



Late Quaternary paleoenvironmental history of a semi-enclosed marine basin (North Evoikos, central Aegean Sea) from subsurface data.

H. Drinia, G. Anastasakis, A. Antonarakou

University of Athens, Dept. of Geology, Faculty of Hist. Geology and Paleontology, Athens, Greece

cntrinia@geol.uoa.gr / Phone: ++30-210-7274394

As part of a multidisciplinary and integrated study, six gravity cores from the land-locked, semi-enclosed embayment of North Evoikos (central-west Aegean) were analyzed for foraminifer assemblages as well as for abiotic parameters (grain-size, organic matter, calcium carbonate), in order to reconstruct the local and regional paleoenvironmental changes caused by several forcing factors. Cores EYB1, EYB10 and EYB6 were recovered from the inner to outer shelf of Evoikos Gulf, whereas cores EYB5, EYB7 and EYB8 were recovered from the North Evoikos slope to basin. Significant is the presence of a stratigraphical hiatus in the basal part of the sections EYB1 and EYB10 whereas the other cores are continuous.

The composition of the sediments is predominantly calcareous in the shallower shelf regions. The outer shelf and deeper sediments are mainly terrigenous, and below the shelfbreak they contain less than 35% carbonates.

The time-stratigraphic framework for these cores was obtained by AMS¹⁴C datings. The micropaleontological results concern quantitative studies of benthic foraminiferal abundances based on aliquots containing at least 200 specimens.

In particular, changes in frequency and distribution of benthic foraminifera play a key role in facies characterization, and in establishing the link between sedimentary evolution and Late Quaternary sea-level fluctuations.