

## On the presence of the non-native estuarine shrimp, *Palaemon longirostris* H.Milne-Edwards, 1837 (Decapoda, Caridea), in the Black Sea

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### Abstract

The non-native estuarine shrimp, *Palaemon longirostris* H. Milne Edwards, 1837, is reported for the first time on the Sinop Peninsula coast (southern Black Sea). The species is previously known to occur in the northeastern Atlantic Ocean and the eastern Mediterranean including the Aegean Sea and the Sea of Marmara.

*Key words:* *Palaemon longirostris*, first record, non-native, Black Sea

The six species of the genus *Palaemon* known from European waters are: *Palaemon adspersus* Rathke, 1837 (European Atlantic coast, the Baltic Sea, all Mediterranean coasts, Black and Caspian Seas), *Palaemon elegans* Rathke, 1837 (European Atlantic coast, the Baltic Sea, the Mediterranean Sea, Black Sea and Caspian Sea), *Palaemon longirostris* H.Milne-Edwards, 1837 (European Atlantic coast, the Baltic Sea, the Mediterranean Sea), *Palaemon macrodactylus* Rathburn, 1902 (the northeastern Atlantic), *Palaemon serratus* (Pennant, 1777) (the North Sea, the northeastern Atlantic, all Mediterranean Sea coasts) and *Palaemon xiphias* Risso, 1816 (the northeastern Atlantic, the Mediterranean Sea). Three *Palaemon* species, namely *P. adspersus*, *P. elegans*, and *P. serratus* were previously reported from the Black Sea,

(Băcescu 1967, Holthuis 1961, Makarov 2004). Recently, Bilgin and Gönügür Demirci (2005), found these species on the Sinop coast, on the Anatolian shore of the Black Sea. *P. longirostris* occurs in shallow-water estuaries, and tolerates salt and freshwater, but prefers brackish waters within large river systems. It is well adapted to euryhaline conditions (Van Den Brink and Van Der Velde 1986). The major distribution area is the Atlantic Ocean and adjacent seas from north-western Germany (Gonzalez-Ortegon et al. 2005) to Morocco (Legardère 1971) and the Mediterranean Sea, specifically the Egyptian coast (Pfeffer, 1889). This paper presents the first record of *P. longirostris* in the Black Sea.

One male specimen (total length 3.2 cm) of *P. longirostris* (Figure 2) was captured by a SCUBA diver on 13<sup>th</sup> of July, 2005 at a depth of

0.5 m on the algae *Cystoseira* spp. at a location on the Sinop Peninsula coast (southern Black Sea, GPS coordinates: 42°03'08"N; 35°03'04") (Figure 1). The specimen photographed was preserved in 4% formaldehyde and deposited at the Museum of the Faculty of Fisheries, Sinop University, Turkey (SNU-FF).



**Figure 1.** Map of the study area with the sampling site location



**Figure 2.** *Palaemon longirostris* H. Milne-Edwards, 1837, male, 3.2 cm, Sinop Peninsula (Turkey), Black Sea, lateral view (photo by M. Sezgin)

The features of the specimen reported correspond with the earlier taxonomic descriptions by Lagardère (1971) and Falciai and Minervini (1996). *P. longirostris* was mentioned previously as synonym of *Leander edwardsi* (Hell.) from the Russian coast of the Black Sea (cf. Czerniavsky 1884). However, *L. edwardsi* is currently treated as a synonym of *P. adspersus* (cf. Makarov 2004). This Black Sea record of *P. longirostris* is not surprising, given the species' wide range on the continental Turkish Mediterranean coast (Kocataş and Katağan 2003) from where it may have reached the Black Sea. It is

most likely that it is already present in other Black Sea localities, but was unreported or overlooked previously.

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