

## STATUS OF CASSIN'S SPARROW IN ARIZONA

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As long ago as May, 1940, the writer became aware that current ideas concerning the status of the Cassin's Sparrow (*Aimophila cassini*) in the western part of its range were in need of revision. For three years, however, publication of these findings was withheld while further data were in prospect. Since it now appears unlikely that additional light will be thrown on the problem in the near future, I wish to call attention at this time to a situation which appears to be unique among North American birds.

This sparrow first attracted the author's attention on July 19, 1939. On that date, with his friends Gale Monson and F. W. Loetscher, Jr., he visited a locality near Tucson, Arizona, where he had previously discovered surviving colonies of Rufous-winged Sparrows (*Aimophila carpalis*). He hoped to find a nest of the latter species while introducing it to his friends, who had never seen a Rufous-winged Sparrow before July, 1939. While driving along the road and visiting the Rufous-winged Sparrow colonies, the party saw about twenty-five Cassin's Sparrows, most of them males singing the hauntingly sweet song of this otherwise obscure sparrow. Under other circumstances, no particular attention might have been paid to them; ever since the days of Henshaw, in the early 1870's, it has been well known that the Cassin's Sparrow is often abundant in the grasslands of southeastern Arizona in late summer. Indeed, Loetscher and I had seen and taken these sparrows the day before at Sahuarita (south of Tucson) and on the Santa Rita Range Reserve without suspecting that anything was amiss. But on July 19 it was clear to me that there was something peculiar about these birds. Here they were in numbers, singing freely, and the males evidently in breeding condition, with their testes greatly enlarged; yet hardly a month before, and with no period intervening when our sparrows were supposed to be migrating, on June 16, 1939, I had visited these self-same spots without hearing or seeing a single Cassin's Sparrow!

My next opportunity to visit these localities came in late August, a month later. The Cassin's Sparrows were still common on August 21 and 22; there were still quite a number of them, giving their flight song, on August 24 and 28; there were a few on September 1 and 6, but in September I heard little singing. By mid-September, what little singing there was was reduced to mere fragments of the full song. My last visit at this period was on September 12, when Lee W. Arnold and I saw only two Cassin's Sparrows.

On August 22, I was lucky enough to spy a Cassin's Sparrow sitting in the edge of a bush with a straw in its bill. Knowing that no authentic nest of this sparrow had ever been reported from Arizona, I instantly 'froze.' The bird soon flew out into the adjacent grass. I waited a bit and, when it did not reappear, I ran to the spot where it had disappeared. I saw nothing at first, tramped about a bit, and was getting discouraged, when suddenly the bird flushed at very close range. There, in a tussock of grass, was a partly built nest. I withdrew immediately in order to avoid any unnecessary disturbance, and on subsequent visits never stayed more than an instant. By August 28, however, the nest appeared deserted, and finally on September 6 I collected it for the record.

During the winter of 1938-1939, I had seen only one or two Cassin's Sparrows in these places. The rains of August, 1939, however, had produced a good crop of grass, and the following winter about eleven of the sparrows were seen in January. On March 30, 1940, there was some singing, and I now looked forward to finding eggs in the summer of 1940. It seemed to me that the bird's secret was that it waited for the summer rains before migrating and nesting. Other ornithologists, I believed, had not waited long enough to find its nest in Arizona. Its status at Tucson, on the northwestern edge of its range, apparently fluctuated considerably. Surely, I thought, the summer of 1940 will produce plenty of nests and eggs to dispel all doubts, after such a favorable winter.

On May 5, 1940, I took my mother and stepfather to these spots so that they might hear the lovely song of the Cassin's Sparrow. By then, I was sure, the birds would be singing pretty freely. We tramped over nearly the entire area, but *not a single Cassin's Sparrow did we see or hear!*

Where had the birds gone? On my return home, I went through my files and realized for the first time that there was *not a single Arizona record for late May or early June* that was beyond question. With this in mind, I was not so greatly surprised on May 19, when Dr. George Miksch Sutton, Gale Monson, and I failed again to find any Cassin's Sparrows. On June 30, Monson and I again visited the usual localities and found none; and I found none on July 9. On July 21, 1940, I found one, and another on August 6, but they were not nearly so common as they had been the preceding summer.

The latest spring record for this species in Arizona, to my recollection, is May 14, 1903, at the foot of the Huachuca Mountains (Swarth, *Pac. Coast Avif.*, 4: 43, 1904). In fall migration, Gale Mon-

son saw two singing males, and took a specimen, on the Babocomari River near Elgin, Santa Cruz County, June 29, 1939, and he found them rather common near Lowell, east of Bisbee, Cochise County, July 6 and 9, 1939; he took two, one of which was preserved, on July 9. While there may be one or two records for the period between these four dates, I am not in a position to investigate their validity at the present time.

The literature of the Cassin's Sparrow in the western part of its range has been somewhat confused. Two authors (Scott, *Auk*, 4: 203, 1887, and Bailey, *Pac. Coast Avif.*, 15: 41, 1923) have accidentally omitted the species from their lists. Swarth, after first reporting certain dubious nests, finally summed up its status in Arizona in summer by saying: "I know of no instance of its having been found actually breeding, though taken throughout the summer" (*Pac. Coast Avif.*, 10: 57, 1914), a statement that approaches the truth. The most recent summary, however, is far from the facts: "Breeds . . . from southeastern Nevada . . . south to northern Sonora . . ." (*A.O.U. Check-List N. Am. Bds.*, 4th ed.: 343, 1931). I know of no record at any season whatever for western Colorado or Utah, and only one casual record for Nevada; nor are there any records for northern or western Arizona. The species doubtless *does* breed at least as far west as the Pecos Valley, New Mexico (see Ligon *in* Bailey, *Bds. N. Mex.*: 731, 1928); and, according to the files of the Fish and Wildlife Service, a parent and four eggs were taken by R. L. More in the northeastern corner of San Miguel County, fifteen miles southwest of Mosquero, New Mexico, on July 3, 1933. If it *breeds* anywhere farther west, the fact has not yet been established.

In Arizona, the Cassin's Sparrow is an abundant fall transient from mid-July to early September, and an irregularly (?) fairly common winter resident. Whether there is a return flight in spring is difficult to ascertain, since an increase in the number of records at this time may reflect merely a change from its skulking habits of the winter to the spring song period. The great majority of the July and August birds seem to be adults, and I have seen no juveniles taken in Arizona that were not full-grown. Neither am I aware that authentic eggs have been taken in Arizona. There is thus good reason to suspect that the species *does not breed in Arizona*, despite its actions, enlarged testes, and even partial nest-building! Here, then, are fascinating problems for the field ornithologist in the Southwest.

While there are small colonies of Cassin's Sparrows far north of the latitude of southern Arizona, the abundance of the species in



NORTHERN CLIFF SWALLOWS.—(Upper figure), NESTING SITE ALONG THE WHITE RIVER NEAR FAYETTEVILLE, ARKANSAS. (Lower figure), NESTLINGS INFESTED BY TICKS.