

Boreodrillia pliocenica nov. spec., a marine gastropod from the Pliocene deposits of the northern Peel district of The Netherlands

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Boreodrillia pliocenica nov. spec. is described from marine Pliocene deposits of the northern Peel district and is compared with *B. hosiusi* (Von Koenen, 1872) from the Dutch and German Miocene.

Key words: Gastropoda, Prosobranchia, Turridae, *Boreodrillia*, Pliocene, The Netherlands.

In a paper in which the stratigraphic distribution of a malacofauna of the Pliocene deposits of the northern Peel district is treated (Van der Burg, 1987) a marine gastropod of unknown identity was mentioned from the *Pseudamussium gerardi* range-zone. It is the purpose of the present paper to give a description of this species.

Boreodrillia pliocenica nov. spec.

Types. — Holotype (fig. 1a, b) from Macharen, boring XIV, depth 61.20-64.50 m. Paratype (fig. 1c) with partly damaged first whorl of the teleoconch and one fragment (fig. 1d), both from the same locality and depth. The type material will be deposited in the Rijksmuseum van Geologie en Mineralogie, Leiden (nos. 229 313, holotype; 229 314, paratype; 229 315, fragment).

Description. — Shell solid, elongate. The dimensions of the holotype are: length 13.7 mm (7.5 whorls), width 4.9 mm; paratype: length 15.2 mm (8 whorls), width 5.5 mm. The protoconch consists of 1½ smooth and somewhat swollen *Natica*-like whorls. A sharp sickle-shaped ridge marks the transition to the teleoconch which shows spiral and radial sculpture. The whorls are carinate, the keel being slightly below the middle of the whorls. Both the anterior and posterior part of the whorls are concave. The aperture is oval and the angle of the outer lip with the parietal region of the mouth is sharp. The outer lip is not denticulate inside. The major part of the edge of the lip is damaged in both specimens, but from the remaining part and growth lines it can be deduced that it was sharp and curved with a notch very close to the keel. The canal is short and there is no umbilicus. The callus on the inner lip is deepened. The sculpture of the first post-embryonic whorl starts with a thin rib with minute nodules close to the upper suture as well as a row of small, radially elongated, nodules a little below the middle of the whorl, giving the impression of a keel. In the following whorls the nodules gradually increase in size. A third row of nodules appears on the fourth whorl (in the paratype already on the second whorl) just below the series on the keel and very close to it. The number of nodules is the same in all three rows, i.e. from 9 on the oldest whorl of the teleoconch to about 17 on the body whorl. They may also be regarded as parts of a radial sculpture which is interrupted in the concave upper (posterior) half of the whorls. Below the keel on the body whorl seven or eight spiral ribs are present with wide interspaces. They are followed anteriorly by a number of about six thin, closely packed riblets on the siphonal part of the shell.

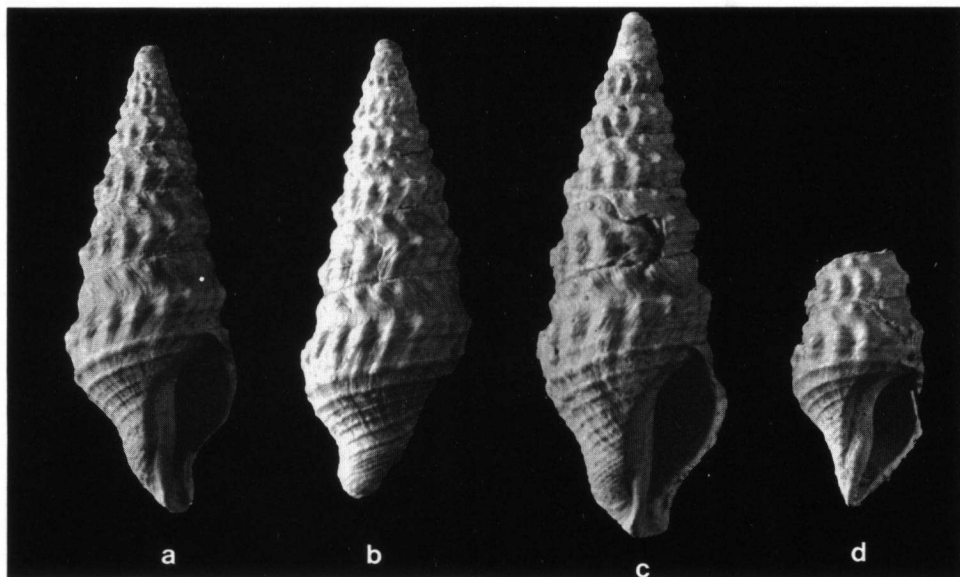


Fig. 1. *Boreodrillia pliocenica* nov. spec.: a and b, holotype (length 13.7 mm); c, paratype (length 15.2 mm); d, fragment.

Discussion. — It has been suggested by Dr. M. Glibert (1971, personal communication) that the present species could be related to some variety of *Boreodrillia hosiusi* (Von Koenen, 1872). However, it turns out that *B. pliocenica* differs from that species in several aspects. In comparison with *B. hosiusi* and its varieties our species is more solid and has a different sculpture. It has no teeth within the outer lip and the turrid notch is more close to the carina.

One of the most characteristic features of the genus *Boreodrillia* as defined by the author of this genus is a “granulate protoconch shell surface” (Sorgenfrei, 1958). This character is also mentioned by Anderson (1964) for *B. hosiusi* but not by Von Koenen (1872) and Kautsky (1925), neither could it be observed by me in material of *B. hosiusi* from Miocene deposits of Winterswijk/Miste (The Netherlands), Twistingingen, Dingden, Königsmühle (Germany), and Beeringen (The Netherlands). Furthermore it is remarkable that only Janssen (1984) has mentioned the elongate, irregularly placed teeth on the inner surface of the outer lip of this species. That this feature has not been observed by Sorgenfrei (1958) is comprehensible because he had at his disposal only one very juvenile specimen with three post-embryonic whorls. In adult specimens the teeth are invariably present.

Derivatio nominis. — The species name *pliocenica* was chosen because the new species was found in Pliocene deposits, whereas the species known so far, *B. hosiusi*, has been found in Miocene deposits.

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SAMENVATTING

In een eerder artikel over de malacofauna van Pliocene afzettingen in het Peeldistrict (Van der Burg, 1987) werd reeds melding gemaakt van een nog onbeschreven soort van mariene gastropoden. Deze wordt thans beschreven als *Boreodrillia pliocenica* nov. spec. (schelp 13.7-15.2 × 4.9-5.5 mm, 7 ½-8 windingen). De naam is gekozen, omdat de andere soort, *B. hosiusi*, uit het Mioceen bekend is.