

NOTA BREVE

THE ZOEAE I OF *Charybdis helleri* (A. MILNE-EDWARDS, 1867) (DECAPODA, PORTUNIDAE) OBTAINED IN LABORATORY.

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A nonindigenous species of swimming crab, *Charybdis helleri* (A. Milne Edwards, 1867) (Fig. 1), has been registered in the São Paulo Northern coast (Melo, pers. com.) as mentioned by Lemaitre (1995) for the Indian River Lagoon system of Florida. Probably, this species was accidentally introduced here.

This portunid species inhabit shallow and calm water near the coast line and it can be captured by trawl, during the shrimp fishery, on sandy and rocky bottom.

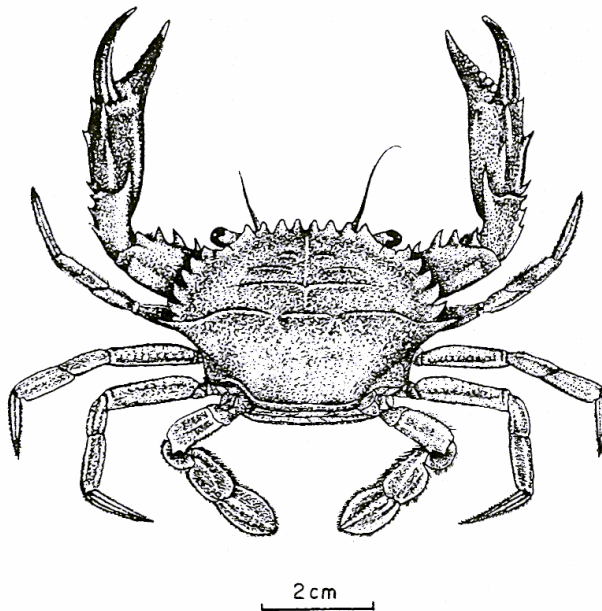


Fig. 1 - *Charybdis helleri* (A. Milne Edwards, 1867): dorsal view of an adult male.

The objective of this paper is to describe and compare the first larvae of *C. helleri* in order to provide a diagnosis to its zoea for planktologists, once this stage is very abundant in the marine plankton mainly during summer months.

Ten ovigerous females carrying eggs in several embryonic developmental stages were collected in Ubatuba bay (23°26'S and 45°02'W), during July and August 1995. All of them hatched their larvae and spawn after 24 hours the eclosion, that indicates multiple spawn in the same reproductive period like other portunid species in the area (Santos & Negreiros-Fransozo, in press and Costa & Negreiros-Fransozo, in press). Thirty percent of these females complete the embryonic development in fifteen days after spawn and hatch their larvae. For the zoea I description it was utilized at least 10 larvae hatched from each ovigerous female.

The observed behavior can indicate that this species is well established in the area. So, this note also has the purpose of to advertise marine ecologists of the presence of this species in the Brazilian littoral which constitutes a competitive form to native species.

Comparisons between larvae of various portunid and other crab species have been made by most authors who have described a life history, starting with Lebour (1928) and Aikawa (1929) who sought to establish characters of value in identifying crab larvae, including Portunids.

The first zoea of the species in the subfamily Portuninae could be identified by middle segment of endopod of first maxilliped unarmed as mentioned by Rice & Ingle (1975). Additionally, they have antenna type B and telso type A according to Aikawa (1929) classification.

As mentioned by Bookhout & Costlow (1977) the larvae of the subfamily Portuninae are so similar that is difficult to distinguish species.

The first zoea stage of *C. helleri* (Fig. 2) was detailed studied in order to distinguish it from other portunid zoea I. A comparison of selected characters

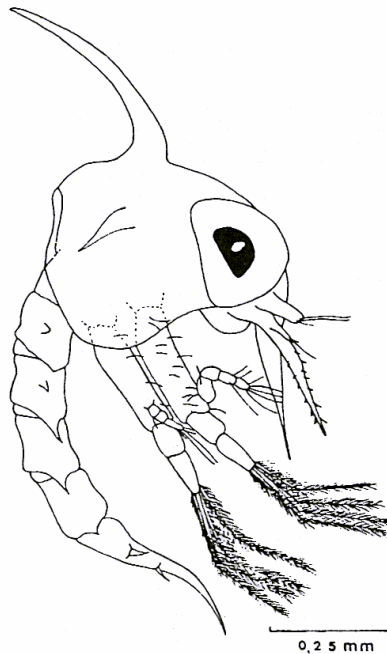


Fig. 2 - *Charybdis helleri* (A. Milne Edwards, 1867): lateral view of zoea I.

of zoea I of some Brazilian South and Southeastern Portuninae (*P. spinimanus*, *Callinectes sapidus*, *Portunus spinicarpus* and *Arenaeus cribarius*, studied respectively by Lebour, 1950; Costlow & Bookhout, 1959; Bookhout & Costlow, 1974 and Stuck & Truesdale, 1988), hatched from known females, was accomplished. The main features that can distinguish the *C. helleri* zoea from the others are: presence of 2 aesthetascs and 1 simple setae on antennule (Fig. 3a); 6 setae on distal segment of endopodite and 6 to 8 plumodenticulate

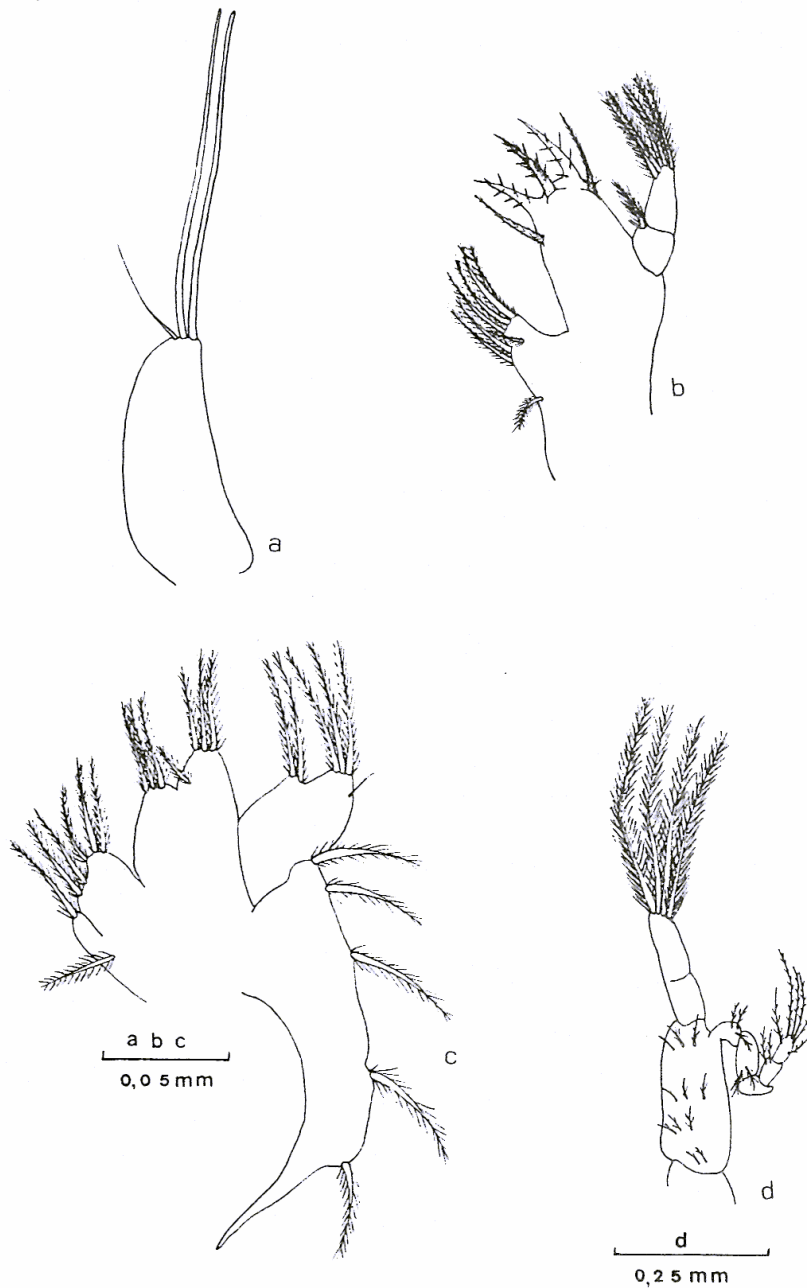


Fig. 3 - *Charybdis helleri* (A. Milne Edwards, 1867): appendages of the zoea I. a. antennule; b. maxillule; c. maxilla; d. first maxilliped.

setae on basal endite of the maxillule (Fig. 3b); 5 or 6 setae on endopodite and 3 and 5 plumodenticulate setae on each lobe of the endites of maxilla (Fig. 3c); 11 simple setae on basipodite and 2 or 3, 2, 0, 2 or 3 and 5 or 6 setae, from the proximal to distal segments, on endopodite of the first maxilliped (Fig. 3d).

ACKNOWLEDGMENTS

To Dr. Gustavo A. S. Melo from Museu de Zoologia da USP for identification of the ovigerous females and to FAPESP for financial support of the collects (ref. proc. no. 94/4878-8).

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