

FIG. 1. Raw and unprocessed data of the flight/rest activity rhythm of a solitary male *Hipposideros speoris* bat recorded in a solitary cave for an extended period in time of 47 days under absolute darkness conditions,  $30^{\circ}\text{C} \pm 1^{\circ}$  and 45%-75% relative humidity. Bouts of activity represented by the vertical blotches made by the deflections of the felt-writing tip of the stylet and rest is represented by horizontal tracings. The onsets of activity occurred at the same time evening after evening and activity ceased in the early morning hours. The  $\tau$  (tau) of this rhythm free running in darkness and in social isolation is exactly 24 hours.

(circadian rhythms) with  $\tau$ s very close to (but not exactly) 24 hr. The law of parsimony dictates that we consider our 24 hr  $\rightarrow \tau$  bat as an unusual and isolated instance of a circadian system quite accidentally possessing and displaying a very uncircadian-circadian rhythm. We do not know if this individual bat has any pre-eminence (alpha male? leader animal?) in *Hipposiderid* social hierarchy.

The author thanks Mr. S. Rajan for results given in Fig. 1 and the Department of Science and Technology for a generous grant for a project. Part of the results discussed in this letter are obtained from

preliminary experiments carried out in connection with this project by Mr. G. Marimuthu and Mr. D. Joshi.

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2. Aschoff, J., "Exogenous and endogenous components in circadian rhythms." *Cold Spring Harbour Symposium on Quantitative Biology*, 1960, Vol. XXV.
3. Subbaraj, R., Ph.D. thesis submitted to Madurai University, 1979, and Sripathi, K., unpublished data.

#### **NEOLIGA SINGHI N. SP. (CESTODA: DILEPIDIDAE) FROM *MICROPUS AFFINIS* AT PARBHANI**

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THE genus *Neoliga* was established by Singh in 1952, with *N. diplacantha* as the type species obtained from common house swift, *Micropus affinis*.

Examination of intestines of common house swift, *Apus affinis* Madrasz, from Parbhani (Maharashtra, India), yielded four cestodes different from the one described by Singh<sup>1</sup> in the number of rostellar hooks 24, mature segments broader than long, in the number of testes 20 and body spinose and therefore is being described as a new species *Neoliga singhi* n.sp. All measurements are in mm.

The worms are very small, with about 12 segments and body covered with numerous minute spines. Scolex well marked broad at base and tapering anteriorly; measuring 0.171 in length and 0.168 in breadth. Prominent, armed rostellum is present with a well-developed rostellar sac (0.151  $\times$  0.007), reaching upto the posterior margin of the scolex, with two rows of hooks, 24 in number. Hooks are of two types, one large and the other small in size (0.065  $\times$  0.009 and 0.047  $\times$  0.006 respectively). Four large, almost round suckers occupy major portion of the scolex, measuring 0.079  $\times$  0.066 in diameter. Short neck present.

Mature segments are more broad than long, broad at posterior border, tapering anteriorly, measure

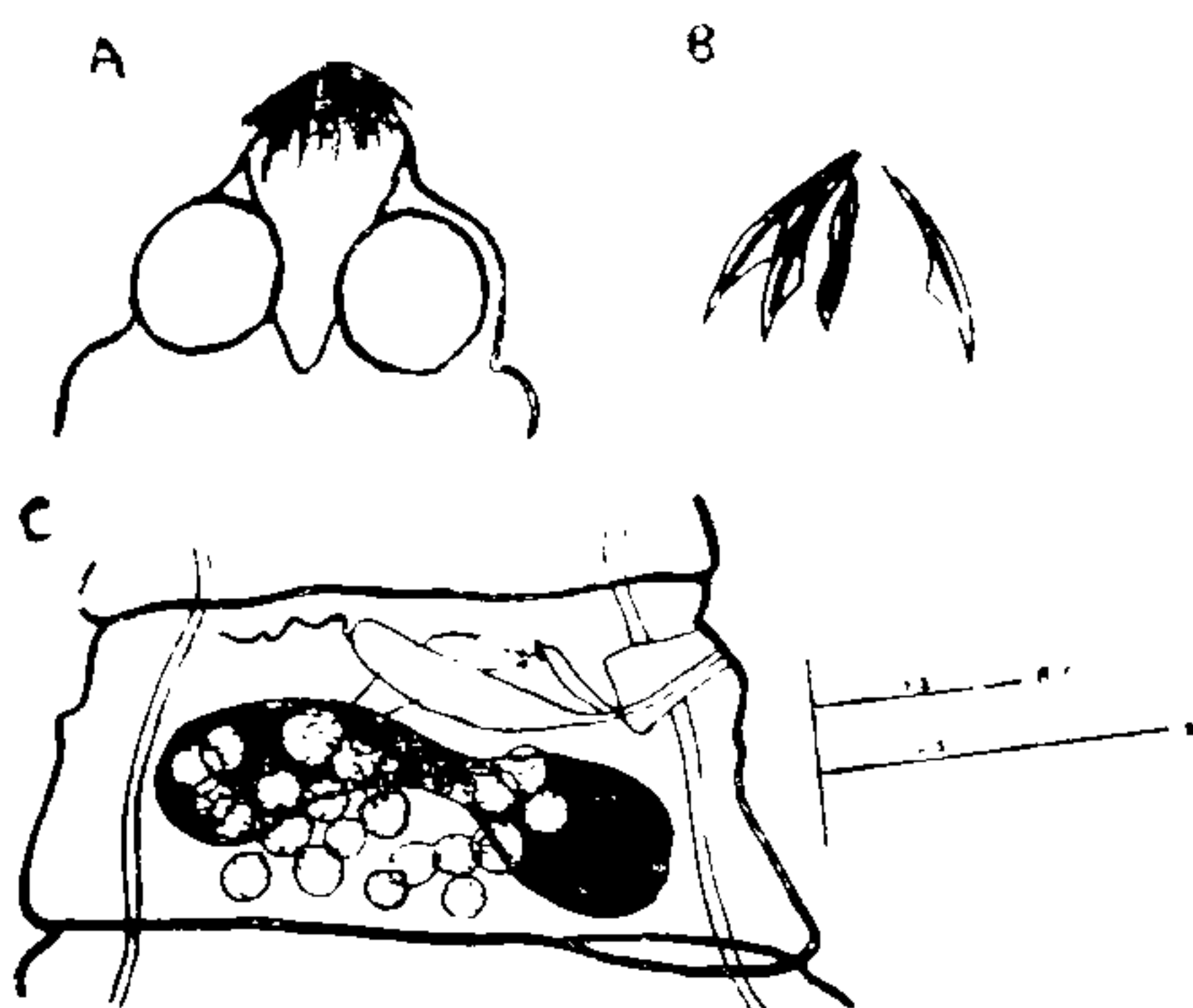


FIG. 1. *Neoliga singhi* n.sp. A. Scolex; B. Hooks; C. Mature segment.

0.162 in length and 0.285–0.362 in breadth (anterior and posterior borders respectively). Testes 20 in number, round posterior and dorsal to ovary, measuring 0.181–0.191 in diameter. Cirrus pouch is cylindrical, elongated, curved, extends towards the anterior margin of the segment, measuring 0.135 in length and 0.027 in breadth. The vas deferens is coiled.

Ovary bilobed, compact, in posterior two-third region, measuring 0.162 in length and 0.066 in breadth. The vagina is a curved tube, anterior to cirrus pouch. Vagina measures 0.054 in length and 0.007 in breadth. Receptaculum seminis is of medium size, obliquely situated, ventral to cirrus pouch, measures 0.100 in length and 0.025 in breadth. Vitelline gland is posterior to ovary, compact, irregular in shape, measuring 0.184 in length and 0.027 in breadth. Genital atrium is well developed, measures 0.055 in length and 0.036 in breadth. Genital pores regularly alternate, at one-third from the anterior margin of the segment.

*Neoliga singhi* n.sp. differs from *N. diplacantha* Singh, 1952 in having 24 rostellar hooks of two types; mature segments broader than long; testes 20, round, posterior and dorsal to ovary; cirrus pouch cylindrical, elongated and curved; cirrus without spines; ovary bilobed but each lobe compact, receptaculum seminis of medium size and whole body covered with numerous minute spines (26 rostellar hooks, similar in shape and size; testes 18–22, lateral, posterior and dorsal to ovary; cirrus pouch with rose thorn-shaped spines at the distal end; ovary bilobed but each lobe with short, blunt acini and the receptaculum seminis broad in the middle and tapering at both the ends in *N. diplacantha*).

The name *N. singhi* is proposed in honour of Dr. Kunwar Suresh Singh, Head of Parasitology Division, I.V.R.I., Izzatnagar (U.P.).

Host .. *Apus affinis* Madrasz  
Habitat .. Intestine  
Locality .. Parbhani, Maharashtra,  
India

Date of collection: .. March 25, 1978.

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#### OCCURRENCE OF *SPATHOTEREDO* MOLL (BIVALVIA : TEREDINIDAE) IN INDIA

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TEN genera comprising twenty-eight species of shipworms have been recognised as occurring in India<sup>1</sup> and the pattern of their distribution is known<sup>2-4</sup> indicating vast stretches of unexplored zones along our lengthy coastline. During the course of a recent survey of the timber destroying organisms in the backwater systems along the southwest coast of India, the occurrence of the genus *Spathoteredo* Moll which hitherto has not been recorded from India has been noticed.

One specimen was recovered from the trunk of *Cocos nucifera* submerged in shallow water at a stagnant inlet of the Ashtamudi backwaters on 30th January 1981. The locality is 0.5 km away from the barmouth opening into the Arabian Sea.

*Spathoteredo* Moll<sup>5</sup> is recognised by pallet blades made of fused segments which are hardly distinguishable or very closely packed with a pustulose calcareous incrustation at the distal end. A dark band of periostracum encircles the blade at the mid portion of it and the pallet stalk extends through the blade.

Dimensions of the specimen are, total length 9.3 cm; shell length 6.5 mm, shell height 7.0 mm; pallet length 5.4 mm, blade length 3.3 mm, blade width 2.8 mm and stalk length 2.1 mm.