## NOTES ON BIRDS OBSERVED IN MOFFAT COUNTY, COLORADO

## WITH THREE ILLUSTRATIONS By RUSSELL W. HENDEE

During the spring and summer of 1924, I was given an opportunity to secure some interesting and fairly complete notes on the birds of the little studied region lying in the northwestern corner of Moffat County, the most northwestern county in Colorado. While engaged chiefly in other work for the Colorado Museum of Natural History, the four members of our party were continually on the lookout for information concerning the birds of the region, and the records offered herewith include the observations of the entire party. In all doubtful cases specimens were collected, and many of these were identified by Dr. H. C. Oberholser of the United States Biological Survey.

With very few exceptions the observations recorded in this list were made in a tract about twenty miles in length and five in width, the limited area covered making possible a reasonably intensive study in the time at our command. From April 24 until May 8 we were stationed at the Two Bar ranch, on the Little Snake River, one of the tributaries of the Bear. The observations made there cover the greater part of the migration period; the birds that arrived after that time were for the most part summer residents. From May 8 until the middle of July we were located at the edge of a dry valley locally known as Majors' Sand-wash. The few springs along the ridges which border the Sand-wash make excellent observation points for bird study. The whole region covered extends westward from the Little Snake to the divide between the Sand-wash and Vermilion Creek.

Along the Little Snake fairly dense thickets of cottonwoods, willows, and smaller bushes form excellent cover for birds. Away from the river the flats are covered with sage, greasewood, and rabbit brush, while the ridges are densely covered with pinyon and juniper. Of the springs mentioned in the notes, Two Bar Spring lies about twelve miles west of the Little Snake, while Spicer's Spring is seven or eight miles farther west.

I am indebted to Director J. D. Figgins, of the Colorado Museum of Natural History, for permission to publish these notes, which were made in the interests of that institution.

Anas platyrhynchos. Mallard. A fairly common migrant along the Little Snake River. We observed these birds several times feeding in a slough near the river.

Mareca americana. Baldpate. A baldpate was collected at a slough near the river on April 27, feeding in company with Mallards and Green-winged Teal. The species was seen again on May 5 at the same place.

Nettion carolinense. Green-winged Teal. Several seen on April 27, as mentioned above.

Querquedula discors. Blue-winged Teal. One taken at a pond near the river on April 29. It was feeding in company with Mallards and Cinnamon Teal.

Querquedula cyanoptera. Cinnamon Teal. Observed several times between April 24 and May 5. The birds were apparently already mated, as they were seen in pairs on every occasion.

Dafila acuta. Pintail. A few seen in a pond near the river on April 29 and again on May 5.

Branta canadensis. Canada Goose. A pair seen on a number of occasions along the river. I was informed that they breed occasionally along the Little Snake, and more commonly along the larger rivers near-by.

Ardea herodias. Great Blue Heron. One seen on a bar in the river on April 27 and again at the same place two days later.

Fulica americana. Coot. One was seen in a pond near the river on April 27. When first seen it was hiding under some willows which overhung the water, and when disturbed it took refuge in an enlarged and partly submerged muskrat burrow. It was seen at the same place a few days later.

Steganopus tricolor. Wilson Phalarope. A flock of five was seen in a pond near

the river on May 5.

Pisobia minutilla. Least Sandpiper. Two were collected at a pond on April 27. Several others were seen at the same place a few days later.

Tringa solitaria cinnamomea. Western Solitary Sandpiper. Occasionally seen along the river; one bird taken at a pond on April 29. They were exceedingly wary whenever seen.

Oxyechus vociferus. Killdeer. Seen occasionally about the ranch and along the

river, from April 25 until our departure on May 8.

Centrocercus urophasianus. Sage Hen. A few were seen near Craig on April 22 and 23. While on our way to the Two Bar ranch on April 24, a number were seen. Several which were dusting themselves in the road appeared little afraid of our truck, though it passed within a few feet of them. On April 27 a female was collected near the river, the only one of the species seen in the river bottom. This bird contained a fully developed egg. The birds are said to winter in the Sand-wash in immense flocks and many of their winter roosting places were seen. Although I was told that the birds breed mostly on the slopes of the near-by mountains, two abandoned nests were found on the sage flats of the Sand-wash. One found on June 2, appeared to have hatched but a few days before. Another found some time later had apparently been destroyed by a coyote. A single bird was seen on the sage flat on May 26, and three other adults were seen on May 31. On June 5 a male and a female were collected out of a flock of about ten adults. The male was in worn plumage but not molting. The female was molting and the head and neck were nearly bare. On July 15 several hundred were seen along the road between Sunbeam and Craig. Many of these were birds of the year, about the size of sharp-tailed grouse.

Zenaidura macroura. Mourning Dove. A single dove was seen at the Two Bar ranch on April 25, and from that time on they were seen regularly in increasing numbers. About the springs at the edge of the Sand-wash, where they came to drink both morning and evening, they were seen in considerable numbers. They appeared to be late breeders. From June 14 to 20 many doves were seen about Spicer's Spring. They were apparently mating at this time and the males fought a great deal when they came to drink in the evening. No nests were found until June 22. On that date a bird was found sitting on two eggs laid on a horizontal log that formed part of the approach to a wild horse trap. There was no attempt at a nest.

Circus hudsonius. Marsh Hawk. One seen June 6 a few miles from our camp.

Accipiter velox. Sharp-shinned Hawk. Seen several times along the river and about the juniper ridges. A female shot on May 18 contained a fully developed egg.

Buteo borealis calurus. Western Red-tail. Seen on May 5 and 7 near the Little Snake River.

Buteo swainsoni. Swainson Hawk. One seen near Spicer's Spring, June 24.

Archibuteo ferrugineus. Ferruginous Rough-leg. One seen not far from Spicer's Spring, June 13.

Aquila chrysaëtos. Golden Eagle. Seen occasionally along the river. On May 30 one of the party found an abandoned nest containing two eggs which had been frozen. We were told that a pair of eagles had nested on a cliff near the river for a number of seasons.

Falco mexicanus. Prairie Falcon. On May 5 a Prairie Falcon killed a robin near the ranch house. None was seen in the Sand-wash; but on July 13 we saw one near the road close to the town of Sunbeam.

Falco sparverius phalaena. Desert Sparrow Hawk. Common everywhere in the region covered. The first nest with eggs was found on May 25. On June 9 I found a nest containing four eggs. The female was on the nest at the time, and in attempting to remove her I pulled out several of her tail feathers without dislodging or apparently frightening her, although she made no attempt at resistance. Most of the nests were in old flicker holes in junipers.

Asio wilsonianus. Long-eared Owl. Not uncommon among the junipers which covered the ridges both along the Little Snake River and at the borders of the Sand-

wash. A nest containing four eggs was found on May 28; the birds had appropriated an old magpie nest in a juniper tree. On almost every visit both birds were seen. The female would remain on the nest until I was within a few feet of her, and would sometimes return and alight in the tree while I was at the nest. On one occasion she came close enough to strike my cap with her wing. The male would often go through a peculiar and amusing performance. After a vain attempt to drive me away he would alight in a tree a short distance away, where he would fip about for a few minutes, calling loudly all the while. Then, apparently losing his balance, he would fall to the ground, where a few spasmodic movements always carried him behind a small bush. From this refuge he would watch me closely, without moving. If I walked toward him he would fly a short distance and fall again to the ground; if I paid no attention he would come closer and repeat the whole performance. The first egg in this nest hatched on June 9, the fourth on June 15. A month later all of the young had left the nest, the oldest going a few days ahead of the youngest.

Asio flammeus. Short-eared Owl. On April 25 we saw one bird near the Two Bar ranch; a few days later we found part of the plumage of another which had been dead for some time.

Bubo virginianus pallescens. Western Horned Owl. Not uncommon on the juniper ridges. The birds were frequently seen, and a deserted nest was found on May 19. The eggs had been broken some time earlier.

Ceryle alcyon. Belted Kingfisher. Seen about the ponds near the Little Snake on every visit.

Asyndesmus lewisi. Lewis Woodpecker. A pair was observed near our camp among the junipers on May 18.

Colaptes cafer collaris. Red-shafted Flicker. Fairly common along the river and on the pinyon and juniper ridges. The first eggs were found on May 19.

Phalaenoptilus nuttallii nuttallii. Poor-will. On May 16 a pair was seen, and after that the calls were heard frequently in the evenings. On the night of May 30 there was a heavy rain with some hail, and on the following day, while walking through a stretch of barren bad lands, I flushed a poor-will from almost under my feet. Upon looking closely I discovered a broken egg nearly buried in mud in a tiny gully. The back and tail of the bird, which alighted within a few feet of me, were thickly coated with dried mud, and I could see where it had broken the muddy crust in rising from the nest when I disturbed it. It was evident that the bird had stayed on the nest through the storm of the day before, though it must have been nearly covered by the water running down the rivulet in which it sat, and in spite of the fact that enough mud had washed under it to bury and crush the egg.

Chordeiles virginianus howelli. Howell Nighthawk. No nighthawks were seen until June 5, when several appeared about our camp, and we saw them every evening after that date. On June 9, I flushed five in a short walk among the junipers, but on July 4, I walked over the same territory without finding one. At that time they appeared to have retired to the higher ridges. The reference of the birds to this variety is based on Dr. Oberholser's identification of one specimen collected.

Aëronautes melanoleucus. White-throated Swift. A few were observed near the river on May 5, in company with a large flock of swallows. They were seen regularly about Two Bar Spring and appeared to be nesting about the cliffs on the higher ridges near our camp. On June 13, I found a great many of these birds flying about the cliffs bordering a small stream flowing into Vermilion Creek.

Selasphorus platycercus. Broad-tailed Hummingbird. Occasionally seen near the Sand-wash.

Tyrannus verticalis. Arkansas Kingbird. Two were observed near the road just outside the town of Sunbeam on July 13.

Myiarchus cinerascens cinerascens. Ash-throated Flycatcher. Occasionally seen about the Sand-wash; the first one was observed at a spring on May 19.

Sayornis sayus. Say Phoebe. One observed near the Two Bar ranch on April 27; after that date they were occasionally seen along the river and also about the edges of the Sand-wash. An old nest and a new one under construction were found on May 3, in a natural cave in a clay hill.

Empidonax wrightii. Wright Flycatcher. On May 25, while walking through a little valley among the junipers, my attention was attracted to a pair of small fly-

catchers. Their shyness and silence led me to believe them different from the common flycatcher of the region, the Gray Flycatcher. Returning to the locality on June 1, I collected one of the birds, which proved to be *Empidonax wrightii*. No others were seen.

Empidonax griseus. Gray Flycatcher. Though usually considered as merely of casual occurrence in Colorado, this proved to be one of the common birds among the junipers in the region covered. Two specimens were collected near the river, one on April 27 and the other a few days later. On the juniper covered ridges near the Sand-



Fig. 9. NEST AND NEST SITE OF GRAY FLYCATCHER IN JUNIPER; MOFFAT COUNTY, COLORADO, JUNE 3, 1924.

wash they were rather common. On May 31, J. S. Young of our party collected a set of eggs with the bird. So far as I can learn this is the first nesting record for this bird in Colorado. On June 3 I found two other nests, one containing eggs and the other in process of construction. This nest was later abandoned. F. W. Miller collected a third set of eggs a few days later. The nests were all built from juniper bark and lined with feathers. All of the bark used was carefully gathered from the gray and weathered outside strands, and, with the irregular outlines of the nest, served to make them

surprisingly difficult to see. All of the nests were built in forks in juniper trees. The birds were rather noisy and not at all difficult to observe. They were sometimes seen among the sage bushes at some distance from the junipers.

Otocoris alpestris leucolaema. Desert Horned Lark. Exceedingly abundant about the Two Bar ranch on April 25. The birds seemed on this occasion to have been driven for shelter to the river valley by a snowstorm of the preceding night, as they were seen only occasionally afterward. Seen in the Sand-wash in small numbers, and undoubtedly nested there.

Pica pica hudsonia. Magpie. Many old magpie nests and a few birds were seen near the river. Among the junipers bordering the Sand-wash a number of old nests were found, but no birds were seen.

Aphelocoma woodhousei. Woodhouse Jay. One taken near the river on April 27 and another at Two Bar Spring on May 21. A few others were seen about the spring.

Corvus corax sinuatus. Raven. Several seen along the river and on the juniper ridges near the Sand-wash, where they are said to be numerous in winter.

Corvus brachyrhynchos hesperis. Western Crow. On May 3 my attention was called to a crow in a field near the Two Bar ranch. The ranchman who first noticed it was not familiar with the bird and said it was the first of the sort he had seen. The name crow is used locally for the commoner raven.

Nucifraga columbiana. Clark Nutcracker. A single bird was seen at Spicer's Spring on June 22.

Cyanocephalus cyanocephalus. Pinyon Jay. A few were seen along the river, and they were common among the junipers near the Sand-wash. F. W. Miller found two nests with eggs, on May 17 and May 19, respectively. Young birds were seen on the wing on May 26. Two families of newly hatched young were found on May 27. After May 23 these birds were commonly seen in large flocks. On June 24, I observed a flock feeding on locusts, which were just emerging at the time.

Xanthocephalus xanthocephalus. Yellow-headed Blackbird. One seen at the Two Bar ranch on May 4.

Agelaius phoeniceus fortis. Thick-billed Red-wing. Common along the Little Snake; several specimens collected were identified as of this variety.

Sturnella neglecta. Western Meadowlark. Common along the Little Snake River during our stay, April 25 to May 8.

Euphagus cyanocephalus. Brewer Blackbird. A few observed at the Two Bar ranch on April 27. From that time on they became increasingly common; by May 8 they outnumbered the red-wings.

Carpodacus mexicanus frontalis. House Finch. A few seen along the Little Snake and among the junipers which border the Sand-wash. They did not become common until about June 1. The first one observed with nesting material was seen on June 10.

Proceeders gramineus confinis. Western Vesper Sparrow. By far the commonest bird along the Little Snake River from April 25 until May 1. On May 5, though still as common as ever, it was greatly exceeded in numbers by the Brewer Sparrow. After May 27 it was seen in small numbers on the sage flats of the Sand-wash. On June 15, J. S. Young found two nests containing eggs. One set hatched a few days later.

Passerculus sandwichensis alaudinus. Western Savannah Sparrow. One was taken near the Little Snake on April 25 and another on May 5. No others were seen.

Chondestes grammacus strigatus. Western Lark Sparrow. A single Lark Sparrow appeared at the Two Bar ranch house on April 25. By May 3 the species was fairly common near the river. None was seen in the Sand-wash until May 21, when we saw a few on the sage flats. From that time on we saw them regularly in small numbers, apparently nesting, though no nests were found.

Zonotrichia leucophrys leucophrys. White-crowned Sparrow. One was taken near the river on May 5. Several others were seen the following day and a few were observed about Two Bar Spring on May 25.

Zonotrichia leucophrys gambelii. Gambel Sparrow. First taken, near the river, on April 29. By May 5 it was a rather common bird in thickets along the river.

Spizella passerina arizonae. Western Chipping Sparrow. First seen on May 12 about Two Bar Spring. A pair was observed collecting nesting material near camp on May 19. On June 1, a nest containing four fresh eggs was found on a juniper branch about five feet from the ground. The nest was composed entirely of grass.

Spizella breweri. Brewer Sparrow. A few were found about the Two Bar ranch on April 25, but the species remained rather uncommon until about May 1. On May 5 it was by far the commonest bird in the region, and remained so until our departure for Two Bar Spring on May 8. About the spring it was the commonest sparrow and doubtless the commonest breeding bird. The first nest was found on May 23 and the first egg was laid the following morning. After that time many nests were found. Fresh sets continued to be found until the middle of July, when we left the country.

Junco hyemalis mearnsi. Pink-sided Junco. A few were seen about the Two Bar

ranch from April 25 to 30. One was also seen at Two Bar Spring on May 9.

Junco hyemalis shufeldti. Shufeldt Junco. One junco collected at the Two Bar ranch on April 29 was identified by Dr. Oberholser as of this variety.

Junco phaeonotus caniceps. Gray-headed Junco. One seen at the ranch on April 25.

Amphispiza bilineata deserticola. Desert Sparrow. One taken near the Little Snake River on May 1. F. W. Miller reported seeing the species, apparently nesting, near a spring in the Sand-wash on June 5.

Amphispiza nevadensis nevadensis. Nevada Sage Sparrow. Several were seen about Craig on April 22 and 23. From April 24 until May 1 they were very common about the Two Bar ranch. On May 5 they were much less common, and from that time on they were more rarely seen along the river. They nested in considerable numbers on the sage flats throughout the Sand-wash. The first set of eggs was found on May 20, and after that date a number of others were located. Most of the nests were in sage bushes about a foot from the ground, but many were on the ground under the bushes. The nests were made of grass and lined with feathers and in some cases wool. The last set of fresh eggs was found on June 25.

Melospiza melodia montana. Mountain Song Sparrow. One was taken near the river on April 27 and another on May 6.

Melospiza lincolnii lincolnii. Lincoln Sparrow. Three were collected near the river, one on April 29, one on May 5, and one on May 6. On every occasion the birds were at first mistaken for house wrens, which were more common in the vicinity, on account of their wren-like manner of creeping about in the underbrush.

Passerella iliaca schistacea. Slate-colored Fox Sparrow. One was collected near the river on April 29.

Pipilo maculatus montanus. Spurred Towhee. One was taken near the river on May. 5.

Oberholseria chlorura. Green-tailed Towhee. Two were collected near the river, one on May 5 and one on May 6. They were seen occasionally near Two Bar Spring. On June 9, I flushed a towhee from a bush near the spring. Flying a few feet to one side it gave the customary imitation of a crippled bird, which led me to believe that there was a nest in the vicinity. However, after careful examination I failed to find a nest, and, though I returned to the locality a number of times, I never located a nest or saw a bird in the vicinity again. On June 12 two nests were found, one on the ground under a bush near Spicer's Spring, the other near the top of a dry ridge and about a foot from the ground in a sage bush. The eggs from these sets were carried to our base camp and three days later when I unwrapped them to blow them I found to my chagrin that one set was just hatching, the young birds being still alive.

Passer domesticus. English Sparrow. A few were seen about every ranch visited, but none at any distance from the buildings.

Petrochelidon lunifrons lunifrons. Cliff Swallow. On our arrival at the Two Bar ranch, we found the mud nests of a large colony of Cliff Swallows plastered to a cliff across the river from the ranch. None of the birds was seen, however, until May 5. On that date we visited a large pond near the river and about five miles from the ranch. Flying over the water was a large flock of swallows. Cliff and Violet-green were the most abundant, but there were a number of Barn and Rough-winged, and a few Bank swallows, in the flock. A few White-throated Swifts were also present. After that day Cliff Swallows were seen commonly about the ranch.

Hirundo erythrogaster. Barn Swallow. First seen on May 5, as mentioned above. A few were seen later about the ranch.

Tachycineta thalassina lepida. Northern Violet-green Swallow. Some of these swallows were seen near the river on April 29, but they did not become common until May 5. They were seen regularly about the springs near the Sand-wash and seemed to be nesting in holes in the cliffs.

Riparia riparia. Bank Swallow. Seen on May 5, and not observed again.

Stelgidopteryx serripennis. Rough-winged Swallow. Greatly outnumbering the Bank Swallows seen in the flock observed on May 5, but not observed again. However, as we left the river a few days after that date they may breed along the river banks. A few holes were observed in the cut banks which may have belonged to these birds.

Lanius ludovicianus excubitorides. White-rumped Shrike. Fairly common throughout the region covered. Along the river shrikes were especially numerous. A set of eggs was found on May 31. The nest was built in a juniper and made of thorny rabbit-brush twigs.

Vermivora virginiae. Virginia Warbler. One was collected at the edge of the river on May 6.

Vermivora celata. Orange-crowned Warbler. The only one seen was taken at Two Bar Spring on May 27.

Dendroica aestiva. Yellow Warbler. One seen on May 5 and a few others on the following day, near the river.

Dendroica coronata. Myrtle Warbler. A pair was seen on May 5 near the river, and the male was collected.

Dendroica auduboni auduboni. Audubon Warbler. A few were observed on May 1; on May 5 they were fairly common. On the following day a great many were seen in thickets along the river.

Dendroica nigrescens. Black-throated Gray Warbler. Two were collected on April 26 among junipers not far from the river. About the springs at the edge of the Sandwash they were fairly common throughout the summer, though no nests were found.

Geothlypis trichas occidentalis. Western Yellow-throat. One seen at a small pond near the river on April 27; a specimen was collected at the same place a few days later.

Anthus rubescens. Pipit. One taken at the edge of a pond near the river on April 29. On May 5 a large number of these birds were seen feeding at the edge of the water at the same pond.

Oroscoptes montanus. Sage Thrasher. Very common along the Little Snake, and nesting in considerable numbers in the sage-brush flats of the Sand-wash. The first eggs were found on May 16. No young were seen on the wing until June 24.

Salpinctes obsoletus. Rock Wren. A few were seen near the river throughout our stay, and they were usually to be seen about the rocky ridges at the edge of the Sandwash. On June 25, I found a nest in a peculiar situation. The interior of a small boulder on a rocky hillside had been dissolved away leaving a hollow in the center about six inches in diameter. There was a hole in each side, one about two inches in diameter and the other about half as large. The larger opening had been stopped up by the birds, which had built their nest inside, using the other for a door way. The eggs had not hatched at the time.

Thryomanes bewickii bairdi. Baird Wren. While frequently reported from the juniper and pinyon region of southern Colorado, the Baird Wren has seldom been recorded from the northern part of the state. However, we found this species among the commonest of the breeding birds of the junipers near the Sand-wash. A few were seen among the trees on the ridges near the river, but the birds were much more numerous the more arid region to the westward. A fresh nest, empty, was found on May 19. The first egg was laid about a week later and the set of six was completed on May 31. The nest was composed mostly of wool and feathers and a few small pieces of paper, loosely piled in a natural cavity in a juniper tree, about two feet from the ground. The opening was very small.

A second nest was found on June 3. It was placed in a dead juniper branch about five inches in diameter, the opening, caused by the breaking off of a small branch, being about an inch in diameter at the widest point. The five eggs in this nest were hatching when it was visited on the following day. Though the birds were common and we spent a great deal of time searching for the nests, only two others were found, one being an old nest of the previous year. The other nest, though fresh when found, was abandoned without being used.

The eggs were creamy buff in color when fresh, with many small brownish spots, principally about the larger end. When blown, the color becomes pure white with the exception of the spots. The birds are very inquisitive and frequently followed us for some distance, making a good deal of noise but remaining concealed most of the time.

They sing often. The song is cheery but monotonous. F. W. Miller reported seeing these birds in considerable numbers during the breeding season in the sage-brush near a spring in the Sand-wash several miles from timber. They were frequently seen entering holes in the cliffs, where they seemed to be searching for insects, as there was no evidence of their nesting in such places.

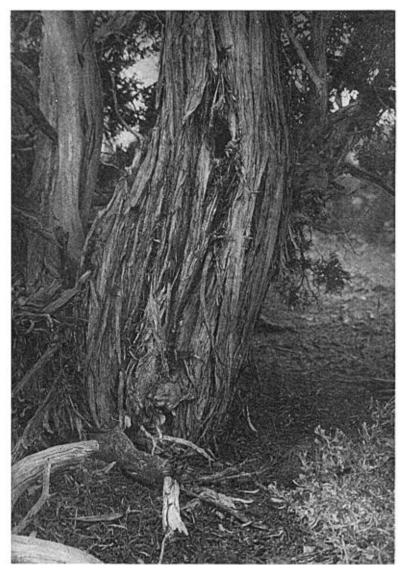


Fig. 10. NEST HOLE OF BAIRD WREN IN JUNIPER; MOFFAT COUNTY, COLORADO, MAY 31, 1924.

Troglodytes aedon parkmanii. Western House Wren. Three were collected near the Little Snake River, one on April 27, one on May 5, and one on May 6. Several others were seen on the same dates.

Telmatodytes palustris plesius. Western Marsh Wren. One was seen at a pond

near the river on April 27, and specimens were collected near the same place on April 28 and on May 5, respectively.

Sitta carolinensis nelsoni. Rocky Mountain Nuthatch. A pair was seen regularly about Two Bar Spring, where they came daily for water.

Baeolophus inornatus griseus. Gray Titmouse. Frequently seen about Two Bar Spring. Flocks of from four to eight birds were seen early in June, possibly families which had already left the nest.

Penthestes gambeli gambeli. Mountain Chickadee. The only chickadee observed during the season was one of this speces which visited Two Bar Spring on May 10.

Regulus calendula. Ruby-crowned Kinglet. A single bird was collected near the river on May 6.



Fig. 11. NEST AND EGGS OF BAIRD WREN AS REMOVED FROM SITE SHOWN IN FIGURE 10.

Polioptila caerulea obscura. Western Gnatcatcher. One collected near Two Bar Spring on May 27.

Myadestes townsendi. Townsend Solitare. A Solitaire was seen near the Two Bar ranch on April 30 and again on the following day.

Planesticus migratorius propinquus. Western Robin. Fairly common about the Two Bar ranch throughout our stay. Never seen far from the river.

Sialia currucoides. Mountain Bluebird. Common at every point visited. A newly built nest was found in a hollow juniper on May 1. The first eggs were found on May 17. Three nests were found in holes in dirt banks, and many in hollow junipers. In many cases they were placed in old flicker holes. One set was not completed until June 28. The nests were built mostly of juniper bark and lined with feathers. Young were seen on the wing on June 24.

Denver, Colorado, January 10, 1925.