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Authors: Santos, Estevão Freitas, and Kuhlmann, Marcelo

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Rediscovery of the Blue-necked Tanager *Stilpnia cyanicollis albotibialis* in the Chapada dos Veadeiros, Goiás, Brazil

by *Estevão Freitas Santos & Marcelo Kuhlmann*

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SUMMARY.—We report a new record of the Blue-necked Tanager *Stilpnia cyanicollis albotibialis* in the Chapada dos Veadeiros, Brazil, which could represent its rediscovery after nearly 100 years without documented records. *S. c. albotibialis* was known only from its holotype, collected at the Chapada dos Veadeiros, in central Brazil, in December 1929 by José Blaser, and held at the Field Museum of Natural History, Chicago. We present behavioural data and comment on the biogeography of this subspecies, as no information concerning its ecology has been previously published.

Tanagers (Thraupidae) represent one of the most diversified group of Neotropical birds, showing a notable richness in morphological, behavioural and ecological traits. For example, the newly erected genus *Stilpnia* (Burns *et al.* 2016), which is broadly distributed in the Neotropics, comprises 14 species.

Blue-necked Tanager *Stilpnia cyanicollis* is polytypic, with seven subspecies generally recognised (Dickinson 2003), principally distributed in the Andean foothills, from north-west Venezuela to western Bolivia, but also in Brazil, across south-east Amazonia, from Mato Grosso to Goiás, Tocantins and southern Pará (Sick 1997, Dornas 2009, Santos *et al.* 2011, Kirwan *et al.* 2015, Andriola & Marcon 2017). Of the seven subspecies, two are locally distributed in the Amazon and Cerrado of central Brazil (*S. c. melanogaster* and *S. c. albotibialis*), the others in tropical forests of the Andean foothills (Marantz & Remsen 1994).

In Goiás state, central-west Brazil, both *S. c. melanogaster* and *S. c. albotibialis* occur. The former ranges east at least to the right bank of the Araguaia River in north-west Goiás, from where numerous recent records are available, for example, at wikiaves.com.br (e.g., G. Barros, WA2341765). This subspecies is locally common in the region, in tall riparian forest, semi-deciduous woodland, and *cerradão* (pers. obs.), a type of dry, low-stature woodland not associated with the presence of water and having a floristic composition similar to the adjacent savanna (Ribeiro & Walter 2008).

In contrast, *S. c. albotibialis* is known definitely only from the holotype, a female collected at 'Veadeiros' (Alto Paraíso de Goiás), on 9 December 1929 by José Blaser, held in the Field Museum of Natural History, Chicago (Storer 1970, Silva 1989, Lopes 2009, Kirwan *et al.* 2015). Blaser's excursion through the Veadeiros appears to have started in October 1929, as evidenced by a Spotted Nothura *Nothura maculosa major* (FMNH 408926) collected on 26 October 1929 at 'Veadeiros, near Cavalcanti'. The type locality of *S. c. albotibialis* lies between 1,000 and 1,200 m above sea level, this subspecies being restricted, until now, to the Chapada dos Veadeiros (Silva 1989). No information concerning its habitat, biology and natural history has been published. Here, we present the first documented record of Blue-necked Tanager for the Chapada dos Veadeiros, Brazil, which appears to represent the rediscovery of *S. c. albotibialis*, nearly 100 years after the holotype's collection.

New record: identification and natural history observations

On 16 December 2020, at c.07.30 h, we observed a single *S. cyanicollis* in a gallery forest of the rio São Miguel (1,035 m), at Fazenda Volta da Serra (14°10'S, 47°44'W), Alto Paraíso de Goiás, Brazil (Fig 1). According to our analysis *in situ* and the photographs we obtained (Figs. 2–4), the bird was identified as *S. c. albotibialis*, following the description of Traylor (1950) and photographs published by Kirwan *et al.* (2015), subsequently supplemented by the original images supplied by M. Hennen.

According to Traylor (1950) [*Stilpnia c. albotibialis*] differs from all other races in having the thighs and tibia white instead of black; in other characters it most nearly resembles *T. c. granadensis* [...], it differs strikingly from the nearest geographical race, *melanogaster*, of southern Matto Grosso in having a blue rather than a black belly and more purple on the throat'.

One of the diagnostic characteristics clearly visible in Fig. 2 is the purple throat, which is lacking in *S. c. melanogaster* (Fig. 4). Additionally, the bluish in the belly was visible when the bird preened on an exposed, high branch, as were the white marks at the base of both thighs during its third visit to a fruiting tree, when we observed it from below. The blue in the belly was much less visible in the shade than when the bird was sunlit. As Kirwan *et al.* (2015) mentioned, these two subspecies of Blue-necked Tanager are not easily separated given brief views in the forest shade. However, the diagnostic features were seen well in the field, and could be confirmed on our photographs, compared to those of the holotype (Fig. 5), and matching the description of Traylor (1950).

Our observation appears to be the first documented record of the subspecies since 1929. However, there is a single undocumented report from the 1980s by R. B. Cavalcanti (*in litt.* 2021) and the late E. O. Willis, in Chapada dos Veadeiros National Park, at the border of a narrow gallery forest. Cavalcanti noted the conspicuous blue head but, although Willis mentioned seeing the white marks on both tibia, they observed neither the purple on the throat nor the blue belly.

S. c. albotibialis is extremely poorly known (Kirwan *et al.* 2015) and nothing has been published concerning its natural history. *S. cyanicollis sensu lato* feeds on a variety of fruits, including Melastomataceae, e.g., *Miconia theaezans* (Camargo & Vargas 2006), *Miconia* sp. (Cañón *et al.* 2012), Primulaceae, e.g., *Myrsine coriacea* (Camargo & Vargas 2006), Araliaceae,

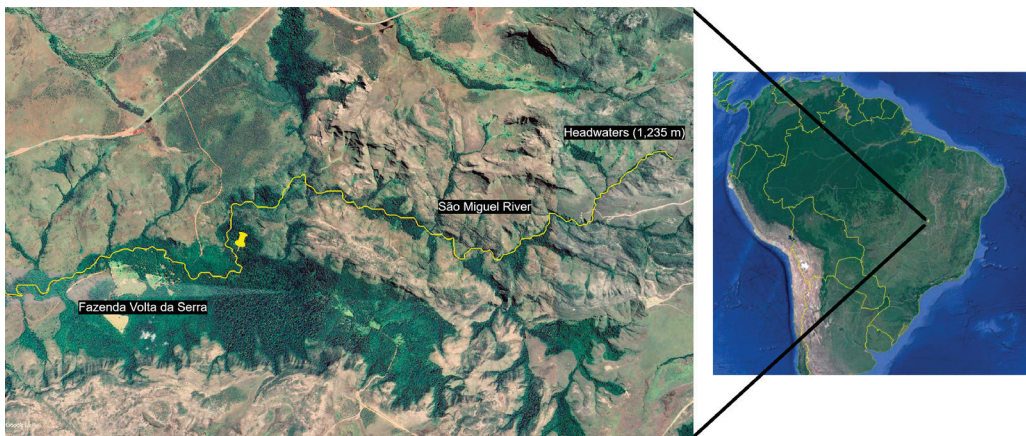


Figure 1. Map showing the rio São Miguel course (yellow line), the boundaries of the Fazenda Volta da Serra, and the area where we recorded *Stilpnia cyanicollis albotibialis* (yellow icon), Chapada dos Veadeiros, Goiás, Brazil (© Google Earth Pro)



Figure 2. Blue-necked Tanager *Stilpnia cyanicollis albotibialis*, rio São Miguel, Chapada dos Veadeiros, Goiás, Brazil, December 2020 (Marcelo Kuhlmann)



Figure 3. Blue-necked Tanager *Stilpnia cyanicollis albotibialis* consuming fruits of *Miconia minutiflora*, rio São Miguel, Goiás, Brazil, December 2020 (Marcelo Kuhlmann)



Figure 4. Blue-necked Tanager *Stilpnia cyanicollis melanogaster*, northern Mato Grosso, Brazil, showing the lack of purple on the throat (Estevão F. Santos)

e.g., *Schefflera morototoni* (Purificação *et al.* 2015) and Urticaceae, e.g., *Cecropia pachystachya* (E. F. Santos pers. obs.).

During the two hours we spent in the area, the bird was observed feeding on fruits of *Miconia minutiflora* (Melastomataceae), a small tree *c.*6 m tall with bluish-coloured fruits when ripe (Fig. 6), on the bank of the rio São Miguel. The individual spent *c.*2–3 minutes in the treetop, where there were a greater number of mature fruits, during its first visit. Nevertheless, it was also seen to take immature (green) fruits, but in smaller quantities (Fig. 3). Then, it flew into the gallery forest but, after *c.*10–15 minutes, returned to feed twice more. Over the three visits, it consumed at least 34 fruits, each of which was briefly mashed before being swallowed. While foraging, it vocalised persistently, giving short, wheezing notes (*tché! tché!*) like the alarm calls of *S. c. melanogaster*.

During our observations, 24 species of birds (including eight tanagers) were seen feeding on fruits of *Miconia minutiflora*; sometimes more than six species fed simultaneously in different parts of the same tree. The *S. c. albotibialis* tended to visit the fruiting tree only in the absence of other birds, and for short periods. It was briefly also observed in the adjacent subcanopy by the river following a mixed flock of tanagers including Hooded Tanager *Nemosia pileata*, Burnished-buff Tanager *Stilpnia cayana*, Black-goggled Tanager *Trichothraupis melanops*, Guira Tanager *Hemithraupis guira*, Blue Dacnis *Dacnis cayana* and Green-winged Saltator *Saltator similis*.

Habitat and biogeography

The headwaters of the rio São Miguel lie at 1,200–1,250 m above sea level, *c.*14 km west of Alto Paraíso de Goiás. The river drains west and gradually descends via a deep valley, reaching 950–1,000 m in the ‘Vale da Lua’ downstream. Between these two localities



Figure 5. Holotype of *Tangara cyanicollis albotibialis* (FMNH 75034) collected by José Blaser at Veadeiros, December 1929, in the Field Museum of Natural History, Chicago (Mary Hennen / Field Museum of Natural History)

lies Fazenda Volta da Serra, where we recorded the tanager. This valley is almost entirely dominated by a tall, semi-deciduous forest of c.450 ha, making it one of the largest forested areas in the Chapada dos Veadeiros (L. Jurgeaitis *in litt.* 2020).

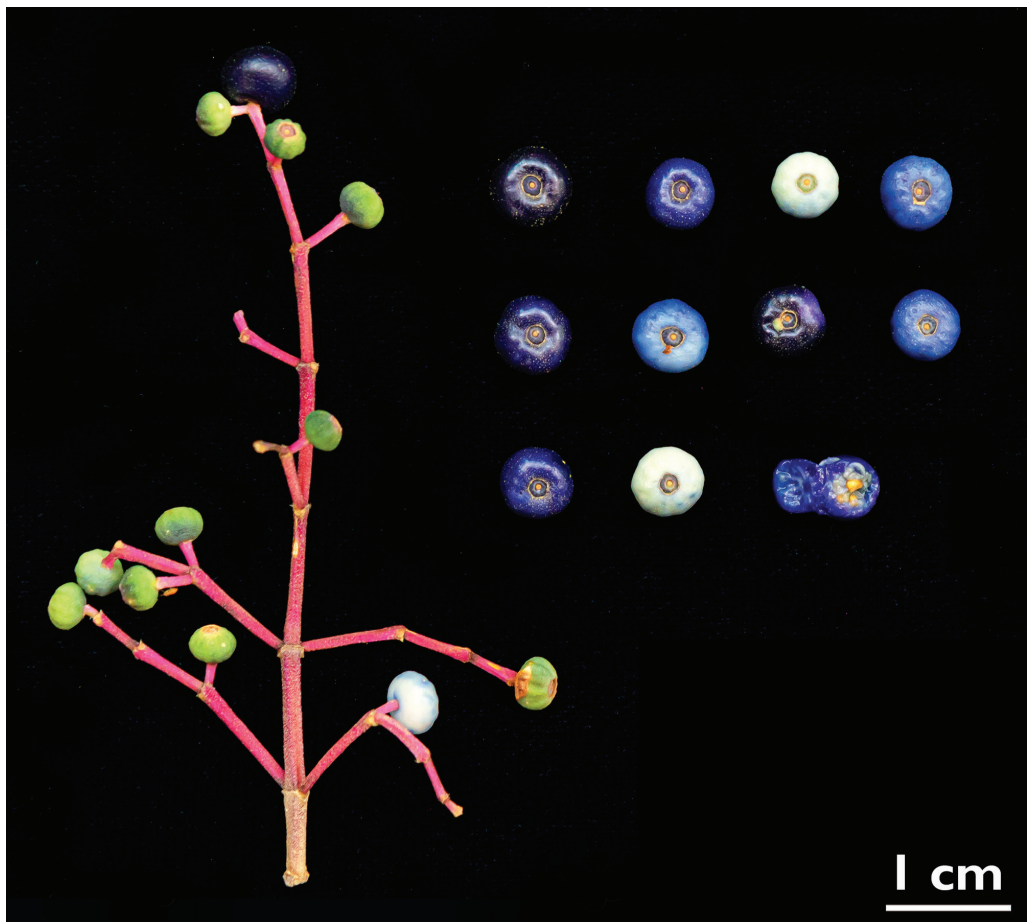


Figure 6. Mature fruits of *Miconia minutiflora* consumed by Blue-necked Tanager *Tangara cyanicollis albotibialis* (Marcelo Kuhlmann)

This forested area, associated with more fertile soils along the rio São Miguel and the adjacent slopes, holds a significant number of other Atlantic Forest taxa (e.g., Lesser Woodcreeper *Xiphorhynchus f. fuscus*, Rufous-breasted Leaf-tosser *Sclerurus scansor*, White-eyed Foliage-gleaner *Automolus leucophthalmus*, Greenish Schiffornis *Schiffornis virescens*), also recorded during our visit. Another example of an Atlantic Forest taxon occurring along the São Miguel is Red-breasted Toucan *Ramphastos dicolorus*, of which nine specimens were obtained by Blaser in January–March 1930, and labelled ‘Rio São Miguel’ (FMNH 75188–197). Other Atlantic Forest species known from the Chapada dos Veadeiros include Chestnut-headed Tanager *Thlypopsis pyrrhocomma* and Grey-hooded Flycatcher *Mionectes rufiventris*, but these taxa seem to occur only in more humid gallery forests around the headwaters of smaller drainages atop the highest plateaux (<1,250 m), not in the valleys and peripheral depressions of, among others, the rio São Miguel (Santos in prep.).

The presence of *S. cyanicollis*, and other Amazonian elements such as Agami Heron *Agamia agami* and Sunbittern *Eurypyga helias* in the São Miguel basin reinforces it as a zone of interchange between regions dominated by Atlantic and Amazonian avifaunal elements (Silva 1996). The relatively large number of Atlantic Forest species can be explained by a suite of factors, including distributional pathways that follow the high drainage of the rio

Tocantins (Santos in prep.), in addition to regular dips in temperature, the region's high elevations and topography, which overall favour the occurrence of such taxa (Silva 1989, Willis 1992, Silva 1996).

Although Blaser did not specify the precise locality where he collected the type of *S. c. albotibialis*, labelling it only 'Veadeiros'—the historical name for the municipality of Alto Paraíso de Goiás—we can speculate that it was collected somewhere near to or in the São Miguel basin, given that he seems to have followed the river's course. Blaser also collected birds at Fazenda Volta da Serra, where we recorded *S. c. albotibialis*, as evidenced by specimens labelled 'Volta da Serra' on 1 January 1930 (e.g., White-naped Jay *Cyanocorax cyanopogon*, FMNH 75011–012). Thereafter, many of his specimens were labelled 'Rio São Miguel', e.g., a *Saltator similis* from 2 January (FMNH 75055).

Conclusions

The probable proximity of the area where Blaser obtained the type of *S. c. albotibialis* to our observations suggests that this tanager is closely tied to forests around Alto Paraíso de Goiás, notably those along high drainages, which occupy a minor fraction of the overall landscape vs. the large area of *cerrado* and grassland.

This could potentially indicate why this subspecies went unseen for so long, despite much field work in the region. As an example, M. Bagno made several visits while compiling an avian inventory at Fazenda Volta da Serra, but did not detect this subspecies (L. Jurgeaitis *in litt.* 2020), and Lopes (2009) mentioned conducting an unsuccessful one-day search of the type locality of *S. c. albotibialis*. Moreover, Chapada dos Veadeiros is regularly visited by birdwatchers who to date have not found the species in the region (e.g., www.ebird.org, www.wikiaves.com.br). Despite this, the Chapada as a whole appears to be only patchily explored by ornithologists, with particular emphasis on the much larger open habitats, whereas forests, often in more remote areas, are only sporadically surveyed.

To date, *S. c. albotibialis* has not been found in areas surrounding the Chapada dos Veadeiros, e.g., in southernmost Tocantins, where detailed field work has been conducted in the last two decades (Pacheco & Olmos 2006, Rego *et al.* 2011, Dornas & Crozariol 2012; T. Dornas *in litt.* 2020). The closest record of *S. cyanicollis sensu lato* to ours, and apparently the only one south-east of Palmas, TO, is represented by a photo taken at São Valério (T. Dornas, WA 3547964), on the right bank of the rio Tocantins, c.250 km to the north. This individual resembles *S. c. melanogaster*, due to, among other traits, the uniformly blue throat. Thereafter, additional records, also matching the *melanogaster* phenotype, only begin to appear in the environs of Palmas and in north-west Tocantins. The rather 'insular' population of *S. c. albotibialis* in north-east Goiás needs to be further investigated, especially taxonomically.

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- Addresses:* Estevão Freitas Santos, Rua C-200, Q 482, bloco 6, Goiânia, GO, CP 74270-170, Brazil, e-mail: estevaobirding19@gmail.com. Marcelo Kuhlmann, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, SCN Q 1 C, Sala 1501, Brasília, DF, CP 70711-902, Brazil, e-mail: biomakp@gmail.com