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TWO NEW BIRDS FROM BRITISH GUIANA

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During the late summer and fall of 1938 the writer conducted the Sewell Avery Expedition for Field Museum for the purpose of making a zoological reconnaissance of extreme southern British Guiana. The expedition gained access to this isolated and biologically unexplored mountainous region by ascending the turbulent Courantyne River and its major tributary, the New River. Itabu Creek, a small tributary entering the New River from the south near its headwaters, furnished a means of ingress into the Acary Mountains which separate the Amazon drainage from that of the Essequibo and Courantyne rivers.

A collecting base, known as Boundary Camp, was established near the head of Itabu Creek at an altitude of 2,000 feet. Itabu Creek appears on no published map but the precise position of Boundary Camp can be determined when the survey maps of the Royal Engineers British Guiana Boundary Commission become available. For all practical purposes, however, its location may be considered as approximately  $1^{\circ} 42' N.$  Lat.,  $57^{\circ} 55' W.$  Long., or on the watershed midway between markers No. 89 and 90 of the Boundary Survey.

Approximately half of the expedition's collections were lost in the Courantyne River while descending King William Rapids. Among the five hundred birds which were salvaged are specimens of an undescribed race of a toucan and one of a woodpecker. These birds are of special interest because they represent the only subtropical element found in the mountains of extreme southern British Guiana. The presence of these birds in a region which does not exceed 4,000 feet in altitude, and averages much less, probably can be considered as an extreme extension of the rich subtropical fauna of Mount Roraima and Mount Auyan-tepui, Venezuela.

I am indebted to Mr. John T. Zimmer of the American Museum of Natural History for the loan of comparative material used in this paper and to Mr. E. T. Gilliard of the same institution for furnishing supplementary data.

Capitalized names of all colors used in this paper are from Ridgway's *Color Standards and Nomenclature*, 1912:

***Aulacorhynchus derbianus osgoodi*<sup>1</sup> subsp. nov.**

*Type* from Boundary Camp, Itabu Creek head, Acary Mountains, British Guiana. Alt. 2,000 feet. No. 120164 Field Museum of Natural History. Adult male. Collected October 7, 1938, by Emmet R. Blake. Orig. No. 7544.

*Diagnosis*.—Resembles *Aulacorhynchus derbianus whitelyanus* Salvin and Godman of the Subtropical zone of southwestern British Guiana (Kanuku Mountains, Quonga, Merumé Mountains) and southeastern Venezuela (Mount Auyan-tepui, Mount Roraima)<sup>2</sup> but differs from all known races of *derbianus* in the absence of chestnut tips on the central rectrices.

*Description of type*.—Dorsal parts, including wing coverts and outer webs of remiges, Spinach Green, becoming less bright on the tail. Malar region, lateral portion of mantle and under parts from breast to under tail coverts, including thighs, Scheele's Green. Feathers of throat dull white with tips very faintly tinted with Venice Green. Breast washed laterally and posteriorly with Benzol Green. Ventral aspect of rectrices Ackermann's Green. Under wing coverts and the basal portion of the inner webs of the remiges Citron Yellow; under carpal coverts similar but tinged with green. Oculars and post-oculars Cerulean Blue connected by a white streak above each eye. Mandibles black and Neutral Red, the latter particularly prominent on the culmen and gonys. A narrow white line bounds the mandibles posteriorly. Tarsus blackish. Wing 114; tail 105; culmen 72.

*Range*.—Known only from the type locality.

*Remarks*.—The female is known from a single specimen which differs from the male principally in proportions and in the marked reduction of the bluish wash on the breast. Both characters prob-

<sup>1</sup> Named for Dr. Wilfred H. Osgood.

<sup>2</sup> Phelps has shown (Bol. Soc. Venez. Cienc. Nat., 36, pp. 83-95, 1938) that all birds collected at Mount Roraima, with the possible exception of *Zonotrichia capensis macconnelli*, were taken on Venezuelan soil exclusively.



ably are subject to considerable individual variation. Measurements of female: wing 115; tail 112; culmen 59.

Members of this distinct genus are among the best indicators of the Subtropical zone. The discovery of a well-defined race of *derbianus* in extreme southern British Guiana, at an altitude of only 2,000 feet, not only extends the known range of *Aulacorhynchus* more than one hundred miles southeastward from the Kanuku Mountains (British Guiana) but also brings the lower limits of its vertical distribution well within the Tropical zone.

The races of *derbianus* form a closely knit group and exhibit, in some characters, fine shades of differentiation. Comparison of subspecific characters reveals a tendency towards progressive reduction of size and modification of color pattern among the several forms as one moves from west to east. Although toucans are extremely variable in size, the measurements of those now available show a considerable gap between the large, widely ranging Andean stock and the three smaller, more localized races of the east. Within the latter group also, some degree of diminution from west to east is indicated.

Dimensions of the four races are as follows:

- A. *d. derbianus*, 8 males, 5 females: wing, males 124-140 (132), females 123-132 (131); tail, males 121-133 (124), females 117-130 (123); culmen, males 80-94 (88), females 63-85 (79).
- A. *d. duidae*, 5 males, 5 females: wing, males 118-125 (121), females 114-122 (117); tail, males 111-119 (115), females 108-113 (110); culmen, males 73-78 (75), females 57-64 (61).
- A. *d. whitelyanus*, 4 males, 4 females: wing, males 114-122 (118), females 111-121 (118); tail, males 100-114 (107), females 97-108 (104); culmen, males 67-77 (71), females 60-62 (61).
- A. *d. osgoodi*, 1 male, 1 female: wing, male 114, female 115; tail, male 105, female 112; culmen, male 72, female 59.

The progressive modification of pattern found in the races of *derbianus* parallels the decrease in size. There is a tendency towards the reduction and, in some cases, elimination of certain colors in the races nearest the periphery of distribution. However, there seems to exist between the three eastern races an affinity which is not altogether shared by the western form. In size, the color of maxilla,

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absence of a distinct blue nuchal patch and presence of a tinge of blue on the breast instead of about the margin of the white throat-patch, the former stand apart from the nominate race.

The salient features of the four races of *derbianus* are summarized in the following table:

	<i>derbianus</i>	<i>duidae</i>	<i>whitelyanus</i>	<i>osgoodi</i>
Size . . . . .	large	intermediate	small	smallest(?)
Maxilla . . . . .	dominantly black	black and reddish	black and reddish	black and reddish
Blue nuchal band . . . . .	prominent	occasional trace	absent	absent
Blue malar mark . . . . .	prominent	reduced	reduced	absent
Chestnut tips of rectrices . . . . .	extensive	intermediate	reduced	absent

The following specimens have been examined:

- A. d. derbianus*.—26: ECUADOR (Sumarco Abajo, 3; Zamora, Loja, 2). PERU (Cayumba River, Huachipa, 1; Chanchamayo, Junín, 6; Cushi Libertad, Huanuco, 1; Huanuco, Huanuco, 2; La Oroya, Inambari, 1; Nuevo Loreto, 2; Pozujo, Huanuco, 1; Vitoe Garita del Sol, 1). BOLIVIA (Calabatea, La Paz, 2; Yungas, Cochabamba, 4). [Also reported from Archidona and Jima, Ecuador; Nairapi and Tilotila, Bolivia.]
- A. d. duidae*.—13 (including type): VENEZUELA (Mount Duida, Amazonas, 13).
- A. d. whitelyanus*.—13: VENEZUELA (Arabupu, Mount Roraima, Bolivar, 1; Mount Auyan-tepui, Bolivar, 2; Paulo, Mount Roraima, Bolivar, 1). BRITISH GUIANA (Mount Tweek, 2; Quonga, 7). [Also reported from Merumé and Kanuku Mountains, British Guiana.]
- A. d. osgoodi*.—2 (including type): BRITISH GUIANA (Boundary Camp, Itabu Creek head, Acary Mountains, 2).

### ***Piculus rubiginosus nigriceps* subsp. nov.**

*Type* from Boundary Camp, Itabu Creek head, Acary Mountains, British Guiana. Alt. 2,000 feet. No. 120168 Field Museum of Natural History. Adult male. Collected September 30, 1938, by Emmet R. Blake. Orig. No. 7413.

*Diagnosis*.—Nearest *Piculus rubiginosus guianae* Hellmayr in size, pattern of throat and color of under parts. Differs from all known races of *rubiginosus* in having the pileum blacker (less slaty-gray), the red of the nape reduced to an obscure, broken line bordering the pileum in the male (lacking in the female) and the

back and wing coverts clearer green, between Warbler Green and Pyrite Yellow.

*Description of type.*—Crown and nape black, bordered with a very obscure, broken line of red. Back, rump, wing and tail coverts between Warbler Green and Pyrite Yellow. Remiges dark brown tinged with Orange-Citrine on the outer webs. Rectrices Olive-Green above (Pyrite Yellow below) becoming black towards the tips. Lores and sides of the head whitish and bounded below by a broad red malar streak. Chin and throat black, thickly spotted with white. Breast washed with pale greenish white and thickly striated, with relatively wide, brownish-black to olive-brown bars, both the ground color and the bars becoming, respectively, greener and more olive (less brown) on the flanks, thighs and under tail coverts. Abdomen Lemon Yellow and only obscurely barred. Under wing coverts and basal third of the inner webs of the remiges Maize Yellow. Under carpal coverts barred with olive-brown. Mandibles and tarsi blackish. Wing 119; tail 64; culmen 23.

*Range.*—Known only from the type locality.

*Remarks.*—The female is similar to the male but lacks the red malar streak. Average measurements of four females: wing 119; tail 66.5; culmen 23.

Lowland races of *rubiginosus* are known but the species is more characteristic of the Subtropical zone. The status of *nigriceps* is uncertain. However, the mountains of extreme southern British Guiana in which it was collected attain an altitude of approximately 4,000 feet and further explorations in that little-known region probably will establish the race as a resident of the higher mountains as well as of the adjacent lowland forests. This opinion is somewhat substantiated by the composite appearance of *nigriceps*. Its close relationship to both the isolated subtropical form *viridissimus* of Mount Auyan-tepui, Venezuela, and the more widely distributed *guianae* is suggested by an intensification of the green dorsal parts and reduction of the red nuchal band, characteristic of the former, combined with the larger size and less dark breast bars of the latter.

Dr. Chapman (Amer. Mus. Nov., 1051, p. 8, 1939) has presented a brief review of the races of *rubiginosus* inhabiting Tobago, Trinidad, Venezuela, and British Guiana and combines the birds of Trinidad and northeastern Venezuela in a single race, *trinitatis*. This arrangement is untenable when specimens from both localities are compared with adequate series of related races. Individually and collectively the island birds are smaller than a series of six collected by the writer

in the subtropical forests of Mount Turumiquire, Venezuela. The latter are indistinguishable, both in size and color, from a series of *P. r. rubiginosus*, to which I now refer them. The nominate race appears, therefore, to be intermediate between *trinitatis* and the large eastern race *guianae*, but must be excluded from the spotted-throat *viridissimus-guianae-nigriceps* group of eastern Venezuela and British Guiana.

Dimensions of the five races are as follows:

- P. r. trinitatis*, 7 males, 7 females: wing, males 95.5–104.5 (99.5), females 93–102 (96.5); tail, males 47.5–60.5 (57), females 51–62 (56.5); culmen, males 21–23 (22), females 17–21 (20).
- P. r. rubiginosus*, 12 males, 9 females: wing, males 108–116 (111), females 109–118 (112); tail, males 61–67 (65), females 65–73 (68); culmen, males 20–24 (22), females 20–23 (21).
- P. r. guianae*, 8 males, 4 females: wing, males 114–123 (118.5), females 114–119 (116); tail, males 68–76 (71.5), females 65–71 (67); culmen, males 23–26 (24.5), females 23–24 (23.5).
- P. r. viridissimus*, 2 males, 4 females: wing, males 113–118 (115.5), females 115–119 (117.5); tail, males 65–67 (66), females 70–72 (71); culmen, males 26, females 21–25 (23).
- P. r. nigriceps*, 3 males, 4 females: wing, males 119–121 (120), females 116–122 (119); tail, males 64–70 (67), females 65–72 (66.5); culmen, males 23, females 23.

The following specimens have been examined:

- P. r. trinitatis*.—14 (including type): TRINIDAD (Princestown, 2; Caparo, 10; unspecified, 2).
- P. r. rubiginosus*.—21: VENEZUELA (Cerro del Avila, Federal District, 2; Cocollar, Sucre, 1; Cumbre de Valencia, 2; El Guacharo, 1; La Trinidad, Sucre, 2; Los Palmales, 4; Macuto, Federal District, 1; Mount Turumiquire, Sucre, 5; Quebrada Secca, 1; San Antonio, Sucre, 2).
- P. r. guianae*.—12: BRITISH GUIANA (Carimang River, 1; Kartabo, 1; Rockstone, 1). VENEZUELA (Arabupu, Mount Roraima, Bolivar, 3; Mount Duida, Amazonas, 6).
- P. r. viridissimus*.—6 (including type): VENEZUELA (Mount Auyan-tepui, Bolivar, 6).
- P. r. nigriceps*.—7 (including type): BRITISH GUIANA (Boundary Camp, Itabu Creek head, Acary Mountains, 7).













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