



# Documented observation of the White-bellied Hummingbird, *Amazilia chionogaster* (Tschudi, 1845), in Brazil and the first record for Rondônia state

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## Abstract

We report here a documented record of the White-bellied Hummingbird *Amazilia chionogaster* Tschudi, 1845 for Corumbiara, Rondônia state, western Brazil. This is the fourth locality where this species had been recorded with physical evidence in Brazil. The site of our record is more than 600 km east of the Andean sites where *A. chionogaster* has been previously recorded. Our record of *A. chionogaster* is the first from Rondônia state. This study suggests that this species has an extensive range in South America.

## Keywords

Apodiformes, bird, geographic distribution, Neotropics, range expansion, Trochilidae.

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## Introduction

Eighteen species of hummingbirds of the genus *Amazilia* occur in South America (Remsen et al. 2018). Their upperparts, heads, and breast sides are usually bright green, while their underparts are extensively white or green. Their tails are usually short and slightly forked, and their bills are slightly curved (Del Hoyo et al. 1999; Mata et al. 2006). Of these, eight species have been recorded in Brazil: *A. chionogaster* (Tschudi, 1845), *A. leucogaster* (Gmelin, 1788), *A. versicolor* (Vieillot, 1818), *A. rondoniae* (Vieillot, 1818), *A. brevirostris* (Lesson, 1829), *A. fimbriata* (Gmelin, 1788), *A. lactea* (Lesson, 1829), and *A. viridigaster* (Bourcier, 1843) (Piacentini et al. 2015).

The White-bellied Hummingbird, *A. chionogaster*, is known to occur mainly along a continuous and narrow range in the Andes, including areas in Peru, Bolivia, and Argentina (Mata et al. 2006; Schulenberg 2018). Its range extends eastward to western Brazil, with existing records at Cáceres and Vila Bela de Santíssima Trindade, both in Mato Grosso state (Stotz et al. 1996; Sick 1997; Sigrist 2007).

At Vila Bela de Santíssima Trindade, three individuals of *A. chionogaster* were collected by J. Natterer during the 1820s, but the species has not been recorded since (Pelzeln 1871; Silveira and D’Horta 2002). The records in Cáceres refer to two birds collected by A. Ruschi in 1955 (Ruschi 1955; Lopes et al. 2016). With just these records, *A. chionogaster* has been recorded in Brazil

only within the Cerrado biome. Here we report the first record of *A. chionogaster* for the Rondônia state, western Brazil.

## Methods

This study was based on fieldwork, literature review, and a search in a Brazilian online database (WikiAves 2019). Our record was made in Corumbiara (Fig. 1) during a one-day visit that lasted 9 hours on 4 June 2016. During the visit, one of us (LGAM) searched the area covering the edge of a gallery forest adjacent to an exotic pasture by the Corumbiara river, using a Canon 12 × 36 binoculars for observations.

## Results

**New record.** Brazil: Rondônia state • Corumbiara (13° 03'29"S, 060°54'26"W, 226 m above sea level), Luiz Gonzaga Alves Mendonça, 4 June 2016 at 07:30 h.

The native cover of this landscape is dominated by “terra firme” forest, while gallery forests occur along rivers. A single individual was observed and photographed while foraging on flowers of at least four unidentified shrub species, about 150 cm above the ground along a forest edge (Fig. 2).

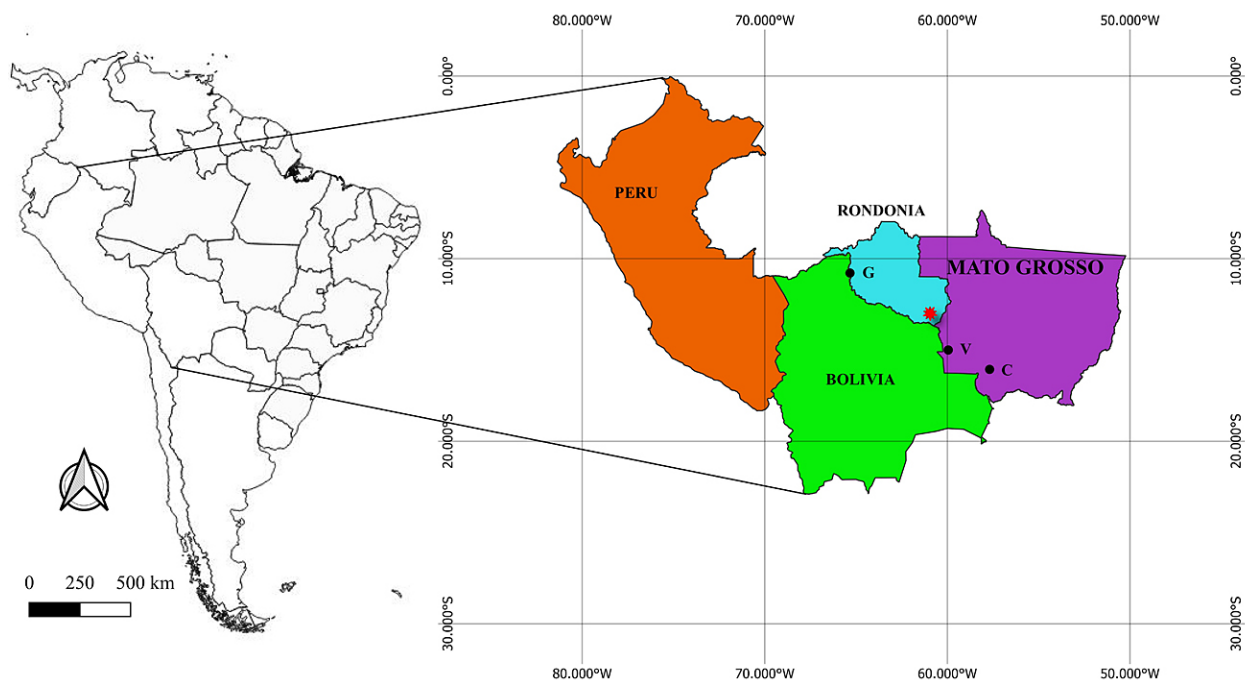
**Identification.** Diagnostic characteristics are white underparts, pale bronzy green upperparts, and a white patch behind the eye (Mata et al. 2006; Fig. 2). *Amazilia chionogaster* differs from *A. viridicauda*, which has brilliant green upperparts and from *A. versicolor* whose sides of underparts are bronzy green and upper tail coverts and tail are brownish bronzy olive. Other

*Amazilia* species whose distributional ranges lie close to Corumbiara have quite distinct plumages. *Taphrospilus hypostictus* (Gould, 1862) has greenish underparts (Del Hoyo et al. 1999; Mata et al. 2006).

## Discussion

Our observation of *A. chionogaster* at a forest edge is in agreement with the habitats where this species is known to occur (e.g. Stotz et al. 1996; Del Hoyo et al. 1999; Mata et al. 2006; IUCN 2016). The altitude where our record occurred is comparable with records at Guajará-Mirim (128 m), Vila Bela de Santíssima Trindade (198 m), and Cáceres (125 m). Thus, elevations of sites where *A. chionogaster* was found in Brazil range between 125 and 226 m. This range is comparable with altitudes varying between 180 and 250 m in San Matias, a Bolivian region near Mato Grosso. The San Matias region is marked by landscapes typical of the Cerrado and the Pantanal wetland, where *A. chionogaster* has been collected during the 1960s (Ruschi 1967b). However, these elevations are much lower than Andean sites, at 2,800 m, where this species also occurs (Stotz et al. 1996).

These altitudinal differences between Brazilian/Bolivian and Andean occurrences of *A. chionogaster* suggest that it might be an altitudinal migrant. Records in Amazonia (Corumbiara and Guajará-Mirim) were made in June, and those for the Cerrado (Vila Bela de Santíssima Trindade, Cáceres, and San Matias) in July. Thus, it is likely that individuals of *A. chionogaster* leave the Andes, heading east, and reach Amazonia and the Cerrado in the winter. This supposed migration by some individuals would avoid cold temperatures at high altitudes in the Andes during the winter for the warmer



**Figure 1.** Location of our record of the White-bellied Hummingbird, *Amazilia chionogaster*, in Corumbiara (red point), and the other three sites where it was recorded in Brazil: Cáceres (C), Guajará-Mirim (G) and Vila Bela de Santíssima Trindade (V).



**Figure 2.** White-bellied Hummingbird, *Amazilia chionogaster*, recorded in Corumbiara, Rondônia state, Brazil, in June 2016. Photograph by Luiz G. A. Mendonça.

climates of the Brazilian and Bolivian lowlands. As altitudinal and long-distance migrations are common among hummingbirds (Ruschi 1967a; Faaborg et al. 2010; Barçante et al. 2017), this probable migration by *A. chionogaster* deserves attention.

Our record in Corumbiara is about the midpoint of the distribution of *A. chionogaster* in Brazil, when a recent record at Guajará-Mirim (10°47'S, 065°19'W, Rodrigo S. Matos, 8 June 2019 (WA3380325; WikiAves 2019) is also considered (Fig 1). Our record in Rondonia considerably expands the known geographic distribution of Andean populations eastwards; Corumbiara is about 600 km from the closest records of *A. chionogaster* in the Andes, such as at Santa Cruz de La Sierra in Bolivia (Schulenberg 2018). More impressive are distances between Guajará-Mirim and Cusco (800 km) and La Paz (700 km). We suspect that *A. chionogaster* might occur throughout a very extensive area in southwestern Amazonia and adjacent ecosystems in western South America.

In summary, our study site is one of the four localities of Brazil where *A. chionogaster* has been recorded with physical evidence. Our new record is the first from Rondonia state. As Guajará-Mirim and Cáceres are separated by about 1,000 km, the geographic distribution of *A. chionogaster* in Brazil is very extensive.

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## Authors' Contributions

LGAM made all observations in the field, photographed and identified the specimen. LGAM, DPT and IKCV wrote the manuscript. IKCV produced the map.

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