

logical to presume that although ducks always use the direct thrust or paddling method of swimming while on the surface, the diving ducks, at least, abruptly change to the oblique thrust or sculling method of swimming while beneath the surface.—A. BRAZIER HOWELL, *Bucksport, Maine*.

Nesting of Chestnut-sided Warbler.—This study of the nesting of a Chestnut-sided Warbler (*Dendroica pensylvanica*) was made at Oneonta, N. Y., in the upper Susquehanna valley, on June 13 to July 7, 1944. The nest was located in a wooded park area where the chief species of plants were hickory, elm, and birch, with a heavy interspersion of the herbaceous plants of this region at 1350 feet altitude.

The nest was found when the female was seen with nesting material in her beak on June 13. Apparently the nest was about finished for on this date it contained a cowbird egg which I removed. June 14 at 5:00 A. M. the female entered the nest, picked here and there at the nesting material as she turned around, and then left the nest to return with a piece of grass at 5:02. This time she remained until I left the site at 5:06. When I examined the nest at 3:30 P. M. it contained no egg.

On June 19 there were four warbler eggs in the nest. Since there were none at 3:30, June 14, she probably laid them at daily intervals. On June 20 she allowed me to touch her back before she left the four eggs and the nest in which she was well concealed.

While incubating, the female usually faced the northwest and when the male approached would sometimes leave when the male was within three or four feet of the nest. He usually sang as he approached. While the male seemed to sing from very definite positions during the nest-building period he now sang from a variety of perches. During the last three days of incubation the male sang less often. Once I saw him feed the female. When alarmed, the female raised her body in the nest and erected her head-feathers.

On June 29 at 5:50 A. M. I heard a crackling sound from the nest site which proved to be from the female eating an egg shell. When the nest was examined there were two young hatched. The female left at 6:42 and returned at 6:45 with food. When she offered food she made a coaxing noise. The male was singing two kinds of songs in the territory at this time. On June 30 between 4:50 and 6:06 the male fed the young twice. Each time the female fed she hovered from two to five minutes. At 5:57 on June 30, the last egg had not hatched but I held it to my ear and heard a faint ticking sound. At 6:02 the female returned, pecked at something in the nest, waited on the edge of the nest, and at 6:04 flew away with egg shell. I examined the nest again and found the last young one out of the shell. Thus, the last egg hatched in these five minutes and I believe the female assisted in the process.

A record of the feeding of the young by the two parent birds is given in the following table.

<i>Date</i>	<i>Length of observation</i>	<i>Times male fed</i>	<i>Times female fed</i>
6/30	75 Min.	2	5
7/3	55 Min.	4	7
7/4	30 Min.	1	1
7/5	32 Min.	1	2
7/6	65 Min.	11	10
7/7	30 Min.	3	2
<i>Total</i>	287 Min.	22	27

This record shows that the young were fed 49 times in 287 minutes, an average of every 5.85 minutes (with four young in the nest).

The female continued to hover the young until they were six days of age and possibly at times after that. The young left the nest between July 8 and 10. One of the young was seen being fed by the female after they left the nest. I noticed that many caterpillars and moths were amongst the food given the young. These were garnered largely from bushes and lower leaves of trees although sometimes food was sought from higher elevations in the trees. My observations indicate that the male ceased singing entirely when the young hatched and his feeding duties began.

For reading and giving helpful suggestions concerning this manuscript I wish to thank Dr. R. A. Johnson, State Teachers College, Oneonta, N. Y.—DOROTHY SAWYER, *Unadilla, New York*.

Double-crested Cormorant nesting in New York.—On June 20, 1945, we found a colony of Double-crested Cormorants (*Phalacrocorax auritus auritus*) nesting on Gull Island, a small island in eastern Lake Ontario about four miles distant from Henderson Harbor, Jefferson County. There were fourteen nests in elm and willow trees, all of which were at least fifteen feet from the ground. Some were complete, others in various stages of construction. The completed nests contained from one to four eggs. Sixteen birds gathered in a loose flock off the island while we examined the nests. An old resident of Henderson Harbor, Mr. William Stevens, who has known the species since early boyhood, states that this is the first time in 75 years of his memory that cormorants have nested in the region.

As far as can be determined this constitutes the first authentic record of the Double-crested Cormorant nesting in New York. Eaton (Birds of New York, 1: 171, 1910) classes the species as an uncommon migrant on the Great Lakes, but competent observers do not regard this cormorant as an uncommon non-breeding bird on eastern Lake Ontario today.—H. L. KURTZ, *Pittman-Robertson Wildlife Restoration Project 20-R, New York Conservation Department, Chaumont* AND DAVID G. ALLEN, *208 Kline Road, Ithaca, New York*.

The Ruff in Connecticut.—On May 25, 1946, Gilbert Waldbauer, Robert Braun and I were looking over the numerous shore birds in an area known as Great Marsh in Westport, Connecticut. In the midst of a flock of Turnstones, Black-bellied Plovers and Semipalmated Sandpipers there suddenly appeared a rather large black-colored bird that we knew immediately was something new. It proved to be an adult male Ruff (*Philomachus pugnax*) and, judging by descriptions, about the blackest that an individual of this variable species can be. We watched it for a considerable time, in excellent light conditions and from a distance of about seventy-five feet, using prism glasses to observe all the details.

The head, neck and ruff, breast and upper back were entirely black with a beautiful purple sheen. The wings were brownish with white edgings to the feathers. The lower under parts were white, and there were white markings on the lower back. The bill and bare space on the face were pinkish, and the legs salmon color, or pale orange. When the bird finally flew, the white spots on either side of the upper tail-coverts, with a narrow dark line between them, were clearly visible.

On May 30, 1946, I again visited this area, in the company of Elting Arnold and Paul Baker. As I was showing them the place where the Ruff had been, we were astonished to find it there again in practically the same spot. It was again in the company of other shore birds, including this time several Red-backed Sandpipers. As this species is not only variable in its plumage, but also in the bill and leg colors