

GEOGRAPHIC VARIATION IN SOME BIRDS IN NEVADA

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The skins of birds assembled at the Museum of Vertebrate Zoology as basis for reports upon the distribution of the birds of Nevada and upon the terrestrial vertebrates of the Toyabe Mountains region, central Nevada, deserve treatment from a third point of view, one which aims to analyse geographic variation within that area. The Great Basin, largely occupied by Nevada, has been studied less intensively with respect to its avifauna than areas of comparable size in the eastern United States or immediately to the south and west. The following notes deal with only four of the more than thirty species which deserve special attention from this point of view.

Otus asio

No specimen of Screech Owl was available from northwestern Nevada to demonstrate occurrence of that species there, or for identification, until the summer of 1936. Mr. Dwight C. Smiley obtained an adult on July 10, 1936, on Smoke Creek, 3900 feet, 9 miles east of the California line, in Washoe County, Nevada. The bird (marked a female) weighed 56.7 grams; its wing length is 168.5 mm. It is skin no. 69430 in the Museum of Vertebrate Zoology. In coloration and size this specimen matches closely several from Idaho in the Museum, which belong to the race *Otus asio macfarlanei*. According to the A. O. U. 1931 Check-list, this form ranges from southern British Columbia south to eastern Washington, Oregon, western Montana, Idaho, and north-eastern California. The Nevada locality is thus near the southern border of the range as well as being the first for the state for the MacFarlane Screech Owl. The bird was found in mid-morning perched close beneath the roof of a small shed.

Aphelocoma californica

The relation between the California and Woodhouse jays has never been clearly demonstrated. Oberholser (Condor, vol. 19, 1917, p. 94) considered them as belonging to the same species, but interrelated through a roundabout series of races far to the south. According to him the race *texana* intergrades with *woodhouseii* in the Davis Mountains of Texas, and these are connected with *californica* through *cyanotis* and *sumichrasti*. At about the same time, Swarth (Univ. Calif. Publ. Zool., vol. 17, 1918, pp. 405 ff) concluded that *A. woodhouseii* was specifically distinct from *A. californica* and that it differed from any race of that species in coloration and proportions of bill. He pointed out that the blue areas, in the former, are dull and pale, the back is strongly suffused with bluish gray, and the under parts and throat with gray, and that the under tail coverts are blue. Also he showed that the bill of *woodhouseii* averages longer than in *californica*, but is more slender. Although he recognized that the ranges of the two forms come near together along the eastern base of the Sierra Nevada, he considered the only intermediate specimen as a single sporadic individual which did not indicate true intergradation.

The twenty-three recently acquired specimens from Nevada appear to demonstrate that these two jays belong to one species which responds to conditions in the Great Basin as do many other variable birds. Birds from the vicinity of Pyramid Lake south to Gardnerville, Douglas County, are like the race *immanis*, while all the others are *woodhouseii*. However, the gap between the ranges is no greater than that which separates many colonies of each race. The measurements summarized in the accompanying table show small average differences of about the same magnitude and paralleling in direction those found in other variable species in the same region. Birds in eastern Nevada are larger than those in the colony in the west-central part in every measurement except depth of bill and length of tarsus. Moreover, these Nevada birds are larger

than the ones measured by Swarth from farther south, in California and Arizona; they are thus much nearer to *immanis*, in size, than Swarth's material indicated. Also, in coloration, several specimens from western Nevada are so nearly intermediate between *woodhouseii* and *immanis* as to be assignable to either, on this basis, only with difficulty.

It would thus appear that direct intergradation, of a fairly normal kind, exists between the races of *Aphelocoma* in California and the Great Basin, fully warranting the subspecific combination, *A. californica woodhouseii*, for the latter race.

MEASUREMENTS (IN MILLIMETERS) OF MALES OF *APHELOCOMA CALIFORNICA* FROM NEVADA

No. specimens	<i>woodhouseii</i>			<i>immanis</i>		
	Av.	(13) Min.	Max.	Av.	(5) Min.	Max.
Wing	129.9	123.8	134.3	127.5	120.6	133.9
Tail	139.0	125.7	151.0	137.3	130.1	145.4
Culmen	29.4	26.8	31.4	27.2	25.9	28.1
Depth of bill	10.2	9.3	10.9	10.5	10.1	11.4
Tarsus	39.4	36.2	41.4	39.5	35.7	41.2

Penthestes atricapillus

Long-tailed chickadees from northern Elko County, in fresh fall plumage, could not be identified with the race *P. a. septentrionalis* from farther north and east (type locality, Montana). Nor could they be considered as intergrades between that race and any other form, as the birds from part of western Idaho have been considered to be (A. O. U. Check-list, ed. 4, 1931, p. 229), for they are at the margin of the range of the species. Thus, it seems fitting to supply a name for the Nevada form, as follows.

Penthestes atricapillus nevadensis, new subspecies. Pallid Black-capped Chickadee.

Type.—Male, no. 65920, Mus. Vert. Zool.; Salmon River at Shoshone Creek, 5000 feet, Elko County, Nevada; September 16, 1934; collected by J. M. Linsdale.

Diagnosis.—Similar to *P. a. septentrionalis*, but coloration paler, with whitish edgings to greater wing-coverts, secondaries and lateral rectrices broader, more conspicuous, thus reaching the extreme in these respects for the species, but close to *P. a. turneri* from which it differs in larger size.

Geographic Range.—Resident along streams in the Snake River drainage system south of the Snake River, in northeastern Nevada and southern Idaho. Specimens examined from the type locality (9) and from Elba (1) and Howell's Canyon, 8 miles southeast of Albion (2), Cassia County, Idaho. (The three specimens from Idaho were collected by W. B. Davis.) One record of a bird taken in migration season is of an adult male taken on October 23, 1936, by M. Wetherill (no. 36-16) in Betatakin Canyon, Navajo County, Arizona. The skin is now in the collection of the Museum of Northern Arizona. (See Wetherill, Condor, vol. 39, 1937, p. 86.)

Measurements (in millimeters) of specimens of *Penthestes atricapillus* in Museum of Vertebrate Zoology, taken September 16, 1934, on Salmon River, Elko County, Nevada:

No.	Sex	Wing	Tail
65913	♀ ad.	67.4	70.6
65914	♀ im.	65.2	61.7
65915	♂ im.	66.6	64.9
65916	♂	69.0	69.0
65917	♀ im.	66.0	66.1
65918	♂ im.	67.3	66.5
65919	♂ im.	65.0	66.3
65920	♂ ad.	72.2	71.6
65921	♂ im.	68.9	66.4

Baeolophus inornatus

The Plain Titmouse of the northwestern margin of the Great Basin was named *B. i. zaleptus* by Oberholser (Sci. Publ. Cleveland Mus. Nat. Hist., vol. 4, 1932, p. 7)

on the basis of two specimens in the Cleveland Museum taken from the rim of Warner Valley northwest of Jacobs Ranch, Twenty Mile Creek, 9 miles south of Adel, Oregon, May 3, 1930. These birds were characterized as "similar to *griseus*, but much more clearly grayish above with practically none of the brownish tinge so evident in the latter race; also paler above; and somewhat lighter, more clearly grayish below, with little or no buffy wash."

Both specimens mentioned by Oberholser were forwarded and examined in the Museum of Vertebrate Zoology on March 5, 1936. They matched closely nos. 64713,-14 Mus. Vert. Zool., a male and female taken on April 30, 1934, 17 miles northwest of Reno. They are distinctly darker, more olive, than May and June birds from eastern Nevada. My measurements of the two were as follows:

	Wing	Tail	Culmen	Tarsus
Male	73.9	61.0	12.1	20.6
Female	72.5	62.2	12.9	19.6

Fresh September and October specimens from the Madeline Plains, eastern Lassen County, California, and 17 miles northwest of Reno, Nevada, compared with *B. i. griseus* from eastern Nevada, are darker both above and below, with a distinct olive tone above. On these the color of back is Dark Olive-Gray rather than the Deep Olive-Gray of *B. i. griseus* or Deep Mouse Gray of *B. i. plumbescens* from New Mexico and Arizona. The bill is larger and broader in these birds than in *griseus* or any other form of the species.

Thus it is evident that the name *zaleptus* may be applied properly to a distinct race of Plain Titmouse which occupies the northwestern part of the Great Basin from Warner Valley, Oregon, south through Modoc and Lassen counties, California, at least to the vicinity of Reno, in western Nevada. However, the characters mentioned in the original description appear to be the reverse of the true distinguishing features. This race cannot be considered intermediate for, in several characters, it reaches extreme development for the species.

This species is scarce or absent in central Nevada, for no specimen was obtained between 116° and 119° W. longitude. Possibly the range of the species is more continuous to the northward.

Museum of Vertebrate Zoology, University of California, Berkeley, September 28, 1937.

FROM FIELD AND STUDY

Rare Birds at a Pasadena Banding Station.—It might easily be concluded that, after ten years of almost daily full-day operation of from one dozen to two dozen traps on a three-quarter acre lot near the center of a city of perhaps 70,000 inhabitants, the chance of catching a native bird of a species hitherto not seen at that station is extremely remote and that the thrill of banding a new species could no longer be counted upon to help compensate for the hard work. In our case such a conclusion would have been wrong. We began banding in November, 1924. Since 1934, the birds listed below have been banded for the first and only time at this station. With the exception of the first one in the list they are birds rare even for the State of California.

Yellow-throat (*Geothlypis trichas*, subsp.). A male was banded on September 27, 1936. One other of the species was seen on our place several years ago.

American Redstart (*Setophaga ruticilla*). An immature male, or a female, was banded on September 7, 1936, and repeated in our traps on September 7 and 9. The areas in the adult male which are normally red were a deep orange-yellow in this bird. Willett (in *A Revised List of the Birds of Southern California*, 1933, p. 150) reports four other occurrences in southern California, in Pasadena in 1905, in Griffith Park in 1923, at Verdugo Woodlands in 1925, and at Artesia in 1925.