

Occasional Papers of the Museum of Natural Science, Louisiana State University

Volume 1 | Number 30

Article 1

11-16-1965

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Recommended Citation

Binford, Laurence C. (1965) "Two new subspecies of birds from Oaxaca, Mexico," *Occasional Papers of the Museum of Natural Science, Louisiana State University* : No. 30 , Article 1.

DOI: 10.31390/opmns.030

Available at: <https://digitalcommons.lsu.edu/opmns/vol1/iss30/1>

OCCASIONAL PAPERS OF THE MUSEUM OF
ZOOLOGY

LOUISIANA STATE UNIVERSITY

BATON ROUGE, LOUISIANA

TWO NEW SUBSPECIES OF BIRDS FROM OAXACA, MEXICO¹

By LAURENCE C. BINFORD

LOCATED IN southern Oaxaca, Mexico, paralleling the Pacific Ocean, is an isolated mountain range known as the Sierra de Miahuatlán, which rises abruptly from the coast and reaches elevations of up to 10,296 feet. During the summer this range intercepts heavy southerly rains, and as a result the south-facing slope supports a lush, broadleaf evergreen woodland. Similar humid forests also occur as isolated patches in the vicinity of the coastal lagoons of the adjacent lowlands, where they owe their evergreen quality to a high water table rather than to rainfall. In some localities the coastal and mountain woodlands are connected across arid country by evergreen vega forests that act as mesic highways for humid forest birds. These three forest types form a more or less continuous habitat that is completely isolated from all other humid areas of either the Pacific or Atlantic coasts of Mexico by intervening regions of extreme aridity. It was therefore not surprising to find that both the Barred Woodcreeper (*Dendrocolaptes certhia*) and the Eye-ringed Flatbill (*Rhynchocyclus brevirostris*) of this humid region represent previously undescribed races.

Family DENDROCOLAPTIDAE

DENDROCOLAPTES CERTHIA SHEFFLERI new subspecies

Type.—Adult male; no. 24410, Louisiana State University Museum of Zoology; 19 mi. N Puerto Angel, Oaxaca, México, elevation 900 feet; 4 May 1961; L. C. Binford; original no. LCB 400; testes 18 x 9 millimeters; skull completely ossified.

¹The Louisiana State University Foundation provided funds for the publication of this paper.

Characters.—Differs from the northern population of *D. c. sanctithomae* (Lafresnaye)² (from British Honduras westward) as follows: dark ventral bars much narrower, with a corresponding increase in the width of the intervening buffy bars, these two characters producing an over-all paler tone; the distal four-fifths of the terminal dark bar of each throat and breast feather grayish-brown, with only the proximal fifth blackish, this feature producing on the lower breast a faint grayish-brown band that partially obscures more basal barring and introducing on the upper breast and throat additional bars of dusky yellowish-brown that alternate with other bars in the sequence of buffy to black to yellowish-brown to black and back to buffy; black bars of lesser and middle wing coverts and back obsolete or greatly reduced, either narrower, fainter, or laterally shortened to produce small shaft spots or a narrow shaft streak; light edges of inner webs of remiges paler and more extensive; color of maxilla (in life and dried skins) Bister³ at base of culmen, fading to dusky Cream-Buff along tomium; mandible entirely dusky Cream-Buff; size larger in all measurements. Differs from southern populations of *sanctithomae* (Honduras to Costa Rica) in the same characters of bill color and plumage noted above, but similar in size. Differs from *D. c. legtersi* Paynter⁴ of central Quintana Roo in all characters of bill color, plumage, and size noted above for the northern population of *sanctithomae*, except that in *sheffleri* the ground color both above and below is more rufescent, producing an over-all darker appearance. Similar to *D. c. hesperius* Bangs⁵ of southwestern Costa Rica in size and in the presence of a breast band but differs in having a pale bill, even narrower ventral black bars, more greatly reduced (narrower, fainter, shorter in lateral dimension, or even obsolete) black bars on middle and lesser wing coverts and back, generally paler coloration throughout (including breast band and inner edges of remiges), and additional dusky yellowish-brown bars on the throat and upper breast. (See Plate and Figure 1.)

Measurements (in millimeters and gram weights).—One male (the type) and one female, respectively: wing (chord), 129.6, 128.5; tail, 125.5, 124.4; tarsus, 27.1, 28.0; middle toe (without claw), 23.5, 24.5; culmen (chord

²*Dendrocops Sancti-Thomae* Lafresnaye, Rev. et Mag. Zool. (2), 4, 1852: 466 ("in Sancti-Thomae insula," [= Santo Tomás, Guatemala, near Omoa, Honduras]).

³Capitalized color names are those of Ridgway, Color Standards and Color Nomenclature, 1912.

⁴*Dendrocolaptes certhia legtersi* Paynter, Yale Peabody Mus., Postilla, No. 18, 1954: 1 (Carrillo Puerto, Quintana Roo).

⁵*Dendrocolaptes sancti-thomae hesperius* Bangs, Auk, 24, 1907: 299 (Lagarto [= Lagarto, near Boruca], Costa Rica).



from angle with skull), 42.8, 42.5; culmen (chord from posterior margin of nostril), 31.4, 31.0; height of bill (at angle of gonys), 8.4, 8.2; weight (both with little fat), 70.9, 82.8.

Distribution.—Known only from the humid mountain forest at the type locality.

Remarks.—The best characters of this strikingly marked race are the pale bill, the narrower width (ventrally) and the smaller number (dorsally) of black bars, the presence of a faint grayish-brown band on the lower breast, and the addition of dusky yellowish-brown bars on the upper breast and throat.

In size, *sheffleri* is larger than specimens from the population of British Honduras westward but about the same as specimens from Honduras to Costa Rica. Nine males and four females from northern Oaxaca, Veracruz, Tabasco and British Honduras measure, respectively, as follows: wing, 118.8-124.5 (average, 122.6), 117.5-127.0 (121.7); tail, 110.0-118.0 (114.7), 106.0-121.0 (113.4); tarsus, 24.5-27.0 (25.7), 25.8-27.7 (26.4); middle toe, 21.2-22.2 (21.8), 21.6-22.4 (22.0); culmen (chord from skull), 39.0-41.0 (39.8), 37.9-40.0 (39.2); culmen (from nostril), 28.0-31.3 (29.3), 27.6-29.5 (28.5); height of bill, 7.3-8.1 (7.8), 7.2-8.1 (7.6); weight, seven males, 56.5-64.5 (61.4), one female, 64.3. Eight males and 11 females from Honduras, Nicaragua, and northern Costa Rica measure, respectively, as follows: wing, 124.8-133.0 (average, 128.8), 120.2-129.5 (124.8); tail, 111.5-128.2 (116.9), 114.1-130.0 (120.9); tarsus, 26.1-27.2 (26.9), 25.7-29.0 (27.0); middle toe, 22.7-25.0 (23.6), 22.0-24.3 (23.2); culmen (from skull), 40.0-41.7 (40.9), 37.3-43.0 (40.4); culmen (from nostril), 29.6-31.9 (30.2), 26.4-32.0 (29.4); height of bill, 7.5-8.5 (8.1), 7.9-8.6 (8.1); weight, one male, 70.8, three females 68.8-76.9 (73.9).

The Costa Rican population has been named *D. c. nigrirostris* Todd⁶, and is said to possess browner plumage and a shorter and more extensively black bill when compared with *sanctithomae*. I am unable to detect any differences in plumage; the brownish color noted by Todd was probably a result of foxing of old skins. The shorter bill length is belied by Todd's own measurement: five males of *sanctithomae*, 36-38 (average 37); nine males of *nigrirostris*, 35-40 (average 33 [sic, probably 38]). I detect little difference in bill length. The darker bill ascribed to *nigrirostris* is characteristic also of typical *sanctithomae* from Honduras. The population with the greatest percentage of light-billed birds occurs from British Honduras westward. Most

⁶*Dendrocolaptes certhia nigrirostris* Todd, Journ. Washington Acad. Sci., 40, 1950: 237 (El Hogar, Costa Rica).

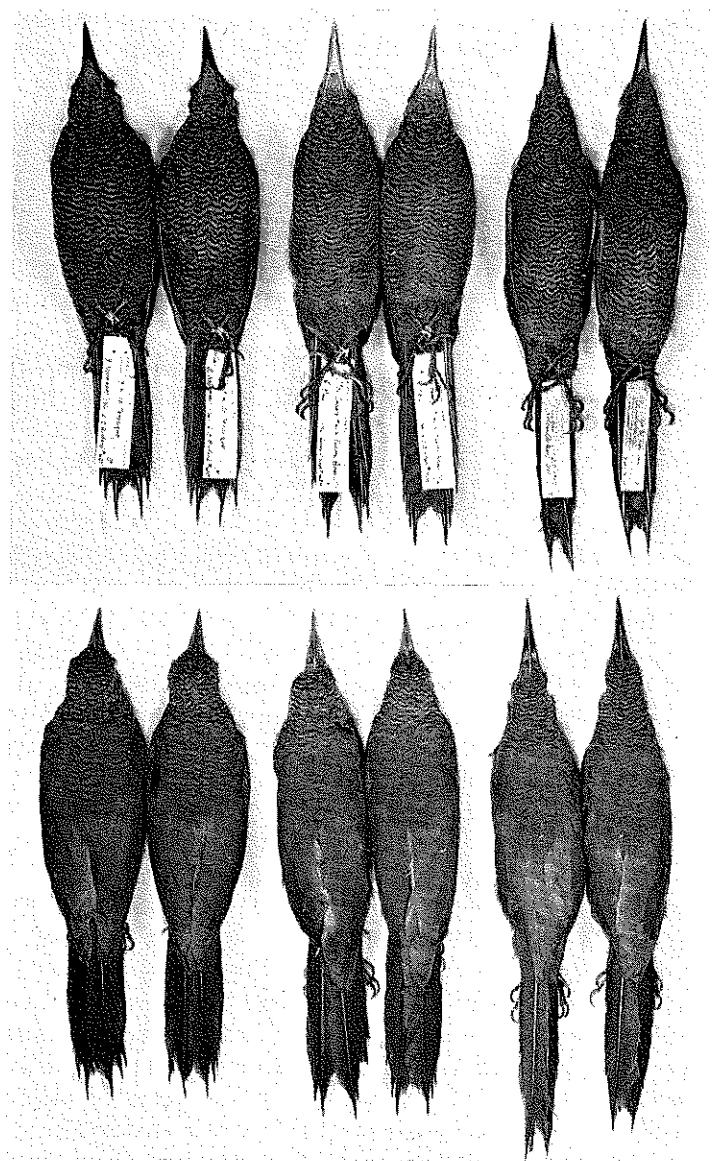


FIGURE 1. Dorsal and ventral views of three races of *Dendrocolaptes certhia*: left, *D. c. sanctithomae*; center, *D. c. sheffleri*; right, *D. c. hesperius*.

of the specimens of *sanctithomae* examined by Todd apparently were from the small, light-billed population in British Honduras, rather than from the more typical population of *sanctithomae* from Honduras. Thus it would seem that he was in effect redescribing true *sanctithomae* and separating it from the population of British Honduras northward. The present study would indicate that *nigrirostris* probably should be merged with *sanctithomae*. I also feel that the differences in size and bill color of the population from British Honduras westward are too slight to warrant nomenclatural recognition, especially in the absence of plumage differences.

The seven specimens of *hesperius* examined in the present study uphold the plumage characters ascribed to that race. I find no significant differences in size between *hesperius* and *sanctithomae* (or "*nigrirostris*") of the remainder of Costa Rica.

I take great pleasure in naming this new race for Mr. William J. Sheffler, who through his sponsorship of field expeditions has contributed materially to our knowledge of Oaxacan birds.

Specimens examined.—Two (1 male, 1 female) from the type locality.

Family TYRANNIDAE

RYNCHOCYCLUS BREVIROSTRIS PALLIDUS new subspecies

Type.—Male; no. 33238, Louisiana State University Museum of Zoology; Minitán, 22 road mi. S Pinotepa Nacional, Oaxaca, México, at sea level; 1 March 1964; L. C. Binford; original no. LCB 945; testes 1 x 3 millimeters; skull incompletely ossified.

Characters.—Differs from *R. b. brevirostris* (Cabanis)⁷ of Central America and the Atlantic slope of Mexico as follows: breast and lower throat paler, the yellow of these feathers being clearer, paler, and less olive; gray of chin and upper throat somewhat more extensive; in series, underparts and edges of flight feathers and wing coverts averaging faintly less yellow, being more gray-green and less olive-green; yellow of abdomen averaging slightly paler. There are no significant mensural differences.

Measurements (in millimeters and gram weights).—Five males and four females, respectively: wing (chord), 76.2-79.5 (average, 77.9), 71.9-74.6 (73.7); tail, 66.3-71.0 (68.5), 61.6-63.8 (63.0); tarsus, 17.9-18.4 (18.2), 18.1-18.2 (18.2); middle toe (without claw), 10.7-10.9 (10.8), 10.6-11.0

⁷*Cyclorhynchus brevirostris* Cabanis, Arch. Naturg., 13(1), 1847: 249 (Mexiko [Xalapa] [= Jalapa, Veracruz]).

(10.8); culmen (chord from skin), 13.3-15.0 (14.0), 14.2-15.3 (14.6); width of maxilla (at posterior margin of nostrils), 8.2-8.7 (8.4), 8.3-9.1 (8.8); weight (all with little fat), 19.5-21.3 (20.5), 19.9-21.6 (20.7).

Distribution.—Pacific coast of Oaxaca, east to Pluma Hidalgo and west to Putla and Minitán; probably ranges into Guerrero; recorded from lush gallery forests at sea level to the upper reaches of humid mountain forest at 5,000 feet.

Remarks.—The major character of this new race is the paleness of the breast and upper throat. Other marks are slight and discernible only in series. It is interesting to note that of the 11 fresh specimens of the species that I have examined (November, and February - May), 10 had incompletely ossified skulls, while the condition of the eleventh specimen was doubtful; of the 10, five were in breeding condition.

Specimens examined.—Nine (5 males, 4 females) from Oaxaca (Minitán, 22 road mi. S. Pinotepa Nacional; 3 mi. N Pluma Hidalgo; 1 mi. E Putla; Río Jalatengo; 18 road mi. N San Gabriel Mixtepec).

For the loan of comparative material I am grateful to Dean Amadon of the American Museum of Natural History, to Philip S. Humphrey of the United States National Museum, and to Philip Ashmole of the Peabody Museum at Yale University. Field work in Oaxaca in 1961 and 1964 was supported by the Louisiana State University Museum of Zoology and by Mr. John S. McIlhenny, and in 1964 I was further aided by a National Science Foundation Cooperative Graduate Fellowship.