

***Spisula hartingi* nov. spec., a new bivalve from
the Eemian in the Netherlands**

by

G. SPAINK

(Geologische Dienst, Haarlem)

While collecting shells from the sand used for draining large areas on the western side of Amsterdam, members of the Amsterdam branch of the Netherlands Malacological Society found some valves of a hitherto unknown species of *Spisula*. This sand is brought up by a dredger from a depth of 20 to 30 m below O.D. in the "Slotermeer", a small lake near the drained area. The deposits from which these shells are presumably derived belong to the Eemian (last interglacial) stage and have a littoral facies, being rich in marine shells.

No right valves have been found, so that the following description is of the left valve of the species.

***Spisula hartingi* spec. nov.**

Shell rather solid, obliquely triangular, much compressed, flattened near the ventral side. Anterior side rather short. Posterior side one and a half times as long as the anterior and more oblique. The dorsal margins are moderately convex; the ventral margin is slightly concave in the holotype, and straight or slightly convex in the paratypes, which are smaller. The ventral marginal region is flattened internally where the valves were in contact when closed. Umbo

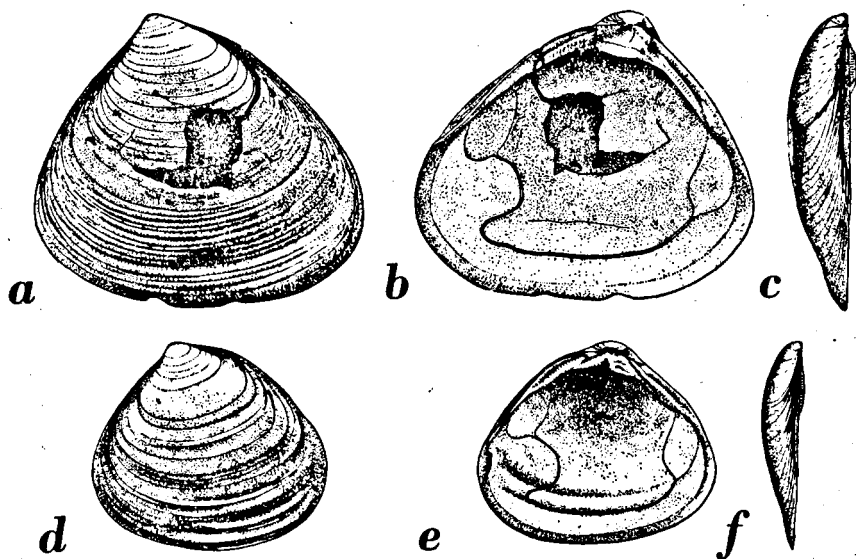


Fig. 1. *Spisula bartingi* spec. nov., a-c: holotype, d-f: paratype 1.

small and sharp, conical, protruding and prosogyrous, moderately excavated internally. Dorsal regions lanceolate, ornamented with fine, regular, fan-shaped ridges, and separated from the central area by obtuse keels. Under the lateral tooth a very narrow but deep lanceolate escutcheon, bordered at the outside by a sharp keel and at the inside by the concave part of the posterior margin, is present. As far as I know this character is unknown in the Mactridae. The exterior is mostly weathered, but a remarkable irregularity near the posterior ventral margin is not due to this cause. The sculpture consists of fine but distinct concentric ribs. In the holotype they are regular near the anterior ventral margin, irregular near the posterior ventral margin, and can be traced up to the umbo. Paratypes 2 and 3 are smooth near the umbo; paratype 1 is much weathered, but nevertheless shows traces of concentric sculpture. The shell interior has a slight lustre. Pallial line distinct in the holotype, but indistinct in the paratypes. Sinus broad and very shallow as compared with that of other species of *Spisula*, twice as broad as deep. Muscle scars a little sunken. The anterior one is drop-like, i.e. the lower side is broadly rounded, the upper side ending in a point; the posterior is oval. Hinge-plate strongly arched and rather broad near the umbo.

Lateral teeth short and strong. The anterior one is straight or slightly bent, the posterior more or less strongly bent. Both teeth are grooved transversely on each side. The cardinal teeth are damaged in all specimens, but the holotype and paratype 1 show the proximal ends of two narrow teeth, which meet at an angle of about 80° . The ligament pit is broad, rather like that of *Mactra* s.s. The postero-dorsal margin starts from the top of the posterior lateral tooth and forms a sigmoid curve.

Dimensions in mm. — Holotype (coll. G. Spaink, Geologische Dienst, Haarlem), fig. 1a-c: length 12.3, height 11.0, diameter 2.8. Paratype 1 (coll. G. Spaink), fig. 1d-f: length 9.2, height 8.4, diameter 2.3. Paratype 2 (coll. H. van Haren, 's-Gravenhage): length 8.7, height 7.7, diameter 2.0. Paratype 3 (coll. D. van Romburgh, 's-Gravenhage): accidentally broken, length about 3 mm.

DISCUSSION

Although this species is here assigned to the genus *Spisula*, the high triangular shape and the considerable flatness of the shell, the bent posterior tooth, the broad ligament pit, the broad and shallow pallial sinus, the remarkable course of the posterior margin and the presence of an escutcheon suggest that it may belong to a new subgenus or genus. I have, however, too few specimens and only left valves, at my disposal, to be able to reach a definite decision on this point.

The species is named after P. HARTING, who discovered and described the Eemian deposits, found in the Eem-valley at Amersfoort and in Amsterdam, and introduced the name Eemian in 1874.

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