

{rokbox title=|Description of a first-settled stage of *Aristeus antennatus* (Risso, 1816) and new insights into distribution and life history of early juveniles in the NW Mediterranean sea :: Image: Authors| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-description-first-settled-carbonell-2023-thumb-et-al.jpg|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-description-first-settled-carbonell-2023-et-al.jpg{/rokbox}

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Abstract: Knowledge on settlement stages of marine fauna is scarce, especially for mobile organisms such as crustaceans. This is most probably explained by the difficulty of capturing them at great depths in addition to their short lifespan and preference for special habitats. In the case of the red shrimp *Aristeus antennatus* (Risso, 1816), a species of outstanding importance in many Mediterranean fisheries, there is an important lack of knowledge regarding development between pelagic larval to benthic juvenile-adult phases. As a contribution to fill this gap, in the present study a first-settled stage of the red shrimp is described based on a specimen collected off Formentera (Algerian Basin, western Mediterranean) during October of 1996 at 1594 m depth with a Macer-GIROQ suprabenthic sledge. As a complement to this description, the seasonal distribution and density of small juveniles of *A. antennatus* (caparace length 16 mm) captured in the Balearic Basin during OTSB-14 bottom trawls performed between the years 2007–2020 at more than 1000 m depth is mapped and discussed. From these distribution maps, an increase in captures of juveniles from autumn to summer can be appreciated, as well as a phenomenon of migration of these small individuals from inner to outer regions of the Balearic Basin. Finally, a theoretical reconstruction of the early life history of these small juveniles, starting at hatching in July, which consistently fits with the size of the first-settled stage described here, is provided.

Keywords: Red shrimp, Decapoda, Deep-sea, Settlement, Morphological description