COMPOSITION AND SPECIES DIVERSITY IN LATE MIOCENE FAUNAL ASSEMBLAGES OF NORTHERN GREECE

L. de Bonis*, G. Bouvrain**, D. Geraads**, G. Koufos***

*Université de Poitiers, Lab. de Paléontologie des Vertébrès et Paléontologie Humaine, 40 Av. Recteur Pinneau, 86022 Poitiers, France
**Université Paris VI, Lab. de Paléontologie des Vertébrès et Paléontologie Humaine, 4 pl. Jussieu, 75230 Paris, France
***Aristotle University of Thessaloniki, Department of Geology, 54006 Thessaloniki, Greece

The late Miocene mammalian localities of Macedonia (northern Greece) are compared each together and with the localities of Pikermi and Samos Quarry A, by their composition and species diversity. The faunal composition is given by similarity or distance indices; the species diversity is expressed by pie diagrams and faunal diversity indices.

The localities of Nea Mesimvria Formation (Ravin de la Pluie and Ravin des Zouaves-1) are the most different than all sites because of ecological and chronological reasons. The closeness of Prochoma, Ravin des Zouaves-5 and Vathylakos-1, 2, 3 is well established. Also closely clustered are Samos and Pikermi.

The macedonian localities are more or less homogeneous except Prochoma-1. There is a collecting bias for this locality, which has been discovered on a railway excavation and the first collected material had been unearthed by bulldozer. In Pikermi where perissodactyls and artiodactyls are equally numerous, the smaller quantity of bovids versus suids, could indicate a slightly different climare probably more humid.

ECOSTRATIGRAPHICAL OBSERVATIONS AT THE EASTERN PART OF CORINTHIAKOS GULF

M. Dermitzakis, M. Triantaphyllou

University of Athens, Deptepartment of Hist. Geology and Paleontology, 15784 Athens, Greece

The distribution of Benthic Foraminifera and Calcareous Nannoplankton in bottom sediments from eastern Corinthian Gulf has been studied in three cores sambled from Perissoratis et al (1986). The qualitative micropaleontological analysis concerning Benthic Foraminifera and Calcareous Nannoplankton has certified the presence of *Hyalinea balthica* SCHROETER (Pleistocene index species), and *Emiliania huxleyi* (LOHMAN) (HAY) & (MOHLER) respectively. Their existence led us identify the *Emiliania huxleyi* biozone according to BOUDREAUX and HAY (Up. Pleistocene). The latter can be correlated with those of *Globi-*

gerina calida calida, Sphaeroidinella dehiscens excavata, Globorotalia truncalinoides truncalinoides, BLOW 1969 (N22, N23) and *Globorotalia truncalinoides* BOLLI 1966 respectively.

The relative frequencies statistical analysis of microfauna let us assume a gradual oxygen decrease and a stagnacy of bottom waters during the transmittion from the margin to the central part of Alkyonides Basin.

Nevertheless, in almost the total of the samples is observed an up to a certain grade mixing of shallow and brakish waters fauna with that of deep waters, cohesive in high salinity.

In conclusion the micropaleontological analysis comes to aggreement with the result of turbidity currents and landslides caused by the active tectonism characterizing the whole area, which affect the paleoecological conditions during the Upper Pleistocene.

CONTRIBUTION TO THE STRATIGRAPHY OF MIOCENE SEDIMENTS OF KASSOS ISLAND (SOUTH SPORADES)

M. Dermitzakis, M. Triantaphyllou

University of Athens, Department of Hist Geology and Paleontology
15784 Athens, Greece

The stratigraphy of the Miocene deposits of Kassos island (South Sporades) is described by this announcement. Special attention is paid to the study of the bio – and chronostratigraphic assignment of Calcareous Nannoplankton and Planktonic Foraminifera associations with correlation to Mollusc assemblages. This was achieved through the recognition and the correspondance of the contained micro – and macrofauna in the most representative Neogene Section on Kassos island, Kokkino Rema.

According to Mollusc assemblages the studied material may correspond biostratigraphically to the lower part of *Neopycnodonta navicularis* Zone of DERMITZAKIS & GEORGIADES-DIKEOULIA (1987). On the other hand the Planktonic Foraminifera allow a correlation with *Globorotalia conomiozea* Zone of ZACHARIASSE (1975), as also a second correlation with Zone N17 (BLOW). Finally the Calcareous Nannoplankton assemblages can assign the sediments of the studied section to *Calcidiscus leptoporus* Zone (Subzone A), (THEODORISIS 1984), which corresponds to NN11 Zone (MARTINI & WORSLEY 1970) and to CN9b Zone (OKADA & BUKRY 1980).

In our opinion, our samples, comming from the most representative Neogene section on the island, correspond chronostratigraphically to the lower part of the Upper Messinian. These sediments indicate that during the chronostratigraphical interval which lasts till the lower part of the Upper Messinian, Kassos was probably above sea level due to uplifts caused by fault activity. There is also the possibility that some sediments corresponding to this interval were deposited and then eroded. However the outcroping of the Kokkino Rema sediments allow us to conclude that during the Upper Messinian time span, Kassos was, (at