

ADDITIONAL NOTES ON THE NEST AND
EGGS OF SWAINSON'S WARBLER
(*HELINAIA SWAINSONI*).

BY WILLIAM BREWSTER.

SHORTLY after the publication of my first article on this subject* Mr. Wayne sent me two more nests of Swainson's Warbler, taken respectively June 27 and June 30, 1885. The first was built in a cane over a pool of stagnant water, at a height of about five feet; the second, also in a cane, was at a height of at least eight feet, and over clear, running water. The females of both nests were shot, thus rendering identification absolute.

The second nest was "found when the birds had just begun work, and I watched them repeatedly at their labors. They would fly up from the ground and, hovering like a Hawk or Kingfisher, fix the leaves in place with their bills. The female laid her first egg June 26, and one on each of the following two days. I took the nest on the fifth day, when dissection of the female showed that the set was complete."

The nest taken June 27 contained two eggs, chipped and on the point of hatching. Unfortunately both were broken in blowing, but Mr. Wayne describes them as "dead white without spots." He sends me the shells of one, which are quite immaculate.

The set of three eggs just mentioned is also before me. The specimens are in perfect condition and measure, respectively, $.75 \times .58$, $.77 \times .58$, and $.74 \times .58$. They are all oval, with the smaller end decidedly blunt and rounded, and in general shape closely resemble the smaller egg of the set described in 'Forest and Stream.' Their ground-color is also similar — dull white, with a faint but appreciable bluish tinge. One is perfectly plain; another, like the larger egg of the first set, has two or three minute specks which may be genuine shell markings; while the third is unmistakably spotted and blotched with pale lilac. Over most of the surface these markings are fine, faint, and sparsely distributed, but about the larger end they become coarser, thicker, and deeper-colored, forming a well-defined ring

* Forest and Stream, Vol. XXIV, No. 24, July 9, 1885, p. 468.

or wreath. All three eggs have a slight polish, and the shells look hard and thick for those of a Warbler's eggs.

The nests are similar in general position and construction to the specimen described by me in 'Forest and Stream,' but both differ in certain important details. The one containing the set of three eggs is composed almost entirely of bleached, straw-colored cane leaves, with an interior lining of pine needles and a few thread-like strands of black moss, apparently *Tillandsia*. This nest is much the smallest of the four, measuring externally 3.50 in diameter by 3.00 in depth; internally 1.50 in diameter by 1.50 in depth; the greatest thickness of the rim or outer wall being 1.00. Unlike the specimen first described, it is firmly supported on all sides by the fascicled branches among which it rests. Its shape is nearly globular, and although the exterior is rather loosely formed, the structure, as a whole, is neat and compact.

The nest taken June 27 is very much larger, in fact quite the largest specimen that I have seen, measuring externally 5.00 in diameter by 6.00 in depth; internally 1.50 in diameter by 1.25 in depth; with the rim in places 1.75 thick. It is shaped like an inverted cone, the apex extending down nearly to the point of junction of the numerous fascicled stems which surround and support its sides. In total bulk it fully equals the average nest of our Crow Blackbird, while it is not nearly as finished a specimen of bird architecture. Indeed it would be difficult to imagine anything ruder than its outer walls,—composed of mud-soaked leaves of the sweet gum, water oak, holly, and cane, thrown together into a loose mass, bristling with rough stems, and wholly devoid of symmetry or regularity of outline. The interior, however, lined with pine needles, moss fibre, black rootlets, and a little horse-hair, is not less smooth and rounded than in the other specimens.

The acquisition of these additional nests is important as tending to show that the position and construction of the first two nests, and the character of the eggs which one of them contained, were not exceptional. The total results of Mr. Wayne's labors may be summed as follows: Four nests, taken respectively June 5, 6, 27, and 30. contained, respectively, one young bird a few days old, one young bird and two addled eggs, two eggs on the point of hatching, and three perfectly fresh eggs. All four nests were essentially similar, being bulky and loosely-formed, composed

mainly of dry leaves, lined with fine roots, moss fibres, pine needles, and horse-hair, and placed in canes over water at heights varying from four to eight feet. Of the seven eggs taken, four were immaculate, two perhaps slightly spotted, and one unmistakably spotted and blotched with lilac.

The inferences suggested by these facts are: (1) That Swainson's Warbler nests usually, if not invariably, in canes over water; (2) that it lays from one to three eggs; (3) that its eggs may be either plain, slightly speckled, or rather thickly and distinctly marked.

Another season's work on the part of Mr. Wayne will doubtless throw more light on all these points. Meanwhile ornithologists may well rest satisfied with the knowledge thus far obtained.



EARLY SPRING NOTES FROM THE MOUNTAINS OF SOUTHERN ARIZONA.

BY W. E. D. SCOTT.

THE present article, based on observations made and material collected in the pine region and neighborhood of Las Sierras de Santa Catalina, Pima County, Arizona, is in reality a continuation of an article which appeared in 'The Auk' for April, 1885 (pp. 172-174). The locality visited is the one there described. The duration of my stay was from April 19 to 24, inclusive.

The winter snow had almost melted from the ground and was only to be seen in patches in the deeper part of the woods and on the sides of hills and ravines, where the sun shone but little. It was still cold, and ice formed at night on water standing in pails, and on the edges of the mountain brooks where the current was not too swift. Except on the morning of the 21st of April, and throughout the entire day on the 24th of the month, the wind blew incessantly and most of the time with great force. On the 20th, about daylight, a cold storm of rain and hail set in, and later this changed into snow, which soon covered the ground to the depth of nearly an inch. The storm, however, broke about noon,