



## **The significance of Rzehakia shell accumulations in the Lower Miocene of the Central Paratethys**

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*Rzehakia* is a bivalve genus endemic for the Paratethys. *Rzehakia* bearing deposits can be traced from the Western Alpine Foredeep of the Swabian Alb (Kirchberg Formation; Upper Marine Molasse) over the Eastern Alpine and Carpathian Foredeep (upper Ottnangian of the Central Paratethys) up to Georgia in the East (Kotsakhurian of the Eastern Paratethys). Their deposition coincides with the tectonic inversion and the final onset of lacustrine and terrestrial environment in the Alpine Foredeep. Furthermore they are time equivalents of the initial subsidence and rifting of the Pannonian Basin System.

*Rzehakia* shell accumulations mark the most prominent Lower Miocene restriction and endemic event in the Central Paratethys. They represent the major regression in the late Ottnangian before the last Lower Miocene marine pulse of the Karpatian. The Rzehakiidae representatives are accompanied in corresponding deposits by endemic Lymnocypridae bivalves and different lacustrine to marginal marine gastropod species. Their faunal distribution pattern provides strong evidence for the well established paleogeographic connection throughout the Paratethys during late Ottnangian.

In the Central Paratethys, however, conspicuous West-East faunal gradient is present with the western assemblage characterized through *Rzehakia guembeli* and *Limnopagetia bavarica* and the eastern assemblage bearing *Rzehakia socialis*, *Limnopagetia moravica* and *Limnopagetia ammoni*. Mandic & Ćorić (2007: Eine neue Molluskenfauna aus dem oberen Ottnangium von Rassing (NÖ) - taxonomische, biostratigraphische, paläoökologische und paläobiogeographische Auswertung. - *Jahrbuch der Geologischen Bundesanstalt*, **147**: 387-398) located currently their transitional contact in the Lower Austrian Eastern Alpine Foredeep, showing co-occurrence of species from both paleobiogeographic entities.

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