

POLYMORPHISM IN THE WHITE-THROATED SPARROW

(The following is an abstract of this paper given by James K. Lowther of Toronto, to the annual meeting of the Wilson Ornithological Society, with commentary by President Eleanor Dater. We feel this will give banders who are interested in studying the Whitethroat, a yard-stick for their work. -Ed.)

"A sample of 286 museum and 199 live specimens of White-throated Sparrows were examined for morphic differences. Two morphic types in both sexes are described according to the color of the median crown stripe. These are the white-striped morph and the tan-striped morph. Regardless of sex, white-striped morphs have more black on the lateral crown areas, less streaking on a wider and grayer chest band, less intense black on the malar markings of the white throat patch and brighter yellow on the superciliary stripe. The proportions of white-striped males and tan-striped females increased from Newfoundland to the Northwest region. White-striped morphs mate selectively with tan-striped morphs. Evidences presented show that these morphic types are genetically determined, and once attained, do not change with age. Mechanisms governing polymorphism are discussed in an attempt to explain the existence of the morphic types in the White-throated Sparrow."

Mr. Lowther worked for a two year period on live birds and museum skins. The live birds were collected between May 15 and June 15 on the breeding ground.

In examining the black on the lateral crown area it was found that the black varied from 40 to 100 per cent. Six degrees of streakedness of the chest from none to heavy were studied. Museum skins of males only were used for this part of the study. This led to the conclusion that "tan-striped males have a greater tendency toward streaking than the white-striped morph."

Intensity of color or width of chest band study indicated that the "tan-striped morphs show a significantly greater tendency toward a reduction in the amount and intensity of pigment in the chest band." Considering the throat patch, the data led to the conclusion that "tan-striped morphs have heavier throat markings in both sexes than white-striped morphs."

When it comes to the yellow of the superciliary stripe "the data show that in both sexes, the white-striped morphs have a brighter yellow on the superciliary stripe than do the tan-striped morphs."

This paper was published in the Canadian Journal of Zoology, Vol. 39 (1961). Mr. Lowther is studying for his doctorate at the University of Toronto. He is extending his study of polymorphic characters to adult and immature Whitethroats in fall plumage.