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Importance of Palynology for Stratigraphy and Development of the Neogene Flora in the Region of the West Carpathians

In the introduction of the lecture a short historical survey was presented from the beginning of the palynological method to its full application for biostratigraphical purposes. Next a general description of the arrangement and structure of pollen grain was mentioned and possible errors and inaccuracies following from application of the palynological method were indicated. On the other hand the possibilities of application of this method in paleoecology, mainly paleoclimatology and stratigraphy, were pointed out. As main contribution for biostratigraphy by aid of the palynological method evaluation of so called standard diagram and pollen grains is being considered. These are treated by evaluation of an amount of sediments of equal age, and serve then as basis for stratigraphy and correlation.

In the next part of the lecture a survey of the results of palynological investigation in Slovakia from the Egerian to the Plio — Pleistocene was presented. Every stage of the Neogene was characterized by the flora with its development of paleoecological conditions in the Neogene of Slovakia.

The development of the climate in the Neogene was not advancing rectilinearly from tropical — subtropical climate towards cooling off. Certain periods of cooling of the climate were alternating with warmer climatic periods. The climate was relatively cooler in the Egerian and Lower Eggenburgian than in the Ottnangian and Carpathian. In the Badenian the climate was subtropical with alternating humidity of the climate. A change in the climate took place in the Lower Sarmatian, when the tropical climate completely retreated and Arctic — Tertiary types of the flora became predominating. In the Pliocene gradual cooling of the climate set in, also reflected in composition of the pollen picture. Wood species became gradually more and more rare and in the uppermost Pliocene herbs of varied associations are most important in the pollen picture.

Z. ŘEHÁKOVÁ

Solution of sedimentological and stratigraphic problems with the use of diatom analysis

(A b s t r a c t)

In the past, diatoms were generally recognized as valuable devices for microbiostratigraphic correlation of sediments. Their importance for