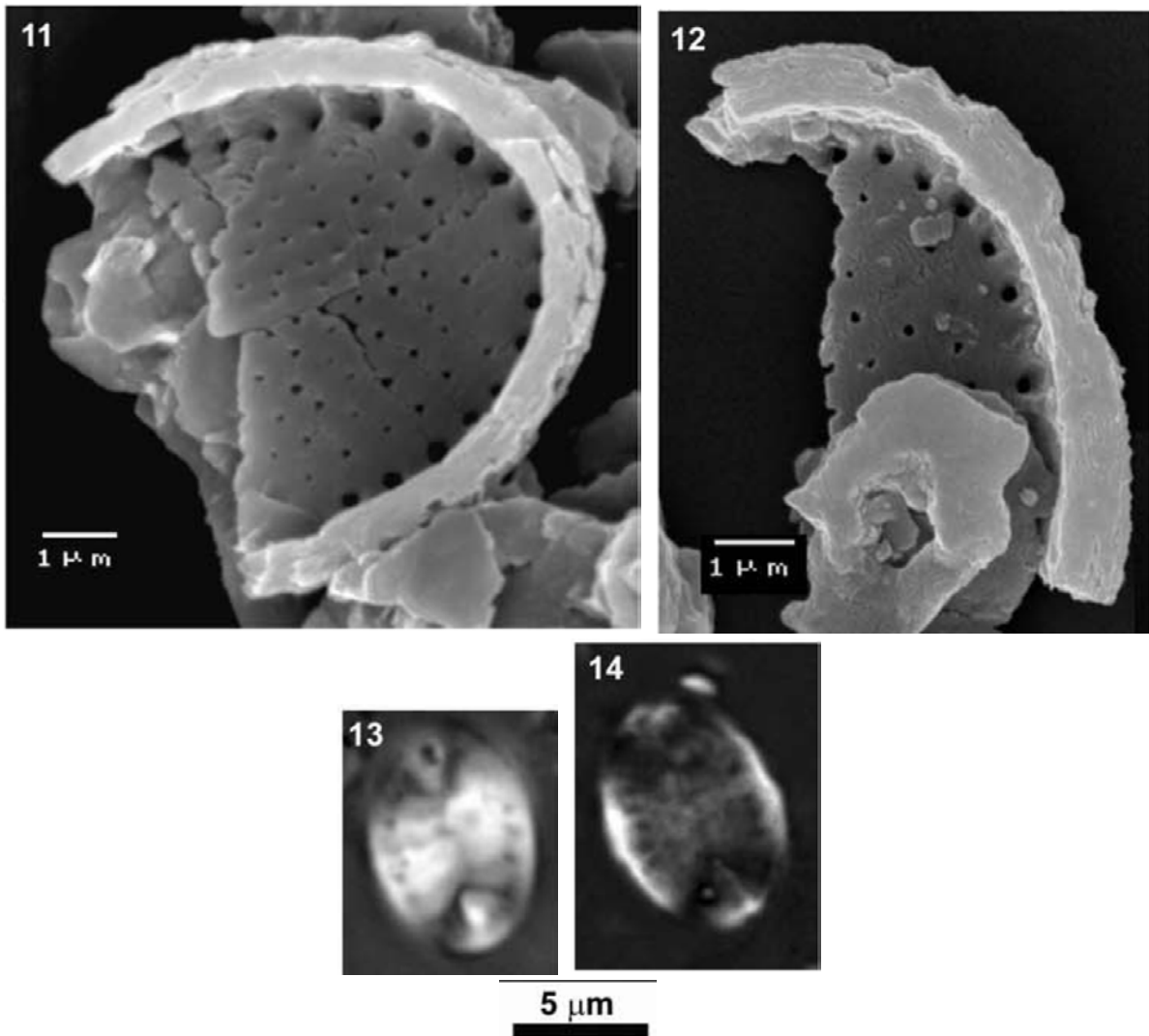


63. *Pontosphaera desuetoidea* Bartol (2010)



Pl. 1, figs 8–10 [*sic*, actually 11–14]

**Etymology:** Similar to *P. desueta* (gr. *-oeidēs* suffix denoting similarity, from *eidos* – form); adjective.

**Description:** Large elliptical perforate murolith with distinct marginal wall, measuring 0.6–1 μm. Basal plate is pierced by numerous pores arranged in several concentric cycles completely covering basal plate. The openings in the outermost cycle are larger (0.15–0.30 μm) than pores in the other cycles (less than 0.10 μm). The outer cycle is regularly elliptic and comprises ~30 pores. The inner cycles are irregularly shaped. Only the larger openings in the outermost cycle are visible under a light microscope.

Muroliths measure 9–10 μm by 6–8 μm, holotype is 7 μm wide and approximately 9.5 μm long.

**Remarks:** The species resembles several previously described species of muroliths with

larger pores in the outermost cycle and smaller pores in the inner part of the basal plate, but has some specific characteristics.

*Pontosphaera desueta* (Müller 1970) Perch-Nielsen 1984 is much smaller (7.2 by 5µm), it is more narrowly elliptical and has a smaller number of openings in the outer cycle (~15).

*Pontosphaera anisotrema* (Kamptner 1956) Backman, 1980 is most similar to *P. desuetoidea* in size and in number of large pores in the outermost cycle. It has narrower pores arranged in 6 regular rows, disposed symmetrically with respect to the main axis of the murolith, which can be seen under the light microscope, whereas *P. desuetoidea* has irregular concentric cycles of narrower pores, which are too small to be seen under a light microscope.

*Pontosphaera deflandrei* (Kamptner 1956) Aubry 1990 is also similar in size. It has 20 pores in the outermost cycle, which measure 0.5µm, and only three rows of narrow pores, the central one being aligned with the main axis of the murolith. The pores in the outer cycle of *P. desuetoidea* measure no more than 0.15-0.30µm. The narrower pores are arranged in several irregular cycles and are not aligned with the main axis of the murolith.

The common *Pontosphaera multipora* (Kamptner 1948) Roth, 1970 emend. Burns, 1973 can be similar in size to *P. desuetoidea*, however even the smallest pores of this species are much larger than the ones in the outermost cycle of *P. desuetoidea*. The form described as *Discolithus longiforaminis* Baldi-Beke, 1964 has larger pores in the outermost cycle than in the others, but it does not have an elevated marginal wall. Furthermore there are only 15-18 pores in the outer cycle and they are slit-shaped, not round.

All *Pontosphaera* species and forms discussed above can be found in Aubry (1990).

**Type designation:** Holotype (pl. 1, fig. 11, sample LR-38, Lenart section); paratypes (pl. 1, figs. 12-14).

**Range:** Found in samples from the middle and the upper part of NN5 (the middle Badenian).

**Repository:** All specimens are deposited at the Ivan Rakovec Institute of Palaeontology, ZRC SAZU, Ljubljana.

Bartol, M., 2010. *Pontosphaera geminipora* n. sp. and *Pontosphaera desuetoidea* n. sp., new calcareous nannoplankton species from the Middle Miocene of the Mura Depression (Slovenia, Central Paratethys). *Micropaleontology*, **56(6)**: 509-516.