



Description of the first five larval stages of *Plesionika narval* (Fabricius, 1787) (Crustacea, Decapoda, Pandalidae) obtained under laboratory conditions

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Abstract

The first five zoeal stages of *Plesionika narval* were obtained from 15 days of laboratory culture. All larval stages are described and illustrated in detail. Zoeal characters are compared with the previous described larvae of *Plesionika acanthonotus* and *Plesionika edwardsii* and with undetermined zoeas of Pandalidae from plankton samples.

Key words: *Plesionika narval*, Pandalidae, larval development, zoea

Introduction

The pandalid shrimp, *Plesionika narval* (Fabricius, 1787) is a benthic species inhabiting muddy, sandy, and rocky substrates on the continental shelf, being also found in submarine caves (González 1995). Although the species may occur at depths between 4 m and 910 m, it is most frequently found between 200 and 400 m (Crosnier & Forest 1973; Biscoito 1993; González *et al.* 1997; Fransen 2006). *P. narval* shows a wide geographical distribution at low latitudes. In the Indo-West Pacific it has been recorded from the Red Sea and Madagascar to French Polynesia. In the Mediterranean it spreads from the Alborán Sea, western Libya and southern Adriatic Sea, to continental Greece and Marmaris Sea (Fransen 2006). In North-eastern Atlantic it has also been reported throughout the Southwestern Iberian Peninsula, the North-western African coast and in the archipelagos of Azores, Madeira, Salvajes, Canary Islands and Cape Verde, while in South Atlantic it has been identified at St. Helena Island (Udekem D'Acoz 1999). *Plesionika narval* is valuable as a commercial fishery resource and it is included in the FAO catalogue (Holthuis 1980). At present, this species is being targeted of an important artisanal fishery industry in the Canary Islands, Madeira and Azores.

Currently, the genus *Plesionika* Bate, 1888 includes more than 80 species (Chan & Yu 2000), but the larvae of only two species have been described partly based on laboratory rearing. The first stage of *Plesionika acanthonotus* was described by Bourdillon-Casanova (1960), and the first seven stages of *Plesionika edwardsii* were described by Landeira *et al.* (2009). Furthermore, several authors have recognized *Plesionika* larvae from plankton samples, describing and illustrating them, e.g. Bate (1888), Gurney (1924), Kurian (1956), Bourdillon-Casanova (1960), Williamson (1967a, b), Seridji (1971), Barnich (1996) and dos Santos (1999) (see González-Gordillo *et al.* 2001, for details). However, according to Landeira *et al.* (2009), the lack of knowledge on the larval morphology of other pandalid genera such as: *Bitias*, *Chlorotocus*, *Heterocarpus*, which share their geographical distribution with *Plesionika*, indicate that many planktonic larvae assigned to *Plesionika* may belong indeed to any of these undescribed genera.