

difference in the posterior extent of ceca, as taxonomically unimportant. Therefore *B. congeri* becomes a synonym of *B. australis*.

#### SUMMARY

The present study is a report based on a small collection of the digenetic fauna of marine fishes of Andaman. It consists of four species, *Hysterolecithoides frontilatus* (Manter, 1969), *Hamacreadium interruptus* Nagaty, 1941, *Mehracola ovocaudatum* Srivastava, 1937 and *Bivesicula australis* Crowcroft, 1947. New facts and records about these species have been noted in addition to the important taxonomical observations. *Bivesicula congeri* Yamaguti, 1970 has been considered as synonym of *B. australis* Crowcroft 1947. *Maculifer spiralis* Soota, Srivastava, C. B. and Ghosh, 1969 in the family Opisthoebetidae is nothing but *Hamacreadium mutabile* Linton, 1910 in the family Opecoelidae.

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**NEW LOCALITY RECORD OF *PIPISTRELLUS CAMORTAE* MILLER FROM CAR NICOBAR AND ITS SYSTEMATIC STATUS**

By

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(With one Text-figure)

Our knowledge of the bats of Andaman and Nicobar Islands is mainly based on the works of Dobson (1876, 1878), Blanford (1888, '91), and Miller (1902), especially the last, who gave a comprehensive account of the bats alongwith the other mammals of these islands. Subsequently, Ellerman and Morrison-Scott (1951) listed a number of species of bats from the area, which in recent years have been augmented by Hill (1967) and Chaturvedi (1969).

An abstract of this paper was published (Soota & Chaturvedi, 1971). The detailed observations are given here. A small collection of the bat, *Pipistrellus camortae* Miller, was made in Car Nicobar by the authors in the course of a general faunistic survey of the area in February-April, 1969 and these bats showed some interesting features of baculum having bearing on its systematic position.

***Pipistrellus camortae* Miller**

*Material.*—1 ♂ and 5 ♀; Tee Top, Car Nicobar, Andaman & Nicobar Islands; 16. iii. 1969. The specimens were collected from a high wooden platform supporting a water cistern in the premises of the Tee Top rest house, Car Nicobar.

*Measurements External.*—Head body 45-52\*, tail 33-36, hind foot 6-8, ear 10-12, forearm 32-34, tibia 11.4-13.8, penis 7.

*Cranial.*—Greatest length 12.7-13.0, condylobasal length 12.3-12.5, cranial width near posterior root of zygomatic arch 6.5-6.8, interorbital width 3.9-4.0, palatal length 6.3-6.7, palatal width 6.0-6.2, postmolar length 7.3-7.9, upper cheek teeth row ( $C^1-m^3$ ) 4.7-5.0, distance between upper canines 4.2-4.6, zygomatic width 8.4, mandibular length 9.8-10.0, lower cheek teeth row ( $c_1-m_3$ ) 5.0-5.1, length of rostrum 4.8-5.0, width of rostrum 5.7-6.0.

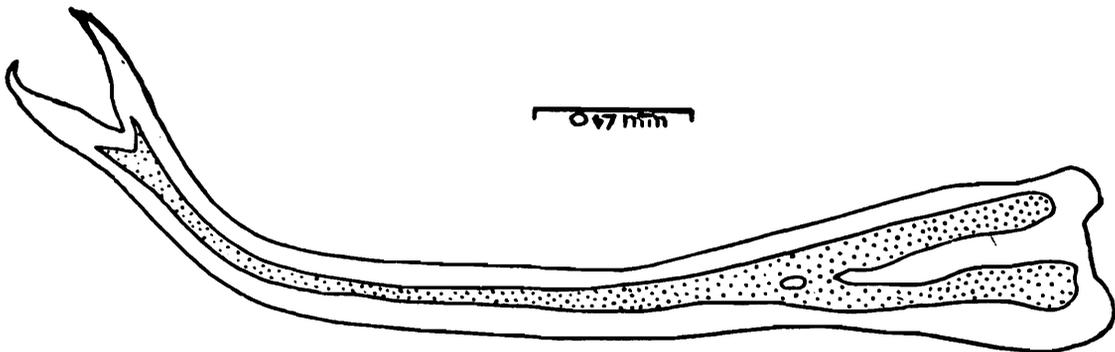
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• All measurements are in millimeters

The specimens are slightly larger than those of Miller (1902), and of Hill (1967), and also appear larger from *P. abramus* and *P. paterculus* as given by Tate (1942).

*Colour*.—Dorsal pelage dark brown and ventral slightly lighter with paler tinge. The individual hairs on the ventral side have dark brown base with paler tips.

*Baculum*.—It is 5.5 long and its maximum thickness is 0.66. It is straight except distal end which is raised and forked, with each prong measuring 0.605 in length. and with a maximum gap of 0.385 between them subterminally, the terminal ends of the prong being incurved, shaft gradually narrowing and reaching minimum (0.242) just behind the fork (Text-fig. 1).



Text-fig. 1. *Pipistrellus camortae* Miller, Ventro-lateral view of baculum.

While in general structure the baculum is pipistrellian, in size it comes close to *P. paterculus*, formerly referred to *Pipistrellus* but considered as *Myotis* by Tate (1942).

*Distribution*.—As the species has so far been reported only from Camorta and Great Nicobar Islands the present record extends its range further northwards.

#### SYSTEMATIC STATUS

The species *P. camortae* was originally described by Miller (1902) who also pointed out its resemblances with *P. abramus*. Although the resemblance with *P. abramus* was supported by Ellerman and Morrison - Scott (1951), they retained its specific status. Tate (1942) considered it "an unspecialised form of abramus group" on the basis of having much shorter penis. Hill (1967) treated *P. camortae* as a subspecies of *P. javanicus*. In view of these conflicting opinions the status of the species remains confused. It, therefore,

seems desirable to consider the various characters separately for fixing its systematic status.

In the following discussion, the measurements given for *P. abramus* and *P. paterculus* are after Tate (1942), and those for *P. javanicus* after Harrison (1964), and Hill (1967).

**Forearm.**—In Hill's (1967) specimens of *P. j. camortae* forearm averages 31.8 in length, which, according to him, "is lesser than *P. j. javanicus* (where it is 35-40) and also lesser than *P. abramus* (where it is 33-34 in types), but same as in *P. j. paterculus* (where it is 31 in type)." In our specimens it is 34 in four out of six examined, thus resembling *P. abramus*. It is important to note that Ellerman and Morrison - Scott (1951) treated *P. paterculus* as a subspecies of *P. abramus*, and even Hill (1962) once fully agreed with them in this respect.

**Upper cheek teeth row.**—In Hill's specimens as recorded by him upper cheek teeth row is shorter than in *P. j. javanicus* (and also in *P. abramus*, where it is 4.7-4.9). Although he distinguished his specimens from those of *P. paterculus* by "larger and more massive teeth" he failed to give any measurement in support of this. However, it is quite obvious that upper cheek teeth row is longer in his specimens (4.6-4.7) than in *P. paterculus* (where it is 4.5 in type). In our specimens it is 4.7-5.0, which is quite close to that of *P. abramus*.

**Baculum.**—This structure is of special significance especially in *abramus* group. While Thomas (1928) pointed out that in *P. abramus* it is doubly curved and in *P. paterculus* it is straight, a study of the material in the Zoological Survey of India reveals that it is doubly curved also in *P. paterculus* though differing slightly in measurements (Agrwal & Sinha, 1973). In our specimens it has been found that the baculum differs both from that of *P. paterculus* and also of *P. abramus* in being almost straight and smaller, in latter respect coming closer to *P. pequensis* Sinha (1969). Ellerman and Morrison-Scott (1951) treated *P. paterculus* as a subspecies of *P. abramus*. The present authors also hold the same view based now also on the similarities in baculum. Likewise, on the basis of dissimilarities in baculum, *P. camortae* should also be treated as a distinct species from *P. abramus*.

The above discussed facts show that while the forearm and cheek teeth row of *P. camortae* show its affinity with *P. abramus* measurements of its penis and baculum, and the structure of latter shows marked dissimilarity from *P. abramus*. Further, as already pointed out that *P. camortae* lacks the doubly curved baculum which is a very distinguishing character of *P. abramus*. Hence, we feel that *P. camortae* should be treated as a separate species.

#### SUMMARY

The paper deals with a small collection of *Pipistrellus camortae*

Miller from car Nicobar. Detailed description of its morphology and the study of the baculum are included. The distinct status of the species is considered.

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