

DESCRIPTION OF A NEW SPECIES OF ANURETES (COPEPODA: CALIGIDAE) FROM KERALA

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Abstract

A new species of *Anuretes* collected from the gills of *Diagramma crassispinum* Day at Cape Comorin, India, is described in detail. The carapace of the three females obtained was folded ventrally like *Hermilius* on the gill filaments.

Anuretes rotundigenitalis sp. nov.

Material: Three females were collected from the gills of *Diagramma crassispinum* Day at Capa Comorin, India.

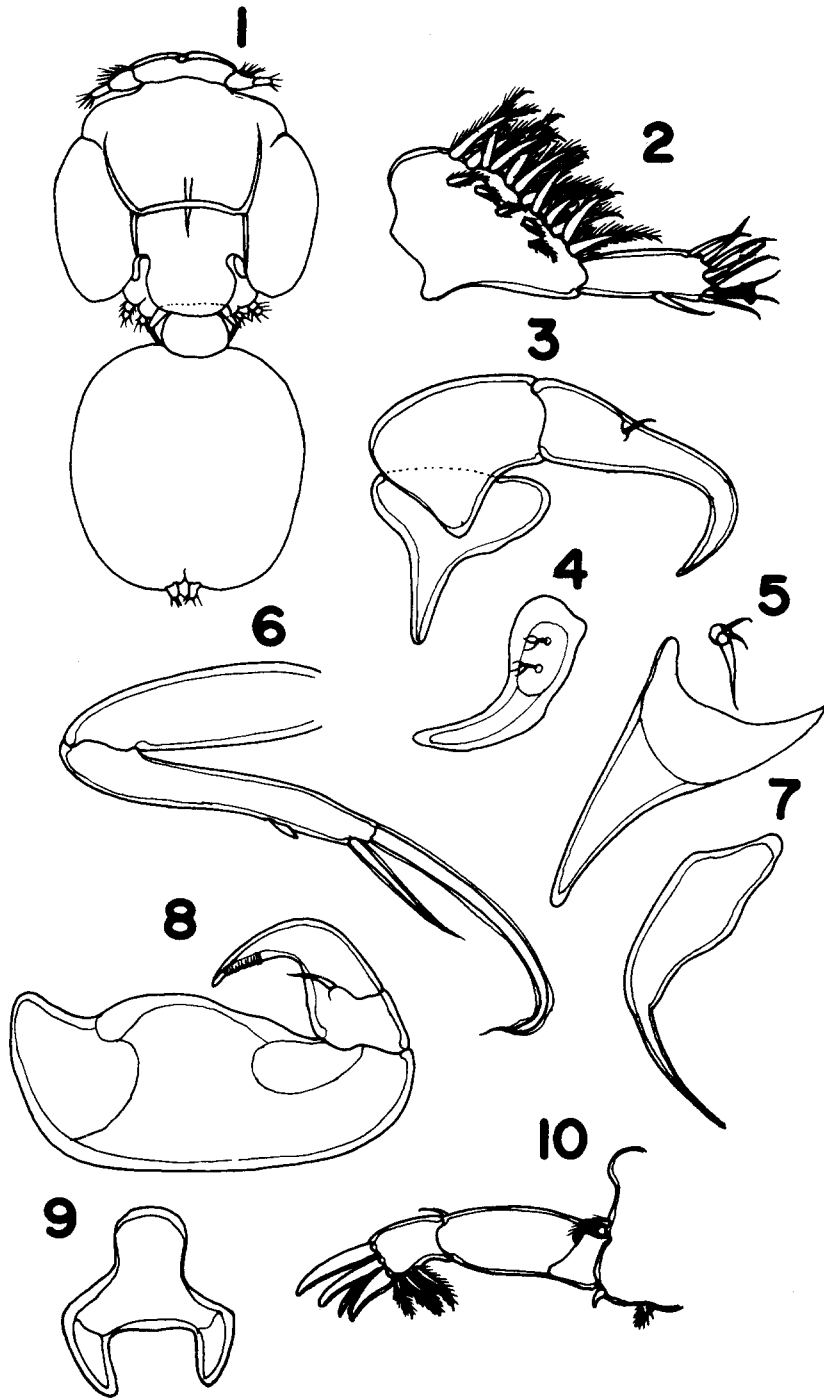
The holotype female will be deposited in the Indian Museum, Calcutta, India.

Female: Carapace (Fig. 1) is equal in length and breadth, antero-lateral sides curved inwards. Frontal plates are well projecting, membranous flange of the frontal plates comparatively narrow. Postero-median lobe of the carapace as broad as the lateral lobes and clearly reaching beyond the latter. Posterior sinuses slightly constricted behind. Median transverse rib is shifted slightly backwards, the cephalic part of the carapace consequently longer than the thoracic. Fourth thoracic segment is broader than long and partly overlapped by the postero-median lobe of the cephalothorax. Genital segment is nearly circular and enlarged, as long as carapace. Abdomen is completely fused with the genital segment, anal laminae originating directly from the genital segment, longer than broad and with five plumose setae.

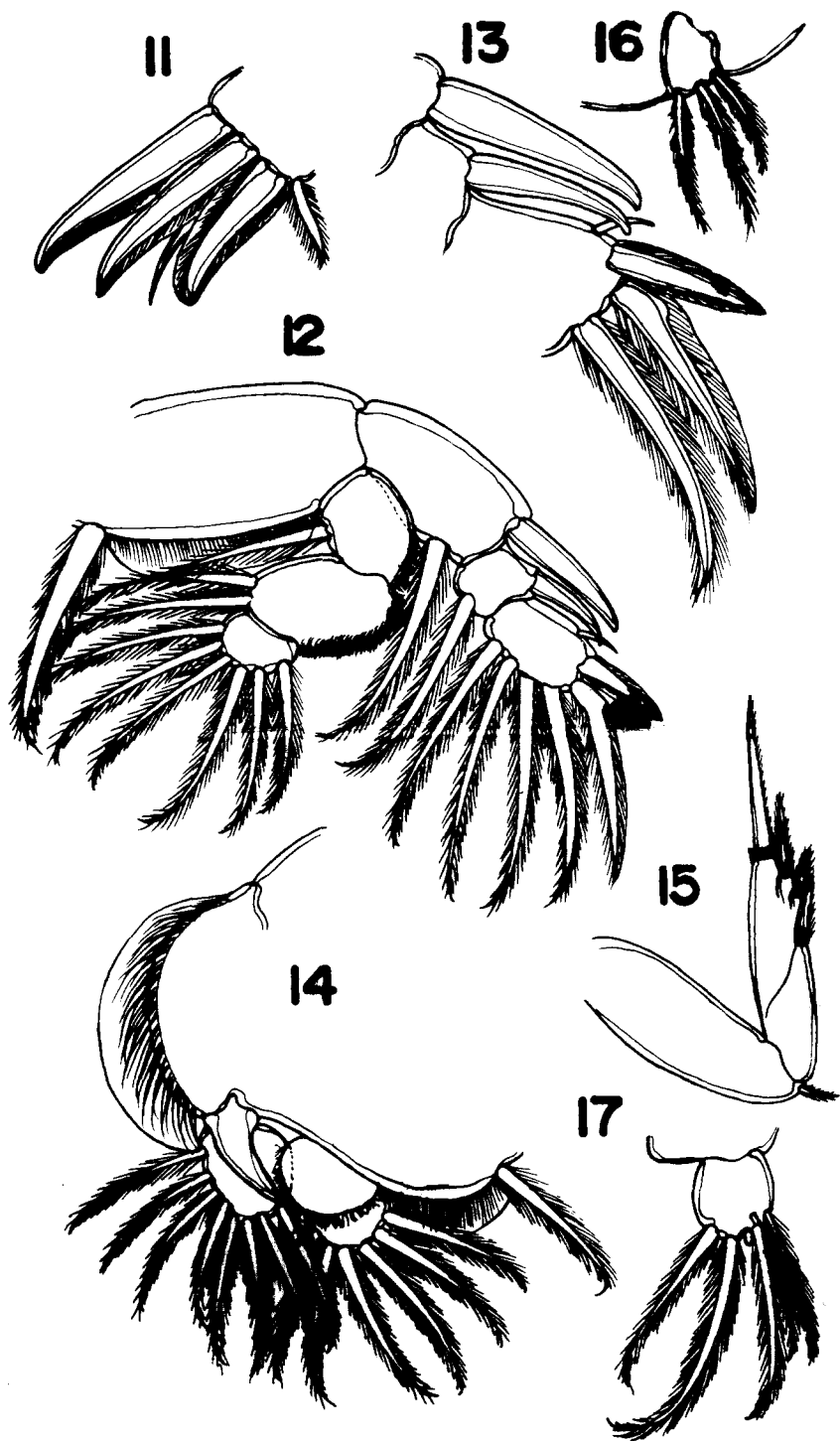
Basel segment of first antenna (Fig. 2) is carrying a marginal row of twelve long setae and a submarginal ventral row of five short setae. Distal segment short, slen-

der, carrying an apical bunch of about 8 to 9 non-plumose setae. Second antenna (Fig. 3) is three-segmented, basal segment is short produced into a backwardly directed apically acute process. Second segment is stout, third segment is slender, long and strongly curved distally with a seta nearly in the middle. Post antennal process (Fig. 4) is an apically blunt, slightly curved claw, its base carrying two bunches of fine hairs. Post oral process (Fig. 5) is elongate-triangular, claw apically blunt, first maxilla carries one long and two short setae. Basal segment of second maxilla (Fig. 6) is stout, short, distal segment is slender and long, carrying a winged short inner claw and a long distal outer claw, outer claw is more than twice the length of the inner. Just lateral to the second maxilla is a process (Fig. 7) with a stout basal part and a slender distal part. Basal segment of maxilliped (Fig. 8) is fully fused with second, latter is stout and strong, distal segment is strongly curved and pointed at its tip, carrying a spine in the middle, distal inner surface is corrugated. Base of the sternal fork (Fig. 9) is narrow, rami is short and stout, directed inwards.

Basipod of first leg (Fig. 10) has an upper and lower seta, vestigial endopod is spine-like. Distal segment of exopod (Fig. 11) carries three claws, a spine-seta and three comparatively small plumose setae. The claws gradually decrease in length, first and second claws are winged on the inner margin, third claw is winged on both sides, in between the second and third claws is the spine seta. Exopod of second leg (Fig. 12) is three-segmented, first and second segments of exopod (Fig. 13) carry a stout claw, the claw on the third segment is very small, first seta on third segment is modified into a winged claw-like process, second seta carries a membranous flange on one



Figs. 1-10. *Anuretes rotundigenitalis* sp.nov. female. 1. Dorsal View. 2. First antenna. 3. Second antenna. 4. Post antennal process. 5. Post oral process and first maxilla. 6. Second maxilla. 7. Process just lateral to second maxilla. 8. Maxilliped. 9. Sternal fork. 10. First leg.



Figs. 11-17. *Anuretes rotundigenitalis* sp. nov. female. 11. First leg, tip enlarged. 12. Second leg. 13. Same, exopod. 14. Third leg. 15. Fourth leg. 16. Fifth leg. 17. Anal lamina.

side and hairs on the other. Segments of endopod are externally armed with stiff hairs. Apron of third leg (Fig. 14) is enlarged, rami are placed close together and slightly overlapping, claw of exopod is stout and curved inwards. Fourth leg (Fig. 15) is three-segmented, first segment is slightly longer than the other two segments combined, with a distal plumose seta, second and third segments are subequal in length, second with one and third with three claws, distal claw is twice as long as the penultimate, all the claws carry pectinate flange. Fifth leg (Fig. 16) is formed of a short process carrying three plumose setae placed on the ventral side of the postero-lateral corners of the genital segment.

Total length: 1.6 mm.

Remarks: As far as I know seven species of *Anuretes* have so far been recorded. They are *A. heckelii* Heller (1868), *A. parvulus* Wilson (1913), *A. perplexus* Bassett-Smith (1898), *A. plectorhynchi* Yamaguti (1936), *A. quadrilaterus* Shiino (1954), *A. anomalus* Pillai (1967) and *A. menehune* Lewis (1964). The present species can be easily distinguished from all the others by the extremely large genital segment which is subequal to the carapace in length and width. In the size of the genital segment *A. rotundigenitalis* comes closest to *A. heckelii* but in the latter species the genital segment is definitely smaller than the carapace and postero-laterally produced into large rounded lobes reaching far beyond the anal laminae. The present species also resembles *A. anomalus* Pillai but in the latter the genital segment is only half the size of the carapace and the sternal fork is totally different in shape, with the rami diverging but converging in *A. rotundigenitalis*. The specific name refers to the round genital segment.

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