

December, January and February. At all other seasons they are most abundant and their nests are very plentiful.

62. *Hesperocichla nævia*. VARIED THRUSH. — The Varied Thrush or Oregon Robin is a very common bird during the winter, but departs to its breeding grounds with the advent of spring. In habits it is much like the common Robin.

63. *Sialia mexicana*. WESTERN BLUEBIRD. — Very rare. Only one specimen of this bird was ever seen by me upon the cape. This was an immature female killed April 5, 1898.

In conclusion I wish to state that I have attempted to describe the bird life of the cape just as I saw it, and for the purpose of relieving the monotony of mere dates have included some of the most prominent habits of the birds as seen by me. I also wish to say that there were some birds not identified by me, which occur upon the cape, such as the larger Hawks and Eagles, and also the shore birds, which are entirely absent from the list for want of proper identification. All specimens in my collection whose identification was uncertain were compared with specimens in the collection of the California Academy of Sciences, and Mr. Loomis also very kindly examined certain birds for me.

NESTING HABITS OF THE CERULEAN WARBLER.

BY W. E. SAUNDERS.

SOME years ago, while on a short walking trip through the western peninsula of Ontario, I located a woods in which the Cerulean Warbler (*Dendroica cerulea*) was exceedingly common. Ever since, I have wished for an opportunity to visit that locality in early May that I might make their acquaintance in the house-keeping season and perhaps get a few nests. Near London, only 60 or 70 miles farther east, they average uncommon, and near Toronto they are seldom seen.

On May 16, 1900, I got back near the place and in a day's hunt succeeded in finding two pieces of woodland where they were common, and though there appeared to be as yet no sign of nest

building, the prospects were so favorable that I determined to visit the place again at a later date. In the meantime I found a pair near London, and after a short watch saw the female at work on the nest, which was then just begun, and could hardly be seen from the ground for leaves, though only seventeen feet up on a sloping limb of a basswood. By the 24th it was apparently finished but no bird was near, nor were they to be seen on the 28th, and on June 2nd, when the ascent was made, the nest was found completed but empty. It was situated on a limb two and one half inches in diameter just beside a vertical twig, but not held in place by anything except its own fibres attaching it to the main branch.

On June 4, accompanied by Mr. H. Gould, I made the western trip again, and after walking the necessary seven miles that evening we set the alarm clock for before daylight and turned in. Next morning we were in the woods long before five, and found, as before, many Ceruleans in full song, and immediately set to work, thinking we had easy work before us. But when, after two or three hours of steady work we met, and found that the total result was one nest building, we began to fear, and by ten o'clock were ready to give up.

We then spent an hour or two in another woods, but came back to lunch on the scene of our disappointment, and while eating we noticed a female, leisurely feeding and hopping around in a tree in front of us. By the time we were ready to move, she had covered two or three trees so often that we felt sure her nest was in one of them and we got on opposite sides of the clump of trees to watch her. Then it began to dawn on us why we had met with so little success in the morning, for it kept us both busy to keep track of the little greenish bird traveling high up among the green leaves. However, after a half hour or so she disappeared in a place where one watcher would not have been able to guess at her whereabouts, but to the other, she was easy, and two steps to one side revealed the nest. A climb of forty-five feet in a leaning basswood reached the nest, which contained one egg only, but as we were not very sanguine of finding more we took it.

We then decided to hunt together, and the difficulty was solved.

We soon located a male, singing and preening himself, and one sat down to watch while the other hunted within call. In ten or fifteen minutes he ceased preening and began to feed, and then, as before, it kept two pairs of eyes and two B. & L. Stereo glasses exceedingly busy to follow him. Presently he darted out and gave chase to another bird who proved to be his mate, and immediately we quit watching the male and followed the female. In less than five minutes she ceased feeding and flew sixty yards, straight to the nest, in full view on a bare limb of basswood fifty feet from the ground and six feet out from the trunk. This nest is supported by one small twig which passes through one corner of it; but it is for the most part saddled on the limb just as the Blue-gray Gnatcatcher's or the Ruby-throated Hummingbird's often are. It measures outside two inches high and three inches wide; inside $1\frac{3}{8}$ deep by $1\frac{7}{8}$ wide. The supporting limb is one inch in diameter just below the nest, which is mainly composed of grasses and a few bark fibres, with a scanty lining of black horsehairs in the bottom and on one side, the other side being less heavily built and lacking the lining. The whole is covered with the same silvery-gray bark strips that the Redstart uses so freely, with some intermingling of cobwebs, both barkstrips and cobwebs having the appearance of being put on while wet. Incubation was half finished, and the four eggs measure, by average, $.67 \times .52$ in., the extremes being $.68 \times .52$ and $.66 \times .51$. The ground color is bluish white and is very thinly covered with small spots of light brown and purplish, but around the large end is a fairly heavy circle of the same.

By this time we found the problem solved, and by hunting together we found the nest of almost every male we started to watch and of every female we saw. The next one had to be watched only a short time before his mate was found and we watched her for some time building a nest about thirty feet up in a tall, slim maple, the nest being against the trunk, and apparently semi-pensile. This was a peculiarity far from their usual method, but as we did not wish to disturb them, in the hope that we would return again, we left it. Unfortunately this hope was not realized.

We then walked along for some minutes without finding a

male in a favorable location, those we saw being in the tops of very tall elms, where it was impossible to watch them well, and where we could not have got the nest even if we found it. Strolling along, however, one of us suddenly saw a female and watched her to the nest before the other got a glimpse of her at all. This nest was in a sloping basswood, forty feet from the ground and four or five feet from the trunk, on a heavy ascending limb which measures one and three fourths inches in diameter just below the nest, which is built at the offsetting of a seven eighth inch branch, beside which are two small twigs whose leaves sheltered the nest from above. It measures $1\frac{3}{4}$ inches high on the outside and $2\frac{3}{4}$ wide; inside it is 1 inch deep by $1\frac{7}{8}$ wide. The composition of the nest is identical with the one already described, except that the lining, which was entirely black in the other, is in this one red and is made of red cowhairs, red rootlets and a very few white horsehairs. Incubation was one half completed, and the four eggs measure by average, $.66 \times .53$ inches, the extremes being, $.65 \times .53$ and $.69 \times .53$. The coloring is similar to that of those already described with a few spots of darker brown in the ring. This nest contained a Cowbird's egg also, and the five eggs filled the shallow nest exceedingly full.

We soon located another male, and found his mate within ten minutes and the nest shortly after. This was in an oak, and only twenty-three feet from the ground. The nest contained four eggs of the usual ground color, many of the spots being large and of a lighter brown color. Incubation was so far advanced that it was found impossible to make good specimens of them. This ended the day, which had yielded us three sets of four, one nest with one egg, and two nests building.

At London, on June 11, the nest just commenced on June 3 was found to be covered by the female; and on June 16 it was taken. It was in a maple thirty-five feet from the ground, and six feet out on an ascending limb. Sitting at work just below the nest-limb I found the trunk of the tree, on a level with my eyes, was two inches in diameter, which gave no chance to work from above the nest. However, by the use of a long-range tree pruner, and very careful work, I managed to get the limb safely off and drew it in. The nest was situated on a horizontal branch just

after its separation from the parent limb, which was one and one fourth inches in diameter before the crotch. It is composed of grass and weed stems and a few bark strips and lacks the hair lining entirely, being sparsely lined with some small, red-brown fruit stems. On the outside there is very little of the silvery covering of the others, but a small twig, encircling the nest for half its circumference and thoroughly well bound into it, gives it a far greater air of substantiality than have the others. The leaves of this twig and its branchlets so completely hid the nest from view that there were but two points from which it could be seen at all well. It measures $1\frac{3}{4}$ inches high by $2\frac{3}{4}$ wide outside, and on the inside $\frac{7}{8}$ by $1\frac{3}{4}$ wide. It contained five eggs, one of them a Cowbird's. They appear larger than the other sets, possibly on account of their ground color being creamy white instead of bluish white; but the average measurement of $.67 \times .53$ shows the difference to be trifling. The largest egg is $.67 \times .54$ and the smallest $.66 \times .53$. They are spotted more regularly than the others, over the whole surface, but yet have a well-marked ring. The spots are of a lighter brown with a sprinkling of lilac and the eggs closely resemble some sets of the Redstart, while the former sets bore a greater resemblance to the eggs of the Yellow Warbler, only that the spots are more brownish than in that species.

A feature that interested me very much was the extreme shallowness of the nests; all the other Warblers with which I am acquainted building a comparatively deep nest, and the query arises, Does the bird build a shallow nest because it places it on a substantial limb, or does it place it on a substantial limb because its nests are shallow? The attachment of the nest, also, is exceedingly frail, and I am inclined to think that few of these nests would remain in position long after the young had left. Of the eight nests found this year, two were in oaks, two in maples, and four in basswoods, showing a marked leaning toward the latter tree. The only other nest found near London was noted by Mr. Robert Elliott of Brymston in 1899, in an elm, about fifty-five feet from the ground and ten feet out from the trunk, where such a prudent climber as I am, had no desire to take it.