

**FIRST RECORD OF THE FILEFISH, *STEPHANOLEPIS DIASPROS*
(MONACANTHIDAE), IN THE ADRIATIC SEA**

by

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RÉSUMÉ. - Premier signalement du poisson-bourse *Stephanolepis diaspros* (Monacanthidae) en mer Adriatique.

Un spécimen de migrant lessepsien, le poisson-bourse *Stephanolepis diaspros* Fraser-Brunner, 1940, est signalé pour la première fois de l'Adriatique. Le spécimen (77,3 mm TL) a été trouvé le 23 août 2002 sur le marché de Ulcinj (Monténégro). Selon les pêcheurs, il a été capturé par une senne de plage dans la zone de Hrid Djeran (41°52'N-19°17'E) sur un fond sablo-rocheux de 20 m de profondeur. Le spécimen a été déposé dans la collection ichthyologique de l'Institut océanographique et des Pêches de Split (numéro de catalogue: IOR 293).

Key words. - Monacanthidae - *Stephanolepis diaspros* - MED - Adriatic Sea - Lessepsian migrant - First record.

The concept or recent tropicalization of Mediterranean waters is supported with records of more than 80 fish species (Andaloro and Rinaldi, 1998). Although the Adriatic is regarded as a well-studied semi-enclosed sea, some new taxa of marine flora and fauna, including fish, are being recorded each year. Jardas (1996) lists a total of 407 fish species and subspecies, representing 117 families, from the Adriatic Sea. During the past ten years several publications on the occurrence of new fish species in the Adriatic waters were published (Dulčić and Grbec, 2000; Dulčić and Pallaro, 2002; Glamuzina *et al.*, 2002), bringing the number of fish species in the Adriatic Sea to 423 representing 120 families. The new records are mostly of thermophilic species, whose movements are also cited as evidence of warming of Mediterranean and Adriatic waters (Dulčić and Grbec, 2000).

In the Mediterranean, particularly in its eastern part, there is a numerically more significant element of the recent Indo-Pacific ichthyofauna as a result of migration from the Red Sea through the Suez Canal, a phenomenon known as lessepsian migration. In this paper we present the first record and description of the lessepsian migrant filefish *Stephanolepis diaspros* Fraser-Brunner, 1940 in the Adriatic Sea.

On 23 August 2002, a 77.3 mm total length (TL), mass 8.5 g, specimen of *S. diaspros* was found on the fish market in Ulcinj (southern Adriatic, Montenegro) (Fig. 1). According to fishermen from Ulcinj it was captured with a beach seine at the area of Hrid Djeran (41°52'N-19°17'E) (Fig. 1), at a depth of about 20 m on the rocky-sandy bottom. According to fishermen the water temperature was 19.5°C. The specimen (Fig. 2) was preserved in formalin and deposited in the ichthyological collection of the Institute of Oceanography and Fisheries in Split and received the catalogue number IOR 293, thus bringing the number of lessepsian fish migrants in the Adriatic Sea to seven. Filefish previously has not been recorded in the Adriatic Sea (Jardas, 1996). This is the northernmost record of this species in the Mediterranean area and the

first record of species from family Monacanthidae for the Adriatic Sea.

In table I, the main morphometric and meristic data of the specimen are presented. The Adriatic specimen is described as follows: body deep and compressed; first dorsal fin consists of a single strong spine with barbs on the posterior edge, originating above posterior margin of eye; caudal fin rounded, pelvic fins absent; snout pointed, slightly concave dorsally, small terminal mouth with incisor teeth; gill opening slit-like above pectoral fin base; body covered with rough skin composed of very small scales bearing spinules. All counts, measurements and descriptions agree with Tortonese (1986), Gücü *et al.* (1993) and Golani *et al.* (2002).

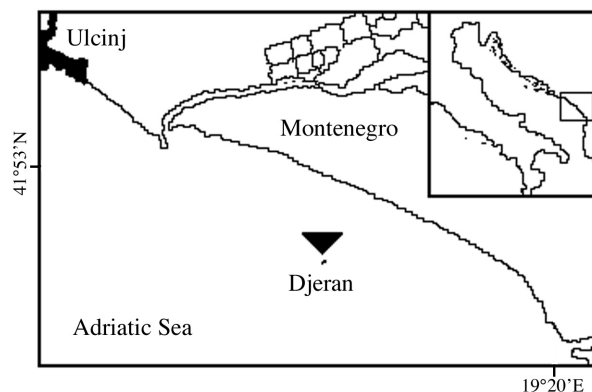


Figure 1. - Map of the area showing the catch location of *Stephanolepis diaspros*: Hrid Djeran, Montenegro coast.



Figure 2. - Specimen of *Stephanolepis diaspros* (77.3 mm TL, IOR 293) from Hrid Djeran, Southern Adriatic.

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Table I. - Morphometric (mm) and meristic characteristics of the filefish specimen from the Adriatic Sea, IOR 293.

Characteristics	
Total length (TL)	77.3
Standard length (SL)	61.8
Head length	22.9
First predorsal length	19.9
Second predorsal length	34.7
Preanal length	34.4
Prepectoral length	21.3
First dorsal fin length	3.7
Second dorsal fin length	18.2
Anal fin length	20.3
Pectoral fin length	10.2
Caudal fin length	27.9
Maximal body length	34.9
Minimal body length	6.7
Eye diameter	7.1
Interorbital length	5.6
Preorbital length	13.6
Postorbital length	2.2
Total length/Max. body depth	2.21
Total length/Head	3.38
Max. body depth/Head	1.52
Head/Eye diameter	3.23
First dorsal fin rays	I
Second dorsal fin rays	30
Anal fin rays	30
Pectoral fins rays	13
Caudal fin rays	I+10+I

It lives in small groups and feeds on small invertebrates plucked from rocks. It inhabits coastal rocky substrate, usually with vegetation (Golani *et al.*, 2002). Tortonese (1986) pointed that inhabits littoral near bottom or reefs in tropical to warm temperate seas. Its common size is from 7 to 15 cm (max. 20 cm) (Golani *et al.*, 2002). Tortonese (1986) reported maximum of 25 cm SL, while Sommer *et al.* (1996) maximum of 25 cm TL. Gücü *et al.* (1993) reported maximum of 20.6 cm TL at the Turkish Mediterranean coast.

S. diaspros is known from the Western Indian Ocean: the Persian Gulf to the Red Sea (Hutchins, 1984) and, as a lessepsian migrant, in the Mediterranean Sea (Randall, 1995), where it was first recorded from Palestine (Steinitz, 1927). Successive records were from Syria, Cyprus, Rhodes (see in Golani *et al.*, 2002), Gulf of Gabes, Tunisia (Chakroun, 1996), Gulf of Taranto, Italy (Tortonese, 1967), Crete, Saronikos Gulf (see in Golani *et al.*, 2002), Gulf of Palermo (Catalano and Zava, 1993) and Marfa Point, Malta on 14 March 2002 at 15°C (www.fishbase.org). It is

very common in the eastern Mediterranean but the reason for its successful establishment in the Adriatic Sea is unknown (Golani *et al.*, 2002).

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Reçu le 24 février 2003.

Accepté pour publication le 23 mai 2003.