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THE OCCURRENCE OF *RAPANA VENOSA* (VALENCIENNES, 1846) ·
(GASTROPODA, THAIDIDAE) IN THE AEGEAN SEA**

KEY WORDS: Thaididae, *Rapana*, distribution, Aegean Sea, Mediterranean Sea

Riassunto

Rapana venosa (VALENCIENNES, 1846) è segnalata per la prima volta nel mare Egeo. Si precisa la distribuzione nota di questa specie nel Mediterraneo.

Summary

Rapana venosa (VALENCIENNES, 1846) is reported for the first time from the Aegean Sea. The hitherto distribution of this species in the Mediterranean Sea is given.

Introduction

Rapana venosa (VALENCIENNES, 1846) is a species of Pacific origin which entered the Black Sea, through human intervention (GHISOTTI, 1971), in the early fifties of this century and since then it has extended its distribution along the greatest part of its coasts (BILECIK, 1975; CIUHCIN, 1984; GROSSU, 1986; etc.). The colonization of the Black Sea coasts by this species resulted in a decrease of the natural populations of *Ostrea edulis* LINNAEUS in this area (POTIERS, 1987) because, as it is well known, *R. venosa* is an active predator of bivalves and especially oysters and mussels (GHISOTTI, 1971).

About twenty years later, this species appeared in the Adriatic Sea (GHISOTTI, 1974) and since then, its presence has been recorded from various sites of its northern part (MEL, 1976; CUCAZ, 1983; RINALDI, 1985) where it seems to have been acclimatized (CESARI & PELLIZZATO, 1985). Excluding one more record from Elba Island in the Tyrrhenian Sea (TERRENI, 1980), this species has not been found in any other part of the Mediterranean.

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Material

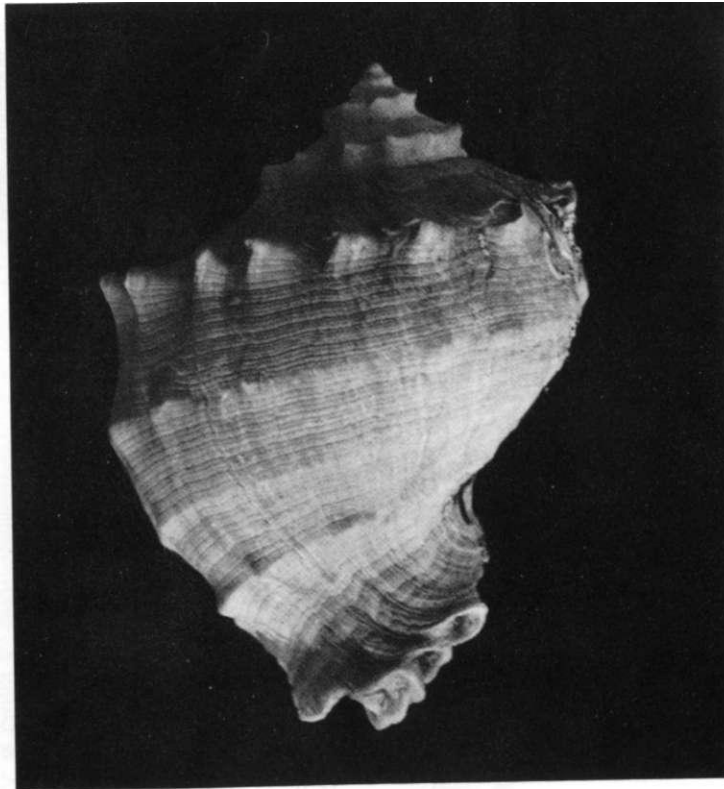
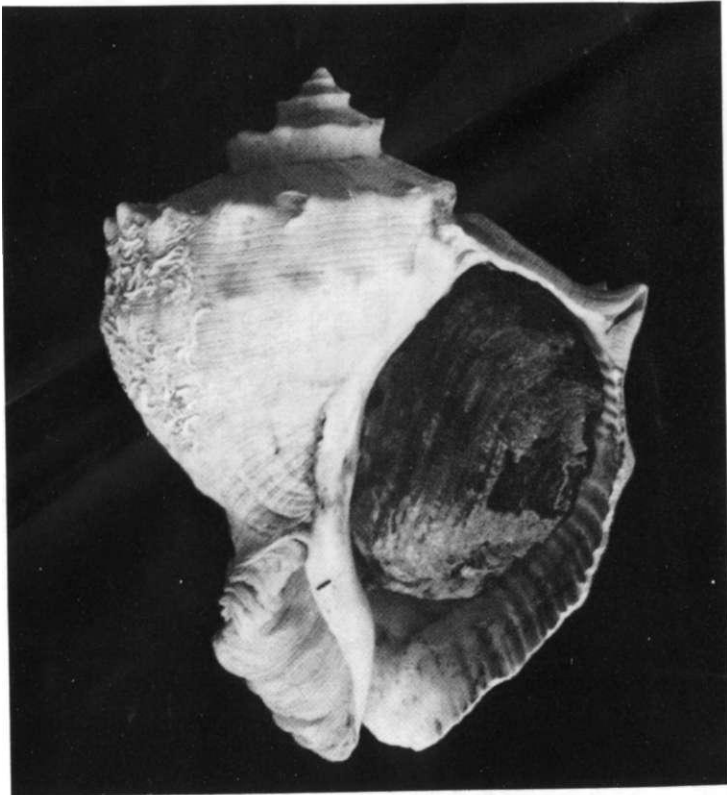
In April 1986, one live specimen of *R. venosa* (Fig. 1 a, b) was found in the south-eastern coast of the Bay of Thessaloniki (Micra), in Thermaikos Gulf (North Aegean Sea). It was collected at a depth of 14 m, from a substrate of very coarse sand (median diameter = 1064 μm); organic carbon of the sediment was 2.45 o/o and water salinity near the bottom 33.2 o/oo. In January 1988, in the locality Chalastra, in the north-western coast of the same Bay, close to the natural oyster banks existing in the area, another live specimen was collected at a depth of 12 m, from a substrate of fine sand (median diameter = 235 μm); organic carbon of the sediment in this area was 2.33 o/o and water salinity near the bottom 33.5 o/oo.

Results and Discussion

Both specimens of *R. venosa* found in Thermaikos Gulf had a light grey-brown shell with brown spiral lines which were darker in the body whorl. The dimensions of the two specimens were h= 110 mm, D=92 mm and h= 90 mm, D= 58 mm. To the specimen coming from Micra, numerous individuals of the serpulid polychaete *Protula* sp., two individuals of the bivalve *Anomia ephippium* LINNAEUS and one individual of the barnacle *Balanus amphitrite* DARWIN were attached. A few individuals of *Protula* sp. were also found on the specimen from Chalastra.

The finding of *R. venosa* in Thermaikos Gulf represents its first record in the Aegean Sea and extends its distribution, as suggested by GHISOTTI (1971): «...fra breve tempo apparira anche in Egeo, nel Mar Ionio...». The present distribution of this species in the Mediterranean Sea is given in the map of Fig. 2. *R. venosa* should be considered as the only species of the genus existing in the Mediterranean Sea, although the species *R. rapiformis* (BORN, 1778) has been reported from the Mediterranean coast of Israel by BARASH & DANIN (1977); the presence of this species in the Mediterranean is doubtful (BRUSCHI et al., 1985) and should be confirmed as it is based on the finding of a juvenile shell and no further reports exist.

The hitherto known distribution of *R. venosa* in the Mediterranean and the Black Sea suggests that this species is carried by boats (GHISOTTI, 1971) in different areas but survives and gets acclimatized only where natural populations or cultures of bivalves (oysters and mussels) exist, in order to be able to satisfy its feeding needs. Such areas are usually the estuaries, where the rich organic matter carried by the rivers allows the development of oyster and mussel populations. Thermaikos gulf seems to be a suitable environment for this species, due to the natural banks of the above bivalves existing there and also to the culture installations situated mainly in the western part of the Gulf.



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Fig 1 *Rapana venosa*: a, ventral view of the specimen collected in the area of Micra (h=110 mm, D=92 mm); b, dorsal View of the same specimen (photo by A. Koukouras).

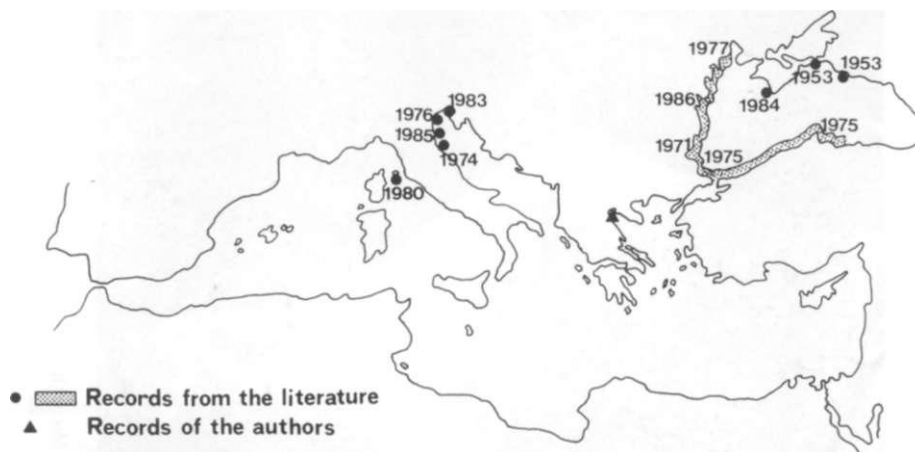


Fig. 2. Records of *Rapana venosa* in the Mediterranean Sea. Derived from: Drapchin (1953) (according to GHISOTTI 1971), GHISOTTI (1971, 1974), BILECIC (1975), MEL (1976), Goncharov (1977) (according to CESARI & PELLIZZATO 1985), TERRENI (1980), CUCAZ (1983), CESARI & PELLIZZATO (1985), and GROSSU (1986).

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