

Foraminiferal assemblages as an indicator of foreland basin evolution (Carpathian Foredeep, Czech Republic)

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Abstract. This paper presents a model of depositional history in the Karpatian stage, Lower Miocene of the Carpathian Foredeep based on the study of foraminifers. The paleoecological interpretations, and the data on bioevents and biofacies of the Karpatian deposits were obtained through the statistical evaluation of microfauna. The occurrence of rich faunas alternating with impoverished ones indicates unstable conditions in the depositional area. Euryoxybiont foraminifers such as *Bolivina* div. sp., *Bulimina* div. sp., *Praeglobobulimina* div. sp., and *Uvigerina* div. sp. dominate these faunas. Two biostratigraphical levels containing *Uvigerina* and an overlying one with *Pappina breviformis* (Papp and Turn.) were identified. Two stages of the development of a transgression can be distinguished. The first stage spread to the eastern part of the Carpathian Foredeep, where the sediments contain agglutinated foraminifers. The second stage reached the present location of the Karpatian deposits. Later shallow-water sediments in the western part of the Carpathian Foredeep have been eroded away.

Key words: Carpathian Foredeep, Moravia, Lower Miocene, foraminifers, paleoecology, biostratigraphy