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IX.—ON THE NIDIFICATION OF THE WINTER WREN IN NOVA SCOTIA.—BY HARRY PIERS, *Assoc. Member A. O. U.*

(Read April 11th, 1892.)

ONLY very few completely identified nests of this common species (*Troglodytes hiemalis*) have so far been discovered by naturalists. The description, therefore, of one in the present writer's possession, may help somewhat toward a more complete account of its breeding habits, of which we at the present time possess but scant knowledge.

For the sake of comparison, it is advisable to give short notes on most of those which have already been collected in other localities. In doing so, I shall mainly notice such as have been summarised by Rev. J. H. Langille.*

Audubon found two nests, each containing six eggs. The first was discovered in the pine woods near Mauch Chunk on the Lehigh River, Pennsylvania. It was placed on the lower portion of a tree-trunk and has been described as a "protuberance covered with moss and lichens, resembling those excrescences which are often seen on our forest trees, with this difference, that the aperture was perfectly rounded, clean, and quite smooth. . . . Externally, it measured seven inches in length, four and a half in breadth; the thickness of its walls, composed of moss and lichens, was nearly two inches; and thus it presented internally the appearance of a narrow bag, the wall, however, being reduced to a few lines where it was in contact with the bark of the tree. The lower half of the cavity was compactly lined with the fur of the American Hare, and in the bottom or bed of the nest there lay over this about half-a-dozen of the large, downy abdominal feathers of our common Grouse (*Tetrao umbellus*). The eggs were of a delicate blush colour, somewhat resembling the paler leaves of a partially decayed rose, and marked with dots of reddish-brown, more numerous toward the larger end." The other nest was found on the bank of the Mohawk River, New York

*"Our Birds in their Haunts," 1884, p. 282 *et seq.*

State, attached to the lower part of a rock. It differed from the one just described, in being smaller, but was otherwise similar.

DeKay* tells us that his collector, a Mr. Wood, found the species breeding in great numbers near Lake Oneida, New York, in July, and that the number of eggs was from ten to twelve.

A nest with eggs was taken in Eastern Maine by Mr. W. F. Hall, who found it built in a deserted log-hut, among the fir-leaves and mosses in a crevice between the logs. The structure "was large and bulky, composed externally of mosses, and lined with feathers and the fur of hedge-hogs. The shape was that of a pouch, the entrance being neatly framed with sticks, and the walls very strong, thick, and firmly comparted." Its framework had been made of green hemlock, the odour of which was very agreeable.

On July 23rd, Mr. H. D. Minot discovered a nest in the White Mountains, New Hampshire. It was in a moss-covered stump, about a foot high, standing in a dark, swampy forest filled with tangled piles of fallen trees and branches. The entrance to the nest was less than an inch in diameter, and it was covered with an overhanging bit of moss which the bird pushed upward when entering. Within, it was thickly lined with feathers of the Ruffed Grouse. The eggs, five in number, were "pure crystal-white, thinly and minutely specked with bright reddish-brown, and averaged about $.70 \times .50$ of an inch in dimensions."

In 1878 three nests were found by Mr. James Bradbury of Maine. Two of these were under fallen trees, at the roots, and the remaining one was sunk into the thick moss which enveloped another prostrate trunk.

From the previous notes we see that the bird, when about to breed, is ready to adapt itself to circumstances, and consequently the position and form of the nest may vary from a "protuberance" on a tree-trunk to a snug little structure stowed away in some retired and suitable crevice. It is formed of moss with a lining of warm material, such as feathers. The eggs are white, spotted, chiefly near the larger end, with reddish-brown. The generic

*Natural History of New York : Birds ; p. 57.

name *Troglodytes*, which has been given to the Wrens, signifies 'one that creeps into holes.' It has been so applied because of their custom of nesting in cavities and other out-of-the-way nooks. This secretive habit seems to be common to both the old and the new-world forms, and largely accounts for the scarcity of facts relating to the nidification of the species at present under consideration.

I shall now speak of the nest and eggs in my own possession, of which a full description will be given.

They were found, about May 11th, 1891, by my brother while fishing at Kidston's Lake near the Rocking Stone, Spryfield, Halifax County. One of the parent birds was then seen at the nest. On May 22nd I examined them and took one of the eggs; on which occasion the bird was again observed. Another visit was made on the fifth of the following month (June). Several times I saw the bird enter and leave the nest. It was probably the female. When disturbed, she hurried away without the slightest noise, usually flying to the ground and rapidly hopping out of sight, as though ashamed of her little home. Nor did she seem very anxious about its security while we were occupied in examining it. This was very different from most other birds, which keep diligent guard over their eggs; of whose safety they seem extremely solicitous, and in defending which they often exhibit great instinctive pugnacity. At one time the Wren proceeded toward the outer end of a dead tree-trunk, where she captured some larva, and then whilst retaining hold of the animal with the bill, killed it by several vigorous blows directed against the wood. These strokes could be distinctly heard, although the bird was a rod or two away. Such an incident illustrates the want of maternal concern which has just been noted. Once while she was within the nest, I placed a landing-net over the entrance and held her for a short time, so as to put the question of identification beyond a doubt.

After observing as much as possible, I cut out a square of the moss with my knife, and so obtained the nest and eggs. It seemed a pity to miss an opportunity of thoroughly examining them, and the bird undoubtedly would again build.

The nest was a cavity in the long moss (*Sphagnum acutifolium*?) covering the perpendicular face of a granite boulder.* The latter was embedded in the sloping bank of the lake, the water of which came within a yard or two of its site. The vicinity was wooded. On examination, I found that the whole of the moss containing the nest was kept *constantly saturated*

NEST AND EGG OF WINTER WREN.

A. Moss containing nest, detached from surrounding portion; 1-4 nat. size.—B. Section of A; 1-4 nat. size.—C. Egg; nat. size.

with water which came from the bank above and flowed over the top of the stone, thence passing through the moss, from which it dripped at the base. The little cavity was therefore surrounded by a wet mass which must have kept the eggs at a very low temperature. How the bird could maintain sufficient warmth to hatch them, is a mystery to me, especially as she seemed to be of a gadding disposition.

This damp condition of the nest I consider a peculiar circumstance. The Wrens, however, are noted for their eccentric ideas as to the proper situation for a nest. The European species (*T. vulgaris*), which is closely related to the Winter Wren, and which in fact was confounded with it by some early writers, has been known to build in such a curious place as the body of a hawk which had been killed and nailed to the side of a barn, and likewise in the throat of a dead calf, in the interior of a pump,

* The nest was about a foot from the ground at the base of the stone.

and other situations which seemed to be entirely unsuited to such a purpose.

Very few materials were transported to compose the nest. The bird had simply formed a short cylindrical passage in the moss *in situ*, and made an enlarged cavity at the inner end, wherein were deposited the eggs. This was sparingly lined with a small number of feathers together with a few bits of grass and fibre. Several pieces of twigs were neatly set in the outside lower part of the entrance, probably for the purpose of strengthening that portion.

As before mentioned, I had taken one of the eggs on May 22nd, and on the day now in consideration (June 5th) it was found that there were five still remaining, making a total of six. A description of the one taken on May 22nd, is typical of them all. It is white, speckled with reddish-brown; the spots round the larger end being of greater size than elsewhere, and they also enlarge, but very slightly, at the smaller extremity. These specks and spots are mostly somewhat irregular in form, being occasionally oblong or like very short dashes. Size of egg, .64 x .51 of an inch. In another specimen the specks are more decided in colour, and there are some fair-sized spots on the sides as well as the ends.

I trust that the descriptions I have given of this nest and eggs, will serve to show any slight difference from, or similarity to specimens from other places. For this purpose notes from new localities are always desiderata to the generalizing naturalist.