Rhinolophus paradoxolophus (Bourret, 1951)

Bourret’s Horseshoe Bat

Rhinomegalophus paradoxolophus Bourret, 1951:607. Type locality “la grotte de la Roche-percée, près de Chapa [Sapa], Province de Lao-Kai [LaoCai], Tonkin, 1,700 m,” Vietnam.


CONTEXT AND CONTENT. Order Chiroptera, suborder Microchiroptera, family Rhinolophidae, philippinensis group as defined by Tate (1943); in the trifoliatus group as defined by Corbet and Hill (1992) in which they included R. luctus, R. macrotis, R.marshalli, R. mitratus, R. philippinensis, R. rex, R. sedulus, and R. trifoliatus of the Indomalayan Region and R. macroura of west Africa; in the philippinensis group proposed by Bogdanowicz (1992) and Bogdanowicz and Owen (1992) in which they included R. macrotis, R. marshalli, and R. philippinensis separate from the trifoliatus group (R. luctus, R. sedulus, and R. trifoliatus). Guillen et al. (2003) placed R. paradoxolophus along with R. macrotis and R. marshalli in a subgenus distinct from the R. trifoliatus group. Although described as a separate genus Rhinomegalophus by Bourret (1951), both Hill (1972) and Thonglongya (1973) argued that the taxon should be treated as a species of Rhinolophus. Recent summaries retain this arrangement (Corbet and Hill 1991; Koopman 1993; Nowak 1999). The genus Rhinolophus includes more than 60 species (Corbet and Hill 1992) and needs revision. R. paradoxolophus is monotypic.

DIAGNOSIS. Rhinolophus paradoxolophus (Fig. 1) is most similar in ear, antitragal, and noseleaf features to the larger Rhinolophus rex (Hill 1972; Thonglongya 1973). R. paradoxolophus is distinguished from R. rex by its narrower, taller antitragus and narrower sella and its smaller external measurements and skull size (Thonglongya 1973). Cranium of R. paradoxolophus (Fig. 2) resembles R. rex but is smaller with slightly more-rounded nasal swellings on skull and more-strongly developed postorbital zygomatic process (Thonglongya 1973). R. paradoxolophus has narrower, longer antitragus and longer sella than R. marshalli and is larger externally and in skull size. Selected measurements (in mm) of R. rex, R. paradoxolophus, and R. marshalli, respectively, from Thonglongya (1973) and Hill (1972) are: length of forearm, 59–63, 54.0, 45.5; length of ear, 35, 27, 27; height of antitragus from meatus, 17, 18, 13; width of antitragus at emargination of ear, 10.2, 7.5, 10; width of cup at base of sella, 9.6 (n = 4) and 6.5 (n = 1) for R. paradoxolophus and R. marshalli respectively; height of sella from cup, 10.1, 8.5, 6.0; width of sella at base, 4.6, 5.2, 4.4; width of sella at top, 7.0, 5.5, 4.0; greatest length of skull, 22.1, 21.1, 19.3; condylo-canine length, 20.0, 18.2, 17.0; zygomatic width, 9.9, 9.7, 9.1; mastoid width, 11.2, 10.5, 9.1; length of upper toothrow, C–M3, 7.8, 7.1, 6.8.

GENERAL CHARACTERS. Rhinolophus paradoxolophus is an unusual rhinolophid with very large ears and very large antitragal lobes, along with great expansion of interimal region of noseleaf into a broad, cup-like structure above anterior leaf. Cup-like structure passes beyond base of sella to join base of connecting process. Sella is high and wide and obscures both the low connecting process and the low, rounded posterior noseleaf.