

which, so far as we could discern, was entirely snow white. The bird was evidently aware of its conspicuous coloration, and was very wild. Several determined efforts to secure the specimen were made, but the bird succeeded in keeping out of gun range.

## THE BREWER SPARROW (*SPIZELLA BREWERI*) IN FRESNO COUNTY, CALIFORNIA

By JOHN G. TYLER

DURING the early part of May, 1906, the writer became aware of the presence of one or more small sparrows in a certain vineyard near Clovis, Fresno County, California. Their wiry, insect-like song was often heard, generally during the early forenoon, as the bird swayed in the breeze far out on a green tendrill of some vine. Any attempt at a near approach would cause the singer to disappear and remain silent for a few minutes, when it would again appear at some distant part of the vineyard.

The area frequented by these birds was not large, covering only about eight acres, but different from other vineyards in the vicinity in having a decided slope to the south on one side, the soil being rather coarse and gravelly. Supported by stakes averaging about two feet in height, some of the vines had made a very rank growth and formed almost a small thicket in certain places, while in others where the growth was not so dense there were more open patches.

The birds were seen at frequent intervals after their first appearance, but as they seemed shy, and other matters claimed the writer's attention, their identity remained a matter of doubt for some time, until an almost accidental discovery confirmed a rather strong suspicion that had been formed soon after they were first noted.

Shortly before noon on June 4 while passing thru the vineyard a small bird was seen to fly apparently from a small vine and after skimming along above the ground shrike-fashion for a few feet, disappear in the screen of heavy foliage. Thinking this was only the nest of one of the numerous Western Lark Sparrows that were breeding commonly everywhere, I paused only to note the number of eggs or young but was somewhat surprized that a hurried search did not reveal any nest either on the ground beneath the vine or among the branches above. So a careful search was begun which resulted in the discovery of a very small and remarkably well-bilt nest placed directly against the stake and supported by three nearly vertical shoots just twenty inches above the ground. Resting in this nest were three green eggs similar in size and color to average specimens of the Western Chipping Sparrow, yet with a more coarse wreath of heavier markings of a decided reddish brown encircling the larger end. It required little more than a glance to convince the writer that it was not a nest of *Spizella passerina arizona* altho even had it afterwards proven to be such it would have been none the less a new record for me from Clovis.

The following day proved to be somewhat warm and cloudy and just at noon I cautiously approacht the vine containing the nest discovered the day before and very carefully parted the leaves. Sitting quietly on her nest, not two feet from my hand, was a small grayish-brown sparrow. The parallel black lines along her

upper parts left no doubt in my mind that I had found the nest of a Brewer Sparrow. So long as I remained motionless the sparrow staid on her nest, but at the first suggestion of a movement she darted away among the foliage, after which the nest with its contents was collected and the eggs were found to be heavily incubated.

Thinking that perhaps there might be a small colony of these sparrows, a more extensive search was made, as time permitted, resulting in the discovery on June 16 of a second nest in a location scarcely different from the first but containing two full fledged young birds. One of these was removed from the nest; it remained quiet while being held in my hand but the moment it was put back into the nest and I had started to leave, both of the little fellows jumped from the vine and hurriedly ran mouse-like to a place of concealment. During my stay at the nest both parent birds were heard chipping uneasily, but they seldom appeared and never came very near.

Since the season of 1906 each spring has found a few pairs of these little sparrows breeding in that or a nearby vineyard and one fact has impressed itself upon me more than any other. Scattered thruout this vineyard were a few vines that were either affected with some vine disease or for some other reason had become dwarfed in comparison to the others. The leaves on each vine had a yellowish cast and were small, while the whole vine lacked the thrifty appearance of its fellows. Every nest found was in such a vine and I soon came to distinguish them at quite a little distance and save much valuable time in searching for nests.

In order to prove the correctness of the theory that the nests were always placed in these small vines I have walked thru the vineyard during the early winter when the leaves had just fallen and in that way found several old nests, but not one was built in one of the larger vines.

During the past season (1910) not a sparrow could be found in this vineyard, and investigation revealed the fact that the dwarfed vines had all disappeared having, it seems, been treated in some manner that caused them to take on the bright, healthy look of the others. Over half a mile away, however, was another vineyard and while passing thru it one morning, I heard the unmistakable song of *Spizella breweri* and soon found quite a number of the "Brewer vines" as I called them. Later a nest was found that afterwards held three eggs.

All the nests found were much alike in situation and general appearance. A typical specimen is composed outwardly of dry grass stems, a few grass blades and roots, the inner cavity being made almost entirely of very small, dry brown rootlets with a few long horsehairs for lining. In one nest is a white horsehair, but in every other instance black ones were used. A single downy quail feather is used in the outer framework of one nest, but it does not in any way serve as a lining. A nest before me measures three inches outside diameter by one and seven-eighths inside. The inside depth is one and one-half inches while the outside would measure perhaps half an inch more. On the whole these nests are neat, compact structures and some of them are almost exact miniatures of nests of the California Jay.

Two, three or four eggs constitute the sets, and three is more often found than either of the other numbers. Besides the nest with two young birds, one was found on May 15, 1907, with one egg, and the following day another was added after which the bird began the duties of incubation and no more eggs were deposited. My earliest record is May 10 for four very slightly incubated eggs and the latest is June 9 for three eggs far advanced.

Of the food of these sparrows I have learned very little, as the birds were always shy and more often heard than seen. I have always had a suspicion that

large numbers of rose beetles were eaten; but without examining the stomach contents of a specimen I could never be positive on this point.

There is only one other place in this part of the State where I have ever found the Brewer Sparrow. Across the San Joaquin River in Madera County, just where the first scattering oaks begin in the foothills, are a number of low, hot, uninviting ridges, having an elevation of perhaps eight hundred feet. Devoid of vegetation except on the very summits where half a dozen large clumps of ragged sage bushes have found a foothold, these hills seemed too desolate to be a suitable home for any bird; yet on April 13 of the present year these bushes seemed alive with sparrows, if their songs were any indication. The number of birds that really constituted this colony was not easily determined as they were seldom induced to leave cover and their plumage seemed to blend with the soft gray-green of the surroundings.

Half a mile below, a creek wound lazily out of the hills to be lost in a series of mud holes a few miles out on the plains. Along this stream's course a number of large cottonwoods seemed to be tempting the ornithologist to enjoy their shade. Cool and inviting they extended farther and farther, at last seemingly merging into the blue haze of the mountains beyond. The sparrows were left to enjoy their torrid surroundings while the writer satisfied his desire for knowledge by hunting for nests of the California Jay in the bushy willows along Cottonwood Creek.

## BIRD NOTES FROM SOUTHWESTERN MONTANA

By ARETAS A. SAUNDERS

WITH EIGHT PHOTOS BY THE AUTHOR

**D**URING the spring and summer of 1910 my work kept me in camp in various parts of Silver Bow, Jefferson, and Powell counties, Montana. The nesting season, in the mountains, hardly begins before the first of June, and, with the exception of two nests of the Clarke Nutcracker, I found no nests earlier than this.

The Nutcrackers (*Nucifraga columbiana*), however, were early enough to suit anyone. With the first warm days in March, just after the Mountain Bluebirds had returned and when flocks of Shufeldt and Montana Juncos were beginning to throng the thickets, the Nutcrackers appeared to be choosing mates and hunting nesting sites. This bird is most abundant in this region at high elevations, in the white-bark pine forest, close to timberline, but it is not uncommon at much lower elevations, often as low as 5,000 feet, in scattered stands of Douglas fir. As these latter places are much more accessible at this season, it was here that I began my search for nests. For a time I found nothing, but finally on March 14, I noticed a large bulky nest, not high up in a fir on the rocky hillside where I had been looking, but barely six feet from the ground in a little, thick, bushy spruce, growing in the creek bottom. An examination showed this to be a new, practically finished but empty nest, and evidently that of a Nutcracker though no birds were in sight.

On March 18 I visited the nest again. As soon as I touched the spruce a Nutcracker flew off, and I found that the first egg had been laid, evidently that morning. For the next three days I passed the nest frequently and found the bird always sitting and a new egg each morning. In my experience most birds do not begin sit-