

THE WILSON BULLETIN
A QUARTERLY MAGAZINE OF ORNITHOLOGY
Published by the Wilson Ornithological Society

VOL. 100, NO. 4

DECEMBER 1988

PAGES 529-751

Wilson Bull., 100(4), 1988, pp. 529-534

PHYLLOSCARTES LANYONI, A NEW SPECIES OF
BRISTLE-TYRANT (TYRANNIDAE) FROM THE
LOWER CAUCA VALLEY OF COLOMBIA

GARY R. GRAVES¹

ABSTRACT.—A new species of bristle-tyrant, *Phylloscartes lanyoni*, from the lower Cauca Valley of Colombia is described. *P. lanyoni* is morphologically similar to the small Andean bristle-tyrants formerly placed in the genus *Pogonotriccus* (*venezuelanus*, *orbitalis*, *gualaquizae*) and may be a trans-Andean allospecies of *P. orbitalis*. Received 17 Nov. 1986, accepted 11 Feb. 1987.

From 1941 to 1952, the National Museum of Natural History (USNM) obtained 23,258 skins, 478 skeletons and alcohol-preserved specimens, and 44 nests and eggs of Colombian birds from Melbourne A. Carriker, Jr. (Appendix 1). Although little publicized, this collection, which is still under systematic study, has proved to be one of the most significant from that country. Several new species were described from this material by Alexander Wetmore (e.g., *Crypturellus saltuarius*, *Coeligena orina*, *Mettallura iracunda*). Here I describe a new species of bristle-tyrant from the foothills of the Central Cordillera above the lower Cauca Valley in northern Colombia.

Phylloscartes lanyoni, sp. nov.

ANTIOQUIA BRISTLE-TYRANT

HOLOTYPE.—National Museum of Natural History, USNM 402716; adult male from El Pescado, 12 km below Pto. Valdivia on the Río Cauca, ca 1500-1700 ft [457-518 m],

¹ Dept. Vertebrate Zoology, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560.



Antioquia Bristle-tyrant (*Phylloscartes lanyoni* sp. nov., upper left), and its two sister species, Venezuelan Bristle-tyrant (*P. venezuelanus*, upper right) of coastal Venezuela and Spectacled Bristle-tyrant (*P. orbitalis*, lower) of the eastern Andean foothills south of Colombia. Watercolor by John W. Fitzpatrick.

TABLE 1
 MEANS AND RANGES (MM) OF SELECTED MEASUREMENTS OF *PHYLLOSCARTES LANYONI*, *P. ORBITALIS*, *P. GUALAQUIZAE*, AND *P. VENEZUELANUS*

Species	N	Wing	Tail	Character		
				Tarsus	Culmen	Bill width
<i>lanyoni</i>	1 (type) ♂	56.6	48.9 ^a	13.7	6.4	3.5
	1 (USNM 402715) ♀	50.4	42.2	12.8	5.4 ^b	3.4
<i>orbitalis</i>	15 ♂	54.0 (51.8–59.1)	45.2 (43.2–47.5)	13.6 (12.5–15.0)	6.8 (6.4–7.2)	3.3 (3.0–3.6)
	9 ♀	50.4 (46.9–54.5)	40.4 (38.2–45.9)	13.0 (12.4–14.1)	6.6 (6.1–7.2)	3.3 (3.1–3.4)
<i>gualaquizae</i>	3 ♂	51.9 (50.2–53.8)	47.3 (45.8–48.5)	13.9 (13.5–14.3)	6.6 (6.1–7.0)	3.3 (3.2–3.4)
	2 ♀	(45.1–47.3)	(41.8–42.4)	(12.5–12.8)	6.0	(3.1–3.7)
<i>venezuelanus</i>	3 ♂	51.4 (47.7–53.7)	46.2 (42.2–48.7)	13.4 (13.1–13.5)	6.7 (6.1–7.4)	3.1 (2.8–3.3)
	1 ♀	49.5	44.9	12.7	6.3	—

^a Significant difference (two-tailed *t*-test) between *lanyoni* and *orbitalis* at $P < 0.05$.

^b Significant difference (two-tailed *t*-test) between *lanyoni* and *orbitalis* at $P < 0.01$.

^c Sample of *P. orbitalis* includes specimens from Ecuador, Peru, and Bolivia.

Department of Antioquia, Colombia; collected 15 May 1948 by M. A. Carriker, Jr.; original number 13482.

DIAGNOSIS.—Distinguished as a *Phylloscartes* (*Pogonotriccus*) by small size, contrasting auriculars, two well-developed wing bars, greenish back, small thin bill, and by lacking a crown patch. *P. lanyoni* is most similar to *P. orbitalis* but differs as follows: (1) *lanyoni* has much yellower breast, belly, undertail coverts, and wing bars; (2) yellow outer margins of middle and greater wing coverts more extensive; (3) incomplete eyering as opposed to a complete eyering; (4) whitish instead of yellowish feathers above bill; and (5) a greenish-gray crown blending into the greenish back, rather than a clear gray crown contrasting with the back (see frontispiece). Differs from *P. ophthalmicus* in being smaller and lacking distinct black auricular spot and grizzled throat; from *P. gualaquizae* and *P. venezuelanus* in having much yellower plumage throughout and lacking a well-developed black auricular patch; and from *P. poecilotis* and *P. flaviventris*, in lacking ochraceous wing bars and rufous lores, respectively.

DESCRIPTION OF HOLOTYPE.—All color comparisons were made under Examolites® (Macbeth Corp.). Crown neutral gray suffused with greenish and blending posteriorly with bright olivaceous green back. Back and rump bright olivaceous green. Upper tail coverts bright olivaceous yellow. Wings and tail dark brownish gray; remiges and primaries and outer secondaries edged on outer webs with bright olivaceous green. Outer web of inner secondaries, especially innermost, with broader pale olivaceous yellow margins. Outer webs of middle and greater wing coverts edged with bright yellow bar. Lesser wing coverts bright olivaceous green tipped with dull yellow. Feathers above nostrils and lores to the anterior margin of the eyering grizzled gray and white. A few scattered grizzled feathers around the orbits form a faint incomplete eyering and trailing superciliary. Auriculars yellow with light gray tips which form a faint gray "auricular spot." Chin, throat, breast, abdomen, flanks, and undertail coverts bright yellow, palest on chin and becoming more intense caudally, approaching Strontian Yellow (capitalized color name from Ridgway 1912) on abdomen. Soft part colors in dried specimen: upper mandible brownish black; lower mandible pale, horn-colored (probably flesh-colored in life), with a dusky tip; feet and tarsi dark brown.

MEASUREMENTS.—See Table 1.

DISTRIBUTION.—Known only from the type locality. May occur in the foothills at the northern ends of the Central and Western Cordillera in the drainage of the Río Cauca.

ETYMOLOGY.—I am pleased to name this new species for Wesley E. Lanyon in recognition of his research on tyrannid systematics over the past three decades.

SPECIMENS EXAMINED.—*Phylloscartes lanyoni*: (USNM holotype, USNM 402715 ♀) from type locality. *P. gualaquizae*: Ecuador: Prov. Napo, San José Abajo (AMNH 1 ♂); Prov. Morona-Santiago, Cordillera Cutucú (ANSP 1 ♀); Prov. Zamora-Chinchipe, Zamora (AMNH 1 ♂, 1 ♀); Peru: Dpto. San Martín, Moyobamba (ANSP 1 ♂). *P. venezuelanus*: Venezuela: Aragua, Maracay (ANSP 1 ♂, 1 ♀); Aragua, Cerro Golfo Triste (ANSP 1 ♂); Carabobo, Hcda. Sta. Clara (USNM 1 ♂). *P. orbitalis*: Ecuador: Prov. Napo, Cordillera de Galeras (AMNH 1 ♂, 2 ♀♀), San José Abajo (AMNH 3 ♂♂, 3 ♀♀), Río Suno above Avila (AMNH 3 ♂♂, 1 ♀; ANSP 1 ♂); Peru: Dpto. San Martín, Moyobamba (ANSP 1 ♂); Dpto. Cuzco, Cordillera Vilcabamba (AMNH 1 ♂); Dpto. Puno, La Pampa (AMNH 1 ♂, 2 ♀♀; ANSP 2 ♂♂), Huacamayo (ANSP 1 ♂, 1 ♀). Bolivia: Dpto. Cochabamba: Palmar (ANSP 1 ♀).

I also examined large series (>50 of each species) of *P. ophthalmicus*, *P. poecilotis*, *P. ventralis*, *P. eximius*, and *P. (Capsiempis) flaveola* and smaller numbers of *P. nigrifrons*, *P. chapmani*, *P. flaviventris*, *P. flavovirens*, *P. superciliaris*, *P. oustaleti*, *P. difficilis*, *P. paulistus*, and *P. sylviolus*.

REMARKS.—There appear to be no sexual differences in plumage color or pattern.

DISCUSSION

Ecology.—The only ecological information on *P. lanyoni* is contained in Carriker's field catalog deposited in the National Museum of Natural History. From 10 to 17 May 1948, Carriker and an assistant were engaged in general collecting from a base camp at El Pescado, a cattle ranch on the highway along the Río Cauca, 12 km below Puerto Valdivia. They collected a total of 166 specimens (91 species) (Appendix 1) in a mixture of pasture edge, second growth, and virgin forest on the ridges and hills east of the river from 180 to 600 m elevation (mostly from 335–520 m). This sample of species is typical of the lowland avifauna of northwestern Colombia (Haffer 1975); no strictly montane species are represented.

Carriker noted that the specimens of *P. lanyoni*, which he misidentified as "*Capsiempis flaveola leucophrys*," were collected in "an area of second-growth" on 15 May. Carriker apparently used the term "second-growth" to refer to rather tall regenerating forest as distinguished from "brush." Carriker noted that the testes of the male were greatly enlarged. Other species taken during the same morning (450–520 m) (*Xenops minutus*, *Sclerurus mexicanus*, *Gymnopithys bicolor*, *Pipra coronata*, *Manacus vittellinus*, *Schiffornis turdinus*, *Ramphocaenus melanurus*, *Heterospingus xanthopygius*) were taken in "more or less virgin forest."

Systematic relationships.—Based on the similarity of body plumage and reduced auricular spot, *P. lanyoni* appears to be a trans-Andean relative of *P. orbitalis*, although a close relationship to *P. venezuelanus* and *P. gualaquizae* is possible. Measurements of these species overlap extensively (Table 1). All four species inhabit Andean foothills and satellite ranges at elevations of 300–1100 m. *P. lanyoni* and *P. venezuelanus* have allopatric distributions; *P. gualaquizae* and *P. orbitalis* are sympatric from northern Ecuador south to northern Peru. *P. poecilotis*, which has been collected above Valdivia at 7000 ft (ca 2135 m), is sympatric with *P. lanyoni*, although there probably is a large elevational gap between their distributions. *P. ophthalmicus* occurs in the Central Cordillera as far north as Hacienda Sofia, Department of Caldas (USNM 436619, 436620, 436621). These specimens are nearly identical in plumage pattern and color with those from southern Colombia (Belén, Department of Huila) and the eastern slope of Ecuador and show no trend toward *P. lanyoni*.

Commentary on generic relationships.—The small, greenish tyrannulets in the subfamily Elaeniinae (Traylor 1977) present some of the most challenging problems in avian systematics. Characters used to discriminate generic limits consist primarily of external proportions (bill, tarsus, and wing), tarsal scutellation, and plumage color. Traylor (1977) discussed the extensive overlap and intergradation of these characters among the

genera recognized by Hellmayr (1927), and synonymized more than one-third of them in his classification.

Of particular interest in this paper is the expanded genus "*Phylloscartes*" (Traylor 1977), which includes species formerly placed in *Pogonotriccus*, *Leptotriccus*, and *Capsiempis*. *P. lanyoni* is clearly related to the nominal species of *Pogonotriccus*. The aggregate "*Phylloscartes*," comprising 20 species, is rather heterogeneous in plumage pattern and color with no distinctive characteristics that unite the taxa to the exclusion of other species. Unfortunately, the available anatomical data also fail to permit the critical discrimination of "*Phylloscartes*" within the Elaeniinae. For example, Ames (1971) considered the syringes of the aforementioned genera to be different from one another and from all other genera. On the other hand, Warter (1965) found cranial characters to be similar throughout his subfamily Euscarthminae, comprising 13 genera of small flycatchers; the range of cranial character states (e.g., nasal septum) in the expanded "*Phylloscartes*" includes nearly all the variation found within the subfamily. Recently, Lanyon (1988) found that the syringeal structure of five species of *Pogonotriccus* and *Leptotriccus sylviolus* did not differ significantly from two species of *Phylloscartes* (*ventralis* and *chapmani*). However, cranial and syringeal morphology suggested that *Capsiempis* was most closely related to *Phaeomyias* and *Nesotriccus*. These incongruent character sets and the apparent lack of plumage synapomorphies prevent an explicit generic diagnosis of "*Phylloscartes*" (sensu Traylor) from being formulated, and in an operational sense, suggest that the expanded genus is not strictly monophyletic. Additional analyses are needed to resolve the generic limits within this group.

ACKNOWLEDGMENTS

I thank J. Fitzpatrick, K. Parkes, and T. Schulenberg for comments on the manuscript, and W. Lanyon for sending me his unpublished manuscript. I thank the curators and staff of the Academy of Natural Sciences of Philadelphia (ANSP), American Museum of Natural History (AMNH), and the University of São Paulo, Museum of Zoology for permission to examine specimens. Part of this work was supported by a grant from the Research Opportunities Fund, Smithsonian Institution. I thank J. Fitzpatrick for preparing the artistic and accurate frontispiece.

LITERATURE CITED

- AMES, P. L. 1971. The morphology of the syrinx in Passerine birds. Bull. Peabody Mus. Nat. Hist. 37.
- HAFFER, J. 1975. Avifauna of northwestern Colombia, South America. Bonn. Zool. Monogr. 7.
- HELLMAYR, C. E. 1927. Catalogue of birds of the Americas and the adjacent islands, Part V, Tyrannidae. Field Mus. Nat. Hist., Zool. Ser. 13:1-517.

- LANYON, W. E. 1988. A phylogeny of the thirty-two genera in the *Elaenia* assemblage of tyrant flycatchers. *Am. Mus. Novitates* 2914:1-57.
- RIDGWAY, R. 1912. *Color standards and color nomenclature*. Washington, D.C. Published by the author.
- TRAYLOR, M. A., JR. 1977. A classification of the tyrant flycatchers (Tyrannidae). *Bull. Mus. Comp. Zool.* 148:129-184.
- WARTER, S. L. 1965. The cranial osteology of the New World Tyrannoidea and its taxonomic implications. Ph.D. diss., Louisiana State University, Baton Rouge, Louisiana.

APPENDIX 1

SPECIES COLLECTED BY M. A. CARRIKER AT EL PESCADO (180-600 M ELEVATION),
DEPARTMENT OF ANTIOQUIA, COLOMBIA, FROM 10 TO 17 MAY 1948

Crypturellus soui, *Geotrygon veraguensis*, *Pionus menstruus*, *Piaya cayana*, *Nyctibius griseus*, *Threnetes ruckeri*, *Phaethornis superciliosus*, *P. longuemareus*, *Florisuga mellivora*, *Chrysolampis mosquitus*, *Amazilia saucerrottei*, *A. tzacatl*, *Chalybura buffonii*, *Trogon rufus*, *Baryphthengus ruficapillus*, *Galbula ruficauda*, *Notharchus pectoralis*, *N. tectus*, *Nystalus radiatus*, *Capito maculicoronatus*, *Picummus granadensis*, *Chrysoptilus punctigula*, *Melanerpes pucherani*, *M. rubricapillus*, *Phloeoceastes haematogaster*, *Glyphorynchus spirurus*, *Xiphorhynchus lachrymosus*, *Synallaxis albescens*, *Xenops minutus*, *Sclerurus mexicanus*, *Taraba major*, *Thamnophilus punctatus*, *Myrmotherula surinamensis*, *M. fulviventris*, *M. axillaris*, *Microrhopias quixensis*, *Cercomacra tyrannina*, *Myrmeciza exsul*, *M. laemosticta*, *Gymnopithys leucaspis*, *Formicarius analis*, *Tyrannulus elatus*, *Mionectes olivaceus*, *M. oleagineus*, *Leptopogon amaurocephalus*, *Phylloscartes lanyoni* sp. nov., *Myiornis ecaudatus*, *Oncostoma olivaceum*, *Todirostrum cinereum*, *Rhynchocyclus brevirostris*, *Terenotriccus erythrurus*, *Myiobius atricaudus*, *Colonia colonus*, *Attila spadiceus*, *Myiarchus tuberculifer*, *M. ferox*, *Tityra semifasciata*, *Schiffornis turdinus*, *Chloropipo holochroa*, *Machaeropterus regulus*, *Manacus vitellinus*, *Pipra coronata*, *P. erythrocephala*, *Lipaugus unirufus*, *Thryothorus fasciatoventris*, *T. nigricapillus*, *Troglodytes aedon*, *Henicorhina leucosticta*, *Microcerculus marginatus*, *Cyphorhinus arada*, *Mimus gilvus*, *Turdus leucomelas*, *Microbates cinereiventris*, *Ramphocaenus melanurus*, *Phaeothlypis fulvicauda*, *Chlorophanes spiza*, *Dacnis cayana*, *D. lineata*, *Euphonia fulvocrissa*, *E. laniirostris*, *Tangara nigrocincta*, *T. inornata*, *Habia gutturalis*, *Tachyphonus delatrii*, *Heterospingus xanthopygius*, *Mitrospingus cassinii*, *Passerina cyanoides*, *Sporophila nigricollis*, *Oryzoborus angolensis*, *Arremon aurantirostris*, *Arremonops conirostris*.

COLOR PLATE

The Frontispiece painting by John W. Fitzpatrick has been made possible by an endowment established by George Miksch Sutton.