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ON THE RECORD OF MADEIRA ROCKFISH *SCORPAENA MADURENSIS* VALENCIENNES, 1833, IN THE EASTERN ADRIATIC

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ABSTRACT

A Madeira rockfish, *Scorpaena madurensis Valenciennes, 1833*, was caught near the island of Daksa (Dubrovnik) in March 2003. As far as the Madeira rockfish is concerned, this is, to our best knowledge, second record of this species for the eastern Adriatic. The presented morphometric and meristic data are the first for this species from the eastern Adriatic.

Key words: *Scorpaena madurensis*, second record, eastern Adriatic

TESTIMONIANZA DI SCORFANOTTO DI MADEIRA *SCORPAENA MADURENSIS* VALENCIENNES, 1833 IN ADRIATICO ORIENTALE

SINTESI

Un esemplare di scorfanotto di Madeira, *Scorpaena madurensis Valenciennes, 1833*, è stato catturato vicino all'isola di Daksa (Ragusa) nel marzo del 2003. Secondo le conoscenze degli autori, si tratta della seconda testimonianza della presenza dello scorfanotto di Madeira nell'Adriatico orientale. L'articolo riporta i primi dati morfometrici e meristici per questa specie in Adriatico orientale.

Parole chiave: *Scorpaena madurensis*, Adriatico orientale, seconda segnalazione

INTRODUCTION

Some 430 fish species and subspecies (Cyclostomata not included) have been observed in the Adriatic Sea (Lipej & Dulčić, *in press*), and this number can be so far regarded as correct and complete for several reasons. Of this number, the very rare and rare fishes make up almost a quarter (24.2%). The Madeira rockfish *Scorpaena madurensis* belongs to the very rare species in the Adriatic Sea (Jardas, 1985, 1996). It is a small demersal fish found in shallow coastal waters at depths ranging from 20 to 40 m (Schneider, 1990). It occurs in the eastern Atlantic (Azores, Madeira, and Morocco to the Canaries, Cape Verde and Senegal) and at several localities in the Mediterranean Sea (Schneider, 1990).

The records on biology and ecology of this species in the areas of distribution and in the Adriatic Sea are scarce in the literature. Hureau & Litvinenko (1986) noted that the Madeira rockfish feeds on crustaceans and small fishes. Vacchi *et al.* (1999) presented data about the occurrence and habitat of juveniles and adults at Ustica Island (Mediterranean Sea), while Morato *et al.* (2001) reported the parameters of length-weight relationship of this species for the Azores archipelago. There are no data for the Adriatic Sea, except the notation of the first record for the eastern Adriatic (Kolombatović, 1904).

The main goal of this paper is to present first data on morphometric and meristic characteristics of this species and to register its second record for the eastern Adriatic.

MATERIAL AND METHODS

The Madeira rockfish was caught on March 15th 2003 near the island of Daksa (near Dubrovnik) (Fig. 1) by trammel bottom net (mesh size 28 mm) at a depth of 24 m (on the littoral rocky bottom). The specimen (juvenile stage, female) (Fig. 2) was identified according to Jardas (1996). It is deposited and registered in the Ichthyological Collection of the Institute of Oceanography and Fisheries in Split, Croatia. The specimen was preserved in 4% buffered formaldehyde immediately after capture, subsequently measured to nearest 0.01 mm, and weighed to the nearest 0.01 g. Meristic characteristics considered were: dorsal, anal, pectoral, ventral and caudal fins.

RESULTS AND DISCUSSION

The record of the Madeira rockfish near Daksa Island (Dubrovnik) is the second record of this species in the eastern Adriatic. Kolombatović (1904) recorded *S. madurensis* (he identified the specimen as *Sebastes maderensis* Lowe) (total length TL = 130 mm) for the first time on August 3rd near the island of Lastovo (open Central Adriatic) in 1902. The same author mentioned that some specimens had already been found near Malaga (Spain), Beirut (Lebanon) and along the coast of Syria. *S. madurensis* is a poorly known species distributed on the littoral rocky bottoms of some areas of the Mediterranean Sea, such as southeastern Spain, Sicily,

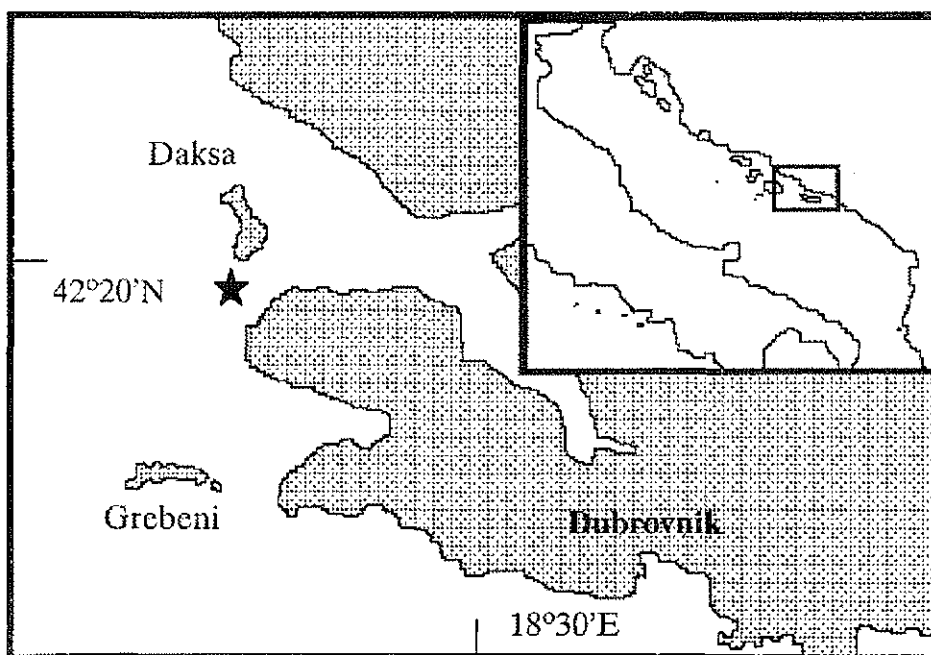


Fig. 1: *Scorpaena madurensis*. Geographic location of the record in the South Adriatic area (SW-S Daksa Islet).
Sl. 1: Lokacija v Jadranu, kjer je bila ujeta *Scorpaena madurensis* (JZ-J otoček Daksa).

Greece (Ionian and South Aegean) and Lebanon (Tortonese, 1975; Kaspiris, 1976; Economidis & Daoulas, 1981; Lanfranco, 1993). Hureau & Litvinenko (1986) referred to several localities in the Mediterranean where the Madeira rockfish occurs: southeastern coast of Spain, Strait of Messina, Syracuse and coast of Lebanon. It is very interesting that they excluded the Adriatic Sea as its distribution area.

Tab. 1: *Scorpaena madurensis*. Morphometric (in cm) and meristic data (Daksa Island, Dubrovnik, March 2003).

Tab. 1: *Scorpaena madurensis*. Morfometrični (v cm) in meristični podatki (otoček Daksa, Dubrovnik, marec 2003).

Measurements (cm)	♀ juv.
Total length (TL)	11.31
Standard length (SL)	8.72
Head length (HL)	3.71
Orbital diameter (O)	0.91
Interorbital width (IO)	0.43
Preorbital length (PROL)	0.85
Postorbital length (POOL)	1.95
Predorsal distance (PDD)	2.55
Preventral distance (PVD)	3.75
Preal distance (PAD)	6.49
Prepectoral distance (PPD)	3.07
Dorsal fin length (DL)	5.16
Anal fin length (AL)	1.04
Ventral fin length (VL)	2.71
Pectoral fin length (PL)	2.51
Caudal fin length (CL)	2.56
Maximum height (Hmax)	3.03
Caudal peduncle height (Hmin)	0.89
Dorsal ray (D)	XI/10
Anal ray (A)	III/5
Pectoral ray (P)	15
Ventral ray (V)	I/5
Caudal ray (C)	II-11-II

In Table 1, the main morphometric and meristic data are presented and are the first for this species from the Adriatic Sea. They are in agreement with those presented by Hureau & Litvinenko (1986) and Jardas (1996). Kolombatović (1904) reported the length of 130 mm of the caught Madeira rockfish at the Lastovo Island, and this has been, until now, the only reported length of this species caught in the eastern Adriatic. Bini (1968) pointed that this species attains a maximum size of 14 cm, while Morato *et al.* (2001) gave length range for the specimens caught at the Azores from 5.4 to 17.8 cm (males: from 8.4 to 17. cm; females: from 6.9 to 15.6 cm).

The specimen caught near Daksa was caught on the littoral rocky bottom together with photophilic algae, which is very much in line with the findings of Vacchi *et al.* (1999). They observed specimens on hard substrate, both on rocky bottoms with photophilic algae, rich in crevices and with different slope, and, to a lesser extent, on hard bottom with pebbles characterised by gentle slope (Ustica Island, Northern coast of Sicily). Moreover, they also found that both young and adults seemed to require the same habitat features. Riera *et al.* (1995) reported that littoral crevices and cavities along the shallow waters (0.8-15 m depth) represent the preferred habitat of this species. As for the bottom slope, it does not seem to affect the distribution of specimens and, in terms of ecological requirements, no difference between young and adults has been found (Riera *et al.*, 1995). Bini (1968) considered it preferentially inhabits the rocky coasts of the islands between 20 and 40 m depth.

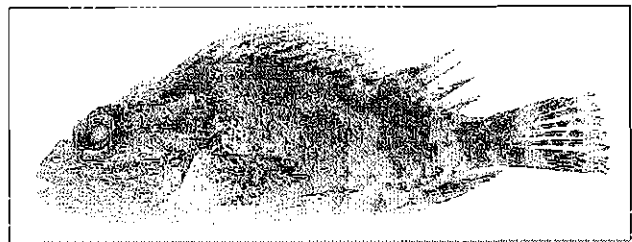


Fig. 2/Sl. 2: *Scorpaena madurensis* Valenciennes, 1833. (Photo/Foto: A. Pallaoro).

O VRSTI *SCORPAENA MADURENSIS* VALENCIENNES, 1833,
UJETI V VZHODNEM JADRANU

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POVZETEK

Marca 2003 je bila v bližini otočka Daksa pri Dubrovniku ujeta *Scorpaena madurensis Valenciennes, 1833*. Po razpoložljivi literaturi je to šele drugi podatek za to vrsto v vzhodnem Jadranskem morju. Predstavljeni morfološki in meristični podatki so prvi za to vrsto iz vzhodnega Jadrana.

Ključne besede: *Scorpaena madurensis*, drugi podatek, vzhodni Jadran

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