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Department of Biology, Andrews University, Berrien Springs, Michigan 49104. Received 10 July 1982. Final acceptance 31 March 1983.

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THE NATAL PTERYLOSIS OF *AMPHISPIZA* SPARROWS

DENNIS MINSKY

AND

CHARLES T. COLLINS

The natal pterylosis of many North American passerines was examined by Wetherbee (1957, 1958). We present here similar data for the genus *Amphispiza* (Emberizinae; Paynter and Storer 1970), a taxon for which quantitative information was not then available.

We examined four nestlings of the Sage Sparrow (*A. belli*) collected by J. M. Sheppard from a single nest 3 km southwest of Maricopa, Kern Co., California on 16 April 1968, and three nestlings of the Black-throated Sparrow (*A. bilineata*) collected by Collins from a single nest on the China Lake Naval Weapons Center, Inyo Co., California on 19 May 1974. In all seven specimens, the juvenal contour feathers have erupted through the skin but have not ruptured their sheaths (Stage C, Wetherbee 1957:356). The age of these specimens is not a factor in this analysis since the evidence indicates that the pattern and length of downs are fully developed at hatching (Wetherbee 1957: 353); no losses of neossoptiles due to abrasion were noted.

Linsdale (1936) noted that the down of young *bilineata* was "white, slightly grayish, and very fluffy"; *belli* and *bilineata* were categorized as having "pale," and the still lighter "pallid" downs, respectively. In our specimens, however, the neossoptiles of *belli* were perceptibly lighter than those of *bilineata*. Neossoptile lengths ranged from 1 to 8 mm but were longer for *bilineata* in 6 of the 11 regions they shared in common (Table 1). The overall pattern of neossoptile distribution in the two species was similar but not identical (Fig. 1). In *bilineata* there were 142–167 neossoptiles in 14 regions while in *belli* there were only 110–145 neossoptiles in 11 regions (Table 1). The average total number of neossoptiles for *bilineata* and *belli* was 152 and 129, respectively. As previously noted in the Red-winged Blackbird (*Agelaius phoeniceus*; Clark

TABLE 1. Distribution and length of neossoptiles of *Amphispiza* sparrows.

Tract (region)	*A. bilineata* ($n = 3$)			*A. belli* ($n = 4$)		
	Length	Average no.[a]	Range	Length	Average no.[a]	Range
Capital						
(Coronal)	6	7	2–9	4.5	10	8–12
(Occipital)	7	4	3–4	8	4	4–5
Spinal						
(Mid-dorsal)	6.5	5	2–6	5.5	5	4–5
(Pelvic)[b]	6	7	5–8	5	5	4–6
Scapular	7	8	7–8	7	6	3–8
Femoral	6	12	11–15	6	8	1–12
Ventral	3	9	8–11	3	11	9–12
Crural	3	5	2–8	1	2	0–5
Caudal	2	4	3–5	2	4	3–5
Alar						
(Primaries)	21	4	0–6	—	0	—
(Secondaries)	4	2	0–8	—	0	—
(Greater secondary coverts)	6.5	10	9–10	4.5	10	7–11
(Middle secondary coverts)	7	8	6–8	1	2	0–5
(Carpal remex)	2	1	0–1	—	0	—
Total		171	(142–167)		125	(110–145)

[a] Numerical average to nearest whole number.
[b] Unpaired row on midline; all others bilaterally paired.

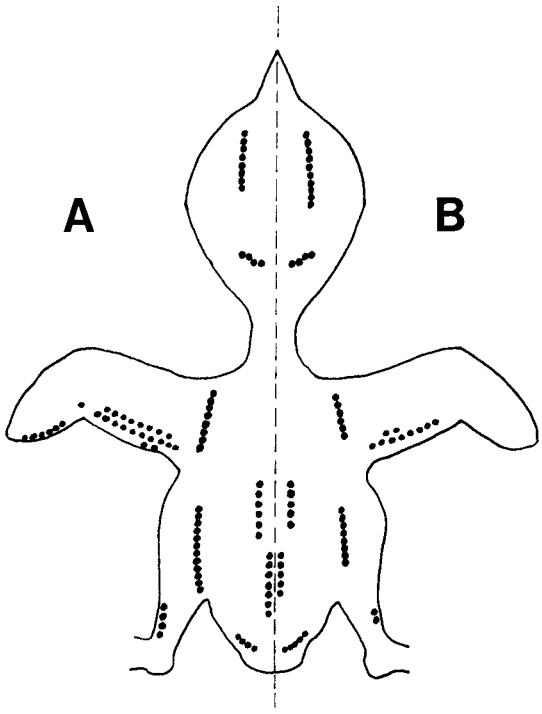

FIGURE 1. Typical natal pterylosis of *Amphispiza* sparrows: A—*A. bilineata*, B—*A. belli*. Each dot represents a single neossoptile. The pelvic region neossoptiles are in an unpaired row on the midline in both species.

1967) and House Finch (*Carpodacus mexicanus*; Collins and Bender 1977a), when the total number of neossoptiles was greater, extra downs tended to be present on additional tracts or exceptional pterylae. This appears to be true in *Amphispiza*, particularly in *bilineata*. One specimen of *bilineata* had the neossoptiles on the femoral tract arranged in double rows on each side, an extreme case of intraspecific variation.

The pattern of neossoptile distribution in *Amphispiza* (Fig. 1) appears generally similar to that which Wetherbee (1957) reported for a variety of fringillids (including Carduelinae, Cardinalinae, and Emberizinae), but quite different from the pattern reported for the House Finch, another desert-inhabiting passerine of southern California (Collins and Bender 1977a). *Amphispiza*, like *Spizella*, *Zonotrichia*, and *Pooecetes* (Wetherbee 1957), lacks the distinctive rows of lateral pelvic region neossoptiles noted in both *C. mexicanus* and *Paroaria* (Collins and Bender 1977b), the latter a genus of uncertain affinities currently placed in the Emberizinae (Paynter and Storer 1970:212). Unfortunately we know of no similar quantified data for the two nearest related genera, *Chondestes* or *Aimophila*. Neossoptile distribution patterns have proven to be of a limited taxonomic usefulness in other passerines (Wetherbee 1957:351, Collins and Kemp 1976). Thus, the pattern of distribution of neossoptiles, particularly that of the pelvic region, deserves further attention in this array of higher passerines.

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Department of Biology, California State University, Long Beach, California 90840. Received 5 August 1982. Final acceptance 24 January 1983.

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DISTRIBUTION AND MIGRATION OF THE BLACK TERN IN MEXICO

SARTOR O. WILLIAMS III

The Black Tern (*Chlidonias niger*) is rarely mentioned, except in a general way, in literature concerning Mexican birds; consequently, there is little specific information concerning the distribution of the species in Mexico. The "Mexican Check-list" (Friedmann et al. 1950) indicates that the species is largely absent from the interior highlands and that it is unknown from several Pacific coastal states as well. Prior to my field work, I know of but four reports of Black Terns from the interior highlands, and only two of these were from the present century. White (*in* Sclater 1864) reportedly took a specimen near Mexico City (but the locality is subject to question and the specimen may have come from the lowlands of Veracruz), and Ferrari-Perez (1886) obtained specimens in October in the highlands of Puebla at Laguna de San Baltazar and Laguna de Chapulco. Coffee (1960) saw five at Laguna de Alchichica, Puebla, on 2 June 1951, and Lea and Edwards (1950) reported several in nonbreeding plumage at Lago de Pátzcuaro, Michoacán, on 28 July 1946. During my studies of waterbirds in Mexico, initiated in 1973, I recorded Black Terns on various occasions in the interior highlands as well as along the Pacific coast. My observations are supplemented herein with others provided me by Robert W. Dickerman and Allan R. Phillips, and with previously unreported specimens in the Louisiana State University Museum of Zoology (LSUMZ), provided by J. V. Remsen. These observations and specimens constitute the first published reports of Black Terns for the states of Chihuahua, Durango, Zacatecas, San Luis Potosí, Jalisco, and, apparently, mainland Nayarit, and help to summarize the status of this species in Mexico.