



## **Lower Cretaceous paleoenvironmental changes in the Polish Basin – possible information from various fossil groups associated with depositional sequences.**

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The most recent detailed data on biostratigraphy and sequence stratigraphy, latest interpretation of sedimentation cyclicity and relative sea-level changes (Dziadzio *et al.* 2004) provided a new basis for study on the Lower Cretaceous paleoenvironmental changes in the Polish Basin. This basin developed along the margin of the East European Platform (with sedimentary environments deeper than those of the East European Platform) and occupied a unique palaeogeographic position between the two major palaeogeographic provinces – Tethyan and Boreal – resulting in interfering influences of both provinces. This is reflected in the assemblages of cephalopods, foraminifers, ostracods, and calcareous nannoplankton in the Lower Cretaceous strata of the Polish Lowland. Due to their mixed, Tethyan-Boreal nature, these assemblages are crucial for correlation of the stratigraphical schemes from both palaeogeographic realms. One of the most interesting aspects is the various character of some assemblages from the same sample, with species representing different paleogeographical preferences. Thermophilic „Mediterranean” microfossils coexisted with nearly monogenous Boreal ammonites during the *triptychoides* Zone. These detailed data allowed paleoenvironmental analyses of this key basin in search for interrelationship between the Tethyan and the Boreal realms.

Dziadzio, P. S., Gaździcka, E., Ploch, I. & Smoleń, J., 2004. Biostratigraphy and sequence stratigraphy of the Lower Cretaceous in central and SE Poland. *Annales Societatis Geologorum Poloniae*, 74: 125-196.