First record of *Myoxocephalus scorpio* (Linneo, 1758) (Osteichthyes: Cottidae) in the Mediterranean sea

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Abstract. Is described the firs record, for Mediterranean sea, of a young specimen of shorthorn sculpin *Myoxocephalus scorpio* (Linneo 1758) beached on the coasts of Torre Faro, Messina (Sicily, Italy). The authors reported the morphological characteristics and the biometric data of the species. They also emphasize the rarity of the finding as evidence of a "relict fauna", found in the Straits of Messina, survived the paleoclimatic changes in Pliocene, that occurred throughout the Mediterranean area.

Keywords: *Myoxocephalus scorpio*, first record, Mediterranean Sea Italy, Strait of Messina.

INTRODUCTION

The shorthorn sculpin *Myoxocephalus scorpius* (Linnaeus, 1758) is a common and widespread species in the coastal areas of the northern Atlantic (Andriyashev A. P., 1964; Lamp, 1966; Ennis, 1970; Andriyashev & Chernova, 1995) and it is distributed from eastern North America to Greenland and Iceland to the Baltic Sea and south to north-western France (King et al., 1983; Raciborski, 1984; Bauchot M. L., 1987; Wheeler & Newmann, 1992). Adult fishes are commonly 15-30 cm in length, with a squat appearance (Tortonese, 1975).

This work aims to describe the first record for the Mediterranena Sea of a juvenile specimens of *Myoxocephalus scorpius* (Linnaeus, 1758) stranded on the beach in the Strait of Messina. According to the literature the presence of this species probably was made by Carlo Gemmellaro in 1864, for the waters of the Gulf of Catania, in which he called himself *Cottus scorpius. S*ubsequently Tortonese (1975) brought back the species *Taurulus bubalis* due to the formulas of the fin rays.

MATERIALS AND METHODS

Our specimen was found beached on April 23, 2001 in Capo Peloro (ME), while collecting material wreck due to the phenomenon of the stranding. The event occurred due to winds from the southeast, a condition ideal for stranding.

The specimen was found in no excellent status (Fig. 1). On examination after its death, the main morpho-metric measurements in accordance with Smith-Vaniz (1986) (Table 1) were recorded in the fish. The specimen was preserved in Iores conservative liquid and stored

at the Wildlife Museum of the Department of Veterinary Sciences, University of Messina, with catalog number: 548.

RESULTS

The detailed morphological and morpho-metric study of the specimen has not completely ruled out of the margins of uncertainty specific attribution of this specimen to the species *M. scorpius*, since bibliographic data related to the specific description of the post-larval and juvenile stages of cottidae are very lacking. An element of doubt is represented by the hooked spines (Fig. 2) placed on the edge of pre- opercula, described instead with straight shape for the adult. This differentiation of sting can probably be assumed that juvenile character.

CONCLUSIONS

In recent years, the number of alien fish species migrating to the Mediterranean sea from the Atlantic Ocean through the Strait of Gibraltar has been rapidly increasing. Imports via Gi-

Fig. 1 – The specimen of *Myoxocephalus scorpio*.

Fig. 2 – Particular of hooked spines placed on the edge of pre-opercula.

Tab. 1 – Morphometric and meristic data of the specimen beached in Torre Faro, Messina.

	mm	%		n°	gr.
Total length	62				
Fork length	-				
Standard length	50				
Head length	17	34	SL		
Eye diameter	4	23.53	HL		
Preorbital distance	5	29.41	HL		
Postorbital distance	9	52.94	HL		
Interorbital distance	6	35.29	HL		
Base of 1st dorsal fin	15	30	SL		
Base of 2nd dorsal fin	19	38	SL		
Base of anal fin	17	34	SL		
Predorsal distance	18	36	SL		
Prepectoral distance	13	26	SL		
Preanal distance	32	64	SL		
Prepelvic distance	15	30	SL		
Pectoral length	17	34	SL		
Pelvic length	13	26	SL		
Body depth	19	38	SL		
Fin ray					
- 1st dorsal				IX	
- 2nd dorsal				14	
- Pectoral				15	
- Anal				11	
- Pelvic				III	
Body pores				40	
Weight					11.4

braltar would be supported by an increase in water flux through the strait and hydro climatic modifications, such as temperature increase, which would favour the settlement of species of subtropical and tropical affinity (Andaloro & Rinaldi, 1998; Quignard & Tomasini, 2000).

This thesis, however, does not agree with the finding of the specimen *M. scorpius* reported as probably the specie belonging to Mediterranean relict fauna populations.

In fact, it should be noted that in the Mediterranean sea there are two geographic areas of particular bio-ecological interest: the Strait of Messina and the High Adriatic sea. In the Strait of Messina in which whole plant associations that have survived as a species guide Atlantic species and different animal species. To explain the peculiarities of these two "Atlantic areas" in Mediterranean are the assumptions of "relict areas" or "areas of refuge" (Giaccone & Geraci, 1989; Barrier et al., 1989).

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RIASSUNTO

Prima segnalazione in Mediterraneo di *Myoxocephalus scorpio* (Linneo, 1758) (Osteichthyes: Cottidae)

Viene segnalato il primo ritrovamento per il Mediterraneo di *Myoxocephalus scorpio* (Linneo,1758) rinvenuto spiaggiato sul litorale di Torre Faro a Messina. L'esemplare è uno stato giovanile per il quale vengono riportate le caratteristiche morfologiche tipiche della specie ed i dati biometrici. È inoltre sottolineata l'importanza del ritrovamento quale probabile testimonianza di una "fauna relitta", presente nello Stretto di Messina, sopravvissuta ai cambiamenti paleoclimatici pliocenici avvenuti nell'intera area Mediterranea.

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