

*Egretta candidissima candidissima*. Snowy Heron. One was seen in a rice field four miles east of Maxwell on August 21, and another west of Live Oak, on Butte Creek, August 24. A third bird was observed near Maxwell on September 8. In all of these cases these herons were in company with the larger Egrets.

*Lobipes lobatus*. Northern Phalarope. On August 18 these birds were abundant in the region east of Maxwell, and remained fairly common in pools in the rice fields in the area between Maxwell and Willows until September 8.

*Ereunetes mauri*. Western Sandpiper. Common near Maxwell from August 19 to October 3.

*Limosa fedoa*. Marbled Godwit. Seen in small numbers east of Maxwell from September 5 to 8.

*Aluco pratincola*. Barn Owl. A dead Barn Owl was found in a road near Maxwell on August 21, and another on October 2. Both had been killed by striking wires, rather an unusual accident with such night prowlers as these. Another Barn Owl was flushed from an oak west of Live Oak on August 24. On September 15, west of Gridley, one was seen circling low over a rice field in bright sunshine, about three in the afternoon, and another was shot in a grove. The birds were apparently fairly common in occurrence here. Grinnell (*Pac. Coast Avifauna*, no. 11, 1915, p. 69) has recorded them in the Sacramento Valley only as far north as Woodland.

*Chordeiles virginianus hesperis*. Pacific Nighthawk. One observed near Live Oak on August 26.

*Sayornis sayus*. Say Phoebe. One seen near Stonyford on October 5.

*Pica nuttalli*. Yellow-billed Magpie. This interesting species was common among the oaks in a narrow area near the center of the Sacramento Valley between Marysville and Tehama. It was not unusual to find them in flocks of a dozen or more. Several were taken.

*Biological Survey, Washington, D. C., January 15, 1919.*

## NOTES FROM THE FEATHER RIVER COUNTRY AND SIERRA VALLEY, CALIFORNIA

By JOSEPH MAILLIARD

CASTING around for a profitable locality in which to pass a good portion of the spring months of 1918, the region around Blairsden, on the Feather River, Plumas County, California, seemed to combine many desirable qualities together with the additional attraction of having been little, if ever, worked over from an ornithological standpoint. On this basis of reasoning several weeks were passed in this vicinity, between Mohawk, just across the river from Blairsden, at an elevation of 4300 feet, and Johnsville, farther up in the mountains, at 5200 feet altitude. As the summer approached, the base of operations was shifted to the Sierra Valley, Sierra County, altitude 5000 feet, where stays were made at Loyalton and Campbell's Hot Springs (about a mile from Sierraville). These two places are at the edge of the open Sierra Valley, where sagebrush and pine forest meet, and not more than fifteen or twenty miles from the Nevada state line.

Nothing startling was expected from this trip, and the results were mostly only corroborative of what one would naturally anticipate finding in such localities as those visited. Yet there are a few items in my notebook that appear to be worthy of recording.

*Chaetura vauxi*. Vaux Swift. Noted at Campbell's Hot Springs, one and a half

miles from Sierraville. A pair had been noticed flying about on the edge of the coniferous forest for a couple of days, and on June 15 the male was taken for the record. While this swift must nest in many places in the state, actual breeding records seem to be rare, especially away from the coast. Grinnell, in his "Distributional List of the Birds of California" (Pacific Coast Avifauna, no. 11, 1915, p. 85) gives no breeding localities outside of the humid coast belt, and I have not come across any other published record for California since that work appeared.

**Sayornis sayus.** Say Phoebe. Not having met with this species elsewhere in the localities visited on this trip, I was rather surprised, on my arrival at Loyalton, Sierra County, to see outside my window a pair of Say Phoebes giving a brood of youngsters a good flying start on the voyage of life, the date being June 6. At the same time, this pair appeared to be putting the finishing touches on a new nest upon a beam in a low shed in the adjoining yard, though this may have been only the repairing of the old nest from which the brood was practicing its first flights. On June 9, a small boy mistook the adult female for an English Sparrow (*Passer domesticus*), upon which he was waging warfare, and killed it with an air gun. This bird was in badly worn plumage and contained an egg almost ready to be laid. Apparently there is no published breeding record of the species for this part of the Sierras.

**Pica pica hudsonia.** Black-billed Magpie. A pair of magpies, apparently of this species, was seen at the edge of the town of Loyalton on June 8, flying among some old mill buildings. As this magpie is a common resident of the territory only a few miles east, in country not separated from Sierra Valley by anything more than the open, gently graded Beckwith Pass, and with but little difference in altitude, there seems good reason for believing that a few individuals occasionally wander westward into this valley, and that more would be found if a greater territory were covered than was explored on this particular trip.

**Passerculus sandwichensis nevadensis.** Nevada Savannah Sparrow. Along the railroad from Hawley to Loyalton, through the meadowy part of the Sierra Valley, small sparrows were often seen from the car window, and in the outskirts of the town some specimens were taken that proved to be of the above form. These birds were evidently nesting in suitable spots all through the valley, as far as Sierraville anyway, but no nests were actually found. Considerable water flows into the comparatively level valley from the surrounding mountains, forming swampy meadows that are ideal places for their nesting grounds.

**Melospiza melodia fisherella.** Modoc Song Sparrow. This proved to be the form common to all the localities visited on this trip, from 4000 to 6000 feet elevation, but it was really numerous in only one spot, a swampy meadow about a mile up the stream that flows through Mohawk, where there was a thick growth of short, brushy willows, and plenty of long grass. In all other places where noted it was more scattered, and was seldom seen far from streams. Three nests were found. The first, on May 21, containing a set of three eggs about half incubated, was in a swampy spot near a low bank of the Feather River, and was situated in long dry grass among some dead limbs in the edge of a small willow clump, and placed about ten inches above the ground. The other two were in thinly scattered willow trees in the midst of the little settlement of Mohawk. One of these was found on June 4, with nestlings almost ready to leave their domicile, and was in a thin bunch of willow trees, under which, and only a few feet from the nest, the small boys of the village noisily played the greater part of the day. The nest was about three and one-half feet above the ground and built on some very open branches.

I had noticed the parents of this nest for some time, but never dreamed that the birds would build in such an open spot right in the boys' playground, where the embryo farmers had dammed up a little irrigating ditch that ran past the willow tree. My attention was called to the nest by the boys themselves, who had not found it until the old birds were feeding their young, when the movements of the parents attracted their notice. The third nest was also shown me by the same boys when I returned to Mohawk to gather up material left there to be picked up on my homeward journey. This was situated in a quieter place farther up this same little ditch, and was about seven feet above the ground in some leafless branches of a small willow. On this date, June 17, it contained four apparently fresh eggs, but was not disturbed, as I was all packed up and waiting for the stage when the boys showed it to me.

**Passerella Hlaca mariposae.** Yosemite Fox Sparrow. This fox sparrow is commonly found throughout Plumas and Sierra counties anywhere in the buck-brush and manzanita association above 4500 feet elevation, but is seldom, or never, seen out in the open sagebrush, although it occurs to some extent where the sagebrush meets the coniferous forest and mingles with the buck-brush. That is to say, this sparrow is found there in summer, but what it does in winter is probably quite different. This is the form most of us supposed was *megarhyncha* until the error was pointed out and the race described by H. S. Swarth (Proc. Biol. Soc. Wash., vol. 31, 1918, p. 161).

The males are certainly good singers, and, at least in the breeding season, spend a large part of their spare time perched upon some elevated limb, or top of a sapling conifer, endeavoring to outsing each other and all the rest of their avian neighbors. They have a close second in the Green-tailed Towhee (*Oreospiza chlorura*), of the same habitat, and the two together assuredly cheer up the otherwise lonely wastes of brush around such spots as Mount Eureka.

Two nests of the Fox Sparrow were found at Johnsville, one on May 30 with four eggs in an advanced state of incubation, and one with three nearly fresh eggs on June 1, but these dates seemed a little early for general nesting. The first nest was situated about three feet from the ground in a spirea bush, between some mine buildings and beside a path which was used constantly by the mine people, who passed only four or five feet from the sitting bird. The second was in a rather open barranca on a steep hillside, and was on the ground at the bottom, at the base of a small piece of rock. Any slight rush of water, say from a heavy shower, would have washed it away. As a rule the brush was so thick and heavy in the localities inhabited by these sparrows that nests were very difficult to locate. Perhaps this was partly due to the early date of my stay where they were numerous, as others have told me of finding nests without much trouble.

**Progne subis hesperia.** Western Martin. After getting settled in the quarters selected and making things ready for business on the afternoon of my arrival in Loyalton, Sierra County, I took a stroll through the streets of the small town, to familiarize myself with the place and to fix landmarks. Upon approaching the bank building, about three blocks from the hotel, my ears were greeted by a sound that was familiar but seemed so very much out of place in a California town that it was quite startling. An upward glance, however, was reassuring, for there, circling overhead, and perching upon the cornice of the bank building, were unquestionably a family of Western Martins, apparently having the time of their lives. A couple of blocks away was a genuine, old-fashioned martin box on a pole in the street. A few martins were going in and out, while a few more were circling around and perching on the gable of a nearby dwelling house; but evidently the young ones mostly had left the parental quarters, and preferred the bank building for their resting place. This was my first experience with the semi-domestication of the Western Martin and was a great surprise at the time, but I have since been informed that Pasadena has a similar colony. This will answer a query in the March-April, 1918, number of THE CONDOR, as to whether there were any successful martin boxes in the west.

**Oreoscoptes montanus.** Sage Thrasher. This bird has been recorded as a summer visitant in the northeastern sagebrush region of the state of California, but has not heretofore been put on record as having been found in Sierra County. Near Loyalton, however, a number were seen, and several of different ages taken in the early part of June. One of these was a female that was evidently laying. Some juveniles were seen flying about at the same time, showing that the nesting season must be rather prolonged in this locality.

This completes the small list of birds noted on this trip that seemed especially worth calling attention to. In most places visited bird life was scarce, remarkably so considering the apparent attractiveness of some of these localities, but either something was wrong with the surroundings or there were not enough birds to go around, for scarce they certainly were.

The number of varieties seen in the different localities where observations were made was as follows: Mohawk, two weeks stay, 58; Johnsville, eleven days, 37; Loyalton, six days, 47; Campbell's Hot Springs, seven days, 53.

I had expected to find the Calaveras Warbler and the Sierra Hermit Thrush (*Hyllocichla guttata sequoiensis*) fairly numerous near Mohawk or Johnsville, but found none of the former and identified but one of the latter, which was the only one whose note was recognized as belonging to that species, its song leading to its capture for identification purposes.

*San Francisco, January 22, 1919.*

## THE MARITAL TIE IN BIRDS

By LOYE HOLMES MILLER

IN THE CONDOR for October, 1918, Mr. F. C. Willard contributes a most stimulating article dealing with the question "Do birds mate for life?" In support of his affirmative contention he brings forward some observations resulting from his extended field work in southern Arizona.

His article is good and the facts recorded are unimpeachable. The interpretation of facts, however, introduces the human element into science, and hence offers a basis for divergence of honest opinion. It is not my desire to dispute Mr. Willard's conclusions but to offer, wholly in good faith, some remarks in support of the opposite side of the question, so that each reader may be his own judge, jury, and court of appeal.

I am free to say that I do not know whether or not birds mate for life, which statement is equivalent to admitting that I do not consider my own argument as conclusive. In all probability it often falls out that the same individuals come together in successive reproductive cycles, but such may be quite a fortuitous occurrence, due wholly to propinquity and not therefore proof of the truth of a more general conclusion. For some time it has been my own opinion that birds do not, as a rule, retain the same mates from one season to the next. At the risk of stepping from the realm of knowledge to that of speculation, I am offering in support of my position the following points, scarcely to be dignified by the name of evidence.

My first contention is that a bird's activities are almost wholly the result of instincts. These instincts are racial characters and are transmitted from generation to generation, no less truly, though perhaps more variably, than is color, size, or wing area. Only occasionally can even the layman contend that what we call intelligence enters in as a factor of behavior. Instinct bids a Hooded Oriole choose palm or yucca fiber as her nesting material, even though she place the structure in a gum tree or on a corn stalk, and failure of this instinct is almost as rare as is that failure in pigment formation which results in albinism.

My second contention is that instincts are dependent for their stimulus upon the physiological condition of the animal. Recent experiments on internal secretions have been performed by the transplantation of reproductive glands or by the infusion of tissue extracts directly into the blood stream. These experiments have some bearing upon our problem in that they go to prove that plumage differences between the sexes of poultry are directly controlled by the presence in the body of these germ cells, and that many instinctive acts are dependent, for their immediate stimulus, upon the activity of these glands. A