

A REDESCRIPTION OF THE HOLOTYPE OF *CALLIANASSA MUCRONATA* STRAHL, 1861 (DECAPODA, THALASSINIDEA)

BY

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To confirm the systematic position of a specimen of *Callianassa* from the northern Arabian Sea in the collection of the Invertebrate Reference Museum, Department of Zoology, University of Karachi, it was necessary to compare it with the types of *Callianassa mucronata* Strahl, 1861, and *C. martensi* Miers, 1884. The type of *Callianassa martensi*, which is in the British Museum (Natural History), London, could not be made available for study due to its poor condition. However, Miss E. Allen of the British Museum was kind enough to carefully compare my description and illustrations with the type. The type of *Callianassa mucronata* was very kindly sent me by the authorities of the Zoologisches Museum der Humboldt Universität, Berlin.

As a result of these comparisons, the Arabian Sea specimen proved to belong to *Callianassa martensi*, and to be different from *C. mucronata*. Its description and comparison with the type of *C. martensi* have been published elsewhere (Tirmizi, 1974: 286-292).

Since the existing descriptions of the type of *Callianassa mucronata* are inadequate by current standards, it seems necessary to describe it here in detail. Unfortunately, the specimen, a female from Luzon, Philippines (Zool. Mus. Cat. No. 1128), measuring 29 mm in total length, is in very poor condition and the first pair of chelipeds is missing. Some appendages lying in the tube in all probability belong to it.

***Callianassa mucronata* Strahl, 1861**

Description of the holotype. — The rostrum is short, sharply pointed and almost dagger-shaped; it fails to reach the cornea. The projection on the anterior margin of the carapace, situated between the eye-stalk and the antennal peduncle, is tooth-like. The antero-lateral margins are broadly rounded. The cervical groove is deeply marked (fig. 1A).

The first abdominal segment is rather short, and more or less dome-shaped. The second segment is larger than the others, the measurements of first to sixth abdominal somites are 3, 4, 5, 2.75, 3, and 4 mm respectively. A tuft of hairs can be seen on the postero-lateral angle of the second segment, and one in about the middle of the lateral margin of each of the next three segments. The telson is

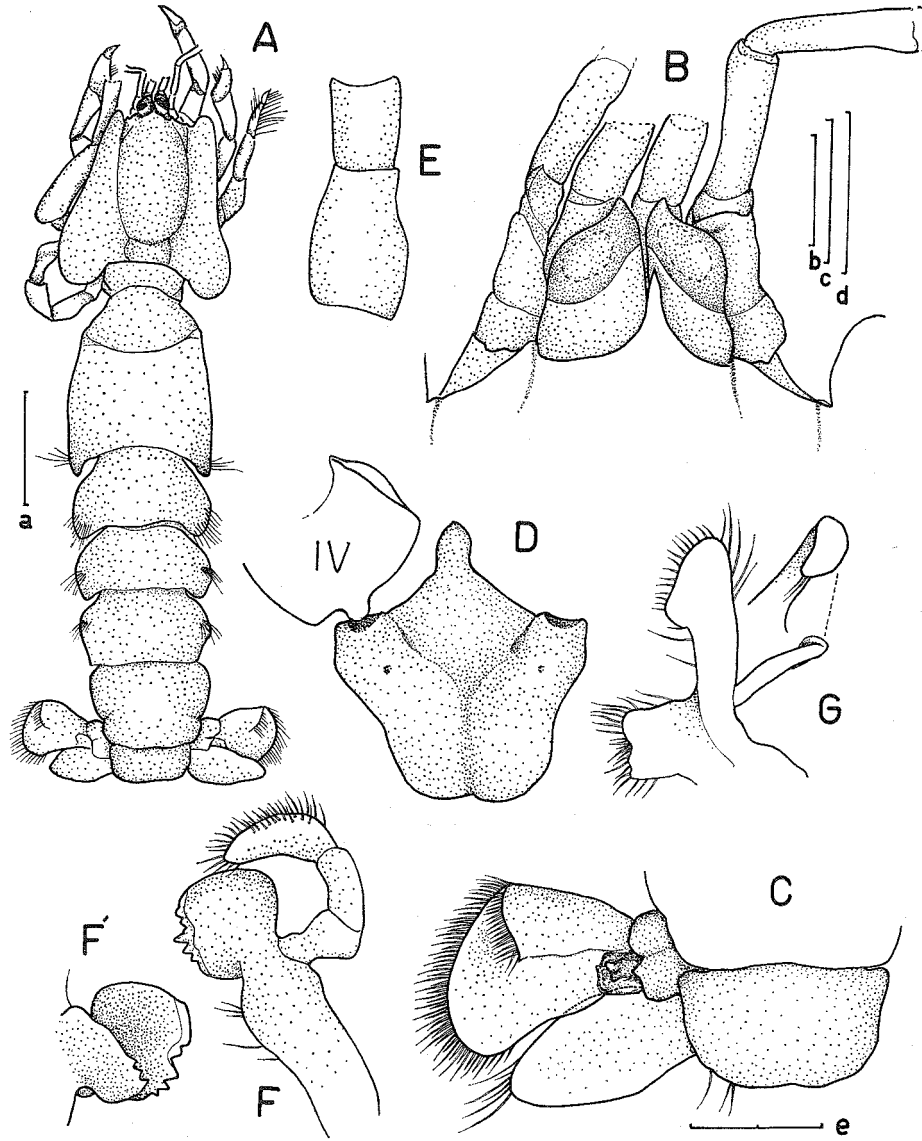


Fig. 1. *Callianassa mucronata* Strahl. A, holotype in dorsal view; B, anterior part of carapace, dorsal view; C, telson and left uropod in dorsal view; D, thickening on seventh thoracic sternite, ventral view; E, basal segments of antennule, ventral view; F, left mandible, ventral view; F', head of mandible in dorsal view, slightly enlarged; G, left maxillule in ventral view, distal part of maxillular palp, further enlarged in dorsal view. IV = coxa of the right, fourth peraeopod. A at scale a = 5 mm; B at scale c; C at scale e = 2 mm; D at scale b; E, F, F', G at scale d; scales b — d = 1 mm.

shorter than the last abdominal somite, it is more than twice as long as broad (length = 1.75 mm, maximum breadth = 4 mm). The posterior margin is slightly concave in the middle and fringed with only a few setae. Of the two basal spines on the lower exopodal plate of the uropod, the anterior is truncated and the posterior one is rounded (fig. 1C).

The sternum, lying between the fourth pair of peraeopods, is more or less trapezoidal, thickening with a Y-shaped groove. Lateral to each arm of the 'Y' is an excavation for the articulation of the coxa of the fourth peraeopod. Medially the sternite is produced forwards (fig. 1D).

The cornea of the eye is colourless in this preserved specimen and difficult to discern; it is indicated in the figure by a broken line; the antero-median angle of the eyestalk is produced into a laterally directed, curved hook-like process (fig. 1B).

The antennular flagella and part of the peduncle are wanting, the basal two segments are as illustrated in fig. 1E. The antennal peduncle is complete on the right side except for the tip of the ultimate segment. This segment is almost as long as the penultimate segment; the flagellum is missing.

The head of the mandible is globular, its dorsal surface is concave; further, it is provided with five irregular incisor and three sharply pointed molar teeth; the palp is three-segmented (fig. 1F, F'). The lower endite of the maxillule is broad and sub-rectangular; the upper endite is long and slender, the distal end is expanded and rounded, the palp is very narrow, its tip is folded backward and terminates in a pointed apex (fig. 1G).

The palp of the maxilla is slender and becomes narrow apically where a few plumose setae can be seen (fig. 2A). The first maxilliped is illustrated in fig. 2B, the epipod is short, narrow and pointed distally (shown by a broken line).

The second maxilliped is pediform, its exopod is broad and flat, it extends beyond the merus of the endopod (fig. 2C). The third maxilliped is operculiform, the ischium is larger than any of the other segments, on its dorsal side it bears a row of fine teeth (fig. 2D, D').

The first pair of chelipeds is missing. The second is as illustrated (fig. 2E); the chela is almost triangular, its fingers are slightly longer than the palm. The propodus of the third peraeopod (fig. 2F) has its postero-lateral angles produced into a lobe; the dactylus has a broad base and a pointed tip.

The fourth peraeopod is shown in fig. 2G; the last one in fig. 3A.

The first pleopod is as illustrated in fig. 3B, it appears to be three-segmented, but due to the very poor condition of the appendage, it is not possible to ascertain its true nature; all the setae fringing the distal segment are broken and incomplete. The endopod of the second pleopod bears a small finger-like appendix interna which is truncated apically and bears a small seta (fig. 3C, C'). The remaining pleopods are broad, each bearing a knob-like appendix interna. The third pleopod and its enlarged appendix interna are illustrated in fig. 3D, D'.

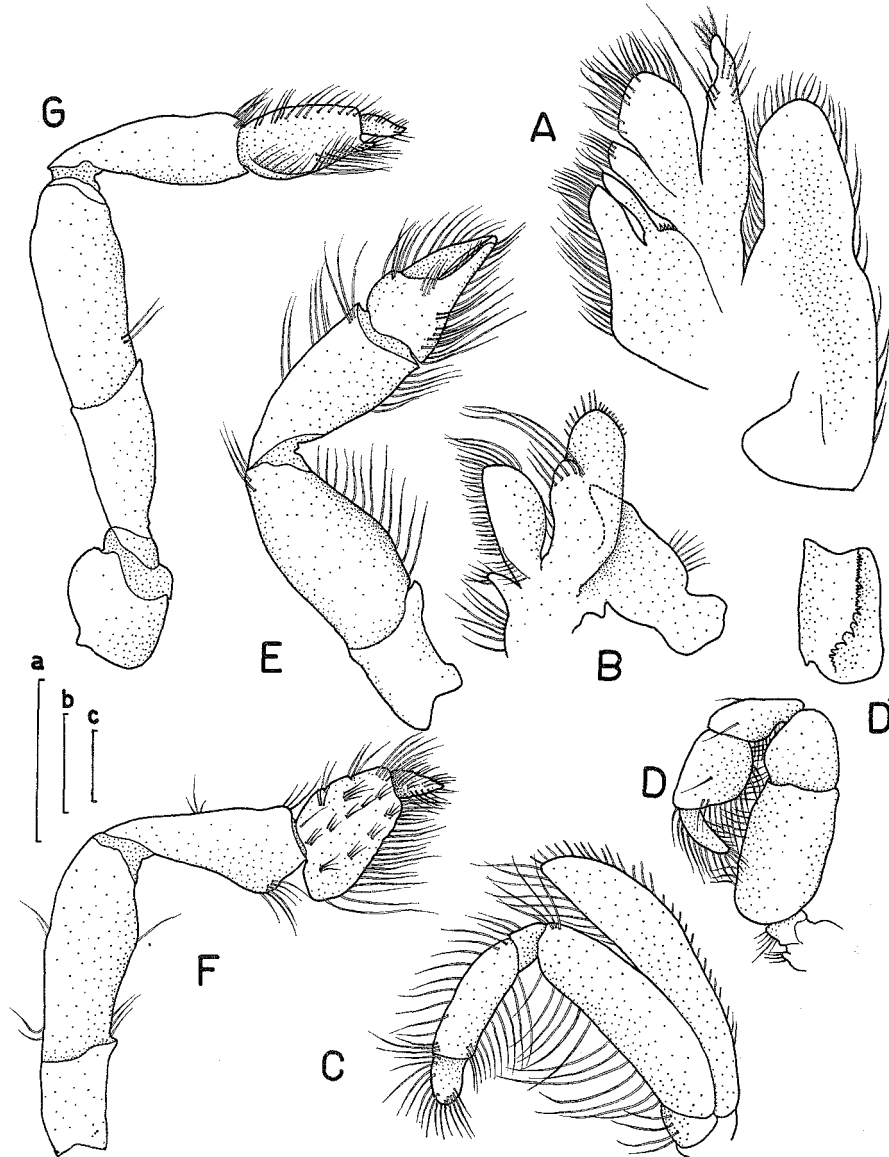


Fig. 2. *Callianassa mucronata* Strahl, A, left maxilla in ventral view; B-D, left first to third maxillipeds respectively, ventral view; D', ischium of left third maxilliped in dorsal view; E-G, right second to fourth pereopods respectively. A at scale a; B, C at scale b; D, D', E-G at scale c; all scales = 1 mm.

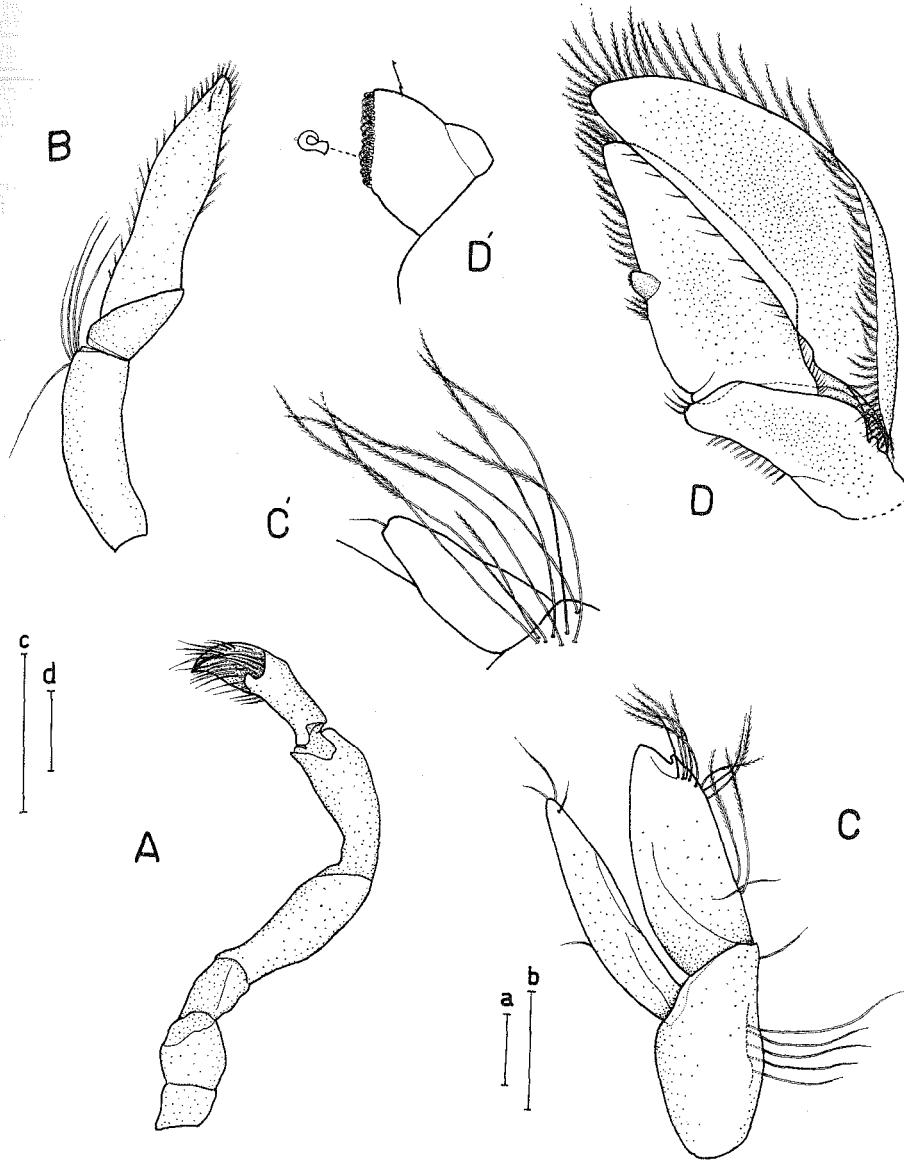


Fig. 3. *Callianassa mucronata* Strahl. A, left fifth peraeopod; B, first pleopod; C, second pleopod; C', enlarged appendix interna; D, third pleopod; D', appendix interna and one of the hooks highly enlarged. A, D at scale a; B at scale c; C at scale b; D' at scale d = 0.25 mm; scales a — c = 1 mm.

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RÉSUMÉ

Redescription de l'holotype de *Callianassa mucronata* Strahl, 1861, de Luzon, Iles Philippines. Le spécimen est en assez mauvais état, et manque les chélicèdes de la première paire.

LITERATURE

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