

The Systematic Position of the Avian Species *Metopothrix aurantiacus*

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The Orange-fronted Softtail, *Metopothrix aurantiacus*¹, now known to occur in the upper Amazon in southeastern Colombia, eastern Ecuador, eastern Peru, western Brazil, and northeastern Bolivia (Peters, 1951: 115) was described by Sclater and Salvin (1866: 190-191), who placed it in the Pipridae. Sclater (1888: 292) retained *Metopothrix* in the Pipridae without comment, placing it between *Masius* and *Pipra*. Berlepsch (1903: 108), in reviewing the systemic position of the genus stated that "this bird is not a *Piprine* [sic] form, as was believed by its describers, but a *Dendrocolaptine* [sic], closely allied to *Xenerpestes*, and agreeing with it in general characters of structure" According to Berlepsch (*op. cit.*), *Metopothrix*, in having a curved bill, as in *Xenerpestes*, with prominent swollen tomiae at the base of the upper mandible, and short stiff frontal feathers, belonged in the Furnariidae, not the Pipridae. Hellmayr, in Cory and Hellmayr (1925: 167), following Berlepsch (1903: 108), included both *Metopothrix* and *Xenerpestes* in the Furnariidae, but stated: "While I admit that certain structural details point to affinities to the Synallaxinae, the aberrant style of coloration suggests the desirability of further investigation of their systemic position". Peters (1951: 115) retained both *Metopothrix* and *Xenerpestes* in the Furnariidae with misgivings. He pointed out that "nothing is known of their anatomy or life history, and their colors and color pattern are not consistent with those exhibited by other Furnariidae". Meyer de Schauensee (1966: 256) also retained *Metopothrix* in the Furnariidae, but stated of the genus: "Probably not a Furnariid at all. Its style of coloration and yellow legs are reminiscent of certain Pipridae."

Metopothrix has thus been placed in the Pipridae on the basis of coloration and in the Furnariidae on the basis of Berlepsch's comments.

Although I have not had an opportunity to examine a specimen of *Xenerpestes*, I have recently been able to study a skull and skin of *Metopothrix* in the collections of the Louisiana State University Museum of Zoology (LSUMZ).

¹ Illustrated in Sclater and Salvin (1866, pl. 18), and in Meyer de Schauensee (1964, pl. 10).

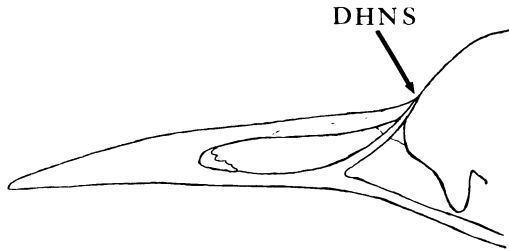
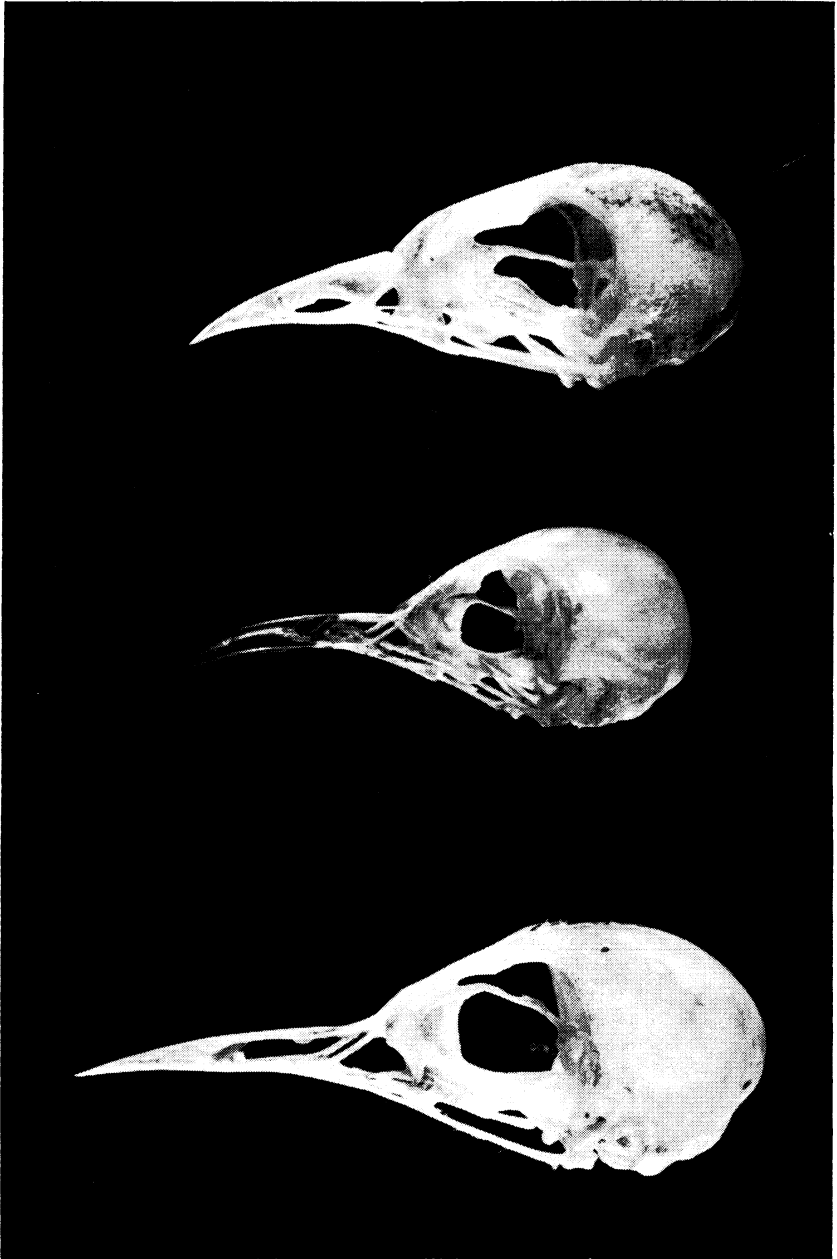


FIG. 1. Diagrammatic illustration of the pseudo-schizorhinal ovenbird skull showing the position of the dorsal hinge of the nasal strut (DHNS).

Although in many ways the skin of *Metopothrix* does not suggest affinity to other members of the Furnariidae, the tail feathers appear very similar to those of many forms now included within the Synalaxinae, having the tips of the retrices without barbs. The coloration is somewhat aberrant for the Furnariidae (olive-green above, yellow to yellow-green below, yellow face with stiff frontal feathers, and yellow-orange legs), but is similar to that of *Xenerpestes*. It should be pointed out that, though yellow is an infrequent color in the Furnariidae, species of *Asthenes*, *Cranioleuca*, *Certhiaxis*, and *Schoeniophylax* have yellow in the throat region, and *Cranioleuca sulphurifera* has stiff yellow throat feathers. The green color of the back of *Metopothrix* is, however, very unusual for the Furnariidae, being found only in one other genus, *Xenerpestes*.

The skull structure of *Metopothrix* definitely places it within the Furnariidae. *Metopothrix* has pseudo-schizorhinal nares, that is, there are long nasal openings resembling the charadriiform condition of true schizorhiny, but the posterior extents of the openings are rounded, instead of ending in a slit. However, as in true schizorhiny, the nasal openings extend far back, in many cases posterior to the nasal-frontal hinge (see Figs. 2 and 3). Perhaps more important than the actual extent of the nasal openings are the functional consequences of the condition of pseudo-schizorhiny and the concomitant dorsocaudal displacement of the dorsal hinges of the nasal struts (Fig. 1) away from their normal position as lateral components of the nasal-frontal hinge (see Zusi, 1962, for a discussion of the functional consequences of

FIG. 2. Side views of skulls. From top to bottom: *Pipra erythrocephala* (UMMZ no. 157, 210), *Metopothrix aurantiacus* (LSUMZ no. 51, 912), and *Asthenes humilis* (UMMZ no. 156, 843).



schizorhiny in the Black Skimmer, and Feduccia, 1969, for a more complete discussion of this problem). The important point here is that the condition of having long extended nasal openings with the dorsocaudally displaced hinges of the nasal struts is found among no passerine birds except the Furnariidae, most of which exhibit it. In Figures 2 and 3 the skull of *Metopothrix* is shown next to a typical furnariid, *Asthenes humilis*, and a piprid, *Pipra erythrocephala*. Notice that in both *Metopothrix* and *Asthenes* there is a long extended nasal opening, and in the side views the dorsocaudally displaced hinges of the nasal struts are obvious. On the other hand, the skull of *Pipra* shows the dorsal parts of the nasal struts as integral parts of the nasal-frontal hinge, and a typical holorrhinal nasal opening. Notice also that the supra-orbital area of the frontal bones is wide in *Pipra*, but constricted in both *Asthenes* and *Metopothrix*.

The precise position of *Metopothrix* within the Furnariidae cannot be determined at present because of the lack of skeletal material of many genera. But of the subfamilies recognized by Cory and Hellmayr (1925), the Synallaxinae contains forms most closely allied with *Metopothrix*. I have examined skulls and skins of the following genera of the Synallaxinae: *Sylviorthorhynchus*, *Aphrastura*, *Phleocryptes*, *Leptasthenura*, *Schoeniophylax*, *Synallaxis*, *Certhiaxis*, *Cranioleuca*, *Asthenes*, *Phacellodomus*, and *Anumbius*. Although *Metopothrix* agrees closely in skull characters with the foregoing forms, which are placed near it in Peters' Check-list (1951), no definite statement can be made as to its exact placement since all of the genera were not available.

I therefore recommend retention of *Metopothrix* in the position assigned it in Peters' Check-list (1951) until detailed data can be gathered for a generic revision of the entire family.

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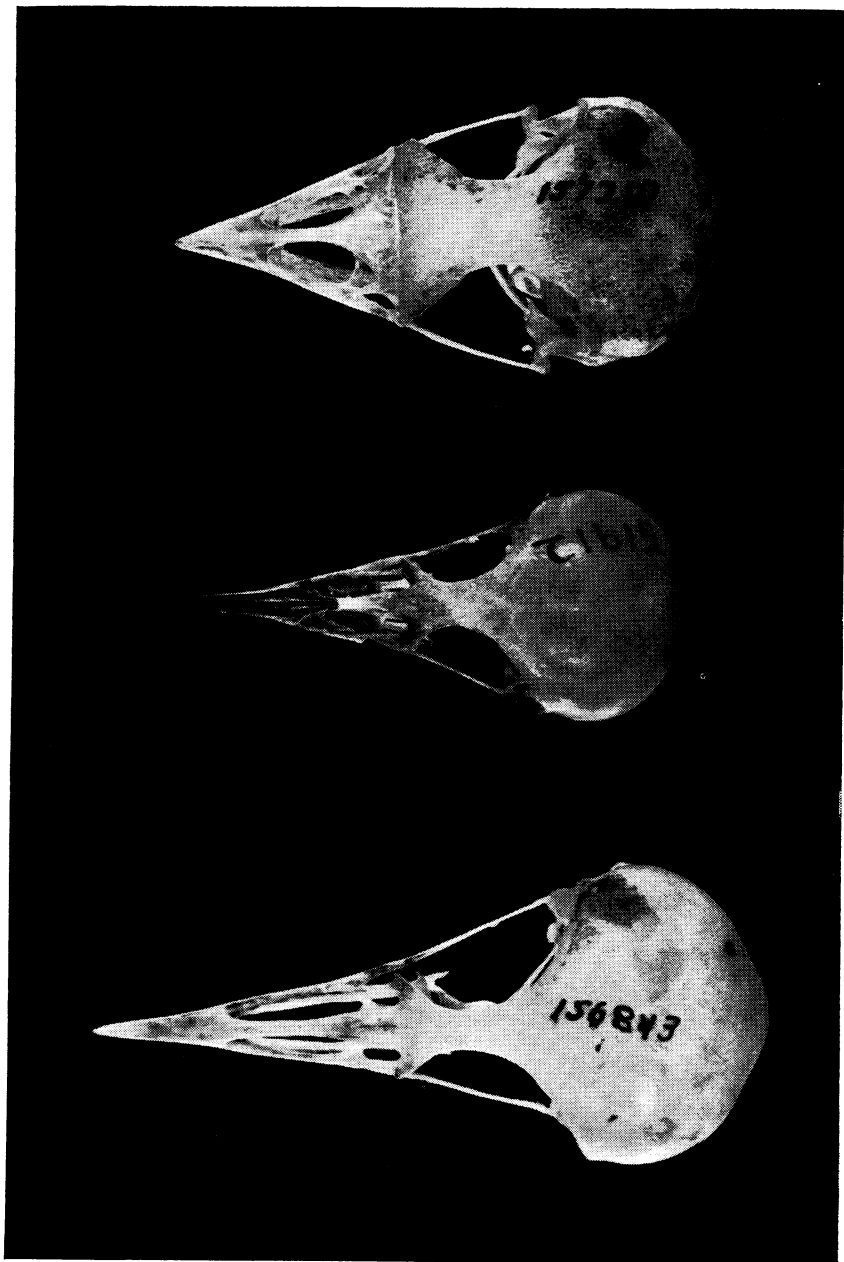


FIG. 3. Dorsal views of skulls (same as in Fig. 1).

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