MEDITERRANEAN SPECIES OF THE GENUS PONTONIA LATREILLE, 1829. II. DEVELOPMENTAL STAGES OF PONTONIA FLAVOMACULATA HELLER, 1864 (DECAPODA, NATANTIA, PONTONIINAE) REARED IN THE LABORATORY

BY

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ABSTRACT

The paper describes the main differences between larval and post-larval Pontonia pinnophylax and P. flavomaculata, the type-species and the other Mediterranean member of the genus Pontonia, respectively.

INTRODUCTION

In a previous paper (Calafiore et al., 1991), the larval development of the type-species of the genus Pontonia, P. pinnophylax (Otto, 1821), was described. In this paper, we report only the main differences with respect to the type-species, evident in the various developmental stages of this second species of the genus living in the Mediterranean, Pontonia flavomaculata Heller, 1864.

The first zoeal stage of P. flavomaculata was described previously by Gourret (1884, 1888) and later on by Bourdillon-Casanova (1960).

MATERIALS AND METHODS

The larvae were reared in small aquaria containing 2 l of sea water. In each of these, an ovigerous female of P. flavomaculata was placed taken from the
pharynx of the ascidian *Phallusia mamillata* (Cuvier, 1815), and collected in the gulf of Patti (Messina) at a depth of about 50 m.

The methods of rearing are described in Calafiore et al. (1991). The post-larval stage was obtained, in the absence of the usual host, about one month after the last zoeal stage. For the description and illustration of each stage, about ten larvae and their exuviae were removed and fixed in 4% neutral formalin. All drawings were made with the aid of a Reichert “Visopan” projection microscope.

**DESCRIPTION**

**Zoea I**

Mean total length: 2.23 mm (cf. 2.33 mm for *P. pinnophylax*). Maxillule (fig. 1A): endopod with 1 terminal small seta and spiniform process (cf. 2 small setae). Maxilla (fig. 1B): lobes of basal endite with 1 and 2 setae respectively (cf. 2 and 2).

**Zoea II**

Mean total length: 2.50 mm (cf. 2.58 mm). Setae of maxillule and maxilla as in Zoea I.

**Zoea III**

Mean total length: 2.69 mm (cf. 2.90 mm). First pereiopod (fig. 1C): endopod of 4 segments, with 2, 1, 3, 2 (1 long, 1 short) setae. No differences from *P. pinnophylax*, in which species Calafiore et al. (1991) erroneously reported 2 setae on 3rd segment.

**Zoea IV**

Mean total length: 2.76 mm (cf. 3.02 mm). Antenna (fig. 1D): outer margin ends in plumose seta (cf. spine). This specific difference also applies to all subsequent zoeal stages.

**Zoea V**

Mean total length: 2.78 mm (cf. 3.32 mm). Maxilla (fig. 2A): inner lobes now with 2, 2, 4 setae, as in *P. pinnophylax*. Third pereiopod (fig. 2B): 3rd article with 3 terminal plumose setae (cf. 4 setae).