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Head-scratching in wood warblers.—We have made several observations of head-scratching of warblers in the wild that supplement those of M. M. Nice and W. E. Schantz (*Auk*, 76: 339-342, 1959; *Ibis*, 101: 250-251, 1959) who affixed small pieces of gummed paper to the heads of captured birds to stimulate scratching. These authors summarized data on 10 species of passerines that used both the direct and indirect method of scratching. K. E. L. Simmons (*Ibis*, 103a: 37-49, 1961) suggested that all these birds normally use the indirect method and that the variation which resembled direct scratching was in adult individuals "no more than indirect-scratching carried out abnormally in response to super-normal stimuli" (p. 44). Nice and Schantz's photo of the Slate-colored Junco (*Junco hyemalis*) supports Simmons' contention because during direct scratching this individual lowered the wing as in the indirect method. We observed a Parula Warbler (*Parula americana*) scratch directly without moving its wing and two other individuals of the same species scratch indirectly. This is similar to the findings of Nice and Schantz (*op. cit.*) of one of Wilson's Warbler (*Wilsonia pusilla*) using the direct method and another using only the indirect method, while two others used both methods. Although it is now obvious that both types of scratching occur in certain wood warbler species, further observations under natural conditions are desirable.

We were able to study head-scratching in several other parulids. The Nashville Warbler (*Vermivora ruficapilla*) scratched directly as noted by Nice and Schantz, who also saw this type of scratching in the Tennessee (*V. peregrina*) and the Orange-crowned (*V. celata*) warblers. But in the many observations we made of Blue-winged Warblers (*V. pinus*), Golden-winged Warblers (*V. chrysoptera*), and hybrids of these two, all scratched indirectly; also our 12 captive Myrtle (*Dendroica coronata*) and 3 captive Bay-breasted (*D. castanea*) warblers all scratched indirectly. We did see one Black-and-white Warbler (*Mniotilta varia*) scratch directly several times in the wild.

Variability of head-scratching in a few parulid species should not lead to dismissal of this behavior as a taxonomic character. Such plasticity is obviously exceptional and could be used in itself in assessing relationships. For instance, it supports the placing of *Parula* (some individuals scratch directly, others indirectly) between *Vermivora* (some species scratch directly, others indirectly) and *Dendroica* (all species observed in the wild scratch indirectly). The accepted taxonomy of the Parulidae is based mainly on similarities of feeding adaptations in adults, but observations on such traits as gape color (M. S. Ficken, *Wilson Bull.*, 77: 71-75, 1965) and displays (M. S. Ficken and R. W. Ficken, *Wilson Bull.*, 77: 363-375, 1965) suggest that some rearrangement may be necessary. Head-scratching method may prove a valuable addition to the set of complex characters that can be used in defining genera.

There is no information on head-scratching in many parulid species and virtually nothing on other New World families. Field observers could rapidly fill this gap in our knowledge. These observations were obtained in the course of a study supported by the National Science Foundation (GB-3226).—MILLCENT S. FICKEN and ROBERT W. FICKEN, *Department of Zoology, University of Maryland, College Park, Maryland.* Present address: *Department of Zoology, University of Wisconsin-Milwaukee, Milwaukee, Wisconsin.*