



Palynological study of the Sarmatian deposits intercepted in the Bilca–Frătăuții Noi borehole (Suceava County) (Moldavian Platform)

Mihaela Damian Jitaru¹

¹ “Al. I. Cuza” University of Iași, Faculty of Geography and Geology, Department of Geology, 20A Carol I Blv., 700505 Iași, Romania

Abstract

The present study represents an attempt at highlighting the palynological assemblage identified at the level of the Sarmatian deposits intercepted by the drilling from the Bilca–Frătăuții Noi area (Moldavian Platform).

The palynological results have been interpreted in order to establish the palaeoclimatic conditions during the sedimentation of the studied deposits. Within the drilling in question, we have identified taxa such as the following: *Pityosporites microalatus*, *Pityosporites alatus*, *Pityosporites labdacus*, *Pinuspollenites miocaenicus*, *Abiespollenites latisacatus*, *Monocolpopollenites tranquillus*, *Tricolpopollenites liblarensis*, *Engelhardtoidites microcoryphaeus*, *Leiotriletes* sp. a. o. The method applied so as to estimate the values of the climatic parameters is the “Coexistence Approach,” designed by Mosbrugger and Utescher (1997), a method that has been frequently used for the reconstruction of the palaeoclimate from the European Tertiary. The values obtained using this method for the Sarmatian deposits intercepted by the Bilca–Frătăuții Noi borehole are as follows: Mean annual temperature (MAT) 16.5–18.4°C, Mean annual precipitation (MAP) 887–1281 mm/yr, Mean temperature of the coldest month (CMT) 9.6–13.3°C, and Mean temperature of the warmest month (WMT) 27.3–28.1°C.

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