ACTA PALAEONTOLOGICA POLONICA

Seagrass-associated Middle Miocene brachiopods from the Central Paratethys, with description of a new species of *Bronnothyris*

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Acta Palaeontologica Polonica 70 (4), 2025: 649-660 doi:10.4202/app.01272.2025

The Middle Miocene brachiopod fauna of the Mecsek Hills (Southern Hungary) is poorly known. In this paper the brachiopods of a new fossil site discovered by private collectors on the outskirts of Mecsekpölöske village is described. The studied assemblage from the lower Badenian clayey sand (Lajta Limestone Formation) is very abundant (5248 specimens), and represented partly by some species well-known from other shallow marine sites of the Central Paratethys (*Joania cordata, Megathiris detruncata, Gryphus miocenicus, Megerlia truncata,* and *Discradisca* sp.). However, the most abundant taxon is a new species of *Bronnothyris* (i.e., *B. attilavorosi* sp. nov.), characterised by subcircular outline; four to seven single, weak, rounded ribs; distinct cardinal process; strongly prominent triangular dorsal median septum, with septal flanges and four strong serrations on its anterior slope; short, slightly divergent inner socket ridges; narrow fused hinge plates. This is the first record of *Bronnothyris* from the Central Paratethys and from the Miocene. The Hungarian species extends the stratigraphic range of *Bronnothyris*: it is known from the Upper Cretaceous to the Middle Miocene. The taxonomic composition of the Mecsekpölöske brachiopod assemblage (with strong dominance of Megathyrididae), together with several elements of the associated fauna (e.g., gastropods, foraminifers, ostracods, otoliths, and fish teeth), suggests that the palaeoenvironment may have been a shallow marine seafloor covered with seagrass meadows. Both the recently published upper Pliocene brachiopod assemblage from Italy (Villalvernia, Piedmont) and this Middle Miocene assemblage presented here from Hungary confirm that micromorphic Megathyrididae brachiopods can be used as indirect palaeo-seagrass indicators (IPSIs). However, since they do not occur exclusively in this environment, other direct or indirect evidence of the former presence of seagrass meadows is also necessary.

Key words: Brachiopoda, Megathyrididae, seagrass meadows, indirect palaeo-seagrass indicator (IPSI), Badenian, Miocene, Mecsek Hills, Hungary.

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