

*Microgloma pusilla* (Jeffreys, 1879) (Bivalvia, Protobranchia, Nuculanidae)  
and *Notolimea clandestina* Salas, 1994 (Bivalvia, Pteriomorpha, Limidae),  
new for the southern North Sea Basin

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*Microgloma pusilla* is known from deep European waters. *Notolimea clandestina* has been described from the Strait of Gibraltar and is also known from the central Mediterranean Sea. In this paper shells of these marine bivalves are reported from the shallow waters of the southern North Sea Basin.

Key words: Bivalvia, Protobranchia, Pteriomorpha, Nuculanidae, Limidae, *Microgloma*, *Notolimea*, distribution, North Sea, The Netherlands.

*Microgloma pusilla* (Jeffreys, 1879) (Protobranchia, Nuculanidae)

A few years ago Ockelmann & Warén (1998) published a paper on the protobranch bivalve genus *Microgloma* Sanders & Allen, 1973. With clear pictures and accurate descriptions they elucidated the distinguishing marks of *Microgloma pusilla* (Jeffreys, 1879) and *M. tumidula* (Monterosato, 1880). These two species are - unlike *M. guilonardi* (Hoeksema, 1993), the third known European species of *Microgloma* - only known from deep waters (Ockelmann & Warén, 1998; Hoeksema, 2000).

*M. pusilla* occurs from Iceland and Norway to the Mediterranean Sea at depths of between 200 and 1200 m (Ockelmann & Warén, 1998: 1). Surprisingly the second author found a right valve of *M. pusilla* (fig. 1) in shell grit taken from the beach of the Island of Neeltje Jans, mouth of the Oosterschelde, province of Zeeland, SW Netherlands (A.C. Janse leg., 26.xii.1999; NNM no. RMNH 85870). The valve is whitish transparent, smooth at the outside and has a length of 0.67 mm. It has 4 teeth behind and 3 teeth in front of the umbo. Judging from the number of teeth, the measurements of the shell and the absence of commarginal threads on the outer surface, the valve is probably immature. As the valve is transparent it is considered Recent.

The valve differs from valves of *M. guilonardi* in being more equilateral and less elongate. Clear figures of *M. pusilla* have been published by Salas (1996: 42-43, figs 58-61), Ockelmann & Warén (1998: 10, fig. 4F; 16, fig. 7A; 18, fig. 8A-B; 20, fig. 9A-F; 22, fig. 10D) and Giannuzzi-Savelli et al. (2001: 54-55, fig. 46a-c, partly the same as those of Ockelmann & Warén (1998)). Tebble's figure of *M. pusilla* (1966: 29, fig. 15C; as *Phaseolus pusillus*) is not very clear and shows at least two teeth too many.

*Notolimea clandestina* Salas, 1994 (Pteriomorpha, Limidae)

In 1994 Salas described a new species of Limidae from the littoral of the Strait of

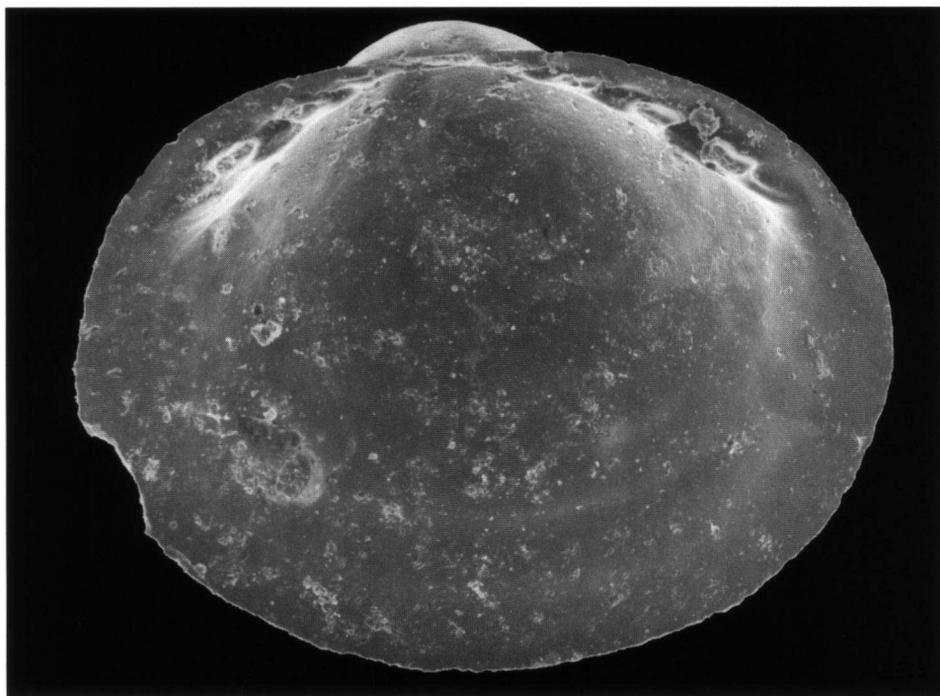


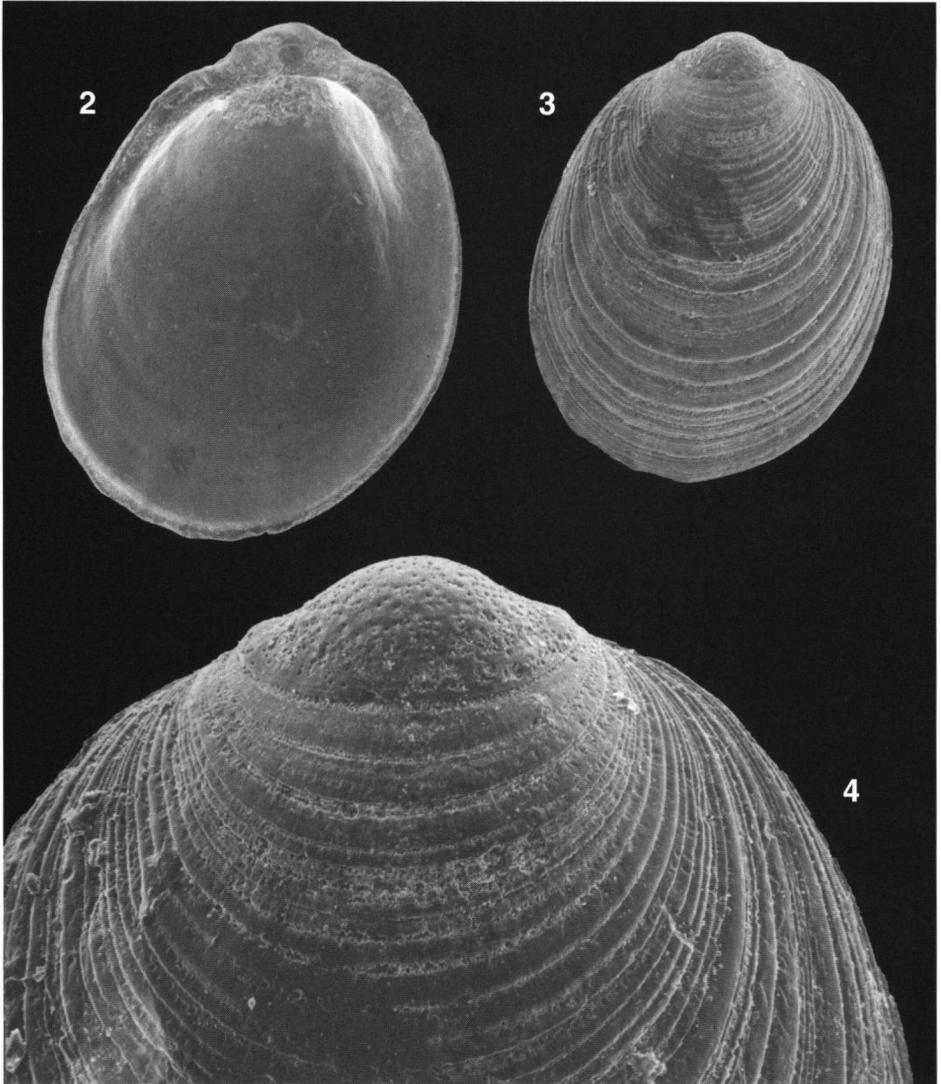
Fig. 1. *Microgloma pusilla* (Jeffreys, 1879), right valve (height 0.54 mm, length 0.67 mm); beach, Island of Neeltje Jans, mouth of Oosterschelde, province of Zeeland, SW Netherlands; A.C. Janse leg., 26.xii.1999; NNM no. RMNH 85870.

Gibraltar as *Notolimea clandestina*. At first the species was considered endemic to that region (Salas, 1994: 253; 1996: 59), but soon after the description the species was reported from the central Mediterranean: at different shallow sites, 4-15 m, around the Island of Lampedusa, S Italy (Cecalupo, 1995; as *Limopsis sebastianoi*) and at St. Julian's Bay, 15 m, NE Malta (Albano, 1998).

Recently some members of the 'Werkgroep Geologie' of the 'Koninklijk Zeeuwsch Genootschap der Wetenschappen', scrutinizing many litres of shell grit from various beaches in the SW Netherlands, discovered shells of *N. clandestina* in our country. Shells of this species have been described and figured, but not recognized, for the first time by Raad (1995: 10-11; as *Limopsis* sp.) and Rijken (1996: 25-26; as *Limopsis* sp.).

So far the following records from SW Netherlands beaches and deposits, from south to north, are known to us (abbreviations: AJB = A.C. Janse, Brielle; DFH = D.F. Hoeksema, Middelburg; HJR = H.J. Raad, Kruiningen; NNM = Nationaal Natuurhistorisch Museum 'Naturalis', Leiden; Z = province of Zeeland; ZH = province of Zuid-Holland):

De Kaloot, Z, A.C. Janse leg., 31.x.1999, NNM no. RGM 456090/40 valves (figs 2-4); De Kaloot, Z, 29.xi.2000, AJB/6 valves; Holocene deposits from the Steenbanken, beach of Zoutelande, Z, 16.ii.2002, AJB/1 valve; Holocene deposits, boring at Colijnsplaat, 2.30-



Figs 2-4. *Notolimea clandestina* Salas, 1994; De Kaloot, province of Zeeland, SW Netherlands; A.C. Janse leg., 31.x.1999; NNM no. RGM 456090. 2, right valve, interior (height 0.90 mm, length 0.75 mm); 3, left valve, exterior (height 0.79 mm, length 0.65 mm), showing concentric striae and faint radial ribs; 4, close-up of left valve of fig. 3, showing produssoconch with pitted surface.

12.00 m, Z, NNM/5 valves; beach of Neeltje Jans, Z, 24.xi.1994, HJR/6 valves (Raad, 1995; Rijken, 1996); beach of Neeltje Jans, Z, 26.xii.1999, AJB/1 valve; beach of Burgh-Haamstede, Z, 18.iv.1994, HJR/4 valves (Rijken, 1996); NW beach of Ouddorp, ZH,

W.F.A. Guilonard leg., 1979, coll. DFH/2 valves & 1 complete specimen; Maasvlakte, ZH, 10.ii.2000, AJB/2 valves.

All specimens are white, with a more or less yellowish or bluish tinge and opaque. At the outside they show many concentric striae and most specimens have some broad radial ribs on the lower part of the valves, which are most pronounced near the margins (see fig. 3). The maximum height is 1.0 mm. The specimens are considered fossil; some are known to be derived from Holocene deposits.

In February 1995 Mr Francis Kerckhof showed us some specimens from Belgium. He knows the species from various sites along the Belgian coasts. Kreps (2001) published the record of some valves dredged from the Kwintebank, 20 m, North Sea off W Belgium, iv.1993; in fact this is the very first publication mentioning *N. clandestina* from the southern North Sea Basin.

Clear figures of *N. clandestina* have been published by Salas (1994: 250-251, figs 1-7), Cecalupo (1995: 10, table 1; as *Limopsis sebastianoi*) and Giannuzzi-Savelli et al. (2001: 222-223, figs 469-470ab).

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