



## A first Record of *Aulopareia unicolor* (Valenciennes, 1837) (Family: Gobiidae) in the Mediterranean Sea, Egypt.

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### ABSTRACT

The Gobiid species *Aulopareia unicolor* (Valenciennes, 1837) (Family: Gobiidae) has not been known from the Mediterranean waters. Our presently recorded findings (two specimens from Port Said and six from Damietta) extend the geographical distribution of this species to the Mediterranean Sea. The morphometric analyses of this species were recorded in the Egyptian Mediterranean waters.

### INTRODUCTION

Gobiid fishes (Suborder: Gobioidei) are characterized by the maximum species diversity among all recent Teleostei, and they are represented in the world fauna by approximately 300 genera and 2000 species; the species number increased progressively with each year (Eschmeyer, 2016). They are marine and brackish fishes. Many are popular aquarium fishes. This species is distributed in China, Hong Kong, Indonesia and Thailand. Pelvic fins are fused into an adhesive disc, in well developed specimens cycloid or ctenoid scales are always present. To 50 cm maximum length; most species are below 10 cm. The smallest fishes in the world belong to this family. Typically they are nest spawners with non-spherical eggs guarded by the male. Mediterranean gobies (Gobiidae) inhabit many environments, from the shoreline down to a depth of more than 300 m. Most of the species lead a benthic life; however, some are free swimming (pelagic). Mostly they are marine in shallow coastal waters and around coral reefs. Most of them are cryptic bottom dwelling carnivores of small benthic invertebrates; others are planktivores ([www.fishbase.org,10/2016](http://www.fishbase.org,10/2016)). Patzner (2016) mentioned that Gobiidae consists of more than 200 genera with nearly 2,000 species and he recorded 30 genera including 63 species valid species in the Mediterranean Sea. The objective of this article is to redescribe *Aulopareia unicolor* from the new recorded locations; Port Said and Damietta.

## MATERIALS AND METHODS

### Location:

Off Port Said at depth 15- 20 m (31° 22' 21.43" N, 32° 15' 35.84" E) and off Damietta at depth 50 m (31° 32' 64" N, 31° 53' 08" E), (Fig.1).



Fig.(1): A map of the Egyptian Mediterranean Coast showing the sampling sites: Port Said and Damietta.

### Collection of specimens:

From Port Said, the first specimen of *Aulopareia unicolor* (12.5 cm total length, and 8 g total weight) was collected on 23/8/2016 and three specimens (7 – 13 cm total length and 5.07 g average weight) on 10/11/2016. Later, on 22/2/2017, six specimens (13- 14 cm total length, 13.1 g average weight) were collected from a commercial bottom trawler operated off Damietta. The specimens were preserved in 10% formalin. The identification of this species was carried out according to Miller (1986) and Kottelat *et al.*, (1993).

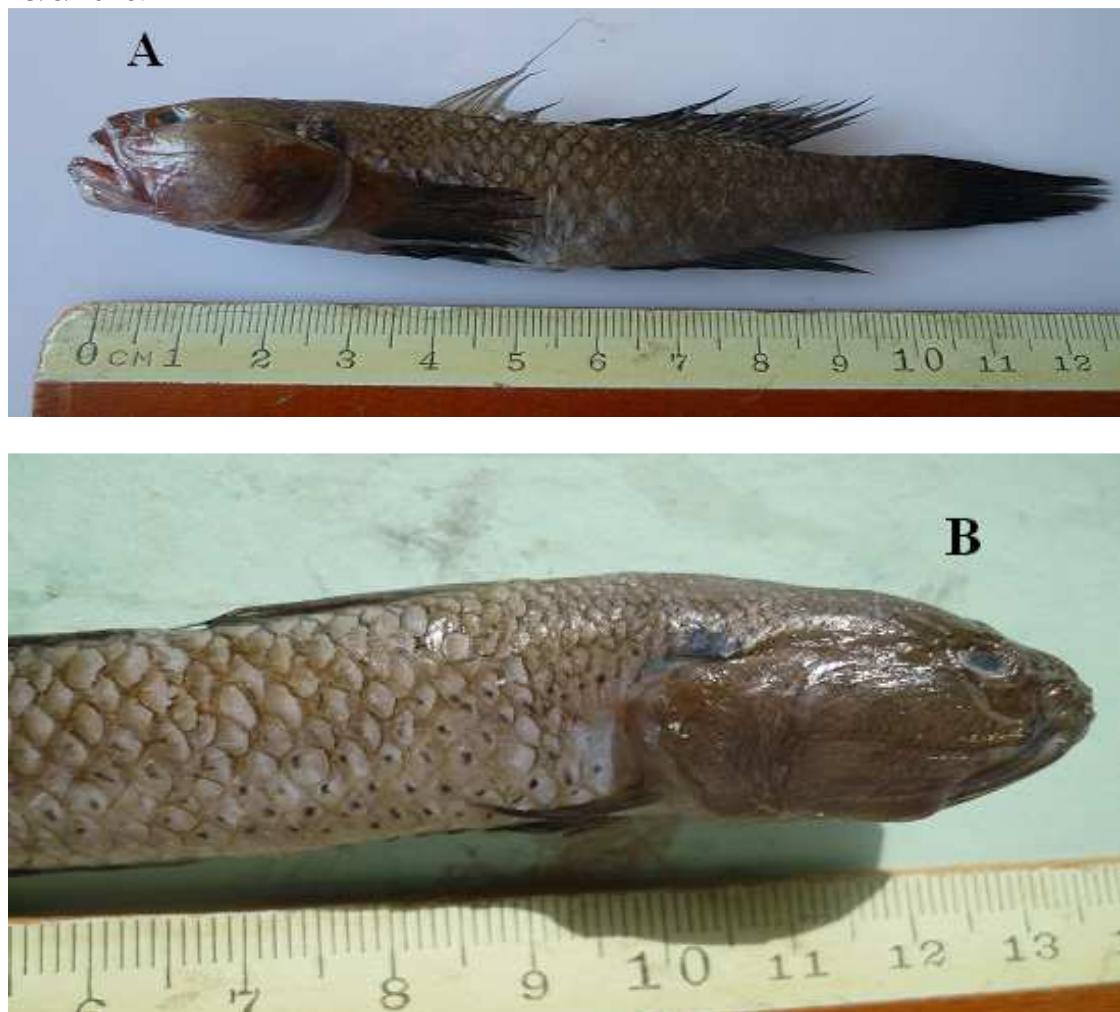
## RESULTS AND DISCUSSION

*Aulopareia unicolor* had not recorded before in the Mediterranean Sea, so we propose it is introduced by ballast water of ships or as aquarium fishes.

### Description:

The Body is elongate and has dorsolateral eyes with narrow inter orbital and rounded cheeks. Two nostrils are present on each side of the snout. First dorsal fin ray with flexible spines are separated from the second dorsal. Number of first dorsal fin is 6 rays. Number of second dorsal fin is 11 rays. The second ray of the 1<sup>st</sup> dorsal fin is larger than the first and third rays. Number of anal rays is 11. There is a membrane between the successive rays that is characterized by presence of black spot. A black spot present above the operculum. Pelvic fins have a spine and five branched rays typically united into sucktorial disk. There are black dots on the scales in the belly region. Caudal fin is rounded and separated from 2<sup>nd</sup> dorsal and anal fins. Scales are ctenoid that are arranged in rhomboid shape on the body. Three lines on the gill cover;

one curved under the eye and the two other lines are nearly parallel beneath. The body colour is greyish brown (Fig. 2 A and B). Moreover, table (1) shows the morphometric measurements of the first specimen collected from Port Said on 23/8/2016.



**Fig.2 (A and B):** *Aulopareia unicolor* collected from Port Said on 23/8/2016.

**Table (1):** Morphometric characters of *Aulopareia unicolor* from Egyptian Mediterranean waters (off Port Said).

Morphometric characters (cm)	%
Total length: 12.5 cm.	
Standard length: 9.6 cm.	
Eye diameter	14.3 H.L.
Inter Orbital distance	33.3 H.L.
Length of lower jaw	28.6 H.L.
Length of upper jaw	28.6 H.L.
Head length	21.9 St.L.
Pre First Dorsal fin length	34.4 St.L.
Pre Second dorsal fin length	51.0 St.L.
Pre Anal fin length	57.3 St. L.
Distance between D1 and D2	6.3 St. L.
Pre Pectoral fin length	20.8 St. L.
Pectoral fin length	13.5 St. L.
Pre ventral fin	31.3 St.L.
Ventral fin length	12.5 St.L.
Anal fin length	12.5 St.L.

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