

# PLANKTONIC FORAMINIFERAL BIOSTRATIGRAPHY OF THE CARBONATE-FLYSCH SEQUENCE AT PROSSILION IN THE PARNASSUS-GHIONA ZONE, CENTRAL GREECE

N. Solakius\* and F. Pomoni-Papaioannou\*\*

\* Department of Marine Geology, University of Göteborg Box 7064, S-403 32 Göteborg, Sweden

\*\* Institute of Geology and Mineral Exploration 70 Messogeion Sr., Gr-115 27 Athens, Greece

The analysis of the planktonic foraminiferal assemblages recorded in the carbonate-flysch sequence at Prossilion in the Parnassus-Ghiona Zone indicated that (a) the pelagic limestone was deposited during the Campanian-Maastrichtian interval (b) the stromatolitic bed was deposited during the upper Lower-Middle Paleocene while (c) the flysch deposits during the Upper Paleocene-Lower Eocene. At the Cretaceous/Tertiary boundary and through the lowermost Paleocene the deposition was interrupted and has given rise to a hardground on the top of the pelagic limestone. The planktonic foraminiferal fauna were used to distinguish biozones in the sequence except in the hardground - stromatolitic unit. They are (a) the *Globotruncanites elevata* and *Globotruncanites calcartata* of the Campanian and the *Globotruncana falsostuarti*, *Gansserina gansseri* and *Abathomphalus mayaroensis* - *Kassabiana falsocacartata* Zones of the Maastrichtian which are distinguished in the pelagic limestone, and (b) the *Planorotalites pseudomenardii*, *Morozovella velascoensis* Zones of the Upper Paleocene and the *Morozovella subbotinae*, *Morozovella formosa formosa* and *Morozovella aragonensis* Zones of the Lower Eocene recognized in the flysch. The stratigraphical interpretation of the sequence shows that the changes in the facies that appeared in the Prossilion sea during the above interval are the result of the changes in sea level which are believed to have been caused either by local movements which began in the zone in the Late Cretaceous or in combination to the eustatic sea level changes.

## LATE CRETACEOUS PALEOGEOGRAPHY AND HIPPURITID BIOSTRATIGRAPHY OF BEOTIA (GREECE)

Th. Steuber

Geologisches Institut der Universität zu Köln, Zùlpicher Str. 49, D-5000 Köln 1

The Late Cretaceous paleogeography in Beotia has been established on the basis of hippuritid biostratigraphy. In South Beotia Aptian-Cenomanian limestones, marls and sandstones unconformably rest on either Late Jurassic *Cladocoropsis*-limestones or on marbles of the metamorphic basement. During Turonian times the Cretaceous sea

flooded the Ptoon region, where rudist limestone follow over Late Triassic and Jurassic limestones. The base level of the onlapping deposits is marked by iron-nickel ores. At the same time, red marls with planctonic foraminifera were deposited in South Beotia. Bauxites and redeposited laterites trace back to a period of emersion during the Santonian, which affected almost the whole of Beotia. In the course of the following transgression, extensive rudist biostromes formed for the first time north of the Copais depression. The eohellenian relief of this region obviously submerged as late as during the Late Santonien-Campanien. Apparently, summits of the metamorphic basement SE of Levadia were settled by hippuritids during the same transgressive intervall. Youngest hippuritids have been recovered from Maastrichtian limestones near Akraitinion, 70 m below Paleocene flysch deposits.

The delineated paleogeographic evolution of Beotia from Aptian until Maastrichtian times corresponds remarkably well with global fluctuations of sea level and resulted from a gradual flooding of the eohellenian topography. In this respect, crustal movements have obviously been of minor importance.

Hippuritids are abundantly preserved in Turonian to Maastrichtian deposits of Beotia and proved to be valuable index fossils. Several of the recovered species, such as *Hippurites colliciatius* WOODWARD, *H. cornucopiae* DEFANCE, *H. lapeirousei* GOLDFUSS, *Vaccinites alpinus* (DOUVILLE), *V. chalmasi* (DOUVILLE), *V. praeelegantous* (TOUCAS), *V. rousseti* (DOUVILLE) and *V. cf. boehmi* (DOUVILLE) are mentioned from this region for the first time. The taxonomic group of *Vaccinites cornuvaccinum* (BRONN), *V. gaudryi* (MUNIER-CHALMAS) and *V. alpinus* (DOUVILLE) occurs abundantly in Late Santonien-Campanien deposits North of the Copais depression.

## HOLOCENE SEA-LEVEL CHANGES IN EUBOEA

S.C. Stiros<sup>\*</sup>, P.A. Pirazzoli<sup>\*\*</sup>, J. Laborel<sup>\*\*\*</sup>, F. Laborel<sup>\*\*\*\*</sup>, M. Arnold<sup>\*\*\*\*</sup>, S. Papageorgiou<sup>\*\*\*\*\*</sup>

<sup>\*</sup> Institute of Geology and Mineral Exploration (IGME) 70, Messoghion st., Athens 11527, Greece

<sup>\*\*</sup> Laboratoire de Géographie Physique "Pierre Biot", U.R.A. 141-CNRS 1, Place Aristide Briand, 92195 Meudon, Cedex, France

<sup>\*\*\*</sup> Laboratoire de Biologie Marine, Université de Provence Case 901, 13288 Marseille Cedex 9, France

<sup>\*\*\*\*</sup> Centre de Faibles Radioactivités, CNRS-CEA Avenue de la Terrasse, 91198 Gif-sur-Yvette, Cedex, France

<sup>\*\*\*\*\*</sup> Dept of Archaeology, University of Thessaloniki, Thessaloniki, Greece