

NESTING HABITS OF ANTHONY'S VIREO.

BY C. W. AND J. H. BOWLES.

IN THE vicinity of Tacoma, Washington, this Vireo, *Vireo huttoni obscurus*, can scarcely be described as either rare or common, for the probability is that they are much more abundant than a casual, or even close, observer would be led to suppose. While we have noticed comparatively few birds, we have found several last year Vireos' nests so much resembling, in every detail, the identified nest described below that we feel little hesitation in thinking them the work of these birds. This, of course, cannot be considered a positive proof, for jumping at conclusions of this nature is extremely bad policy, but the theory seems all the more tenable for the two following reasons: First, this is the most unassuming and least noisy of any of the Vireos frequenting this locality; in fact, we have never heard it sing a note or make a noise of any kind whatsoever. This causes one to feel positive that many of these birds must have been overlooked. The second reason is that the nest taken by us does not resemble in the smallest degree the nests of either the Warbling Vireo (*Vireo gilvus*) or the Cassin's Vireo (*Vireo solitarius cassinii*), which are the only other Vireos known to breed in this section of the country.

The nest under discussion is, we are given to understand, the only one known to science where the identity is clear and indisputable. The situation from which it was taken is some eight miles from the city of Tacoma, in a thin fringe of small firs that border a rather extensive prairie. On this prairie are located the links of the Tacoma Golf Club, and, as these links are visited daily by large numbers of the players, it is fair to presume that the bird is not unsocially inclined towards mankind, as is its shy cousin, the Cassin's Vireo.

Like other Vireos' nests it was hanging, though in a somewhat peculiar way, being suspended, not from the usual crotch, but from two green twigs that grew from a small limb at an interval

of an inch and a half. It was placed nine feet up in a young fir, and five feet from the trunk of the tree.

Its composition is, as above mentioned, altogether different from that used by any other Vireo that has come under our notice. The outside material consists entirely of a long, hanging moss, which must be very closely allied to the *Usnea* of the Eastern States, very thickly and closely interwoven. The first point that strikes one, on looking at it, is the absence of outside patch-work of any kind, such as is almost invariably found on the nests of other Vireos. In fact, at first sight, there is a very striking similarity to many nests of the Parula Warbler (*Compsothlypis americana*). Its entire lining is composed of fine, dried grasses, thickly and neatly interwoven. The extreme outer dimensions in inches are: length $4\frac{1}{2}$, width $3\frac{1}{2}$, depth $2\frac{3}{4}$. The inside dimensions in inches are: length $2\frac{1}{2}$, width $1\frac{1}{2}$, depth 2.

The eggs, of which there were only two, resemble more closely certain specimens of eggs of the Red-eyed Vireo (*Vireo olivaceus*) than those of any other species in our collection that we have used in comparison. The ground color of both is a lustreless, milky white. In markings, No. I has a ring of dark brown dots, verging often into black, scattered sparingly around the larger end. Also one fine, hair-like line three eighths of an inch long, running between the dots like the lines on an Oriole's egg. No. II is simply and very sparingly marked all over the larger end with dots of the same color. Their measurements in inches are: No. I, $.76 \times .56$; No. II, $.74 \times .55$.

Incubation was about one half advanced at this date, June 21, 1897, which, if the date is not unusual, makes this bird breed later than either *cassinii* or *gilvus*, which commence incubation four and two weeks earlier respectively.

The female bird was on the nest when first seen and, unlike the majority of our Vireos, flushed the instant the ascent of the tree was attempted. From the nest, she flew about twenty feet into a neighboring fir, where she looked down on our operations with apparently no concern whatever. Beyond rearranging her feathers from time to time, there was nothing to indicate that she had a nest anywhere in the vicinity, as she made no sound or complaint of any kind. Neither was there any of the nervous

hopping from twig to twig in the manner by which so many of the smaller birds as clearly display their anxiety as they do by their notes of distress.

The male bird did not appear at all and, after waiting for him some three-quarters of an hour, we collected the female together with the nest and eggs.

PETRELS OF SOUTHERN CALIFORNIA.

BY A. W. ANTHONY.

FROM the day that I saw my first Petrel dancing over the waves of the Pacific none of the birds of southern California so thoroughly interested me or so completely baffled all attempts at a more intimate acquaintance. Several species were often common off shore and during such times dozens would pass and re-pass a sailing vessel but always keeping just out of gunshot. All of the coast islands were examined for breeding colonies but owing to my lack of experience and knowledge of their breeding habits, several years passed before any clue was found to their very restricted nesting grounds. In May, 1895, a small colony of Socorro Petrels was found on one of the Coronadó Islands, but it was too early for eggs, and I was unable to revisit the island again at the proper season. Armed with the knowledge gained in 1895 I visited the island April 21, 1896, and camped five days, thoroughly exploring the northern and two middle islands of the group. On the first night of my sojourn I had scarcely fallen asleep, curled up on a rocky shelf just above the water, when I was suddenly recalled to my senses by a loud *Tuc-a-roo, tuc-tuc-a-roo* within two feet of my head. The call was repeated from half a dozen directions and as many bat-like forms were seen flitting back and forth in the moonlight along the cliffs and hillside. One or two attempts to shoot them proved utter failures and the black forms soon moved out to sea, returning at intervals of an hour or so all night. The next afternoon I