Geophysical Research Abstracts, Vol. 9, 02745, 2007 SRef-ID: 1607-7962/gra/EGU2007-A-02745 © European Geosciences Union 2007



Novelties in macrofloristic correlation between the Paratethys and Bohemian Massif during the Miocene.

Z. Kvaček

Charles University, Prague

New data on macrofloral assemblages allow recognizing new links between the continental deposits of the Bohemian Massif and the adjacent areas of the Paratethys. The system of floral assemblages introduced by Mai (1995) is updated and contributes towards understanding of the palaeoclimatic scenario in Central Europe during the Miocene.

The Oligocene - Miocene boundary connected with the thermophilous floral assemblage Linz-Krumvíř is well recognizable in the Nové Sedlo Fm. of the Sokolov Basin (local floras Počerny, Podlesí). The early Eggenburgian slight decline expressed by the floral assemblages Münzenberg - Bittefeld and Bílina - Brandis has no counterpart floras in the Paratethys area. Warming trends towards the Miocene optimum has been recently recognized in the Libkovice Member in the Most Basin and confirmed by CO₂studies. It well correlates with the floral assemblage Ipolytarnóc - Luzern together with the well known thermophilous flora of Lipovany. The newly revised ottnangian mastixioid flora of Köflach, Styria and the floral assemblage Langenau -Leoben (Karpatian) correspond with the mastixioid floras in the Sokolov and Cypris formations in west Bohemia and the Wiesa floral complex in North Bohemia and Saxony (Hrádek/N., Turów, Hartau, Berzdorf). The Middle Miocene (Badenian) part of the climatic optimum is corroborated in the South Bohemian basins in the Mydlovary Formation and a new mastixioid florula from the tektite-bearing Vrábče Member. The latter accounts for a short time span between the rain of tektites (Ries event ca. 15 Ma) and the deposition of the oldest tektite-bearing unit in South Bohemia, from where the fossils derive. This level corresponds with the floral assemblage Wieliczka - Viehhausen. The Late Badenian - Sarmatian cooling phase of the floral assemblage Staré Gliwice - Unterwölbach has been recovered only in a relict at Horní Bříza north of Plzeň. Later Miocene floras are not represented within the Bohemian Massif obviously due to strong erosion processes.

This research has been financially supported within the project GACR 105/06/0653.