

PALAEOECOLOGICAL AND STRATIGRAPHICAL RESULTS FROM THE STUDY OF DIATOMES FROM N. PELOPONNESUS, GREECE

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A major reason for the studying of fossil diatom algae in the sediments of the Egion area in Northern Peloponnesus is to assist in determining the age and origin of the sediments, and in reconstructing the paleogeographical and paleoecological environments of sedimentations. When eustatic sea – level changes during glacial and interglacial episodes, the gulf of Corinth became connected with or disconnected from its marine source and changed back and forth from marine to brackish to freshwater environments. These primarily climate-controlled environmental changes have influenced sedimentation processes and the deposition of freshwater, brackish to marine microfossils. Floral analysis from the sections Mavriki and Ano Ziria reveals that several ecologically stressed diatom assemblages can be defined and are correlated with the Unit 4 (Uzunlar) from Black Sea, age 4.10^5 years, during the Tyrrhenian transgression in the Mediterranean Sea.

PHYTOPLANKTON OF THE PALEOCENE FLYSCH DEPOSITS (BEOTIA – GREECE)

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Near Akraifnion, Beotia (Greece), a paleocene flysch section composed of siltstones, marls and limestones, was investigated under palynologic aspects. About 60% of the samples included bisaccate pollen grains of the genus *Pityosporites* (with 7 species) and about 20% included dinoflagellate cysts (2 *Achomosphaera*, 2 *Areoligera*, 1 *Cleistosphaeridium*, 1 *Cyclonephelium*, 1 *Exochosphaeridium*, 1 *Heterosphaeridium*, 1 *Hystrichosphaeridium*, 1 *Spinidinium*, 2 *Spiniferites*, 1 *Tanyosphaeridium*, 1 *Thalassiphora*). Within the section are two peaks marking a higher distribution of specimens and dinoflagellate species, which attest an Early Paleocene (*Cyclonephelium distinctum*) and Late Paleocene (*Thalassiphora delicata* sensu MANUM, *Spiniferites pseudofurcatus*, *Spinidinium densispinatum*) age.

Most of the identified cysts belong to the pelagic *Spiniferites* or *Areoligera* associations. Nearly all the cysts are of the *chorate* or *proximochorate* major cyst type, showing warm-water environments. They are characterized either by numerous (*Cleistosphaeridium polytrichum*, *Cyclonephelium distinctum*), very long processes or bizarre branched tips (*Achomosphaera* sp., *Areoligera cf. coronata*, *Areoligera senonensis*, *Exochosphaeridium*