

NEW RECORD OF *GALITEUTHIS ARMATA* (CEPHALOPODA : CRANCHIIDAE) IN THE MEDITERRANEAN SEA

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Abstract

The occurrence of *Galiteuthis armata* Joubin, 1898 (Cephalopoda : Cranchiidae) in the Eastern Ionian Sea, off the NW Greek coast, is reported. One specimen was caught during a deep-water international trawl survey in September 1999. The squid was collected during daylight hours at a depth of 1015 m and sized 231mm DML. Previous Mediterranean records of *G. armata* are reviewed. This finding confirms the presence of the species in the Ionian Sea and extends its eastern longitudinal distribution in the Mediterranean Sea.

Keywords : *Cephalopods, Ionian Sea, Mediterranean Sea*

Introduction

The family of Cranchiidae is highly diversified and generally poorly known (1). In the Mediterranean Sea only two species of the sub-family Taoniinae, *G. armata* and *Teuthowenia megalops* are known (2). Joubin's original specimen of *G. armata* was from Nice (3), but the species is widely distributed in the North Temperate, North Subtropical and Tropical regions to ~10° S of Atlantic Ocean and in the Mediterranean Sea (4). Records of the species in the Mediterranean Sea have been reported mainly for the western part [Alboran Sea (5), SW Mediterranean (6,7,8), Catalan Sea (9,10), Ligurian Sea (7,11), Tyrrhenian Sea (12), Strait of Messina (7,13,14,15)] and only a single larva for the Central Mediterranean (8). A new record of *G. armata* in the Mediterranean Sea is reported and discussed in this note.

Materials and methods

The present specimen was collected during a deep-water trawl survey carried out in September 1999 in the northeastern Ionian Sea, in the framework of the project "Interregional environmental studies in the Ionian Sea (INTERREG II)". A professional trawler of 78 tons gross tonnage was used, equipped with a bottom trawl-net with stretched mesh of 20 mm in the cod end. Hauls lasting from 30 to 60 minutes, were performed during day-light at a total of 34 sampling stations distributed in four depth strata : 300-500, 500-700, 700-900 and 900-1200 m.

The species was identified following the keys in Mangold and Boletzky (16). The weight (in grams) and the morphometric measurements (in millimeters) were taken after fixation in 5% formalin solution.

Results and discussion

The specimen found was in fairly good condition. Despite its tentacular clubs were cut, in one of the remaining tentacles had one hook which, together with the leaf-shaped fins ending to a long gladiol tail, enabled us to clearly identify it as *Galiteuthis armata*. It had a dorsal mantle length of 231mm and weighed 8.2 g. The measurements (in mm) of the arms and the beaks were : Arm I (right and left) length = 30; right arm II length = 41; left arm II length = 38; arm III (right and left) length = 46; right arm IV length = 51; left arm IV length = 55; maximum diameter of arm suckers = 1.15; upper hood length = 7.05; upper crest length = 8.21; upper rostral length = 2.44; lower hood length = 2.82; lower crest length = 5.77; lower rostral length = 1.99.

G. armata was caught off the western coasts of Kerkyra island (39° 29'N; 19° 42' E) at a depth of 1015 m. This is the second finding of the species in the Central Mediterranean after that of Roper (8), confirming its occurrence in the Ionian Sea. The present specimen is one of the largest collected in the Mediterranean Sea. Large individuals of *G. armata* (ML >100mm) have been more frequently caught by bottom trawls (5, 9) than by mid-water sampling gears (8), due probably to their higher concentration near the bottom. Sub-adults of this species have been shown to live in deep water below 600 m, whereas early stages (ML < 30mm) have been taken from subsurface to 1000 m (4, 9), indicating that the species exhibits ontogenetic descent (16) as most of cranchids (1).

The relatively greater frequency of *G. armata* occurrence in hauls below 900 m and its high percentage in the stomach contents of swordfish fished in the Ligurian Sea (11), make us suspect a considerable abundance of the species in the deep-water basins of the Mediterranean Sea, although more sampling in the bathypelagic and abyssopelagic zone is needed for confirmation.

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