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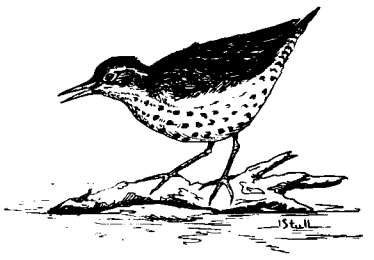

In a review of egg-teeth in birds, Clark (1961) noted that these structures have been studied in detail in relatively few species of birds. As banders often handle birds at hatching (and indeed, banding a bird for individual recognition in studies of growth or dispersal is one of the few justifications of disturbing it at hatching), banders can contribute to this little-known aspect of avian biology. Egg-teeth, small calcarious protuberances on the upper mandible, are common in birds at hatching (Wetherbee 1959), but vary in the time of disappearance from the bill (Clark 1961). A similar, but smaller, structure is found on the lower mandible of some species at hatching (Clark 1961; Parkes and Clark 1964). Banders working with young birds should note the presence or absence of both these structures at known age when possible or, if exact age is not known, in relation to some body measurement or other indication of development stage.

One common North American species about which no information appears to have been published on egg-teeth is the Spotted Sandpiper *(Actitis macularia)*. This species was not mentioned in the general reviews of egg-teeth by Wetherbee (1959), Clark (1961), and Parkes and Clark (1964), or in Jehl's (1968) review of egg-teeth in Charadriiformes. Egg-teeth were not mentioned in the descriptions of young Spotted Sandpipers by Bent (1929), Nelson (1930), or Harrison (1978), although an upper mandible egg-tooth is shown on the downy chick painted by Philip Burton in Harrison's book (plate 10). None of the several papers I read on nesting in this species mentions these structures.

In 1972 I had 2 nests of Spotted Sandpipers under observation at Wolf Lake, Vancouver Island, British Columbia. I missed the hatching in one of these nests but was fortunate to check the other on 25 June when all 4 chicks were still in the nest, just barely dry. All 4 of these newly-hatched birds had egg-teeth on both mandibles, as would be expected by Jehl's (1968) hypothesis outlined below.

In 1976 I was able to examine several young Spotted Sandpipers at various stages of growth in the then-proposed (now established) Kananaskis Provincial Park of southern Alberta while participating in vertebrate inventory work there (Salt 1976). I banded 2 dry chicks with rectrices grown to 8 and 10 mm at a nest on the shore of Upper Kananaskis Lake on 13 July, and a smaller chick with no growth in the tail and only a maximum of 4 mm in the primaries at another nearby nest. None of these chicks had egg-teeth on either mandible, nor did 2 even-younger chicks banded at a nest along the Kananaskis River the next day. These chicks had no development of tail feathers, and primaries were just starting, with maximum growth of 1.0 and 0.5 mm. On 17 July a nest near our camp on Lower Kananaskis Lake had 4 eggs just before dusk, but when checked at 0715 the next morning, 3 chicks had hatched. The larger 2 were already dry, and neither had egg-teeth on either mandible. The smallest was not quite dry and had egg-teeth on both mandibles.

These observations suggest that Spotted Sandpipers hatch with egg-teeth on both mandibles, but that both structures are lost at a very early age. No chicks with any hint of non-downy feathers had either structure and, in the last-mentioned nest, 2 chicks had already lost both egg-teeth within hours of hatching. Jehl (1968) proposed that lower mandible egg-teeth were not used in breaking the shell, the function generally assigned to upper mandible egg-teeth, but rather functioned in protecting the lower mandible from abrasion during hatching. In support of his hypothesis, he noted that shorebirds with long thin bills have lower mandible egg-teeth, while those in which the upper mandible overhangs the lower do not, the upper presumably protecting the lower. Sealy (1970) reported similar findings in a comparison of alcids; and at least some species of terns, also with long thin bills, also have lower mandible egg-teeth (McNicholl in press). The findings reported here support Jehl's hypothesis but suggest that downy chicks must be examined very soon after hatching before a lack of egg-teeth can be documented.

Acknowledgements

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Urban Wildlife News

In an effort to facilitate communication among biologists and others interested in urban wildlife, the Urban Wildlife Research Center publishes a quarterly newsletter, *Urban Wildlife News*. Among the items regularly published are brief project descriptions of ongoing research and management projects related to urban wildlife; abstracts of research reports recently completed; and complete citations of recently published work.

Workers in the urban wildlife field, or readers who know of others working in this area, and who would like to participate in this information exchange service, are encouraged to forward the following information to the Center: Project Title, Date, Investigator(s) — Name, Address, Phone — Project Location, Project Start Date; Brief Project Description. Send this information to *Current Research*, Urban Wildlife Research Center, Inc., 10921 Trotting Ridge Way, Columbia, MD 21044.

Annual subscription to the newsletter, which contains much additional information, is $10. Current distribution is to 300 individuals and institutions in the United States, with a few going to foreign countries.

The Urban Wildlife Research Center is a publicly funded, nonprofit scientific and educational conservation organization dedicated to helping urban planners, developers, managers, private citizens, and municipal, state, and Federal biologists and other resource personnel, to provide and maintain optimal conditions for desirable forms of wildlife in cities, suburbs, and developing areas.

Research Grants

The Eastern Bird Banding Association and the Western Bird Banding Association are each offering a research grant of $250 in aid of research using bird banding techniques or bird banding data.

Applicants should submit a resumé of his or her banding or ornithological background, the project plan, and a budget to the joint selection committee chairman: Robert C. Leberman, Powdermill Nature Reserve, Star Route South, Rector, PA 15677. No formal application forms are available, and the amount requested should not exceed $250. The deadline for receipt of applications is 15 March 1982.

1981 Grants

The winner of the 1981 EBBA memorial grant in aid of research was Susan E. Savage, a graduate student at the State University of New York, Stony Brook. As part of an ongoing study, Miss Savage is investigating song dialects of the Savannah Sparrow on the Grand Manan Archipelago.

The winner of the WBBA 1981 grant will be announced later.

Both grants were made in the amount of $250.