

Nesting of the Blackburnian Warbler (*Dendroica fusca*) in the Poconos

BY DAVID E. HARROWER.

In the Pocono Mountains of Pennsylvania is a paradise for the bird lover, and of all the birds found there no family is so well represented as the Warblers. About La Anna, in western Pike County, where these observations were made, sixteen species were found as summer residents. Along the roads could be seen Yellow-throats, Redstarts, Yellow Warblers, Ovenbirds and Black and White Warblers. Back in the woods were Magnolias, Blackburnians, Northern Parulas, a few Pines, Black-throated Greens, Canadians, Black-throated Blues and both species of Water Thrushes. In the clearings Chestnut-sideds were abundant, and very rarely a Mourning Warbler was observed.

Seven o'clock on the morning of June 17th, 1908, found me at the edge of what is locally known as the Primæval Forest. Behind me was the woods, undisturbed through centuries. Here great hemlocks predominated, but everywhere were maples and grand old birches. The undergrowth was very dense; to my right, down near the stream, it consisted of an almost impenetrable growth of rhododendron, while farther up the slope to my left it was not so thick, and here occurred several deciduous shrubs, with moosewood, bass wood and a few small hemlocks. Few flowers grew beneath this perpetual shade, and the atmosphere was of moisture, coolness, and serene peace. To my right, at the foot of the slope, the Wallenpaupack swirled and roared and foamed over its rocky bed between banks fringed with rhododendron. Before me was spread out a panorama of deforested hills covered by a dense second-growth, while here and there stood a lonely tree, spared for some reason by the lumberman's axe. Along the border of the forest were

a number of isolated hemlocks daring to venture forth into the open from the protection of their neighbors of the woods.

Birds were here in abundance. A Winter Wren was busily engaged in feeding a hungry brood. From down near the creek came the lazy notes of Black-throated Blue Warblers, and occasionally the spirited song of a Canadian. Singing overhead in the hemlocks were Magnolia and Black-throated Green Warblers. The clear notes of a Rose-breasted Grosbeak came floating across the second growth, mingling with the songs of Chestnut-sided Warblers and with that of a Tanager. From deep in the forest came the sweet warble of a Solitary Vireo and the droning song of a Chickadee. A Hummingbird buzzed inquisitively about my head for an instant and then was gone. An Olive-sided Flycatcher swooped from his perch on a dead stub and returned with an insect in his bill. From every side came bird notes and songs, a soft, sweet harmony of sound.

It was not long before I saw a female Scarlet Tanager fly to a horizontal branch of a hemlock, about forty feet from the ground, and disappear. Ascending the tree, I found a handsome nest which contained four well fledged young. I sat dangling my feet into space, watching the animated life below and beside me. On every side where warblers, some singing, some busily engaged in hunting insects, and it was from this excellent post of observation that I caught sight of one or two beautiful male Blackburnians, the first I had seen that day. My attention was attracted by the excited actions of one of them and he was soon joined by his more quietly garbed mate in a demonstration against me. After watching the female for several minutes I saw her fly to a branch of a hemlock about sixty feet away. She left it at once, but quickly returned and this time did not reappear. I descended and approached the isolated hemlock among the lower branches of which she had vanished. A vigorous rap on the trunk sent her from the dense mass of foliage overhead. She flew to a neighboring tree and began at once to scold at me. Nervously flitting from twig to twig, occasionally snatching an insect in passing, she watched me intently, chipping all the while. I climbed the tree and found a nest containing four young birds. The parents were

very solicitous, often flying within reach of my hand and sometimes alighting and lying for a moment upon the dense, green hemlock needles, with quivering outspread wings and tail.

The nest was situated about thirty feet from the ground, in a thick mass of foliage formed by the first branch of the hemlock. There were only a few stubs between this branch and the earth. The nest, surrounded on all sides by foliage so dense as to effectually conceal it from below, was placed about two feet from the trunk at the fork of a small branch. It was fairly well constructed, and was composed of hemlock twigs, dry grass, a few strips of weed fiber, and lined with finer materials. The young, which were apparently about two days' old, were very weak, and lay motionless while I was at the nest.

The next year, 1909, I left for the Poconos, on June 15th, and the next morning was again at the edge of the Primæval Forest, at exactly the place spoken of previously, with the woods cool and still, the Wallenpaupack foaming over the rocks down below me, and the birds singing everywhere, — as though a day, and not a year, had elapsed since I had been there.

My attention was immediately drawn to a rich, ringing song from the second-growth, but it was sometime before I located the singer, flitting from bush to bush, and identified him as a male Mourning Warbler, my first record for the Poconos. That second-growth offered a very dense tangle in which to look for a nest, but I set to work. Two nests of the Chestnut-sided Warbler rewarded my efforts, but no success attended my endeavor to locate the nest of the bird whose song rang in my ears derisively.

Throughout my search for the nest of the Mourning Warbler I had been half-conscious of a persistent, faint, sharp chipping, which came from overhead. At last I saw the bird flitting about in the shadows above me, and it proved to be, as I had thought, a female Blackburnian Warbler. In a few moments she flew to the lowest branch of a large hemlock standing out in the second-growth and there disappeared. I approached; and this time, before ascending the tree, I saw the nest. It was placed upon the first branch, twenty-eight feet from the ground, located at a

fork three feet from the trunk, and it held four young about three days' old. These young birds I removed, and substituted for this nest an old nest of a Towhee which I had found just before ascending.

This Blackburnian Warbler's nest is before me now. It is composed principally of hemlock twigs interwoven with dry grass, plant fiber, rootlets, one or two leaf stalks and a tiny dry leaf. On the exterior are several pieces of plant down, spider web and fur. The lining is of fine grasses, slender strips of plant fiber, several stiff white hairs and a few very slender, black fern stalks. The outside diameter of the nest is four inches; the inside diameter is two inches. The nest is well cupped; the inside depth is about an inch and a quarter. The general appearance is like that of a Magnolia Warbler's nest, but it is much more substantially built.

The tree in which this nest was built was not more than fifty feet from the tree in which I had found the Blackburnian's nest containing young during the previous June. Another point of similarity is the fact that the first nest was only two feet farther from the ground than the second. It seems very probable that these two nests were built by the same pair of birds, and although for two years I had found the nest of these Warblers I was unable to secure a set of eggs.

In June, 1910, I again made Pike County my objective point, and on the 13th I was once more at the spot where for two seasons I had found the Blackburnian's nest. At first not a bird of this species was to be found; even the Mourning Warbler was not in sight, and I missed his spirited song. Suddenly I became aware of the faint, persistent chirping of some bird in the foliage overhead, and I realized at once that the note was that of a Blackburnian Warbler.

In order to confirm my judgment I began at once to look for the bird, but it remained hidden in the upper part of the forest canopy. Not a glimpse of it could I catch, and I was almost ready to sit down at the foot of a tree and watch for the bird when my upward gaze was arrested by something in the foliage directly overhead, which upon more careful scrutiny proved to be a nest. It was small and near the trunk, and for some rea-

son I felt that my quest was over and that I had found the nest before seeing the bird. It took but a minute for me to "shinny" up the slender trunk of the hemlock in order to reach the nest. A moment of hesitation and expectancy and then I leaned over and looked down through the delicate fronds of hemlock into a nest containing four beautiful eggs.

Like the other two, this nest was placed in a hemlock, upon the lowest branch and within four feet of the trunk. Unlike the nests found in previous years, it was placed in a hemlock well within the margin of the forest instead of in an isolated tree. This nest was about fourteen feet from the ground, only half as high as the lowest of the other two. The birds did not show much concern over my intrusion and neither came within twenty feet of me. The female was more demonstrative than her brilliant mate, and kept up a continual chipping as she flitted about in the neighboring trees.

This nest is a handsome structure; it is deeply cupped, its inside diameter being scarcely two inches. Its composition is similar to that of the other two nests. Hemlock twigs form the basis for the whole structure, and they are firmly interwoven with weed stalks, strips of plant fiber, dry grass, a few rootlets, etc. The exterior is decorated with catkins, plant down and spider webs. The lining is very heavy and is made up of fine grasses and a large number of fine black fern stalks. The eggs are four in number and are very beautiful. They have a ground color of white tinged faintly with green, and are heavily wreathed about their larger ends with spots and blotches of rich brown, sienna, and lilac. The shells are without gloss and very delicate in texture.