The measurements of the Eocene species (1-8 mm) show that the oldest species of *Echinocyamus*, known in both areas studied, are smaller than those of the Neogene (2-10 mm) or Pleistocene (2-13 mm) and the recent ones (2-20 mm).

The species of *Echinocyamus* found in the Eocene limestone of the island Brać (Yugoslavia), without any other accompanied fauna could be explained as «ecological niche», only, favorable for these small Echinoids, in Eocene (Yugoslavia).

In Greece, such in Eocene sediments, as in Pliocene and Pleistocene ones the species of *Echinocyamus* are present with a rich accompanied fauna. This fact shows the differentiation of the life conditions among the other basins (Tethys Greece, and Paratethys Yugoslavia, Poland etc.).

- An hypothetical lineage of *E. circularis*, *E. pseudopusillus*, *E. linearis* and *E. affinis* has been given.
- *Echinocyamus* can not be used as a good index for the paleobathymetry, but for the paleotemperature.

STRATIGRAPHIC AND PALEOECOLOGICAL OBSERVATIONS ON THE POST-ALPINE SEDIMENTS AT THE FILIATRA AREA (MESSINIA, PELOPONNESUS) AND THEIR NEOTECTONIC INTERPRETATION

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Three sampling sections in the post-alpine sediments of the Filiatra area (W. Messinia) along the Filiatrino remma were made, in which the following fossils were collected: 116 genera and species were determined belonging to: Radiolaria, Anthozoa (1), Bryozoa (19), Ostracoda, Bivalvia (6), Gastropoda (6), Brachiopoda, Scaphopoda (1), Annelida (2), Porifera, Echinoidea, Foraminifera (72) and Algae.

The study of the fossils leads to the following conclusions:

1. The presence of *Globorotalia truncatulinoides* d'ORB and *Hyalinea balthica* (SCHR) is an evidence for the pleistocene age of the post-alpine sediments.

2. The gradual change of the deposition depth, from the lower to the upper members of the sedimentary sequence, is indicated by the presence of representative types such as the species *Hyalinea balthica* (relatively deeper water, 90 m) in the lower members and the species of *Lithophyllum racemus* (shallow water, 10-60 m) in the upper members.

3. The morpho-functional analysis of some fossils (Bryozoa, Echinoidea, Porifera, benthic Foraminifera etc) in combination with the sediment's character, indicate a quiet low sedimentation rate environment in shallow sea and temperate climate.

4. Based on paleoecological and stratigraphic data the neotectonic evolution of the eastern margin of the neotectonic graben of W. Messinia, from kinematic point of view, is interpreted, as following. The average rate of subsidence during the sedimentation has been calculated and is 0.19 mm/y, while the average rate of uplifting is 0.62 mm/y. Consequently the area has a faster evolution during the uplifting than the subsidence.

BIOSTRATIGRAPHIC AND PALEOECOLOGICAL CHARACTERISTICS OF ALB-CENOMANIAN SEDIMENTS OF KOSMAJ, SERBIA

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An instructive section in Alb-Cenomanian sediments was uncovered on Kosmaj Mt. (40 kilometres south of Belgrade), built up of Cretaceous flysch deposits and serpentinite, which enclosed fossiliferous lens of extremely abundant and varied macrofauna. The section revealed clastic-carbonate sediments and the clay-marl lens. A total of 142 species, of which number 45 **Gastropoda** species, 41 **Ammonoidea** species, 36 **Bivalvia** species, 13 **Echinoidea** species, 4 **Brachiopoda** species, 3 **Anthozoa** species have been identified. The stratigraphical derivation of the species was used in dating the underlying marl and marly limestone, bearing rather scarce fauna, as the lowermost Alb-Cenomanian, and the fossiliferous lens as the upper Alb-Cenomanian.

Paleoecological data indicated that the greatest part of the association belonged to the vagrant benthos (96 species or about 65%), only ammonoidea were nektonic (43 species or about 35%), and representatives of sessile benthos (Brachiopoda and Corals) were few (7 species or about 5%). All forms were purely stenohaline, and existed in shallow, warm, well aerated sea water.

For a reconstruction of life conditions prevailing in the considered locality during the Alb-Cenomanian, taphonomy was studied in addition to the paleoecological character of fossil fauna, primarily to identify the authochthony or allochthony of the fossil fauna. The prevailance of the allochthonous component in the oryctocenosis was found, but not of a long transport. The very short transport allowed for the use of the fauna (though dominantly allochthonous) in reconstructing life conditions in the studied locality during the Alb-Cenomanian. The conditions could be summarized as: salinity normal, temperature high, sea shallow with good aeration.