

NOTES ON BREEDING HABITS OF BROWN- HEADED NUTHATCH AT THOMAS- VILLE, GEORGIA.

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The following data was taken last spring (1889) while in the south and is copied from my rough notes under dates as there made.

March 9. This species I find abundant here in the pine woods region, almost as plentiful as any other. It is everywhere, and generally, excepting when nesting, several individuals are found in company. They are quite as industrious as their larger kin, the White-bellied Nuthatch, which is also found here, and much more active and erratic. Their notes are a curious combination; at times closely resembling the jerky effort of a flying Goldfinch, but in the case of the Nuthatch produced while at rest, at least while on a tree, for it is seldom that one is observed at rest. Again it has a plaintive, almost querulous string of notes, or really a song quite pleasing, particularly when three or four are heard in company, one following the other, or perhaps lapping over each other. This is probably the love song, as I have never heard it in the fall or early winter.

They commence preparations for nesting in this locality early in February, at least so I noted this year; however, last season I failed to note any nesting up to time of my departure, March 8, but I am inclined to think I overlooked them. This year I saw first pair digging February 3, but up to present date many pairs have not laid.

I am inclined to think the season has much to do with the time of laying; February this year being wet and cold, which seemed to delay the work. A few pairs, however, as indicated later, made the best of the early warm days at beginning of the month.

The locality chosen is usually in an open field near timber, occasionally in the woods; the site a dead stump, tree or stub, externally with a bark or shell hard enough to be secure, and internally decayed and soft enough so that the labor of excavating is not difficult after the entrance has been completed.

The opening is not over 1 1-2 inches in diameter; the cavity usually a foot or more deep—a few much less—and does not run far back, but follows down, generally obliquely, close under the bark, or outside layer of hard wood, the next, therefore, being not directly under the opening.

Several that I have examined were composed of a considerable mass of shredded cocoons, hair, soft decayed wood and cotyledous of pine.

March 12. A nest taken to-day with five eggs was placed directly under the entrance, and not more than six inches deep, but this is not the usual way.

A second nest found to-day had four young, just hatched, and one egg. A crack in the stub which extended to the cavity was chinked or caulked effectually with lichens, cocoons and wool, to exclude light and air, I suppose. I have noticed the same on other occasions.

Another set of five taken to-day were perfectly fresh, and other nests found nearly completed by middle of February have not yet been laid in.

March 16. One nest with six fresh eggs was in a dead stump, hole on east side, four feet from ground, nest directly under opening, cavity about ten inches deep, three inches from front to back and four to five inches wide. This nest was composed almost exclusively of fine cotyledous.

Another nest carefully examined to-day was composed of about three-quarters of the cotyledous, balance largely of torn cocoons. a little soft wood and some lichens.

Another was placed behind a large flake or section of decayed sap wood, which was four feet or more long and extending less than one-quarter of the way around the body of the tree, and almost detached from main trunk. There was no opening proper to this nest, the birds using the natural or existing fissure for the purpose.

March 19. About sunset visited a nest of this species, in a stub eight feet high in a grove back of our house. On rapping on the trunk, three old birds flew out and I was surprised to find a nest with six fresh eggs.* The cavity in this case was much larger than common, there being really two recesses, one for the nest and one vacant, all joined, or rather a widening at bottom larger than the nest occupied.

March 23. To-day took two sets of eggs, six and seven respectively, perfectly fresh. They were near where I had torn open holes before nests were built and may have been same birds rebuilding.

The set of seven was in a dead tree which stood in pond* in a wood, but near the edge; the other was in a stump less than two feet high, very small, and the opening to nest not over sixteen inches from the ground.

From a number of eggs collected, I find five eggs to be the most common number, six is frequently laid, four not uncommonly and seven seemed to be rare. From Mr. Brimley's article referred to, it will be seen they found the nesting sites in the majority of cases in or close to water, which I take to be from the fact that in his locality such conditions more generally furnish the proper conditions of decayed timber, while in the more southern locality or account of the system of agriculture, such timber is found in cultivated fields, regardless of the nearness to water.

However, be the cause what it may, I found a large majority of nests in an "open field near the woods," as many of my data blanks bear record.

The eggs vary considerably in size and color, as is the case with those of all the Nuthatches.

*See *Ornithologist and Oologist*, October, 1889, Brimley on "Nesting Site of Brown-headed Nuthatch," and comments by "C. J. P." in Jan. '90 number same magazine.