

Upper Cretaceous radiolaria from the Manín unit: paleoecological and sea-level implications

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The investigated section is formed by red-bed sediments, which cropping out near Praznov village (Middle Váh Valley). Radiolarian microfauna from this locality has been discovered for the first time in the Santonian-Campanian formations of the Western Carpathians.

Radiolarians assemblage from the middle part of the Praznov section corresponds to stratigraphic interval from the Coniacian? to the Upper Santonian. Spumellaria predominate in the number of species as well as in quantity.

Association from higher parts is characteristic for the stratigraphic interval from the Santonian to the Upper Campanian. According to zonation by Hollis & Kimura (2001) both associations belong to the *Dictyomitra kozlovae* Zone.

Quantitative ratio reveals the predominance of spumellaria over nassellaria, their quantitative ratio changes. Diversification of both groups is almost the same. On the basis of O'Dogherty & Guex (2002), which studied the rate and model of radiolarian evolution during the Cretaceous, these authors specified several successive phases during this period, which could correspond to the sea-level lowstand phases.

The samples from the Praznov locality were relatively rich in the representatives of the family *Pseudoaulophacidae*, which according to Vishnevskaya & Basov (2007) disappeared at the Santonian/Campanian boundary. Therefore, the samples studied are surely represent assemblages from below the boundary of the Santonian/Campanian, representing only lower part of the zone *Dictyomitra kozlovae* (Dk1), which correspond to the Santonian. The S/N ratio provides evidence for deterioration of environmental conditions, which reflected the previous significant biotic event during Santonian – Campanian.

On the basis of foraminiferal associations, stratigraphic interval of the Praznov section has been established from the Cenomanian to the Upper Campanian. The Middle Turonian part is determined by the species *Praeglobotruncana oraviensis trigona* (Scheibnerová). The species of *Falsomarginotruncana renzi* (Gandolfi), *Marginotruncana terfayaensis* (Lehman), *Marginotruncana pseudolinneiana* Pessagno, *Marginotruncana coronata* (Bolli) and *Contusotruncana cornicata* Salaj represents the Coniacian to the Santonian association the Praznov section. The youngest part of this section belongs to the Upper Campanian, as is evidenced by the index taxon of *Globotruncana arca* (Cushman) and *Globotruncana ventricosa* (White).

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Experimental and theoretical studies of the relaxation of electrically induced (with direct current) polarization signals in porous media

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Polarization properties of porous solids (rocks) depend on both the nature of the rocks and of the filler (pore fluid). Therefore, the polarization parameters can give valuable information about the nature of the rocks. One possible approach to study these parameters is