PROBABLE EXTRALIMITAL BREEDING OF LINCOLN'S SPARROW IN FINGER LAKES HIGHLANDS

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ABSTRACT —Five Lincoln's Sparrow (*Melospiza lincolnii*) in new or juvenal plumage were banded near Mecklenberg in Schuyler County NY on 1, 4, 5, and 14 Aug 95, some 135 air miles from their closest confirmed breeding site in the Adirondacks. Identification was validated by recaptures in Sep and Oct. A breeding adult female was also captured on 26 May 96. Plumage descriptions and mensuration data are provided.

INTRODUCTION

On 1 Aug 1995 we banded and released two hatching year (HY), sex unknown (U) Lincoln's Sparrow (*Melospiza lincolnii*) (LISP) at our research station in Schuyler County. We are located in the southwest corner of the Cayuga Lake Basin, approximately four miles southwest of Mecklenberg and some 135 air miles from the closest confirmed LISP breeding site in the Adirondacks. A third HY-U LISP was banded on 4 August, a fourth on 5 Aug, and a fifth on 14 Aug. All five birds were in new or juvenal plumage, suggesting a very recent fledging.

We were indeed surprised by the juvenal plumaged birds on 1 Aug and totally flabbergasted by the time number five checked in! From the beginning, our concern was to confirm our identification before banding so we relied heavily on plumage description and mensuration as indicated in Pyle (1987) and other dichotomous keys (Anon 1977 and undated draft, Wood 1969, Rimmer 1986, Roberts 1955). Nevertheless, we were more than a little relieved when three of the birds were recaptured in September and October, having completed first prebasic (post-juvenal) molts and presenting themselves as "obvious" Lincoln's Sparrows! The following are descriptions and mensuration from our field logs.

OBSERVATIONS

"PLUMAGE: Sparrow with overall pale appearance, slim bill. Buffy, broad superciliary. Crown is buff brown with obvious and distinct dark streaking. Throat is coarsely streaked. Breast band is creamy buff and distinctly streaked (necklace). Lining of roof of mouth is grayish to grayish white. Bend of wing is off-white. Gapes are all swollen. Overall appearance is that of juvenile LISPs."

MENSURATION: data are presented in Table 1.

We eliminated Song and Swamp sparrows as alternatives by our field experience, the above features, and the mensuration data.

DISCUSSION

We ended up banding 2700 birds during this fall migration, a station high. Our LISP total was 42, bringing the number handled in nine seasons to 129. A cooperative study of selected migrant species coordinated by the authors receives arrival, peak, departure, and number banded data on 22 species from 40 banding stations along the Atlantic Flyway ranging from Canada to Florida. Kestrel Haven's experience with the species is second only to Powdermill, Pennsylvania. Only four Atlantic Flyway sites have reported more than 25 LISPs in the past five years. Since the study's inception in 1991, the previous early date for LISP was reported by Elizabeth Brooks at Braddock Bay on 24 August 1992 (personal communication). At Kestrel Haven, we have seen an increasing number of LISPs from 10 in 1987 to 42 in 1995.

These were our first juvenal plumage birds. We have extensive experience with Song Sparrow in all plumages (over 5000) and believe four or five races pass through our site. We band a smaller number of Swamp Sparrow but, as they are local breeders, we routinely handle juvenal plumage birds. This fall's 42 LISPs were 5 in August (all juvenal, of which 3 repeated after first pre-basic molt), 18 in September, and 19 in October. Only 4 of the 42 were adults (AHY), 2 in September and 2 in October; none showed cloacal protuberance or active brood patch. By way of contrast to the 5 in consideration, our first September LISPs were three on 8 Sep and all had completed their first PB molt.

Meade (1988) cites nest record data for fledglings as 21 August and Peterson (1988) reports no data outside the Adirondacks. Bull (1974) reports and casually dismisses a sight record from 1903 in Monroe County and a 1967 "nest record card" submission from Tioga County (to our southeast). The New

York breeding range is the southernmost extension of the main breeding range, which is circumboreal from Alaska to Newfoundland.

Table 1. Mensuration data. Measurements are in millimeters or grams. Dates are 1995. Bird band numbers are: A = 2011-28676, B = 2011-28677, C = 2011-28689, D = 2011-28698, E = 1211-70979. All birds were in juvenal plumage at banding. Repeats completed first PB molt. Wing is an unflattened chord measurement. Weight was by a Pesola scale. Skull grades were on a scale of 0 = unpneumatized to 7 = fully pneumatized. Fat was graded on a scale of 0 = none to 6. Primary measurement was by transparent rule and calipers. P = primary feathers.

Bird	Win g	Tail	Weight	Fat	Skull	P9-P4	P5	Repeat	Skull /weight
A	55	54	15	0	0	>	=	17 Sep	1/15
B	56	57	15	0	0	>	+1		
C	59	58	15	0	0	>	+1	30 Sep	1/15
D	60	59	15	0	0	>	=	3 Oct	1/15
E	61	59	15	0	0	>	+2		

DEDUCTION

We first thought that the very severe drought experienced throughout the state had caused our five juvenal plumage LISPs to move from the closest known breeding population in the Adirondacks. The order of relatively quick appearance coupled with the later recapture confirmation led us now to believe that an extralimital breeding occurred in our immediate area. Proper habitat is available very nearby, from 900 to 1700 feet on regenerating farmland, with mixed deciduous and coniferous woodlots. A bog in largely hemlock cover is also nearby. Our photos and mensuration data were peer reviewed by experienced banders and biologists from the US Fish and Wildlife Service and the National Biological Service and found to be correct. A nesting must have been very close by as the young birds would not have left their breeding ground in juvenal plumage (Chan Robbins, personal communication). This reasoning is strengthened by their recaptures in September and October and our most recent addition to the saga.

On 26 May 1996, we banded an adult female LISP which presented with a very edematous brood patch. While some species are suspected of biological "en route" preparation while nearing their northern breeding ground, this has

been limited to the male enlarged cloacal protuberance. We have seen this phenomena in spring White-crowned Sparrow. To our knowledge, no species is known to develop a vascular brood patch until the female is in the breeding territory and active.

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