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Remnants of a colour pattern on Pseudamussium gerardi (Nyst) (Bivalvia: Pectinidae) from the Pliocene of the northern Peel district, the Netherlands

W.J. VAN DER BURG

Beukenlaan 30, 5384 BG Heesch, the Netherlands

Remnants of a (colour) pattern on a fossil juvenile left valve of *Pseudamussium (Palliolum) gerardi* (Nyst, 1835) (Pectinidae) (Pliocene) is attributed to an abnormal response to the process of colouration during the life of the specimen in question rather than to especially favourable fossilization circumstances.

Key words: Bivalvia, Pectinidae, *Pseudamussium*, colour pattern, Pliocene, the Netherlands.

In a bottom sample taken at a depth of 46-47 m of a well-boring in the village of Oss (Province of Noord-Brabant) I found a left valve of a juvenile of *Pseudamussium (Palliolum) gerardi* (Nyst, 1835) (18.3 × 17.0 mm, W.J. van der Burg colln.) which shows a light grey colour pattern (fig. 1). No trace of such a pattern was present in the large number of accompanying valves of the same species at the same depth, i.e. a deposit of the *Pseudamussium gerardi* range-zone (Van der Burg, 1987).

Fossil molluscs rarely show a (colour) pattern. Remnants of patterns are known from a few Pliocene gastropods, but to my knowlegdge they have so far not been reported for bivalves from the Pliocene of the Netherlands or elsewhere in Europe (see also Moore, 1969: N70-N72). The present valve shows a fan or chevron-like pattern which is similar to that found in Recent bivalves of various species including some pectinids. A nice example is shown by the venerid *Circe scripta* (L., 1758) as depicted by Abbott & Dance (1991: 354).

That particularly favourable circumstances in the deposit from which the shell was taken would be responsible for the preservation of the pattern, is unlikely. Instead, it may be due to some abnormal response to the mechanism of the formation of a colour pattern, resulting in the exterior surface of the prism layer of the shell being affected. Patterns generally are not good characters for (sub)species delimitation. The aberrant specimen does not differ significantly in morphometric characters from the non-patterned shells; for example, the extremely fine divaricate grooves are present in all of them.

We may assume that the fossil species *P. gerardi* in Pliocene times had a colour pattern on its shell similar to that shown by the here discussed valve. Of course, it remains unknown whether such a pattern was present on all specimens. We also do not know the original colours of the shells.

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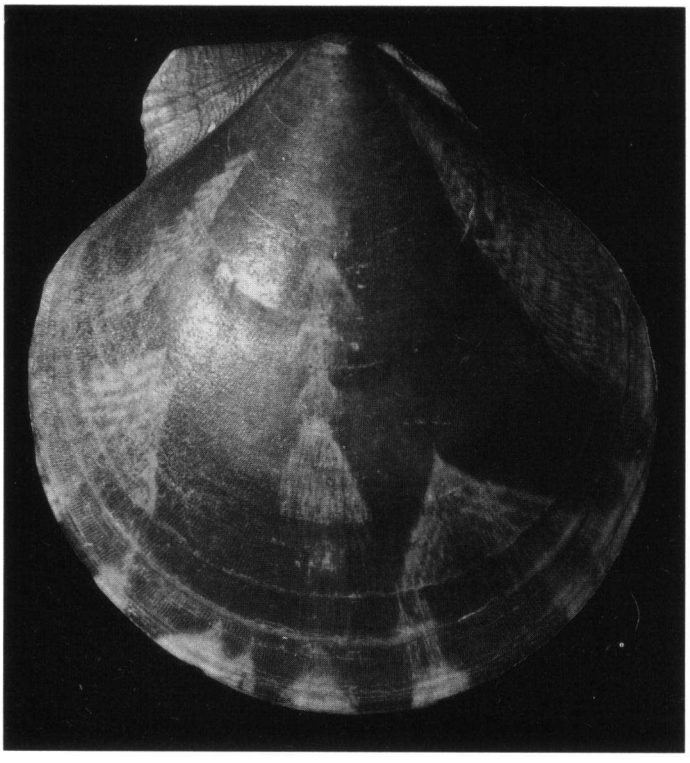

Fig. 1. Outside view of juvenile left valve of *Pseudamussium (Palliolum) gerardi* (Nyst) (Pliocene, 46-47 m deep, Oss, Noord-Brabant; 18.3 × 17.0 mm, W.J. van der Burg colln.). with remnants of a colour pattern; a small piece of the posterior ear is broken off.