

European marine Mollusca: notes on less well-known species
XI. *Scacchia zorni* spec. nov. (Bivalvia: Erycinidae)
from the Atlantic coast of Portugal

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In 1972 we obtained some shell-grit, collected by Mr. A. Zorn, in Lagos, Portugal. Apart from many other interesting species, this material provided quite a number of specimens of an unknown bivalve species, apparently belonging to the Erycinidae Deshayes, 1850, and most probably attributable to the genus *Scacchia* Philippi, 1844. As we did not succeed in identifying the species we put it aside for some time.

Recently the senior author started a revision of the bivalve superfamilies Galeomacea and Cyamiacea. During that study it turned out that the species was indeed undescribed and we therefore give its description here.

The following abbreviations are used for collections: AD, J. J. van Aartsen, Dieren, The Netherlands; BMNH, British Museum (Natural History), London, U.K.; FV, M.C. Fehr-de Wal, Vorden, The Netherlands; MK, H.P.M.G. Menkhorst, Krimpen aan de IJssel, The Netherlands; MNHN, Muséum National d'Histoire Naturelle, Paris, France; RMNH, Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands; USNM, United States National Museum, Washington D.C., U.S.A.

***Scacchia zorni* spec. nov.**

Shell equivalve and equilateral, the beaks practically in the middle. Valves only moderately convex, broad-elliptical and evenly rounded, closed on all sides. Sculpture consisting of slight growth-lines and a faint, but clearly visible pattern of radiating, divaricate lines on the posterior and on the anterior side of the shell; the central part virtually smooth. Hinge-line indented under the top, with an oblique socket for the internal ligament. No external ligament detectable and no nymph either. Hinge consisting of one, relatively strong, anterior cardinal tooth in both valves. This cardinal tooth is triangular and pointed in a nearly vertical direction. No lateral teeth. Muscular impressions not very prominent, the pallial line consisting of a rather broad band of irregular dots.

The shells are 3.8-4.6 mm high and 5.0-5.7 mm broad.

Locur typicus: Lagos, Portugal.

Holotype: 1 left valve (fig. 1a) (RMNH, no. 55771).

Paratypes from the type locality: 1 right valve (fig. 1b), 2 right and 2 left valves (RMNH, no. 55772); a left and a right valve each (USNM, BMNH, MNHN); many loose valves and 1 complete specimen (FV); many loose valves (AD, no. 3837a). Paratypes from Alvor, Portugal: 9 loose valves (AD, no. 16078); many loose valves (MK); 2 right and 2 left valves (RMNH 55773).

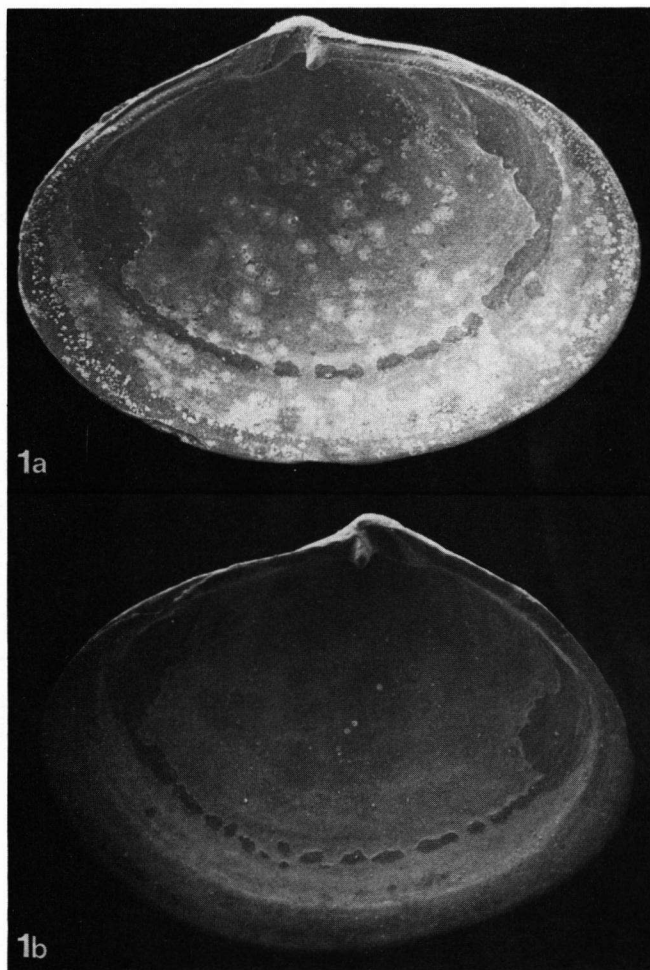


Fig. 1. *Scacchia zorni spec. nov.*; Lagos, Portugal; A. Zorn. leg. ($\times 14$). 1a, holotype, left valve (RMNH, no. 55771); 1b, paratype, right valve (RMNH, no. 55772).

Derivatio nominis: The species is named after our friend Mr. A. Zorn.

Scacchia zorni spec. nov. is placed in *Scacchia* Philippi, 1844, notwithstanding the fact that there is only one anterior cardinal tooth in the left valve, whereas there are two (of unequal size) of these teeth in the type-species *Scacchia elliptica* (Scacchi, 1833) of this genus. The shell of *Lasaeina* Cossmann, 1910, is similar to that of *Scacchia*, but shows a nymph for the external ligament and, therefore, belongs to the Sportellidae according to Chavan (1969: N541). The Miocene shell described by Janssen (1984: 74, pl. 3 figs. 6, 7) as *Lasaeina antwerpiensis* (Glibert, 1945) sometimes shows only one cardinal tooth

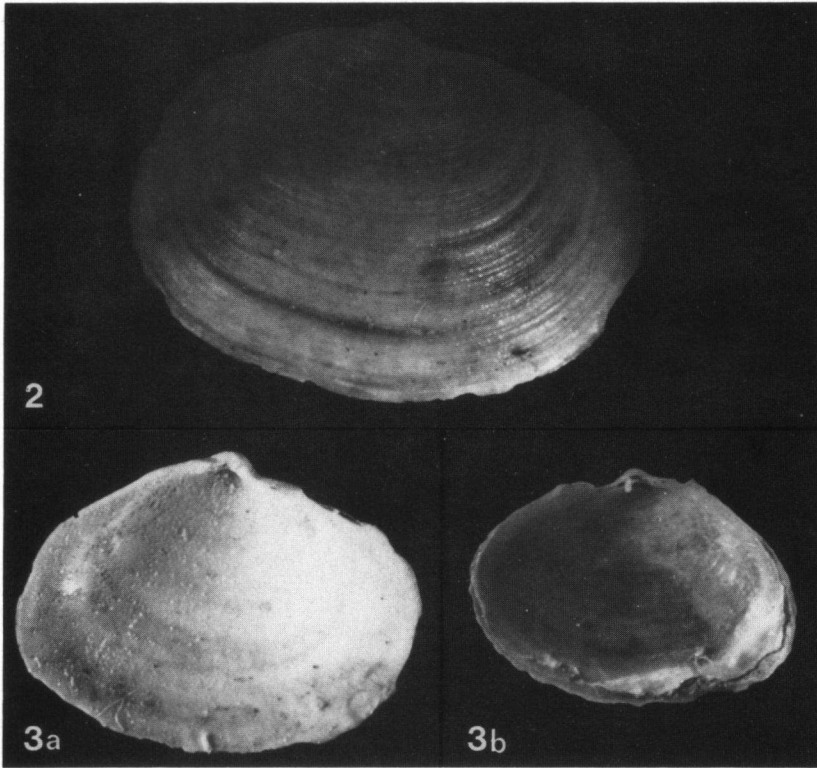


Fig. 2. *Scacchia tenera* Jeffreys, 1881; lectotype (BMNH 1885.11.5.946) ($\times 14$).

Fig. 3. Two valves of an unknown species (BMNH 1885.11.5.946) ($\times 14$). 3a, left valve; 3b, right valve

in the left valve, whereas in other valves there are two such cardinals. The outside sculpture is clearly of the same type as in *Scacchia zorni*. The Miocene species *Scacchia degrangei* (Cossmann & Peyrot, 1911) (see Janssen, 1984: 64, pl. 2 figs. 1a-b, 2) is also similar to *S. zorni*; it has the same outside sculpture, but again shows two diverging cardinal teeth in the left valve.

Compared with *Scacchia elliptica*, *S. zorni* differs in being much more equilateral, by not showing the characteristic sinuosity in the dorsal hinge line, as well as by showing only one cardinal in the left valve. Moreover the characteristic divaricating sculpture is not present in *S. elliptica*.

Comparison with "*Scacchia*" *tenera* Jeffreys, 1881, is more complicated. This species is only known from the type specimens in BMNH and USNM, which are described below.

The sample USNM 170647 consists of two fragmentary valves, one of which, a right valve, corresponds with the original description and figure as given by Jeffreys (1881: 696, pl. 61 fig. 2). The other valve may well belong to a different species. The sample BMNH 85.11.5.946 consists of two right valves and one left valve, glued onto a piece

of cardboard. The largest right valve (3.70 x 4.95 mm) corresponds with the original description and figure. In our fig. 2 a photograph of this valve is given. Although the dimensions of this valve do not correspond with the dimensions (4.45 x 5.72 mm) given by Jeffreys, we have selected this valve as the lectotype of "*Scacchia*" *tenera* Jeffreys, 1881, because it seems almost certain that this is the shell figured in pl. 61 fig. 2. The right valve in USNM 170647 corresponds with this lectotype.

In our opinion the smaller left and right valves in the BMNH sample belong to another, undescribed, species. However, these valves are not in good condition and, therefore, we do not describe this new species, but only give a figure (fig. 3a-b).

The lectotype of "*Scacchia*" *tenera* Jeffreys, 1881, differs from *S. zorni* in being more rectangular in outline, in being inequilateral (the anterior side longer than the posterior one), as well as in having the outside smooth, i.e. without any trace of the divaricating radial sculpture present in *S. zorni*. As no left valve of "*S.*" *tenera* is known with certainty, we are not certain whether that species is correctly placed in the genus *Scacchia*.

Scacchia ovata Philippi, 1844, is described by its author as showing two cardinal teeth as well as a distinct lateral tooth on either side of the beak in the right valve (the only specimen known). We have not been able to locate the holotype, neither have we come across any specimen in public or private collections which might belong to this species. The only sample bearing the name *S. ovata* (USNM 159286) [Gulf of Lyons/Martin] in the Jeffreys collection belongs to *S. elliptica*. The shell figured by d'Angelo & Gargiullo (1981: 185) has a totally different form and most probably does not belong to *S. ovata*. For the time being we must therefore regard "*S.*" *ovata* Philippi, 1844, a dubious species, not belonging to the genus *Scacchia* because of the presence of lateral teeth in the right valve and certainly quite different from *S. zorni* for the same reason.

We wish to thank the late Dr. J. Rosewater (USNM) and also Mrs. K. Way (BMNH) who most kindly lent us specimens from their collections and Mr. A. Zorn who provided the shell-fragments, which contained the new species.

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