

Short Communication

Westward extension of the Indo-Pacific cardinal fish *Apogon fasciatus* (White, 1790) along the Turkish coast

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Abstract

On December 1st 2011, five specimens of the broadbanded cardinalfish *Apogon fasciatus* (White, 1790) were captured from the Gulf of Antalya. This observation documents the westward expansion of this alien species along the Turkish coasts.

Key words: *Apogon fasciatus*; alien species; Antalya; Turkey; Eastern Mediterranean

Introduction

Apogonidae are usually small colourful fishes that occur over rocky bottoms. The Broadbanded cardinalfish *Apogon fasciatus* (White, 1790) has a wide distribution throughout the Red Sea, Mozambique, Fiji, New Caledonia, the Persian Gulf and east to the Western Pacific (Fraser 2005). It inhabits coastal reefs and sandy or weedy areas, at depths of 2-128 m (Lieske and Myers 1994; Froese and Pauly 2010). In its native range, *A. fasciatus* reaches the size of 10 cm and feeds on zooplankton (Randall 2005; Goren et al. 2009).

The first record of *Apogon fasciatus* in the Mediterranean Sea was reported in 2009 along the coast of Ashdod, Israel (Goren et al. 2009). Soon afterwards, in 2010, two specimens were recorded from Iskenderun Bay, Turkey (Turan et al. 2010).

Material and methods

On December 1st 2011, five individuals of *A. fasciatus* (Figure 1) were collected from the Gulf of Antalya (Figure 2). The capture was realized by a trawl fishery boat (R/V Akdeniz Su) at a depth of 30-40 m, on sandy and rocky substrates. The specimens were identified



Figure 1. *Apogon fasciatus* captured from the Gulf of Antalya, Turkey, on December 1st 2011 (four out of the five individuals are showed).

Figure 2. Record locations of *Apogon fasciatus* in the Mediterranean Sea (I. Goren et al. 2009; II. Turan et al. 2010; III. Present study).

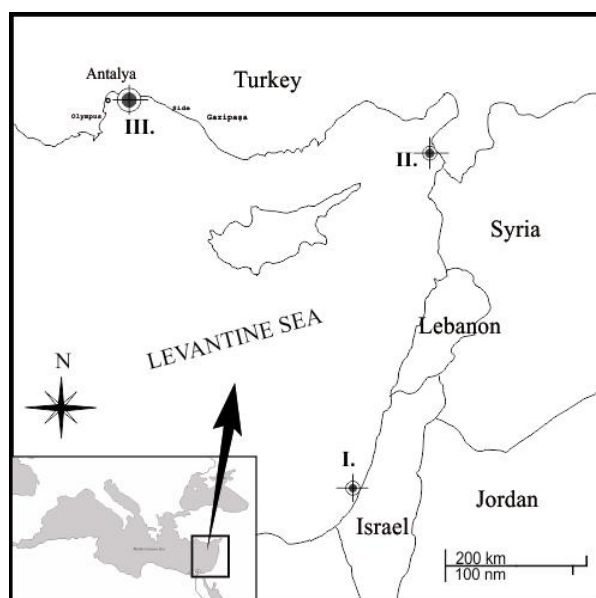


Table 1. Morphometric measurements and weights of *Apogon fasciatus*.

	Weight (g)	Total Length (cm)	Fork Length (cm)	Body Height (cm)	Eye Diameter (cm)	Head Length (cm)	Body Width (cm)
1	6.55	7.7	7.1	2.1	0.6	2.1	1.0
2	6.49	7.6	7.1	2.0	0.6	2.1	1.0
3	3.69	6.4	6.1	1.7	0.5	1.8	0.8
4	2.70	5.9	5.5	1.5	0.4	1.7	0.7
5	1.49	4.9	4.5	1.2	0.4	1.3	0.6

according to Allen (1999), preserved in 4% formalin and deposited at the fish Museum of the Fisheries Faculty of Akdeniz University, Antalya (Collection number: 94-99).

A brief description of the specimens: The ovate body colour is silver on the sides and whitish on the belly, with two dark stripes. The lower stripe runs throughout the length of the whole body. The upper stripe is narrower and runs until the end of second dorsal fin. The first dorsal spine is very short, the third one is longest and very robust. First dorsal fin VII, second dorsal fin I + 9, anal fin II + 8 pectoral fin 15-16, caudal fin 22 (Table 1).

Results and discussion

Non-indigenous apogonids, entering from the Suez Canal, are showing a rapid expansion throughout the eastern Mediterranean and the present record of *Apogon fasciatus* can be taken

as evidence of the westward advance of this species along the Turkish coasts. With respect to the only native cardinal fish [*A. imberbis* (Linnaeus, 1758)], the diversity of this group of nocturnal species has increased significantly in the Mediterranean Sea. In fact, *A. fasciatus* joins other non-indigenous cardinalfishes that have been already reported in this basin: *A. pharaonis* Bellotti, 1874; *A. smithi* (Kotthaus, 1970) and *A. queketti* Gilchrist, 1903 (Goren et al. 2009). Considering the rapidity of its spread, we foresee a future advance of the broadband cardinalfish towards the Aegean Sea.

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