the turn-off to San Lorenzo de Pampa, in October 2003 and November 2005, and then found further east in *cerrado*-type habitat at the edge of low-stature forest near Guayaramerin (sites A and B), in April 2005. It was scarce at San Lorenzo de Pampa, where usually outnumbered by Yellow-bellied Elaenia *E. flavogaster* and Lesser Elaenia *E. chiriquensis*. At Guayaramerin, in contrast, it was common and the only breeding *Elaenia* present (*parvirostris* and *spectabilis* occur as austral migrants): we found three active nests and saw over 20 birds. First discovered in Bolivia in 1989, when thought likely to be an austral migrant (Bates *et al.* 1992), Plain-crested Elaenia is currently listed from dptos. La Paz and Santa Cruz (Hennessey *et al.* 2003b). We documented these first records for dpto. Beni with sound-recordings and photographs (field, hand, nest and eggs). Its abundance in the region of Noel Kempff Mercado National Park and Guayaramerin suggests that the species is probably widespread in grassland and *cerrado* regions of Bolivia.

ZIMMER'S TODY-TYRANT *Hemitriccus minimus*

Only known from three published localities in Bolivia: other than Noel Kempff Mercado National Park, dpto. Santa Cruz, where discovered near Los Fierros and on the Serranía de Huanchaca in 1989 (Bates *et al.* 1992), the only record is from Versalles (13°00'S, 62°50'W), dpto. Beni, near the río Iténez (Parker *et al.* 1991). A record from 1994 at Estancia El Refugio, near Noel Kempff Mercado National Park (Killeen & Schulenberg 1998), should be treated as provisional (S. L. Hilty *in litt.* 2005). The species was also found, in 2002, close to dpto. Pando at Taquaras, Rondônia, Brazil (Whittaker 2004).

We heard this species often (several sound-recorded) and saw it twice at Manoa and Piedritas, in April–May 2005, and a few were present in fairly tall selectively logged forest at Los Indios, in October 2005, all in dpto. Pando. We also heard it (one sound-recorded) in low-stature forest at Guayaramerin (sites A and B) in April 2005, and four more were heard (one seen) during a few hours in semi-deciduous *garrabatal* forest near San Marcos in September 2005. These observations represent the first records for dpto. Pando and the first for northern dpto. Beni, and bring the total of Bolivian localities to 11. The species is easily overlooked due to its canopy-dwelling habits and insect-like song, and is probably widespread and fairly common in Bolivia from Noel Kempff Mercado National Park, north to north-east Pando, and west across northern Beni, wherever suitable lower stature forests exist.

WHITE-CHEEKED TODY-TYRANT *Poecilatriccus albifacies*

A pair of this distinctive tyrannid was seen in *Guadua* cf. *weberbaueri* bamboo at Extrema, dpto. Pando, in November 2004. One, presumably a male, was highly responsive to playback, permitting sound-recordings and photographs (Fig. 5). In a three-day search of similar habitat across a wider area, this was the only pair found. It is the first confirmed record in Bolivia; there have been further reports from bamboo along the upper reaches of the río Tambopata, where the river forms the boundary between Bolivia and Peru (E. Barnes *in litt.* 2005), but these lack

documentation or precise locality. In Peru, the closest locality is Oceania, near Iberia, on the upper río Tahuamanu, where it was fairly common in October 2004 (D. J. Lebbin *in litt.* 2004). Oceania is just *c.* 20 km from Extrema, and thus a Bolivian record was to be expected. Interestingly, the species was not found during intensive field work at three sites, some with extensive bamboo (*Guadua* sp.), slightly further downstream on the ríos Tahuamanu and Muyumanu in dpto. Pando (Alverson *et al.* 2000). The rarity of *P. albifacies* at Extrema, and its absence from nearby sites, suggests that it ranges only marginally into Bolivia.

SULPHUR-RUMPED FLYCATCHER *Myiobius barbatus*

Encountered on five occasions during ten mornings in the Los Indios area, dpto. Pando, in October 2005. These are the first records of this widespread flycatcher for Bolivia, and photographs and sound-recordings were made. Individuals or pairs were usually found perching openly on branches and vines 1–15 m above ground, making conspicuous sallies after flying insects. In all cases, they formed a component of understorey or midstorey flocks in tall selectively logged humid forest, usually alongside Rufous-rumped Foliage-gleaner *Philydor erythrocerum*, Chestnut-winged Foliage-gleaner *P. erythropterus*, Plain Xenops *Xenops minutus*, Rufous-tailed Xenops *X. milleri*, Slender-billed Xenops *X. tenuirostris*, Cinereous Antshrike *Thamnomanes caesius*, White-flanked Antwren *Myrmotherula axillaris*, Stipple-throated Antwren *M. haematonota*, Grey Antwren *M. menetriesii*, Olivaceous Flatbill *Rhynchocyclus olivaceus*, Yellow-margined Flycatcher *Tolmomyias assimilis*, White-winged Shrike-tanager *Lanio versicolor* and Red-crowned Ant-tanager *Habia rubica*. Once, two individuals were seen chasing, giving a slow series of unobtrusive *tk* notes, sometimes with a feeble downslurred whistle appended; *tk-sew*. These vocalisations are identical to calls of this species elsewhere, including the Atlantic Forest form *mastacalis* (pers. obs.), sometimes treated as a separate species. The only similar species in the humid lowlands is the closely related Black-tailed Flycatcher *Myiobius atricaudus*, which has a paler, more yellowish chest and whiter rump patch. In Amazonia it apparently avoids *terra firme* (Fitzpatrick 2004), where it is inexplicably rare and poorly known (M. Cohn-Haft *in litt.* 2006). Sulphur-rumped Flycatcher occurs in adjacent Peru and Brazil, making occurrence in Bolivia expected. The results of previous surveys suggest that it is absent from large areas of dpto. Pando, but further surveys will probably find it more widespread than current records suggest.

FUSCOUS FLYCATCHER *Cnemotriccus fuscatus*

Two races are listed for Bolivia (Hennessey *et al.* 2003b): widespread *bimaculatus* is a breeder and abundant austral migrant in many areas, and *benianus* supposedly occurs in the hinterland of the río Beni. We found a third race ascribed to Fuscous Flycatcher, *fuscatior*, common on river islands in the Madeira system, where it was perhaps the most conspicuous understorey bird in tangled forests on old rocky islets at the Falls of the Madeira. Several were trapped and photographed in October 2005

and the highly distinctive dawn song was sound-recorded. A single bird—provisionally identified—was seen on Isla Valparaíso, río Madre de Dios, in October 2003, and a few more were positively identified on Isla Riberalta, río Beni, in the denser parts of *Cecropia*-dominated woodland, in November 2005. Our records from dptos. Pando and Beni provide the first confirmation of this resident form in Bolivia. It appears restricted to river-island vegetation, as elsewhere in its range (B. M. Whitney *in litt.* 2006). During the austral winter, *fuscator* is joined by migrant *bimaculatus*, which also occurs in early successional vegetation along rivers and on river islands in Bolivia, as evidenced by birds trapped and photographed at Boca Madre de Dios, in May 2005. A fourth putative race, *duidae*, was encountered in stunted forest at Piedritas, dpto. Pando. This site had been surveyed in July 2002 by D. F. Stotz *et al.* who concluded that *C. fuscatus* was 'common and perhaps the most characteristic species in this habitat type' (Moskovits *et al.* 2003), but did not specify the race involved. When we visited in May 2005 we only heard the repetitive *chb-chb-chb-chb* calls (not whistled songs) of *C. f. bimaculatus*, and assumed the population to be entirely austral migrants, as reported for sites nearby in Rondônia, Brazil (Stotz *et al.* 1997, Whittaker 2004). When we returned in November 2005, following the departure of most austral migrants, it seemed likely that any remaining *Cnemotriccus* would be *C. f. duidae*, an inhabitant of low-stature forests elsewhere in Amazonia (B. M. Whitney pers. comm. 2003). This proved true: two seen and tape-recorded and one mist-netted and photographed all had characteristics of *duidae*. Moreover, their songs and calls were very similar to vocalisations taped by D. F. Lane and attributed to *duidae* (or a *duidae*-like form) at Iquitos, Jeberos and Cordillera Azul, Peru. Aside of being the first record for dpto. Pando and Bolivia, this locality extends the known range of *C. f. duidae* south by several hundred km.

In terms of morphology, *fuscator* and *duidae* distinctly differ from each other, and from *bimaculatus* (Zimmer 1938), and the same is true of their ecology and vocalisations. The two Amazonian races are also broadly sympatric, making it clear that they deserve specific recognition. The taxonomy of *C. fuscatus* is a puzzle, however, and its solution requires comprehensive review. This work is underway, with preliminary results indicating that several species-level taxa are involved (B. M. Whitney *in litt.* 2006).

Intriguingly, whilst the occurrence in Bolivia of *bimaculatus*, *fuscator* and *duidae* is now established, the whereabouts of *benianus* (supposedly a Bolivian endemic) is mysterious. The type series was taken by A. M. Olalla at Victoria, dpto. Pando, on the north bank of the río Beni, 10 km upstream of Riberalta (Gyldenstolpe 1945). We have not examined these specimens (housed in Stockholm, Sweden) but we have recorded only typical *fuscator* and *bimaculatus* around the type-locality. We suspect that *benianus* is a synonym of *fuscator*, especially as Olalla's team collected several other river-island birds at Victoria (e.g. *Cranioleuca vulpecula*, *Synallaxis propinqua*, *Elaenia pelzelni*).

HUDSON'S BLACK-TYRANT *Knipolegus hudsoni*

The first record for dpto. Pando of this Near-Threatened species involved at least three female-plumaged birds at Boca Madre de Dios, on 13–14 May 2005. As typical of the species, they were inconspicuous, generally keeping low at the edge of dense cover and rarely perching openly. Two were mist-netted and photographed. Hudson's Black-tyrant is a migrant from breeding grounds in south-central Argentina, and Bolivia is the main wintering ground (Chesser 1997). It is unknown whether the species is a winter resident on this promontory or whether our record involved overshooting migrants, or indeed whether the species reaches further north in Pando (where pampas habitats exist), or even western Brazil. A recent Brazilian record (the first for Rondônia) was from Palafitas Island (09°74'S, 65°13'W) on the río Mamoré, south of Guayaramerin, c.100 km east of Boca Madre de Dios (Whittaker 2004).

WHITE-TAILED SHRIKE-TYRANT *Agriornis andicola*

One was observed for over two hours and photographed as it foraged in open *puna* with scattered stone walls near Sajama village, in Sajama National Park, dpto. Oruro. Its common congener, Black-billed Shrike-tyrant *A. montana*, was present in the same area. White-tailed Shrike-tyrant is a Vulnerable species associated with rocky outcrops, stony slopes (often supporting *Puya* bromeliads) and valley floors (Fjeldsø & Krabbe 1990). Though reported from c.12 Bolivian localities, three in dpto. Oruro (Collar *et al.* 1992, Asociación Armonía database), we mention this observation due to their being only two other observations in Bolivia in the last 30 years: at Azurduy, dpto. Chuquisaca, in 1991 (Fjeldsø & Mayer 1996), and Casay Vinto, near the río Cocapata, dpto. Cochabamba, in 1997 (Herzog *et al.* 1997). Our record is also the first from a Bolivian protected area. The species is reported regularly from neighbouring Chile and it seems likely that the cross-border reserve comprising Lauca National Park (Chile) and Sajama National Park (Bolivia) supports an important population.

PALE-BELLIED MOURNER *Rhytipterna immunda*

We found this species in stunted forest at Guayaramerin (site B), in April 2005, documenting our record with photographs and sound-recordings. At least three were heard and occasionally seen in the canopy of low-stature forest and adjoining semi-open shrubland with scattered trees. They reacted strongly to playback of Pale-bellied Mourner vocalisations from Amapá, Brazil, giving apparently identical songs in response. We played the same song at dawn in suitable habitat at Guayaramerin (site A) and at stunted forest near Piedritas without eliciting a response. South of the Amazon this mourner's range is poorly known. It has been recorded at Borba, on the lower rio Madeira, and in southern Mato Grosso (Ridgely & Tudor 1994), and was recently discovered in Rondônia, at Taquaras, only a few km from the Bolivian border (Whittaker 2004). Our record is the first in Bolivia and the first west of the rio Madeira; the species probably occurs more widely in stunted forests of dptos. Beni and Pando.

DUSKY-TAILED FLATBILL *Ramphotricon fuscicauda*

This inconspicuous species was fairly common by voice in *garrabatal* forest lacking bamboo near San Marcos, in September 2005. During just a few hours in suitable habitat, we heard four give the distinctive *pew-wip* call, and lured one into view with whistled imitations (to which all three *Ramphotricon* are highly responsive). Surprisingly, although the species is known both to the north and south, this is the first record from dpto. Beni, where it is probably much more widespread than suggested. A short video was taken by J. del Hoyo.

CITRON-BELLIED ATILA *Attila citriniventris*

During a brief visit to stunted forests near Piedritas in May 2005 we heard a distant song instantly recognisable as an *Attila* but difficult to assign to species. When we returned in November 2005 we heard the song again and used playback of *A. citriniventris* vocalisations from Ecuador to attract the calling bird, thereby obtaining a series of photographs and recordings of two call types. This is the first Bolivian record of this thinly distributed species. It seemed fairly common in palm-rich stunted forest with a canopy at 15–20 m, but absent elsewhere. In Bolivia, this habitat type is perhaps restricted to north-east dpto. Pando. Citron-bellied Attila is known mainly north of the Amazon and at sites relatively close to the south bank of the Amazon, but there are recent Brazilian records from the upper rio Juruá in Acre (A. Whittaker *in litt.* 2005), and east of the rio Madeira in Rondônia, where it was collected 12 km north of Abunã in June 2004 (M. Cohn-Haft *in litt.* 2005). This last is very close to the border with dpto. Pando, making occurrence in Bolivia expected. According to most literature this species inhabits *terra firme* (Ridgely & Tudor 1994, Ridgely & Greenfield 2001, Hilty 2003, Fitzpatrick 2004) and no ecological separation from *A. spadiceus* has been claimed. In dpto. Pando, however, it was absent from tall *terra firme*, where *A. spadiceus* was common, and present only in a transitional habitat between *terra firme* and humid, seasonally inundated stunted forest, where *A. bolivianus* and *A. spadiceus* were apparently absent. It appears that *A. citriniventris* is a characteristic species of this type of transitional forest, and tall *campinarana*, at many sites in the rio Negro and rio Madeira basins, including Rondônia (Cohn-Haft *et al.* 2005). The species thus appears to occupy slightly different habitats in different parts of its range.

PURPLE-THROATED FRUITCROW *Querula purpurata*

A group was seen and tape-recorded at 1,000 m near Illampu, dpto. La Paz, in April 2005. This slightly increases the upper elevational limit for this species in Bolivia from 900 m (Hennessey *et al.* 2003a). Elsewhere, the species reaches 500 m in Venezuela (Hilty 2003), 700 m in Ecuador (Ridgely & Greenfield 2001) and 1,200 m in Colombia (Hilty & Brown 1986).

BLACK MANAKIN *Xenopipo atronitens*

One of the most common and conspicuous species in stunted forest at Guayaramerin (site B), in April and October 2005, with several seen or heard daily; eight were

mist-netted in April and three in October. At Guayaramerin (site A), one was taped (identified by B. M. Whitney) in April 2005 in the understorey of low *cerrado*-edge woodland (10 m canopy), close to seasonally flooded stunted forest (*sartenejal*), but more dense and less humid. Three more were heard in the same area in October 2005. These are the first localities for dpto. Beni, and only the fifth and sixth for Bolivia, though, like Zimmer's Tody-tyrant *Hemitriccus minimus*, it probably occupies most low-stature forests between Noel Kempff Mercado National Park, in eastern dpto. Santa Cruz, where first discovered in 1989 (Bates *et al.* 1992), and Federico Román, in north-east dpto. Pando, where discovered in July 2002 (Moskovits *et al.* 2003).

YUNGAS MANAKIN *Chiroxiphia boliviana*

A female-plumaged bird was trapped and photographed at Cotapata, in December 2005, at 3,200 m. The species is known to ascend to 2,200 m (Snow 2004) and there are reports from 2,600 m (Hennessey *et al.* 2003b). In Bolivia, the species is often common in humid forest at lower altitudes, usually at 1,500–2,000 m, but we have never heard calling males above 2,300 m. This record suggests that non-breeders make significant altitudinal movements, sometimes to elfin forest. As they do not breed or vocalise at this altitude they are difficult to detect except if using mist-nets.

WHITE-BROWED PURPLETUFT *Iodopleura isabellae*

In October 2005 up to three were photographed near Cachuela Esperanza, perching on the uppermost branches of trees in secondary forest edge, 12–25 m above ground. These are the first documented records for dpto. Beni.

CLIFF SWALLOW *Petrochelidon pyrrhonota*

A single of this Nearctic migrant was observed at length at Boca Madre de Dios on 21 October 2003. It foraged over the grassy north shore of the island and perched on driftwood with large numbers of other hirundines, including over 40 migrating Barn Swallows *Hirundo rustica*. On 9 October 2005, a flock of c.20 was foraging over the rocky rapids at Cachuela Esperanza, part of which are in dpto. Pando. Again, they flocked with large numbers of foraging hirundines, including residents and migrants. The flock contained, in decreasing order of abundance, Black-collared Swallow *Atticora melanoleuca*, Barn Swallow, Bank Swallow *Riparia riparia*, White-winged Swallow *Tachycineta albiventer*, Blue-and-white Swallow *Pygochelidon cyanoleuca* (presumably of the race *patagonica*) and Brown-chested Martin *Progne tapera*. Though Cliff Swallow had never previously been recorded in dpto. Pando, it was to be expected given that its breeding grounds lie far to the north and its wintering grounds are to the south. Large numbers are present to the south, in the grasslands of dpto. Beni, in November–December (Parker & Rowlett 1984, Tobias 2003), but it is unknown whether these remain in Bolivia throughout the boreal winter or if they move south to the Argentine pampas.

VEERY *Catharus fuscescens*

During six mornings of mist-netting in dpto. Pando we caught five *Catharus*, all of them *fuscescens*, suggesting that it is unusually common here, and Swainson's Thrush *C. ustulatus* relatively scarce, at least in October–November. A single first-winter (i.e. first-basic) individual was mist-netted in lightly logged *terra firme* forest at Los Indios, on 23 October 2005, and four (two adults and two first-winters) were mist-netted in poorly drained stunted forest at Piedritas, on 1–2 November 2005. These five (four of them photographed) are the first in dpto. Pando. Both adults had strongly rufescent upperparts, a feature generally applied to the nominate form, which lacks previous Bolivian records according to Hennessey *et al.* (2003b). Three Bolivian specimens have previously been identified as *salicicola* (e.g., Remsen & Traylor 1983), but all are now thought more likely to be either the nominate or *fuliginosa* (Robbins *et al.* 1999). Racial limits are far from resolved, however, in part because there is so much individual, age-related and seasonal variation within populations (D. F. Lane *in litt.* 2006). As such we refrain from identifying our birds to race.

In general, Swainson's Thrush is a common and widespread Nearctic migrant in Bolivian forests, whereas Veery is rare. There are only six confirmed localities for the country, including Buena Vista, where a specimen was taken in 1945 (Remsen & Ridgely 1980), Concepción (Davis 1992), Santiago de Chiquitos (Remsen & Traylor 1983), Rancho San Julian (Jahn *et al.* 2002) and Santa Cruz city (Asociación Armonía database 2005). The only locality outside dpto. Santa Cruz is Cochabamba, where one was collected in 1937 (Remsen & Traylor 1983). These data imply that Veery is a scarce and irregular transient in Bolivia, but we suggest on the basis of our records that eastern Pando, especially its extensive stunted forests, might support an important population. Moreover, we note that damp, low-stature, Amazonian forest approaches the North American breeding habitat in structure, and we suspect that it provides ideal habitat for migrating or wintering Veery. A predilection for this type of habitat, which is scarce and patchily distributed in the Neotropics, might in part explain the narrow wintering range described for the species (Remsen 2001).

In his analysis of specimen records, Remsen (2001) considered the period 2 December–20 February as that during which Veery is resident on its wintering grounds. By this token, our birds may have been passage migrants, a possibility that accords with the hypothesis that the Neotropical migration of the Veery is elliptical, the southbound route lying west of the northbound (Stotz *et al.* 1992, Remsen 2001). Nonetheless, we feel that the number of birds detected during our brief surveys implies a wintering ground, or at least a major staging ground. The status of the Pando population would be resolved by future field work in midwinter (December–February), using mist-netting, which is easily the most effective method of sampling the population during the non-breeding season.

WHITE-EARED SOLITAIRE *Entomodestes leucotis*

A single of this distinctive species was watched for several minutes foraging in low berry-bearing shrubs 2 km south-west of Pilon, at 800 m. All of the pertinent features were noted, including the conspicuous white flashes on the cheeks and carpal region. Aside from being the second-lowest elevation on record, this is the first report from dpto. Beni. It occurs at low density on adjacent ridges to the west, in dpto. La Paz, making occurrence around Pilon expected (though there are no records from the adjacent Pilón Lajas Biosphere Reserve: Hennessey *et al.* 2003a). The lowest elevation on record is 600 m, at a site on the río Beni, 20 km by river north of Puerto Linares, where a specimen (housed in Louisiana State University Museum of Zoology, Baton Rouge) was collected in 1981 (S. K. Herzog *in litt.* 2006). These occasional low records probably relate to wandering individuals during the dry season.

RED-SHOULDERED TANAGER *Tachyphonus phoenicius*

Found in low-stature forest edge and dense shrubland at Guayaramerin (site B), in April and October 2005, where 2–10 were seen or heard daily, foraging near the ground and bathing in the late afternoon at a series of pools. Pairs or small groups responded aggressively to playback of the only vocalisation heard: a dry chip note, given irregularly and at varying pitch. A female was observed in a patch of shrubby *cerrado* at Guayaramerin (site A), in April 2005, with a few more birds in the edge of stunted woodland in the same area in September 2005. The only previous Bolivian records are from two sites in Noel Kempff Mercado National Park, dpto. Santa Cruz (Bates *et al.* 1992, Killeen & Schulenberg 1998). Our records are thus the first for dpto. Beni, and the third and fourth for Bolivia. They are documented by photographs of a male and female trapped at Guayaramerin (site B).

PEARLY-BREASTED CONEBILL *Conirostrum margaritae*

In June 2002 the known range of this species was extended by c. 1,050 km along the río Madeira when it was found breeding on an island in the río Mamoré, near Guayaramerin, dpto. Beni (Whittaker 2004). When we visited Isla Valparaíso, in October 2003, we were unaware of this first record, and thus were surprised to find four Pearly-breasted Conebills, three of them singing. Two of these were in the canopy of a pure stand of *Cecropia* and the third appeared to be holding territory in lower stature scattered *Cecropia* at the north of the island. Our sighting is the second record for Bolivia and the first for dpto. Pando. Given that it is also the first record for the río Madre de Dios, this raises the possibility that the species occurs in *Cecropia*-dominated islands to southernmost Peru (where only known from dpto. Loreto, along the Amazon and Napo). We subsequently found the species scarce at Nueva Esperanza in scattered *Cecropia* along the río Madeira, and very common (far outnumbering Chestnut-vented Conebill *Conirostrum speciosum*) on Isla Riberalta, a *Cecropia*-rich island in the río Beni, in November 2005. All these records are documented with sound-recordings or photographs. Interestingly, the

only *Conirostrum* present on a large *Cecropia*-dominated island at the Falls of the Madeira (at 10°22'S, 65°23'W, opposite Villa Bella, dpto. Beni) was Chestnut-vented Conebill of the dark form *amazonum*.

LESSON'S SEEDEATER *Sporophila bouvronides*

This species breeds across northern South America from north-east Colombia east to the Guianas (Ridgely & Tudor 1994) and occurs to the south only as a non-breeding migrant. It was first recorded in Bolivia at Montero, dpto. Santa Cruz, in March 1992 (Whitney *et al.* 1994), with few reports since, all from dptos. Santa Cruz and Beni, especially around Trinidad, where it sometimes occurs in large numbers (M. Herrera pers. comm.). The first record for dpto. Pando involved three (one male, two females) in a small patch of rough grassland at Boca Madre de Dios, on 13 May 2005. All three were photographed as they perched on mature *Tessaria* trees. They appeared to be absent next day, suggesting that they were migrants moving north to the breeding grounds.

TAWNY-BELLIED SEEDEATER *Sporophila hypoxantha*

The first record for dpto. Pando involved a male at Boca Madre de Dios, on 21 October 2003. It was present in a large flock of seedeaters, including several Rusty-collared Seedeater *S. collaris* (both sexes) and the next species. Whether these seedeaters spend the non-breeding season on this promontory or were migrants moving south to their breeding grounds is unknown. Central Pando is dotted with isolated pampas vegetation and it seems inevitable that migrant seedeaters use these habitats, even though the only relevant field survey failed to encounter a single species of *Sporophila* (Alverson 2003). Regardless of the availability of pampas habitat, deforestation in dpto. Madre de Dios, Peru, is causing populations of several *Sporophila* to increase and expand north, at least seasonally (D. F. Lane *in litt.* 2005), and a similar process in Pando will doubtless lead to further records from the region.

DARK-THROATED SEEDEATER *Sporophila ruficollis*

The first record for dpto. Pando involved three males flocking with the previous species at Boca Madre de Dios, on 21 October 2003. It was unclear how many females were present: female Rusty-collared Seedeaters were easily identified, but smaller nondescript females were difficult to distinguish and may have been *S. hypoxantha*, *S. ruficollis* or both. The comments under Tawny-bellied Seedeater also apply here.

YELLOW-SHOULDERED GROSBEAK *Parkerthraustes humeralis*

One was seen at Illampu, on an outlying ridge of the Andes, dpto. La Paz, in April 2005. We were unable to document the sighting with a photograph, and did not record its voice (a series of tanager-like *tsip* notes), but the species is sufficiently distinctive to include the record here. The large size, heavy-based bill, dark ear-

coverts, yellow flash at the carpal and obvious yellow undertail-coverts, contrasting with whitish underparts, were all clearly noted, as was the typical sluggish behaviour of the species as it accompanied a mixed-species flock in the mid canopy. This sighting raises its upper elevational limit in Bolivia from 800 m (Hennessey *et al.* 2003b) to 1,350 m. Indeed, this appears to be the highest locality on record, as it is known only to 900 m, and mainly below 600 m, in Ecuador (Ridgely & Greenfield 2001), and to 900 m in Peru (Clements & Shany 2001).

CERULEAN WARBLER *Dendroica cerulea*

A male was photographed in the canopy of humid montane forest at 1,500 m, near Tunquini Research Station, dpto. La Paz, on 7 February 2005. It was watched for 15 minutes as it accompanied a large mixed-species flock of frugivores and insectivores, including Olive-backed Woodcreeper *Xiphorhynchus triangularis*, Olivaceous Woodcreeper *Sittasomus griseicapillus*, Streaked Xenops *Xenops rutilans*, Slaty-capped Flycatcher *Leptopogon superciliaris*, Sclater's Tyrannulet *Phyllomyias sclateri*, Mottle-cheeked Tyrannulet *Phylloscartes ventralis*, Golden Tanager *Tangara arthus*, Blue-browed Tanager *T. cyanotis*, Capped Conebill *Conirostrum albifrons*, Deep-blue Flowerpiercer *Diglossa glauca* and Slate-throated Redstart *Myioborus miniatus*. By composition, this might be considered a mid-elevation flock as species such as *P. sclateri*, *D. glauca* and *T. cyanotis* tend to be absent above 1,800 m in this region (pers. obs.). There are three previous documented Bolivian records, including two 19th-century records from Nairapi and Tilotilo (highest probably around 1,300 m), dpto. La Paz (Sclater & Salvin 1879, Bond & Meyer de Schauensee 1942), and another from Puerto Salinas (300 m), dpto. Beni, in December 1937 (Gyldenstolpe 1945), on the basis of which the species is listed by Pearson (1980). The Tunquini record is the fourth for Bolivia and the first in 66 years, the third record for dpto. La Paz, and possibly the highest record in Bolivia. It fits a pattern established in Ecuador and Peru, where singles are usually found in mixed-species flocks in the Andean foothills; most Ecuadorian records come from elevations between 500 and 1,400 m, with scattered records—probably of transients—from the Amazonian lowlands to 2,000 m (Ridgely & Greenfield 2001).

In North America, the breeding population has been declining for several decades (Robbins *et al.* 1998), leading to its classification as Vulnerable (IUCN Red List 2005) and raising suspicions that the species may no longer reach Bolivia in winter (A. B. Hennessey *in litt.* 2005). It is possible, however, that a declining migrant would continue to populate its entire historical non-breeding distribution, just more thinly, a hypothesis tentatively supported by our record. Cerulean Warbler may still occur regularly in Bolivia and any conservation programme should take into account the possibility that a small but significant population occurs seasonally in foothill forests of the northern Yungas.

GREEN OROPENDOLA *Psarocolius viridis*

Two were heard at Piedritas, one in the canopy of tall *terra firme* and the other in the 15-m canopy of stunted forest, in November 2005. The former was seen well in response to playback and documented by sound-recordings. The only previous Bolivian record was by Ted Parker, along the lower reaches of the río Negro, near the border with Acre, Brazil (Montambault 2002). The paucity of Bolivian records, despite increasing surveys, suggests that the species occurs only marginally in eastern dpto. Pando, where far outnumbered by Olive Oropendola *P. bifasciatus* and Crested Oropendola *P. decumanus*.

Acknowledgements

Permission for our field work in dptos. Pando, Beni and La Paz was granted by the Servicio Nacional de Áreas Protegidas (SERNAP), through an agreement with the Colección Boliviana de Fauna, La Paz. We are grateful to several people who generously gave time, funding or assistance at various stages of field work and write-up, including Per Alström, Eustace Barnes, Mario Cohn-Haft, Bennett Hennessey, Sebastian Herzog, Josep del Hoyo, Dan Lane, Van Remsen, Tom Schulenberg, Rosa Strem, Bret Whitney and Andrew Whittaker. Our field work has been part-funded by research grants from Newnham College, Cambridge, and the Royal Society, London, as well as survey grants from Asociación Armonía/Loro Parque Foundation.

References:

- Aleixo, A. 2002. Molecular systematics and the role of “várzea”–“terra-firme” ecotone in the diversification of *Xiphorhynchus* woodcreepers (Aves: Dendrocolaptidae). *Auk* 119: 621–640.
- Allen, J. A. 1889. List of the birds collected in Bolivia by Dr. H. H. Rusby, with field notes by the collector. *Bull. Amer. Mus. Nat. Hist.* 2: 77–112.
- Alonso, J. A. & Whitney, B. M. 2003. New distributional records of birds from white-sand forests of the northern Peruvian Amazon, with implications for biogeography of northern South America. *Condor* 105: 552–566.
- Alverson, W. S. (ed.) 2003. *Bolivia: Pando, Madre de Dios*. Rapid Biological Inventories Rep. 5. Field Mus. Nat. Hist., Chicago.
- Alverson, W. S., Moskovits, D. K. & Shopland, J. M. (eds.) 2000. *Bolivia: Pando, Río Tahuamanu*. Rapid Biological Inventories Rep. 1. Field Mus. Nat. Hist., Chicago.
- Bates, J. M., Parker, T. A., Capparella, A. P. & Davis, T. J. 1992. Observations on the campo, cerrado and forest avifaunas of eastern dpto. Santa Cruz, Bolivia, including 21 species new to the country. *Bull. Brit. Orn. Cl.* 112: 86–98.
- Berlepsch, H. G. & Stolzmann, J. 1906. Rapport sur les nouvelles collections ornithologiques faites au Pérou. *Ornis* 8: 63–133.
- BirdLife International. 2005. Species factsheet: *Primolius couloni*. www.birdlife.org (accessed June 2005).
- Bond, J. & Meyer de Schauensee, R. 1942. The birds of Bolivia. Part 1. *Proc. Acad. Nat. Sci. Phil.* 94: 307–391.
- Brace, R., Hornbuckle, J. & St Pierre, P. 1998. Rufous-faced Crake: a new species for Bolivia, with notes on its identification, distribution, ecology and conservation. *Cotinga* 9: 76–80.
- Chesser, R. T. 1997. Patterns of seasonal and geographical distribution of austral migrant flycatchers (Tyrannidae) in Bolivia. Pp. 171–204 in Remsen, J. V. (ed.) *Studies in Neotropical ornithology honoring Ted Parker*. Orn. Monogr. 48.
- Clements, J. F. & Shany, N. 2001. *A field guide to the birds of Peru*. Lynx Edicions, Barcelona.
- Cohn-Haft, M., Fernandes, A., de Melo, A. V., Pacheco, A. M., Sardelli, C., Bechtold, C., Macedo, I., Naka, L. & Torres, M. (2005) Diagnóstico temático de avifauna: UHEs Salto do Jirau e Santo Antônio. Unpubl. rep., Instituto Nacional de Pesquisas da Amazônia.

- Collar, N. J. 2005. Family Turdidae (thrushes). Pp. 514–811 in del Hoyo, J., Elliott, A. & Christie, D. A. (eds.) *Handbook of the birds of the world*, vol. 10. Lynx Edicions, Barcelona.
- Collar, N. J., Gonzaga, L. P., Krabbe, N., Madroño Nieto, A., Naranjo, L. G., Parker, T. A. & Wege, D. C. 1992. *Threatened birds of the Americas: the ICBP/IUCN Red Data Book*. International Council for Bird Preservation, Cambridge, UK.
- Davis, S. 1992. Seasonal status, relative abundance, and behavior of the birds of Concepción, departamento Santa Cruz, Bolivia. *Feldiana, Zool.* 71: 1–33.
- Dott, H. E. M. 1985. North American migrants in Bolivia. *Condor* 87: 343–345.
- Fitzpatrick, J. W. 2004. Family Tyrannidae (tyrant-flycatchers). Pp. 170–462 in del Hoyo, J., Elliott, A. & Christie, D. A. (eds.) *Handbook of the birds of the world*, vol. 9. Lynx Edicions, Barcelona.
- Fjeldså, J. & Krabbe, N. 1990. *Birds of the high Andes*. Zool. Mus., Univ. of Copenhagen & Apollo Books, Svendborg.
- Foster, R. B., Parker, T. A., Gentry, A. H. & Emmons, L. H. 1994. *The Tambopata-Candamo-Rio Heath Region of southeastern Peru: a biological assessment*. RAP Working Papers 6. Conservation International, Washington DC.
- Gyldenstolpe, N. 1945. A contribution to the ornithology of northern Bolivia. *Kungl. Svenska Vet.-Akad. Handl.* 23: 1–300.
- Hennessey, A. B., Herzog, S. K., Kessler, M. & Robinson, D. 2003a. Avifauna of the Pilon Lajas Biosphere Reserve and Communal Lands, Bolivia. *Bird Conserv. Intern.* 13: 319–349.
- Hennessey, A. B., Herzog, S. K. & Sagot, F. 2003b. *An annotated list of the birds of Bolivia*. Fifth edn. Asociación Armonía, Santa Cruz.
- Herzog, S. K., Kessler, M., Majer, S. & Hohnwald, S. 1997. Distributional notes on birds of Andean dry forests in Bolivia. *Bull. Brit. Orn. Cl.* 117: 223–235.
- Hilty, S. L. 2003. *Birds of Venezuela*. Christopher Helm, London.
- Hilty, S. L. & Brown, W. L. 1986. *A guide to the birds of Colombia*. Princeton Univ. Press.
- Hinkelmann, C. 1988. Comments on recently described new species of hermit hummingbirds. *Bull. Brit. Orn. Cl.* 108: 159–169.
- Jahn, A. E., Davis, S. E. & Saavedra-Zankys, A. 2002. Austral migratory patterns of birds among seasons and habitats in the Bolivian Chaco, with notes and a species list for the study site. *Ecología en Bolivia* 37: 31–50.
- Killeen, T. J. & Schulenberg, T. S. (eds.) 1998. *A biological assessment of Parque Nacional Noel Kempff Mercado, Bolivia*. RAP Working Papers 10. Conservation International, Washington DC.
- Krabbe, N. & Schulenberg, T. S. (2003) Family Rhinocryptidae (tapaculos). Pp. 748–787 in del Hoyo, J., Elliott, A. & Christie, D. A. (eds.) *Handbook of the birds of the world*, vol. 8. Lynx Edicions, Barcelona.
- Marantz, C. A., Aleixo, A., Bevier, L. R. & Patten, M. A. 2003. Family Dendrocolaptidae (woodcreepers). Pp. 358–447 in del Hoyo, J., Elliott, A. & Christie, D. A. (eds.) *Handbook of the birds of the world*, vol. 8. Lynx Edicions, Barcelona.
- Mayer, S. 2000. *Birds of Bolivia 2.0*. Birdsongs International, Westernland.
- Mazar Barnett, J. & Pearman, M. 2001. *Annotated checklist of the birds of Argentina*. Lynx Edicions, Barcelona.
- Mitchell, R. A. (ed.) 1997. 'San Joaquin '96.' A biological expedition to the cerrado of Beni Department, Bolivia. Bristol Univ. unpubl. rep., Bristol, UK.
- Montambault, J. R. (ed.) 2002. *Informes de las evaluaciones biológicas de Pampas del Heath, Alto Madidi, Bolivia, y Pando, Bolivia*. Conservation International, Washington DC.
- Moskovits, D. K., Alverson, W. S. & Halm, I. (eds.) 2003. *Bolivia: Pando, Federico Roman*. Rapid Biological Inventories Rep. 6. Field Mus. Nat. Hist., Chicago.
- Ohlson, J. 1996. New departmental records and other noteworthy observations from Department of La Paz, Bolivia. Unpubl. rep. to Asociación Armonía, Santa Cruz.
- O'Neill, J. P., Munn, C. & Franke, I. 1991. *Nannopsittaca dachilleae*, a new species of parrotlet from eastern Peru. *Auk* 108: 225–229.
- Parker, T. A. 1989. *An avifaunal survey of the Chimanes Ecosystems Program Area of northern Bolivia*. Conservation International, Washington DC.

- Parker, T. A. & Bailey, B. 1991. *A biological assessment of the Alto Madidi region and adjacent areas of northwest Bolivia*. RAP Working Papers 1. Conservation International, Washington DC.
- Parker, T. A., Castillo U., A., Gell-Mann, M. & Rocha, O. 1991. Records of new and unusual birds from northern Bolivia. *Bull. Brit. Orn. Cl.* 111: 120–138.
- Parker, T. A., Parker, S. A. & Plenge, M. A. 1982. *An annotated checklist of Peruvian birds*. Buteo Books, Vermillion, SD.
- Parker, T. A. & Remsen, J. V. 1987. Fifty-two Amazonian bird species new to Bolivia. *Bull. Brit. Orn. Cl.* 107: 94–107.
- Parker, T. A. & Rowlett, R. A. 1984. Some noteworthy records of birds from Bolivia. *Bull. Brit. Orn. Cl.* 104: 110–111.
- Pearson, D. L. 1975. Un estudio de las aves de Tumi Chucua, departamento Beni, Bolivia. *Pumapunku* 8: 50–56.
- Pearson, D. L. 1980. Bird migration in Amazonian Ecuador, Peru, and Bolivia. Pp. 273–283 in Keast, A. & Morton, E. (eds.) *Migrant birds in the Neotropics: ecology, behavior, distribution and conservation*. Smithsonian Institution Press, Washington DC.
- Remsen, J. V. 1985. Community organization and ecology of birds of high elevation humid forest of the Bolivian Andes. Pp. 733–756 in Buckley, P. A., Foster, M. S., Morton, E. S., Ridgely, R. S. & Buckley, F. G. (eds.) *Neotropical ornithology*. Orn. Monogr. 36.
- Remsen, J. V. 1986. Aves de una localidad en la sabana humeda del norte de Bolivia. *Ecología en Bolivia* 8: 21–35.
- Remsen, J. V. 2001. True winter range of the Veery (*Catharus fuscescens*): lessons for determining winter ranges of species that winter in the tropics. *Auk* 118: 838–848.
- Remsen, J. V., Jaramillo, A., Nores, M., Pacheco, J. F., Robbins, M. B., Schulenberg, T. S., Stiles, F. G., da Silva, J. M. C., Stotz, D. F. & Zimmer, K. J. 2005. A classification of the bird species of South America. www.museum.lsu.edu/~Remsen/SACCBaseline.html (accessed June 2005).
- Remsen, J. V. & Parker, T. A. 1995. Bolivia has the opportunity to create the planet's richest park for terrestrial biota. *Bird Conserv. Intern.* 5: 181–199.
- Remsen, J. V. & Ridgely, R. S. 1980. Additions to the avifauna of Bolivia. *Condor* 82: 69–75.
- Remsen, J. V. & Traylor, M. A. 1983. Additions to the avifauna of Bolivia, part 2. *Condor* 85: 95–98.
- Remsen, J. V. & Traylor, M. A. 1989. *An annotated list of the birds of Bolivia*. Buteo Books, Vermillion, SD.
- Ridgely, R. S. & Greenfield, P. J. 2001. *The birds of Ecuador*, vol. 1. Christopher Helm, London.
- Ridgely, R. S. & Tudor, G. 1994. *The birds of South America*, vol. 2. Univ. of Texas Press, Austin.
- Robbins, C. S., Fitzpatrick, J. W. & Hamel, P. B. 1998. A warbler in trouble. Pp. 549–562 in Hagan, J. M. & Johnston, D. W. (eds.) *Ecology and management of Neotropical migrant landbirds*. Smithsonian Institution Press, Washington DC.
- Robbins, M. B., Faucett, R. C. & Rice, N. H. 1999. Avifauna of a Paraguayan cerrado locality: Parque Nacional Serranía San Luis, Depto. Concepción. *Wilson Bull.* 111: 216–228.
- Rosenberg, G. 1990. Habitat specialization and foraging behavior by birds of Amazonian river islands. *Condor* 92: 427–443.
- Ruschi, A. 1967. Beija-flores da região de “San Matias” na Bolivia. *Bol. Mus. Biol., Ser. Zool.* 29: 1–8.
- Schmitt, C. G. & Schmitt, D. C. 1987. Extensions of range of some Bolivian birds. *Bull. Brit. Orn. Cl.* 107: 129–134.
- Schuchmann, K. L. 1999. Family Trochilidae (hummingbirds). Pp. 468–680 in del Hoyo, J., Elliott, A. & Sargatal, J. (eds.) *Handbook of the birds of the world*, vol. 5. Lynx Edicions, Barcelona.
- Sclater, P. L. & Salvin, O. 1879. On the birds collected in Bolivia by Mr. C. Buckley. *Proc. Zool. Soc. Lond.* 1879: 588–645.
- Sick, H. 1993. *Birds in Brazil*. Princeton Univ. Press.
- Snow, D. W. 2004. Family Pipridae (manakins). Pp. 110–169 in del Hoyo, J., Elliott, A. & Christie, D. A. (eds.) *Handbook of the birds of the world*, vol. 9. Lynx Edicions, Barcelona.
- Stotz, D. F., Bierregaard, R. O., Cohn-Haft, M., Petermann, J. S., Whittaker, A. & Wilson, S. V. 1992. The status of North American migrants in central Amazonian Brazil. *Condor* 94: 608–621.

- Stotz, D. F., Lanyon, S. M., Schulenberg, T. S., Willard, D. E., Peterson, A. T. & Fitzpatrick, J. W. 1997. An avifaunal survey of two tropical forest localities on the middle Rio Jiparaná, Rondônia, Brazil. Pp. 763–781 in Remsen, J. V. (ed.) *Studies in Neotropical ornithology honoring Ted Parker*. Orn. Monogr. 48.
- Tobias, J. A. 2003. A survey for the Blue-throated Macaw *Ara glaucogularis* in the Paraparau region, dpto. Beni. Blue-throated Macaw Conserv. Project Rep. (Asociación Armonía/Loro Parque Foundation), Santa Cruz.
- Whitney, B. M., Rowlett, J. L. & Rowlett, R. A. 1994. Distributional and other noteworthy records for some Bolivian birds. *Bull. Brit. Orn. Cl.* 114: 149–162.
- Whitney, B. M., Parker, T. A., Budney, G. F., Munn, C. A. & Bradbury, J. W. 2002. *Voices of New World parrots*. Cornell Lab. of Ornithology, Ithaca, NY.
- Whittaker, A. 2004. Noteworthy ornithological records from Rondônia, Brazil, including a first country record, comments on austral migration, life history, taxonomy and distribution, with relevant data from neighbouring states, and a first record for Bolivia. *Bull. Brit. Orn. Cl.* 124: 239–271.
- Whittaker, A. & Oren, D. C. 1999. Important ornithological records from the Rio Juruá, western Amazonia, including twelve additions to the Brazilian avifauna. *Bull. Brit. Orn. Cl.* 119: 235–260.
- Willis, E. O. 2003. Bird records in the southern Neotropics: on the need to critically check specimens, literature citations and field observations. *Orn. Neotrop.* 14: 549–552.
- Zimmer, J. T. 1938. Studies of Peruvian birds. No 29. The genera *Myiarchus*, *Mitrephanes* and *Cnemotriccus*. *Amer. Mus. Novit.* 994: 1–32.
- Zimmer, K. J. & Isler, M. L. 2003. Family Thamnophilidae (typical antbirds). Pp. 448–681 in del Hoyo, J., Elliott, A. & Christie, D. A. (eds.) *Handbook of the birds of the world*, vol. 8. Lynx Edicions, Barcelona.
- Zimmer, K. J., Parker, T. A., Isler, M. L. & Isler, P. R. 1997. Survey of a southern Amazonian avifauna: the Alta Floresta region, Mato Grosso, Brazil. Pp. 887–918 in Remsen, J. V. (ed.) *Studies in Neotropical ornithology honoring Ted Parker*. Orn. Monogr. 48.

Addresses: J. A. Tobias, Edward Grey Institute of Field Ornithology, Department of Zoology, University of Oxford, South Parks Road, Oxford OX1 3PS, UK. N. Seddon, Department of Zoology, University of Cambridge, Downing Street, Cambridge CB2 3EJ, UK. Present address: Edward Grey Institute of Field Ornithology, Department of Zoology, University of Oxford, South Parks Road, Oxford OX1 3PS, UK.

© British Ornithologists' Club 2007

CORRIGENDUM

In a recent paper on bird records from Minas Gerais, Brazil (Vasconcelos *et al.*, 2006, *Bull. Brit. Orn. Cl.* 126: 212–238), it was stated that a sight report of Sand Martin *Riparia riparia*, in March 2006, appeared to be the first published record for the state, but the authors inadvertently overlooked a record of their own (Kirwan *et al.*, 2001, *Ararajuba* 9: 145–161), at Pirapora in December 1999.—THE EDITOR.



Tobias, Joseph A. and Seddon, Nathalie. 2007. "Nine bird species new to Bolivia and notes on other significant records." *Bulletin of the British Ornithologists' Club* 127, 49–84.

View This Item Online: <https://www.biodiversitylibrary.org/item/127045>

Permalink: <https://www.biodiversitylibrary.org/partpdf/76504>

Holding Institution

Natural History Museum Library, London

Sponsored by

Natural History Museum Library, London

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: British Ornithologists' Club

License: <http://creativecommons.org/licenses/by-nc-sa/4.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.