

The right valve of "Spisula" hartingi Spaink, 1958

by

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SUMMARY

A right valve of „*Spisula*” *hartingi* Spaink 1958, is described and figured for the first time. The species-diagnosis is completed and emended. Affinity with *Macra* Linné, 1767, rather than with *Spisula* Gray, 1837, is suggested.

INTRODUCTION AND ACKNOWLEDGEMENTS

Whilst analysing shell material from a section through subrecent inshore estuarine sediments in the Haringvliet, the Netherlands, the author encountered a right-hand valve of a lamellibranch, which he was unable to identify. It was subsequently recognised by Dr. C. O. VAN REGTEREN ALTENA as a right valve of *Spisula hartingi* Spaink.

Until now, no right valves of this species were known and the species diagnosis (cf. Spaink, 1958) was based on left valves only.

The following description — of the right valve only — serves both to complete and to emend the original species diagnosis. The latter is possible because of the excellent state of preservation of the valve, which is far superior to that of the left valves thus far known (fide C. O. VAN REGTEREN ALTENA).

The assistance of Dr. C. O. VAN REGTEREN ALTENA (Rijksmuseum van Natuurlijke Historie, Leiden) in preparing this paper is here gratefully acknowledged.

DESCRIPTION ¹⁾

General appearance. — Valve rather solid, slightly longer than high, obliquely triangular, prosocline and prosogyre ²⁾, much compressed transversely. The posterodorsal side of the valve is about one and a half times the anterodorsal one. The ventral margin is straight.

Valve exterior (Plate 2, A). — The valve is flattened near the ventral margin. The entire surface is ornamented with numerous fine, closely spaced, narrow, concentric ribs. At a few levels the ribs are distinctly broader and possibly represent growth lines.

The sculpture is more distinct on the younger than on the older parts of the valve and of a regular pattern except on the posterior ventral margin where it is irregularly distributed.

Lunule and escutcheon³⁾ are lanceolate, with a sculpture which consists of rather coarse, fan-shaped, irregular ridges that are separated from the central part of the valve by obtuse keels, the posterior of which is more pronounced than the anterior.

Valve interior (Plate 2, B and C). — The valve interior has a porcellaneous lustre, the pallial line is very distinct, the sinus shallow and about twice as broad as deep. The ventral marginal region is flattened.

The muscle scars are slightly sunken and are deepest where they face each other. Both are drop-like (cf. SPAINK, 1958), the posterior one more broadly rounded at the base and having a distinctly elongated point on its upper side.

The hinge is of the heterodont type, having two cardinal and four lateral teeth. The anterior cardinal is slightly longer than the posterior, parallel to and situated behind the anterior inner lateral tooth. It is narrow, nearly straight and thickened just below the umbo. The posterior cardinal, which borders the anterior side of the resilifer, reaches almost to the inner margin of the hinge plate. It is orientated in a NW - SE direction and makes an angle of about 70 degrees with the anterior cardinal, being straight, of almost uniform thickness throughout, and narrow.

A slightly elevated accessory lamella borders the posterior side of the resilifer. It is approximately parallel to the posterior cardinal and about half as long, straight, and rather more narrow than the cardinals,

¹⁾ The wording of Spaink, 1958, has been followed as closely as possible.

²⁾ The terminology of Shrock & Twenhofel (1953) is followed.

³⁾ The usage of Lamy et al. (fide Van Urk, 1959) is followed here.

Both anteriorly and posteriorly two lateral teeth and two sockets are present. Anteriorly, laterals and sockets are nearly straight, whilst posteriorly they are distinctly bent. Both anterior and posterior lateral teeth are transversely grooved where they face each other.

The resilifer makes up slightly more than one-third of the subumbonal part of the hinge plate.

The hinge plate is strongly arched and broadest at its subumbonal part, narrowing both anteriorly and posteriorly of it, to broaden out again at the laterals, after which it narrows to merge with the interior margins of the valve.

The posterodorsal margin starts from the top of the accessory lamella and forms a simple curve, most convex at the lateral teeth. The anterodorsal margin is nearly straight.

Dimensions ⁴⁾. — Length 8.5 mm; height 7.6 mm; thickness 1.6 mm.

Occurrence. — The basal shell bed of a sequence of subrecent tidal flood-channel deposits in the Haringvliet, the Netherlands. These deposits are of post 1932 age and the molluscs they contain have been displaced (NOORTHOORN VAN DER KRUIJFF & LAGAAIJ, 1960).

Depository. — Rijksmuseum van Geologie en Mineralogie, Leiden, the Netherlands, registration number ST 102180.

Discussion. — Apart from the additions made here the original species diagnosis (SPAINK, 1958) has to be emended on two points; in the right valve the resilifer is not broad as stated by SPAINK, but, on the contrary, rather narrow, and the posterior muscle scar is not oval but drop-like. It is highly improbable, if not altogether impossible, that either resilifera or muscle scars or both would be different in left and right valves of the same species. It appears that the state of preservation of both holo- and paratypes is responsible for this discrepancy.

Other significant differences are found in the form of the posterodorsal margin and the sculpture of lunule and escutcheon. The posterodorsal margin of the right valve forms a simple curve, in contrast to the corresponding margin in both holo- and paratypes, where it is sigmoid. Therefore, an „escutcheon” as meant by SPAINK, 1958, is also absent. In both holo- and paratypes, the sculpture consists of fine, fan-shaped, regular ridges, whilst on the right valve here discussed, these ridges are coarse, fan-shaped and irregular. However, the latter differences might originate from an inherent dissymmetry of the two valves of the species.

⁴⁾ Measured by the method of Shrock & Twenhofel (1953).

SPAINK (1958) assigns this species to the genus *Spisula* Gray, 1837, but suggests that it might belong to a new genus or subgenus. This cannot be settled decisively until more material of the species is available (cf. SPAINK, 1958).

However, because of the presence of an accessory lamella which borders the posterior side of the resilifer the author regards it as related to *Macra* Linné, 1767, rather than to *Spisula* Gray, 1837.

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