

## THE WARBLING VIREO OF THE CAPE DISTRICT OF LOWER CALIFORNIA

WITH TWO ILLUSTRATIONS

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In 1858 Baird (Pac. R. R. Repts., vol. 9, p. 336) designated the warbling vireos of the western United States as *Vireo swainsonii*. The Great Basin form was separated as *Vireosylva gilva leucopolia* by Oberholser in 1932 (Sci. Publ. Cleveland Mus. Nat. Hist., vol. 4, p. 9). From the mountains of Chihuahua, Ridgway described *Vireosylva gilva brewsteri* (Proc. Biol. Soc. Wash., vol. 16, 1903, p. 107). Within the past year van Rossem (Trans. San Diego Soc. Nat. Hist., vol. 9, 1940, pp. 77-78) has named *Vireo gilvus connectens* from the state of Guerrero in southern Mexico, and Sutton and Burleigh (Auk, vol. 57, 1940, pp. 398-400) have described *Vireo gilvus eleanorae* from Hidalgo in central eastern Mexico. These three races from the mainland of Mexico constitute an integrating series that establishes Ridgway's belief that the *leucophrys* and *amauronotus* groups of vireos of Central and South America are conspecific with *gilvus*. Breeding birds from the Cape Region of Lower California prove to be another link in this chain. Relationship to the southern forms is shown by the admixture of brown in the back, and that to the races of the United States by the almost immaculate underparts. The differences are sufficient to warrant separation as a distinct race.

***Vireo gilvus victoriae***, new subspecies. Cape Warbling Vireo.

*Type*.—Adult male, no. 55808, Museum of Vertebrate Zoology; Laguna Valley, 6000 feet, Victoria Mountains, Lower California, Mexico, July 30, 1929; collected by Chester C. Lamb; original no. 11679.

*Subspecific characters*.—Compared to *Vireo gilvus swainsonii*, pileum and back browner with only a small amount of green in fresh plumage; green of back restricted to tips of barbs and lost almost entirely in slightly worn plumages; rump lighter and grayer; ventral parts whiter with very little yellow on flanks. Bill heavier in cross section and longer than in either *swainsonii* or *leucopolius*. Wings and tail average shorter than in *swainsonii*.

*Range*.—Known to breed only in the Victoria Mountains of Lower California. In addition to the 23 specimens from the type locality there are two from Agua Caliente, a few miles southeast of Laguna Valley, that are of this race. Nesting records have been obtained at Triunfo and San Jose del Rancho, both within a few miles of the type locality (Grinnell, Univ. Calif. Publ. Zool., vol. 32, 1928, p. 194).

The 18 adult males and 7 adult females from the Victoria Mountains are consistent in the demonstration of the characters described. There is no apparent difference between the sexes in measurements or coloration.

In the course of this study attention was given to the distribution and characters of *Vireo gilvus leucopolius*. The characters ascribed to it by Oberholser are to be found in specimens in the Museum of Vertebrate Zoology. The following table of comparisons summarizes the differences among the three races examined.

<i>swainsonii</i>	<i>leucopolius</i>	<i>victoriae</i>
Back olive-green	Back grayish, less olive	Back brownish-olive
Rump deep olive-green	Rump olive-gray	Rump light olive-gray
Underparts with considerable olive-yellow on flanks and belly	Underparts with some olive-yellow on flanks	Underparts with very little yellow on flanks
Bill relatively slender	As in <i>swainsonii</i>	Bill much thicker in cross section
Bill shorter than in <i>victoriae</i>	As in <i>swainsonii</i>	Bill longest
Wings and tail longer	As in <i>swainsonii</i>	Wings and tail shorter

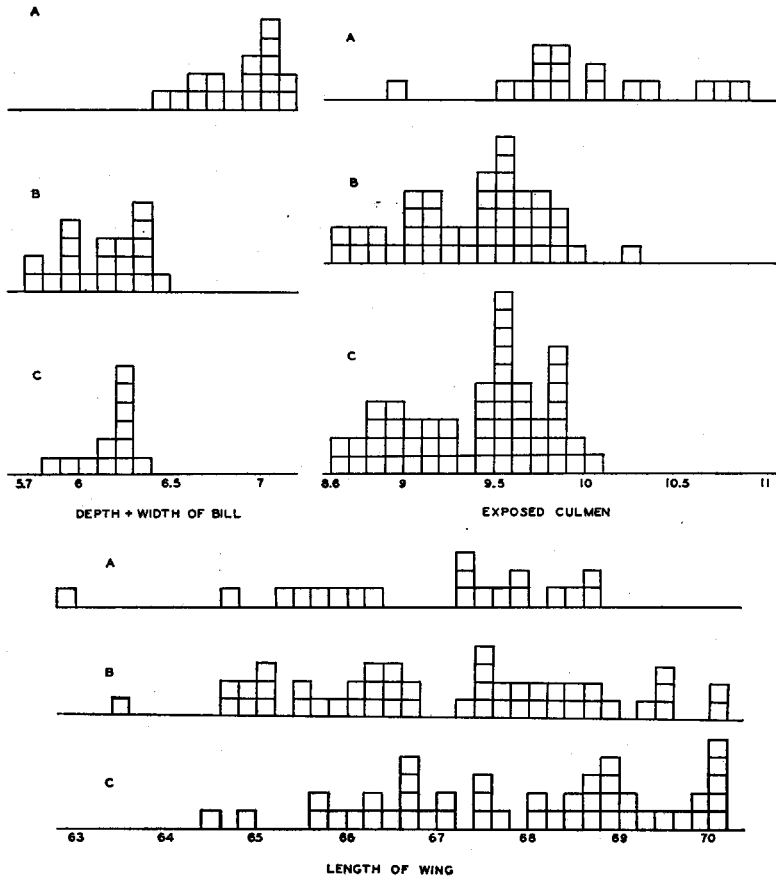


Fig. 75. Measurements in millimeters of adult male warbling vireos. Each square represents a single bird. Bill measurements are summations of depth and width, serving to indicate the massiveness of the whole structure. A, *Vireo gilvus victoriae*; B, *V. g. swainsonii*; C, *V. g. leucopolius*.

The differences in length of wing and tail between *victoriae* and the northern races are not statistically significant but indicate a trend that is common to many species with races endemic to the Cape Region. Grinnell (MS) noted these variations in bill, wing, and tail length in *Vireo gilvus* when he examined skins in the Carnegie Museum: "... two skins here from the Cape District have longer bills, shorter wings and smaller tails than Oregon examples. ..." He noted the same differences in birds in the Museum of Comparative Zoology. That he strongly suspected the existence of a distinct race in the Cape District is shown by the following quotation under *Vireo gilvus swainsonii* in his *Distributional Summation of the Ornithology of Lower California* (p. 194): "Fairly common breeding species in the higher parts of the Cape region (possibly a recognizable race there)."

*Vireo gilvus leucopolius*. In the collection of the Museum of Vertebrate Zoology are 125 specimens, including 12 topotypes referable to this race. The characters agree with the original description but the form has a much greater range than Oberholser (*loc. cit.*) gave. He stated that it was, "confined . . . in the Warner Valley and to a

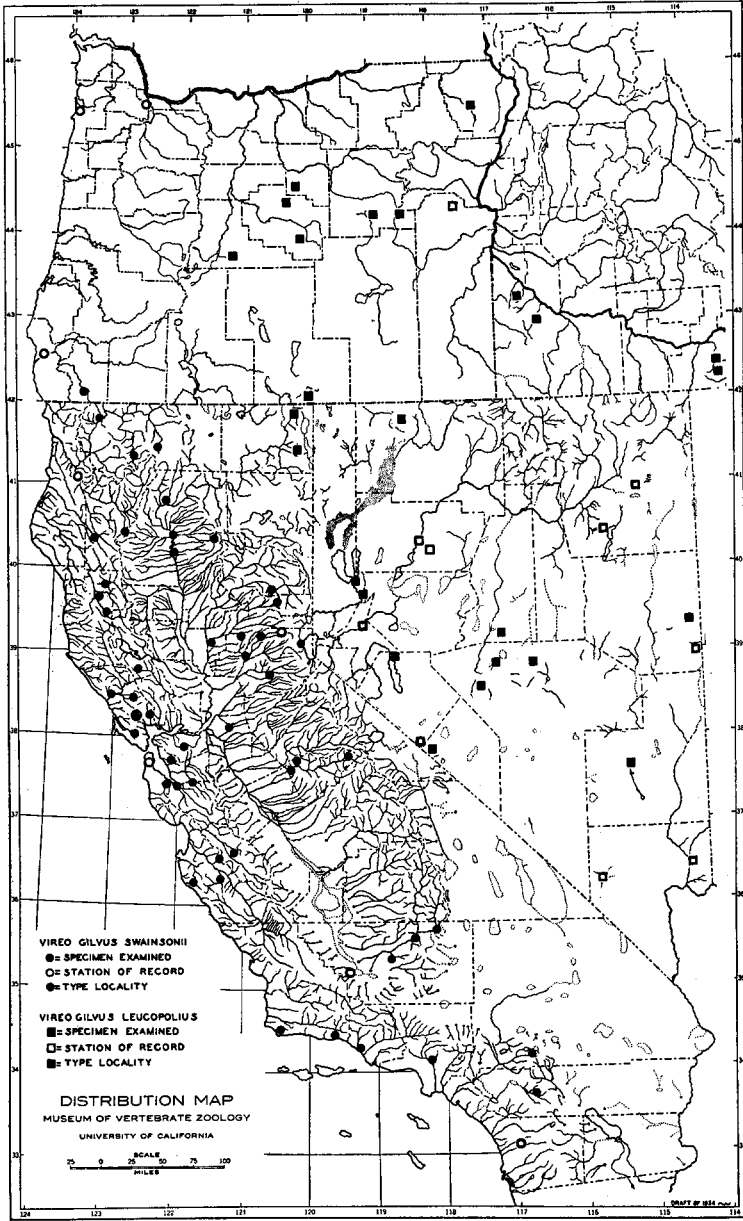


Fig. 76. Distribution of breeding warbling vireos in California and adjacent states.

narrow area north and south of this region. . . .” Its range may be better characterized as the Great Basin. Examples of *leucopolius* have been examined from northeastern California, eastern Oregon and Washington, southern Idaho, western Wyoming, western Utah and practically all sections of Nevada. The range as now delimited lies between

the Cascade-Sierran system on the west and the eastern slope of the Rocky Mountains to the east. It extends from southern Idaho to southern Nevada.

Van Rossem (Pac. Coast Avif. No. 24, 1936, p. 45) states that birds from the Charleston Mountains of southern Nevada present the characters of *leucopolius* but that "selected specimens from the Sierra Nevada and particularly from the mountains of southern California appear to be indistinguishable from the Charleston birds." The Charleston Mountains are geographically isolated from the range of *swainsonii* and in almost every faunal respect show relationships to the Great Basin. The choice of comparative material from the mountains of southern California was unfortunate. There is a noticeable tendency for birds from the San Jacinto and San Bernardino mountains to vary toward *leucopolius*. The region lies at the margin of the range of *swainsonii* and may be affected by continual infiltration of birds from the northeast. Similarly, the Charleston Mountains are in the extreme southwesterly portion of the range of Great Basin forms. These several factors warrant a reconsideration of the status of the Charleston Mountains birds. Comparison with series from the typical areas of each race will probably show that they are better referred to *leucopolius*.

*Vireo gilvus swainsonii*. The breeding range of this race may be characterized as the Pacific slope, west of the Cascade-Sierran divide, from southern British Columbia to San Diego County in southern California. Occurrences of *swainsonii* in Lower California appear to represent migrants.

It is a pleasure to acknowledge the courtesy of Mr. James Moffitt of the California Academy of Sciences in making the collections under his charge available and the considerate attention to every detail in study and publication given by Dr. Alden H. Miller of the Museum of Vertebrate Zoology.

*Museum of Vertebrate Zoology, Berkeley, California, August 22, 1940.*