



Azara's spinetails II: what is No. 239 “Cola aguda cola sanguina”?

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Abstract

The identity of Azara's No. 239 “Cola aguda cola sanguina” has never been convincingly elucidated and the only previous proposed identity as Plain-crowned Spinetail *Synallaxis gujanensis* is demonstrably incorrect. Azara provides a brief and imperfect, but diagnostic description of a bird which is clearly in the genus *Synallaxis*, of which eight species occur in Paraguay. The description of the crown being concolorous with the upperparts, the wing and tail pattern, and the measurements provided are sufficient to eliminate all species as candidates except the Grey-bellied Spinetail *Synallaxis cinerascens*, a common bird of Paraguayan Atlantic forests in the Oriental region of the country. To my knowledge, no scientific names have been proposed on the basis of this description.

Keywords Furnariidae · Grey-bellied spinetail · Paraguay · *Synallaxis cinerascens*

Félix de Azara (1742–1821) was a Spanish naturalist working in Paraguay and the La Plata basin, and was one of the first serious students of the South American avifauna (Beddall 1983). His three tomes on the birds of Paraguay and the River Plate basin “Apuntamientos para la historia natural de los pájaros del Paraguay y Río de la Plata” (Azara 1805) included 448 species, of which over half were new to science. Azara did not apply scientific names to his descriptions, instead giving his species vernacular names only—many of which were monotonously descriptive, but some of which introduced the local names of the Guaraní indigenous people to a wider audience. A thorough biographical account of his life and work was produced by Contreras (2010).

The unpublished Spanish original work of Azara was translated into French by Sonnini (Azara 1809), and Louis Jean-Pierre Vieillot was quick to attach scientific names to many of the contained descriptions, despite having never seen the birds in life. However, to date, not all of Azara's descriptions have been conclusively associated with known species, and a series of authors have attempted to reidentify these descriptions and

apply them to known taxa (Sonnini in Azara 1809; Hartlaub 1847; Berlepsch 1887; Bertoni 1901; Laubmann 1939; Pereyra 1945; Smith 2017, 2018a, b, c, d, 2020a, b; Smith et al. 2018).

No. 239 “Cola aguda cola sanguina” is one of the descriptions that has never been satisfactorily associated with any known species. The original description is produced below with original punctuation and my own translation follows it, including a conversion of the measurements into modern units (unit conversion: 1 in. = 25.4 mm; 1 line = 2.21 mm).

“No he visto sino el presente, que compré a los Bárbaros por agosto en el Paraguay; y no acordándome de él le pongo aquí en depósito, ignorando si estaría mejor en otra parte.

Longitud 5 ¼ pulgadas: cola 2 ¼: braza 6. Sobre la cabeza hasta la cola es pardo acanelado, con abundancia de plumas suaves y descompuestos en el lomo. Las cobijas de los trozos internos acanelados, como la barba superior de los remos; y la cola de canela sanguina. El costado de la cabeza, lo inferior y costados del pájaro, de un pardo, que blanquea mas en la tira que vá de la horqueta á la cola. Las tapadas y borda inferior de los remos blanquizcas acaneladas, y el iris insensible.

Remos 19, el primero bastante corto, el cuarto mayor: cola 10 plumas, la de afuera 18, la siguiente 9, y la tercera 3, y la primera 1, todas líneas mas cortas que la central, y con los mástiles oscuros: pierna 14: tarso

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10, verde aplomado: dedo mayor 7: pico 4 ½, recto, obscuro, fuerte y bastante comprimido por los costados. Mi Autor (Tomo IX, pág. 271) describe le Rouge queue de Cayena diciendo, que tiene los remos del mismo acanelado que la cola; y que el lomo es gris y el vientre blanco. Estos colores acomodan bastante al mio. La estampa 686, fig 2(2) le tiñe de pardo sin canela sobre la cabeza hasta la cola, remos y todas las cobijas, dándole cola igual; siendo lo demas y la estatura idénticos; de modo que para mí es fundada la identidad”.

My translation:

“I have seen no others except this one, which I bought from the indigenous of Paraguay in August; and having overlooked it, I put it here, unaware if it would be better placed somewhere else.

Length 133.4 mm: tail 57.2 mm: wingspan 152.4 mm. Top of the head to the tail brown, with an abundance of soft and disordered feathers on the mantle. The inner wing coverts cinnamon, like the upper webs of the flight feathers; and the tail bloody-cinnamon. The side of the head, underside and sides of the bird are grey, becoming paler towards the midline. The underwing coverts and inner webs of the flight feathers pale cinnamon, and the iris brown.

Flight feathers 19, the first very short, the fourth longest: tail 10 feathers, the outer 39.8 mm, the next 19.9 mm, the third 6.63 mm, and the first 2.21 mm, all measurements shorter than the central pair, and with the shafts dark: leg 30.9 mm: tarsus 22.1 mm, greyish-green: longest toe 15.5 mm: bill 9.9 mm, straight, dark, strong and rather compressed at the sides.

My Author (Tome IX, page 271) describes le Rouge queue from Cayenne stating, that it has the flight feathers the same cinnamon-colour as the tail; and that the mantle is grey and the ventrum white. These colours approach mine well enough. The plate 686, figure 2(2) paints the crown to the tail as greyish, without brown, the flight feathers, the coverts and the tail are coloured the same; with the rest and the structure identical; in my opinion its identity is confirmed”.

All subsequent authors appear to have taken Azara’s word for the fact that his “Cola aguda cola sanguina” is identical to Buffon’s (1783) “Rouge queue de la Guiane” (Sonnini in Azara 1809; Hartlaub 1847; Berlepsch 1887; Bertoni 1901; Laubmann 1939; Pereyra 1945). However, there are obvious inconsistencies in the description when considering such a phenotypically conservative group as the Furnariidae, and the unlikelihood of a species from the Guyanas also being present in distant Paraguay is also overlooked. The “Rouge

queue” is figured in a plate by Daubenton (where it is referred to as “Le Rouge queue de Cayenne”) and is the basis of the name *Motacilla gujanensis* Gmelin, 1789, the species known today as Plain-crowned Spinetail *Synallaxis gujanensis*.

However, there are difficulties with this identification. Leaving aside the fact that the splitting of White-lored Spinetail *S. albilora* of Paraguay from *S. gujanensis* by Vaurie (1980) means that the “Rouge queue” cannot be the same bird as Azara’s, there are considerable differences between the written description and the illustration that even Azara himself seems to have brushed over in stating that “Estos colores acomodan bastante al mio” (“These colours approach mine well enough”). At this point, context becomes important in terms of understanding both that the true diversity of global bird life was greatly underestimated in the time of Azara and that the artwork in Buffon is inadequate for consistently and confidently identifying species as morphologically conservative as are the Furnariidae. It is thus perhaps unsurprising that Azara might exaggerate the similarity between his bird and the illustration if the image is “close enough”.

Reading the description in a modern context, it is quite clear that Azara’s No. 239 “Cola aguda cola sanguina” is significantly different to the illustration of the “Rouge queue”, regardless of the identity of that species. Significant differences include the following: (1) the wings being uniformly rufous, not just on the inner coverts and upper shafts of the flight feathers. (2) Tail concolorous with the wings, lacking dark feather shafts and with all feathers of equal length. (3) Buffon describes the upperparts as grey, Azara as brown. (4) Buffon describes the underparts as whitish (the illustration showing signs of mottling) whilst Azara describes them as grey, paling towards the midline. (5) The legs are not greenish. (6) In his brief text, Buffon surmises that the habits of the “Rouge queue” are similar to those of the European redstart (a conclusion that might seem improbable if the bird were in fact a spinetail).

Even where it to be supposed that the identification as *S. gujanensis* could also be “split” and transferred to the Paraguayan populations of *S. albilora*, additional difficulties are encountered. *Synallaxis albilora* is a species associated with the Pantanal and marginally into the Humid Chaco ecoregions of Paraguay, in Alto Paraguay, Presidente Hayes, and Concepción departments (Guyra Paraguay 2005). At the time of Azara, these areas were remote, largely impenetrable, virtually unexplored, and geographically distant from where he was based, making it improbable that the “Bárbaros”, with no knowledge of specimen preparation, could have brought the bird from these areas (a fact reinforced by a distinct lack of other common and characteristic birds of these regions being represented in Azara’s works). Furthermore, the underparts of *S. albilora* are much brighter than those of *S. gujanensis* being

Table 1 Table of comparative measurements between Azara’s No. 239 “Cola aguda cola sanguina” and Paraguayan species in the genus *Synallaxis*. Measurements (in mm) taken from live specimens by the author or referenced to source

	Total length (this study, unless stated)	Tail (Vaurie 1980)	Bill (this study, unless stated)	Tarsus (this study, unless stated)	Rectrices (Vaurie 1980)
Az.239	133.5	57.2	9.9	22.1	10
<i>S. cinerascens</i>	131–143 (<i>n</i> = 18)	63.89 (57–74)	8–12 (<i>n</i> = 17)	19–24 (<i>n</i> = 18)	10
<i>S. ruficapilla</i>	129–153 (<i>n</i> = 12)	76.12 (67–84)	10–13 (<i>n</i> = 12)	19.5–24.5 (<i>n</i> = 12)	8
<i>S. frontalis</i>	142–157 (<i>n</i> = 6)	78.12 (68–86)	11–13 (<i>n</i> = 6)	21–25 (<i>n</i> = 6)	10
<i>S. albescens</i>	146–159 (<i>n</i> = 3)	74.9 (60–85)	10–11 (<i>n</i> = 3)	18–20 (<i>n</i> = 3)	10
<i>S. spixi</i>	150 (<i>n</i> = 1)	87.92 (79–95)	10 (<i>n</i> = 1)	21 (<i>n</i> = 1)	10
<i>S. hypospodia</i>	150–160 (Remsen 2003)	71.5 (63–78)	12.5–13 (<i>n</i> = 6) (Cory & Hellmayr 1925)	NA	10
<i>S. albilora</i>	150–160 (Remsen 2003)	72.44 (66–79)	12.8 (<i>n</i> = 1) (Wetmore 1926)	21.3 (<i>n</i> = 1) (Wetmore 1926)	10
<i>S. scutata</i>	130–140 (Remsen 2003)	65.11 (59–70)	11–13 (<i>n</i> = 13) (Cory & Hellmayr 1925)	NA	10

“orange to buffy orange” (Vaurie 1980) and contrasting strongly with the white throat, whilst the upperparts show a clear contrast between a duller olive-brown crown that contrasts with a “very strongly rufous” back (Vaurie 1980). Again, this is quite clearly inconsistent with the description of No. 239 “Cola aguda cola sanguina” and the illustration of the “Rouge queue de la Guiana”. Note also that *S. albilora* is a significantly larger bird than that suggested by Azara’s measurements (Table 1).

Nonetheless, the dimensions provided and the description provided by Azara are clear enough to say with certainty that “Cola aguda cola sanguina” is a member of the genus *Synallaxis*, of which eight species are present in Paraguay: Rufous-capped Spinetail *Synallaxis ruficapilla*, Sooty-fronted Spinetail *S. frontalis*, Pale-breasted Spinetail *S. albescens*, Spix’s Spinetail *S. spixi*, Cinereous-breasted Spinetail *S. hypospodia*, Grey-bellied Spinetail *S. cinerascens*, White-lored spinetail *S. albilora*, and Ochre-cheeked Spinetail *S. scutata*.

By a process of elimination, all of these species can be removed from consideration except for one (Grey-bellied Spinetail *S. cinerascens*: Figs. 1 and 2), based on the following combination of characteristics (species excluded in parentheses): (1) 10 rectrices (*S. ruficapilla*); (2) crown concolorous with mantle (*S. ruficapilla*, *S. frontalis*, *S. albescens*, *S. spixi*, *S. hypospodia*, *S. albilora*); (3) inner wing coverts and flight feathers cinnamon (*S. frontalis*, *S. albescens*, *S. spixi*); (4) no mention of superciliary stripe or facial pattern (*S. ruficapilla*, *S. albilora*, *S. scutata*).

Comparative measurements for all these species are provided in Table 1 (based largely on my own field data from Paraguayan birds, supplemented where noted from the literature). From this, and in combination with the description, it is clear that the bird in question can only be Grey-bellied Spinetail *S. cinerascens*, a common but inconspicuous inhabitant of interior humid and semi-humid forest undergrowth in the Oriental region of Paraguay.

**Fig. 1** Grey-bellied Spinetail *Synallaxis cinerascens*, Hotel El Tirol, Itapúa department, Paraguay, 13 June 2005 (photo: Paul Smith)**Fig. 2** Grey-bellied Spinetail *Synallaxis cinerascens*, upperside. Hotel El Tirol, Itapúa department, Paraguay, 13 June 2005 (photo: Paul Smith)

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Compliance with ethical standards

Conflict of interest The author declares that he has no conflict of interest.

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