STUDIES ON INDIAN COPEPODS, 12. DESCRIPTION OF AN ARTOTROGID COPEPOD *SEWELLOPONTIUS RECTIANGULUS* N. GEN., N. SP.

BY

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Eiselt (1962) has recently advocated the abolition of the siphonostomatous families Dyspontiidae Sars, 1915, and Myzopontiidae Sars, 1915, and the merger of the genera which belonged to these families with the Artotrogidae Brady, 1880. As Eiselt pointed out the delimitations between these families are quite inadequate, and there is in fact some amount of gradation between the different genera which were split up into three separate families by Sars (1915). The family Artotrogidae as defined by Eiselt is relatively a coherent group and comprises fifteen genera. *Sewellopontius* n. gen. represents the sixteenth genus and is probably the third artotrogid genus to be recorded from Indian waters.

Sewellopontius n. gen. is related to *Dyspontius* Thorell and *Cryptopontius* Giesbrecht on the one hand and *Pteropontius* Giesbrecht on the other, and is somewhat intermediate between these forms. All these four genera are characterised by the complete absence of an endopod in the fourth leg. *Pteropontius* is easily recognised by having both the rami of first legs 2-segmented. The other three genera are distinguished from one another by the number of setae and spines on the terminal segment of first exopod. In *Dyspontius* the terminal segment of the first exopod carries two spines and four setae; in *Cryptopontius* this segment carries three spines and four or five setae; in the present genus the reduction has gone further, there being only two spines and three setae on the terminal segment of the first exopod.

Sewellopontius n. gen.

Body typically artotrogid, depressed with well-developed median dorsal crests on first three prosomal segments; latter with epimeral plates. Last prosomal segment highly reduced. Urosome 5-segmented in female, 6-segmented in male. Genital segment much wider than other urosomal segments in both sexes and provided with posterolateral expansions, exceeding the posterior margin of the segment. Antennule 9-segmented in female, 10-segmented and geniculate in male. Antenna 3-segmented with rudimentary exopods on first segment. Siphon quite well-developed. Mandible, maxillule, maxilla and maxilliped of the artotrogid type. First three pairs of legs biramous, fourth pair uniramous; rami of all four

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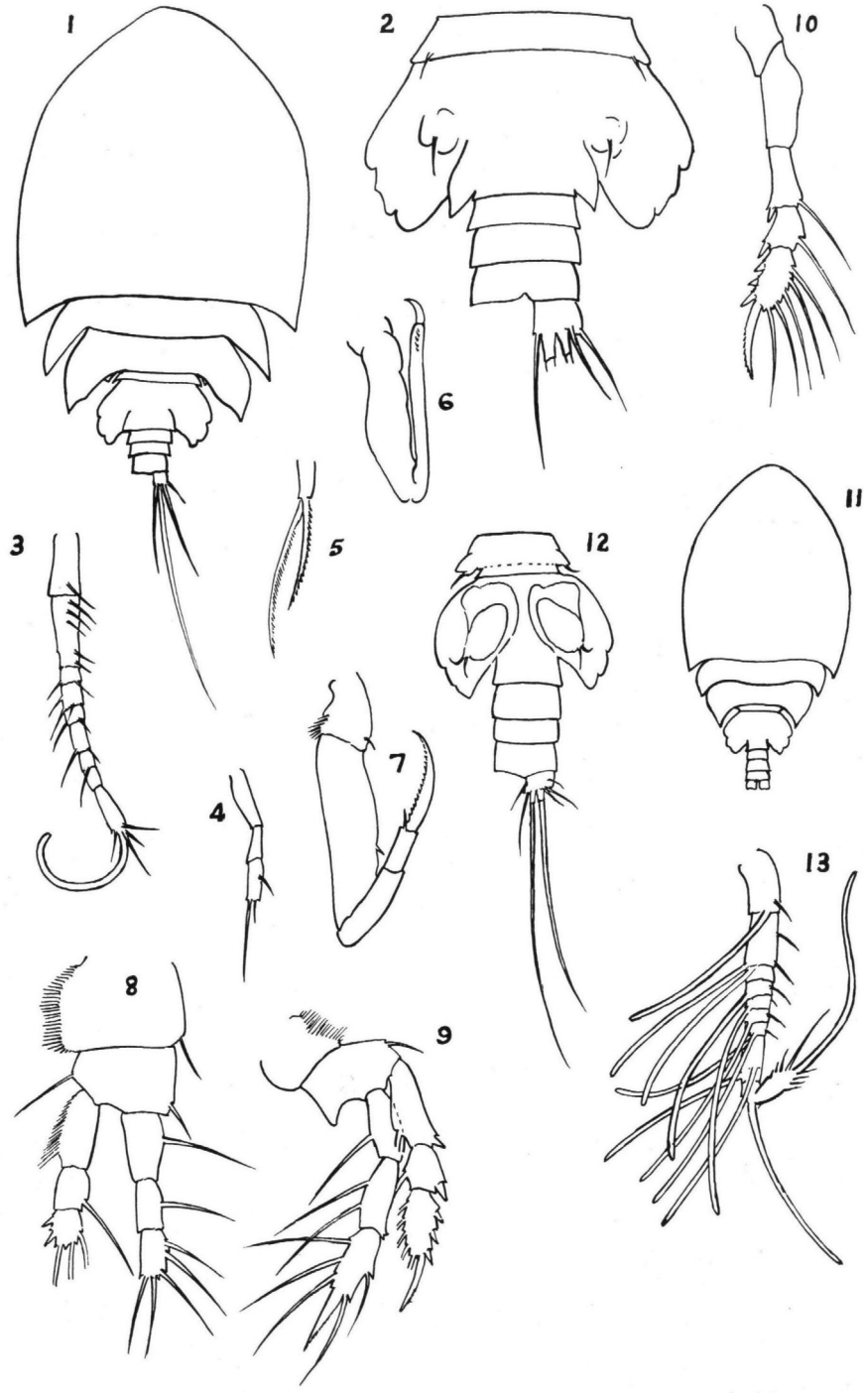

Figs. 1-13. *Sewellopontius rectiangulus* n. gen., n. sp. 1-10, female; 11-13, male. 1, dorsal view; 2, urosome, ventral view; 3, antennule; 4, antenna; 5, maxillule; 6, maxilla; 7, maxilliped; 8, first leg; 9, third leg; 10, fourth leg; 11, dorsal view; 12, urosome, ventral view; 13, antennule.

pairs of legs trimerous. Setation of first pair of legs highly reduced: the three segments of endopod provided with 1, 1, 5 setae; proximal segment of exopod without any seta or spine, second segment with one inner seta and last segment with three setae and two spines. Fifth leg represented by a seta.

Type species: *Sewellopontius rectiangulus* n. sp.

Sewellopontius rectiangulus n. gen., n. sp.

Material examined. — Fifteen male and twelve female specimens of this copepod were obtained from the washings of dredged weeds of the Gulf of Mannar off Mandapam, south east coast of India, on 14th December 1960. The holotype female, allotype male and three female and three male paratypes are deposited in the Reference Collection, Museum of the Central Marine Fisheries Research Institute, Mandapam Camp, and bear the registered numbers J. 757/24, J. 758/24 and J. 759/24 respectively.

Descriptive notes. — Female. The prosome and urosome are composed of four and five segments (fig. 1) respectively. The first three urosomal segments are large, provided with epimeral plates. The last segment is highly reduced and is only partially visible in dorsal view. In the urosome (fig. 2) the fifth leg-bearing segment is very small, forming a narrow strip proximal to the genital segment. The latter is very large with lateral expansions, which grow posterolaterally, exceeding the length of the second urosomal segment. The lateral margins of the genital segment are characteristically broken into three divisions in both sexes. The relative lengths of prosome and urosome are 77 : 23 and the relative lengths of the urosomal segments and the caudal rami are: 10.5, 41.0, 13.0, 12.0, 14.5, 9.0 = 100. The caudal ramus is wider than long, bearing five setae, two of which are jointed at the base. The rostrum is conical, incurved, reaching the base of the antennae.

The antennule (fig. 3) is 9-segmented with a faint marking of a tenth segment. The relative lengths of the constituting segments are given below:

1	2	3	4	5	6	7	8	9
18.8	22.4	6.0	8.2	4.4	10.0	6.0	7.1	17.1 = 100

The terminal segment bears an aesthetask which is about half as long as the antennule. The setae borne on the various segments are very short. The antenna (fig. 4) is 3-segmented, the first segment being the longest, the last two segments are of about equal size. The end segment bears one small lateral and two larger unequal terminal setae. The siphon is fairly long, reaching almost to the point of origin of the first pair of legs. The mandible is too slender to be distinguished from the siphon. The outer lobe of the maxillule (fig. 5) bears two subapical setae. The maxilla (fig. 6) forms a grasping organ, the terminal claw being larger than the whole basal part and being distinctly jointed at the proximal end. The maxilliped (fig. 7) is apparently 4-segmented, the terminal segment bearing a serrated spine. A seta is present on the inner distal margin of the first segment, and a few hairs on its outer margin. The second maxilliped segment has a stout spine at two-thirds of its inner margin. The last segment carries a small accessory spine along with the serrated one.

The ornamentation of the swimming legs is given below (see also the figs. 8-10):

	Protopod				Endopod						Exopod					
	1		2		1		2		3		1		2		3	
	si	se	si	se	si	se	si	se	si	st	se	si	se	si	se	si	st	se
P1	1	0	1	1	1	0	1	0	3	2	0	0	0	1	0	2	1	II
P2	1	0	0	1	1	0	2	0	3	I+1	1	1	1	1	I	5	I	III
P3	1	0	0	1	1	0	2	0	3	I+1	1	1	I	1	I	5	I	III
P4	0	0	0	0			absent					1	1	1	1	5	I	III

The constituting segments of the legs are rather slender and long, the spines of the exopods are stoutly built. The fifth leg is represented by a seta borne on the ventro-lateral corner of the first urosomal segment. Size: 1.22 mm.

Male. The body (fig. 11) has a more compact appearance, the prosomal segments leaving a little gap between them. The urosome (fig. 12) is six-segmented. The first segment, bearing the fifth legs is considerably smaller than the other segments. The genital segment is very large with lateral expansions which are broken into three parts as in the female. The next four segments are more or less of equal dimensions and are columnar. The antennule (fig. 13) is 10-segmented and geniculate. All the segments carry one or more aesthetasks. The aesthetask on the terminal segment is larger and thicker and corresponds to that of the female. The relative lengths of the antennular segments are given below:

1	2	3	4	5	6	7	8	9	10	
19.6	19.0	5.7	5.1	5.7	3.8	6.3	14.5	6.3	14.0	= 100

All other appendages are similar to those of the female. Size: 0.83 mm.

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RÉSUMÉ

Description de *Sewellopontius rectiangulus* n. gen., n. sp., Copépode cyclopoïde provenant de la côte sud-est de l'Inde. Ce genre est dans une certaine mesure intermédiaire entre *Dyspontius* Thorell et *Cryptopontius* Giesbrecht d'une part et *Pteropontius* Giesbrecht d'autre part; c'est le seizième genre de la famille des Artotrogidae, telle qu'elle est définie par Eiselt (1962).

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