

ogy for allowing my weakness such full play in the present connection. My only excuse is that by so doing I may have made certain worthwhile ideas the more impressive.

*Berkeley, California, August 3, 1924.*

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## THE HISTORY AND CHARACTERS OF *VERMIVORA* *CRISSALIS* (SALVIN AND GODMAN).

BY OUTRAM BANGS.

*Vermivora crissalis*, in spite of a few specimens which have lately been taken, still remains one of the rarest of the American Wood Warblers.

The type, and for many years the only known example, was shot April 6, 1889 in the Sierra Nevada, Colima, Mexico. The next specimens, of which I have any knowledge, are the two adult males secured by Nelson and Goldman during the course of their epoch-making Biological Survey of Mexico. One of these was taken January 29, 1903 at Patamba in the mountains of Michoacan, not far from the type locality of the species. The other was secured April 25, 1902 in the Sierra Guadalupe, Coahuila, and constitutes the northernmost record for the species. Apparently *Vermivora crissalis* was not again heard from until 1922 when Mr. W. W. Brown, collecting for Dr. L. C. Sanford at Miquihuana, western Tamaulipas, shot one adult male on June 15.

This specimen was soon afterwards made the type of a new species, *Vermivora browni*, by Ludlow Griscom. Griscom, however, proves to have been quite wrong in translating the weird color-names used by Salvin and Godman and accepting them literally in comparison with the real colors shown by his specimen, which moreover was in worn midsummer plumage.

In the summer of 1924 Mr. W. W. Brown again made a collecting trip to Miquihuana, this time in the interests of John E. Thayer, Esq. Before Brown started I begged Mr. Thayer to urge him to make a special effort to get skins of this scarce species. The result was seven specimens, a very interesting series, that includes four adults, three males and a female, two in abraded nuptial plumage

and two moulting into the autumnal dress, taken July 19-25; one female in completed autumnal plumage, July 21, and two young birds taken July 20, one of which was still in the juvenile plumage, the other moulting from juvenile to autumnal.

Thus, so far as known to me, there exist in museums only eleven examples of *Vermivora crissalis*.

Upon comparing the Tamaulipas examples, generously presented to the Museum of Comparative Zoology by Mr. Thayer, with the two Nelson-Goldman specimens, it was at once obvious that all belonged to one and the same species. Even the Patamba example, which of course represents true *V. crissalis*, differs in no way from Tamaulipas skins in similar condition of plumage. I then wrote to Dr. Percy R. Lowe and asked if he would kindly examine the type and let me know what the colors of the important parts really are. This he did with great care, sending also feathers plucked from different birds that exactly matched in color those of the important parts of the type of *V. crissalis*. The result is that the type proves to be in color exactly the same as the other known specimens that are in comparable plumage. The forehead is "hoary gray"; coronal patch cinnamon rufous to hazel; rump, between pyrite yellow and olive lake; upper tailcoverts, aniline yellow; under tailcoverts, light cadmium. The measurements given me by Lowe are: wing 63; tail 53; culmen 14; tarsus 19.

The range of *Vermivora crissalis* is at present very incompletely known. Thus far specimens have been taken at Colima and Michoacan on the west, western Tamaulipas on the east and Coahuila to the north. The natural inference would be that the species occupies the whole of the elevated regions between these outlying stations. Another more probable alternative, however, is that it has a very restricted breeding range in northeastern Mexico in the region of western Tamaulipas and Coahuila (exact limits, of course, not known) and that the January specimen from Michoacan and the type killed April 6 in Colima were migrants.

The species may briefly be described as follows:

***Vermivora crissalis* (Salvin & Godman).**

*Helminthophila crissalis* Salvin & Godman, Ibis, sixth series, Vol. I, 1889, p. 380 (Sierra Nevada de Colima, Mexico, Type in British Museum).

*Vermivora browni* Griscom, American Museum Novitates, No. 71, April 30, 1923, p. 4. (Miquihuana, western Tamaulipas, Mexico. Type in American Museum of Natural History.)

A very distinct species, not to be confused with any other member of the genus, of large size with a heavy bill, of dull brownish coloration with reddish crown patch and yellowish rump and upper and under tailcoverts.

*Color*.—Adult in spring (sexes similar). Forehead and sides of head gray—varying from mouse gray to deep mouse gray; large partially concealed, crown patch, cinnamon rufous; back, wings externally and upper surface of tail, deep olive; rump olive lake to pyrite yellow; upper tailcoverts, aniline yellow; throat and chest dull mouse gray; sides light brownish olive; middle of belly whitish; under tailcoverts light cadmium; under wingcoverts, axillars and bend of wing white.

In worn, faded midsummer dress all colors are duller, the whitish belly patch less apparent, and the crown patch orange rufous or orange chrome.

The autumnal plumage differs from that of spring in being darker and browner throughout, the gray of head a good deal obscured by deep olive or light brownish olive; crown patch orange rufous; under parts darker with whitish area in middle of belly more distinct and under tailcoverts duller, more nearly aniline yellow.<sup>1</sup>

*Measurements*.—Adult ♂, wing 63–65; tail feathers, 52–55; exposed culmen, 11–11.5; culmen to base of forehead, 13–15; tarsus, 18–20.<sup>2</sup> (Four skins.)

Adult ♀, wing 60–65; tail feathers, 51; exposed culmen, 11; culmen to base of forehead, 14; tarsus, 19–20. (Two skins.)

I am indebted to the Bureau of Biological Survey, United States Department of Agriculture, for the loan of the two examples collected by Nelson and Goldman.

*Museum of Comparative Zoology,  
Cambridge, Mass.*

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## A NEW RACE OF *SICALIS FLAVEOLA* FROM SOUTHEASTERN BRAZIL.

BY W. DE W. MILLER.

DURING the winter of 1921–22 Mr. Ernest G. Holt was engaged in collecting birds for the American Museum on Mount Itatiaya, Sao Paulo, Brazil. In his collection are two adult female speci-

<sup>1</sup> Names of colors are those of Ridgway's Color Standards and Nomenclature, 1912.

<sup>2</sup> Griscom's measurement of 11 mm. for the tarsus of his specimen must be a misprint.