PALYNOSTRATIGRAPHIC STUDY OF GOSAU TYPE FORMATIONS (AUSTRIA, HUNGARY, SLOVENIA)

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Abstract

The paper describes the results obtained from the palynostratigraphic study of gosau type formations found in the Nördliche Kalkalpen (Northern Calcareous Alps), Austria and the Nekézseny Conglomerate Formation in the Uppony Mts., Hungary. Reference is also made to beds of similar development found in the Zrece area in Slovenia. These beds will be studied by the author in detail at a later date, in association with the colleagues from Slovakia.

A common feature for gosau type formations is the fact that they were developed in separate basins and correspond to different stratigraphic units. The fact that they correspond to different stratigraphic units is well evidenced by the short-range representatives of the genera of the Upper Cretaceous Normapolles Stemma.

As shown by palynostratigraphic data, the deposition of gosau type formations studied in Austria took place from the Middle-Upper Furonian to the Upper Santonian.

The development is most likely to have taken place during the Upper Santonian - Upper Campanian for gosau types formations of the Uppony Mts. in Hungary, and during the Maastrichtian for the beds of similar development in Slovenia. The different age of formations of each subbasin clearly points to the paleomorphological diversity of the Upper Cretaceous relief, the direction of transgression of the Tethys, and the discontinuties in the process of transgression.

Results from the palynostratigraphic examinations have provided a reliable basis for the correlation, paleo-environmental reconstruction and comparison of gosau type formations in Austria, Hungary and Slovenia.