

limbs of a spruce tree, the latter about twenty-five feet high, and with the trunk ten inches in diameter at the base. The nest was placed close to the trunk, at an elevation of twelve feet. It was composed outwardly of dried spruce and pine twigs, interwoven with dried grasses and cottonwood down. The lining consisted chiefly of finer grasses, with the inner walls scantily padded with dry bearded moss of a dark brownish color. The nest measures  $7\frac{1}{2}$  inches in width, and  $2\frac{1}{2}$  inches in depth, with a cavity of  $3\frac{1}{4}$  inches across the top, and  $1\frac{3}{4}$  inches deep. The eggs, two in number, are both of a pearl grayish ground color, with a few faint pale blue markings, and with conspicuous spots of various shapes, of bluish slaty black, intermixed with a few clay colored spots. The eggs measure:  $24 \times 17.3$  and  $24.2 \times 17.5$ .

Nest no. 2. This nest was well hidden on an outer branch of a spruce tree about eighteen feet above the ground. Of the four nests taken, this was the only one not placed against the tree trunk. It is similar to number one, both in size and structure. The eggs, five in number, were perfectly fresh. They are of the usual pearl grayish color, with small spots of bluish slaty black and of pale blue, with the clay colored spots almost lacking. The eggs measure:  $22 \times 17$ ,  $22 \times 17$ ,  $22 \times 17.3$ ,  $22.5 \times 17.2$ ,  $22 \times 17$ . (See fig. 50.)

Nest no. 3. Situated in a small spruce tree, eighteen feet up, and placed against the tree trunk. Nest similar to number one, both in structure and measurements. The nest contained four fresh eggs of a pearl gray color, spotted with bluish slaty black, pale blue, and clay colored markings, mostly toward the larger end. The eggs measure:  $24 \times 17$ ,  $23 \times 17$ ,  $23.5 \times 17$ ,  $23.3 \times 17$ .

Nest no. 4. This nest was situated close to the trunk of a small slender spruce tree, fifteen feet up. It is similar to number one, differing only in having a scant lining of white fur of the Northern Hare (*Lepus americanus macfarlanei*). The nest contained five fresh eggs, of a pearl grayish color, spotted and blotched with blue slate, and with obscure pale blue markings, mostly toward the larger end. This set is not marked as heavily as any of the others. The eggs measure:  $24.5 \times 17.3$ ,  $25 \times 17.3$ ,  $24.5 \times 17$ ,  $25 \times 17.5$ ,  $25 \times 17$ . (See fig. 51.)

*Victoria, British Columbia, Canada, April 20, 1915.*

## NOTES ON SOME BIRDS OF SPRING CANYON, COLORADO

By W. L. BURNETT

**S**PRING CANYON is a small opening in the first range of foothills seven miles southwest of Fort Collins. Viewing it from the standpoint of a mammalogist, this canyon has always been an interesting spot to me. While no systematic study of the birds found in this vicinity has been made by me, the following notes have been picked up from time to time. A half day or day now and then has been spent at the canyon, with the collection of small mammals the main object of the trips. Of such specimens we have taken some twenty species or subspecies, in the canyon proper and just outside. The place was named from a large spring that in years past flowed just at the entrance of the canyon, in early days a favorite camping spot for emigrants, as the old California trail ran nearby. Several years ago, a mighty flood rushed

down the canyon and destroyed the spring, so that it has not flowed since. The flood, to some extent, ruined the beauty of the canyon, for huge blocks of sand-stone were washed down from the side walls. One of these was moved about fifty yards, and weighed several tons. The canyon proper is about one-half mile through. The Auto Stage road to the famous Estes Park now runs through the canyon, which is the first bit of rugged scenery the eastern tourist sees after leaving Fort Collins.

These bird notes were taken in the canyon, and on the two quarter sections lying just outside on the plains. On both sides of the road, including the canyon, is the Dawley ranch, joined on the east by the Berry ranch. On the south side of the road is a pasture of native grass, with a small reservoir which is filled with flood water. In dry seasons this has little or no water in it, therefore water birds are scarce.

There is a small stream, known as Spring Creek, flowing through the canyon, taking a northeasterly course past the Berry house, which stands about three hundred yards outside. Along this stream, between the canyon and the Berry house, is a small growth of cotton-wood (*Populus angustifolia*) and willow (*Salix, sp. ?*), and underbrush of various kinds, including wild plum (*Prunus melanocarpa*), choke-cherry (*Prunus pennsylvanica*), mountain maple (*Acer glabrum*), wild goose-berry (*Ribes purpuri*), black currant (*Ribes floridum ?*), haws (*Crataegus occidentalis*), wild rose (*Rosa sayi*), etc.

On the walls of the canyon is found yellow pine (*Pinus scopulorum*) and cedar (*Sabina scopulorum*). As this is the only timber and underbrush to speak of between the Big Thompson river to the south, and the Cache La Poudre river to the north, it is a favorite spot for birds, especially so in migration. Along Spring Creek on the Dawley ranch is some back water and a small patch of swampy ground, but not enough to be of much attraction to the birds usually found at such places.

Through the courtesy of the Dawleys and Berrys, I have had the privilege of shooting, trapping, and building campfires on both places, and in a way making myself a general nuisance. Mr. Berry, while not an ornithologist, is a keen observer, and familiar with most of the common birds of the region, and he has been of assistance to me in locating nests, etc. The dates on spring migration, as given in this list of birds, are averages compiled from records kept for several years for me by Mr. Berry. The dates following the word "breeds" are those on which full sets of eggs have been found.

**Rallus virginianus.** Virginia Rail. Uncommon; breeds (May 30).

**Oxyechus vociferus.** Killdeer. Common in the canyon and out. Arrives March 10; breeds (June 2).

**Zenaidura macroura carolinensis.** Mourning Dove. Common. Arrives April 15; breeds (May 29). We have two winter records for this bird, January 15, 1901, and November 24, 1903.

**Cathartes aura septentrionalis.** Turkey Vulture. Not common; one taken in the spring of 1902.

**Accipiter velox.** Sharp-shinned Hawk. Not uncommon. One taken in the canyon April 13.

**Buteo borealis calurus.** Western Red-tail. Common in migration.

**Falco columbarius columbarius.** Pigeon Hawk. Not common. Two specimens taken on the Berry ranch, September 9 and 18.

**Falco sparverius sparverius.** Sparrow Hawk. Common; breeds (May 21). Arrives April 28.

**Asio wilsonianus.** Long-eared Owl. One or two seen almost every trip made to the canyon. No doubt breeds, but we have no record.

*Cryptoglaux acadica acadica*. Saw-whet Owl. Rare. One found dead in the road near the Berry house.

*Coccyzus americanus occidentalis*. California Cuckoo. Not uncommon, several specimens having been taken; breeds (June 16).

*Coccyzus erythrophthalmus*. Black-billed Cuckoo. Rare, but one specimen having been taken.

*Melanerpes erythrocephalus*. Red-headed Woodpecker. Common; arrives May 20. Breeds (June 19). Mr. Berry has a small cherry orchard on his place, and these woodpeckers keep him busy at cherry time, trying to get his share of the fruit.

*Colaptes cafer collaris*. Red-shafted Flicker. A common resident; breeds (May 13). We have in the college collection a Flicker skin taken at the canyon, that is a hybrid between *cafer* and *auratus*.

*Aeronautes melanoleucus*. White-throated Swift. Common, several have been taken in the canyon. No doubt they breed there, but we have no record.

*Tyrannus tyrannus*. Kingbird. Common. Arrives May 10; breeds (June 6).

*Tyrannus verticalis*. Arkansas Kingbird. Common; arrives May 8.

*Sayornis sayus*. Say Phoebe. Common. Arrives April 5; breeds (May 15). Mr. Berry had in his workshop a hawk, mounted with spreading wings. Through the open window of this shop, a pair of Phoebes entered and built a nest on the back of this mounted hawk, between the outspread wings.

*Myiochanes richardsoni richardsoni*. Western Wood Pewee. Common. Arrives May 16; breeds (June 26).

*Pica pica hudsonia*. Magpie. Common; breeds (May 6).

*Cyanocitta stelleri diademata*. Long-crested Jay. Common in winter, but uncommon in summer. Berry found a nest of this jay in a pine tree, high up on the north canyon wall.

*Xanthocephalus xanthocephalus*. Yellow-headed Blackbird. Not uncommon. Arrives April 10; breeds (May 29).

*Agelaius phoeniceus phoeniceus*. Red-winged Blackbird. Common; breeds (May 15).

*Sturnella neglecta*. Western Meadowlark. Common; breeds (May 29).

*Icterus bullocki*. Bullock Oriole. Common. Arrives May 9; breeds (June 7).

*Euphagus cyanocephalus*. Brewer Blackbird. A common summer resident. We have no record of its breeding in the canyon.

*Carpodacus mexicanus frontalis*. House Finch. Common; breeds (May 5).

*Leucosticte tephrocotis tephrocotis*. Gray-crowned Rosy Finch. Not uncommon in winter. There are several specimens in the college museum taken at the canyon.

*Melospiza lincolni*. Lincoln Sparrow. Not uncommon. There is a mounted bird in the college museum taken at the canyon.

*Pipilo maculatus montanus*. Spurred Towhee. Common; arrives April 25. The walls of the canyon are covered with a thick growth of underbrush, a condition dear to the hearts of the towhees, and as they skulk through this underbrush, the canyon walls echo with their harsh call-notes.

*Oreospiza chlorura*. Green-tailed Towhee. One of the common birds of the canyon.

*Zamelodia melanocephala*. Black-headed Grosbeak. Common. Arrives May 8; breeds (June 20).

*Calamospiza melanocorys*. Lark Bunting. This is one of my favorite birds. A common summer resident, nesting in the alfalfa fields. Arrives May 20; breeds (June 6).

*Piranga ludoviciana*. Western Tanager. Not uncommon in migration. Arrives May 14.

*Petrochelidon lunifrons lunifrons*. Cliff Swallow. Common. Arrives May 13; breeds (June 25).

*Hirundo erythrogastra*. Barn Swallow. Common. Arrives May 9; breeds (July 22).

*Stelgidopteryx serripennis*. Rough-winged Swallow. Five or six pairs found nesting June 27 in the bank along Spring Creek.

*Lanius ludovicianus excubitorides*. White-rumped Shrike. Not uncommon. Arrives April 25; breeds (May 29).

*Vireosylva gilva gilva*. Eastern Warbling Vireo. One of the common birds among the cotton-woods.

*Dendroica aestiva aestiva*. Yellow Warbler. One of the common warblers. Arrives May 8; breeds (June 1).

*Dendroica auduboni auduboni*. Audubon Warbler. The commonest warbler during migration. Arrives April 17.

*Seiurus noveboracensis notabilis*. Grinnell Water-thrush. One specimen in the college museum, taken in the canyon.

*Oporornis tolmiei*. Macgillivray Warbler. One of the common warblers of the canyon. We have no record of its breeding.

*Geothlypis trichas occidentalis*. Western Yellow-throat. Abundant.

*Icteria virens longicauda*. Long-tailed Chat. Not uncommon. We have no data on its spring arrival. Berry found it nesting, but failed to record the date.

*Wilsonia pusilla pileolata*. Pileolated Warbler. Common in migration.

*Setophaga ruticilla*. Redstart. Not uncommon.

*Mimus polyglottos leucopterus*. Western Mockingbird. Not uncommon; arrives May 9. No doubt breeds, but we have no record of it.

*Dumetella carolinensis*. Catbird. Common. Arrives May 13; breeds (June 22).

*Toxostoma rufum*. Brown Thrasher. Common. Arrives May 13; breeds (June 19).

*Salpinctes obsoletus obsoletus*. Rock Wren. Common on the rocky walls of the canyon. A full set of eggs was taken from a hole in a sandstone ledge, June 7.

*Hylocichla fuscescens sallicicola*. Willow Thrush. Rare. Only one record, a mounted specimen in the college museum, taken at the canyon in 1902.

*Hylocichla ustulata swainsoni*. Olive-backed Thrush. Common in migration.

*Planesticus migratorius propinquus*. Western Robin. Common. Arrives March 5; breeds (May 28).

*Sialia currucoides*. Mountain Bluebird. Arrives February 25; breeds (June 16).

*Colorado Agricultural College, May 1, 1915.*

## WOODPECKERS OF THE ARIZONA LOWLANDS

By M. FRENCH GILMAN

WITH TEN PHOTOS BY THE AUTHOR

THE TERRITORY covered by these notes is a strip of country about three miles wide, on each side of the Gila River, extending from Blackwater at the east, to Casa Blanca and Snaketown on the west. Except for species peculiarly adapted to life on the desert, the country is anything but a woodpecker's paradise. Mesquite and ironwood, comprising the bulk of the timber, probably make hard pecking, and except along the river bottoms there is not much growth suitable for the birds. Of the eight species of woodpeckers to be mentioned, only two can be called abundant, but these two make up for the lack of numbers of the others.

The Cactus Woodpecker (*Dryobates scalaris cactophilus*) may be seen in limited numbers at all times of the year. It is seemingly at home in any location, in the open country working on the various species of cactus (*Opuntia*); in dense mesquite and screw-bean thickets; or in cottonwood and willow groves. The nest holes are made in any suitable tree or shrub, and average about 1.55 inches in diameter, with depth of six to eight inches. I have seen the nests in mesquite, screw-bean, ironwood, cottonwood, willow, palo verde, and cholla cactus (*Opuntia fulgida*). They may nest in the giant cactus also, but I have never found them there. The height of the nest varies from two feet to twenty or more, and the holes are excavated in dead or dying wood, though occasionally part of the hole may extend into green wood.