

evidence that an unexpected preponderance of heterozygous wild mice (*Mus musculus*) occurs in nature (Dunn and Morgan, 1953. *Proc. Nat. Acad. Sci.*, 39:391).

With a confined rearing program, such as is practiced at the pheasant farms, it should be possible to easily establish a flock of pure-breeding white pheasants. With a limited number of white birds, the fastest way would be to mate the white cock, or cocks, to heterozygous hens. Half of the progeny would be white. As numbers increased, the most efficient breeding program would involve mating white hens with white cocks.—WALTER MORGAN, *Department of Poultry Husbandry, South Dakota State College, Brookings, South Dakota, March 1, 1958 (contribution no. 405, Journal Series, South Dakota State College Agricultural Experiment Station).*

Recent observations on the Sharp-tailed Sparrow in southern Michigan.—The Sharp-tailed Sparrow (*Ammodramus caudacuta*) is a rare migrant through Michigan. Norman A. Wood (1951. "The Birds of Michigan," p. 485) listed eight fall specimens, two fall sight records, and one spring specimen, dating from 1878, 1879, 1893, and from the 1930's. There have been very few additional reports of the species in Michigan prior to 1955, and some of these sight records have not been completely satisfactory. Spring records are particularly scarce, but Mr. James B. Fleugel has informed us (letter, September 5, 1957) that he has found Sharp-tailed Sparrows several times in recent years. These were at Grand Beach, Berrien County, Michigan, in the sand dune area bordering Lake Michigan, at the Indiana state line. Fleugel banded individual Sharp-tailed Sparrows there on May 14, 1954, April 28 and April 29, 1956.

Shortly after dawn on September 24, 1955, Mumford flushed a Sharp-tailed Sparrow from a marsh at McIntyre Lake, in extreme southwestern Livingston County. On the afternoon of the same day he saw it, or another individual, in the area. In both cases the bird perched within a few feet of him and allowed sufficient examination to permit a positive identification. In the same marsh on September 28, 1955, Laurence C. Binford, Mumford, Zimmerman, and Richard L. Zusi saw two of these sparrows and eventually captured one in a Japanese mist net. This bird, an immature female, was preserved as a specimen (U.M.M.Z. 150,884). Binford, Robert P. Kirby, Mumford, and Lawrence H. Walkinshaw saw three birds in the area October 8. The observers of September 28 returned to the marsh on October 9 and captured two more Sharp-tailed Sparrows. These were photographed in color, banded, and released. Another individual was seen but could not be flushed into the nets. No Sharp-tailed Sparrow was found by us on October 15, our last visit to the marsh that season.

On September 16, 1956, Gerald L. Brody, Paul Slud, and Mumford found one brightly plumaged Sharp-tail near the site of the first 1955 observations. One week later (September 23), Binford, Kirby, Mumford, Slud, and Zusi failed to find the species in that area. However, Binford, Brody, and Mumford saw three and collected an adult female (U.M.M.Z. 151,955) there on October 7. We could find none there on visits made on October 14 and 21, 1956.

The 1955 specimen appeared indistinguishable from three skins of *A. c. altera* Todd at hand, and Mr. W. E. C. Todd, who kindly examined this and the 1956 specimen, wrote us (letter, June 17, 1957) as follows: "Concerning one (your No. 150,884) there cannot be the slightest doubt; it is an immature *Ammodramus caudacuta altera*, agreeing as it does exactly with our No. 92431 from James Bay, September 21. The second specimen, an adult female, is not so well defined, but on the whole it is nearer *A. c. nelsoni*, with which I would provisionally place it." *A. c. altera* has not previously been recorded from Michigan, although Peters (1942. *Ann. Carnegie Mus.*, 29:205) listed a specimen of

that race from Richmond, Lake County, Ohio. Soft part colors of specimen no. 150,884 were as follows: iris bright brown; tarsi dull flesh color; toes dull yellowish-flesh; upper mandible dusky brown, the base of the commissure yellow; lower mandible dull grayish-flesh, gape yellow.

It was decided in the fall of 1957 to concentrate on collecting more Sharp-tailed Sparrows at McIntyre Lake, in order to determine the relative abundance of the two races. Weekly visits to the marsh were made by various groups, including the following persons: Binford, Brody, Robert S. Butsch, Norman L. Ford, Kirby, Mumford, Haven H. Spencer, Peter Stettenheim, Robert W. Storer, Harrison B. Tordoff, Larry Wolf, and Zusi. Through their efforts, eight additional specimens were secured with mist nets. One of these, an immature male taken September 21, was identified as *A. c. altera*, and the remainder were *nelsoni*. Weights are available for 14 of the 19 Michigan specimens of *Ammospiza caudacuta* (Table 1).

TABLE 1
WEIGHTS (IN GRAMS) OF SHARP-TAILED SPARROWS TAKEN IN MICHIGAN

Date Collected	Sex	Age	Weight
Sept. 23, 1934	Female	—	15.5
Oct. 4, 1936	Male	—	14.8
May 29, 1939	Female	—	15.0
Sept. 30, 1939	Male	—	17.4
Sept. 28, 1955	Female	Imm.	15.4
Oct. 7, 1956	Female	Ad.	15.8
Sept. 21, 1957	Female	Ad.	14.9
Sept. 21, 1957	Male	Imm.	16.2
Sept. 28, 1957	Male	Ad.	16.8
Sept. 28, 1957	Male	Ad.	17.5
Oct. 5, 1957	Female	Ad.	17.5
Oct. 5, 1957	Male	Ad.	18.7
Oct. 5, 1957	Male	Ad.	20.8
Oct. 5, 1957	Male	Ad.	19.2

The McIntyre Lake marsh contains wet, boggy pond-margins and dry or nearly dry "meadows." Although present in both habitat types, Sharp-tailed Sparrows were most often seen in the drier areas which supported stands of sedges (*Dulichium arundinaceum* and *Carex* spp.), smartweed (*Polygonum* sp.), scattered clumps of cat-tail (*Typha latifolia*), bulrush (*Scirpus validus*), and reed (*Phragmites communis*). The sparrows definitely favored extensive areas of uniformly low vegetation, one to two feet in height, and were initially flushed from such sites. They avoided the widely spaced clumps of cat-tails and reeds unless frightened there by our activities. Most of our 1957 specimens were captured at the edges of cat-tail clumps, into which we had first chased the birds.

A specimen collected by J. C. Wood in Wayne County in September, 1893, was "in thick 'eel grass' on mud flat" and was killed with a stone from a slingshot, according to label notations. This last comment reflects the lack of fear of some Sharp-tailed Sparrows. Most of the individuals we encountered were easily observed. They would fly from the sedges a few feet ahead of us, go a short distance, and again drop into the marsh, from which they seldom could be flushed a second time. However, they, like the Atlantic coast races of the species, could be readily lured to exposed perches by loud, repeated "psssh" sounds which seemed to induce response more readily than

"squeaking." Unlike many species, Sharp-tailed Sparrows which have once responded remain in view for several minutes allowing detailed study with binoculars or telescope.

Fall dates of occurrence of this species in southern Michigan range from September 16 (1956) to October 16 (1935), with most observations falling between September 23 and October 9. Fleugel reports: "In the fall I see them the last week of September through the first week in October." His records indicate that Sharp-tailed Sparrows enter Michigan in the spring as early as April 28, but he also notes that they are most numerous the last week in May. The May 29, 1939, specimen further bears out his observations. We wish to thank Fleugel for making his notes available to us.—RUSSELL E. MUMFORD, *University of Michigan Museum of Zoology, Ann Arbor, Michigan*, and DALE A. ZIMMERMAN, *Department of Biology, New Mexico Western College, Silver City, New Mexico, April 4, 1958.*

Brown-headed Cowbird fledged in nest of Catbird.—In a search through the literature on the Catbird (*Dumetella carolinensis*) and the Brown-headed Cowbird (*Molothrus ater*), I have found no documented record of cowbirds being hatched or fledged in the nest of a Catbird. Trautman (1940. *Misc. Publ. Mus. Zool. Univ. Mich.*, no. 44: 393) lists two examples of Catbirds feeding cowbird young out of the nest. No details were given. Elder (1921. *Bird-Lore*, 23:185) stated that he had known of cowbirds being reared in the nests of Catbirds but gave no further information. Friedmann (1929. "The Cowbirds," p. 193) stated that, "The Robin, Catbird and Yellow-breasted Chat are examples of absolutely intolerant species." Further (p. 253) in reference to the Catbird he wrote, "As far as I know the Cowbird has never been definitely reported to be successful with this bird . . ." Bent (1948. *U.S. Nat. Mus. Bull.* no. 195:346) stated that, "it is obvious that the catbird is very intolerant of foreign eggs."

My field studies of about 3,000 nest records of the Catbird for southern Michigan over a period of 30 years show only eight nests parasitized or about one in every 375. My records of cowbird parasitism of the Catbird, all in Oakland County, Michigan, except the last, were on the following dates: One nest, June 11, 1939; two nests, May 28, 1950; one each on July 16, 1950, and May 12, 1951, May 28, 1952, June 1, 1953, and June 19, 1957. Six nests held one cowbird egg each at the time of discovery, and one nest held two eggs of the parasite. The cowbird eggs in two nests were partially covered by the nest linings, and two were laid in nest foundations so as to be completely covered by more than two inches of nesting material. All cowbirds' eggs had disappeared from five nests in less than a day from the time they were laid, one egg disappearing in less than an hour after being deposited. These eggs were probably ejected by the hosts, for in all instances the hosts' eggs remained undisturbed. Only the nest containing two cowbird eggs and two of the host showed evidence of possible removal of host eggs by the cowbird. The shells of cowbird eggs were found under three nests from which they had been removed.

On June 11, 1939, I placed a cowbird egg in the nest of a Catbird a short time after the Catbird's third egg had been laid. At 8:00 the next morning I observed that the fourth Catbird egg had been laid and that the cowbird egg had disappeared. One egg of the Catbird had been pierced. About three hours later I found another Catbird egg pierced, and the nest deserted. On June 27, 1941, I placed a 3-day-old cowbird in a Catbird's nest which contained four young about the same age. Three hours later the cowbird had disappeared, and one Catbird young was on the nest foundation outside the nest. I replaced the Catbird, and it was accepted by the adults. All the young later left the nest successfully. On June 20, 1957, five miles southeast of Windsor, Essex