

## A new record of the Red Sea pebble crab, *Ixa monodi* Holthuis & Gottlieb, 1956 (Crustacea: Decapoda) from the Aegean Coast of Turkey

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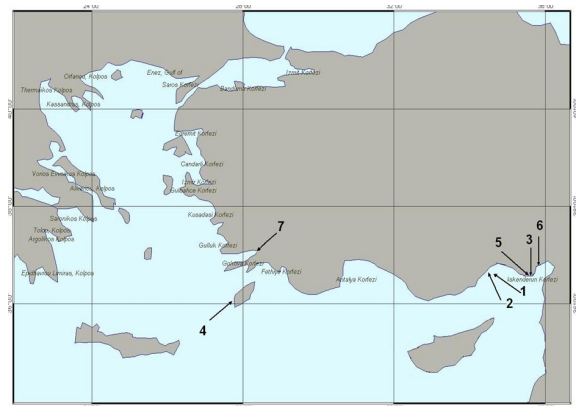
### Abstract

A specimen of the Red Sea pebble crab, *Ixa monodi* was collected in 2005 from the Bay of Gökova, on the Aegean coast of Turkey. This species, first collected in the Mediterranean in 1955 from the Bay of Mersin, SE Turkey, is quite common off the Israeli coast. In 1999 the species was collected off Rhodes Island, Greece, and the present record provides evidence of its dispersal in the Aegean Sea.

**Key words:** *Ixa monodi*, pebble crab, invasive alien, Aegean Sea

The fauna of the Levant Basin is characterized by a large contingent of alien species that have entered the Mediterranean through the Suez Canal since 1869 (Galil 1992). The Suez Canal allowed the passage of 358 Indian Ocean and Red Sea species into the Mediterranean (Yokes et al. 2007). Kocataş et al. (2002) compiled studies published between 1930 and 1995 concerning the distribution of alien decapods off the Levantine coast of Turkey, reporting 23 decapods, 10 Natantia and 13 Brachyura. Recently, Yokes et al. (2007) and Özcan et al. (2008) reported a total of 33 alien decapods off the Turkish Mediterranean coasts.

In 1955, *Ixa monodi* Holthuis & Gottlieb, 1956 was described as a new species and a new record for the Mediterranean, where it was trawled at a depth of 38 m in Mersin Bay, southeastern Turkey (Figure 1) (Holthuis and Gottlieb 1956). Later, it was recorded off Israel (Golani et al. 1983). Subsequent studies (Enzenross and Enzenross 1990, 1995; Galil 1992; Kocataş and Katağan 1994, 2003; Kocataş et al. 2002; Galil and Kevrekidis 2002; Özcan et al. 2005 and Özcan 2007) have shown that this species occurred off the Levantine coasts of



**Figure 1.** Records of *Ixa monodi* in the Levantine coasts of Turkey (see Annex 1 for details)

Turkey. The westernmost record of *I. monodi* was off Rhodes Island, Greece (Galil and Kevrekidis 2002). Kocataş and Katağan (1994; 2003) believed that Erythrean alien decapods that had established dense populations off the southern shores of Turkey, may extend their distribution to Fethiye Bay, on the border of the Levantine Basin and the Aegean Sea.



**Figure 2.** The *Ixa monodi* specimen caught in Gökova Bay, SE Aegean Sea in April 2005 (Photo: O. Akyol).

On 15 April 2005, a single male specimen of *I. monodi* (Figure 2), with carapace length (cl) 59.2 mm and carapace width (cw) 21 mm (possibly the largest specimen reported from the Mediterranean; see Holthuis and Gottlieb, 1956; Galil and Kevrekidis 2002; CIESM 2005) was collected from Gökova Bay (37°02'N - 28°16'E), SE Aegean Sea. The specimen was caught by a trammel net (40 mm stretched mesh size) over a sandy bottom at a depth of about 20 m, and is deposited in the fish collection of Ege University, Fisheries Faculty (ESFM-MAL/2005-989).

This is the first record for *I. monodi* from the Aegean coast of Turkey and the 10th alien decapod recorded there (Yokes et al. 2007; Özcan 2007). The present record provides evidence of the continuing spread of thermophilic Erythrean aliens in the Aegean Sea.

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**Annex 1.** Records of *Ixa monodi* in the Levantine coasts of Turkey

Site No. (Map Ref.)	Location	Record coordinates		Record date	Number collected	Reference
		Latitude, °N	Longitude, °E			
1	Mersin Bay	36°35'	34°32'	12 June 1955	1	Holthuis and Gottlieb 1956
2	Yemişkumu	36°36'	34°25'	1987-1989	1	Enzenross and Enzenross 1990
3	Karataş	36°28'	35°32'	1987-1989	1	Enzenross and Enzenross 1990
4	Rhodes Island	36°02'	27°44'	21 Nov. 1999	1	Galil and Kevrekidis 2002
5	Karataş	36°28'	35°32'	June-Oct. 2002	21	Özcan et al. 2005
6	Yumurtalık	36°43'	35°47'	Nov.-Apr. 2003	2	Özcan et al. 2005
7	Gökova Bay	37°02'	28°19'	15 Apr. 2005	1	Present study