

69. *Nyctala acadica*. SAW-WHET OWL.—Probably resident,—very rare. The only time I ever saw any Owls of this species in Carroll County was on May 8, 1883. In an old thicket near Burlington, I found six young Saw-whets in a hole in a dead elm. The hole was about twenty feet from the ground, and the young Owls were able to fly quite well. I have heard this Owl at various times in the spring, but these are the only ones seen.

70. *Megascops asio*. SCREECH OWL.—A common resident, but apparently more abundant some years than others. They were particularly abundant in the winter of 1878-79, and again in 1884-85. Perhaps half of those taken in 1878-79 were of the red form, while nearly all those taken since then were gray. A red male was caught at Burlington, January 14, 1888.

71. *Bubo virginianus*. GREAT HORNED OWL.—Next to the Barred Owl, our most common resident.

72. *Nyctea nyctea*. SNOWY OWL.—An extremely rare visitant. One was taken near Camden in the winter of 1865.

[*To be continued.*]

NOTES ON THE NEST AND EGGS OF *PEUCÆA*
ÆSTIVALIS BACHMANI AUD.,
BACHMAN'S SPARROW.

BY CAPT. CHAS. E. BENDIRE.

THE life history of this interesting species is still rather imperfectly known, and as far as I am aware no authentic accounts of its nest and eggs are to be found in any ornithological publications. Even its distribution is not well defined as yet. Mr. William Brewster found it abundant near Charleston, South Carolina, and this seems to be the only point on the Atlantic coast where it has so far been taken. It is said to breed there. See *Auk*, Vol. II, Jan., 1885, p. 106. According to Ridgway's *Manual of North American Birds*, its habitat is given as follows. Southern Atlantic and Gulf States and lower Mississippi Valley, north to North Carolina, eastern Tennessee, Kentucky, southern Illinois and Indiana, west to middle northern Texas. Mr. Wm. Lloyd, in his list of birds of Tom Green and Concho Counties, Texas (*Auk*, Vol. IV, Oct., 1887, p. 292), says: "*Peucæa æstivalis bachmani*, Bachman's Sparrow. Summer visitor in

eastern Concho County. Nests found May 20 to June 1. Eggs invariably four." This is the only reference to the nest and eggs of this form known to me, and is rather vague.

Through the kindness of Dr. Wm. C. Avery of Greensboro, Alabama, an enthusiastic naturalist, who has devoted considerable labor and no little time to the study of the nesting habits of this species, I am enabled to give what I consider the first reliable and accurate descriptions of the nest and eggs of Bachman's Sparrow. In addition to not less than five nests and several full sets of eggs, adult birds, and young of the year, all generously presented to the National Museum collection at Washington, D. C., Doctor Avery has sent the writer small pen and ink sketches of several of the nests and a beautifully executed crayon drawing, natural size, by Miss M. Erwin, which shows the peculiar and unique structure and shape of these nests as far as this genus is concerned, perfectly, and enables me to give a better pen picture of them than I could have done otherwise. Greensboro, Alabama, is situated in the central part of the State, about 140 miles north of Mobile.

All the nests of this bird vary totally in structure from those of the other species of the genus *Peucaea*, as far as known to me. They are all distinctly roofed over or domed, a feature only found in the nest of a closely allied species, *Embernagra rufivirgata*, the Texas Sparrow, which constructs a somewhat similar nest. They are cylindrical in shape, about seven or eight inches long by three inches in height, and four and one half inches wide. The inner cavity is from three to four inches in length, about two inches wide, and one and three quarters inches high. The rear wall of the nest is about one and three quarters inches thick, the sides about an inch, and the roof a little over half an inch in thickness. These measurements vary somewhat in different specimens. The nests are all constructed out of dry grasses exclusively, and are lined with fine grass tops only. Some are much more artistically and compactly built than others; the roof projects somewhat over the entrance in all cases. The measurements are taken from the best preserved nest, No. 23,611, National Museum Collection, obtained May 8, 1888, near Greensboro, Alabama, containing four nearly fresh eggs. The base of the nest is always placed in a slight depression of the ground, and the entrance is invariably canted upwards, at an angle of

about 15°, in some instances the elevation is greater still. The entrance to the majority of the nests found faced the west. The above-mentioned nest was found on the side of a hill in a sparse growth of old-field pines (*Pinus taeda*), and was supported in the rear by a tuft of grass (broom sedge).

A second one, found May 9, in a patch of pine and plum bushes (*Prunus chicasa*) was held snugly between two tufts of broom sedge. It contained three young birds nearly grown and an addled egg. The parents were perched on a pine, about fifteen steps from the Doctor, and manifested their alarm at his presence by their nervous movements. A short search revealed this nest. It resembled the one found on the 8th, except that the entrance was somewhat more inclined upward, and was not quite so well concealed.

A third nest was found May 23; concerning this Doctor Avery wrote me as follows: "Found nest of Bachman's Sparrow today, on the slope of a hill covered with old-field pines, in an open space, under a fallen pine branch, some coarse grass growing near it. The parent fluttered from under my feet, which had disturbed the nest by striking the pine limb; my left foot touched the right side of the nest and shook the limb before the bird moved. She drew herself on the ground about a foot from me, and then, literally trembling, every feather quivering in her body, her tail spread and wings drooping, she ran along about ten feet from me. There she remained in open view beside a pine tree, till I at last discovered the nest under my very feet. During all this time she uttered not a sound. When I moved towards her she ran off through some thick weeds and briers, and finally, I pursuing, she perched upon the limb of a tree and began her 'seep, seep,' till, to make identification sure, I reluctantly shot her."

On June 3 a fourth nest was found in a similar situation to the last, and as in former cases, the noise made by the alarm of the parent at the Doctor's presence attracted his attention and indicated to him where to search. In a letter dated June 4 he writes me regarding this find, as follows: "Yesterday I found still another nest of Bachman's Sparrow, but it contained four fledglings instead of eggs. I had been looking for nests of this bird for several hours when, pausing a few moments to look at a tree called here 'mimosa' (*Albizzia julibrissin*) and wondering by what

agency it had been brought to this unusual spot amongst the pines, my attention was attracted by a dark looking little object, quadruped or reptile as I at first supposed, running through the grass and uttering 'chüy, chüy,' a sound more like the hissing of a snake than the scolding of a bird. I soon discovered my mistake, however, for the Sparrow, a Bachman's, remained about ten feet from me until I found its nest. Its entrance faced me, looking this time towards the north (the first three found all faced the west). It required a close search to find this nest, though I was standing not more than six feet from it when the peculiar hiss, as it were, of the parent bird and its rustling in the grass, startled me from my musings as to how the beautiful mimosa had reached that desolate spot amongst the pines. A peep into the cosy structure discovered the objects of my search; not four glistening eggs this time, but four outstretched reptile-like mouths and necks greeted my view. At my approach the old bird did not fly, but ran away a few feet from the nest and changed his scolding into an anxious 'seeep, seeep' till I turned towards him, when he ran along ahead of me for some steps, then rose and perched upon a fallen tree top, chipping and turning about much after the manner of a Wren. Here, while I was examining him with my field glass, he surprised me by bursting into song, soft, sweet, and full of gladness as that which at times wells from his throat when the shadows of evening begin to creep over his sombre pines. It was the male bird that I surprised in the act of feeding his young, who thus expressed his satisfaction at having lured me from his nestlings."

On June 6 Doctor Avery found another nest of Bachman's Sparrow, containing two eggs. It was domed like those previously found, but the roof was so thin and poorly constructed, that the eggs could be seen through the latter, when standing over and behind the nest. The parent ran from the nest and the Doctor writes in this connection "I have yet to see one fly, as do other birds when disturbed at incubation. They all run, some showing greater alarm than others for the safety of their little thatched domicile." On June 23 a sixth nest, containing four nearly fresh eggs, of Bachman's Sparrow was found by an old negro, and brought by him to Doctor Avery, who writes as follows regarding it: "'Doctor,' said he (the old negro) 'here am one dem bird nesis you tole me to fetch, ef I fin' any.' Sure

enough he had spread upon the bottom of the nest four eggs of this Sparrow. The old man had been ploughing up a field that had not been cultivated for years, and the oxen, said he, as well as himself, were startled by the bird running from the nest. He stated that he took the bird for a snake, and explained to me that he was at first afraid to go to the spot where the Sparrow was seen, and that he struck at the place first several times with his whip, till he discovered the parent and then her nest." This seems to fully confirm the theory that *Peucaea aestivalis bachmani* imitates, as far as possible, the movements and hiss of a snake, when disturbed on her nest, and tries to protect it thereby, to some extent at any rate.

A day afterwards the Doctor in passing within thirty steps of this last-mentioned nesting site, flushed four Sparrows which he took for early birds of this species, probably hatched in April. They rose like a covey of Bob-whites, all together, and with a whirr. There seems to be little doubt but that two broods are raised in a season, if not more. Bachman's Sparrow is mainly terrestrial in its habits, though when flushed it often alights in trees. Frequently, when suddenly disturbed, it rises with an audible whirr.

Doctor Avery writes me that they sing at all hours of the day, but their song is especially striking and attractive at twilight, commencing with a prelude of some sweet, soul-stirring sounds, then changing to a trill, louder and more melodious than that of the Field Sparrow. This prelude is varied, and relieves the song of monotony, the little musician seeming to endeavor to make himself as entertaining as possible by frequent changes in the introductory notes of his strain.

In order to show the radical difference in the structure of the nest of *Peucaea aestivalis* proper and *Peucaea aestivalis bachmani*, I will state that a nest of the first-mentioned species, taken near Gainesville, Florida, on May 21, 1887, by Mr. Frank M. Chapman, a reliable and well-known ornithologist, containing four eggs and positively identified, the female having been shot, and which is now in his collection (No. 858), a typical *P. aestivalis*, is thus described by him in a letter to the writer.

"This nest was placed beneath a scrub palmetto, a growth which everywhere here covers the ground, and was constructed

almost entirely of fine dry grasses. It was well made and quite compact, and held well together when lifted from the ground. It was not arched over in any way, was perfectly round, with the sides or rims everywhere of equal height, in fact it was a symmetrical nest and well-proportioned." The eggs, of which three are now before me, kindly presented to the National Museum collection by Mr. Chapman, are pure white in color, slightly glossy, and rounded ovate in shape. They measure as follows. No. 23,042 Nat. Mus. Coll., $.71 \times .61$, $.74 \times .61$ and $.71 \times .60$ inches. The eggs of *Peucaea aestivalis bachmanii*, all collected and presented to the National Museum by Dr. Wm. C. Avery, are likewise pure white in color, with less gloss than those of the preceding species, more of a dead white. They vary in shape from a rounded ovate to ovate, and measure as follows.

No. 23,611, taken May 8, 1888, nearly fresh when taken, measures as follows: $.72 \times .56$, $.75 \times .55$, $.72 \times .55$, $.71 \times .55$ inch.

No. 23,622, a single addled egg, found May 9, measures $.71 \times .60$ inch.

No. 23,626, taken June 23, eggs nearly fresh, measures $.76 \times .60$, $.76 \times .61$, $.74 \times .60$, $.76 \times .62$ inch.

No. 23,628, taken June 6, measures $.79 \times .59$, $.76 \times .58$ inch.

The last set, No. 23,647, taken June 23, measures $.75 \times .57$, $.75 \times .60$, $.77 \times .61$, $.76 \times .61$ inch.

The average measurement of the eggs of *Peucaea aestivalis bachmanii* is about $.74 \times .60$ inch.

Doctor Avery believes that Bachman's Sparrow is only a summer resident in the vicinity of Greensboro, Alabama, arriving early in the spring from a warmer latitude. He never met with it in winter, although a few individuals may spend the winter there.