

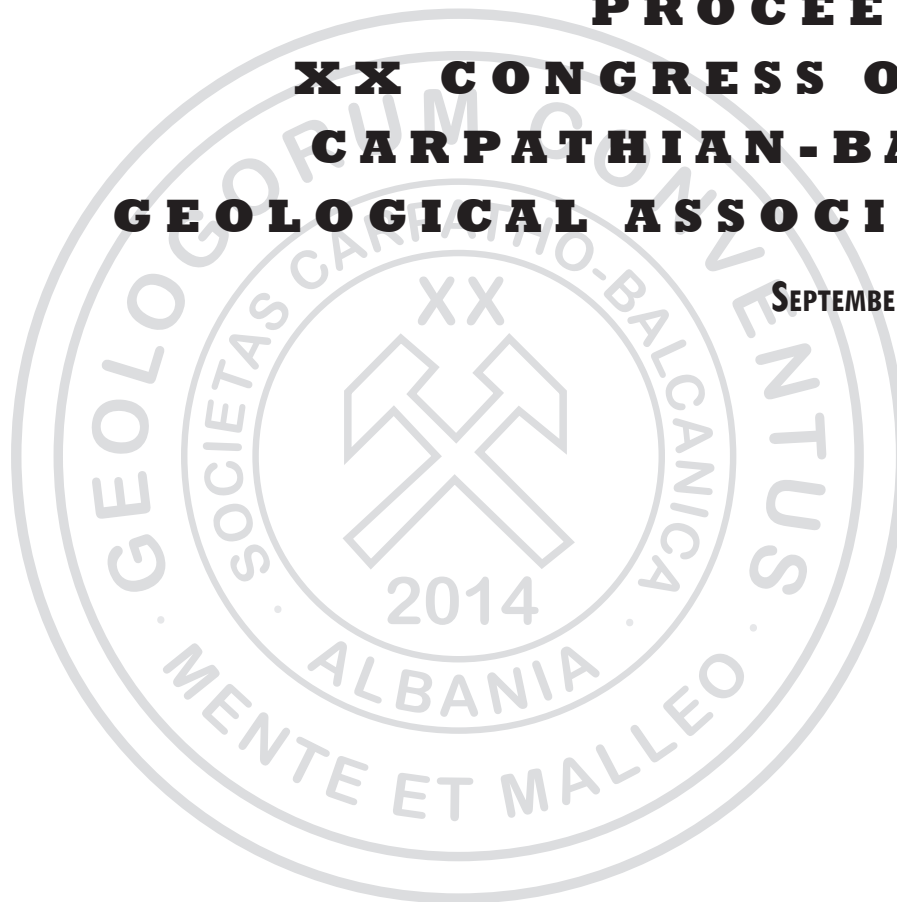


BULETINI I SHKENCAVE GJEOLGJIKE

**PROCEEDINGS
XX CONGRESS OF THE
CARPATHIAN-BALKAN
GEOLOGICAL ASSOCIATION**

SEPTEMBER 24-26, 2014

TIRANA ALBANIA



Special Issue
Volume 2/2014
General Sessions

Editors

Beqiraj A.
Ionescu C.
Christofides G.
Uta A.
Beqiraj Goga E.
Marku S.

TIRANA 2014

FRESHWATER OSTRACODA IN THE PLEISTOCENE SEPIOLITE DEPOSITS OF POLATLI BASIN, İLİCA/POLATLI (ANKARA), CENTRAL ANATOLIA

Tunoğlu C¹, Tuncer A¹, Karakaya-Çelik M² and Karakaya N²

¹Hacettepe University, Engineering Faculty, Department of Geological Engineering, 06800 Beytepe/Ankara, Türkiye, tunay@hacettepe.edu.tr; alaettintuncer@hacettepe.edu.tr;

²Selçuk University, Engineering Faculty, Geological Engineering Department, AleattinKeykubat Campus, Selçuk, Konya, Türkiye, mcelikkarakaya@yahoo.com, necat23@hotmail.com

Abstract

This study was carried out along the İlica stream valley and its tributaries, located in İlica region, Southwestern Polatlı. A series of stratigraphic sections were studied and a number of 22 samples was collected for micropaleontological analysis. Excepting the ostracoda fauna, were also obtained twelve samples containing charophytes, gastropods and fish remains. Among ten ostracoda taxa that have been determined, seven are represented by known species (*Candona candida*, *C. neglecta*, *Fabaeformis candona fabaeformis*, *Pseudocandona sucki*, *Cypria reptans*, *Llyocypris bradyi*, and *Cypridopsis vidua*), while three of them are left to the open nomenclature (*Candona* sp.1, *Candona* sp.2 and *Cyprideis* sp.). According to the chronostratigraphic ranges of the Ostracoda genus, the age of the investigated levels were dated as Pleistocene. Ostracoda species obtained in this study are common in freshwater lacustrine and fluvial environments all around the world (Meisch 2000; Bronshtein 1988).

While the dolomites and sepiolites usually have been observed at the base of the sequences, plenty of limestones which includes macroscopic ostracods and gastropods (20-40 %) have been observed partially in thin layers between these dolomites and sepiolites levels and also generally

in the upper levels of these units. It is stated that the sepiolites, dolomites and smectites were formed in shallow restricted alkaline lake environments, but limestones were formed in fluvial-lacustrine environments, especially in more dilute depositional conditions when compared with smectites and sepiolites. The depositional environment has been affected by varying oxic/anoxic conditions. While white sepiolites have been formed under oxic conditions, the organic matter-rich black and partially brown sepiolitic claystones have been formed under anoxic conditions. The sepiolite deposits of fluvio-lacustrine origin have been formed in a closed, alkaline, shallow-lake environment. (Karakaya et al. 2011).

References

- Bronshtein, Z.S., 1947. Faune de l'URSS. Crustaces, volume 2, numero 1: Ostracodes des eaux douces. Zoologicheskii Institut Akademi Nauk SSSR, n.s. 31, 1-339 (English translation, Freshwater ostracoda, 1988, Oconian Press, New Delhi, for the U.S. Department of Commerce, Springfield, Virginia).
- Karakaya, N., Karakaya, M.Ç. and Temel, A. 2011, Mineralogical and geochemical characteristics and genesis of the sepiolite deposits at Polatlı Basin (Ankara, Turkey) Clays and Clay Minerals, 59/3, 286-314.
- Meisch, C., 2000. Fresh water Ostracoda of Western and Central Europe, Spektrum Akademischer Verlag Heidelberg, Berlin, pp. 522.