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## Electron Microscopic Investigation of Calcareous Nannoflora from Neogene Pelites in Slovakia

After mentioning the history of investigation and importance of calcareous nannoflora the lecture dealt with the biostratigraphy of Neogene sediments in the western part of Slovakia.

The age of calcareous nannoflora pelites studied from the localities Vel'ká Čausa, Pôtor, Bajtava, Salka, Semerovce, Lontov, Devínska Nová Ves and Pavlová was determined on the basis of planktonic foraminifers in the most cases; it has become known more completely and precisely with investigation by aid of electron microscopy.

In the last years great stratigraphic importance has been ascribed to calcareous nannoplankton in zonation and interregional correlation.

The earliest sediments concerned in the study under consideration are of Eggenburgian age from the locality Vel'ká Čausa (borehole ČČ-3). From calcareous nannoflora the following are most abundantly represented:

- Coccolithus eopelagicus*
- Coccolithus* sp. 1
- Coccolithus* sp. 2
- Microrhabdulus* cf. *decoratus*
- Reticulofenestra umbilica*
- Reticulofenestra ovalis*
- Reticulofenestra* cf. *danica*
- Zygodiscus diplogrammus*

The pelitic sediments from the Modrý Kameň area, locality Pôtor (borehole M-2) belong to the Carpathian. The calcareous nannoflora consisted of the following species:

- Coccolithus pelagicus*
- Discoaster* sp. 1
- Ericsonia ovalis*
- Helicosphaera carteri*
- Reticulofenestra* sp. 1 etc.

The most part of the studied material is Badenian (Tortonian s. l.) in age, from the localities Salka, Bajtava, Lontov and Semerovce, with very rich associations of nannoflora. The main component was formed by heliolithic forms; discoasterids as well as rhabdolites were found sporadically only.

Most abundantly were represented:

- Coccolithus* cf. *celticus*
- Coccolithus eopelagicus*

*Coccolithus floridanus*  
*Coccolithus* cf. *minutulus*  
*Coccolithus* cf. *muii*  
*Coccolithus parvulus*  
*Coccolithus* ex gr. *pelagicus*  
*Coccolithus* sp.  
*Cribrosphaerella* ? sp.  
*Cruciplacolithus devinensis*  
*Cyclococcolithus* cf. *formosus*  
*Cyclococcolithus leptoporus*  
*Cyclococcolithus reticulatus*  
*Cyclococcolithus rotulus*  
*Cyclococcolithus* sp.  
*Discoaster challenger*  
*Discolithina macropora*  
*Discolithina multipora*  
*Discolithina phaseola*  
*Discolithina* sp.  
*Ericsonia occidentalis*  
*Ericsonia ovalis*  
*Helicopontosphaera carteri*  
*Lithostromation perdurum*  
*Microrhabdulus* sp.  
*Microrhabdulus* sp. 1  
*Reticulofenestra dictyoda*  
*Reticulofenestra* sp.  
*Reticulofenestra* sp. 3  
*Rhabdosphaera claviger*  
*Rhabdosphaera* sp.  
*Scapholithus fossilis*  
*Syracosphaera* sp.  
*Syracosphaera* sp. 1 nov. spec. ?  
*Umbilicosphaera* cf. *mirabilis*

The latest sediments in the Neogene of the Paratethys, thus also in our country, in which calcareous nannoflora is represented, are Upper Miocene, Sarmatian, in age. So far we have obtained coccoliths only from its lowermost horizon, the horizon with large *elphidia*. Among the forms found in the Sarmatian the following were of greatest importance:

*Braarudosphaera bigelovi*  
*Discoaster* sp.  
*Reticulofenestra* sp.  
*Reticulofenestra pseudoumbilica*  
*Discolithina macropora*