

**EVIDENCE FOR THE OCCURRENCE OF THE INDO-PACIFIC STONEFISH,
SYNANCEIA VERRUCOSA (ACTINOPTERYGII: SCORPAENIFORMES: SYNANCEIIDAE),
IN THE MEDITERRANEAN SEA**

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Edelist D., Spanier E., Golani D. 2011. Evidence for the occurrence of the Indo-Pacific stonefish, *Synanceia verrucosa* (Actinopterygii: Scorpaeniformes: Synanceiidae), in the Mediterranean Sea. *Acta Ichthyol. Piscat.* 41 (2): 129–131.

Abstract. The stonefish, *Synanceia verrucosa* Bloch et Schneider, 1801, was recorded for the first time in the Mediterranean. The fish was caught by trammel net, at a depth of 3 m, recorded on video and then released. Its occurrence is presumed to be due to either Lessepsian migration or as an escapee from aquaria.

Keywords: *Synanceia verrucosa*, Stonefish, Mediterranean, Lessepsian migration

The rate of influx of Red Sea fishes into the Mediterranean via the Suez Canal (termed “Lessepsian migration”) has accelerated during the first decade of the 21st century (e.g., Rilov and Galil 2009, Golani 2010). Salameh et al. (2011) enumerate 80 such species. The present publication raises the total number to 81.

On 18 April 2010, a ca. 30 cm total length (TL) specimen of stonefish, *Synanceia verrucosa* Bloch et Schneider, 1801, was caught in the Mediterranean coast of Israel (Figs. 1 and 2) by a trammel net set for crabs at a depth of 3 m, in the vicinity of Palmakhim (lat 31°56.36' N, long 34°42.16' E). The specimen was kept alive in a bucket and video recorded in 2 videos for almost 2 minutes, before it was released alive to the sea. The standard resolution of the video recording allowed identification of the fish to a high level of certainty. The videos were uploaded as an electronic supplement to FishBase (Froese and Pauly 2011) and can be viewed online at <http://www.youtube.com/watch?v=y4xcMp4rN1Y> and http://www.youtube.com/watch?v=Zf_QgNmXvpA.

Description of the Mediterranean specimen based on the video. Body stocky almost globe-like with broad dorsally flattened head, eye slightly elevated, separated by wide shallow depression. Shallow pit behind eye. Mouth half circle and open dorsally. Thirteen dorsal spines nearly equal in length and covered by skin. Round caudal fin. Very wide, fan-like, pectoral fin with 19 fleshy rays. Colour: light tan to beige.

Ecology. Two species of the genus *Synanceia* occur in the Red Sea (Golani and Bogorodsky 2010). *Synanceia verrucosa* Bloch et Schneider, 1801 and *Synanceia nana* Eschmeyer et Rama Rao, 1973. *S. verrucosa* can be distin-



Fig. 1. Lateral view of the Mediterranean specimen of *Synanceia verrucosa*

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Fig. 2. Frontal view of the Mediterranean specimen of *Synanceia verrucosa*

guished from *S. nana* by having 18–19 pectoral rays and 13 dorsal spines versus 14–15 and 14, in the latter species. In addition, in *S. verrucosa* there is a distinct lack of dark margins of the pectoral, pelvic and caudal fins that characterize *S. nana* (see Eschmeyer and Rama Rao 1973, Lieske and Myers 2004). Furthermore, *S. nana* never exceeds 135 mm TL while *S. verrucosa* reaches a maximum length of 400 mm (Poss 1999). *Synanceia verrucosa* has a wide Indo-Pacific distribution. It is considered one of the most venomous fish in the sea, with fatalities reported in literature (Halstead 1970, Eschmeyer and Rama Rao 1973, Garnier et al. 1995, Spanier 2000, Ngo et al. 2009). It feeds mainly on small and medium-sized fish and invertebrates (Poss 1999). Its source habitat is either sand or rubble areas near reefs or rocky outcrops (Fischer et al. 1990), which can also be found in the shallow Mediterranean coast. Golani (2010) stated that schooling species with high mobility have an advantage over territorial solitary species in colonizing new areas. This is indeed the case concerning Lessepsian fish migrants; with the exception of a few territorial species (namely, *Hippocampus fuscus* Rüppell, 1838 and *Stephanolepis diaspros* Fraser-Brunner, 1940) solitary territorial migrants like *S. verrucosa* have only been recorded in the Mediterranean by either a single record or by a very small number of individuals.

Introduction vector. The most probable source of *S. verrucosa* introduction into the Mediterranean is its invasion by pelagic larvae (Debelius 1998). Nevertheless, despite the sluggish movement of adult *S. verrucosa* (e.g., Grobecker 1983), the possibility of adults swimming along the bottom of the canal should not be ruled out. It is also possible that it reached its new region as an escapee or release from aquaria but to the best of our knowledge this fish is not part of the aquarium trade in Israel. The extremely venomous nature of *S. verrucosa* mandates that

a special attention be given to any further observations and that the public is informed on its presence in the Mediterranean.

ACKNOWLEDGEMENTS

The authors wish to thank Mr. Mohammad Zinb for providing the information and video, as well as Mr. Steve Breitstein for still captures from the video.

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Received: 18 July 2010

Accepted: 4 January 2011

Published electronically: 30 June 2011