

FROM FIELD AND STUDY

A Nesting Record for the Red Crossbill in California.—The following observations were made between August 16 and 19, 1947, at the nesting site of a pair of Red Crossbills (*Loxia curvirostra*) in the Public Camp Ground at Tuolumne Meadows, Yosemite National Park, California. This high mountain meadow is at an elevation of approximately 8600 feet and is bordered by lodgepole pines (*Pinus contorta*) behind which the mountains rise rather abruptly.

The tree in which the nest was discovered was in the open forest along the edge of the meadow within two hundred feet of the main road and within fifty feet of side roads used by campers. One or both of the nesting birds were frequently seen feeding on seeds obtained from the cones of another lodgepole pine that was rather sparsely limbed and about sixty feet from the nest tree. During the three-day period in which observations were made the female was heard at frequent intervals to make a series of soft chirping notes that reminded the writer of the contented sounds produced by week-old chicks that had found warmth after being cold. These notes were uttered also during copulation.

Observations began at 10:00 a.m. on August 16 when a male crossbill was noted feeding in a lodgepole pine. Ten minutes later a female crossbill flew to the same tree and postured in front of the male. The latter then displayed and copulation followed shortly. Both birds then fed in this tree for the next forty minutes. At 10:50 a.m. the female flew to the ground in an unoccupied campsite close by and began to feed on what appeared to be bits of charcoal. In order to pick up the charcoal with her crossed mandibles she was forced to twist her head so that the sides of her bill were horizontal to the ground.

At 11:10 a.m. the female made a short flight, then disappeared in the dense foliage near the top of a nearby sixty-foot lodgepole pine. The observer immediately climbed the tree and discovered her on a nest in a thick cluster of pine needles on the end of a small limb sixteen inches from the trunk and four feet from the top. She appeared to be incubating the one egg which was present and refused to leave the nest until approached within less than fifteen inches. As soon as the observer began to descend the tree she returned. At no time in the course of this procedure did the male come to the nest tree. During most of the afternoon he was seen in the nearby feeding tree. When he occasionally flew by the nest tree calling, the female answered. She was not observed to leave the nest during the remainder of the day.

On August 17 the male was seen opening cones in the feeding tree at 7:30 a.m. The female came to the same tree at 8:10 a.m. and both fed for the following 40 minutes. The female then flew into the thick foliage at the top of the nesting tree and disappeared. No display or posturing was noted this morning. No observations were made between 10:00 a.m. and 4:30 p.m. At 4:45 p.m. a male, presumably one of the nesting pair, was heard singing from the top of a nearby tall pine. The soft, twittering notes of the female were heard to come from the top of the nest tree until darkness settled over the meadow.

On August 18 the male was seen opening cones in the feeding tree at 8:00 a.m. At 8:40 a.m. he uttered several call notes and was immediately answered by the twittering notes of the female in the nest tree. The male then flew to the top of the nest tree and disappeared in the dense foliage. Shortly after this notes indicating copulation issued from the top of the tree and were heard for about five minutes. The male then returned to the feeding tree where he was observed several times later in the day. An electrical storm settled over the area at about 2:00 p.m. and lasted until dark. At 6:15 p.m. the male was seen on the top of a tall pine near the nest. Call notes were heard coming from the nest at 6:45 p.m. and 25 minutes later the female was seen to leave. Approaching darkness prevented further observation.

At 7:30 a.m. on August 19 the male was observed opening cones. At 7:55 a.m. the female was heard calling from the nest site. The male answered but did not go to her. When the observer climbed to the nest at 9:50 a.m. the female refused to leave until a hand was placed on the edge of the nest. She then gave a series of alarm notes and took up a position about three feet away. This attracted the male who also came to the top of the nest tree. Both birds were photographed several times.

Three eggs were in the nest at this time. They were a light grayish blue spotted with both faded and sharp brown spots on the larger end. One of the eggs had a dark brown line among the spots similar to the markings of a Lark Sparrow (*Chondestes grammacus*) egg.

The nest frame itself was composed of loosely woven twigs and long grass stems very poorly fastened among the pine needles. The cup was compact and well constructed, being lined with grass, feathers, hair, and several pieces of yellow string. The outside measurements were $3\frac{1}{2}$ inches in diameter and 3 inches in depth. The inside measurements of the cup were $2\frac{1}{2}$ inches in diameter and $1\frac{3}{4}$ inches in depth.

The observer left Tuolumne Meadows this same morning, preventing further observations on the nesting activities of this pair.—EBEN McMILLAN, *Cholame, California, October 22, 1947.*