Mediterranean Marine Science

Vol 10, No 2 (2009)

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doi: 10.12681/mms.117

Mediterranean Marine Science
Volume 10/2, 2009, 151-155

New data on the occurrence of two alien fishes, *Pisodonophis semicinctus* and *Pomadasys stridens,* from the Eastern Mediterranean Sea

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Abstract

The tropical Atlantic-originated saddled snake eel, Pisodonophis semicinctus (Richardson, 1848) and the Indian Ocean originated striped piggy, Pomadasys stridens (Forsskål, 1775), are being recorded for the first time along Turkish coasts. The first species is also a new addition to the eastern Mediterranean ichthyofauna, while the latter species has expanded its range to the northeastern Levant Sea.

Keywords: *Pisodonophis semicinctus; Pomadasys stridens;* Alien species; Mediterranean Sea; Turkey.

With respect to alien species introductions throughout the Mediterranean, Turkey is one of the most influenced countries due to its proximity to the Suez Canal and the dense maritime traffic occurring along its coastline (CINAR *et al.,* 2005). From a total of 125 alien fish hitherto reported from the Mediterranean (ZENETOS *et al.,* 2008), 49 are currently known from the Anatolian coast, the majority of which have established successful breeding populations (BILECENOGLU, 2009).

The authors have recently collected two additional species, the saddled snake eel [*Pisodonophis semicinctus* (Ophichthidae)] and the striped piggy [*Pomadasys stridens* (Haemulidae)], previously unknown in Turkey (Figs 1, 2). Specimens were fixed in 4% formalin and kept in the zoological collection of Adnan Menderes University.

One specimen of saddled snake eel (86 cm in total length) was captured from Ekincik Bay, Mugla (36˚49' N - 28˚ 33' E) on 16 June 2009, by a longline (baited with cuttlefish) at a depth of 18 m during the night (23:00 hrs). The description of the specimen examined is as follows: body elongated and almost cylindrical. Anterior nostrils tubular, located at the front sides of the snout, projecting downwards. Posterior nostrils as small openings on upper lip, covered by a flap. Dorsal and anal fins developed, but not confluent. Caudal fin absent, tip of tail hard and pointed. Predorsal length 8.4,

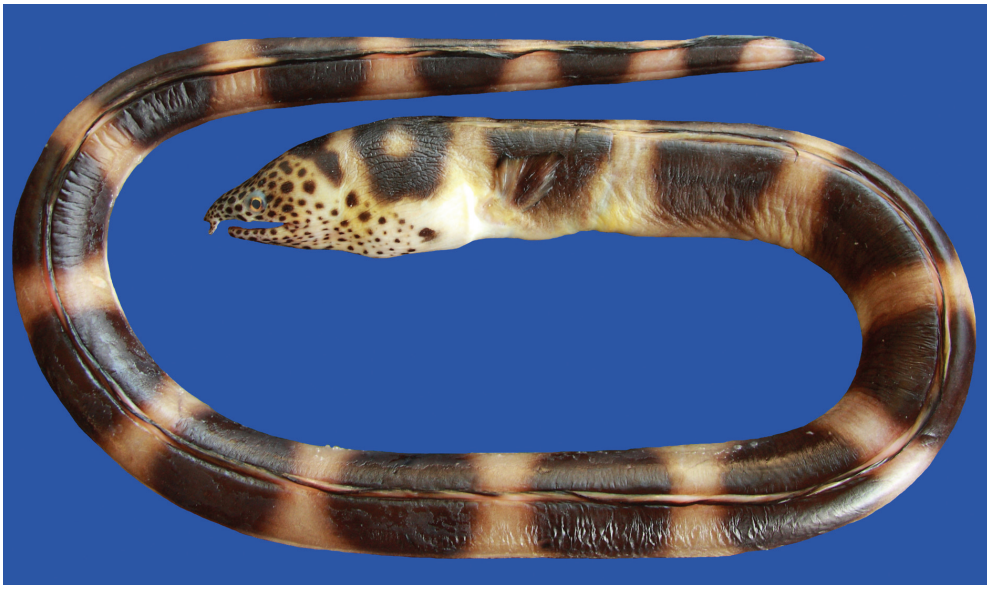

Fig. 1: *Pisodonophis semicinctus* (Richardson, 1848), 86.0 cm TL, Mugla/Turkey (Photograph: M. Bilecenoglu).

Fig. 2: *Pomadasys stridens* (Forsskål, 1775), 12.8 cm SL, Adana/Turkey (Photograph: M.Bilecenoglu).

preanal length 39.3, head length 10.4, body depth 4.3, all as a percentage of total length. Eye diameter 8.9, snout length 16.9, all as a percentage of head length. Body color was yellowish anteriorly and brown at the rest, with saddle-like dark patches (2 on head

and 16 over body). Several small dark spots on head, except for the nape. All fins edged with black. The saddled snake eel is a demersal species found on shallow coasts of up to 30 m, generally burrowing into sandy and muddy bottoms (BAUCHOT, 1986). It is distributed in the eastern Atlantic from Morocco to Angola, and the Western Mediterranean Sea (Algeria, France, Sicily, Ligurian Sea, Tunisia) (Fig. 3). The present finding represents the easternmost occurrence of the species in the Mediterranean and a first report in the Levant basin. At this stage, it is not clear whether the species is a newcomer or a previously overlooked species. However, considering the unmistakable coloration of the saddled snake eel and its slow but gradual range expansion from west to east (Fig. 3), we may assume a recent introduction to the Eastern Mediterranean.

On 18 October 2009, six specimens of striped piggy (13.3 – 15.8 cm in TL, 11.5 – 13.8 cm in SL) were collected by a bottom trawl on the Yumurtalik shores, Adana (36˚49' N - 35˚ 54' E), from a depth of 20 m. The description of the specimens is as follows: body moderately compressed. Head large and rounded, its upper profile convex. Mouth small and slightly oblique; maxilla ends just in front of orbit. Two pores and a short pit like groove behind on chin. Head length 3.3 – 3.5, body depth 3.2 – 3.5, caudal peduncle depth 10.7 – 14.4, all as a percentage of SL. Eye diameter 3.5 – 4.3, snout length 2.8 – 3.3, postorbital length 1.9 – 2.3, preopercular length 1.3 – 1.6, all as a percentage of head length. The sin-

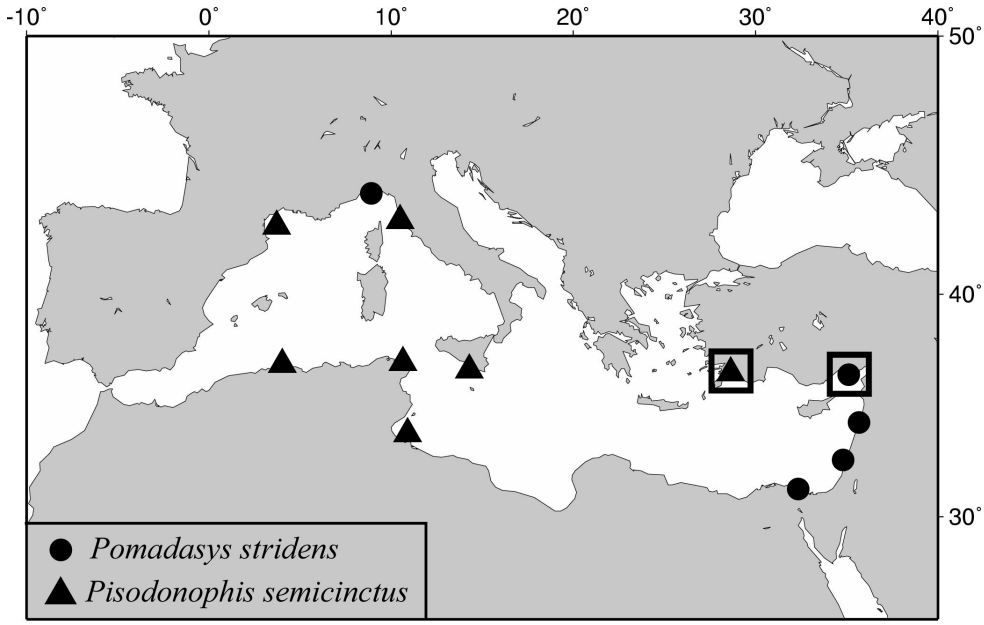

Fig. 3: Previous records of *Pomadasys stridens* and *Pisodonophis semicinctus* in the Mediterranean Sea (compiled from Ben-Tuvia & McKay, 1986; Ragonese & Giusto, 2000; Serena, 2001; Bradai et al., 2004). New sightings from Turkey are framed.

gle dorsal fin deeply notched with 12 spines and 14 – 15 rays, anal fin with 3 spines and 8 – 9 rays, pectoral fin with 16 – 17 rays. Body covered with small scales (except for the snout); 52 – 60 pored scales in a lateral line; 9 – 10 scales between lateral line and dorsal fin origin. Body color is silver on the sides and whitish on the belly, with 3 prominent longitudinal golden stripes on the upper half of the body. A dark spot, encircled by golden yellow, on the upper corner of the opercle. The striped piggy is benthic over sandy and muddy bottoms, from shallows to a depth of 55 m (BEN-TUVIA & McKAY, 1986). It is known from the Suez Canal, Red Sea and the Western Indian Ocean, and was first observed in the Mediterranean during 1968 in the Gulf of Genoa (BEN-TUVIA, 1977). A single report from Turkey by AKSIRAY (1987) is not regarded to be valid (see BILECENOGLU *et al.,* 2002; BILECENOGLU, 2009), since essential information (such as precise capture locality, specimen description, etc.) to provide support on its occurrence was not provided. The species seems to have recently reached Turkish coasts, since the same trawling locality has been monitored regularly by two of us (MB & MK) and no *P.stridens* specimens were previously collected. Local fishermen also stated that the species was absent from Yumurtalik coasts until recently. An established striped piggy population in the area is apparent (based on the six specimens collected) and its possible westward migration along the Anatolian coast should be monitored.

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Submitted: October 2009
Accepted: November 2009
Published on line: November 2009