

ON TEMMINCK'S BAT, *SCOTOPHILUS TEMMINCKII*.

BY

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I have recently examined this form with some care and find it in close alliance with the genera *Atalapha* and *Dasypterus*. The number of the teeth is the same as in the genus last named. *Scotophilus* possesses but two upper incisors, placed at the sides of the canines. The upper molars possess a rudimentary hypocone. The shape and proportions of the last upper molar are almost precisely the same as in the atalaphines, viz., the tooth is composed of the anterior limb of the first V. A rudimental hypoconid characterizes the lower molars, and all cusps are blunted, *i. e.*, nonaciculate. The bicuspidate type of the much-crowded lower incisors is obscure in the first and second while absent in the third tooth. The transverse ridge of the outer surface of the fragus, the shape of the external basal lobe of the auricle, and the proportions of the digits are similar in *Scotophilus* and the American genera, and the markings on the wing membranes are of the same character, although more simple in the former. The ulna, in being confined to a fixed proximal rudiment without shaft, is also identical. The distal ulnar rudiment is of the quadrate-perforate type instead of being uncinat, as in the atalaphines (occasional examples in *A. noveboracensis* excepted). The pisiform is elongate and lies alongside of the proximal end of the fifth metacarpal bone.

Among the distinctive characters of *Scotophilus*, as compared with the atalaphines, may be mentioned the following: The mastoid process is trenchant and bold, almost as much so as in *Noctilio*, where this disposition attains its highest development. The temporal crest is high posteriorly. The nostril is circular and without dissepiment. The lower lip is provided with a triangular naked space, which is divided by a longitudinal groove. The thickened upper lip is separated from the muzzle by a faintly marked transverse groove.

As compared with *Nycticejus*, there may be said to be a general resemblance only. In *Scotophilus* the anterior palatal notch reaches a line which intersects the posterior margin of the premolar. The palate extends back beyond the middle of the zygoma. In *Nycticejus* the anterior palatal notch reaches barely to the hinder border of the canine. The palate extends to the anterior third of the zygoma. In addition to these characters, and as contrasted to *Scotophilus* and the atalaphines,

*Nycticejus* possesses a third upper molar which is almost a complete W, lacking indeed only the outer part of the hind limb of the second V. The lower molars have large hypoconids (in the first molar subequal to the proconid) and all cusps are markedly aciculate. The scarcely crowded lower incisors are tricuspitate throughout. Now, these characters in *Nycticejus* are much the same as in the *Vesperugo* group of vespertilionines, with which I incline to place it. It is to the northern fauna what *Rhogessa* is to the southern.

The coloration of *S. temminckii* is as follows: Above, the crown is of a dull-buff or dark-olive color. In one individual a buff spot was found back of the ears, but in these localities the buff is apical, the base of hair being dark brown. Elsewhere on the dorsum the base of the hair is of the color of the crown but occasionally darker, while the apical half is a rich olive brown. Toward the rump the basal and apical colors are not so well defined. Beneath, the fur is everywhere white or ash (in some individuals verging to fawn) and is uncolored.

It is likely that the olive-brown shades are best marked in the immature individuals and the buff shades in the fully adult. Five specimens were examined in all.