

NOTE ON THE VALIDITY OF *SCOTOPHILUS*
CASTANEUS, (MAMMALIA, CHIROPTERA,
VESPERTILIONIDAE)

by

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While reviewing the insect-eating bats deposited in the collections of CTNRC, I have noted a subspecies of the genus *Scotophilus* Leach (1822), which does not appear to me to be valid.

At present, only two *Scotophilus* species are recognized in SE Asia; the larger, *Scotophilus heathi* (Horsfield, 1831); and the smaller, *Scotophilus kuhli* Leach (1822). The latter was long time known as *Scotophilus temmincki* (Horsfield, 1824). PETERS (1866, p. 679), regarded *kuhli* as "equal to *temmincki* Horsfield", and DOBSON (1875, p. 368) claimed that the specific identity of *kuhli* could not be determined. TATE (1942, pp. 283-285) discussed *kuhli* at some length and suggested to pass by the name *kuhli* and used *heathi* for the larger form and *temmincki* for the smaller. Finally, ELLERMAN & MORRISON-SCOTT (1953, p. 178) accepted Tate's opinion and rejected the name *kuhli*. However, HILL (in PETERSON, 1968, p. 1081) clearly shows that the epithet *kuhli* Leach (1822) is valid and was published two years prior to *temmincki* (Horsfield, 1824). Subsequently, HILL & THONGLONGYA (1972, pp. 191-192) used *kuhli* for the smaller race and if *temmincki* is really distinct, it might be regarded as a subspecies of *kuhli*.

The name *Scotophilus castaneus* has been regarded as a race of *kuhli*; hence the correct name should be *Scotophilus kuhli castaneus*. This race was reported from the Malay Peninsula and the adjacent countries. After checking the literatures concerned, I am in doubt if this name is also valid. From the literatures available, the application of the name *castaneus* may be divided into three groups according to the authors and type localities.

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1. The authors who regarded *castaneus* as described by GRAY (1830, uncorrected, see reason below), and gave India as type locality are J.E. GRAY (1838, p. 498); G.E. DOBSON (1876, p. 120, and 1878, p. 258), Dobson treated *castaneus* under the synonym of *temmincki* Horsfield (1824); and E.L. TROUESSART (1899, p. 118).

However, BONHOTE (1903, p. 17) showed that he could not find Gray's description of this species in the Illustration of the Indian Zoology which had been quoted by authors mentioned above. SAWYER (1953), who published all species of animals referred to in the Illustr. Indian Zool., did not mention this name either. The only bat that I found in Gray's Illustr. Indian Zool., vol. 1, is *Dysope murinus* (= *Tardarida plicata* Buchanan, 1800). It is evident that the name *castaneus* as proposed by GRAY (1830), is a *nomen nudum*.

2. The authors who referred to *castaneus* as mentioned by GRAY (1838, p. 498) with Malacca as type locality are C.D. SHERBORN (1924, p. 1129); F.N. CHASEN (1940, p. 55); ELLERMAN & MORRISON-SCOTT (1953, p. 178); SIDDIQI (1960, p. 452); and LORD MEDWAY (1965, p. 66). These authors claimed that Gray first used the epithet *castaneus* in 1838, A Revision of the Genera of Bats. Nevertheless, I have already mentioned that Gray did not give a description and did not indicate Malacca as the type locality in his paper. However, Gray did list only the name *castaneus*, referring to the earlier paper (1830) in which he thought he had already described. I do not understand why these authors regarded Gray's paper (1838) as the original description in which Gray only mentioned on page 498, lines 3 and 4,—

"*Scotophilus castaneus*, Gray. & *sp. castaneus*, Gray. Illustr. Ind. Zool. Inhabits India. General Hardwicke"

Later, GRAY (1843, p. 30) referred to a specimen under the name *Scotophilus temmincki* and its type locality:

"a. India; Calcutta,—presented by General Hardwicke".

Therefore the application of Gray's paper (1838) as the original description of *castaneus* with Malacca as its type locality should be rejected accordingly.

3. The authors who regarded HORSFIELD (1851, p. 38) as the original description with Malacca as the type locality are BONHOTE (1903,

p. 17); WROUGHTON (1918, p. 595); SODY (1929, p. 60); OSGOOD (1932, p. 229); and TATE (1942, p. 286). Among these, Bonhote did not give the type locality; Wroughton did not give the original paper; Osgood gave both; Tate gave the type region from "*Singapore, Penang, Malay Peninsula and islands*". But all assumed that HORSFIELD (1851) was the author of the description of *Scotophilus castaneus* of which account is given on page 38 as follows :—

"55. *NYCTICEJUS CASTANEUS*, Gray.

Scotophilus Temmincki, Cantor, *Cat. Mammal. Malay. Pen. & c.*, p. 15.

KLAWAH, of the Malays.

HAB. Singapore, Penang, Malayan Peninsula and Islands.

A. Presented by Dr. Cantor.

B. Presented by the Asiatic Society of Bengal.

The characteristic feature of this species is a uniform deep chestnut colour of the body, above and beneath; the membrane also is dark coloured, inclining to black, and the head is blackish. Size of *N. Temmincki*. There is a considerable family resemblance between the four species of *Nycticejus* here enumerated, but the peculiarities respectively are sufficiently strong to entitle each to a specific rank."

It seems to me that the habitat given by Horsfield as above was taken from CANTOR (1846, p. 185).

When I examined the types of the bats deposited in the collections of the British Museum (Nat. Hist.), I found a specimen in the type's cabinet, supposed to be the type of *Scotophilus castaneus*. There are two labels on this bat. On the larger one is written "*Type of N. castaneus, Horsf., Cat. Mus. E.I.C., p. 38, 1851*" on one side, and, "*N. castaneus was never described by Gray, & is not in Ill. Ind. Zool. Therefore the name stands from Horsfield's Cat. This is the type*" on the other side. On this, it seems to me that this label might be written by Bonhote when he worked in 1903 and tied with the animal in that year. The other label was smaller, and on it is written "*Brit. Mus. Reg. 79. 11. 21. 116, Scotophilus temmincki Malacca, Ex. Coll. Cantor, Ind. Museum*", on one side, and "*'Klawah' of Malays, Horsf. Cat., Nycticejus castaneus Gray. Type of Nycticejus castaneus Gray. Skull.*", on the other side.

It is to be suspected from the latter label that it might be the original label since there are two different kinds of ink on it. The words *Nycticejus Gray* may be written by Horsfield himself but the word "*Type of Nycticejus castaneus Gray*" may be written by some body from the British Museum (Nat. Hist.), probably by Bonhote when he worked this specimen in 1903.

From the facts given above, it can be concluded that the name *castaneus* was never proposed by Gray in 1830 and it was also not named by Gray in 1838. HORSFIELD (1851) did not propose *castaneus* for the bat received from Dr. Cantor.

The race of *Scotophilus kuhli* from Malay Peninsula is said to differ from *gairdneri* Kloss (1917, p. 284), from the central part of Thailand, by brighter brown above, less olive and darker underpart (as dark as the back, but fawn colour or whitish in *gairdneri*). However, I have no specimen of *temmincki* (Horsfield, 1824) from Java to compare with the Malayan race. But I feel that the description "*deep chestnut*" is merely a variation rather than a constant found in this bat. In fact, it is necessary to use only fresh materials for comparison.

However, if the name *castaneus* Horsfield is accepted among the zoologists, the original description should be in *A Catalogue of the Mammalia in the Museum of the Hon. East-India Company*, 1851, p. 38, with type locality (taken from the label) from Malacca. The type is now in the British Museum (Nat. Hist.), Reg. no. 79. 11. 21. 116.

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