

The occurrence of the Atlantic fish *Gaidropsarus granti* in the Mediterranean Sea (South-Eastern Aegean Sea, Dodecanese, Greece, Eastern Mediterranean)

HELEN ZACHARIOU-MAMALINGA

Abstract

Zachariou-Mamalinga, H. 1999. The occurrence of the Atlantic fish *Gaidropsarus granti* in the Mediterranean Sea, (South-Eastern Aegean Sea, Dodecanese, Greece, Eastern Mediterranean). *Ann. Musei Goulandris* 10: 261-266.

This paper reports the capture of a specimen of the fish *Gaidropsarus granti* (Regan, 1903), family Gadidae (Svetovidov, 1956: 535), for the first time in the Mediterranean Sea, off Plimmiri and Prassonissi on the south-eastern coast of Rhodes, Dodecanese, South-Eastern Aegean Sea, Greece, Eastern Mediterranean.

Gaidropsarus granti is an Eastern Central Atlantic species not previously reported out of the Azores and Canary Islands (Svetovidov, 1986: 118, Cohen, Inada, Iwamoto, Scialabba, 1990: 48). This report constitutes its first record from the Mediterranean.

Περίληψη

Ζαχαρίου-Μαμαλίγκα, Ε. 1999. Εμφάνιση του Ατλαντικού είδους *Gaidropsarus granti* στη Μεσόγειο (Νοτιοανατολικό Αιγαίο, Δωδεκάνησα, Ελλάδα, Ανατολική Μεσόγειο). *Ann. Musei Goulandris* 10: 261-266.

Η ανακοίνωση αυτή αναφέρει την αλίευση ενός ατόμου *Gaidropsarus granti* (Regan, 1903), Gadidae, (Svetovidov, 1956: 535) για πρώτη φορά στη Μεσόγειο, έξω από το Πλημμύρι και Πρασονήσι, στη νοτιοανατολική ακτή της Ρόδου

Δωδεκανήσου, στο Νοτιοανατολικό Αιγαίο, Ελλάδα, Ανατολική Μεσόγειο.

Το *Gaidropsarus grantii* είναι είδος του Ανατολικού Κεντρικού Ατλαντικού που μέχρι τώρα δεν είχε αναφερθεί έξω από την περιοχή των Αζορών και των Καναρίων νήσων (Svetovidov, 1986: 118, Cohen, Inada, Iwamoto, Scialabba, 1990: 48). Αυτή η αναφορά συνιστά την πρώτη του καταγραφή στη Μεσόγειο.

Key words: Gadidae, *Gaidropsarus grantii*, Mediterranean, SE Aegean Sea, Island of Rhodes, Greece, new record.

Introduction

A specimen of *Gaidropsarus grantii* (Regan, 1903) was captured for the first time in the Mediterranean, South-Eastern Aegean Sea, off Plimmiri and Prasonissi, South-eastern coast of the Island of Rhodes, Dodecanese, Greece, Eastern Mediterranean.

The specimen was caught on the 8th of November 1995, by the fisherman Odysseus Chryssopoulos more than 300m. off the coast of Plimmiri and Prasonissi, south of Lindos, with nets from a sandy bottom at a depth of 360-400m. (Svetovidov, 1956: 535). The specimen is deposited in the Goulandris Natural History Museum, Kifissia, Athens.

This record of *Gaidropsarus grantii* in the sea area of the Island of Rhodes, Dodecanese, South-eastern Aegean Sea, adds a new species in the Mediterranean.

Description (based on the Rhodian specimen): 2nd Dorsal rays 56; anal rays 47; pectoral rays 20; ventral rays 7. Head length 4,21; predorsal 4,58; preanal 1,93; snout 18,66; caudal peduncle length 37,83; caudal peduncle least depth 14,73, all in Standard Length. Eye diameter 7,3; interorbital 5,88; snout 4,43, all in Head Length (Table I). Ray of the first Dorsal fin short (9,6mm), barely exceeding eye diameter (9,1mm) which is larger than the bony base of interorbital space (7,5mm). (Regan, 1903: 346).

Body elongate to fusiform. Caudal peduncle compressed and not very narrow. Head depressed with curved opercula. Three barbels, two on snout, from anterior nostrils and one on chin. The entire body and head are covered with small cycloid scales. The upper jaw protruding beyond the lower jaw. Small sharp teeth in bands, on jaws and vomer, with some larger fang-shaped teeth. Particularly on the upper jaw 8 large fang-shaped teeth, 4 anterior strongly elongated and 4 others, two on each inner side. Behind them a strip of small sharp teeth. On the head of the vomer, which is large

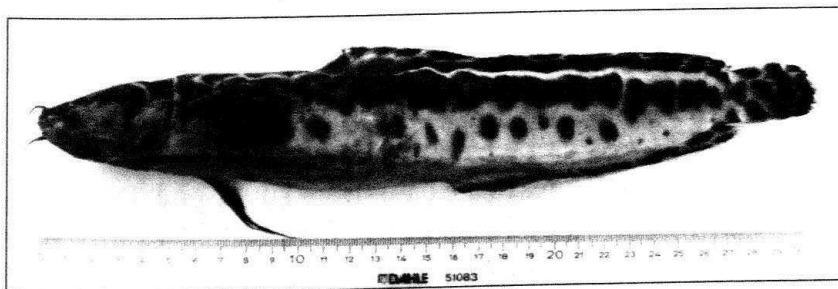
TABLE I

Measurements (mm) and counts of the specimen of *Gaidropsarus granti* from in Island of Rhodes, (November 1995)

Total length	mm	310
Standard length	mm	280
Head length	mm	66,5
Predorsal	mm	61,1
Preanal	mm	145
Snout	mm	15
Caudal peduncle length	mm	7,4
Caudal peduncle least depth	mm	19
Head length	mm	66,5
Eye diameter	mm	9,1
Interorbital	mm	11,3
Bony base of interorbital space	mm	7,5
1rst Dorsal ray length	mm	9,6
2nd Dorsal ray count		56
Anal ray count		47
Pectoral ray count		20
Ventral ray count		7

and angular, there is a band of small teeth with a series of 4 large hook-shaped teeth, two on each side. On the lower jaw a row of 9 large fang-shaped teeth with smaller teeth located between them.

Fins without spines. Two dorsal fins, the first with a single short ray on the nape, followed by a sunken row of small soft filaments in front of the long based 2nd dorsal fin. A single anal fin. Pectoral fins rounded. Ventral fins triangular and narrow; the second ray much longer than the others. Caudal fin rounded convexly behind.



Gaidropsarus granti (Regan, 1903)

Colour of the specimen: Top of head and back brown with creamy reticulations, from snout to the beginning of 2nd dorsal fin. A creamy longitudinal sinuous band from the beginning of 2nd dorsal fin till the caudal peduncle. Lower, a broad brown band with sinuous margin, interrupted 3 times by a fine vertical band before the caudal peduncle. The lower part of the head, the lower flank and belly red-orange, like the colour of salmon, when it was fresh; afterwards creamy (Svetovidov, 1984-86: 699, 700) Few warm chocolate brown spots on the lower part of the head. Warm chocolate brown rounded blotches and bars on the lower flank. Dorsal, anal, pectoral and caudal fins creamy with brown rounded blotches. All these fins bordered by red-orange. Along the second dorsal fin a fine creamy undulate longitudinal band. Ventral fins red-orange.

The photographs were taken after the fish had been placed in a refrigerator.

Remarks: *Gaidropsarus granti* (Regan, 1903) is an Eastern Central Atlantic species. Its presence in the Eastern Mediterranean has to be ascribed to the accidental transport through the Strait of Gibraltar.

Gaidropsarus granti (Regan, 1903) has been reported from:

1) **Canary Islands:** By steindachner, 1891: 360, under the specific name *Onos guttatus* Coll.

2) **Azores:** a) By Regan, 1903: 346, under the specific name *Onus granti*.
b) By Collett, 1905: 724, under the specific name *Gaidropsarus guttatus* (Coll.) 1890.

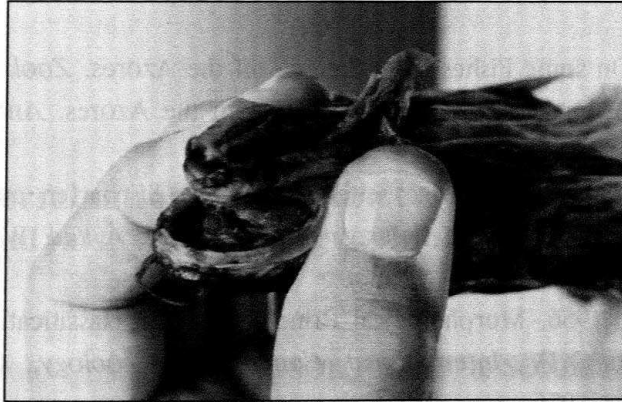
The rarity of its occurrence is caused, most probably, by its existence at great depths far distant from the coast, where there it is less accessible to capture (Svetovidov, 1984-1986: 700).

The occurrence of *Gaidropsarus granti* on November 1995 in the sea area of Rhodes, Dodecanese, South-Eastern Aegean Sea, Greece, Eastern Mediterranean is a considerable extension of the species known distribution, which hitherto encompassed only the shores of the Azores and Canary Islands.

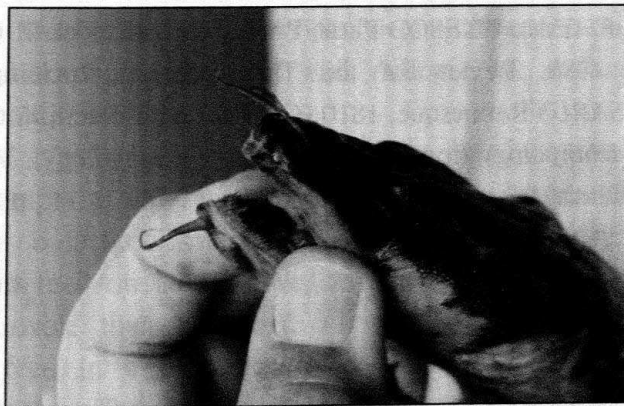
Acknowledgements

I am very grateful to Professor Adam Ben-Tuvia and Dr. Daniel Golani of the Hebrew University of Jerusalem for their valuable advice and to Dr. Claude Renaud of the Natural History Museum of Canada for his information. I wish to thank the mathematician D. Pipinos for providing the

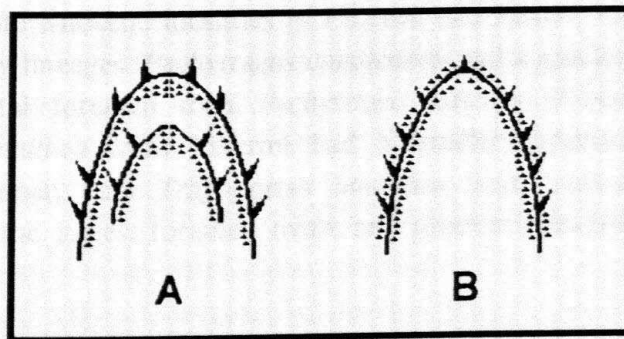
specimen of *Gaidropsarus granti* from Plimmiri, Rhodes, the biologist Maria Corsini and the fisheries technologist S. Stamatellos, of the Hydrobiological Station of Rhodes, for their assistance.



Teeth on upper jaw



Teeth on lower jaw



Teeth on upper (A) and lower (B) jaw of *Gaidropsarus granti* (Regan, 1903)

Drawing by S. Stamatellos

REFERENCES

- Cohen, D. M., Inada, T., Iwamoto, T., Scialabba, N., 1990. Gadiform Fishes of the World (Order Gadiformes) FAO species catalogue, vol. 10, FAO of the United Nations, Rome.
- Collett, R., 1905. On some Fishes from the Sea off the Azores. *Zool. Anz.* 28: 723-730.
- Regan, C. T., 1903. On a collection of Fishes from the Azores. *Ann. & Mag. N. Hist.* Ser. 7, Vol. 12: 344-348.
- Steindachner, F., 1891. Über einige seltene und neue Fischarten aus dem canarischen Archipel. *Ichthyologische Beiträge.* XV, Sitz.-Ber. *Akad. Wiss. Wien*, vol. 100. Abth. 1, pp. 343-374.
- Svetovidov, A. N., 1956. Morphological Principles of the classification of the Gadidae. *Proceedings XIV International Congress of Zoology, Copenhagen, 1953.* Copenhagen 1956.
- Svetovidov, A.N., 1984-1986. Gadidae, In: *Fishes of the North-Eastern Atlantic and the Mediterranean*, Whitehead, P.J.P., Bauchot, M.-L., Hureau, H.-C., Nielsen, J., Tortonese, E. (Eds), UNESCO Paris, Printed in U.K., Vol. 2: 699-701.
- Svetovidov, A.N., 1986. Review of the Three-Bearded Rocklings of the Genus *GAIDROPSARUS* Rafinesque, 1810 (Gadidae) with description of a new species. *Journal of Ichthyology (formerly Problems of Ichthyology)*, Vol. 26, No 1.1986. Scripta Technica, Inc. pp. 114-135.

Address of the author:

Zachariou-Mamalinga, Helen, Ph. D., Eleftheriou Venizelou 28, 851 00 Rhodes. GREECE.