

A NEW RACE OF THE BLACK-CAPPED CHICKADEE
FROM THE ROCKY MOUNTAIN REGION

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SPECIMENS of *Parus atricapillus* collected recently in Utah show differences from the populations of the western, desert portion of the state and of the eastern section. Duvall in his revision of the species (Auk, 62: 49-69, 1945) comments on the different appearance of examples from certain localities in Idaho, Wyoming, Montana, Colorado, New Mexico, and Utah, which he considered variants of the race *P. a. septentrionalis*. Many of these specimens were very old and he attributed their brown color to "foxing." They correspond, however, in their color characters to fresh examples from northeastern Utah. Thus it appears that there is a differently characterized population in the Rocky Mountain area which is designated as

Parus atricapillus garrinus, new subspecies. Rocky Mountain Black-capped Chickadee.

TYPE: Adult male; No. 10031, Univ. Utah Mus. Zool.; near Merkle Park, 5500 feet, Ashley Canyon, 10 miles north Vernal, Uintah County, Utah; September 4, 1949; collected by William H. Behle, No. 3427.

SUBSPECIFIC CHARACTERS: Distinguished from surrounding races as follows: 1) from *P. a. nevadensis* by having a buffier brown, less grayish dorsum; also a buffier color to the rump, sides and flanks; 2) from *P. a. fortuitous* by smaller size; dorsum lighter, rump buffier so that the two areas are differently colored whereas in *fortuitous* the rump and back are of similar color; white edgings of rectrices and remiges wider and lighter in *garrinus*; 3) from *P. a. septentrionalis* by a browner dorsum without the gray tone.

MEASUREMENTS: Ten males: wing, 70.6-64.3 (68.6) mm.; tail, 69.8-61.5 (66.7); total culmen, 11.2-9.3 (9.9). Ten females: wing, 76.7-63.4 (67.7) mm.; tail, 70.0-63.1 (65.6); total culmen, 11.0-9.0 (9.8). On the basis of this small sample in comparison with the figures of Duvall (*op. cit.*) it does not appear that the size characters of this population differ from those of *P. a. nevadensis* or *P. a. septentrionalis*.

GEOGRAPHIC RANGE: Breeds in eastern Idaho, southwestern and central southern Montana, central and western Wyoming, central and western Colorado, northern New Mexico, eastern Utah. Probably resident for most part but some examples wander in winter outside of breeding range.

SPECIMENS EXAMINED: Of *P. a. garrinus*—IDAHO: Custer County: Lemhi (Sept.). Lake County: Paris (Sept.). WYOMING: Teton County: Teton Pass above Fish Creek, 7000 feet (Sept.); Pacific Creek, 5 miles east of Moran (Sept.). Big Horn County: Greybull (June). Park County: Valley (July). Sublette County: 1 mile north Green River Lakes, 8300 feet (Aug.). MONTANA: Gallatin County: Reese Creek (Aug.); Pass Creek (Aug.); Jefferson River (Sept.); near Hillsdale (Aug.); Madison River (Sept.); Dry Creek (Aug., Sept.); Bozeman (Aug.); Gallatin Station (Sept.). Park County: Livingston (July). Madison County: Ruby Mountains (Aug.). Missoula County: Lolo Creek, 6½ miles west Lolo, 3470 feet (May). Musselshell County: 16 miles south Roundup (Aug.). COLORADO: Jefferson County: Morrison (Oct.); Turkey Creek (Oct.). Adams County: Barr (May); Henderson (Oct.). Douglas County: Castle Rock (Nov.); Littleton (Oct., Feb.). Fremont County: Canon City (Nov.). Pueblo County: Pueblo (Oct.). Clear Creek County: Silver Plume (Sept.). Denver County: Denver (Oct., Nov., Dec.). El Paso County: Palmer Lake (Sept.). Costilla County: Fort Garland (April, Aug., Oct.). Conejos County: Antonito (Mar.), Sanford (Oct.), Conejos River (Sept.). La Plata County: Animas River (June). NEW MEXICO: Santa Fe County: Cienquilla (Mar.); Pecos Baldy (Aug.); Santa Fe Mountains (July). San Miguel County: Willis (July); Pecos (Oct.). Rio Arriba County: Horse Lake (Sept.). Taos County: Red River (Aug.); Arroya Seco (Feb.). Chavez County: Hondo Canyon (Jan.). Colfax County: 20 miles southwest Cimarron, 900 feet (Oct.). UTAH: Uintah County: near Merkeley Park, 5500 feet, Ashley Canyon, 10 miles north Vernal (Sept.); Dry Fork Canyon, 6000 feet, 15 miles north Vernal (June). Duchesne County: Stockmore (Oct.). Carbon County: Price (Oct.). Summit County (atypical): Chalk Creek, 5600 feet, 5 miles east Coalville (June); Parley's Park, 6900 feet, 1 mile south Snyderville (July, Sept.). Wasatch County: Cumming's Flat, 7200 feet, 11 miles northeast Heber (June); Snake Creek Canyon, 6000 feet, 3 miles northwest Midway (May).

Of *P. a. nevadensis*—NEVADA: Elko County: Salmon River at Shoshone Creek, 5000 feet (Sept.). IDAHO: Blaine County: Bellevue (Jan., atypical); Cassia County: Howell's Canyon, 8 miles southeast Albion (Dec.); Elba (June). Utah: Boxelder County: George Creek, 6500–7000 feet, Raft River Mountains, 5 miles south Yost (May); Clear Creek, 6500 feet, north slope Raft River Mountains, 5 miles southwest Nafton (May); One Mile Creek, 5200 feet, 1 mile south Stanrod (Aug.); Stanrod 6000 feet (Nov.). Rich County: ½ mile east Monte Cristo, 8400 feet, 41 miles east Ogden (Oct.). Davis County: Mouth Parish Creek Canyon, 5000 feet, 4 miles east Bountiful (April). Summit County: 12 miles east Oakley, 7500 feet (May). Salt Lake County: Mouth Little Cottonwood Canyon, 4400 feet (Mar., Dec.); Bell's Canyon, 4400 feet, 5 miles east Draper (July). Utah County: Four Mile Canyon, Cedar Valley, 5100 feet (Oct.). Piute County: Marysvale (April, atypical). Kane County: Navajo Lake, Cedar Mountain (July, atypical).

Of *P. a. fortuitous*—OREGON: Wallowa County: Enterprise (Feb.); 16 miles south and 3 miles east Lostine, 5500 feet (July). Also John Day River (July). WASHINGTON: Yakima County: Mabton, 900 feet (Jan.); Logycreek Indian Reservation (Nov.). Malheur County: Willow Creek, Ironside (Dec.). Walla Walla County: Prescott (Dec.); south bank Snake River, 1 mile above mouth, 350 feet (May). Whitman County: Pullman (Oct., Nov.). Ferry County: Curlew Lake (Nov.). BRITISH COLUMBIA: Crownsnest (June); Okanagan (Nov.); Clearwater P. O. (May); Cranbrook (April); Beaverbrook Ranch, 22 miles south Kamloops (Jan.); Creston, Kootenay Valley (May). IDAHO: Bonner County: 5 miles west Cocolalla (July); Priest Lake (July); Hunt Creek, Selkirk Mountains (Aug.). Kootenai County:

Tubbs Creek, Coeur d'Alene (Feb.); Lake Coeur d'Alene (Oct.); Fernan Lake, Coeur d'Alene (Mar., May). Latah County: Moscow Mountain, 10 miles northeast Moscow (Oct.); University of Idaho, Moscow (Oct.). Idaho County: 2 miles south southeast Selway Falls, 1900 feet (Sept.).

Of *P. a. septentrionalis*—MONTANA: Custer County: Fort Keogh (Feb., Mar., May, Nov.); 3 miles south Miles City (July). Fergus County: 5 miles northwest Hilger (Aug.); North Fork Flat Willow Creek, 15 miles south Heath, Big Snowy Mountains (Aug.). Cascade County: Fort Shaw (no date). Yellowstone County: Fort Custer (Oct., Dec., Jan.). Chouteau County: Benton (Aug.); Highwood Mountains (Aug.); 5 miles north Wilder on Missouri River (July). Big Horn County: Crow Agency (Aug.); Lodgegrass Creek (May). Phillips County: Darnall's (June); Ruby Creek, Zortman (July); Lismas (June); 2 miles west Leedy (July). Valley County: Glasgow (June). Dawson County: Glendive (May). Rosebud County: Lame Deer (July); Yellowstone River, 5 miles west Forsyth, 2750 feet (June). Powder River County: 4 miles west Fort Howe Ranger Station, 4000 feet (June). Also Big Bend Musselshell River (Aug.). WYOMING: Crook County: Sundance (June). Goshen County: Pine Ridge, 10 miles northeast Fort Laramie (July). COLORADO: Yuma County (atypical): Wray (May, Oct., Nov.); Dry Willow Creek (Aug.). Arapahoe County: Fort Logan (Jan., Mar.). Adams County: Barr (Feb., Mar.); Bennett (Sept., Nov., Jan.). Jefferson County: Wheatland (April); Golden (Mar.); 5 miles west Golden (Jan.). El Paso County: Manitou (Jan.). Pueblo County: Pueblo (Aug., Feb.). Lincoln County: Limon (Jan.). Pitkin County: Aspen (Dec.). Archuleta County: Arboles (April); Pagosa Junction (Mar.). NEW MEXICO: San Juan County: Aztec (Dec.).

DISCUSSION OF DISTRIBUTION AND VARIATION: Specimens from the range of this new race were allocated by Duvall (*op. cit.*) for the most part to *P. a. septentrionalis* which latter subspecies is now restricted to the area of eastern Colorado, portions of Oklahoma, Kansas, North Dakota, and western and northern Montana. Thus the range is confined to the Great Plains area. In contrast, this new race occurs in a mountainous section of North America, having developed in, or at least is presently subjected to, a different environmental situation. Reference to mountain conditions may be a bit misleading, however, for the niche relations of the bird are normally such that these chickadees do not occur in the high mountains. Rather they occur in the ecological situation of the lower canyon floors or lower valleys where a stream-side, cottonwood-willow association exists.

Although representatives of this new race are not present from vast areas of the Rocky Mountain region, the specimens in the series, which are at hand, were taken in widely scattered localities and are fairly constant in their appearance. This suggests uniformity of characters within the range as outlined. However, on the fringes of the Rocky Mountains, intergradation occurs with at least two surrounding races, namely *nevadensis*, to the west, and *septentrionalis*, to the east. A discussion of the distribution of the races by states follows:

UTAH.—A large series of specimens from the Raft River Mountains in extreme northwestern Utah represents the race *nevadensis*, the type locality of which is not far distant in northeastern Nevada. Examples from canyon areas along the Wasatch Front, which name applies to the abrupt west-facing escarpment of the Wasatch Mountains in central northern Utah, seem to be even paler than topotypes of *nevadensis*. Immediately to the east of the Wasatch Front, specimens from such locations as near Gorgoza, Snyderville, and Midway show an approach to this new race in being intermediate in color characters. Still farther east at the south base of the Uinta Mountains the specimens are representative of *garrinus*.

Two specimens from southwestern Utah, namely Navajo Lake, Kane County, and Marysvale, Piute County, are closest to *nevadensis*, but not typical. The former, taken July 20, may have been a post-breeding season wanderer from lower elevations. A specimen taken February 9 in Zion Canyon (not examined by the writer) reported by Presnall (Condor, 38: 217, 1936) may be an intergrade or actually represent *nevadensis* as Linsdale (Condor, 40: 37, 1938) suggests.

Two examples from Price, Carbon County, are variable, one being typical *garrinus*, the other lighter, more like *nevadensis*. Duvall (*op. cit.*: 61) speaks of two old specimens from Green River in eastern Utah being very brown and although unlike *nevadensis* he referred them to that race on the basis of their probably having foxed with age and exposure.

Idaho.—Three races are seemingly represented in the area covered by this state. In the southwestern corner the population apparently represents *nevadensis*. At least a series taken at Bellevue, Blaine County, on January 8 shows intergradation between *garrinus* and *nevadensis*, and although not breeding birds they may indicate the general area of blending of the two races. Duvall mentions a specimen from southeastern Idaho that seems to fit *garrinus*. It is from near the mouth of Camas Creek, Mud Lake, Jefferson County, and he reported it as being too buffy (less grayish) and too dark for *nevadensis*. The example from Lemhi in fresh fall plumage clearly represents *garrinus*. Duvall remarked that it was certainly not *nevadensis* or the central Washington bird, *fortuitous*.

Specimens from northern Idaho are darker in coloration and hence represent the race *fortuitous*. A series of 11 birds from nearby Kootenay Valley in British Columbia taken in May probably also represents *fortuitous* although some specimens by their grayness may show *septentrionalis* characters.

Montana.—The type locality of *P. a. septentrionalis* is along the Yellowstone River about 30 miles above its junction with the Missouri River. Apparently this race occupies the northern and eastern part of the state, being replaced by *garrinus* in the southwest and central southern portions. Concerning the chickadees from the *garrinus* part of the state, namely Gallatin County, Duvall (*op. cit.*: 59) wrote, "Birds from Gallatin County, southwestern Montana, are different from almost all other specimens of *septentrionalis* that the writer has seen, being much buffier both above and below, and darker than toptypical examples of *septentrionalis*."

Wyoming.—Examples from the western part of the state are of the race *garrinus* and indications are that those from the eastern edge are *septentrionalis*.

Colorado.—In extreme northeastern Colorado the breeding population seems to be closest to the race *septentrionalis*. Along the east face of the Rocky Mountains the picture of variation is confused. A contributing factor is that, whereas there is a wealth of fall and winter examples at hand, there is a lack of breeding specimens. The fall and winter specimens include some examples having the characters of *garrinus*; others are like *septentrionalis*, while still others are intermediate. This may mean a highly variable and intergrading population or a mixture due to a post-breeding season wandering. In any event I have listed several localities in eastern Colorado for *septentrionalis*, others for *garrinus*. In central and western Colorado the chickadees should be typical of *garrinus*. Specimens from southwestern Colorado taken in the fall represent this new race.

It is interesting to note that Duvall wrote (*op. cit.*: 60): "Specimens in fresh plumage from Colorado are similar to the birds from Gallatin County, Montana, in having a buffy wash to the upper parts, thus averaging more buffy than typical

septentrionalis, and, at the same time, are different from specimens from southern Idaho and Nevada."

New Mexico.—Evidence that *garrinus* extends south into New Mexico is found in Duvall's comments. Speaking of U. S. National Museum specimen number 6776, with no locality given other than just New Mexico, he states (*op. cit.*: 60), that it is a flat skin in very poor condition but "very buffy both above and below, which may be due to 'foxing.' Although taken in New Mexico, it is very different from practically every other specimen with the exception of one from Pecos, New Mexico, and several fresh-plumaged birds from Colorado. Apparently the above-mentioned birds are merely variants of *septentrionalis*." The specimen from Pecos taken October 4, 1883, which I have seen, may indeed have "foxed." At any rate it is distinctive, being much more heavily pigmented and a deeper brown than typical examples of *garrinus*. Duvall further states that, "Specimens from Willis, New Mexico, taken during the breeding season, are somewhat darker than *septentrionalis*, and thus show a trend away from that race, as well as away from *nevadensis*. In addition, other specimens from New Mexico show a departure from the long-tailed form in their smaller size."

There are indications that northern New Mexico may be a meeting ground of races with an involved problem of variation. Specimens in fresh fall plumage from several localities (20 miles southwest Cimarron; Aztec; Horse Lake; Arroyo Seco; Hondo Canyon) are grayer on the back, seemingly showing an approach to *septentrionalis*.

Arizona.—Black-capped Chickadees are apparently rare in Arizona. The late October specimen reported from Betatakin Canyon by Weatherall (Condor, 39: 86, 1937) and referred to as *nevadensis* by both Linsdale (*op. cit.*: 37) and Duvall (*op. cit.*: 61) is more probably of the race *garrinus*, for Weatherall commented on the conspicuous buff of the sides and flanks.

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