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SUBSTANTIATED OCCURRENCE OF *Gaidropsarus MEDITERRANEUS* (PHYCIDAE) FROM THE TUNISIAN COAST (MEDITERRANEAN SEA)

SUMMARY

The present paper report on the capture of a shore rockling *Gaidropsarus mediterraneus* (Linnaeus, 1758) from the NE Tunisian coast, in shallow coastal waters. It was a small specimen which of 210 mm standard length and 81.5 g. The specimens is described in this paper including morphometric measurements and meristic counts. The local distribution of the species is discussed and commented, it is considered as a by-catch species by fishermen, probably due to its low economical interest.

INTRODUCTION

Shore rockling *Gaidropsarus mediterraneus* (Linnaeus, 1758) is distributed in the E Atlantic from Scandinavia to the Strait of Gibraltar (SVETOVIDOV, 1986). The species occurs also in the W Mediterranean Sea, the Adriatic Sea and in the Aegean Sea and the Black Sea (SVETOVIDOV, 1986).

Following BRADAI (2000), *Gaidropsarus mediterraneus* was reported as *Onos mediterraneus* (Linnaeus, 1758) in northern and central Tunisian areas (MAURIN, 1962; AZOUZ, 1974), however no referenced specimen was available for confirmation (BRADAI *et al.*, 2004; RAFRAFI-NOUIRA, 2016). Routine monitoring regularly conducted throughout the Tunisian coast offer us the opportunity to collect a specimen of *G. mediterraneus*, which is described in the present paper, with some comments in its distribution in the area and outside the same area.

MATERIAL AND METHODS

One specimen of *Gaidropsarus mediterraneus* was caught on 08 June 2019, off Ras Jebel, city located in northern Tunisia, 60 km north from Tunis, by 37° 13' 57.58" lat N and 10°10' 52 90" long E (Fig. 1). The specimen was collected together with labrid and sparid species by commercial gill nets of 24 mm stretched mesh size, at a depth of 09 m approximately, on sandy-rocky bottoms partially covered by sea grass and algae.

Morphometric measurements were recorded to the nearest millimetre and included in Table 1 with percentages of standard length (% SL), weight to the nearest gram. The specimen was fixed in 10% buffered formaldehyde, and successively preserved in 75% ethanol and deposited in the Ichthyological Collection of the Institut Supérieur d'Aquaculture et de Pêche of Bizerte (Tunisia), with the catalogue number ISPAB Gad-med-01.

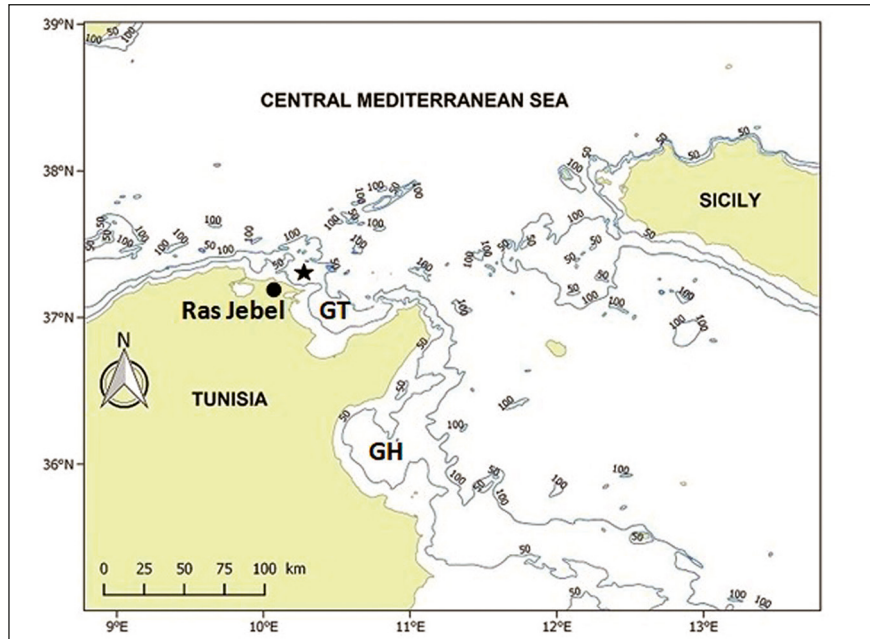


Fig. 1 - Map of the northern Tunisian coast indicating the capture site of the specimen of *Gaidropsarus mediterraneus* (black star). GH: Gulf of Hammamet, GT: Gulf of Tunis.

RESULTS AND DISCUSSION

The specimen was identified as *Gaidropsarus mediterraneus* following the combination of main morphological characteristics: small three-barded rock-

ling, head rather pointed and narrow, rounded in cross-section; no greatly enlarged teeth; first dorsal ray short, equal to or shorter than snout; colour of body dorsally brown, vermiculated or mottled pattern, median fin borders black. It was a small specimen which measured 210 mm standard length and weighed 81.5 g (Fig. 2), COHEN *et al.* (1990) reported that the species reaches to 500 mm total length.



Fig. 2 - *Gaidropsarus mediterraneus* collected off northern Tunisian coast, scale bar = 50 mm.

Morphological measurements, meristic counts and colour are in total agreement of the previous descriptions of the species (SVETOVIDOV, 1986; COHEN *et al.*, 1990), and allow us to state on the presence of the species in the Tunisian waters, which therefore could be included in the local ichthyofauna. This specimen constitutes also the first well- documented record of the species from the area where it appears to be very rare. However, no statistics are reported for this species, taken as by-catch (COHEN *et al.*, 1990). This rarity could be also due to misidentifications with other close relative species belonging to the family Phycidae present in the Tunisian waters (BRADAI *et al.*, 2004), such as Mediterranean bigeye rockling *Antonogadus megalokynodon* (Colmatovic, 1984), gretarforkbeard *Phycis blennoides* (Brünnich, 1768) and forkbeard *P. phycis* (Linnaeus, 1758). The species does not present a commercial interest and is probably discarded at sea by fishermen.

A second species belonging to the genus *Gaidropsarus* Rafinesque, 1810, three-bearded rockling *G. vulgaris* (Cloquet, 1824) occurs in the Mediterranean Sea, it differs from *G. mediterraneus* by the colour, pale cream to pink or reddish with brown blotches and the number of pectoral fin rays, 20-22

Tab. 1 - Morphometric measurements (in mm, and as %SL), total body weight in gram, and meristic counts recorded in the specimen of *Gaidropsarus mediterraneus* collected off the northern Tunisian coast.

Reference	ISPAB-Gai-med-01	
Morphometric measurements	mm	% SL
Total length	-	-
Standard length (SL)	210	100.00
Pre-anal length	104	49.14
Predorsal fin length	42	20.06
Prepectoral fin length	48	22.72
First dorsal fin length	39	18.39
Second dorsal fin length	128	60.92
Anal fin length	102	48.36
Pectoral fin length	13	3.88
Pelvic fin length	8	3.88
Head length	46	21.84
Eye diameter	11	4.92
Body depth	39	18.68
Preorbital length	14	6.64
Interorbital length	12	5.61
Length of upper jaw	21	10.13
Length of lower jaw	19	9.15
Length of right pelvic fin	31	14.52
Length of left pelvic fin	33	15.42
Meristic counts		
Pectoral soft fin rays	15	
Pelvic fin soft rays	5	
Total body weight in gram	81.5	

versus 15-18 (COHEN *et al.*, 1990), 15 in the present specimen (see Table 1). Additionally,, *G. vulgaris* was not reported in the Tunisian waters (BRADAI *et al.*, 2004) and no specimen was recently captured (RAFRAFI-NOUIRA, 2016).

Following COHEN *et al.* (1990), the species lives in shallow coastal waters at about 60 m depth on rocky bottoms covered by aquatic vegetation. In such areas a competition pressure for food cannot be totally ruled out. The species feeds on fishes, crustaceans, worms and algae. It also could constitute a prey, for instance in the present specimen the distal end of its tail was

partially damaged displaying an unhealed scar, probably due to a possible predator. attack A competition pressure for food could reduce the presence of *G. mediterraneus* in the areas where it is reported Its morphology did not probably allow it to face to predators inhabiting same biotopes (RAFARAFI-NOUIRA, 2016).

The present capture of *G. mediterraneus* constitutes its southernmost presence in the W Mediterranean Basin (COHEN *et al.*, 1990). The species is known in the eastern Basin, from the Turkish and Greek coast of the Aegean Sea. Additionally, with special regard to the Lebanon area this species was cited as *Onos mediterraneus* (Linnaeus, 1758) by GEORGES *et al.* (1964); and recorded as *Onos mediterraneus* (Linnaeus, 1758) and successively by LAKKIS *et al.* (1996) and LAKKIS (2013). However, BITAR and BADREDDINE (2020) consider the occurrence of *G. mediterraneus* as doubtful in the area. Therefore despite the fact , that the species appears to be abundant in some areas such as the Italian waters (RELINI and LANTERI, 2010), it is poorly known. The real status needs to be assessed in the entire Mediterranean Sea, including the Tunisian coast where this new substantiated record remains not sufficient to state about the occurrence of a viable population.

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