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THE OCCURRENCE OF THE CADENAT'S ROCKFISH, *SCORPAENA LOPPEI* (ACTINOPTERYGII: SCORPAENIFORMES: SCORPAENIDAE), IN THE EASTERN AEGEAN SEA

Halit FILIZ [1*], Sercan YAPICI [1], S. Can AKCINAR [2], Efe ULUTURK [2], H. Zeynep DARDERE [2], and Mustafa ERDEM [1]

[1] *Mugla University, Faculty of Fisheries, 48000 Kötekli, Mugla, Turkey*

[2] *Ege University, Faculty of Fisheries, Department of Hydrobiology, 35100, Bornova, Izmir, Turkey*

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Abstract. One specimen of the Cadenat's rockfish, *Scorpaena loppei* Cadenat, 1943 (Scorpeanidae), was caught off Marmaris (eastern Aegean Sea, Turkey) on 27 December 2008 by bottom trawl net. The specimen was 56.15 mm total length. *S. loppei* is evidently rare in the Aegean Sea than it is in the western Mediterranean.

Keywords: *Scorpaena loppei*, occurrence, eastern Aegean Sea, Turkey

Scorpaena loppei Cadenat, 1943 is one of the 14 species of Scorpaenidae in the Mediterranean (Quignard and Tomasini 2000). This benthic species is distributed in the eastern Atlantic and Mediterranean Sea (Maul 1976, Hureau and Litvinenko 1986, Bauchot 1987, Golani et al. 2006). It is more abundant in the western Mediterranean, where it is found around Balearic Islands (Merella et al. 1997), in Gulf of Lions (France) (Gaertner et al. 1998), off the coast of Botricello (south-eastern Italian coast, Ionian Sea) at 30 m (Matarrese et al. 1996), the Italian side of Adriatic Sea between 10–50 m (Ungaro et al. 1999), on the Catalan coast between 22–548 m (Spain) (Demestre et al. 2000), and in the Adriatic Sea (Dulčić and Lipej 2002). In the Adriatic it is relatively rare (Dulčić and Lipej 2002). Although it is more common in the western Mediterranean, occurrence of the species in the eastern Mediterranean is considered very rare (Golani 2005, Golani et al. 2006). An early record from Cyprus was given by Fröiland (1972).

Within the Aegean Sea, the occurrence of *S. loppei* has been well documented and more reliable in Greek territorial waters (Economidis 1973, Kasparis 1976, Papaconstantinou 1988, Labropoulou and Papaconstantinou 2000). However, knowledge regarding its presence in Turkish waters has been uncertain. Akşıray (1987) reported a specimen from Turkish waters, but provided no precise depth or locality information. Based upon the Akşıray (1987) record, this species was included in an early checklist of Turkish fishes (Bilecenoglu et al. 2002). However, it was not included in a recent ichthyofauna checklist of Turkish waters (Fricke et al. 2007). More recently Keskin and Eryılmaz (2008) recorded this "doubtful" fish based on two specimens caught in the Mersin-Taşucu Bay for both Turkish seas and Mediterranean coasts of Turkey. Herein, we provide reliable information about the occurrence of *S. loppei* in eastern Aegean Sea coast of Turkey.

On 27 December 2008, one specimen of *S. loppei* was captured during the bottom trawl by the commercial fishing vessel off Marmaris Bay (eastern Aegean Sea, Turkey, Fig. 1). The specimen was fixed in 5% formaldehyde solution. The species identification was aided by guidelines provided by Eschmeyer (1969), Whitehead et al. (1986), and Bauchot (1987). The specimen is deposit-

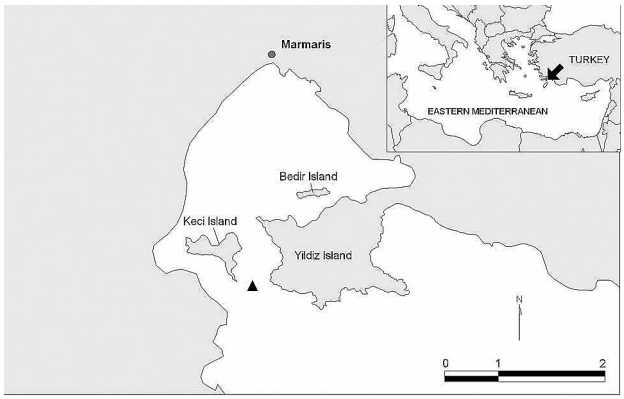


Fig. 1. Area where the studied specimen of *Scorpaena loppei* was captured

* Correspondence: Dr. Halit Filiz, Muğla Üniversitesi, Su Ürünleri Fakültesi, Temel Bilimler Bölümü, 48000 Kötekli, Mugla, Turkey, phone: +90 252 2111895, fax: +90 2 111 887, e-mail: *sharkturk@yahoo.com.*

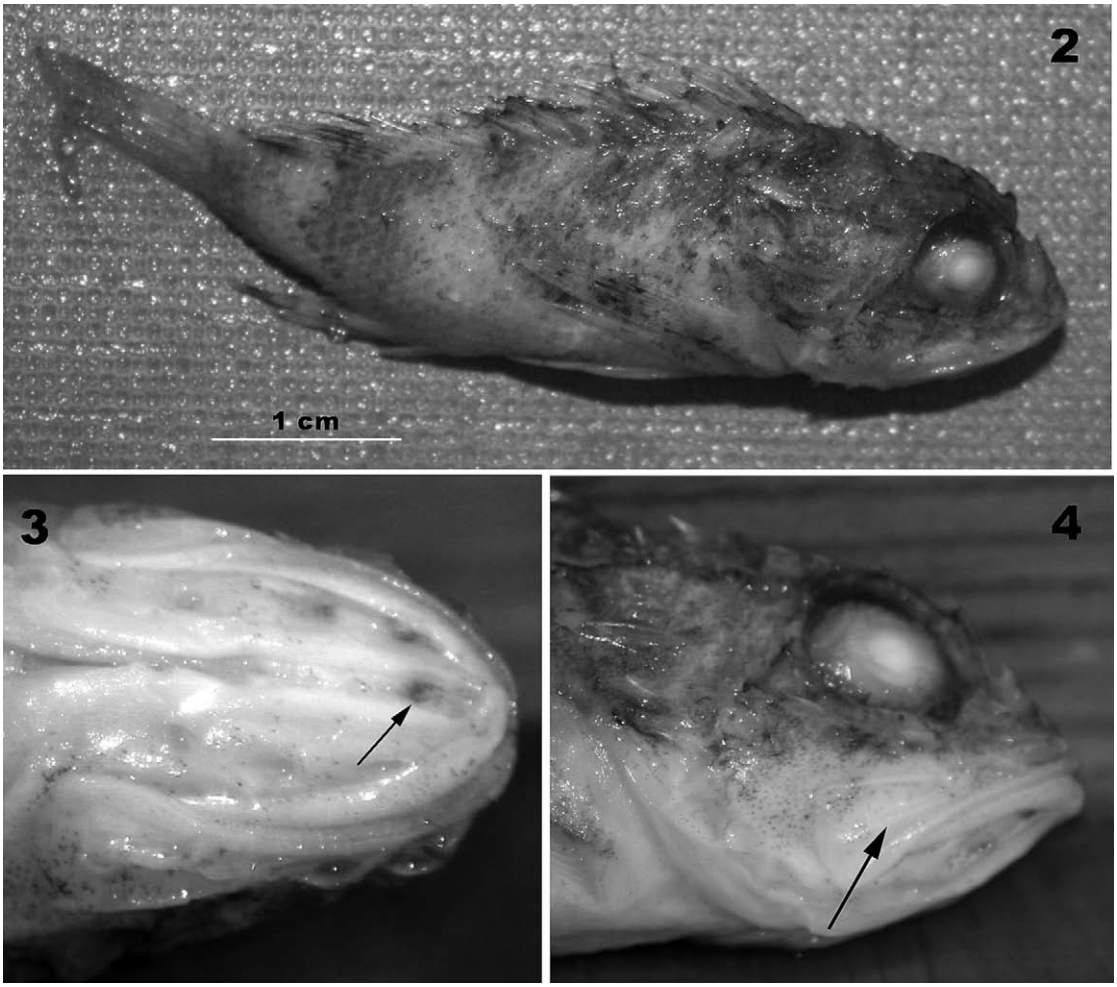
ed in the Museum of Faculty of Fisheries, Mugla University (catalogue number MUSUF/PIS-2008-1). Morphometric characters were measured to the nearest 0.01 mm using digital callipers (Table 1). The specimen was weighed (as fresh) to the nearest 0.01 g digital scales and meristic characters were counted under the reflected light of a stereomicroscope.

This species was collected as part of a survey carried out in the Marmaris Bay (eastern part of the Aegean Sea), an affected area by industrial trawling fisheries. It was taken at

Table 1

Measurements [mm], counts, and rations of *S. loppei*; present study

Parameter		Value
Number of specimen	*n*	1
Total Length	TL [mm]	56.15
Standard Length	SL [mm]	44.90
Maximum Body Depth/SL	MBD/SL	31.02
Head Length/SL	HL/SL	43.74
Snout Length/HL	SnL/HL	24.69
Snout to Dorsal fin/SL	Sn–D/SL	37.68
Snout to Pectoral fins/SL	Sn–PEC/SL	42.18
Snout to Pelvic fin insertion/SL	Sn–PEL/SL	43.45
Snout to Anal fin base/SL	Sn–A/SL	65.06
Interorbital Distance/HL	ID/HL	19.40
Eye Diameter	ED/HL	27.09
Dorsal rays count	D	XII + 9
Anal rays count	A	III + 5
Pectoral rays count	P	18
Pelvic rays count	PE	I + 5



Figs. 2–4. *Scorpaena loppei*, 56.15 mm TL, captured in Marmaris Bay (eastern Aegean Sea); **Fig. 2.** General view; **Fig. 3.** head below view; **Fig. 4.** maxilla

a depth 65–70 m on a muddy bottom using a conventional bottom trawl net of 24 mm cod-end mesh size. Two hauls in same day were carried out from dawn to dusk and haul durations ranged from 1 to 3 h. The vessel speed was maintained at 2.2–2.5 knots. The specimen was found in the codend.

Diagnosis: Body moderately compressed; head large; maxilla with a characteristic longitudinal crest; snout shorter than orbit diameter; preorbital bone with 2 spines over maxilla, first is very blunt, second is long and curved to rear; suborbital ridge with 4 spinous points; upper post-temporal spine present. Occipital pit present. Tentacles on head and body poorly developed. Dorsal fin rays XII + 9; anal fin rays III + 5; pectoral fin rays 18; pelvic fin rays I + 5. Scales on body ctenoid; chest, pectoral fin base and head naked; vertical rows of scales 37; scales in lateral lines 21–22; gillrakers 15 on the whole first arch. Maximum body depth 31.02% of SL; head length 43.74% of SL; snout length 24.69% of head length; eye diameter 27.09% of head length (Table 1 and Fig. 2).

Body colour uniformly pink with many black spots; a dark spot on spinous dorsal fin between spines 6 and 9 and fins dusky. All counts and measurements agree with descriptions given by Eschmeyer (1969) and Hureau and Litvinenko (1986). *S. loppei* can be easily distinguished from all other Mediterranean scorpionfishes by the anterior mandibular pores which are united a single opening (Fig. 3) and presence of maxilla with a longitidunal crest (Fig. 4). *S. loppei* is a small species; Tortonese (1975) reported maximum length 120 mm, Hureau and Litvinenko (1986) 100 mm, Bauchot (1987) 150 mm and Golani et al. (2006) between 50–100 mm. The species occurs on muddy sand and gravel, generally at depths between 50 and 300 m (Bauchot 1987, Froese and Pauly 2009). *S. loppei* feeds mainly with crustaceans (Hureau and Litvinenko 1986) and fish (Golani et al. 2006).

Although the occurrence of *S. loppei* in Greek Aegean waters (Labropoulou and Papaconstantinou 2000) is well documented, the species has not been recorded from the other parts of the Aegean Sea. This is the first record of this species from the Turkish Aegean waters. The rarity of *S. loppei* in the Aegean Sea may be related to its low population density or low capture rate caused by its small size (max. 15 cm) (Eschmeyer and Dempster 1990), as well as its body shape and coloration which could be confused with small specimens of other similar species (e.g., *S. notata*).

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