

POSSIBLE HYBRIDIZATION BETWEEN A CLAY COLORED SPARROW AND A CHIPPING SPARROW AT ITHACA

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About dusk on May 11, 1959, in Cayuga Heights at Ithaca, I heard a song new to me, a deliberate, low-pitched bzz, bzz, bzz. The next morning the bird was identified by sight and song as a Clay-colored Sparrow, and the song was recorded by Paul Kellogg. The only previous record of this species for the Cayuga Basin was in April 1935. The 1959 bird stayed between Highland Road and Cayuga Heights Road, in an area of weed-grown fields with some hedgerows and small cedar trees, from then until July 7 when observations stopped. During the first weeks the bird was chased and heckled by Chipping Sparrows. One could drive up at almost any time in the morning and soon hear the slow bzz, bzz, bzz, usually three notes but sometimes two or four, being repeated at 5 to 10 second intervals from the top of some small tree. Observations were made several times a week and no change in behavior pattern was noted.

On May 1, 1960 a Clay-colored Sparrow was heard and identified by sight in these same fields. During the first three weeks of May, observations were made several times a week. It sang almost constantly in the morning and occasionally during the rest of the day. No heckling or chasing by Chipping Sparrows was noticed. On May 15, "Spring Census" day, several groups drove up to the field and immediately saw and heard the bird. On May 16 it was also immediately found for visiting bird watchers. Beginning a few days later, its behavior pattern suddenly changed. It would sing four or five times and then disappear for half an hour or more before reappearing at one of its regular song perches.

Beginning June 8, at the suggestion of Dr. Arthur Allen, I began a thorough check of the area to find out whether this change in behavior might indicate nesting. Once that day while I was waiting between songs, I heard what sounded like a slightly hoarse, flat chickadee scold at the north end of the next field where the Clay-colored Sparrow had seldom been seen to go. There were many Chipping Sparrows in the area, which complicated following the Clay-colored Sparrow between songs. Unless a bird was closer than about thirty feet, I could not tell without binoculars whether it was a Chipping Sparrow or the Clay-colored Sparrow, so close are the two species in general size and shape. Beyond that distance the lighter color and the face pattern and streaked head of the Clay-colored Sparrow could be seen only with binoculars. For four days I spent many hours in the fields trying to follow the Clay-colored Sparrow between songs. On the ninth I heard the odd "chickadee" scold twice. On the tenth, I found a pair of Chipping Sparrows feeding young in a nest in one of the cedar trees in the field.

On June 11 the odd "chickadee" scold was given many times. I checked it, and found the Clay-colored Sparrow giving this song while feeding on inch worms in some pin oaks by the road. This song was a "zee", all on one pitch, repeated 5 to 10 times in rapid succession, considerably higher pitched

than the usual song. I watched and listened once when the bird dropped from the faster song to the slow one, and the pitch dropped by an interval of at least a sixth. I investigated all the cedar trees in this field, since the bird seemed to be spending quite a bit of time there, although whenever the slow song was heard it was from the next field south. As I came past the most northeasterly cedar tree in the field near the road, the Clay-colored Sparrow popped up in the tree quite disturbed. During the next half hour it went into this tree three times, staying only a few seconds each time. A Chipping Sparrow was seen in the tree once.

On June 13, watching from the car for two hours, I saw the Clay-colored Sparrow go into the tree at about 15 minute intervals, staying in the tree only a few seconds. Twice it carried an inch worm in its bill when it went in. It usually stopped briefly in one of the nearby trees, both before and after going into the cedar tree, making identification easy. Looking up into the tree from directly below, I saw a nest in the densest part about twelve feet from the ground. Later Sally Hoyt watched the Clay-colored Sparrow going in and out and saw the nest. In the afternoon Dr. Allen and David Allen came to check. As David Allen climbed up to the nest, a Chipping Sparrow flew off the nest and the Clay-colored Sparrow flew around quite disturbed. The nest was a typical Chipping Sparrow nest, and the three eggs in it looked like typical Chipping Sparrow eggs.

On June 14 and 15 the Clay-colored Sparrow was observed visiting the tree about every 10 minutes, never staying long. During one period of 2½ hours, it went in 19 times and a Chipping Sparrow went in 3 times. Neither bird was carrying food. No further observations were made until the twentieth, as I was out of town.

On June 20 the Clay-colored Sparrow was coming to the nest every 5 or 10 minutes carrying food, mostly inch worms. A Chipping Sparrow was identified bringing food twice. During the same period an unidentified bird which was either the Clay-colored Sparrow or a Chipping Sparrow came in many times, flying straight in from the west from a long distance. From the timing of these visits and because the Chipping Sparrow approached in a similar way from the same direction, it was assumed to be the Chipping Sparrow. The Clay-colored Sparrow still stopped in a nearby tree before and after visiting the nest. There were no feeding noises from the young. On June 21, both birds were carrying food constantly. There were still *no* feeding noises from the young.

On June 23 loud feeding noises were heard from the young. In the afternoon Dr. Allen and David Allen photographed both the Clay-colored Sparrow and the Chipping Sparrow feeding the three young. The young birds, which looked like young Chipping Sparrows, were well feathered out and almost ready to leave the nest, indicating that the eggs must have hatched on June 15 or 16. To keep the young from leaving the nest, they were placed in a cage which was concealed lower in the same tree. It was hoped that the parents would continue feeding them in the cage until they could be taken care of easily at the Laboratory of Ornithology, where development of the plumage could be watched to see whether there was any indication

of hybridization. Dr. Allen had used this method of keeping young birds before. In the morning and at noon the next day, both adults were observed feeding the young regularly through the cage. The young were very noisy. When a check was made in the late afternoon, all three young had disappeared. Some predator, perhaps a Blue Jay which was seen in the area, had pulled them out between the closely spaced bars of the bottom of the cage, leaving behind only a few feathers and one wing. At no time during the entire period of observation were two Chipping Sparrows seen at or near the nest, although one Chipping Sparrow and the Clay-colored Sparrow were seen at the same time.

Beginning the next morning, the Clay-colored Sparrow again sang continuously the slow bzz, bzz, bzz as in early May from many of the same song perches. On July 10 it was still singing about every 5 seconds for as long as 2 hours at a time, with occasional short interruptions to feed in a small patch of tall weeds missed in the June mowing. Only once, about 8 p. m. July 10, did I hear the second faster, higher-pitched song. Close watch was kept to see whether there might be a second nesting. Periods of song became shorter and occurred only in early morning until, on July 29, it was heard only a few times about 7 a. m. After that it was not heard again and could not be found in any of its regular feeding places. It had been followed many times during these weeks after the loss of the young, although the presence of many young Chipping Sparrows made this more difficult as its song frequency decreased. Cedar trees and bushes in the area were checked carefully but no evidence of a second nesting was found.

Because of the loss of the young, it is not known whether there was an actual mating between the Clay-colored Sparrow and the Chipping Sparrow, or whether the Clay-colored Sparrow took over from a male Chipping Sparrow. The Clay-colored Sparrow was observed visiting the nest regularly for three days during incubation, and it apparently fed the female on the nest a few times. Two Chipping Sparrows were never seen at or near the nest. For a Chipping Sparrow, incubation takes 10 to 12 days and the young are ready to leave the nest 9 or 10 days after hatching. Since the young birds were almost ready to leave the nest June 23, egg laying must have begun between May 31 and June 3. The sudden change in song pattern and behavior of the Clay-colored Sparrow about the third week in May would coincide with the approximate time pairing and mating would have taken place for the young to be fledged June 24 or 25. However, all this is circumstantial evidence, and we are hoping the Clay-colored Sparrow will return a third year and nest. My experience with these two birds leads me to believe that the Clay-colored Sparrow could occur in New York State more often than is realized. A female would probably never be noticed, and a male would be reported only in an area where there were active bird watchers to note the unusual song.

The January 1957 issue of the *KINGBIRD* (Vol. VI, p. 117) reports the appearance of a Clay-colored Sparrow in the Adirondacks, on the outskirts of Tupper Lake, Franklin Co. The behavior as described was similar to that of the Ithaca bird in 1959.

Dr. Allen has pointed out that in certain respects the Chipping-Clay-colored Sparrow relationship resembles the even more unusual Yellow-Prothonotary Warbler complex, reported before the A. O. U. in Regina, Saskatchewan, on August 26, 1959 by Harold Mitchell. (This latter nesting occurred in Bertie Township, Welland County, Ontario.) In the latter case, however, the male Yellow Warbler, though apparently driven out by the male Prothonotary, was observed at the nest with the female Yellow from time to time, whereas a second Chipping Sparrow was never seen near the nest in the Ithaca situation. Furthermore, the male Prothonotary Warbler sang the song of a Yellow Warbler, whereas "our" Clay-colored Sparrow sang its own song.

(Ed. — "As this goes to press, word has come that the Clay-colored Sparrow was found by Mrs. McIlroy singing from the same perches in the same field, the morning of April 28, 1961, for the third consecutive year.")

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