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Description of the first juvenile of *Aegla franca* Schmitt, 1942 (Crustacea, Decapoda, Aeglidae)

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Abstract

The post-embryonic development in *Aegla franca* is epimorphic, in which the hatching form is a juvenile that very much resembles the adults in general morphology. Newly-hatched juveniles were obtained under laboratory conditions from ovigerous females bearing eggs at late embryonic stage, and collected from the wild. Upon hatching, some juvenile specimens were cleared, stained, dissected and prepared for light microscopy on semi-permanent slides and each appendage was described in detail and illustrated accordingly. Some specimens were also prepared for scanning electron microscopy to obtain detailed information concerning setal morphology and ultrastructure of some cephalothoracic appendages. Comparison of the present results to previous descriptions of the first juvenile of other aeglid species show some interesting features observed only in *Aegla franca*. These features include the presence of pores on the first and second pairs of antennae; the rudimentary condition of the mandible and the long setae with a subterminal pore and scaly outgrowth distally on the basal bilobed endite of the maxilla.

Key words: Anomura, Aeglidae, *Aegla franca*, first juvenile, description

Introduction

Most anomuran decapods are typically found in marine habitats but some species are estuarine and semiterrestrial. However, known examples of truly freshwater anomurans are restricted to one species of diogenid hermit crab (McLaughlin & Murray 1990) and to all species of *Aegla* Leach. The latter represents the only extant genus of the family Aeglidae Dana, 1852, which, in turn, also includes another two extinct genera from marine sediments (Feldmann 1984; Feldmann *et al*. 1998). All extant aeglids are endemic to temperate and subtropical regions of continental South America (Schmitt 1942; Martin & Abele 1988; Bond-Buckup & Buckup 1994; Bond-Buckup 2003).

Detailed descriptions of the hatching form are available in the literature for the following species from South Brazil: *Aegla prado* Schmitt, *A. violacea* Bond-Buckup and Buckup, *A. platensis* Schmitt, *A. longirostri* Bond-Buckup and Buckup and *A. ligulata* Bond-Buckup and Buckup (Bond-Buckup *et al.* 1996, 1999; Bueno & Bond-Buckup 1996). As for *Aegla perobae* Hebling & Rodrigues, information on the general behaviour and food acceptance of the newly-hatched juvenile kept in aquarium conditions was provided by Rodrigues & Hebling (1978) but the authors did not provide a detailed morphological description of the young form.

In all these cases, the aeglids hatch as juveniles that morphologically resemble the adult form except that they are immature and do not bear pleopods; the latter trait, however, becomes fully developed only in adult females (Martin & Abele 1988). In *Aegla platensis*, Lizardo-Daudt & Bond-Buckup (2003) reported that the embryonized crustacean larval stages, such as nauplius, zoea and decapodid (megalopa), could be recognized as successive embryonic developmental stages within the egg before the actual hatching of the juvenile.

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