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A NEW PROSOBRANCH FROM THE MEDITERRANEAN SEA, *ALVANIA DIANIENSIS* N.SP. (MOLLUSCA; GASTROPODA)

Marco OLIVERIO

ABSTRACT

Alvania dianiensis n.sp., a benthic species from the isle of Giannutri (Tyrrhenian Sea, Italy), is described. It is compared to the closely related *A. parvula, A. vermaasi, A. sororcula, A. dictyophora*-complex and *A. hallgassi.* It is supposed that the new species has an algae-related habitat and a non-planktotrophic larval development.

RIASSUNTO

E' descritta e illustrata *Alvania dianiensis* n.sp. dai fondali dell'isola di Giannutri (Tirreno). E' confrontata con le piu' strettamente correlate *A. parvula, A. vermaasi, A. sororcula, A. dictyophora*-complex e *A. hallgassi.* Per la nuova specie sono proposti un habitat legato alla facies algale ed uno sviluppo con larva non-planctotrofica.

Sediment samples, taken by the author during SCUBA diving activities in the waters around the isle of Giannutri (Italy) revealed the presence of an unknown species of *Alvania,* which is described below.

Alvania dianiensis n.sp.
(Figs. 1, 3-7)

Description

Description of holotype (Figs. 1, 3).- Shell minute, conic-ovate, height 2.25 mm, width 1.32 mm, semi-transparant, fairly solid, colour yellowish. Protoconch of 1.5 non-twisted whorls, sculptured with numerous granules, irregularly set in the interspaces between the 5-6 spiral riblets. These riblets gradually disappear towards the end of the protoconch. No separation between protoconch I and II. Teleconch of about 3.2 convex whorls. Axial sculpture of 21 ribs; spiral sculpture of 7 ribs of which 3 above the aperture and 2 on the first whorls of teleoconch. Intersections nodulose. The aperture is rounded anteriorly and somewhat angulose posteriorly. Outer lip with a

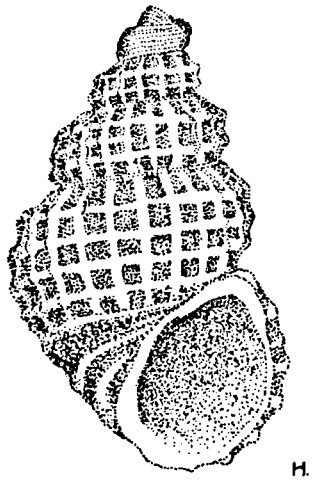

Fig. 1. *Alvania dianiensis* n.sp., holotype, Italy, Isle of Giannutri, 47 m, ventral view of shell, length 2.25 mm.

well-pronounced, ortocline varix. Microsculpture of teleoconch consisting of very fine spiral striae.

Etymology

The epithet *dianiensis* is from the old latin name of the isle of Giannutri, which is "Dianium".

Type locality

Italy, Isle of Giannutri, Punta Secca, 47 m (Sta. GS47), 1986, leg. M. Oliverio.

Type material

Paratypes were found at the type locality, and also from depths of 25 m (GS25) and 18 m (GS18). Moreover, from the same island, paratypes are known from Cala dei Grottoni (GG48) at a depth of 48 m.

The holotype (GS47) is deposited in the Zoölogisch Museum Amsterdam (ZMA Moll. no. 3.88.019) together with three paratypes from Cala dei Grottoni (ZMA Moll. no. 3.88.20). Other paratypes are stored in: Zoological Museum of Roma (GG48, 2 specimens); coll. Hoenselaar, Alkmaar, the Netherlands (GG48, 1 specimen); coll. Oliverio (GG48, 25 specimens; GS47, 4 specimens; GS25, 1 specimen); coll. Russieri, Roma (GG48, 10 specimens); coll. Nofroni, Roma (GS18, 4 specimens); coll. Amati, Roma (GG48, 3 specimens).

Variability

The height of the type material varies from 2.0 mm to 2.4 mm and the width from 1.25 mm to 1.4 mm. The axial ribs are weak to rather strong and vary in number from 14 to 23. The spirals are more constant and 6 or 7 in number.

DISCUSSION

Alvania dianiensis n.sp. is very similar in shell morphology to some other Mediterranean species. *A. parvula* (Jeffreys, 1884) and *A. vermaasi* Van Aartsen, 1975 are restricted to the western part of the Mediterranean. *A. hallgassi* Amati & Oliverio, 1985 is from the Ionian area and *A. sororcula* (Granata Grillo, 1877) is known only from its type locality "Messina". Amati (pers. com.) suggests a possible relation of *A. sororcula* with *A. gemmulata* Sequenza, 1903 (fossil: Neogene). However, recent interpretation of the species (Luque, 1986) is often based on the specimen figured by Gofas & Warén (1982: fig. 15), and confusing as long as the whereabouts of the type material is unknown. For the time being we consider it a nomen dubium. *A dianiensis* n.sp. seems to be most closely related to species belonging to the *A. dictyophora* complex. Provisionally, we regard the species figured by Ponder (1985: figs. 100F, G) to be *A. dictyophora* Philippi, 1844, but more research is needed in this complex.

Excluding the poorly known *A. sororcula*, all species mentioned before share with *A. dianiensis* n.sp. a great variability in shell characters but are separable on basis of different types of protoconch. *A. parvula* and *A. hallgassi* have only spiral sculpture (Gofas & Warén, 1982: figs. 21, 23; Amati & Oliverio, 1985: fig. 2). *A. dictyophora* lacks the spiral cordlets and *A. vermaasi* (vide Gofas & Warén, 1982: figs. 16-18) shows a typical zigzag spiral pattern.

Remarks

The protoconch of *A. dianiensis* n.sp. (figs. 6-7) suggests a non-planktotrophic larval development. This is in accordance with its limited distribution. All specimens were found dead, so it is difficult to say in what kind of habitat it lives. They were found at the base of high rocky wall and most probably, the material washed down from shallow waters. Like most of the *Alvania* species (Ponder, 1985), we suggest

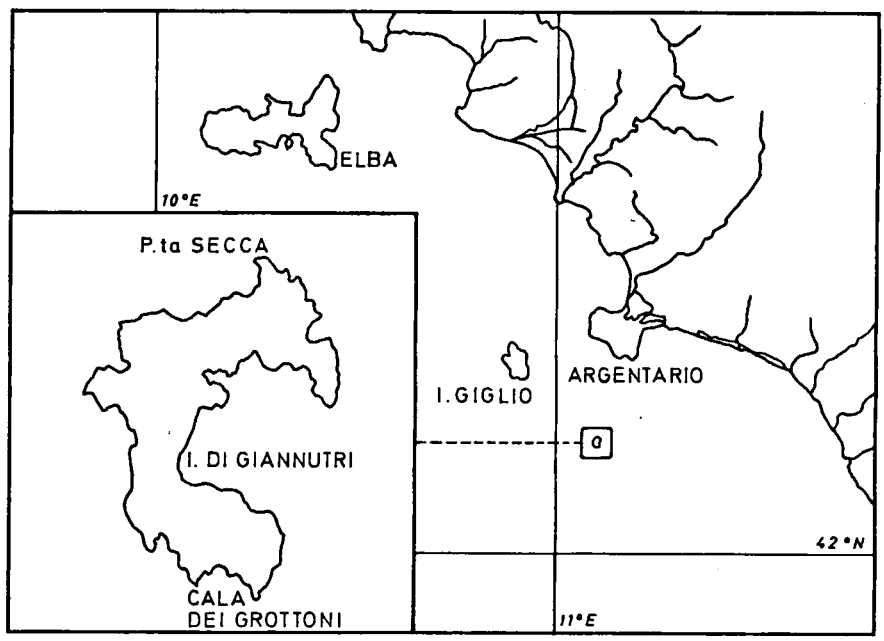

Fig. 2. Distribution area and type locality of *Alvania dianiensis* n.sp..

that the new species lives in the biocenosis of photophilous algae (Peres & Picard, 1964). This hypothesis is confirmed by the high number of other species from that biocenosis, found together with *A. dianiensis* n.sp.. More accurate sampling will be done by the author in the near future.

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M. Oliverio,
Via delle Sirene, 56,
I-00121 Ostia Lido (Roma),
Italy.

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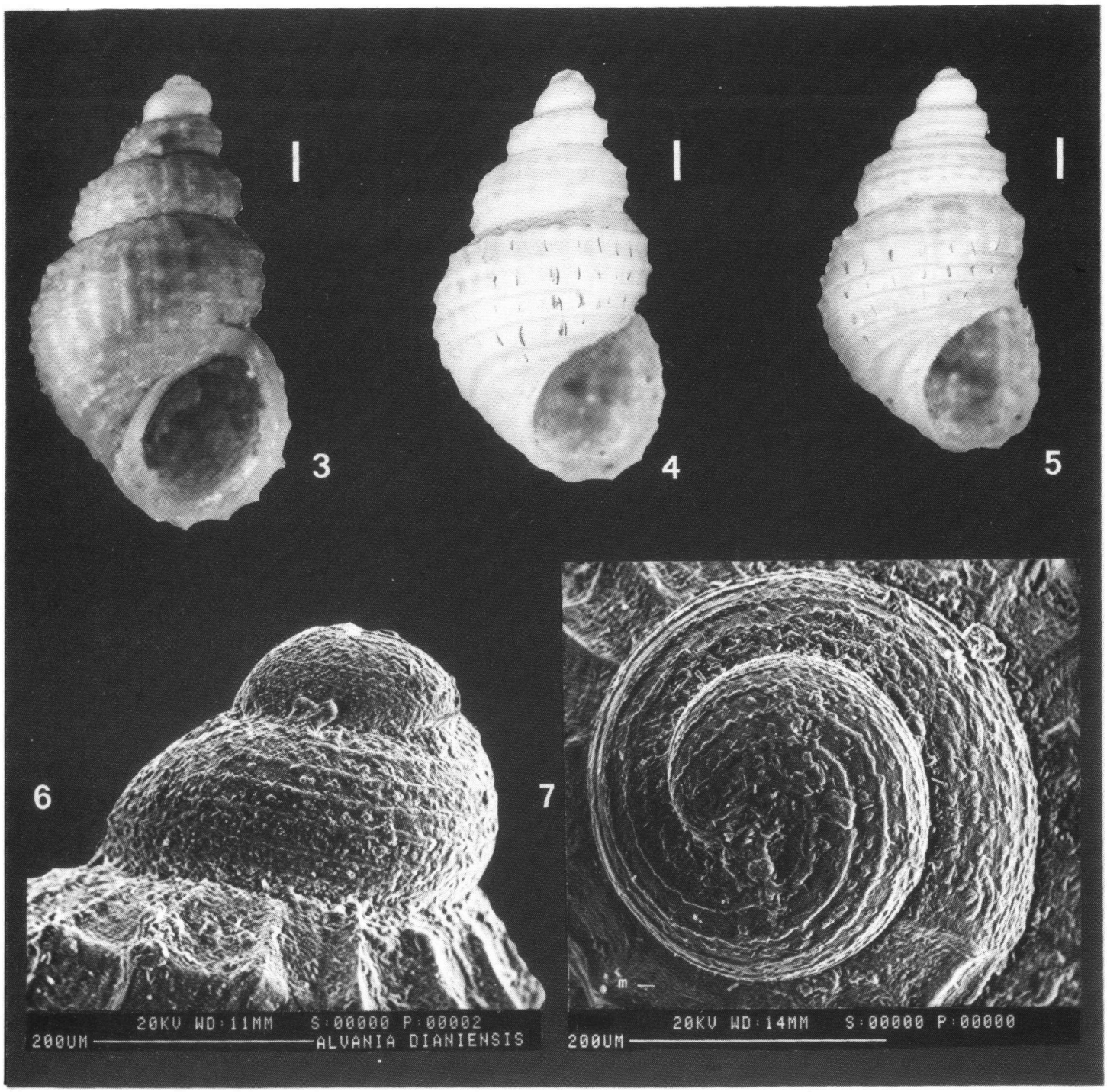

Figs. 3-7. *Alvania dianiensis* n.sp., Italy, isle of Giannutri; 3, Holotype ventral view; 4-5, paratypes, ventral view (scale bar 0.2 mm); 6-7, protoconch of paratype.

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