

**FIRST RECORD OF THE MEDITERRANEAN SPIDERFISH, *BATHYPTEROIS DUBIUS*  
(ACTINOPTERYGII: SCOPELIFORMES: IPNOPIDAE), FROM THE TUNISIAN COAST  
(CENTRAL MEDITERRANEAN SEA)**

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**Abstract.** The Mediterranean spiderfish, *Bathypterois dubius* Vaillant, 1888, is recorded for the first time in Tunisian waters. The specimen was caught in the northwest Tunisian coast. It measured 183 mm in total length and weighed 32.9 g. The specimen is briefly described including morphometric measurements and meristic counts. Its distribution in the Mediterranean Sea is discussed. This capture is the southernmost extension range of the species in the Mediterranean.

**Keywords:** morphometric measurements, meristic counts, first record, Ipnopidae, southernmost extension range

## INTRODUCTION

The Mediterranean spiderfish, *Bathypterois dubius* Vaillant, 1888, is known in the north-western Atlantic from a specimen recorded off southern Newfoundland (Templeman 1966). The species has been reported from northern Bay of Biscay to southern Scotland; southward it occurs from Portugal to Senegal, including the Azores (Quéro and Ribes 1999). It is also the single species belonging to the genus *Bathypterois* Günther, 1878, to be found to date in the Mediterranean Sea (Froese and Pauly 2019).

*Bathypterois dubius* inhabits deep waters on the continental slope at depth of 260–3000 m and temperature of 4–12°C. It forages for small benthic crustacean species, mainly mysids and copepods and has a synchronous hermaphrodite mode of reproduction (Sulak 1984, Quéro and Ribes 1999).

During routine of investigations permanently conducted off the northern Tunisian coast, and in a wake of a collaboration with fishermen knowing the local fishing grounds, the authors were informed that an unusual fish specimen was captured in the area. The specimen is described in this note including some comments on its distribution.

## MATERIALS AND METHODS

On 17 December 2017, a specimen of *Bathypterois dubius* was caught by commercial trawl at a depth of 1100

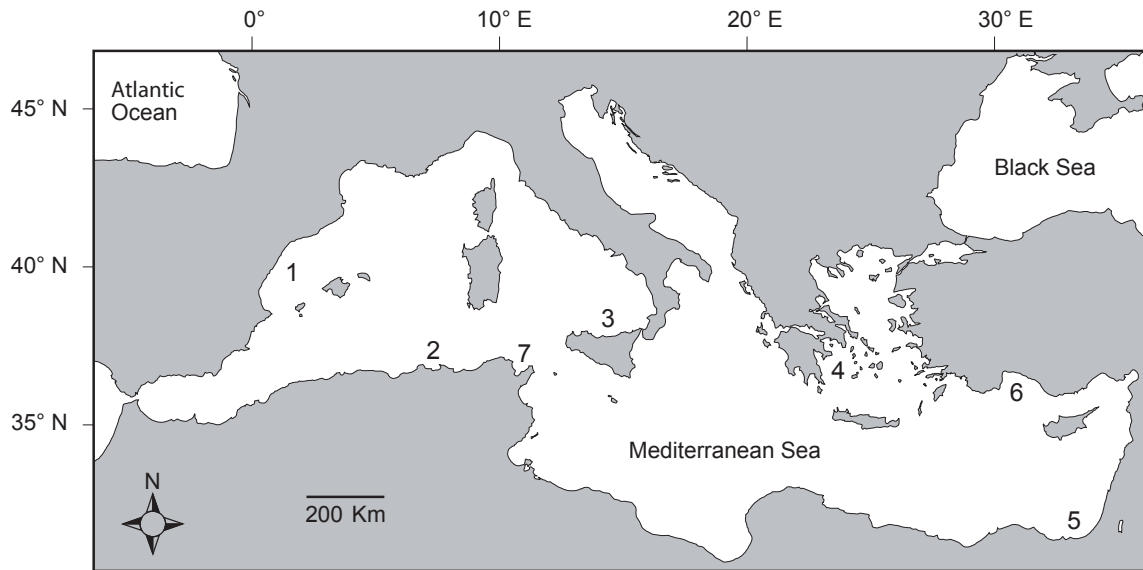
m, off the northern coast of Tunisia between the localities of Tabarka and Bizerte (37°48'36.76"N, 008°51'03.68"E) (Fig. 1), on sandy-muddy bottom. The specimen was delivered to the laboratory for thorough examination. Morphometric measurements recorded to the nearest millimetre, meristic counts and weight to the nearest gram are summarized in Table 1, total length was abbreviated as TL, and standard length as SL. The vertebral count was taken from an X-ray photograph. All major counts are provided in Table 2.

The specimen was fixed in 10% buffered formaldehyde, preserved in 75% ethanol, deposited in the Ichthyological Collection of the Faculté des Sciences of Bizerte (FSB), Tunisia, and received the catalogue number FSB Bath-dub-01.

## RESULTS AND DISCUSSION

The Tunisian specimen of *Bathypterois dubius* measured 183 mm TL, 150 mm SL and its total body weight was 32.9 g (Fig. 2). It was identified from the combination of main characters as follows: elongated and sub-cylindrical body; small head, five times in SL; large mouth, jaws extend back far behind vertical of eye, lower jaw protruding, teeth minute, pointed and slightly curved at distal end, with longitudinal lateral ridge; snout depressed; small eye; triangular dorsal fin, its origin in

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**Fig. 1.** Map of the Mediterranean Sea, with previous records of the Mediterranean spiderfish, *Bathypterois dubius*, 1 and 2 = Bauchot (1962), 3 and 4 = Sulak (1984), 5 = Galil and Goren (1994), 6 = Bilecenoglu et al. (2002), 7 = presently reported study

**Table 1**

Absolute and relative values of selected morphometric measurements and total body weight of a specimen of the Mediterranean spiderfish, *Bathypterois dubius*, collected off the northern Tunisian coast (FSB Bath-dub 01)

Parameter	Value			
	[g]	[mm]	[%TL]	[%SL]
Total length (TL)		183	100.0	122.0
Fork length		170	92.9	113.3
Standard length		150	82.0	100.0
Snout length		21	11.5	14.0
Snout-vent length		63	34.4	42.0
Head length		30	16.4	20.0
Preorbital length		11	6.0	7.3
Postorbital length		17	9.3	11.3
Interorbital		11	6.0	7.3
Dorsal fin base		23	12.6	15.3
Prefirst dorsal length		70	38.3	46.7
Internasal length		5	2.7	3.3
Eye length		5	2.7	3.3
Pectoral fin length		5	2.7	3.3
Pre-pectoral length		35	19.1	23.3
Anal fin length		12	6.6	8.0
Preanal length		90	49.2	60.0
Caudal fin length		15	8.2	10.0
Anal-caudal length		55	30.1	36.7
Pelvic fin length		4	2.2	2.7
Prepelvic length		58	31.7	38.7
Pelvic-anal length		36	19.7	24.0
Pelvic-caudal length		89	48.6	59.3
Vent-caudal length		65	35.5	43.3
Body depth		24	13.1	16.0
First pectoral ray length		155	84.7	103.3
First pelvic ray length		44	24.0	29.3
Total body weight	33			

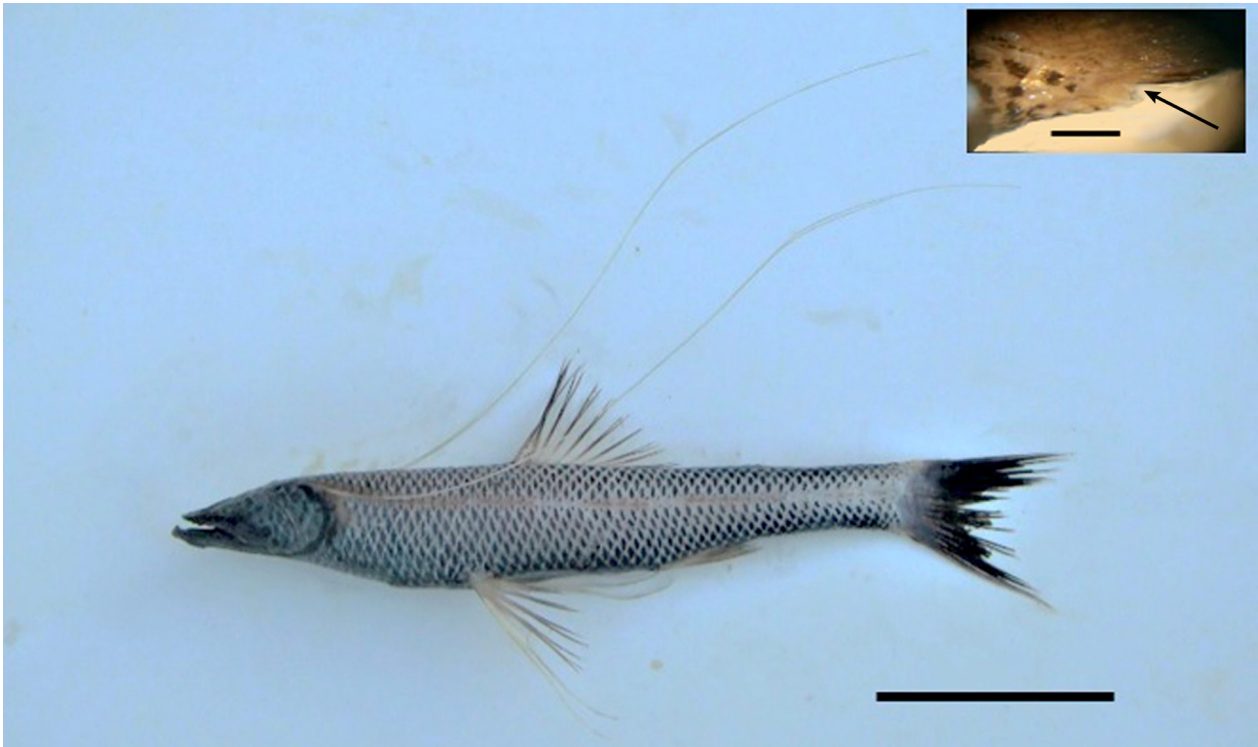
**Table 2**

Meristic counts of a specimen of the Mediterranean spiderfish, *Bathypterois dubius*, collected off the northern Tunisian coast (FSB Bath-dub 01)

Parameter	Count
Dorsal fin rays	15
Pectoral fin rays	9
Pelvic fin rays	8
Anal fin rays	9
Caudal fin rays	20
Scales on lateral line	54
Total vertebrae	52

front of midpoint, with first and second rays the longest; small adipose fin midway between dorsal and caudal fins; subcaudal notch present (Fig. 2); anal fin origin below last ray of dorsal fin; caudal fin slightly forked; long pectoral fin with upper rays very elongated, their length larger than standard length; pelvic fin origin in front of dorsal fin origin, with two first rays elongated. Colour of body black.

Morphology, morphometric measurements, percentages of standard length and total length, meristic counts and colour are in total accordance with previous descriptions of the species (Templeman 1966, Sulak 1984, Quéro and Ribes 1999). Bauchot (1962) described *Bathypterois mediterraneus* from specimens collected in the Mediterranean Sea and distinguished it from *B. dubius* based on some meristics counts and morphological measurements. However, Quéro and Ribes (1999) showed these parameters were not sufficient to distinguish these species between them, and therefore stated *B. mediterraneus* is a junior synonym of *B. dubius* and such assignment is nowadays corroborated by the majority of high scientific authorities (Froese and Pauly 2019). The specimen presented in this note constitutes the first record of *B. dubius* from the



**Fig. 2.** Mediterranean spiderfish, *Bathypterois dubius*, catalogued as FSB Bath-dub-01; scale bar = 50 mm; inset with arrow showing the ventral subcaudal notch; scale bar = 3 mm

Tunisian waters and should be included among the local ichthyofauna (Bradai et al. 2004).

*Bathypterois dubius* is found in the entire Mediterranean following D'Onghia et al. (2004) and Golani et al. (2006) (both cases reported as *B. mediterraneus*) such occurrence is confirmed by this new discovery, which is also the southernmost expansion range of the species in this sea. *Bathypterois dubius* forms occasional aggregates (Sulak 1984), but is sporadically captured. Such patterns are probably due to the fact that the species inhabits deep sea waters, generally poorly exploited by vessels, fishing in such areas remains rather expensive and, therefore, not economically interesting. *Bathypterois dubius* has a low commercial value, and is practically unknown in the Tunisian fish markets and not appreciated by local consumers. The species is not targeted and considered to be as a bycatch species usually discarded at sea by fishermen.

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