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FIRST RECORDS OF *SCORPAENA MADERENSIS*
(*Pisces Scorpaeniformes Scorpaenidae*)
IN INSHORE MALTESE WATERS

SUMMARY

The Madeira Rockfish *Scorpaena maderensis* (Valenciennes 1833) is recorded for the first time for Malta. Identification is authenticated by two photographs. Information on the species, habitat, and benthic community is given.

RIASSUNTO

Scorpaena maderensis (*Pisces Scorpaeniformes Scorpaenidae*), *specie nuova per Malta (Mediterraneo centrale)*. Viene segnalata per Malta *Scorpaena maderensis* (Valenciennes 1833), specie di Scorpaenidae in precedenza non nota per l'isola. La presenza della specie è confermata da due fotografie. Vengono fornite informazioni sulla specie, sull'habitat e sulla comunità ittica.

Scorpaena maderensis (Valenciennes 1833) is a benthic inshore species. In the eastern Atlantic it is known from Madeira, the Azores, the Canaries and Cape Verde Islands, the coasts of Morocco, Mauritania and Senegal (WHITEHEAD *et al.*, 1986). In the Mediterranean it is known from several localities including the southeastern coast of Spain and the coast of Lebanon, the eastern coast of Sicily including the Straits of Messina and Siracusa, and in Crete and Rhodes (WHITEHEAD *et al.*, 1986, various sources as cited in LA MESA *et al.*, 2005). It is locally abundant in shallow waters off Sicily (LA MESA *et al.*, 2004).

According to LA MESA *et al.* (2005, based on various sources as cited in), *S. maderensis* is one of the most poorly known scorpaenids; many fundamental aspects of its biology, such as growth and reproduction, are unknown. It is

known to inhabit shallow rocky bottoms inside crevices or underneath boulders and to feed on crustaceans and small fishes.

The occurrence of the species in Maltese waters has so far been unconfirmed. LA MESA *et al.* (2005) state that it does occur and cite LANFRANCO (1993) as their source. This is misleading. LANFRANCO (1993) mentions *S. maderensis* as 'sporadically recorded' in the Mediterranean and 'listed for Malta' on the basis of its inclusion in a list of fish names given in a dictionary by a Maltese linguist. He is however careful not to accept the species on such flimsy evidence and in fact *S. maderensis* does not make it into his 288-species list for the Maltese islands. A second systematic list based on field data found no evidence of the species (SCHEMBRI, 2001). Both LANFRANCO (1993) and SCHEMBRI (2001) limit their lists of scorpaenids to *S. scrofa*, *S. porcus*, and *S. notata*; all of these are confirmed from specimen material available to both authors. There are two works that list *S. maderensis*. FARRUGIA RANDON & SAMMUT (1999) and SAMMUT (2001) cite it as 'only encountered rarely in the region under consideration' but give no evidence whatsoever, authenticated or not, or references; in any case the two works are intended for a popular readership (they include poems, recipes, photographs of fishing trophies, and so on) and are scientifically neither valid nor reliable. In sum, there are to date no definite and confirmed records for the species in Maltese waters.

The present and earlier work by the author (FALZON, 1999, 2003, 2009) is based on sustained and direct *in situ* observation sessions, a method well known to produce useful data (see for instance GIBSON, 1999). The chosen method was to snorkel along the coast, in depths of 0 to ca.7m, occasionally up to 10m. Records were kept of species seen, approximate numbers of each, and behavioural/additional data. Notes were taken in the field, immediately after each session and sometimes on the spot using an immersible plastic note pad. Date, time, type of habitat, and sea conditions were also recorded. In addition to notes, photography was also used.

Two species of scorpaenids are represented in the results: *S. porcus* and *S. maderensis*. Mature specimens are fairly easy to separate in the field. Diagnostic field characters include: Supra-ocular tentacles that are much longer and flap-shaped in *S. porcus*; two well-defined dark bands on base of caudal and caudal in *S. maderensis*, less distinct and evenly-spaced bands in *S. porcus*; long and very noticeable white tentacles on lower mandible in *S. maderensis*; noticeably deeper and heavier-set body in *S. porcus*; and a 'marbled' overall coloration in *S. maderensis* with various white spots and brightly-coloured areas, a lighter grey-brown in *S. porcus* (WHITEHEAD *et al.*, 1986; see also LOUISY, 2005). Figs. 1 and 2 show typical *S. maderensis* individuals pho-



Fig. 1 — *S. maderensis*, Delimara, Malta, 11th July 2011.

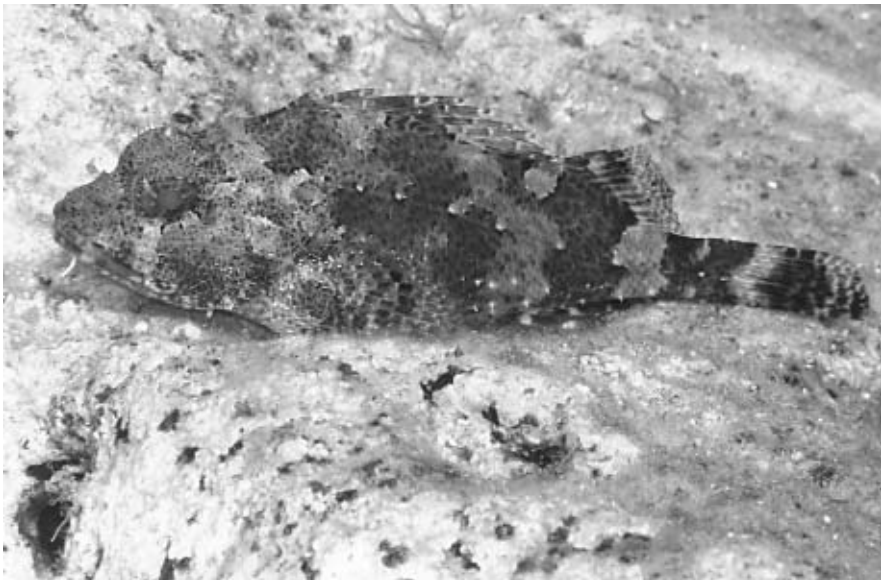


Fig. 2 — *S. maderensis*, Delimara, Malta, 12th July 2011.

tographed by the author in Malta in July 2011. They represent the first authenticated (photographic) evidence of the species' occurrence in Malta.

Tentatively, and with respect to frequency of occurrence and habitat, it appears that *S. maderensis* is the commonest species of scorpaenid in inshore Maltese waters. It inhabits exclusively rocky areas and especially favours habitats with generous brown algal growth, rocky depressions and ledges and small boulders (see Fig. 3). Based on preliminary observations it is abundant in some places (up to 75 individuals counted in a non-systematic manner along a 1km stretch of rocky shore). It often rests in the open, on boulders or ledges or vertical drop-offs, below which it darts when disturbed. *S. porcus*



Fig. 3 — Typical habitat of *S. maderensis*, Delimara, SE coast of Malta, August 2011. A rocky depression with stones and small boulders, surrounded by brown algae. Area about 3m²; distance from shore about 7m; depth about 3m. At least five individuals were present in this particular place.

seems to prefer a habitat that combines stones and sand/sediment, and tends to rest horizontally on the bottom where it is cryptic.

The benthic community shared by *S. maderensis* is made up of a number of species, namely in the author's ongoing research: *Muraena helena*, *Tripterygion triperonotus*, *T. melanurus*, *Parablennius gattorugine*, *P. pilicornis*, *P. zvonimiri*, *Scartella cristata*, *Gobius paganellus*, *G. cobitis*, *G. cruentatus*, and *Mullus surmuletus*. The grapsid crab *Percnon gibbesi*, first confirmed for Malta in 2001 (BORG & ATTARD-MONTALTO, 2002), is conspicuously abundant in the favoured habitat of *S. maderensis*.

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