

**PEMPHERIDAE**

sweepers

**Pempheris rhomboidea**

Kossmann &amp; Räuber, 1877



Photo : Ernesto Azzurro

Relevant synonyms: None  
 Misidentification: Pempheris molucca,  
 P. oualensis, P. vanicolensis, P. mangula

Meristic formula: D, VI + 9; A, III  
 + 31-43; P, 15-19; V, I + 5; LL,  
 49-58; GR, 26-29

**SHORT DESCRIPTION**

Body deep and strongly compressed. Dorsal fin short, its spines increasing in size and the soft rays progressively decreasing. Anal fin very long, its length close to one-half of standard length. Eye very large. Short snout. Mouth oblique with slightly projected lower jaw which extends back to the vertical of the center of eye. Small teeth, some with tips incurved arranged in bands on jaws. Patches of villiform teeth on the palatine and vomer. Scales finely serrated. Lateral line gently curved, extending into caudal fin.

**color:** body brown bronze. Tip of dorsal fin black. Base of anal fin often black.

**common size:** 5-16 cm (max. 18 cm).

**DISTINGUISHING CHARACTERISTICS**

The body shape of this species differs significantly from all other Mediterranean species.

### BIOLOGY / ECOLOGY

Nocturnal. During daytime, forms large schools hovering in caves. At dusk, they leave the caves to forage in the open water. At dawn, they retreat to their daytime refuge. Feeds chiefly on planktonic crustaceans and, to a lesser extent, on polychaetes. Spawning season lasts from April to September (year-round in the Red Sea). Diameter of riped oocytes 0.5-0.7 mm. Eggs and larvae are planktonic. Larvae transparent, have elongated body and settle in the rocky habitats at the size of 6-7 mm; active during daytime. Juveniles live in small groups of fish of similar size. Upon reaching 9 cm, they join adults schools.

**habitat:** day-time: caves and crevices, to depth of 20 m. At night: inshore pelagic.

### DISTRIBUTION

**Worldwide:** Red Sea endemic.

**Mediterranean:** recorded first in Lebanon (Mouneimne, 1979); then in Israel (Golani and Ben-Tuvia, 1986), Dodecanese (Papaconstantinou 1988), Tunisia (Bradai and Bouain, 2001), Egypt (Halim and Rizkalla, 2011).

### MODE OF INTRODUCTION

Via the Suez Canal.

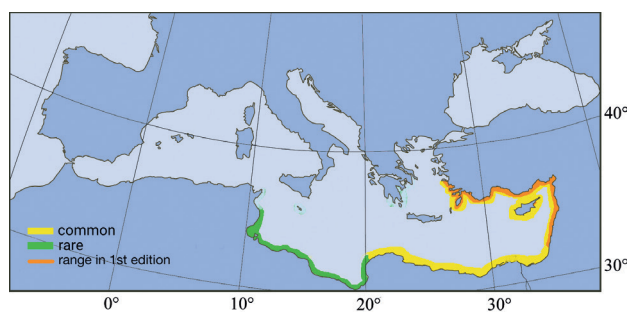
### ESTABLISHMENT SUCCESS

Very common in the eastern Levant and in Dodecanese.

**speculated reasons for success:** paucity of nocturnal competitors.

### IMPORTANCE TO HUMANS

This fish experienced a population explosion almost immediately after invading the Mediterranean. Due to its relatively small size it has little importance in local fishery.



1<sup>st</sup> Med. record  
Lebanon, 1979.

### KEY REFERENCES

- Azzurro E., Goren M., Diamant A., Galil B. and Bernardi G. 2015. Establishing the identity and assessing the dynamics of invasion in the Mediterranean Sea by the dusky sweeper, *Pempheris rhomboidea* Kossman & Räuber, 1877 (Pempheridae, Perciformes). *Biological Invasions*, 17(3): 815-826.
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- Halim Y. and Rizkalla S. 2011. Aliens in Egyptian Mediterranean waters. A check-list of Erythrean fish with new records. *Mediterranean Marine Science*, 12(2): 479-490.
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- Papaconstantinou C. 1988. Check-list of marine fishes of Greece. *Fauna Graecia* Vol. IV, NCMR-Hellenic Zoological Society, Athens. 257 pp.