

A possible specimen record of Saltmarsh Sharp-tailed Sparrow (*Ammodramus caudacutus*) from Michigan, with comments on the reliability of specimen data

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Abstract

This paper presents evidence of the possible occurrence of Saltmarsh Sharp-tailed Sparrow (*Ammodramus caudacutus*) in Michigan in 1886, based on a specimen previously identified as Nelson's Sharp-tailed Sparrow (*Ammodramus nelsoni*). Another old specimen of Saltmarsh Sharp-tailed Sparrow, labeled as Nelson's from Minnesota in 1888, is most likely instead from Connecticut. The paper further considers the separation of these species in the field and in the hand, as well as the implications raised by these specimens for other inland records of sharp-tailed sparrows and for the assessment of records based solely on specimen evidence.

Discovery of the specimens

In the course of research on identification and subspecies of sparrows in the sharp-tailed sparrow complex—recently classified as two species: *Ammodramus nelsoni*, Nelson's Sharp-tailed Sparrow, and *A. caudacutus*, Saltmarsh Sharp-tailed Sparrow (Greenlaw 1993, Rising and Avise 1993, A.O.U. 1995)—I visited the American Museum of Natural History in New York in late February 2004. Browsing through a tray of Nelson's Sharp-tailed Sparrows collected in the Midwestern states, I noted that one specimen (AMNH 762276) stood out as different: it looked drab, heavily streaked, with a coarsely marked face pattern and long bill. Closer study confirmed my initial impression that it was not a Nelson's

but a Saltmarsh Sharp-tailed Sparrow, with a museum label reading in part "5 September 1888. Minneapolis Marshes, Minnesota." Later study of the specimen labels showed that this bird was most likely collected in Connecticut and mistakenly attributed to Minneapolis.

I continued to visit ornithological collections to study specimens of all sharp-tailed sparrow taxa throughout 2004. On my second visit to the Museum of Comparative Zoology at Harvard University in Cambridge, Massachusetts in that year (in April), an odd-looking specimen (MCZ 192931), catalogued as Nelson's, again came to my attention. I identified this drab and coarsely marked bird as another inland specimen of Saltmarsh Sharp-tailed Sparrow, this one labeled as "1 June 1886. Detroit, Michigan" (Figure 1). This would represent a first state record for Michigan, if accepted by the Michigan Bird Records Committee.

Re-identification of the specimens

In the case of both MCZ 192931 and AMNH 762276, the bill is visibly and measurably long in comparison to Nelson's Sharp-tailed, and although measurements of these species do overlap, the measurements of these specimens support the identification of both as Saltmarsh rather than Nelson's (Table 1). In both specimens, plumage characteristics indicative of Saltmarsh include:

- Orange facial "triangle" contrastingly brighter than the buffy breast
- Broad, distinct, and coarse blackish streaks on breast and flanks

- Drab grayish auriculars (vs. paler and more orange-toned in Nelson's)
- Fine blackish streaks within the orange supercilium
- Upperparts overall drabber olive brown, with less rufous and less black than in Nelson's
- Scapulars and greater covert edges olive brown (vs. rufous brown in Nelson's)
- Mantle feathers olive brown with small dark centers and some off-white edges (vs. rufous brown with large black centers and some white edges in Nelson's)
- Nape medially olive brown (vs. rufous brown in Nelson's)

The two named subspecies of Saltmarsh Sharp-tailed Sparrow—nominate *caudacutus*, which breeds from Maine to northern New Jersey, and *diversus*, which breeds from southern New Jersey to Virginia—are very similar in appearance (Greenlaw and Rising 1994, Pyle 1997), and no attempt was made to identify either the Minnesota specimen or the Michigan specimen beyond the level of species.

Discussion

There are scattered records of Saltmarsh Sharp-tailed from locations within 20-30 km of the Atlantic coast, mainly along rivers at the upper reaches of tidal influence (e.g., Piermont, New York, where the species breeds). One migrant was found in Connecticut 62 km from the tidewater at Willington (Clark 1999). However, there are only two accepted records of Saltmarsh Sharp-tailed Sparrow well inland, both in Pennsylvania. One is a specimen collected 3 October 1972 at Powdermill Nature Reserve in Westmoreland County, identified after the fact by Kenneth C. Parkes (1992); and the other was a bird mist-netted and photographed in the hand at Lake Minsi, Northampton County 12 November 1996

Table 1. Bill measurements (in mm) of Saltmarsh Sharp-tailed Sparrow specimens in context.

Specimen	culmen length ¹	bill length from nares to tip ²
Michigan (MCZ 192931)	12.7	9.3
Minnesota/Connecticut (AMNH 762276)	12.9	9.6
Saltmarsh (n=942) ³	12.94 (10.8-14.8)	9.47 (8.4-10.9)
Nelson's (n=7) ³	12.21 (11.4-13.2)	8.89 (8.1-9.6)

¹Culmen length was measured from feathering at ridge of bill at forehead to tip of bill.

²Bill length from nares was measured from front of nasal opening to tip of bill.

³Measurements shown are mean followed by range in parentheses. All measurements by Chris Elphick and Carina Gjerdrum.

(DeReamus 2004; three color photographs posted to: <<http://www.users.fast.net/~becard/index2.html>>). Two other records from eastern Pennsylvania are also noteworthy but nearer the tidewater: Conshohocken, Montgomery County on 27 May 1892 (specimen at the Academy of Natural Sciences, Philadelphia, ANSP 65236; McWilliams and Brauning 2000); and 9 October 2002 very near the Delaware River at the Penn-Warner Club, near Tullytown, Bucks County (videotaped by D. Farbotnik, *vide N. Pulcinella*). The species does occur in numbers on the Gulf Coast of Florida (specimens at MCZ from Cedar Key, Wakulla, and other locations to Cape Sable), so they are presumably crossing land at some point (most likely the northern Florida peninsula) to reach that coast, but I am not aware of any records inland in the southeastern states, nor of any accepted records farther west along the Gulf Coast in Alabama, Mississippi, Louisiana, or Texas.

It is important to consider the reliability of the locality data on the specimen labels. Many cases exist of bird specimens intentionally or unintentionally mislabeled, and that possibility must be considered for extraordinary records such as these. The AMNH specimen discussed above bears two labels: the museum label, which was probably written after preparation of the specimen, lists the locality as "Minneapolis Marshes, Minn." Another, smaller label, most likely attached in the field, has a penciled scrawl apparently reading "Quinnapiac Marshes. Sep 5 1886." This presumably refers to the Quinnapiac Marshes at New Haven, Connecticut, which happens to be the home of the collector, L. C. Sanford. It seems highly probable that the specimen was collected in Connecticut, where Saltmarsh Sharp-tailed is common, and later the location was misread and transcribed on the new label as Minneapolis.

The MCZ specimen bears a single label with the information "MCZ 192931, June 1, 1886. Detroit, Michigan. Male. Collection of C. F. Batchelder. Number 1000." No other Batchelder specimens from Detroit, Michigan are in the MCZ, and in fact Batchelder himself was in Europe from April 1886 until October 1887 and made no known trips to the Great Lakes (Taber 1958). So Batchelder most likely acquired this specimen from another collector, and with the available information it is impossible to verify the data on the label.

What might have brought a Saltmarsh Sharp-tailed Sparrow to the Great Lakes region, presuming the specimen tag bears reliable data on its provenance, is a matter of speculation. The date of the Michigan specimen (1 June) matches the late-spring migra-

tion window of the species. One could speculate that it migrated northward in the spring from wintering grounds on the Gulf Coast and failed to move far enough eastward to find the Atlantic Coast marshes. Displacement by storms or other weather events could also account for such an extralimital bird, but such an association would also be a matter of speculation. Records of Wilson's Plover (*Charadrius wilsonia*), Brown Pelican (*Pelecanus occidentalis*), American Oystercatcher (*Haematopus palliatus*), Black Skimmer (*Rhynchops niger*), and other coastal species in the Great Lakes show that such birds can and do occur in that region, both in association with weather events and otherwise.

The difficulty in identifying sparrows in this complex has undoubtedly contributed to the obscurity surrounding noncoastal records of Saltmarsh, including the specimens discussed herein. Certainly, the experience of Ken Parkes—an expert on subspecies and bird identification, who did not recognize the



Figure 1. The Michigan specimen of Saltmarsh Sharp-tailed Sparrow (MCZ 192931) is at center, with two spring specimens of Nelson's Sharp-tailed Sparrow on the left and two spring specimens of Saltmarsh on the right.

1972 specimen as a Saltmarsh for nearly 20 years—puts this difficulty in perspective. On the other hand, both Sanford (and his Connecticut peers L. B. Bishop and J. H. Sage) and Batchelder made detailed studies of sharp-tailed sparrows, whose subspecies were well-known entities in the late 1800s. It is somewhat surprising that these specimens were not identified by them as Saltmarsh. For modern birders, it was not until 1993 that Saltmarsh was split from Nelson's, rekindling an interest in field identification of these species and even (in some cases) their subspecies.

Seeing sharp-tailed sparrows under normal field conditions (involving brief views of isolated birds), most observers would almost certainly dismiss a vagrant inland Saltmarsh as a Nelson's. Geographic variation and individual variation, as well as under-appreciated seasonal variation, complicate the problem of field identification. Nevertheless, an experienced and careful observer should be able to identify these birds to the level of species in

the field. The documented records of Saltmarsh Sharp-tailed Sparrow from inland Pennsylvania, and this potential specimen record from Michigan, show that observers should not assume that all inland sharp-tailed sparrows are Nelson's. Moreover, these specimens show the need for caution in assessing such records, and especially the value of detailed record-keeping to document all physical evidence—including specimens, photographs, audio recordings, and video recordings—for the benefit of future researchers.

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Literature cited

- American Ornithologists' Union [A.O.U.]. 1995. Fortieth Supplement to the American Ornithologists' Union's *Check-list of North American Birds*. *Auk* 112: 819-830.
- Clark, G. A., Jr. 1999. *Birds of Storrs, Connecticut and Vicinity*. Third Edition. Natchaug Ornithological Society and Joshua's Tract Conservation and Historic Trust, Mansfield, Connecticut.
- DeReamus, D. 2004. The case of the mystery Sharp-tailed Sparrow. *Pennsylvania* 18: 2-4.
- Greenlaw, J. S. 1993. Behavioral and morphological diversification in Sharp-tailed Sparrows (*Ammodramus caudacutus*) of the Atlantic coast. *Auk* 110: 286-303.
- Greenlaw, J. S., and J. D. Rising. 1994. Sharp-tailed Sparrow (*Ammodramus caudacutus*). In: *The Birds of North America*, No. 112 (A. Poole and F. Gill, eds.). Philadelphia: The Birds of North America, Inc.
- McWilliams, G. M., and D. W. Brauning. 2000. *The Birds of Pennsylvania*. Cornell University Press, Ithaca, New York.
- Parkes, K. C. 1992. The subspecies of the Sharp-tailed Sparrow and the reidentification of a western Pennsylvania specimen. *Pennsylvania Birds* 6: 13-14.
- Pyle, P. 1997. *Identification Guide to North American Birds. Part I: Columbidae to Ploceidae*. Slate Creek Press, Bolinas, California.
- Rising, J. D., and J. Avise 1993. An application of genealogical concordance principles to the taxonomy and evolutionary history of the Sharp-tailed Sparrow (*Ammodramus caudacutus*). *Auk* 110: 844-856.
- Taber, W. 1958. In Memoriam: Charles Foster Batchelder. *Auk* 75: 15-25. ●