

New Zones of Planktonic Foraminifera in the Upper Badenian and Sarmatian of the Transylvanian Basin

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The Middle to Late Miocene tectonic and sedimentary evolution of the Transylvanian Basin was markedly different if compared to other intra-Carpathian basins. This is well documented by the sedimentary record (locally over 2000 m of sediments) and microfossil content, mainly accumulated in deep-sea settings (KRÉZSEK & FILIPESCU 2005; KRÉZSEK & BALLY 2006). The Late Badenian to Sarmatian foraminiferal assemblages of the Transylvanian Basin were the subject of several studies during the recent decades (e. g., POPESCU 1975, 1979, 1995; KRÉZSEK & FILIPESCU 2005). However, the evolution and palaeogeographical significance of the small sized planktonic foraminifera occurring around the Badenian/Sarmatian boundary and within the Sarmatian have been still studied poorly.

The small planktonic foraminifera recovered from several outcrops and wells were studied and interpreted in order to clarify their biostratigraphic potential and the relationship with the sedimentary environment.

Two distinct assemblages have to be considered in order to establish new planktonic biozones: the Tenuitellid assemblage with an acme in the uppermost Badenian and rare occurrences in the Sarmatian (mainly in the lowermost Sarmatian), and the assemblages containing *Streptochilus* in the Sarmatian. Their occurrence can improve the resolution of the Upper Badenian, show a new potential for the correlation of Sarmatian, and give clues for palaeogeographic setting of the Paratethyan basins.

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