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**NOTE ON THE COTYPES OF VESPERTILIO HARPIA
TEMMINCK, 1840 (MAMMALIA, CHIROPTERA,
GENUS HARPIOCEPHALUS)**

by

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In a revision of vespertilionid bats the late Dr. G. H. H. Tate (1941, pp. 581-582) after examination of the skull of cotype "a" of *Vespertilio harpia* in the collection of the Leiden Museum, originally described by Temminck (1840, pp. 219-220, pl. 55 figs. 5-6), arrived at the following conclusion: "It becomes clear, upon later study of photograph and notes, that the skull was that of *Myotis* sp., and not a *Harpiocephalus* at all In view of the undoubted error in the skull it would be well for the authorities at Leyden to decide whether the specimen in question is actually the type of Temminck's *harpia* or not."

Though, as a rule, rectification of an erroneous interchange of skulls and skins in an old collection is difficult to ascertain, the present paper solves the above mentioned problem. When studying the bats of Surinam in the Leiden Museum, I investigated also the type specimen of *Vespertilio ferrugineus* described from Surinam by Temminck (1840, pp. 239-240, pl. 59 (not 58) fig. 2). Though this description was based on "plusieurs individus conservées à l'esprit de vin", apparently only one specimen was preserved, as a mounted skin, but it remains unknown at what date this skin was prepared from the alcoholic specimen. With the dried skin there is a mounted skull, which, according to the pencil note on the underside of the board, should belong to the type specimen of *V. ferrugineus*. I discovered, however, that this skull exactly agrees with the description of *Harpiocephalus harpia*, so that it became necessary to examine the material of this species in the Leiden Museum. The following specimens are present.

1. Cotype "a", mentioned by Jentink (1887, p. 280; 1888, p. 186): mounted skin and skull, sex unknown; collected by S. Müller on the S. E.

side of Mount Gede, W. Java, between 1826 and 1836. This specimen was examined by Tate (1941, p. 581). New reg. no. 13471.

2. Cotype "b" (see Jentink): mounted skin still containing the skull, sex unknown. Though this specimen was also placed at Dr. Tate's disposal during his visit to the Leiden Museum in June, 1937, he did not publish notes on it. Locality and collector are the same as those of cotype "a". New reg. no. 13470; skull extracted and cleaned March, 1955.

3. Alcoholic specimen, ♀; collected October, 1891, by Mr. J. D. Pasteur on Mt. Gede, W. Java. Reg. no. 13472, skull extracted and cleaned March, 1955. This specimen was not mentioned by Tate.

Among the bats of the Bartels Collection from West Java, acquired by the Leiden Museum in 1954, there are two specimens of *Harpiocephalus harpia*, namely,

4. Skin and skull, ♂; Mount Pangrango, N.E. Mt. Gede, W. Java, April 21, 1935; coll. no. 1556 (Max Bartels, Jr.), reg. no. Leiden 14984.

5. Skull only, ♂; Tjigoenoeng river, south Mt. Gede, May 29, 1934 (?); coll. no. 371 (Max Bartels, Jr.), reg. no. Leiden 15324.

After the study of the above mentioned material it appears justified to regard the skull labelled as the type specimen of *Vespertilio ferrugineus* as the actual skull of cotype "a" of *V. harpia*. This conclusion is still more acceptable since the skull of cotype "a" closely agrees with that of the second specimen of *V. ferrugineus* in the Leiden Museum (Jentink 1887, p. 281), a mounted skeleton, but damaged and incomplete. In my opinion, therefore, it is absolutely certain that the skulls of the two type specimens have been interchanged. I presume that the error was caused by Jentink when preparing his "Catalogues", because Dobson (1878, p. 297) still gives a correct description of the skull of *Vespertilio ferrugineus*; this author mentions characters of the skull which are not noted by Temminck. Since Dobson gives information about the type specimen only, it is improbable that he studied also the above mentioned skeleton; unfortunately the date of acquisition of the skeleton is unknown. In a revision of the bats of Surinam to appear in the near future I intend to deal with the systematic position of *Vespertilio ferrugineus*; here I only want to state that *V. ferrugineus* belongs to the genus *Myotis*, and not to *Eptesicus* as supposed by Miller & Allen (1928, p. 20).

In order to avoid future complications I selected cotype "b" of *Vespertilio harpia* as lectotype of the species. The skin of the lectotype is slightly damaged and discoloured; in the present state the colour of the dorsal surface is light cinnamon-brown, and that of the ventral surface brownish buff. The paratype, formerly cotype "a", has an entirely similar colouring.

Measurements (in millimeters) of lectotype, paratype, and three other topotypic specimens of *Harpiocephalus harpia harpia* (Temminck) from Mount Gede and Mt. Pangrango, W. Java.

Reg. no. Museum Leiden	13470 ¹⁾	13471 ²⁾	13472 ³⁾	14084 ⁴⁾	15324
Sex	—	—	♀	♂	♂
Forearm	45	49.5	48.5	45.6	—
Thumb with claw	9	8.5	10	10.5	—
Second finger, metacarpal	41	50	46	—	—
Third finger, metacarpal	43.5	47.5	48	45.5	—
first phalanx	18.5	22.5	20.5	19	—
second phalanx	17	21	19.5	18.5	—
third phalanx	6	7.5	7	6	—
Fourth finger, metacarpal	41.5	45.5	45.5	43	—
first phalanx	12.5	15	13	12.5	—
second phalanx	12.5	14	15	13	—
Fifth finger, metacarpal	41.5	46	46	43.5	—
first phalanx	12	14	13	12	—
second phalanx	11	14	14	12	—
Ear, from meatus	13	13	14	13	—
breadth	12	—	13	11.5	—
tragus	7.5	—	8.5	7	—
Tibia	20	21.5	22	19.5	—
Foot, with claw	11	12	10	11	—
Calcar	17	18	15	17	—
Tail from anus (approximately)	45	—	47	—	—
Skull, greatest length	20.4	—	21.4	21.3	21.6
condylobasal length	18.8	—	19.7	19.8	19.4
condyle to front of canine	18.3	—	19.1	18.9	18.8
basal length ⁵⁾	—	—	17.5	17.5	17.3
palatal length ⁶⁾	11.0	—	11.7	11.5	11.1
zygomatic breadth	13.1	13.6	13.1	13.3	13.5
breadth of braincase	9.5	—	9.2	10.1	9.6
height of braincase ⁷⁾	8.6	—	8.8	8.7	8.8
mastoid breadth	10.5	—	10.8	11.2	—
interorbital constriction	5.5	5.6	5.3	5.7	5.6
lacrymal breadth	5.8	6.1	6.2	6.1	6.0
width across molars m ² -m ²	7.2	7.3	7.3	7.3	7.3
width across cingula canines	6.2	6.5	6.7	6.6	6.6
upper tooth-row, c-m ³	6.7	6.8	6.8	6.9	6.7
lower tooth-row, c-m ₃	7.8	7.8	7.8	7.8	7.7
length of mandible	14.5	15.6	15.1	14.9	14.9
coronoid height of mandible	7.6	8.6	7.8	8.0	8.0

1. lectotype, dried skin
2. paratype, dried skin
3. alcoholic specimen
4. dried skin with folded wings
5. from front of incisors
6. from front of incisors, measured in median line
7. without sagittal crest

For synonyms, distribution, and geographical races of the species I refer to Tate (1941, p. 582), to Ellerman & Morrison-Scott (1951, p. 187), and to Laurie & Hill (1954, p. 75); for the description to Dobson (1876, pp. 155-157, figs. a-c; 1878, pp. 281-282, pl. xvii fig. 2), and to Tate (1941, p. 581). Though the last mentioned author noted that "the skin is clear orange rufous, below buffy", it is worth while to note that judging by Bartels's specimen no. 1556 the tips of the hairs on the dorsal surface are clear orange rufous, but that their basal parts are whitish or greyish; accordingly the coat colour is not uniformly orange rufous, but shows slight differences in various parts of the back. The ventral surface also is not uniformly buffy: the throat is more whitish while the sides are tinged with more light brown.

The perfect description of skull and teeth given by Miller (1907, pp. 230-231, pls. i fig. 4 and ii fig. 4) and by Tate (1941, p. 581) make further information superfluous.

Under the synonyms of *Harpiocephalus harpia*, Sody (1929, p. 62) mentions *Vespertilio harpyia* S. Müller, which is a nomen nudum, though he did not recognize it as such. It is, therefore, interesting to note that according to Sherborn (1922, p. lxviii, "Holland") Müller's paper, which contains a report on the vespertilionid bats of Java, was published in 1839, whilst the corresponding part of Temminck's Mammalogie appeared in 1840 (Sherborn, 1922, p. cxxii). Because Müller (1839, p. 23) gives only a list of species without any diagnostic characters, his name *harpyia* is to be considered a nomen nudum.

In the table (pag. 123) external and cranial measurements are given of the lectotype of *Harpiocephalus harpia harpia* and of the four other specimens mentioned above. All specimens are to be considered topotypic.

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