# TYPE-SPECIMENS OF MURINA CYCLOTIS DOBSON, 1872 (CHIROPTERA: VESPERTILIONIDAE) AND THEIR CURRENT REPOSITORIES

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# **INTRODUCTION**

Dobson (1872) while describing his *Murina cyclotis* states, 'Besides the original specimen sent by Major Sherwill others have since been received by the Museum from Captain Elwes, Dr. Stoliczka, and Mr. Mandeli, but all have been obtained at Darjeeling' Four years afterwards, however, the same author (Dobson 1876), while cataloguing the specimens of bats in the Indian Museum, Calcutta, lists (Dobson's Catalogue Number 696) a spirit-preserved female specimen of *H.[arpiocephalus] cyclotis* of unknown locality, donor and date as the '(Type)' of *H. cyclotis* (= *Murina cyclotis*). Anderson (1881) in his catalogue of the mammals of the Indian Museum enlists (Anderson's Catalogue Number 166a) an adult female specimen of unknown history as the type of the same taxon. Wroughton (1918) states that the type-locality of *Murina cyclotis* is unknown. Both Tate (1941) and Khajuria *et al.* (1977) agree that the type-locality of *Murina cyclotis* is Darjiling.

Further, Dobson (1872, 1876, 1878), Anderson (1881) and Wroughton (1918) all agree that the type-specimen of *Murina cyclotis* Dobson, is in the Indian Museum, Calcutta. However, according to Tate (1941), the type-specimen in question is in the British Museum, London. Again, Khajuria *et al.* (1977) list the holotype of *Murina cyclotis* to be present in the Zoological Survey of India, the institution which received the entire collection of mammals from the Indian Museum.

It would, therefore, follow that the exact identity of the type-specimen of *Murina* cyclotis Dobson, including its place of origin, donor, date and the current reporitory are in a state of confusion. The present short communication aims at removing this confusion.

#### HOLOTYPE

From the statement of Dobson (1972) quoted at the very beginning, it is quite clear that the place of origin of the 'original specimen' (= holotype) of *Murina cyclotis* is Darjiling and its donor is one Major Sherwill. Blyth (1863) lists (Blyth's Catalogue Number 107A) one specimen of *Murina suilla*, preserved in spirit, sent by Major W. S. Sherwill from 'Dorjiling' (= Darjiling) in the year 1853. Dobson (1876) further lists (Dobson's Catalogue Number 698) a male specimen of *H. cyclotis* from Darjiling and

mentions Major Sherwill as the donor, 1853 as the date, and states that this specimen is the same as Blyth's (1863) No. 107A. Thus, the particulars of this specimen as are available from Blyth (1863) and Dobson (1876), are as follows: a male specimen preserved in spirit, sent by Major W. S. Sherwill from Darjiling, in the year 1853. These particulars are in conformity with the 'original specimen' of Murina cyclotis as given by Dobson (1872) in the original description. Contrary to these, Dobson (1876) puts no information under the columns 'How preserved' and 'Remarks' for this specimen where 'In spirit' and '(Type)' respectively would have been the legitimate entries. To make the situation worse, another specimen (Dobson's Catalogue Number 696, mentioned earlier), a female whose locality, date and donor are not known according to the author (but see below), has been listed as the type-specimen. This, obviously, is due either to printing error or to an error in the manuscript itself. The former possibility appears to be more acceptable, for one who has written that the typespecimen is from Darjiling and the donor is Major Sherwill (Dobson 1872) is not expected to express his ignorance as to the locality and donor of the same specimen only four years afterwards (Dobson 1876), especially when one refers the specimen in question to Blyth's Catalogue Number 107A against which further details of the donor, and the date are clearly mentiond. Furthermore, that there has been at least one major printing mistake (transposition of one manuscript page) in Dobson's (1876) 'Monograph of the Asiatic Chiroptera' ('Catalogue of specimens of the species of Chiroptera in the collection of the Indian Museum' forms the second part of the same book), has been detected by Dobson (1878, foot-note on page 280) himself.

The error mentioned above has been perpetuated by Anderson (1881) who states that an adult female specimen (Anderson's Catalogue Number 166a) of unknown history, is 'The type' of *H. cyclotis*, but also lists (Anderson's Catalogue Number 166c) an adult male preserved in alcohol, Darjiling as the locality, Major Sherwill as the donor and 1853 as the date, and refers it to Blyth's Catalogue Number 107A. Wroughton (1918), following Anderson (1881), also gives the type-locality of *Murina cyclotis* as unknown. Khajuria *et al.* (1977) also consider the same specimen (166a, Zoological Survey of India Registration Number 15605) as the holotype of *Murina cyclotis* Dobson. According to these last-named authors, the type-locality is, however, Darjiling, but the donor and date of this specimen are not known.

From the foregoing discussion, it can be concluded that the specimen bearing Blyth's Catalogue Number 107A, Dobson's Catalogue Number 698 and Anderson's Catalogue Number 166c –an adult male sent from Darjiling in 1853, by Major W. S. Sherwill and preserved in spirit, is the holotype of *Murina cyclotis* Dobson, 1872, and not the specimen bearing Dobson's Catalogue Number 696, Anderson's Catalogue Number 166a and Zoological Survey of India Registration Number 15605 whose place of origin, donor and date are either totally (according to Dobson 1876 and Anderson 1881) or partially (according to Khajuria *et al.* 1977) unknown (but see below).

#### **PARATYPES**

Besides the 'original specimen' (= holotype) discussed above, Dobson (1872) had before him at least three other specimens of the same taxon from three different donors, viz., Captain Elwes, Dr. Stoliczka and Mr. Mandelli\*, and all from Darjiling. No doubt these three specimens were also utilised by the author in describing Murina cyclotis. These three specimens, therefore, are to be considered as the paratypes of Murnia cyclotis Dobson, 1872.

The particulars of these specimens (paratypes) are as follows (vide Dobson 1872, 1876; Anderson 1881; Khajuria et al. 1977):—

- (1) Dobson's Catalogue Number 696, Anderson's Catalogue Number 166a, Zoological Survey of India Registration Number 15605, adult female in spirit, Darjiling, Dr. F. Stoliczka or Mr. L. Mandelli, between 1863 and 1872.
- (2) Dobson's Catalogue Number 697, Anderson's Catalogue Number 166b, adult unsexed, perfect skeleton prepared in 1872, Darjiling, Dr. F. Stoliczka or Mr. L. Mandelli, between 1863 and 1872.
- (3) Dobson's Catalogue Number 699, Anderson's Catalogue Number 166d, adult unsexed, dried skin (mutilated specimen), Darjiling, Captain J. H. Elwes\*\*, 1870.

Since Blyth (1863) did not list these three specimens which were available at Dobson's (1872) disposal, the dates of these specimens would naturally be between 1863 and 1872. In fact, the date of the last specimen is 1870.

## TYPE-REPOSITORIES

All the primary types (holotype and three paratypes) of *Murina cyclotis* Dobson were at the Indian Museum at least up to the year 1881 (Anderson 1881). These specimens were present at the same place possibly as late as 1907 when the type-specimens of bats of the Indian Museum were loaned out to the British Museum, London, for Knud Andersen's study (Hill 1987). It might have so happened that all the four type-specimens of *Murina cyclotis* (in fact, the entire collection of *Murina cyclotis* at the Indian Museum at that time) were sent to London. The second possibility is – by judging from the data available with the specimens themselves at that time, the specimen donated by Major Sherwill was considered as 'the type' and only that specimen was sent to the British Museum.

In any case, the holotype of *Murina cyclotis* was never received back at the Indian Museum, but remained at the British Museum and was subsequently incorporated in the

<sup>\*</sup> Dobson (1872) gives the spelling as 'Mandeli'

<sup>\*\*</sup> Both Anderson (1881) and Sclater (1891) give 'H. J. Elwes' in their respective lists of donors and contributors, but Anderson (1881) while listing the specimen, gives the name as 'J. H. Elwes'

collection of that museum, bearing Registration Number BM 9.4.4.4 (Tate 1941). Incidentally, Hill (1987) reports another case of retention of Chiropteran type-material of the Indian Museum at the British Museum and subsequent incorporation in the collection of that museum (one of the syntypes of *Rhinolophus yunanensis* Dobson, 1872, BM (NH) 9.4.4.3).

Of the three paratypes of *Murina cyclotis*, only one (Dobson's Catalogue Number 696, Anderson's Catalogue Number 166a, Zoological Survey of India Registration Number 15605, an adult female preserved in spirit, obtained at Darjiling and donated by Dr. F. Stoliczka or Mr. L. Mandelli, no definite date is available but surely any year between 1863 and 1872) is present in the National Zoological Collections of India housed in the Zoological survey of India, at the moment. The other two paratyeps, are not traceable in the National Zoological Collections of India. If these two specimens are not present at the British Museum (Natural History), London, these are, in all probability, to be considered as lost.

The measurements (in millimetres) of the paratype of *Murina cyclotis* present in the National Zoological Collections of India, are given below:—

External: forearm 34.1; tail 32.5; ear 14.5; tragus 7.4; tibia 16.8; foot & claw 7.8.

Cranial: total length 16.4; condylobasal length 14.8; condylocanine length 14.2; mastoid width 7.4; cranial width 7.3; zygomatic width—; least inter-orbital width 4.2; canine width—; maxillary tooth-row 5.5; molar width 5.4; mandibular length 10.3; mandibular tooth-row 5.8.

#### **SUMMARY**

It is eatablished in this paper that the specimen regarded as 'the type' by Dobson (1876), Anderson (1881) and Wroughton (1918), and as the 'holotype' of *Murina cyclotis* Dobson, 1872, by Khajuria *et al.* (1977), is not the holotype. One of the three other specimens listed by Dobson (1876) and Anderson (1881) has been shown to be the holotype of *Murina cyclotis*. The controversy regarding the place of origin, donor and the date of acquisition of the holotype has been settled. The three other specimens mentioned above have been shown to be the paratypes of *Murina cyclotis*. The current repository of the holotype of *Murina cyclotis* is the British Museum (Natural History), London, while the Zoological Survey of India maintains one of the three paratypes, the fate of the other two paratypes being not precisely known.

# **REFERENCES**

Anderson, J. 1881. Catalogue of Mammalia in the Indian Museum, Calcutta. Pt. 1. Indian Museum, Calcutta.

- Blyth, E. 1863. Catalogue of the Mammalia in the Museum Asiatic Society. Asiatic Society of Bengal, Calcutta.
- **Dobson, G. E. 1872.** Notes on some bats collected by Captain W G. Murrary, in North-Western Himalaya, with description of new species. *Proc. Asiat. Soc. Beng.*: 208-210.
- Dobson, G. E. 1876. Monograph of the Asiatic Chiroptera, and Catalogue of the species of bats in the collection of the Indian Museum., Calcutta. Indian Museum, Calcutta; Taylor and Francis, London.
- **Dobson, G. E. 1878.** Catalogue of the Chiroptera in the collection of the British Museum. British Museum, London.
- Hill, J. E. 1987. A note on *Rhinolophus pearsonii* Horsfield, 1851 and *Rhinolophus yunanensis* Dobson, 1872 (Chiroptera: Rhinolophidae). *J. Bombay nat. Hist. Soc.*, 83 (suppl.): 12-18.
- Khajuria, H., Chaturvedi, Y & Ghoshal, D. K. 1977. Catalogue mammaliana: an annotated catalogue of the type specimens of mammals in the collections of the Zoological Survey of India. *Rec. zool. Surv. India, Occ. Pap.*, No. 7 1-44.
- Sclater, W. L. 1891. Catalogue of Mammalia in the Indian Museum, Calcutta. Pt. 2. Indian Museum, Calcutta.
- Tate, G. H. H. 1941. Results of the Archbold Expeditions. No. 40. notes on vespertilionid bats of the subfamilies Miniopterinae, Murininae, Kervivoulinae, and Nyctophilinae. Bull. Am. Mus. nat. Hist., 78: 567-597.
- Wroughton, R. C. 1918. Summary of the results from the Indian Mammal Survey of the Bombay Natural History Society. Pt. 2. J. Bombay nat. Hist. Soc., 26: 19-58.