

was sitting high in a neighboring tree, near the end of a horizontal branch, singing his "preet, preet, preet, preet,—ooree, ooree, ooree," but the female was not seen during the half hour I watched while he sat in the one place and sang. I could not understand the situation, but later it became clear to me.

On July 26 we investigated the status of affairs at the crossbill's nest. It was exactly 100 feet from the ground, about five feet from the main trunk; but the supposed nest was only a collection of small twigs. It was really a "dummy," on which the birds had worked very faithfully for a time. For a while I was puzzled; then it occurred to me that the real nest must be somewhere near the place where the male had sat so long and sung on the former occasion. I turned my attention to the place, and presently the male came to the place, hopped carelessly along the branch, to a suspicious-looking tuft of small twigs, and then passed farther along the branch. Then I could see the nest, and could even see the female sitting there.

On July 27 the real nest was taken. It was sixty-five feet from the ground, among twigs ten feet from the main stem of the tall tamarack tree which contained it. It was taken by tying a long rope about twenty feet above the nest, and then swinging it out on the ground until the collector could swing alongside the nest. It contained four eggs, on which the female sat until shaken from her cosy home. The nest was made externally of dry tamarack twigs, with fine dry grass stems, dark brown lichens, and horsehair. The cavity measured three inches and two and one-half inches major and minor axes, and was one and three-fourths inches deep. The base of the nest was a mass of bark strippings and gossamer. When blown, two of the eggs were found to be in an advanced state of incubation, the other two showed only traces of incubation. The female came near the collector several times, and once or twice sat by the side of the nest while the eggs were being packed. Later she was taken with the nest. The male did not come near while the collectors were at work.

In this connection I wish also to record the occurrence of the white-winged crossbill (*Loxia leucoptera*) in this region in summer. On one occasion I saw a beautiful male at Swan Lake, with a troop of American crossbills, bathing at the water's edge, under circumstances where there could be no mistake, though I did not collect it. Later I saw a female at Lake MacDonald, near Belton, when there could be no mistake in identification. It is my opinion that the crossbill breeds in numbers in this region, an opinion warranted on observations extending over six years, though I have never taken a nest until this season; and contrary to the general data as given in the books, the height of the breeding season in this region is the mid-summer.

Lewistown, Montana.

## FROM FIELD AND STUDY

**Discovery of a Second Egg of the Black Swift.**—On June 16, 1901, I took an egg of the black swift (*Cypseloides niger borealis*) and recorded it in *The Auk*, XVIII, 394. The authenticity of this egg was questioned by many, and altho I was positive myself, since I had no proof I had to be contented in knowing that I was right. I therefore resolved that if ever good fortune favored me again I would secure sufficient evidence to convince the most skeptical. Consequently I have been on the watch ever since, but not until July 9th of the present year, 1905, did I receive my reward by discovering the second egg or set, the circumstances being identical with those of 1901; that is, the birds were flying around in the vicinity of the nesting site, sometimes nearby and again a mile or two away.

By watching most diligently for several days I saw the birds dart downward and over the cliff on the ocean shore, a few miles from Santa Cruz, California. The cliff at this point turns sharply inland, forming a miniature bay, and lowering until it finishes in a small gulch or large crevice in the land, reached by the breakers only at high tide.

The nesting site was in the cliffs where the shore line turns inland, at a point where the cliff is forty or fifty feet high, and overhangs twenty feet or more, forming a sort of cavern. The egg was placed on a shelf or pocket about twenty feet from the top of the cliff, behind a tuft of grass, with which the rocks in this particular place are covered, owing to the moisture from constantly dripping water. There was no nesting material whatever, the egg lying on the wet mud and a little of the trampled green grass, just as on the former occasion.

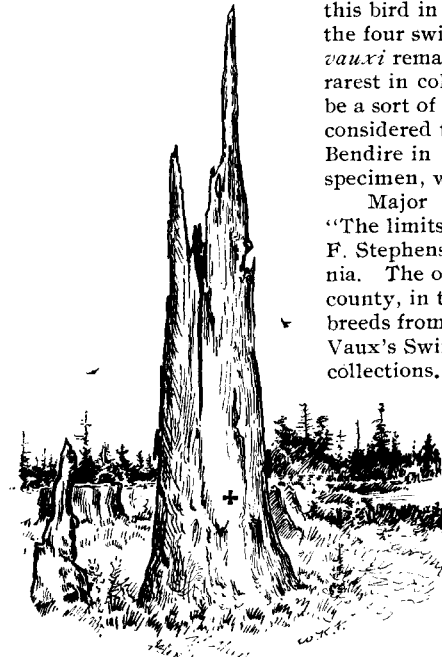
Upon preparing the egg I found that incubation was at least two-thirds advanced, and the specimen was saved with difficulty. I took the egg by means of a swinging rope ladder, with the aid of a dip-net and pole eight or ten feet long, after having flushed the bird and watched with field glasses her return to the exact spot from which the egg was taken. The egg is dull white, in shape is like a hummingbird's, and measures one and one eighth by three-fourths of an inch.

To make the identity more complete I yet had to secure the birds, which I did, after reaching the top of the cliff, by shooting them as they flew by a few minutes later. I still have the skins. I trust that this will prove beyond all doubt the identity of the take and place the same on record.—A. G. VROOMAN, *Santa Cruz, California*.

**The Nest and Eggs of the Vaux Swift.**—So little has been recorded concerning the nidification of the Vaux swift (*Chaturva vauxi*) that an account of the taking of a nest and eggs of this bird in northern California cannot fail to awaken interest. Of the four swifts numbered in our avifauna, the eggs of *Chaturva vauxi* remain, with the exception of those of the black swift—the rarest in collections and the securing of such a prize has come to be a sort of tradition in rarities. This may be realized when it is considered that the type egg figured by the late Major Charles E. Bendire in his "Life Histories of North American Birds," a single specimen, was taken in 1874.

Major Bendire in his work (Vol. II, p. 183) says, in part: "The limits of its breeding range are not well defined as yet. Mr. F. Stephens considers it only a rare migrant in southern California. The only breeding records I have are both from Santa Cruz county, in this State, and it appears reasonable to suppose that it breeds from there northward. But very few nests and eggs of Vaux's Swift have, as far as I am aware, found their way into collections.

"Dr. C. T. Cooke writes me from Salem, Oregon, that on May 9, 1891, he discovered one of their roosting and probably also breeding trees in the Willamette Valley—a large, inaccessible, dead and hollow cottonwood. The only eggs of Vaux's Swift I have seen were taken in June, 1874, near Santa Cruz, Cal. The nest is described as composed of small twigs, glued together with the saliva of the bird, and fastened to the side of a burned-out and hollow sycamore tree. It was not lined, and evidently was quite similar to the nest of the Chimney Swift. From three to five eggs are deposited to a set, and only one brood appears to be raised. The eggs resemble those of the Chimney Swift both in shape and color, but are con-



NESTING STUB OF VAUX SWIFT

Cross denotes position of nest

siderably smaller."

The three specimens in the United States National Museum collection, mentioned by Major Bendire, measured: 0.72 by 0.48, 0.70 by 0.50, and 0.69 by 0.49 inch, respectively. The type specimen was taken by Dr. James C. Merrill, U. S. A., at Santa Cruz.

The predilection shown by this swift, for building its nest in the hollows of lofty trees, beyond the reach of the most ambitious oologist, is responsible, chiefly, no doubt, for the rarity of its eggs, but I was fortunate last spring in securing a set of six, taken by Mr. Franklin J. Smith, in Humboldt county, with a photograph of the nesting stub, of which a sketch is reproduced. Although it was an exceptional opportunity to secure the eggs, as the dead stump was not over thirty feet in height, the feat was not readily accomplished by the

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