Geographical distribution and spreading of pilumnid crab, *Eurycarcinus integrifrons* De Man 1879 (Crustacea, Decapoda) in the Levantine Sea

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Abstract. The newly alien pilumnid crab *Eurycarcinus integrifrons* De Man, 1879 is initially reported from the Mersin Bay. With these localities this species has started spreading and establishing its populations in the Levantine Sea coast of Turkey.

Keywords: *Eurycarcinus integrifrons*, Decapoda, alien, established, the Levantine Sea, Turkey.

To date, a total of seventy-six species of alien decapod crustaceans was known to occur in the Mediterranean Sea (Özcan et al. 2010, Mizan & Vianello ((2008) 2009). Thirty-six of them are known from the Turkish Seas (Özcan et al. 2010). Six alien species of family, Pilumnidae were recorded in the Mediterranean Sea (see Özcan et al. 2010). Three species (*Pilumnoetus rauquelini* (Audouin, 1826), *Pilumnus minutus* De Haan, 1835 and *Eurycarcinus integrifrons* De Man, 1879) of pilumnid occur along the Turkish coast. The alien pilumnid crab, *E. integrifrons* is native to the Indian Ocean (De Man 1879, Apel 2001), and was recently recorded for the first time in the Mediterranean from the Yumurtalik coast of Iskenderun Bay (Levantine Sea, Turkey) (Özcan et al. 2010).

A total of 12 specimens of *E. integrifrons* were captured during benthic surveys carried out between 12 February 2010 and 20 March 2010, at a depth of 6-30 m in the Mersin Bay and Iskenderun Bay (Fig. 1). The specimens were obtained by trammel nets and gill nets on the sandy mud bottoms. Nine specimens were recorded along the Mersin coast at 20-30 m depth on 13 March 2010. One specimen was collected in Karaduvar (Mersin Bay) at 6-10 m on soft bottom 12 February 2010 and two specimens were collected in Sariseki (Iskenderun Bay) at depth of 15-30 m on sandy-muddy bottom 20 March 2010. Among these specimens, two were preserved in 4% formaldehyde and deposited in the Museum of the Faculty of Fisheries, Mustafa Kemal University, Iskenderun-Hatay (Collection numbers: MSM-MAL/2010-2.)

At the present time, a biological invasion of alien species is a significant environmental problem. Ships are a major pathway for the introduction of alien marine organisms via hull fouling and/or ballast water (Özcan et al. 2010). This species has probably entered the Mediterranean Sea by ballast waters (Özcan et al. 2010).

According to current data *E. integrifrons* is more abundant in the Mersin Bay than in Iskenderun Bay. This observation suggests that the habitat in Mersin Bay is more suitable for its reproduction and spread.

The present paper reports the first occurrence of the most recent alien crab found in Mersin Bay. The population of *E. integrifrons* is probably establishing in the Iskenderun and Mersin Bay area. The feeding habits of *E. integrifrons* and its interactions with other native species should be investigated to assess its impact on the autochthonous biota.

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References


