

Dr. I. KORECZ-LAKY

Foraminiferal Studies on Miocene Formations of Hungary

(Abstract)

The Miocene formations of Hungary can be subdivided in detail by means of foraminifera.

The relatively rich foraminifer fauna of the Burdigalian marine clay marls corresponds to that of South Slovakia and of the Eggenburgian in Austria. From the Lower Helvetian, foraminifers abundant in the *Cardium* bearing beds only, being represented very poorly in the lower rhyolite tuff and in the lignite bearing members. On the contrary, the *Oncophora* bearing sands, *Chlamys* sandstones and "Schlier" beds of the Upper Helvetian are very rich in foraminifers. Three biofacies could be distinguished according to the predominance of arenaceous, benthic and planktonic forms, respectively, to the N-NE of the Danube, while to the south, a fish-scale bearing facies is characteristic, with rather scarce foraminifers. This stage is terminated by biotitic, scoriaceous rhyolite tufts, which are overlain by Lower Tortonian sediments, yielding a very abundant foraminiferal assemblage, characterized by the apparition of *Orbulina* species, and by the predominance of *Lagenidae*, both indicating off-shore environment. The corresponding litoral sediments of "Leithakalk" type, more or less sandy, contain numerous *Amphistegina* and *Heterostegina*. In the Mecsek and the Bakony Mountains, the following fresh-to brackish water member, including brown coal seams, are overlain by Upper Tortonian *Corbula* and *Turritella* bearing clay marls, which can be subdivided into three foraminiferal horizons. As a heteropic facies, the "Leithakalk" reappears, which can be distinguished, however, very well from the lower one by means of its different microfauna characterized by *Borelis*, *Peneroplis* and *Dendritina*.

The brackish water sediments of the Sarmatian develop in continuity from the Tortonian, in the same facies. They can be separated by microbiostratigraphic studies only. Within the Sarmatian, several biofacies could be discerned.

Dr. A. ORAVECZ-SCHEFFER

Triassic Foraminiferal Assemblages of Stratigraphic Value in Hungary

(Abstract)

After a short discussion of techniques, the most characteristic foraminifer assemblages of the Hungarian Triassic are reviewed. A brief description of the Campilian *Meandrospira iulia* bearing beds of Trans-

danubia is given as well as of the assemblages of the Anisian Glomospira and Meandrospira dinarica bearing beds of the Bakony and Villányi mountains.

The rich Karnian assemblages of the Balaton Highlands, the Northern Bakony and the Cisdanubian Horsts and the microfaunistic features of the Rhaetian Dachsteinkalk formation are discussed in detail.

Attention is drawn to the abundance and stratigraphic-ecological importance of some microscopic echinoderm skeletal elements (*Holothurioidea*, *Asteroidea*, *Ophiuroidea*). Some typical species have been illustrated by projection of microphotos.

Dr. M. SÍDÓ, C. Sc.

Biostratigraphic Importance of Cretaceous Foraminifera in Hungary

(Abstract)

Relying, above all, upon the studies on boreholes Sp-1 and Sp-2 at Sümeg, Transdanubia, and on the surface profile demonstrated during the field trip, the author presents an overall picture of the Cretaceous (and partly Jurassic) microfaunistic assemblages of Hungary, with particular regard to their use in chrono- and microbiostratigraphy. The importance of the nannoplankton and of the planktonic foraminifers is particularly emphasized beside the benthic communities, in view of correlation and paleogeographic reconstructions.

The phylogenetic analysis of pelagic foraminifers resulted in distinguishing three major evolutionary phases.

- 1st phase: Valanginian to Middle Aptian inclusive, characterized by nannoplankton, *Tintinnidae*, *Radiolarian* assemblages, and as for Foraminifera, by the genera *Hedbergella*, *Ticinella* and *Globigerinelloides*. Subdivisions can be established by the apparition and disparition of particular species. E. g. the *Globigerinelloides algerianus* Zone characterizes the Upper Aptian.
- 2nd phase: Upper Albian to Turonian, characterized by the genera *Rotalipora*, *Planomalina* and *Praeglobotruncana*. Flattened *Rotalipora* appear at the lower boundary of the Vraconian, with the predominance of *R. appeninica*. Inflated, angular forms are characteristic of the Cenomanian, including the zones of *Planomalina buxtoni*, *Globigerinelloides eaglefordensis* and *Rotalipora* aff. *greenhornensis*.
- 3rd phase: Turonian to Senonian inclusive, characterized by various forms of the genus *Globotruncana*: double-keeled in the Turonian, single-keeled in the Lower Senonian, and conical in the Maestrichtian. Within the Senonian, three zones have been recognized: those of *Globotruncana concavata*, *Gl. calcarata* and *Gl. mayaroensis* — *Pseudotextularia*.