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Noteworthy records of birds from Pando including two new species for Bolivia

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Summary.—Pando, the northernmost department of Bolivia, is mostly covered in Amazonian forest but has only recently started to be surveyed avifaunally. Here, we describe findings made during six expeditions in 2018–22, including two species new for Bolivia (Bonaparte's Parakeet *Pyrrhura lucianii* and Acre Tody-Tyrant *Hemitriccus cohnhafti*), four species new for Pando (Black-capped Tinamou *Crypturellus atricapillus*, Least Grebe *Tachybaptus dominicanus*, Broad-winged Hawk *Buteo platypterus*, Scarlet Tanager *Piranga olivacea*), a subspecies new for Bolivia (White-bellied Parrot *Pionopsitta leucogaster xanthurus*), a subspecies new for Pando (Crested Becard *Pachyramphus validus validus*) and the first departmental record of a doradito (*Pseudocolopteryx* sp.). Additionally, we document extensions to the known distributions of several other taxa, several of which are evidently benefitting from deforestation.

Pando is the northernmost department of Bolivia at *c*.10°S. Of all Bolivia's departments, it has the highest mean daily temperature of 32°C, and an annual rainfall of about 1,800 mm. Pando still boasts vast areas of Amazonian forest, including *terra firme*, *várzea* and patches of stunted forest on poorly drained soils (Tobias & Seddon 2007). Access to many areas is hindered by a lack of roads or by roads becoming impassable during the rainy season, which broadly coincides with the boreal winter. Lack of access has meant that Pando is relatively poorly known from an ornithological standpoint, even compared to other Bolivian departments. Only recently have ornithologists started to fully elucidate the avifauna of Pando (e.g. Alverson *et al*. 2000, Alverson 2003, Moskovits *et al*. 2003, Tobias & Seddon 2007, Martínez 2021, Aponte *et al*. 2022), which has resulted in expansions to the known range of several species, including Common Ground Dove *Columbina passerina* (Aponte *et al*. 2022), Ocellated Woodcreeper *Xiphorhynchus ocellatus* (Tobias & Seddon 2007), Chestnut-throated Spinetail *Synallaxis cherriei* (Tobias & Seddon 2007), Rufous Twistwing *Cnipodectes superrufus* (Lane *et al*. 2007, Tobias & Seddon 2007), White-cheeked Tody-Tyrant *Poecilotriccus albifacies* (Tobias & Seddon 2007), Sulphur-rumped Flycatcher *Myiobius barbatus* (Tobias & Seddon 2007) and Pale-bellied Mourner *Rhytipterna immunda* (Tobias & Seddon 2007), as well as multiple new departmental records (e.g., Tobias & Seddon 2007, Martínez 2021, Aponte *et al*. 2022). Several species known from neighbouring Amazonian Brazil and Peru have yet to be found in Pando, which in part may reflect natural distributional limits, but in most cases is probably indicative of how little field work has been done there.

Human encroachment in Pando is increasing, resulting in the area between Cobija and Puerto Rico now being cleared mainly for cattle farming. Many areas are selectively logged, legally or illegally, by local communities and international companies alike, so that only commercially viable trees such as Brazil nut *Bertholletia excelsa* and rubber *Hevea brasiliensis* are left as overstorey trees, with an understorey of second growth or early-successional *Guadua* bamboo.

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TW & JTW visited Pando six times during a five-year period (2018–22), recording the birds seen, photographed and sound-recorded. The first expedition was on 18 July–3 August 2018, during which they visited mainly central-west and eastern Pando. The second, on 8 August–3 September 2019, was focused on central and western Pando. The third, on 19–29 August 2021, covered eastern Pando, and the fourth, on 29 September–22 October 2021, visited central and western Pando. The fifth, on 18 September–18 October 2022, covered western, central and eastern Pando, and the final expedition, during the rainy season, on 14–20 December 2022, visited western Pando alone.

Here, we document records of two species new for Bolivia (Bonaparte's Parakeet *Pyrrhura lucianii*, Acre Tody-Tyrant *Hemitriccus cohnhafti*), four species new for the department of Pando (Black-capped Tinamou *Crypturellus atricapillus*, Least Grebe *Tachybaptus dominicanus*, Broad-winged Hawk *Buteo platypterus*, Scarlet Tanager *Piranga olivacea*), a subspecies new for Bolivia (White-bellied Parrot *Pionopsitta leucogaster xanthurus*), a subspecies new for Pando (Crested Becard *Pachyramphus validus validus*) and the first departmental record of a doradito (*Pseudocolopteryx* sp.). We also document extensions to the known distributions of several other taxa. Several of these involve species apparently benefitting from deforestation (White-tailed Hawk *Geranoaetus albicaudatus*, Burrowing Owl *Athene cunicularia*, Crested Caracara *Caracara plancus*, White-browed Meadowlark *Leistes superciliaris*, Saffron Finch *Sicalis flaveola*).

Notable is that, despite a lack of conspicuous current biogeographic barriers, several species apparently occur only in the western (*Crypturellus atricapillus*, Black-faced Cotinga *Conioptilon mcilhennyi*, *Cnipodectes superrufus*, Ihering's Antwren *Myrmotherula iheringi*) or eastern halves of Pando (*Pyrrhura lucianii*, Yellow-throated Flycatcher *Conopias parvus*, Green Oropendola *Psarocolius viridis*), or are represented by different subspecies in the east and west (*Pionites leucogaster*), or apparently possess disjunct populations in different parts of Pando (Manu Antbird *Cercomacra manu*). This seems to indicate that at least in the past a barrier to gene flow may have existed.

Study sites

TW & JTW visited multiple sites more than once; brief descriptions of these are given below. Often, no formal name is available for these sites, in which case we have chosen a name based on a local village or logging concession. Other sites are mentioned in the species accounts by their geographical coordinates.

1. Extrema, Nicolás Suárez province (11°27′10.08″S, 69°15′31.32″W). In 2018 this site, near the military outpost of Extrema, held riparian forest along the Tahuamanu River, and away from the river's floodplain had trees more than *c*.50 years old, with a *Guadua* bamboo understorey including large tracts that had collapsed. The site held typical species such as Peruvian Recurvebill *Syndactyla ucayalae*, Bamboo Antshrike *Cymbilaimus sanctaemariae* and White-lined Antbird *Myrmoborus lophotes*. In 2020, all trees with a diameter >30 cm were removed and the area became drier, although extensive bamboo was still present. For a further characterisation of the area, see Tobias & Seddon (2007).

2. Soberanía, Nicolás Suárez province (11°26′56.57″S, 69°15′24.14″W). Just north-east of Extrema. Tall *terra firme* forest with little *Guadua* bamboo and some *igapó*, which has been selectively logged.

3. San Miguel de Machineri, Nicolás Suárez province (10°58′35.76″S, 69°29′13.20″W). An indigenous village in far north-west Pando. The area was more or less protected against logging until 2020, when the entire area was logged, save a few commercially interesting trees including Brazil nut. Close to the Acre River, a large *Guadua* bamboo tract was present at least until late 2022.

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4. Sagusa, Nicolás Suárez province (10°55′41.88″S, 68°3′39.60″W). A large lumber concession that is selectively logged every 20 years. This site was well protected until 2020 because it was possible to remove temporary bridges used by loggers, and it formerly held good numbers of larger mammals including Giant Armadillo *Priodontes maximus*. However, new regulations permit settlement inside the concession, which has led to a recent decline in forest quality and biodiversity due to hunting. The site is characterised by both *terra firme* (with bamboo understorey in parts) and riparian forest with much *Heliconia*. Many stumps are present, possibly due to logging or past fires.

5. Maderera, Nicolás Suárez province (11°10′31.44″S, 69°24′47.52″W). Part of a concession owned by the IMAPA company, which has several logging concessions south-east of Cobija and Porvenir. In general, this site comprises *terra firme* forest, but interspersed with *igapó* and tracts of *Guadua* bamboo (which was flowering in October 2021). Forest is selectively logged every 20 years and until recently was relatively intact, but like Sagusa new regulations have allowed settlers to colonise the concession, resulting in a rapid decline in forest quality and wildlife.

6. Reserva Nacional de Vida Silvestre Amazónica Manuripi, Manuripi province. A large protected area with several settlements within its borders, especially along Ruta 16, which traverses the park and runs south to the Madre de Dios River, but none in the east of the reserve. Much intact forest remains, but protective measures do not seem effective; at many sites emergent trees have been removed and hunting is commonplace. We explored several sites within the reserve boundaries, covering many different habitats, including oxbow lakes lined by grassy marshes and extensive stands of *Mauritia flexuosa*, and the *Tessaria* and *Gynerium*-dominated banks of the Madre de Dios.

7. Santa Rosa del Abuná, Abuná province (10°33′30.6″S, 67°27′4.68″W). Originally characterised by a mix of *várzea* and *terra firme*, but is being rapidly cleared for farmland. It previously also held a large tract of *Guadua* bamboo, which was burned down in 2022. Also visited by Tobias & Seddon (2007).

8. Orquídea del Manu, Abuná province (10°37′54.84″S, 66°43′0.84″W). Located in central Pando along the Manu River. There is a small harbour, after which the site is named, from where Brazil nuts used to be shipped to Riberalta. There are extensive cattle farms, and west of Orquídea del Manu there is a large logging concession, but despite this the site still has extensive forest, mainly due to its remoteness.

9. Nueva Esperanza, Federico Román province (10°04′32.52″S, 65°21′47.52″W). A provincial capital in eastern Pando. In the past there was a community sawmill which is no longer in operation. The immediate vicinity of the town has suffered greatly from gold prospecting. Further west forest is still tall and dense with many rubber and Brazil nut trees, but selective logging occurs and emergent trees have been largely removed. Locally, there are dense patches of an unknown bamboo species. Also visited by Tobias & Seddon (2007).

10. Selva Negra, Federico Román province (10°08′55.32″S, 66°20′57.12″W). A logging concession reasonably protected against hunting, dogs, settlements, and illegal logging. Once every 20 years the tallest trees are harvested, otherwise the forest is more or less undisturbed. Brazil nuts are generally the only emergents and the only trees with abundant epiphytes. Many small creeks are lined by *Heliconia*-dominated thickets.

11. Los Indios, Federico Román province (10°28′46.56″S, 65°36′30.24″W). The easternmost sawmill with a nearby settlement for local workers; still surrounded by tall forest where commercially useful trees are selectively logged every 20 years. Brazil nut trees are virtually the sole remaining emergents. See Tobias & Seddon (2007) and Moskovits *et al*. (2003) for additional information.

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Species accounts

We follow the taxonomy of Dickinson & Remsen (2013) and Dickinson & Christidis (2014). Where localities are not indicated by geographical coordinates, these are identical to the coordinates mentioned in the site descriptions above (see also Fig. 1). Recordings are indicated by a ML number (and recordist, if not our own), which refers to the catalogue number under which the recording is deposited at Macaulay Library and can be accessed via the following URL, followed by the catalogue number, excluding the letters ML, e.g. www.macaulaylibrary.org/asset/502296431). Recordings were made with an Olympus LS-P4 recorder and Røde VideoMic Pro microphone. Sonograms were produced using Luscinia software (Lachlan 2007), setting max. frequency to 3 kHz, using a high pass threshold of 1 kHz, and noise removal between 1 and 3 kHz, lowering the dynamic range until sonograms were clean. eBird records are indicated by their checklist S number (and observers, if not our own), and can be accessed via the following URL, followed by the checklist number, e.g., www.ebird.org/checklist/S111309212.

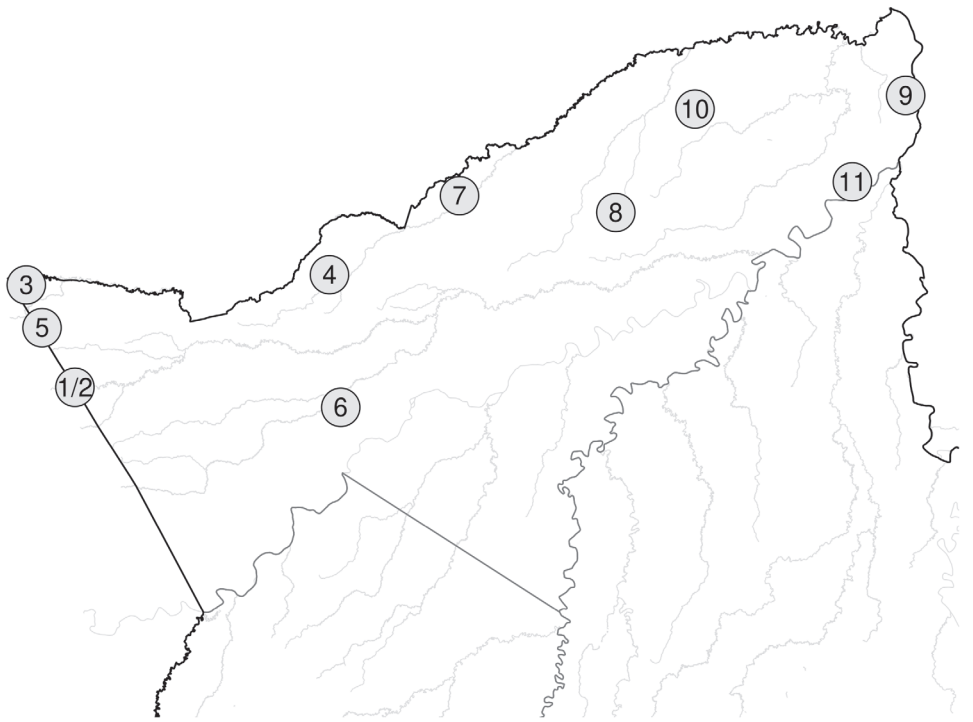

Figure 1. Frequently visited survey sites in Pando, Bolivia, during six expeditions in 2018–22. Numbers refer to sites mentioned in the text. Sites 1 (Extrema) and 2 (Soberanía) are in close proximity to each other.

BLACK-CAPPED TINAMOU *Crypturellus atrocapillus*

Herzog *et al*. (2016) listed this species (subspecies *garleppi*) as occurring mainly in lower Yungas and Amazonian foothill forest from La Paz to Santa Cruz. They suggested that nominate *atrocapillus* may reach western La Paz from its known range in central and southern Peru. We identified the species by voice (ML 502296431) at a locality in north-west Pando, near Extrema, but never saw any individual there, so are unable to determine the subspecies based on morphology. Although subspecies *atrocapillus* may differ vocally

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from *garleppi* (Cabot *et al*. 2020), we are unable to detect any consistent differences between available recordings of both subspecies, and thus tentatively assign our observations to *garleppi*, which occurs in nearby Acre, Brazil. Black-capped Tinamou is known to occur <5 km away from our locality in Peru, making occurrence in Pando unsurprising. However, despite considerable effort, we did not locate the species elsewhere in Pando.

LEAST GREBE *Tachybaptus dominicanus*
First recorded in Reserva Nacional de Vida Silvestre Amazónica Manuripi on 23 July 2018, when we saw eight individuals on a pond (12°08′45.60″S, 68°36′59.76″W). Notoriously opportunistic and can turn up anywhere (Rutt *et al*. 2019). Given abundant records in south-west Amazonia (e.g., E. Rasi, S111309212; A. Wiebe, S48745095), the species was expected to occur in Pando. Birds were also observed at the same locality on 25 and 26 July and 23 August 2019, indicating a potentially persistent population. In January and May 2022, the species was photographed on a pond near Cobija, representing a second locality in Pando (S. Sangueza Farah, ML 414011111). The species probably breeds locally in Pando but has been overlooked until now.

ASH-COLOURED CUCKOO *Coccycua cinerea*
Rarely reported from the Bolivian lowlands. Herzog *et al*. (2016) noted just one record in Pando, although there is at least one other record (J. A. Tobias, S64959133). We observed the species four times at three localities in Pando: on 29 and 30 August 2019 at Sagusa (ML 178321451), on 24 August 2021 on the road to Puerto 26 de Junio (10°23′52.90″S, 65°31′55.29″W; ML 367453401) and on 18 September 2022 in Reserva Nacional de Vida Silvestre Amazónica Manuripi (11°27′7.20″S, 67°30′54.36″W; ML 506161191). All of these dates fall within the putative periods of wintering and migration of this austral migrant, and indicate that the range in Pando reaches north beyond that modelled in Herzog *et al*. (2016). The species probably occurs uncommonly but regularly throughout Pando, as indicated by our records, and those from adjacent regions in Brazil and Peru bordering Pando (A. De Luca, S3933325; J. van Dort, S12243008; F. Schneider, S59835706; E. Patrial *et al*., S91970502).

WHITE-TAILED HAWK *Geranoaetus albicaudatus*
Few records in Pando until 2016, all from the deforested Cobija area. We recorded the species more widely throughout the department, but mainly in the north-west, e.g., near Bolpebra, 11°08′50.64″S, 69°19′38.28″W, on 14 August 2019, and 10°56′49.56″S, 69°33′56.88″W, on 8 October 2021; three at Extrema, 11°27′10.8″S, 69°15′31.32″W, on 18 October 2021 (ML 388785521); near San Pedro, 10°57′12.96″S, 69°26′38.76″W, on 30 September 2022; and near Mukden, 11°10′14.52″S, 68°56′22.2″W, on 18 December 2022. However, we also saw the species in central Pando, near Santa Rosa del Abuná (10°33′30.6″S, 67°27′5.04″W) on 6 October 2021, and on the banks of the Tahuamanu River near Puerto Rico (11°07′14.16″S, 67°36′17.64″W) on 20 October 2021. Clearly, the species is swift to invade newly deforested areas and can be expected to occur more widely throughout the department in the future.

BROAD-WINGED HAWK *Buteo platypterus*
We photographed (ML 496982591) an adult light morph in north-east Pando (10°05′13.2″S, 65°26′32.28″W) on 16 October 2022, which appears to be the first documented record in the department. Although our record possibly refers to a passage migrant, TW & JTW have recorded the species in November, December and January in Beni and Santa Cruz, suggesting that *B. platypterus* may be a regular, albeit uncommon, wintering species or

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passage migrant throughout Bolivian Amazonia. It also occurs regularly but uncommonly in adjacent Peru and Brazil in December–February (eBird 2023), indicating that the species' winter range includes much of south-west Amazonia.

BURROWING OWL *Athene cunicularia*

We (and others, e.g., S. Carvajal, S95939992; J. C. Gilarde Olivar, S95945299, S137601925) have documented the species at scattered localities throughout Pando. It was not mentioned for these areas by Herzog *et al*. (2016), and most records, including ours, are post-2015. We recorded the species in at least 11 localities, including in south-west (12°08′45.60″S, 68°36′59.76″W), central (10°54′1.08″S, 67°35′55.32″W) and easternmost Pando (10°04′32.52″S, 65°21′47.52″W). As in neighbouring countries (Rutt *et al*. 2017), the species appears to be spreading rapidly with deforestation and urbanisation (hence its occurrence, e.g., in Riberalta). Many of our new localities are small (often <1 ha) and isolated clearcuts surrounded by forest, indicative of the species' dispersal capabilities.

BLACK-THROATED TROGON *Trogon rufus*

Poorly known in Bolivia (Herzog *et al*. 2016), mainly from north-east Pando (e.g., Moskovits *et al*. 2003, Martínez 2021). We recorded the species at 10°15′46.08″S, 66°17′47.40″W near Selva Negra in east-central Pando (ML 386039041), which is a new locality.

BROWN-BANDED PUFFBIRD *Notharchus ordii*

Herzog *et al*. (2016) considered *N. ordii* to be a rare resident across most of Pando and northern Beni, *contra* Moskovits *et al*. (2003), who found it relatively common at Caimán in north-east Pando, and Tobias & Seddon (2007) indicated it was locally common by voice, also in north-east Pando. We documented it at seven widely scattered localities across Pando between 1 August 2018 and 19 December 2022 (Table 1; e.g., ML 110621981). Taken with previous records (Moskovits *et al*. 2003, Tobias & Seddon 2007), we conclude that the species may not be as rare as previously thought. Furthermore, our observations indicate that the species is not restricted to north-east Pando but is more widespread across the eastern half of the department.

TABLE 1
Records of Brown-banded Puffbird *Notharchus ordii* in Pando between August 2018 and December 2022, including coordinates and observation dates.

Selva Negra	10°12′17.28″S, 66°21′13.68″W	1 August 2021
East of El Tigre	10°13′29.64″S, 65°23′47.04″W	26 August 2021
Arca de Israel	10°15′14.76″S, 65°19′28.56″W	12 October 2022
Orquídea del Manu	10°37′54.84″S, 66°43′0.84″W	10 April 2021
North-west of Esperanza	10°00′13.68″S, 65°27′11.88″W	17 October 2022
Manuripi east	11°24′8.28″S, 67°22′46.56″W	19 December 2022

COLLARED PUFFBIRD *Bucco capensis*

A poorly known species in Bolivia, with only two records in easternmost Pando (Moskovits *et al*. 2003, Tobias & Seddon 2007). However, given its presence in the Peruvian Amazon, Herzog *et al*. (2016) predicted that the species should occur throughout Pando, which seems correct as we documented a pair in central Pando at Reserva Nacional de Vida Silvestre Amazónica Manuripi (11°28′19.56″S, 67°25′44.04″W) on 11 August 2019 (ML 177596851). Also, in far eastern Pando, we found it at two additional sites: north of Los Indios

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(10°18′42.12″S, 65°33′23.04″W; ML 370695861) and west of Arca de Israel (10°15′14.76″S, 65°19′28.56″W; ML 500029541).

YELLOW-BILLED NUNBIRD *Monasa flavirostris*
Rare and local in north-west Bolivia, where recorded exclusively in Pando (Herzog *et al*. 2016). We found the species at three additional localities within this small area: near Extrema (16–17 October 2021; ML 522341651), near Soberanía (22 September 2022; ML 502974751) and near San Miguel de Machineri (1 October 2022; ML 496015601). Generally, in south-west Amazonia it occurs in areas with much bamboo (Guilherme & Santos 2009), but at Extrema and San Miguel de Machineri we found the species in canopy trees with bamboo in the understorey, although the birds were never actually seen in bamboo, and at Soberanía very little to no bamboo was present.

CRESTED CARACARA *Caracara plancus*
Few substantiated records of this opportunist from Pando. We found the species at several sites, mostly in easternmost and western Pando (Table 2), and mostly associated with recent deforestation, including areas that in theory should be protected such as Reserva Nacional de Vida Silvestre Amazónica Manuripi.

TABLE 2
Records of Crested Caracara *Caracara plancus* in Pando during 2018–22, including coordinates and observation dates.

Reserva Manuripi	10°30′46.08″S, 66°10′41.52″W	23 July 2018
RN13	11°10′8.04″S, 68°04′4.8″W	18 December 2022
Road to Bolpebra	11°08′50.64″S, 69°19′38.28″W	14 August 2019
Arca de Israel	10°15′10.8″S, 65°20′0.24″W	24 August 2021
East of El Tigre	10°13′29.64″S, 65°23′47.04″W	27 August 2021
North of Sta Rosa del Abuná	10°33′30.6″S, 67°27′4.68″W	5 October 2021
Bolpebra	11°01′52.68″S, 69°27′25.92″W	10 July 2021
South of Mukden	11°15′16.92″S, 69°01′42.6″W	18 December 2022

WHITE-BELLIED PARROT *Pionites leucogaster*
Relatively common throughout Pando. Only the black-legged subspecies (*P. l. xanthomerius*) is known in Bolivia (Herzog *et al*. 2016). In western Pando, we observed birds showing the diagnostic features typical of *xanthomerius* (black tarsi and feet, green rectrices) at multiple locations (e.g., San Miguel de Machineri; Bolpebra, 11°01′52.68″S, 69°27′25.92″W; Sagusa). However, the situation in central and eastern Pando is more complex. At two sites in eastern Pando, near Los Indios, we

Figure 2. White-bellied Parrot *Pionites leucogaster*, showing the flesh-coloured feet and yellow tail typical of *P. l. xanthurus*, near Los Indios, eastern Pando, Bolivia October 2022 (Jacob & Tini Wijpkema)

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observed birds with yellow rectrices and flesh-colored tarsi and feet typical of *P. l. xanthurus* (Fig. 2), which occurs in nearby Acre and Rondônia, Brazil. At Selva Negra (10°15′46.08″S, 66°17′47.4″W) we observed birds with dark feet but yellow tails, i.e., mixed characters of subspecies *xanthomerius* and *xanthurus* (ML 386372731). In east-central Pando, at Orquídea del Manu, birds of both morphotypes were photographed side by side (ML 519881041). There thus appears to be a morphological transition from *xanthurus* in the east to *xanthomerius* in the west, probably with a zone of intergradation between them in central Pando. Intergradation between *xanthomerius* and *xanthurus* has been reported near the Juruá River, Brazil (Collar *et al*. 2020), and White-bellied Parrot and the closely related Black-headed Parrot *P. melanogaster* hybridise (Novaes 1991), making this hypothesis plausible.

BONAPARTE'S PARAKEET *Pyrrhura lucianii*

Herzog *et al*. (2016) noted that Santarem Parakeet *P. amazonum pallescens* (erroneously referred to as *P. a. snethlagae* therein; see Gaban-Lima & Raposo 2016) has disjunct populations in Bolivia, in Pando and in Santa Cruz/Beni. However, we observed birds showing characters consistent with Bonaparte's Parakeet at Selva Negra (10°08′55.32″S, 66°20′57.12″W) on 31 July 2018; broad dark chevrons on chest and lack of blue on the forehead were apparent in photographs (Fig. 3), unlike the otherwise similar Santarem Parakeet. We subsequently photographed Bonaparte's Parakeet at multiple localities in central and eastern Pando, including around Nueva Esperanza (20 August 2021), east of Tigre (10°13′29.64″S, 65°23′47.04″W; 26 August 2021), near Selva Negra (10°15′46.08″S,

Figure 3. Bonaparte's Parakeet *Pyrrhura lucianii*, showing diagnostic broad dark chest chevrons and chestnut forehead, near Los Indios, eastern Pando, Bolivia, October 2022 (Jacob & Tini Wijpkema)

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66°17′47.4″W; 30 August 2021), Orquídea del Manu (3 October 2021),Tahuamanu River (11°07′13.8″S, 67°36′17.64″W; 19 October 2021), Sagusa (4 October 2022), south-west of Los Indios (10 October 2022), north-west of Nueva Esperanza (10°00′12.384″S, 65°35′0.366″W; 13 October 2022), and north of Los Indios (10°18′42.12″S, 65°33′23.04″W; 17 October 2022). Additionally, Moskovits *et al.* (2003) reported *P. picta* at Manoa, which probably refers to Bonaparte's Parakeet.

We have never observed Santarem Parakeet in Pando, and previous observations of this species there (Martínez 2021, eBird 2023), which to our knowledge are not documented photographically, probably all involve Bonaparte's Parakeet, which occurs in adjacent Acre, Brazil. In contrast, *P. amazonum pallescens* appears to be restricted to the area south and east of the Madeira River, whereas Bonaparte's occurs west and north of it, including in Pando. Broad sympatry in Pando does not seem likely. Populations in south-east Beni and Santa Cruz refer to *P. a. pallescens*, as the holotype (LSUMZ-B136840) and a paratype (LSUMZ-B136841) of what was described as *P. snethlagae* by Joseph in 2002 (but see Gaban-Lima & Raposo 2016) were collected there. Bonaparte's Parakeet may overlap with Rose-fronted Parakeet *P. roseifrons* in central Pando but no substantiated records or specimens of the latter are available; and the precise range limits of these two species in Pando demand clarification.

BLACK-FACED COTINGA *Conioptilon mcilhennyi*

Rare and local in north-west Bolivia, with few records (Herzog *et al*. 2016). We recorded this range-restricted species at several new sites, mostly within its known range in western Pando (Table 3), but also in west-central Pando at Sagusa (ML 201694811), mainly in *igapó*. We agree with Aponte *et al.* (2022) that the species appears to be continuously distributed within its small Bolivian range.

TABLE 3
Records of Black-faced Cotinga *Conioptilon mcilhennyi* in Pando during 2018–22, including coordinates and observation dates.

RN16 Manuripi	11°19′28.2″S, 68°44′18.6″W	23 July 2018
North of Mukden	11°04′15.24″S, 69°6′25.56″W	17 August 2019
North of Sagusa	10°55′41.88″S, 68°3′39.6″W	1 September 2019
Machineri	10°57′15.84″S, 69°28′9.84″W	10 October 2021
Maderera	11°10′31.44″ S, 69°24′47.52″W	13 October 2021
North of Extrema	11°22′15.24″S, 69°12′28.08″W	14 October 2021
South-east of Sagusa	10°52′56.64″S, 67°45′59.76″W	6 October 2022

CRESTED BECARD *Pachyramphus validus*

Subspecies *P. v. audax* is rare to uncommon in winter in the Amazonian lowlands of Bolivia adjacent to the Andes, with occasional records further north (Herzog *et al*. 2016). We observed Crested Becard twice on 15 October

Figure 4. Male Crested Becard *Pachyramphus validus*, near Nueva Esperanza, eastern Pando, Bolivia, October 2022, showing buffy underparts consistent with *P. v. validus* (Jacob & Tini Wijpkema)

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2022 at two localities in north-east Pando in the vicinity of Nueva Esperanza: 10°05′13.2″S, 65°26′32.28″W (male) and 10°02′2.04″S, 65°25′41.16″W (female). Thus, the species also occurs during the austral spring in Bolivia's lowlands. Photographs of the female do not permit conclusive subspecific identification (ML 506801411), but the male we photographed (Fig. 4) had pale buffy underparts in accord with *P. v. validus*. The latter is an austral migrant from south-east Brazil, normally occurring only in south-east Bolivia (mainly in Santa Cruz); our record is the first for Pando. Possibly, this subspecies occurs more widely in the region during the austral winter, or perhaps our record involved an accidental overshoot.

RUFOUS TWISTWING *Cnipodectes superrufus*

Soon after its discovery to science (Lane *et al*. 2007), Rufous Twistwing was found in Bolivia at Extrema, north-west Pando (Tobias & Seddon 2007). We found it at another locality in this area, near San Miguel de Machineri (10°57′15.84″S, 69°28′9.84″W; ML 496021911), within the species' modelled range in Pando (Herzog *et al*. 2016) but *c*.60 km from the first site in Bolivia.

SNETHLAGE'S TODY-TYRANT *Hemitriccus minor*

We recorded this species in south-central Pando at 11°26′43.8″S, 67°22′30″W just west of route 13 in the east of Reserva Nacional de Vida Silvestre Amazónica Manuripi, on 11 August 2019, some distance from its known distribution in Bolivia (Moskovits *et al*. 2003, Herzog *et al*. 2016). Our sound-recordings (ML 177598681; Fig. 5) indicate 9–13 notes per song bout, unlike the usual 35–70 notes of nominate *minor* or *H. m. snethlagae* (Clock 2020); the latter is assumed to occur in eastern Bolivia (Dickinson & Christidis 2014). However, song length may vary and depend on the bird's state of agitation, and is thus not entirely diagnostic for subspecific identification (B. M. Whitney *in litt*. 2023). Additionally, our bird frequently also uttered single *tic* calls, which are not thought to be given by *H. m. pallens* but are thought to pertain to a new vocal type of *Hemitriccus* (*minor*?) throughout western Amazonia (B. M. Whitney *in litt*. 2023), including west of the Madeira River in Brazil (and could conceivably occur in Pando). We therefore tentatively identify our record as *H. minor*, but we acknowledge that further study of vocalisations of *H. minor* and vocally similar taxa in western Amazonia is necessary.

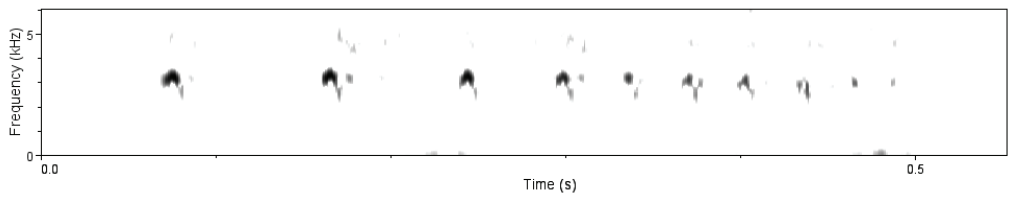

Figure 5. Song of Snethlage's Tody-Tyrant *Hemitriccus minor*, Reserva Nacional de Vida Silvestre Amazónica Manuripi, Pando, Bolivia, 11 August 2019.

ACRE TODY-TYRANT *Hemitriccus cohnhafti*

H. cohnhafti has a highly restricted range in south-west Amazonia, inhabiting *Guadua* bamboo thickets, second growth and forest edge. The species is poorly known ecologically, having been described only recently from Acre, Brazil (Zimmer *et al*. 2013), where it was first found in 2011, and subsequently was reported in Amazonian Peru (Harvey *et al*. 2014). It was assumed that the species also occurs in adjacent Bolivia (Herzog *et al*. 2014) but no evidence of this was available.

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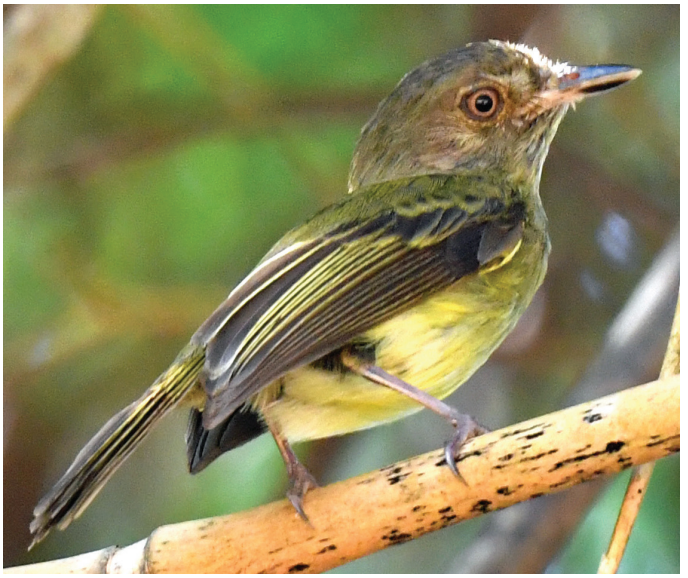

Figure 6. Acre Tody-Tyrant *Hemitriccus cohnhafti*, San Miguel de Machineri, Pando, Bolivia, 30 September 2022, showing the distinctive ochraceous coloration restricted to the lores and supraloral region, and conspicuous wingbars typical of the species (Jacob & Tini Wijpkema)

Figure 7. Habitat of Acre Tody-Tyrant *Hemitriccus cohnhafti* at San Miguel de Machineri, Pando, Bolivia; note extensive and partly decaying *Guadua* with scattered young woody growth (Jacob & Tini Wijpkema)

We found a singing individual on 25 September 2022 at 06.26 h near the Extrema military base, Municipio Bolpebra, Pando, at 11°25′34.2732″S, 69°15′32.9112″W (Figs. 6–7) in extensive but decaying *Guadua* bamboo with scattered, secondary woody growth surrounded by riparian forest associated with the Tahuamanu River, <1 km from the border with Peru. During previous visits to the area by ourselves and others the species was not detected, however at the time of a survey in November 2004, which yielded three new species for Bolivia (Tobias & Seddon 2007), the species had not been described and was probably overlooked as a result (J. A. Tobias *in litt*. 2023). The species' current presence there may also be due to recent deforestation, as in 2018 the locality was characterised by intact forest with a bamboo understorey. It seems to prefer extensive and perhaps partly decaying *Guadua* without a forest canopy (Harvey *et al*. 2014) and may opportunistically appear at sites with suitable early-succession, bamboo-dominated habitat. On 30 September 2022, we found the species between San Miguel de Machineri and Estancia Porta Atenda, near the floodplain of the Acre River, at 10°57′15.84″S, 69°28′9.84″W, at 08.07 h. The area was also characterised by extensive and decaying *Guadua* with scattered secondary woody growth, and is <1 km from the Brazilian border and *c*.60 km north-northeast of the first

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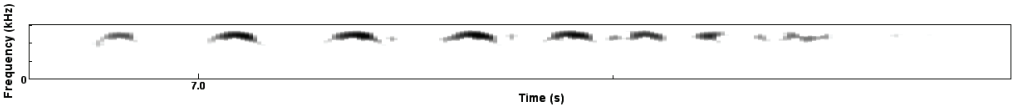

Figure 8. Song of Acre Tody-Tyrant *Hemitriccus cohnhafti*, San Miguel de Machineri, Pando, Bolivia, 25 September 2022.

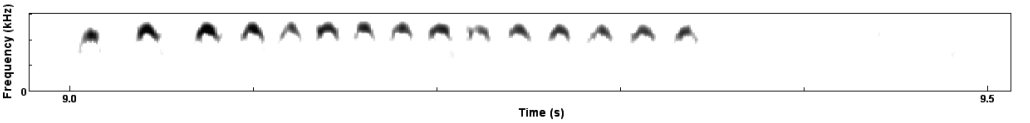

Figure 9. Song of Acre Tody-Tyrant *Hemitriccus cohnhafti*, Extrema, Pando, Bolivia, 25 September 2022; note the difference in number of notes between the two individuals in Figs. 8 and 9, with the individual from Extrema never uttering fewer than 12 notes, whereas the Machineri birds never gave more than eight notes.

locality. We observed the species here again on 1–2 October 2022, as singles and in pairs, but a previous visit in October 2021 did not yield the species.

Our recordings (Figs. 8–9, see also ML 500542021, ML 505920301, ML 505920311, ML 505920321, n = 3 individuals) indicate that the song of the individual near Extrema consists of 12–15 notes, excluding the lower-frequency introductory note, which is usually given directly preceding the song, but occasionally >1 second before it. Mean song duration was *c*.0.3 second (measured using Luscinia: Lachlan 2007). Previous analyses indicate a mean eight notes per song and a mean duration of 0.22 second (Zimmer *et al*. 2013). The two individuals sound-recorded at San Miguel de Machineri had different song characteristics, more in line with characters known in Acre, Brazil: 7–8 notes, frequently excluding the introductory note, lasting 0.24–0.27 second. Our recordings show greater overall similarity to known songs of *H. cohnhafti* than to those of the closely related and morphologically similar Yungas Tody-Tyrant *H. spodiops*, which has on average 33 notes in 0.64 second (Zimmer *et al*. 2013). Furthermore, our data indicate that there may be geographic variation in song structure of *H. cohnhafti*, which in suboscines may be indicative of population differentiation (Tobias *et al*. 2012), or the different recordings may involve birds exhibiting different levels of excitement. Peak frequency of our recordings does not exceed *c*.2.3 kHz, in line with previous findings and below the peak frequency of 2.9 kHz in *H. spodiops* (Zimmer *et al*. 2013). We did not use playback for the vocalisations here, so our recordings do not represent antagonistic songs, which are longer than natural songs (Zimmer *et al*. 2013). We did not record calls.

RIVER TYRANNULET *Serpophaga hypoleuca*

Few records in Pando, most from the north bank of the Madre de Dios River near Riberalta. We photographed two (a pair?) in riverside *Tessaria* scrub along the Madre de Dios (11°27′7.2″S, 67°30′54.36″W; ML 506265181) in Reserva Nacional de Vida Silvestre Amazónica Manuripi, the first, to our knowledge for Manuripi province. Probably widespread (but uncommon and generally overlooked) in suitable habitat throughout Pando.

DORADITO SP. *Pseudocolopteryx* sp.

On 8 August 2019 we photographed (Fig. 10) a bird showing characteristics of a doradito (*Pseudocolopteryx* sp.) in *Tessaria* scrub on an island in the Madre de Dios River *c*.7 km north-east of Riberalta (10°54′33.12″S, 66°8′27.24″W). No doraditos are known to occur in Pando, so our bird probably was an overshooting austral migrant. Pale wingbars eliminate

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Subtropical Doradito *P. acutipennis*, which has inconspicuous buffy wingbars, and the bird also did not show the colourful crown or dark ear-coverts typical of female Crested Doradito *P. sclateri* (males have a crest), which species breeds in nearby Beni. This leaves Dinelli's *P. dinelliana* and Ticking Doraditos *P. citreola*, of which the latter should show extensive rufous-brown in the crown, which our bird did not. Furthermore, the bird in Fig. 10 has pale lores, a slight supercilium and a pale mandible. Dinelli's Doradito typically has pale lores or a faint supercilium, and female doraditos in general have pale mandibles (Pearman & Areta 2020), although this has never been definitely established for *P. dinelliana* to our knowledge. We tentatively identify our bird as Dinelli's Doradito, but further research is needed to determine if this species (or another) occurs more regularly as an austral winter visitor to the region. If our record does involve Dinelli's Doradito, it would represent the northernmost of the species.

Figure 10. Doradito *Pseudocolopteryx* sp., in *Tessaria* scrub on island in Madre de Dios River, eastern Pando, Bolivia, August 2019 (Jacob & Tini Wijpkema)

SULPHURY FLYCATCHER *Tyrannopsis sulphurea*

A rare to uncommon resident known in Bolivia from a few, scattered observations (e.g., Parker & Remsen 1987). We first found it in the western part of Reserva Nacional de Vida Silvestre Amazónica Manuripi in south-west Pando at 12°08′45.6″S, 68°36′59.76″W, on 26 July 2018 (ML 122344941). We also found it at three localities in north-easternmost Pando, from where it had not been previously reported: La Gran Cruz, 10°22′5.16″S, 65°23′50.64″W, on 24 August 2021 (ML 370280271); north of Los Indios, 10°18′42.12″S, 65°33′23.04″W, on 28 August 2021; and west of Esperanza, 10°05′13.2″S, 65°26′32.28″W, on 16 October 2022 (ML 509268621). Sulphury Flycatcher thus has a broader distribution in Pando than was known (Herzog *et al*. 2016). Parker & Remsen's (1987) hypothesis that the species is 'probably much more widespread than specimen records indicate' thus seems correct.

YELLOW-THROATED FLYCATCHER *Conopias parvus*

Hitherto known in Bolivia mainly from north-east Pando (Moskovits *et al*. 2003, Herzog *et al*. 2016; J. A. Tobias *in litt*. 2023). We photographed and sound-recorded two on 9 October 2022 south-west of Los Indios (10°30′40.68″S, 65°36′18″W; S121105431), establishing its presence in south-east Pando.

IHERING'S ANTWREN *Myrmotherula iheringi*

Rare and local, and in Bolivia known exclusively from western Pando (Herzog *et al*. 2016). We report an additional four localities, including the vicinity of Soberanía (11°50′56.4″S, 68°56′56.4″W; ML 177562491), north of Santa Rosa del Abuná (10°33′30.6″S, 67°27′4.68″W; ML 431875031), vicinity of San Miguel del Machineri (10°57′15.84″S, 69°28′9.84″W; ML 388589891) and near Maderera (11°10′31.44″S, 69°24′47.52″W). Our photographs show

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the males had extensive black on the breast and belly, in accord with *M. i. oreni*, which occurs south of the Purus River and is the expected subspecies in Pando.

MANU ANTBIRD *Cercomacra manu*
Previously known from western Pando (Parker & Remsen 1987), we found the species at four localities in far north-east Pando within a 10 km^2 radius of Esperanza (22–23 August 2021, 10°04′32.52″S, 65°21′47.52″W; 29 August 2021, 10°18′42.12″S, 65°33′23.04″W; 15–16 October 2022, 10°05′13.2″S, 65°26′32.28″W; 17 October 2022, 10°08′11.76″S, 65°28′50.52″W, e.g., ML 364969031). Despite searching for the species in central Pando, we never found it there and the eastern population may be disjunct from that in western Pando, much like the various populations in eastern Amazonian Brazil are seemingly isolated (Zimmer *et al*. 1997, Beadle *et al*. 2003, Kirwan *et al*. 2015).

BROWN-RUMPED FOLIAGE-GLEANER *Automolus melanopezus*
Listed by Herzog *et al*. (2016) for the western third of Pando alone, with definitive records only from the far north-western part (e.g., Parker & Remsen 1987). We observed the species at Orquídea del Manu (10°37′54.84″S, 66°43′0.84″W) in east-central Pando on 3 October 2021, and subsequently photographed it north of Santa Rosa del Abuná (10°33′30.6″S, 67°27′4.68″W) in north-central Pando, on 4–5 October 2021 (ML 386464801). In Brazil, the species occurs east to north-east Acre (e.g., T. Melo, ML 201839161), and the species' eastern range boundary may be formed by the Madeira River. It may be a widespread but local resident in bamboo thickets throughout Pando.

WHITE-BROWED MEADOWLARK *Leistes superciliaris*
On 31 August 2021, we observed a *Leistes* meadowlark with a slight white supercilium on a river island in the Madre de Dios, Pando (10°52′15.61″S, 66°2′42.93″W; ML 538001481). The Madre de Dios forms the apparent northern boundary of the range of *L. superciliaris*, and our bird is phenotypically intermediate between White-browed and Red-breasted Meadowlark *L. militaris*, the latter being the expected species in the region. Parker & Remsen (1987) already noted that contact between *L. militaris* and *L. superciliaris* here was imminent. Several *Leistes* specimens from Pando at the Louisiana State University Museum of Natural Science, Baton Rouge (LSUMZ) were identified as *L. superciliaris* based on phenotype. However, some have the mitochondrial DNA of *militaris* (van Els *et al*. 2021, in prep.), indicating that phenotype and genotype are not completely congruent in *Leistes* from the region. This, in combination with our observation of a phenotypically intermediate bird, indicates that Pando is a possible hybrid zone between these two species.

GREEN OROPENDOLA *Psarocolius viridis*
In Bolivia known from only two localities in north-east Pando (Montambault 2002, Tobias & Seddon 2007). We observed the species at two additional localities in this region: east of Los Indios (10°26′54.6″S, 65°31′45.12″W; ML 367491901), where we also saw nests being constructed, and north-west of Esperanza (10°02′2.04″S, 65°25′41.16″W; ML 509054941).

SCARLET TANAGER *Piranga olivacea*
We photographed an immature male at Extrema, Pando (11°27′10.08″S, 69°15′31.32″W; ML 520569201) on 17 December 2022. To our knowledge, this record is the first in Pando. The species occurs sparingly during the boreal winter throughout southern Amazonia, including in neighbouring Acre, Brazil, and Peru, but is more common in the Andean foothills and subtropics (Herzog *et al*. 2016).

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PEARLY-BREASTED CONEBILL *Conirostrum margaritae*

On 9 August 2019, we photographed an all greyish-blue conebill with a slight supercilium on a *Cecropia*-dominated island in the Madre de Dios River (11°29′35.16″S, 67°29′31.56″W) in the eastern part of the Reserva Nacional de Vida Silvestre Amazónica Manuripi. Based on the pale undertail-coverts, we can rule out male Chestnut-vented Conebill *C. speciosum*, and the lack of greenish coloration on the flanks and upperparts discounts female Chestnut-vented Conebill. Pearly-breasted Conebill thus occurs west at least to central Pando, *c*.155 km south-west of the known (J. A. Tobias, S64958721) and modelled range for the species in Pando (Herzog *et al*. 2016).

SAFFRON FINCH *Sicalis flaveola*

We observed this species on traffic lights in Cobija on 3 October 2022. It appears to be established there (and in neighbouring Brazilian towns), as multiple records since 2015 indicate (e.g., H. Santa Cruz, S121915498; S. Mitten, S30974707). Saffron Finch is probably a local escapee from the cagebird trade, but may also have spread from Amazonian Peru, where it is widely established after escaping from captivity (eBird 2023).

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