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Notable records of winter migrants for Goiás and Distrito Federal, central Brazil

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SUMMARY.—Bird migration patterns in the Cerrado region are still very poorly known, even in the best-studied areas of this biome. We present noteworthy records of five winter migrants in the Cerrado, including new records for the state of Goiás (Chilean Swallow *Tachycineta leucopyga*) and the Distrito Federal (Swallow-tailed Cotinga *Phibalura flavirostris*). The latter species' status, including temporal, in central Brazil is in chronic need of elucidation. Our records augment knowledge of the distribution and movements of these species outside their breeding areas, and some represent important range extensions.

The state of Goiás and the Distrito Federal in central Brazil lie at the heart of the Cerrado biome (or the morphoclimatic domain of the Cerrado), comprised by vast uplands once covered by a mosaic of a savanna-like vegetation and forests over a 1.5 million km² area (Ab'Saber 1977, 1983, Pinto 1994, Silva 1995a). Besides its remarkably heterogeneous landscapes, the region has a tropical seasonal climate with well-marked dry and rainy periods, and average temperatures ranging from 20°C to 26°C (Nimer 1979, Ab'Saber 1983, 2003, Silva 1995a).

Avifaunal diversity in the Cerrado region was estimated at 837 species (Silva 1995a), although several additional taxa have been recorded since, suggesting even higher species richness. Of these, Silva (1995a) detected 46 non-breeders that he classified as migrants or altitudinal visitors, in three groups: from North America; from southern South America; and from elsewhere in Brazil, e.g., elevational migrants from austral regions that move lower in winter (Antas 1983, Silva 1995a,b). The latter comprise the least-known group, possibly due to their lower abundance and overlooked movements, as well as logistical factors such as the small numbers of researchers and limited access to some areas (Schunck *et al.* 2023).

Despite the efforts of several authors, major gaps in the understanding of these movements remain, including their dynamics and ecology (Somenzari *et al.* 2018). Elevational (or altitudinal) migration has been reported in Brazil since the 1800s and, principally in the last decades, copious observations have referred to this behaviour in different species, although few standardised studies have been published (Collar *et al.* 1992, Sick 1997, Alves 2007, Barçante *et al.* 2017, Schunck *et al.* 2023). These movements are generally attributed to climatic factors and the availability of food resources, some species migrating lower or inland to warmer climes in winter. Evidence for such migration comes mainly from the Atlantic Forest coastal mountains in south-east Brazil, but also from some upland plateaux in Amazonia (Willis 1988, Silva 1993, Aleixo & Galetti 1997, Bencke & Kindel 1999, Schunck *et al.* 2023).

Although mentioned by Schunck *et al.* (2023) as a potentially highly productive area for studies on seasonal elevational movements, most of the Cerrado, except in parts of south-east Brazil, lack observational data on this phenomenon. Patterns of migration in this landscape are still very poorly known, especially in Goiás and its environs (Silva 1995b,

Bagno & Rodrigues 1998). In recent years, however, with an increase in birdwatchers, a handful of new records of migrants have been published for the state, e.g., Olive-sided Flycatcher *Contopus cooperi* and Semipalmated Sandpiper *Calidris pusilla* (Pereira 2016, Pereira & Araújo 2019), as well for the Distrito Federal, e.g., Osprey *Pandion haliaetus* (see Faria 2008, Tubelis 2008).

Here, we report noteworthy records of five winter migrants for the Cerrado, including one new record for the state of Goiás and one for the Distrito Federal, together with remarks on ecology and natural history. We treat as ‘winter migrants’ species whose populations, or part of them, migrate between separate breeding and non-breeding ranges during the Southern Hemisphere winter, following the definition of migration presented by Somenzari *et al.* (2018). Two species reported here were not mentioned by these authors, but are tentatively included following other literature that has suggested their migratory behaviour. Data taken from online databases, i.e., WikiAves (WA; www.wikiaves.com.br), refer to the record’s observer followed by the voucher number.

SWALLOW-TAILED COTINGA *Phibalura flavirostris*

This conspicuous, fork-tailed cotingid is endemic to southern South America and is considered rare over most of its range. The nominate subspecies occurs in the Atlantic Forest of south-east and south Brazil, eastern Paraguay (no recent records) and north-east Argentina (Misiones); *P. f. boliviana*, however, is known only from the Andes in a tiny area of western Bolivia (del Hoyo *et al.* 2020). Whereas the latter is resident, *P. f. flavirostris* is often considered partially migratory, albeit its movements are poorly known (Snow 1982, Sick 1997, Bodrati & Cockle 2006, Kirwan 2008, Kirwan & Green 2011, Peixoto *et al.* 2013, del Hoyo *et al.* 2020). Records in central Brazil are particularly few and its status there virtually unknown, although it is often assumed to be a rare migrant (Kirwan 2008, Kirwan & Green 2011, del Hoyo *et al.* 2020). Nevertheless, it was not included in the review of migration by Somenzari *et al.* (2018).



Figure 1 (left). Swallow-tailed Cotinga *Phibalura flavirostris*, Santa Maria, Brasília, Distrito Federal, July 2021 (Edvaldo F. Júnior)

Figure 2 (right). Swallow-tailed Cotinga *Phibalura flavirostris* feeding on fruits of *Schefflera macrocarpa* (Araliaceae), Santa Maria, Brasília, Distrito Federal, July 2021 (Fernanda Fernandes)

On 19 July 2021, RM & ES saw a female *P. flavirostris* in a small gallery forest at Santa Maria, Brasília, Distrito Federal (16°02'S, 47°54'W; 1,120 m). RMS, ES & EFS returned in the morning of 20 July when the bird was photographed (Fig. 1). It was initially observed at 07.05 h and left the forest 11 times during the morning to feed on fruits of *Schefflera macrocarpa* (Araliaceae) in adjacent savanna (Fig. 2), as well as regularly taking small flies and bees via short flights from its elevated perch, prior to the last sighting at 11.15 h.

This is the first record of *P. flavirostris* for the Distrito Federal and the first in central Brazil since R. Parrini (*in litt.* 2020) saw a pair at Campo Limpo, Goiás, on 4 April 2004. We assume that it used the woodlot (<1.4 ha) to rest and to feed, given the profusion of fleshy fruits in the area. Other highly frugivorous winter migrants were present in the same patch, i.e., Eastern Slaty Thrush *Turdus subalaris* and Olivaceous Elaenia *Elaenia mesoleuca* (Antas & Valle 1987, Sick 1997).

Records of *P. flavirostris* in central Brazil are irregular and not all are in winter, suggesting that this species may be only an occasional visitor to the region, rather than a winter migrant with well-established routes and timings. It is notable that during the 20th century, a number of specimens of *P. flavirostris* were collected in south-central Goiás (Pinto 1944, Sick 1997, Snow 2004, Kirwan 2008, Gwynne *et al.* 2010, Kirwan & Green 2011), implying that, in the past, the species was less scarce inland, or perhaps even resident locally. EFS, during research on online platforms (e.g., www.vternet.org, www.gbif.org) located ten specimens collected by J. Hidasi around Goiânia, Goiás, between 1955 and 1967, held at different institutions (Table 1). In sum, the precise status (former and current) of this species in central Brazil remains in need of clarification.

TABLE 1
Historical records of Swallow-tailed Cotinga *Phibalura flavirostris* for Goiás. Institution acronyms: MZUSP = Museu de Zoologia da Universidade de São Paulo; FMNH = Field Museum of Natural History, Chicago; LACM = Los Angeles County Natural History Museum; LSUMZ = Louisiana State University Museum of Zoology, Baton Rouge; MPEG = Museu Paraense Emílio Goeldi, Belém; MOG = Museu de Ornitologia de Goiânia.

Institution	Reg. no.	Locality	Date	Collector
MZUSP	27822	Fazenda Transwaal, Rio Verde, Goiás	14 May 1941	W. Garbe
MOG	446	Goiânia, Goiás	17 Apr 1955	J. Hidasi
MPEG	27166	Inhumas, Goiás	17 Oct 1962	J. Hidasi
MZUSP	51887	Inhumas, Goiás	20 Oct 1962	J. Hidasi
MPEG	19524	Goiânia, Goiás	2 Nov 1962	J. Hidasi
MPEG	21879	Goiânia, Goiás	19 Dec 1962	J. Hidasi
LACM	45462	Goiânia, Goiás	29 Dec 1963	J. Hidasi
LACM	45463	Goiânia, Goiás	29 Dec 1963	J. Hidasi
LSUMZ	32288	Goiânia, Goiás	29 Dec 1963	J. Hidasi
FMNH	344709	Goiânia, Goiás	17 Jan 1965	J. Hidasi
MZUSP	72276	Goiânia, Goiás	15 Nov 1967	J. Hidasi

WHITE-CRESTED ELAENIA *Elaenia albiceps chilensis*

One of the distinctive representatives of the difficult-to-identify genus *Elaenia*, given its conspicuous white coronal stripe and small bushy crest (Schulenberg 2020). Although its breeding range is centred on the Andes and southern South America, *E. a. chilensis* occurs

across much of the continent in the non-breeding period (Jiménez *et al.* 2016, Bravo *et al.* 2017, Schulenberg 2020).

This *Elaenia* seems to have been overlooked in central Brazil; the only historical record for Goiás is a specimen collected by J. Hidasi on 24 March 1958 on the right bank of the rio Araguaia, at Aragarças (MPEG 14143). Its presence in the Distrito Federal was mentioned but evidently not documented by Negret *et al.* (1984), Bagno & Marinho-Filho (2001) and Braz & Cavalcanti (2001). In recent years, however, the species has been found in various areas in Goiás and the Distrito Federal, whilst new records in neighbouring north-west Minas Gerais were recently reported by Alteff (2023).

JA observed one in gallery woodland of the rio Capivari, Abadiânia, Goiás, on 2 July 2019, and another in a forest patch at Goiânia, Goiás on 11 July 2019 (JA: WA3414774). On 11 and 15 August 2019, EFS saw at least two in the canopy of the same forest patch at Goiânia; both regularly gave a distinctive *fwee!* in response to playback. In 2021, JA & EFS observed singles with mixed-species flocks at Parque Estadual Altamiro de Moura Pacheco, Goianópolis, on 27 May and 15 June. One fed on the nectar of blooming *Combretum fruticosum* flowers with tanagers and orioles; its bill and throat were covered in reddish pollen. At least two were seen and heard on 8 and 16 July 2021 at Fazenda Lageado, Goiânia, showing their prominent white crests. The species was fairly common at Sítio Lavrinhas, Pirenópolis, Goiás, where EFS saw several between 2020 and 2022. On 19 July 2020, one was feeding on small fruits of *Miconia cuspidata* in a forest edge with *cerrado*, along with Helmeted Manakin *Antilophia galeata* and Green-winged Saltator *Saltator similis*. In 2021, the first individuals arrived by late April—two adults in gallery woodland on 18 April—and left in early October. In 2022, they were first seen on 16 April and became rare by 2 November, but some stayed until 27 November.

Like many of its congeners, White-crested *Elaenia* is easily overlooked, but it can be identified by its distinctive and incessant *feeeo!* call (Schulenberg 2020) and careful attention to some plumage features. In the Cerrado, it is mostly confused with Lesser *Elaenia* *E. chiriquensis* of more open areas, which has almost identical calls. They can be separated, however, by the overall greyer and duller plumage of White-crested, as well as by its visible periocular ring, two strong wingbars, and neat white V-shaped crest, which is more linear than in other *elaenias*. Our records reveal that the species is not uncommon in central Brazil in winter.

BLUE-BILLED BLACK TYRANT *Knipolegus cyanirostris*

Occurs over much of south and south-east Brazil, north-east Argentina, Paraguay and Uruguay, usually in humid forest borders and scrub (Ridgely & Tudor 1994, 2009, Sick 1997). Outside its breeding grounds in the south of the country, it is known in Brazil only from Mato Grosso do Sul, one record for southern Goiás, at Catalão (Faria *et al.* 2011) and a specimen collected at Planaltina, Distrito Federal (Tubelis 2009).

The species has been considered a winter migrant, or partial migrant, by several authors. Silva (1995a) referred to it as an altitudinal migrant in the Cerrado from south-east Brazil; Sick (1997) mentioned migratory behaviour in Espírito Santo and Rio de Janeiro, while Ridgely & Tudor (2009) and Faria *et al.* (2011) reported presumed migrants in Mato Grosso do Sul and Goiás (mentioned above). In Paraguay, Hayes *et al.* (1994) called it a 'rare migrant' to the Oriente, and Smith & Easley (2019) considered the species an 'uncommon winter visitor'. Farnsworth & Langham (2020) referred to it as an 'austral migrant', stating that populations breeding in the south migrate north as far as south-central Brazil during the austral winter. Despite this, Blue-billed Black Tyrant was not included in the review



Figure 3. Female Blue-billed Black Tyrant *Knipolegus cyanirostris*, Nerópolis, Goiás, August 2021 (Estevão F. Santos)

by Somenzari *et al.* (2018), but Schunck *et al.* (2023) listed it in their study of elevational migration in Brazil.

An adult female was photographed by EFS & BR at a semideciduous forest edge near Nerópolis, Goiás (16°25'S, 49°09'W; 860 m) on 2 August 2021 (Fig. 3). The bird was initially detected after playback of Ferruginous Pygmy Owl *Glaucidium brasilianum*, when it approached with a large flock of passerines. This is the second record for Goiás, extending its range north-west by c.230 km (from Catalão) and c.180 km west (from Planaltina, Distrito Federal). Interestingly, another female was seen in August 2022, in the nearby Parque Estadual Altamiro de Moura Pacheco, Goianápolis, foraging in similar habitat (G. Moraes; WA4954568).

CHILEAN SWALLOW *Tachycineta leucopyga*

This swallow has one of the southernmost distributions in the family, occupying a large area in southern South America (Ridgely & Tudor 2009, Marion 2020). Birds in the far south of the range migrate in winter to northern Argentina, Bolivia, southern Brazil, and Uruguay (Schulenberg *et al.* 1982, Somenzari *et al.* 2018, Marion 2020).

On the cold, windy morning of 21 August 2020, one was observed by JA in a degraded pasture at Campus Samambaia, Universidade Federal de Goiás (16°36'S, 49°17'W; 700 m), in the urban area of Goiânia (Fig. 4). The bird perched on a tall branch and regularly flew around with a large flock of Blue-and-white Swallow *Pygochelidon cyanoleuca*, White-rumped Swallow *Tachycineta leucorrhoa* and Southern Rough-winged Swallow *Stelgidopteryx*



Figure 4. Chilean Swallow *Tachycineta leucopyga*, Universidade Federal de Goiás, Goiânia, Goiás, August 2020 (Jayrson Araújo)

ruficollis. It was identified by the clear lack of white marks on the forehead and lores, and its overall deep blue upperparts lacking greenish tones, which characters were listed by Belton (1985) and Marion (2020) as diagnostic of the species.

This is the first record of *T. leucopyga* for Goiás and one of the northernmost in South America, being hundreds of kilometres north-east of its regular wintering area in Brazil; and even c.600 km north-west of another unusual record made on 22 August 2020 in south-west Minas Gerais (J. F. Pacheco; WA3942021). Climate data from the Instituto Nacional de Meteorologia (www.inmet.gov.br) indicate that the lowest mean temperatures in the municipality of Rio Grande, in Rio Grande do Sul state—which region accounts for with the largest number of records of the species in Brazil on WikiAves—were in July and August 2020, which possibly precipitated movements further north.

BLACK-BACKED GROSBEAK *Phaeothraupis aureoventris*

Fairly common in dry scrubby vegetation on east Andean slopes from Argentina north to Venezuela, in Brazil it is an uncommon winter migrant in the dry season (Sick 1997), previously known only from Mato Grosso and Mato Grosso do Sul, but recent records have expanded its range to the Cerrado of Goiás and São Paulo, and even the fringes of Amazonia (Serpa *et al.* 2014, Brewer & de Juana 2018).

On 2 May 2020, JA observed a female in scrubby forest edge at Campus Samambaia, Universidade Federal de Goiás (16°36'S, 49°17'W; 700 m), in urban Goiânia, Goiás (Fig. 5). The bird was seen leaving its roost in a non-native bamboo thicket early in the morning, before flying to an exposed branch atop a small tree.

This is the second record for Goiás, and possibly the north-easternmost in Brazil, extending the species' previous distributional limit by c.230 km north-east from Rio Verde, south-west Goiás. It is also one of the few records outside Mato Grosso and Mato Grosso do Sul, where it is regularly recorded during the austral winter. Further observations outside its usual winter range may occur in the future, as suggested by Serpa *et al.* (2014), mainly due to the increase in suitable open habitat with deforestation.



Figure 5. Black-backed Grosbeak *Pheucticus aureoventris*, Universidade Federal de Goiás, Goiânia, Goiás, May 2020 (Jayrson Araújo)

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