## BEHAVIOR OF BLACKBURNIAN, MYRTLE, AND BLACK-THROATED BLUE WARBLERS, WITH YOUNG

## BY MARGARET MORSE NICE

During the summer of 1925 in the woods of Pelham, Massachusetts, I was fortunate in coming upon several families of warblers whose young had recently left the nest; in three of these cases the actions of the parents were of particular interest.

In the tall white pine and hemlock woods west of Grey Rocks, my mother's summer home, I heard a Blackburnian Warbler on July 11, and saw the lovely bird sitting on a dead branch of a pine and preening himself between his plain little songs. The first of August I happened to visit these woods and was mystified by an insistent chee-chee chee-chee chee-chee, the first syllable given with a rising inflection and the second with a falling. After craning my neck for some time I discovered forty feet up in a white pine a fluffy, bobtailed, greyish baby; a moment later it fluttered to another twig, quivering its wings and begging more energetically than ever. There was the beautiful Blackburnian father with an insect! All at once there was the greatest commotion around the Irish terrier and myself as we stood quietly on the ground-both father and mother Dendroica fusca flew about us excitedly scolding chip-chip-chip-chip. The mother nearly descended to the ground in her alarm; she held her wings straight up in the air and her tail curled under-a very curious attitude. Meantime the baby kept perfectly quiet. In a few minutes the parents grew less distressed, the female even preening herself between chips. I started to leave them and the male accompanied me for a distance, chipping at me as I went. I turned back, however, for another nestling was calling from a butternut tree. This time the mother objected only mildly, while the father disregarded me entirely. There seemed to be three or four young scattered rather widely in the tops of tall trees; they were wonderfully persistent babies.

Myrtle Warblers nested near the house, their songs being recorded nearly every day from their arrival on April 27 till August 6. Three twittering, wing-fluttering youngsters were seen on July 4; both parents were feeding them. Another brood left the nest earlier, for on June 14 we saw a female *Dendroica coronata* catch a small moth, fly to a witch hazel bush and feed a bobtailed infant. Then she spied the two spectators, hurried near us, and "tchipped" in disapproval. We went within a few feet of the baby while the mother with a large insect in her bill hopped about protesting; she came as near as four inches to the nestling, but could not quite get up courage to feed it. The father, in the meantime, seemed totally unconcerned, flying about in a tree nearby and singing cheerily.

On July 18 at the western end of the white pine and hemlock woods we came upon a female Black-throated Blue Warbler (Dendroica caerulescens caerulescens) with food in her bill; she immediately swallowed the insect and scolded violently. The male appeared but seemed calm. We searched about in likely bushes and undergrowth for the nest but in vain. At last I heard a note something like a Chipping Sparrow's song, but about half as long; I went to investigate and there, completely hidden in a mass of ferns, about nine inches from the ground on two loose, dead branches was the nest; the baby whose hunger call had revealed the secret promptly hopped out. The mother warbler became beside herself with distress; she would fall from a branch to the ground and then creep about with wings and tail spread, chirping her loudest. The father flew around uttering the same excited notes, but making no special demonstration otherwise. The little mother's actions were so pitiful that we soon left, taking the empty nest with us; it was a beautiful structure lined with pine needles and covered on the outside with strips of birch bark.

NORMAN, OKLAHOMA.

## AN IOWA BIRD CENSUS

## BY E. D. NAUMAN

Early in the year 1914 the U. S. Bureau of Biological Survey issued a call for volunteers to try the innovation of taking a bird census on some tract of land to be selected by themselves. The writer having been in communication for some years with this Bureau, received such a request to make and report a bird count.

The idea looked somewhat utopian, but I determined to make a trial anyway. For that census I selected Tract A only. (See maps). Having had no experience in this line, of course the work was somewhat discouraging and unsatisfactory, and thinking this undertaking might never be repeated, I did not keep a copy of my figures.

But in 1915 a call was issued to have a second census taken to see, I suppose, how the two would compare with each other. That year I made counts for both Tracts A and B, but mislaid or lost my figures. Published accounts of the census showed that there were just three of us in Iowa who made and returned counts for those two years. When, however, the call came in 1916 for a third census, I concluded that this was to be a "continuous performance". So the counts on both tracts were made and the figures preserved annually ever since,