



PROCEEDINGS

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BIOLOGICAL SOCIETY OF WASHINGTON

DESCRIPTION OF A NEW YELLOWTHROAT (*GEOTHLYPIS TRICHAS*) FROM THE NORTHERN ROCKY MOUNTAIN-GREAT PLAINS REGION

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Working independently, Aldrich on the birds of Washington and Behle on the birds of Utah, the discovery was made that the population of yellowthroats in the Pacific Northwest east of the Cascade range and thence eastward to the Dakota region represents an undescribed race. Upon learning of each other's findings it was decided to collaborate in naming the new race, as follows:

Geothlypis trichas campicola, new subspecies

Northern Plains Yellowthroat

Type.—Adult ♂, No. 79842, University of California, Museum Vertebrate Zoology; Yellowstone River, 5 miles west Forsyth, 2,750 feet, Rosebud County, Montana; June 8, 1940; collected by W. C. Russell, original number 7262; weight 10.0 grams; testis 8 mm.

Subspecific characters.—Similar to *Geothlypis trichas occidentalis* of the Great Basin but upper parts grayer, less yellowish olive green; yellow of underparts less extensive posteriorly; belly and flanks grayer, averaging more whitish, less buffy. Similar to *G. t. arizela* of the humid coast belt west of the Cascade Range, but also grayer on upper parts; white frontal stripe broader; yellow of underparts slightly paler and less extensive; posterior underparts whiter, less buffy. In size intermediate between *occidentalis* and *arizela*.

Measurements.—Adult male (23 breeding specimens): wing, 52-60 (55.6); tail, 49.5-58 (51.5); exposed culmen, 10.5-12 (11.2); tarsus, 18.5-21 (19.7); middle toe without claw, 12-14 (13.1). Adult female (9 breeding specimens): wing, 50-54 (52.6); tail, 44-52 (47.8); exposed culmen, 10.5-11.5 (10.9); tarsus, 18-20 (19.4); middle toe without claw, 11.5-14 (13.0).

Geographic distribution.—Breeds east of the Cascade Mountains in northern Oregon, Washington, and British Columbia, thence east through northern Idaho, Alberta, Saskatchewan, Montana, northern Wyoming to northern North Dakota. In migration occurs southward in Utah, Colorado, and Arizona. Winter range undetermined.

Breeding specimens examined.—*British Columbia*: Clearwater Post-Office, 1; Indianpoint Lake, 1; Creston, Kootenay Valley, 1. *Washington*: Omak Lake, 1; Grand Coulee, 2; Pullman, 1; Rock Creek, 1; Yakima, 2;

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MEASUREMENTS (♂) OF THREE RACES OF
GEOTHYLPIS TRICHAS

Subspecies	Wing	Tail	Exposed Culmen	Tarsus	Middle toe without claw
<i>G. t. arizela</i> (18 specimens)	53.5-58.0 (55.0)	49.0-56.5 (52.3)	10.0-12.0 (10.9)	19.0-22.0 (20.3)	11.5-14.0 (12.7)
<i>G. t. campicola</i>					
Great Plains (13 specimens) ..	52.0-57.5 (55.0)	45.0-55.5 (50.3)	10.5-12.0 (11.2)	18.5-20.5 (19.7)	12.0-14.0 (13.0)
East, Washington (10 specimens)	54.5-60.0 (56.3)	49.5-58.0 (53.3)	10.5-12.0 (11.1)	18.5-21.0 (19.9)	12.0-14.0 (13.1)
<i>G. t. occidentalis</i> (28 specimens)	54.0-61.0 (57.7)	49.0-58.0 (54.4)	10.4-12.5 (11.4)	19.0-20.9 (20.1)	12.5-15.0 (13.9)

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Sprague, 1; Kiona, 1; Walla Walla, College Place, 1; Wenatchee Lake, 1. *Oregon*: Juntura, 1; Sparta, 1. *Idaho*: 2 miles south Payette, between Payette and Snake Rivers, Payette County, 1; Coolin, Bonner County, 1. *Alberta*: Camrose, 1; Edmonton, 1; 9 miles above main branch, Athabaska Delta, 2. *Montana*: Lolo Creek, 6½ miles west Lolo, 3,470 feet, Missoula County, 1; Yellowstone River, 5 miles west Forsyth, 2,750 feet, Rosebud County, 4; Big Timber, 2; Crow Agency, 2; Powderville, 1; Spring Creek, 6,500 feet, Bighorn Mountains, 1; Bozeman, 1; Glasgow, 3; Darnall's, 1; Lismas, 3; Lame Deer, 1; Hilger, 1; Zortman, 1. *Wyoming*: Black Mountain, Head of Pat O'Hara Creek, 2; Two Ocean Lake, 1; Greybull, 1; Muddy Creek, 1. *North Dakota*: Towner, 1; Tokio, 1; Medora, 2; Buford, 1; Larimore, 1; Fort Rice, 1; Oaks, 1; Bismarck, 1 (intergrade).

Remarks.—Many years ago the whole western population of yellowthroats was described and named *G. t. occidentalis* by Brewster (Bull. Nuttall Ornith. Club, 8, 1883: 158). An adult male in the Brewster collection from Truckee River, Nevada, May 4, 1881, was designated as the type. In 1899, Oberholser (Auk, 16: 257) separated as a distinct race *G. t. arizela*, the yellowthroats of the northern Pacific Coast region. The type selected was an adult male in the U. S. National Museum from Fort Steilacoom, Washington, collected on May 13, 1856. Subsequently, Swarth (Univ. Calif. Publ. Zool., 10, 1912: 71-73), in reporting on a collection of birds from Vancouver Island, was unable to distinguish his series of yellowthroats from birds taken in the Pine Forest Mountain in western Nevada, and, therefore, placed *arizela* in the synonymy of *occidentalis*.

Reexamination of Swarth's two series, together with study of much additional material, has led to the conclusion that the yellowthroats of the coastal region of the Pacific Northwest, west of the Cascade Mountains, are sufficiently different from the Great Basin population to justify the recognition of *arizela*, but with a much less extensive range than Ridgway (Bull. U. S. Nat. Mus. 50, Pt. 2, p. 670) indicated. *G. t. arizela* differs from the Great Basin form, *occidentalis*, in slightly smaller size, darker green back, and narrower white forehead stripe. The yellow of the underparts is greener, less orange, and the flanks less buffy.

Gabrielson and Jewett (Birds of Oregon, 1940: 12) also have recently noted that the yellowthroats west of the Cascade Mountains were different from those to the east of this range in Oregon. This discovery led these authors to consider *arizela* as a recognizable race. We not only concur with them in their findings but may comment further that the eastern Oregon population is somewhat intermediate between the races *occidentalis* and *campicola*.

The remarks of Grinnell and Miller (Pacific Coast Avifauna, 27, 1944: 411-413) on the distribution of yellowthroats in northern California west of the Sierra Nevada south to the San Francisco Bay region (occupied by the race *sinuosa*), and the area of intergradation with *scirpicola* in the Great Valley, apply for the most part to *arizela*, rather than *occidentalis*, which breeds only east of the Sierra Nevada.

During the course of the present study the type specimens of both *arizela* and *occidentalis* have been examined and both prove to be representative of the breeding populations of the regions whence they came.

It was especially necessary to consider the possibility that the type of the race *occidentalis*, taken early in May, might have been a migrant of either of the two races of more northern distribution. We are indebted to Mr. James L. Peters for the opportunity of examining the type of *occidentalis*, which is now in the Museum of Comparative Zoology at Harvard College. Indeed, we are indebted to the curators of many collections for the loan of comparative material used in this study.

Apparently the northern Rocky Mountains do not constitute a serious isolating barrier between the yellowthroats of eastern Washington and those of the northern Great Plains region, since there is no significant difference between these two populations. There is a slight approach of the eastern Washington birds to the race *arizela*, but they resemble much more closely the northern Great Plains group. Throughout southern Idaho, southern Wyoming, southern North Dakota, *campicola* integrades with *occidentalis* and along its eastern margin in North Dakota there is probably an area of inosculation with *brachidactyla*.

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