

THREE SEMIPARASITIC COPEPODS FROM THE MADRAS COAST

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In the course of a study of the free living copepods, the author found three siphonostomous forms. Since our knowledge of the semiparasitic copepods of the Bay of Bengal, Gulf of Manaar and the Arabian Sea is confined to the few treated by Thompson and Scott¹ and Sewell², and those occurring in Madras waters have not been studied at all, these three forms are dealt with here. Of these, *Asteropontius mycalei* is new to science, and *Asterocheres suberitis* and *Cryptopontius brevifurcatus* are being recorded for the first time in Indian waters. The types have been deposited in the Zoological Survey of India, Calcutta.

Family ASTEROCHERIDAE

Asterocheres suberitis Giesbrecht

1889. *Asterocheres suberitis*, Giesbrecht, *Fauna u. Flora Neapel*, **25**, p. 6, pl. ii, figs. 1—17.

Material examined.—A single male 1.2 mm. in size, from sponges collected at 'Sponge Bay' in Krusadi Islands.

Body.—Robust with the anterior end rounded. The last segment of the metasome is shorter than the previous segment. The genital segment is inflated towards its posterior end and carries a lappet with two setae. The other three segments of the urosome are more or less of the same size. The caudal rami are nearly as long as broad and each ramus carries six setae.

In the first leg, the third segment of the endopod is produced into a broad spinous projection towards the outer side. The fifth leg consists of a small joint with three unequal setae. The basal joint has an outer seta.

Asteropontius mycalei, sp. nov.

Material examined.—4 females of a light yellowish colour and 0.44 mm. in size from the sponge *Mycale mytillosum*³ collected from the Madras Harbour.

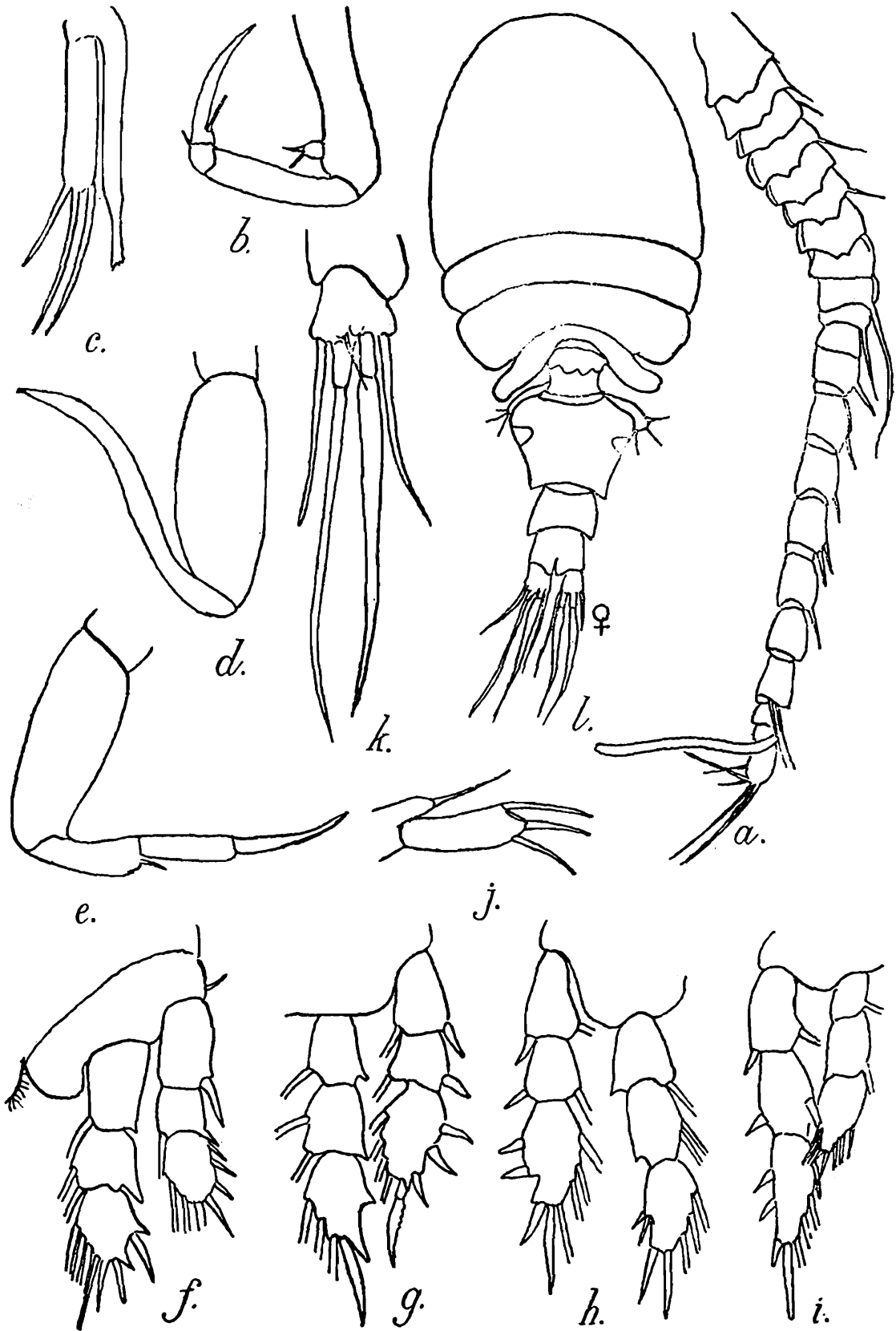
¹ Thompson, I.C. and Scott, A., *Report on the Pearl Oyster Fisheries of the Gul f of Manaar*, Pt. I., *Supplementary Report*, 7 (1903).

² Sewell, R. B. S., *Sci. Rep. Murray Exped.* **9**, No. 2 (1949).

³ I am grateful to my colleague Mr. M. A. Ali for identifying the sponges.

Type-specimen.—Reg. No. C3518/1, Zoological Survey of India, Calcutta.

Body.—Body small, robust, the cephalosome broader than long, the proportion of the length to breadth being 42:51. The anterior margin



TEXT-FIG. 1.—*Asteropontius mycalei*, sp. nov.

a., antennule; b., antenna; c., maxillule; d., maxilla; e., maxilliped; f., g., h., i., j., legs 1 to 5; k., furcal ramus, right side; l., female dorsal view.

(All the appendages are under a magnification of 216×360 .)

of the cephalosome is rounded. The metasome is longer than the urosome. The last segment of the metasome is deeply convex in the middle and

has rounded margins. The genital segment is inflated towards the anterior side. The other two segments of the urosome are very small. Furcal rami are broader than long and each ramus has four terminal stout setae and two slender setae. The second and the third inner setae are flattened (Text-fig. 1k.).

The antennule is composed of 20 joints which are stoutly built (Text-fig. 1a). The antenna is 3-jointed with a single jointed endopod tipped with two setae and attached to the basal joint (Text-fig. 1b). The terminal joint carries a claw (?) and two setae. Mouth-parts are as in other members (Text-fig. 1c, d and e) of the genus. The oral siphon reaches upto the basal segment of the first leg. The legs have three-jointed rami. First leg (Text-fig. 1f) Basal² carries an outer seta. First joint of exopod with one outer spine, second joint with one outer and one inner seta and the third joint with 4 outer and three inner setae. The endopod is slightly longer than the exopod and the first endopod joint has one inner seta. The third joint has two outer spines and four inner setae. The second leg (Text-fig. 1g.) differs from the first leg in having an inner seta on the 1st joint of the exopod, three setae, in the terminal joint of the endopod instead of four. Third and the fourth legs resemble the second leg. Fifth leg (text-fig. 1j) consists of a joint with one outer seta and a small distal joint which is longer than broad, tipped with three apical setae.

Remarks.—Thompson and Scott¹, created this genus to include the specimens taken from sponge and general invertebrate washings. Two species, *A. typicus* and *A. attenuatus* were described by them. Since then Sewell² has added one more species, *A. nicobaricus* from Nicobar Islands. The present species agrees with *A. typicus* in the general body shape, but differs in the proportion of the different segments, especially in the convex anterior margin of the last segment of metasome. The antennule has 20 joints and the fifth leg also differs in being longer than broad. It differs from *A. attenuatus* and *A. nicobaricus* in the general shape of the body and structure of fifth legs.

The new species can be defined as follows : Length 0.44 mm. Body robust, broader than long, last segment of the metasome deeply convex in the middle with rounded margins. Genital segment inflated towards the anterior side. Cadual rami with second and third inner setae flattened. Antennule 20-jointed. Antenna 3-jointed. Fifth leg with a small distal joint which is longer than broad, tipped with three apical setae.

With the addition of this new species, the genus comprises 4 species which can be distinguished and identified readily with the help of the following key :

¹ Thompson, I. C. and Scott, A., *Report on the Pearl Oyster Fisheries of the Gulf of Manaar*, Part I, *Supplementary Report*, 7 (1903).

² Sewell, R. B. S., *Sci. Rep. Murray Exped.*, 9, No. 2. (1949).

Key to the Species

- 1. Antennule composed of 18 segments—2
 Antennule composed of 19 segments—*A. typicus* Thompson & Scott, 1903.
 Antennule composed of 20 segments —*A. mycalei*, sp. nov.
- 2. Distal of the fifth leg carrying 2 setae—*A. attenuatus* Thompson & Scott, 1903.
 Distal of the fifth leg carrying 3 setae—*A. nicobaricus* Sewell, 1949.

Family DYSPONTIDÆ

Cryptopontius brevifurcatus Giesbrecht

- 1899. *Cryptopontius brevifurcatus* Giesbrecht, *Fauna u. Flora Neapel*, 25, p. 109, pl. 1, fig. 8, pl. 8, figs. 1—12.
- 1918 *Cryptopontius brevifurcatus*, Sars, *Crustacea of Norway*, 6, pp. 120-122, pl. 49.
- 1944. *Cryptopontius brevifurcatus*, Nicholls, *Rec. S. Aust. Mus.*, 8, p. 24.

Occurrence.—A single female from the sand dredged off Madras.

Body.—The cephalosome is nearly twice as long as broad and its anterior end is rounded. The other segments of the metasome have well developed epimera. The caudal ramus is nearly as long as broad and carries 5 setae, the 2 middle ones being very long and stout.

Appendages.—The antennule is 11-articled, the terminal one being tipped with an ‘aesthete’ The basal joint of the antenna is 2-jointed, the second joint of which carries a small exopod tipped with two apical setae. The endopod is 2-jointed, the terminal joint of which carries 1 lateral and 3 apical setae. The ‘siphon’ is very long, nearly reaching up to the end of metasome. Other mouth-parts as figured by Sars. The swimming legs have the following setal formula :

	Exopod								Endopod							
	1		2		3		1		2		3					
	sp.	se.	sp.	se.	sp.	se.	sp.	se.	sp.	se.	sp.	se.				
P1	1	2	1	1	3	5	0	1	0	2	0	6
P2	1	1	1	1	4	5	0	1	0	2	2	4
P3	1	1	1	1	4	5	0	2	0	2	2	4
P4	1	1	1	1	4	5	Absent.					

Fifth leg consists of a small knob like projection with two terminal setae, and a seta at its base over the outer side.

Remarks.—This is the first record of the occurrence of this species in Indian seas. The Madras form deviates from Sars' in a few minor features like the "pitted" appearance of the metasome, and the presence of two small projections directed posteriorly in the middle of the second metasome segment. It, however, can be easily ascribed to the form figured by Sars by its long cephalosome and the comparative shortness of the other segments of the urosome and metasome.

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