## BACHMAN'S WARBLER IN ALABAMA

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Alabama seems already to have been peculiarly blessed with records of Bachman's Warbler (Vermivora bachmani), both in the number of sight records and in being one of the few states in which the nest has been found. Yet the bird is sufficiently rare to warrant the publication of additional records, and it is with this paucity of records in mind that I present the known records of the bird in this state since the publication of Howell's book, giving first, however, the records of the bird given in that manual, for the benefit of those who themselves have not had the opportunity of reading the book.

The first record for the State is that of a male taken by A. A. Saunders at Woodbine, March 20, 1908.2 Howell, himself, discovered the second bird, another male, taken in a small swamp near Autaugaville, April 16, 1912.3 Howell and Peters collected males at Sipsey Fork, near Mellville, May 2 and 3, 1914; in Bear Swamp, May 10, of that year; and on the Tensaw River, below Mount Vernon, on May 27.

While their unusual habitat suggests that some of these birds were belated migrants, others were almost certainly breeding.

L. S. Golsan reported the following records: an immature bird seen near Autaugaville, August 26, 1912; a female seen near Prattville, May 21, 1916, seemed to be nesting; a male heard singing at Longview, April 7, 1917. In Bear Swamp, near Autaugaville, May 25, 1919, Mr. Golsan and Ernest G. Holt discovered a nest containing four fresh eggs, this being the first nesting record for the State.4 These eggs are now in the collection of Mr. Golsan, who adds that the males of this species were usually abundant in Bear Swamp from March 20 to May 1. He states that this condition prevailed till 1928 when, possibly due to the cutting away of some of the timber, the birds disappeared, or else their presence was not cleared by as diligent or thorough search then as it was when Howell, Peters, and Holt were visiting the swamp.

My first experience with Bachman's Warbler takes me back to Irondale (near Birmingham), Alabama, and the warm, bright afternoon of April 9, 1936, when, strolling through the woods, I suddenly became conscious that I had been listening to the song of some bird strange to me. The song must have been sung within ear-shot half-adozen times before it really commanded my attention. Even then I

<sup>&</sup>lt;sup>1</sup>Howell, Arthur H., Birds of Alabama, pp. 286, 287, 1928 (second edition). <sup>2</sup>Saunders, A. A., Auk, Vol. 25, p. 481, 1908. <sup>3</sup>Golsan, Lewis S. and Ernest G. Holt, Auk, Vol. 31, p. 231, 1914. <sup>4</sup>Holt, E. G., Auk, Vol. 37, pp. 103, 104, 1920.

probably should have attributed it to a Chipping Sparrow, had it not come from the depths of a thick, damp woodland. Long before I had covered the fifty or sixty vards separating me from the tree in which the songster was performing. I felt reasonably sure of the bird's identity, as such phrases from the familiar manuals I have read as "short, buzzing trill", "without change of pitch", and "quality of the Parula" came ringing back to my mind during each interlude. Though it seemed much longer, it was really only a few minutes before I had located the singer, an adult male Bachman's Warbler, high in a sweet gum tree (Liquidambar styraciflua). This was the red letter day of the whole spring for me. Four days later Mr. H. E. Wheeler and I re-visited the spot and found the bird in a red maple (Acer rubrum). not fifty yards from the previously mentioned sweet gum. This time he sang from the lower limbs. Subsequent visits to the spot failed to reveal any trace of the bird, so I concluded that he had moved on with the other spring migrants, possibly to the Sunken Lands of southeastern Missouri.

That the bird would summer in the area where he was found, however, was hardly to be expected, as it was only a seasonal swamp, if indeed it might be classed as a swamp at all, even in winter and spring. Not many yards from his immediate territory flowed Shades Creek, varying in width from eight to fifteen feet at this stage of its course.

Birds found not far distant from the Bachman's are: Dryobates p. pubescens, Cyanocitta cristata florincola, Baeolophus bicolor, Hylocichla mustelina, Vireo g. griseus, Vireo olivaceus, Vermivora pinus, Dendroica v. virens (migrant), Wilsonia citrina, Setophaga ruticilla, Richmondena c. cardinalis, Spinus t. tristis, Pipilo erythrophthalmus (subsp.?), and Zonotrichia albicollis—all more or less typical of the sort of territory in which Vermivora bachmani was found. Later field trips resulted in the discovery of the following additional species typical of the region, some of which are migrants: Centurus carolinus, Empidonax virescens, Dumatella carolinensis, Vireo flavifrons, Protonotaria citrea, Helmitheros vermivorus, Vermivora peregrina, Compsothlypis a. americana, Dendroica caerulea, Dendroica fusca, Oporornis formosus, Agelaius p. phoeniceus, and Piranga r. rubra.

At this place, as well as at Irondale, the bird's song was studied carefully and found to recur at intervals of from twelve to twenty-two seconds—more often fifteen seconds. It most nearly resembled in composition the trill song of the Chipping Sparrow (Spizella passerina), but seemed to be even drier, weaker, shorter, and less musical, the

quality being nearer that of the Parula Warbler (Compsothlypis americana). Indeed, anyone but an ornithologist might take the song to be that of an insect, especially if it were heard at a distance. Yet the song so closely resembles that of the Chipping Sparrow that if the two birds chose the same habitat positive identification of either by its song would be next to impossible. There is also a slighter resemblance to the songs of Worm-eating, Orange-crowned, Pine, and Tennessee Warblers, and to the "exhale" part of the Blue-wing's song. And were it not for the upward inflection in one of the trills of the Parula, here would be a quite accurate replica of the Bachman's song. But in the last analysis it may be stated that the song, well heard, should not be confused with that of any other swamp-loving species of bird, except possibly the richer, more musical song of the Worm-eater.

Retracing a bit, the second Bachman's Warbler the writer has ever seen was discovered in a swamp near Tuscaloosa—oddly enough, exactly a year from the date of the first record, April 9, 1936. It is the only time I have ever been fortunate enough to locate this species without first hearing its notes. During the few minutes that I had this individual under observation he sang half-heartedly from the top of a sweet gum only once or twice, and I have since suspected that nest-building activities were going on at the time. However, the cool and cloudy weather conditions may have discouraged his singing.

As this territory looked like a favorable breeding ground, Wheeler and I returned to it on May 1, 1937, another cool and cloudy day, with rain in the afternoon. Hardly had we reached the spot when we discovered the male, with food in his bill, on the lower limbs of a sweet gum. Eagerly we watched as the bird, after a few minutes of nervous hesitation, dropped to the edge of a thicket not twenty yards distant, remained a few seconds, then re-appeared and flew off. We lost no time in getting to the spot to search the bushes, but found no nest. Thinking that the bird might have dropped to a spot some distance from the nest, we thoroughly searched the thicket, but still found no nest save that of a White-eyed Vireo in a small holly. This nest contained four fresh eggs. The tour of the thicket completed, I was again at the starting point when the male once more flew down to the first spot visited. This time I marked the spot well and found the nest The difficulty in finding it before lay not so much in the seclusiveness of the hiding place as it did in the inconspicuous nature of the nest, and in the fact that it contained three young less than a week old rather than shiny white eggs. This fact would probably indicate that the birds had already commenced nesting activities when

the male was first discovered on April 9, about 100 yards from the spot.

The nest was a bulky and loosely constructed affair, owing its protection largely to the fact that, as already indicated, it might be mistaken for a cluster of half-decayed leaves accidentally lodged in the bushes about a foot from the ground. Besides half-decayed leaves of undetermined species, the nest consisted of the leaves of Magnolia glauca, some skeletonized, and various grasses, neither amounting to a very considerable part of the nest. Besides these materials, it was lined with some kind of black rootlet, mentioned also by Arthur T. Wayne as being present in all the nests he found. Wayne states that this "peculiar black fiber...may be the dead threads of the Spanish moss (Dendropogon usneoides) or a black rootlet". In the case of the present nest, however, it could not well be Spanish "moss", as that plant probably does not grow within seventy-five miles of the spot.

The general location of this nest was in a thicket between two branches of an unused logging road, the trail dividing near the nest to re-unite farther on, leaving in between an isolated thicket about thirty yards long and seven or eight yards wide at its greatest width.

The nest was supported by one or two stems each of Arundinaria tecta, Rubus floridus (?), and Vitis rotundifolia, while high overhead hung the limbs of a fairly large elm, probably Ulmus alata, and scarcely ten feet away grew a medium-sized specimen of Prunus serotina, possibly the only one of its kind in the swamp. It was in this latter tree that the birds almost invariably alighted when coming to feed the young. The nest was also about fifteen feet from the nest of a White-eyed Vireo (Vireo griseus) mentioned above. Farther down the trail, incidentally, a nest of the Yellow-throated Vireo (Vireo flavifrons) containing three slightly incubated eggs was found in another holly in almost exactly the same sort of location as the first vireo's nest. It is interesting to note also that the warbler began nesting considerably earlier than these two vireos, comparatively early nesters themselves.

Descriptions and pictures of this warbler are numerous, but we may call attention to a few interesting features in that respect. The description calls for a light yellowish shoulder patch in both sexes, though it may be left off in some paintings, e. g. Howell's "Florida Bird Life", facing page 418. This feature was clearly observed in both sexes and the black noted on the breast of the male, which marking seemed not to extend so far down as is usually portrayed. Another error in some paintings of the bird was noticed in the color of the

<sup>&</sup>lt;sup>5</sup>Wayne, Arthur T., Birds of South Carolina, p. 156. 1910.

female's breast. Instead of being a decided yellow, it was scarcely more so than the breast of Swainson's Warbler (Limnothlypis swainsoni), which is not very yellow. There was no opportunity to observe the rump patch in the female, but, as previously indicated, the shoulder patch was obvious. The young were hardly old enough to distinguish from the young of most other warblers.

During the domestic activities I was surprised to find that the female was much shyer than her mate. In fact she allowed us but one good look, and that from a distance of about thirty feet. In the case of most birds I am convinced that the female is the tamer on the nesting grounds. In this case the male was so confiding on one occasion as to feed the young while the observers looked on not more than fifteen feet away.

When the birds approached the nest bearing food they uttered a sharp, rapid, chipping note, very like that of the Chipping Sparrow, but somewhat weaker. The song was not noted on this occasion, as the parents were too busily occupied in supplying the young with food. They seemed always to be of a nervous, active temperament (like all Bachman's of my experience), not slow and easy-going (like the Bluewinged Warbler) as they have sometimes been described. There has been some controversy as to whether the birds range high or low in the trees—away from the nest, of course. In nearly every case the ones I have found inhabited the upper branches, but occasionally picked a tree that was not very tall. This applies particularly to the singing individual observed in Bear Swamp and discussed above.

The nesting records of this species in Alabama may serve to throw some light on a problem in Wayne's mind when he wrote, "Although I practically lived in the swamp from April to June 19, in order to determine whether the birds raise two broods, I am convinced that only one brood is raised, for this species is a very early migrant after the breeding season..." (recorded by J. W. Atkins, Key West, July 17). I am inclined to disagree with Wayne on his supposition, and I believe that a study of some nesting dates will support my contention that the birds raise two broods a year, though the question will never be settled until someone has observed the same pair for a whole season, and that seems never to have been done. First let us consider Wayne's own nesting records, only the extreme dates on the occupied nests being mentioned. After twenty-five years of searching, Wayne finally discovered two nests of this bird in a swamp near Mount Pleasant, South Carolina, April 17, 1906, and the following spring he found

<sup>&</sup>lt;sup>6</sup>Op. cit., pp. 155, 156.

a nest with four fresh eggs on March 30, and one with five incubated eggs on April 3. In both these latter examples, then, the nests contained full complements of eggs by the last of March. In Alabama the recent nest at Tuscaloosa must have contained the full complement by April 12, and the young must have left the nest by the middle of May, in good time for a second set to have been laid by the end of that month. This leads me to observe that the nest found in Bear Swamp, at least sixty miles farther south than Tuscaloosa and comparable in climate to Mount Pleasant, S. C., contained four fresh eggs on the date of the discovery, May 25, 1919. However, if the birds do raise two broods a year, are both nests constructed in the same general locality? The bird is known to be irregular in its movements, appearing at one place one year and elsewhere the next, but is it possible that a second brood may be raised by a pair of birds many miles from the site of the first locality of that year? These questions can be settled only by future observations. I spent hours searching for the Tuscaloosa birds on May 29, and days in search of more of the birds in Bear Swamp in early June, without finding another trace of any of them. The cutting out of timber may have been responsible for the Tuscaloosa nesters' evacuating their territory, as one large tree lay only a few feet from the nest itself, and the surrounding territory was scarcely recognizable as the same place where the birds had nested.

Summarizing, Bachman's Warbler is still rare—and its nest much rarer. Dr. Otto Widmann, discoverer of the first nest, found one other in southeastern Missouri, and Arthur T. Wayne found eight nests in South Carolina, three of which had been deserted. Logan found a nest in western Kentucky, and the list is completed with the addition of the two Alabama records. Probably less than a dozen tenanted nests have been found, and there is yet much to be learned about the birds' nesting habits. If this article can in any way stimulate further research and promote our knowledge of this second rarest of the North American warblers, the writer will feel repaid.

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