

**On *Scacchia maura* spec. nov. from Mauritania, with notes on  
*Scacchia zorni* Van Aartsen & Fehr-de Wal, 1985  
(Bivalvia, Heterodonta: Lasaeidae)**

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The shell of *Scacchia maura* spec. nov. closely resembles that of the Miocene *S. antwerpiensis* (Glibert, 1945). The differences are minor, but constant. Especially with regard to the distribution of *S. zorni* Van Aartsen & Fehr-de Wal, 1985, an extension of the known range is given.

Key words: Bivalvia, Heterodonta, Lasaeidae, *Scacchia*, taxonomy, Mauritania.

## INTRODUCTION

Classifying the numerous samples of bivalves, dredged by the NNM - CANCAP expeditions (1976-1988), I noticed some species belonging to the genus *Scacchia* Philippi, 1844 (Lasaeidae), which bear, at first sight, a close resemblance to some Miocene species described by Janssen (1984). Comparison of one of the unknown *Scacchia* species with a sample of *S. antwerpiensis* (Glibert, 1945) in the collection of the Nationaal Natuurhistorisch Museum, Leiden (NNM), confirmed this suspicion. Because the Recent species is not identical with the Miocene one, I consider the former undescribed: *Scacchia maura* spec. nov.

Another species turned out to be identical with *S. zorni* Van Aartsen & Fehr-de Wal, 1985, until now only known from the south coast of Portugal. A survey will be given of its distribution.

Abbreviations: LH = J. van der Linden collection, The Hague; NNM = Nationaal Natuurhistorisch Museum, Leiden. The fossil material is housed in the Palaeontology Department of NNM, and is here referred to with RGM registration numbers.

### ***Scacchia maura* spec. nov. (figs. 1-3)**

Type material (all from Mauritania). — Holotype; off Banc d'Arguin, 20° 00'N, 17° 21'W, depth 41 m, MAU-II, Sta. 078 (NNM 57187/complete shell, contains remains of the animal). Paratypes from the type locality: 2 right and 2 left valves (NNM 57188). Other paratypes: Passe de Lévrier, E. of Cap Blanc, 20° 47'N, 17° 02'W, depth 15 m, MAU-II, Sta. 005 (NNM 57189/6; LH/4); off Banc d'Arguin, 20° 00'N, 17° 11'W, depth 25 m, MAU-II, Sta. 065 (NNM 57190/8); ibidem, 20° 00'N, 17° 17'W, depth 35 m, MAU-II, Sta. 077 (NNM 57191/5); ibidem, 19° 35'N, 16° 51'W, depth 35 m, MAU-II, Sta. 085 (NNM 57192/1); ibidem, 19° 35'N, 16° 51'W, depth 35 m, MAU-II, Sta. 086 (NNM 57193/10 & 1 paired shell); ibidem, 19° 33'N, 16° 55'W, depth 64 m, MAU-II, Sta. 088 (NNM 57194/2).

Description (after 40 valves and 2 complete specimens from 7 localities). — The shell is rather small (length 1.8-4.6 mm, height 1.5-3.5 mm), equivalve and almost equilateral, not gaping. The beaks are in the midline and turned slightly forwards; the umbo is small and only a little protruding beyond the dorsal margin. The valves are roundish-oval in outline. The sculpture consists of fine, concentric growth-lines and faint incised lines, radiating and divaricating from the umbo to the margins. These radiating lines are often interrupted and sometimes only visible towards the anterior and posterior margins of the valves. On both valves there is only one minute cardinal tooth, pointed and in a more or less upward direction, just anterior of the beaks; there are no laterals. Behind the cardinals there is a small and oblique groove for the internal ligament. The muscle scars are about equal, the pallial line, often almost invisible, is narrow and uninterrupted. The outer surface of the shells is glossy, semitransparent and (yellowish) white.

Distribution. — As yet only known from Mauritania, from 15 to 64 m deep.

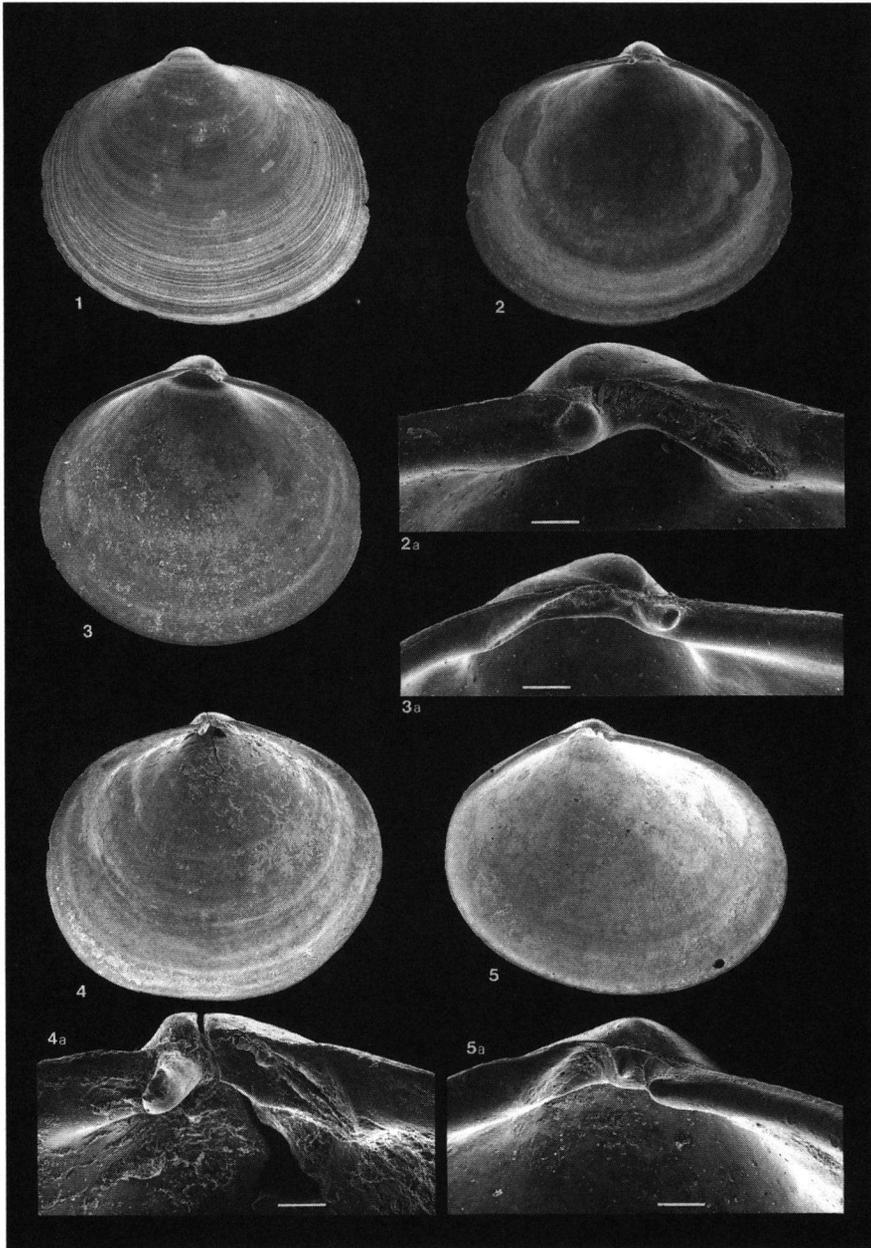
Derivatio nominis. — *Maurus* (Latin), Mauritanian.

Discussion. — For comparison I have studied numerous valves and some paired shells of *Scacchia antwerpiensis* (Glibert, 1945) (NMM, RGM 396 000, from the Miocene (Hemmoorian, Oxlundian; Breda Formation, Aalten Member, Miste Bed) of Winterswijk (Miste), The Netherlands. Although the differences with *S. maura* are slight, nevertheless they are distinct (figs. 4, 5): (1) The cardinal tooth of the right valve of *S. antwerpiensis* is larger and more pointed. (2) All the left valves of *S. antwerpiensis* have two cardinals of which the anterior one is situated in the same place as the single cardinal tooth of *S. maura*. The posterior cardinal is much smaller and situated just below the beak. (The few valves with seemingly one cardinal, have in fact two teeth as well, of which the posterior one is very much reduced). (3) The pallial line of *S. antwerpiensis* is broad, with crenellated margins, or even a broad band of irregular dots. The pallial line of *S. maura* is narrower, uninterrupted and the margins are smooth.

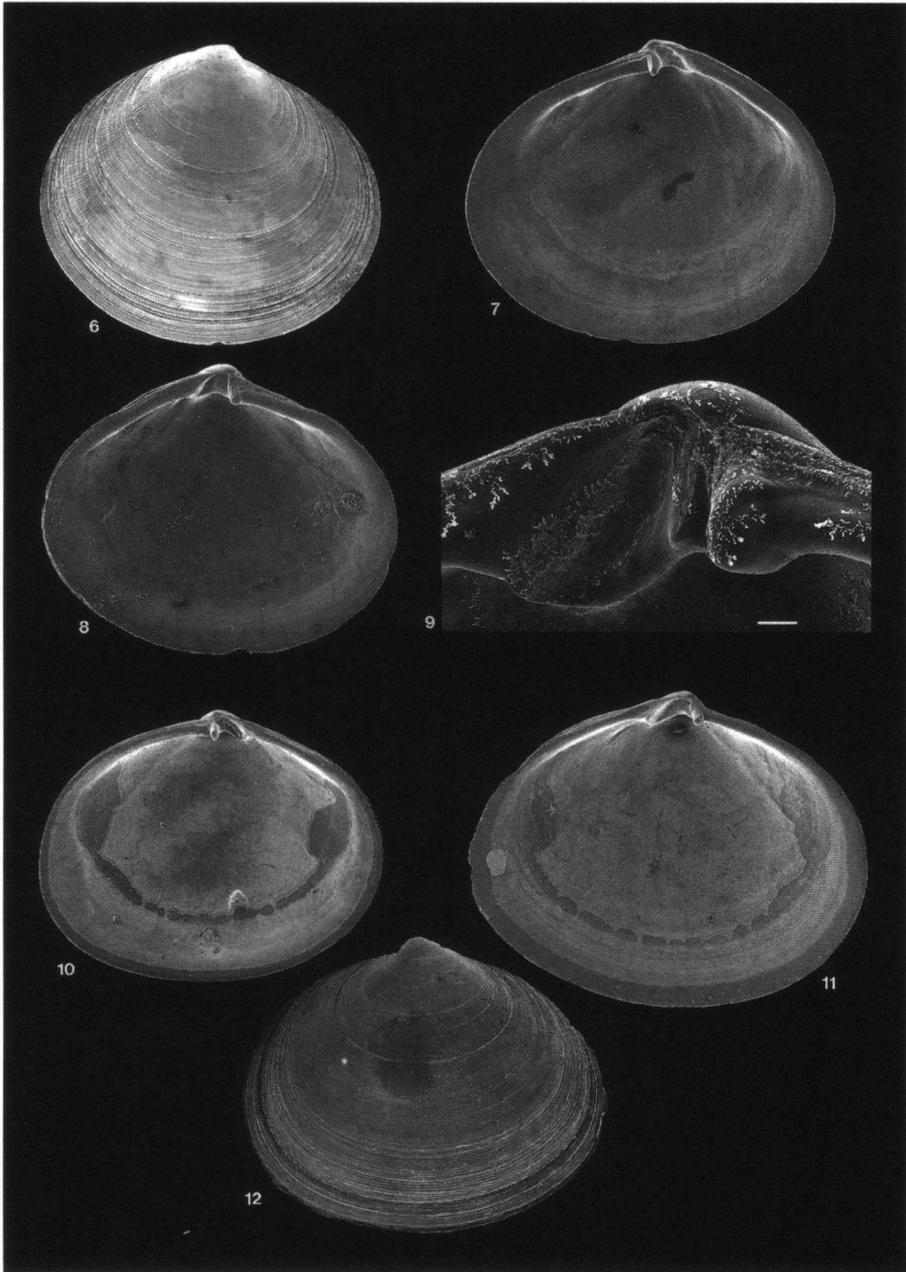
The Miocene species *S. degrangei* (Cossmann & Peyrot, 1911) from the same location as *S. antwerpiensis*, NNM (RGM 396 000) resembles, at first sight, *S. maura* too, but the right valve has lateral teeth and the outline of the shell is more elongated-oval, contrary to the roundish-oval outline of *S. maura*.

The Recent species *S. zorni* Van Aartsen & Fehr-de Wal, 1985 (figs. 6-9) is the fourth *Scacchia* species with the same peculiar sculpture of radiating and divaricating lines. *S. zorni* is larger than *S. maura* (and the Miocene species), up to 6 mm versus 4.6 mm. The outline is more depressed, elongate-oval; the cardinal tooth on the right valve is much larger (even on shells with the same length), just like the cardinal on the left valve, though it has to be added that there are some valves of *S. zorni* which have a very reduced second (posterior) cardinal too (fig. 9). Finally, the groove for the internal ligament of *S. zorni* is visible in direct view, while this groove on *S. maura* (much smaller than that of *S. zorni*) is only visible when the valves, from a horizontal position, are tilted backwards.

Because *S. zorni* has hardly been discussed for the last ten years, it is not surprising that there are some additional data available at this moment, especially about its distribution: apart from the localities on the Algarve coast of Portugal, mentioned by Van Aartsen & Fehr-de Wal (1985), the species has been collected on the NE. coast of Morocco, Melilla (NNM) and off Mauritania, dredged by the MAU-II expeditions (1988): 7 samples, from 15 to 35 m deep. The Mauritanian specimens are identical with those of Portugal, except for the average length, which is lower (figs. 10-12).



Figs. 1-5. *Scacchia* spec. 1-3, *S. maura* spec. nov., paratypes; Mauritania, off Banc d'Arguin, at 41 m depth (= type locality, NNM 57188). 1, 2, right valve, length 4.3 mm, exterior and interior, respectively; 3, left valve, length 2.8 mm, interior. 4, 5, *S. antwerpiensis* (Glibert, 1945), Miocene of The Netherlands, Winterswijk-Miste (RGM 396 000). 4, right valve, length 3.8 mm, interior; 5, left valve, length 2.9 mm, interior. 2a, 3a, 4a, 5a, details of the various hinge areas, at a slight tilt (scales 0.1 mm)



Figs. 6-12. *Scacchia zorni* Van Aartsen & Fehr - de Wal, 1985. 6-9, NE. Morocco, Melilla (NNM). 6, 7, right valve, length 3.1 mm, exterior and interior, respectively; 8, left valve, length 3.8 mm, interior; 9, detail, at a slight tilt, of the hinge of a left valve with a second, rudimentary, cardinal tooth (scale 0.1 mm). 10-12, Mauritania (NNM). 10, right valve, length 4.3 mm, interior (MAU.046: 19° 04'N, 16° 27'W, depth 25 m); 11, 12, left valve, length 5.0 mm, interior and exterior, respectively (MAU.014: 18° 50'N, 16° 21'W, depth 21 m).

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