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Stratigraphical and paleontological data from Upper Miocene-Pliocene sediments, Romanian Black Sea shelf

Alina Floroiu, Marius Stoica, Ioan Munteanu, and Corneliu Dinu
University of Bucharest, Faculty of Geology and Geophysics, 6 Traian Vuia St., 020956 Bucharest 2, Romania

The upper part of the western Black Sea basin fill displays thick Middle Miocene – Quaternary passive continental margin- type of sedimentation deposited over the shelf margin. The overall progradational geometry is separated by erosional surfaces, proving the sub-aerial exposure and erosion of shelf and continental slope areas during large sea-level drops. Shelf instability and collapse resemble in development of large landslides with normal gravitational faults, roll-over anticlines and toe of thrust (Dinu et al., 2005). Three major unconformities separate four sequences, i.e. Middle Miocene, Upper Meotian – Lower Pontian, Middle Pontian – Lower Dacian and Upper Dacian – Quaternary, separating sequences and system-tracts that distinguished on the basis of clinoforms distribution.
The new micropaleontological data from cutting samples brings new age information of the Miocene-Quaternary sedimentary succession, on the Romanian shelf.
The youngest deposits are belonging to the Romanian ($\sim$ Kuyalnikian), with an maximum thickness of 200 m and contain an ostracod assemblage represented by brackish to fresh water species like Caspiolla kosloduensis, Loxoconcha gibboides, L. lepida, Tyrrhenocythere pontica, Cytherissa sp, Leptocythere (Amnicythere) andrussovi and Iliocypris bradyi. The Dacian ($\sim$ Upper Kimmerian) stage can be recognized by the presence of Cytherissa plana, Loxoconcha ex.gr. schweyeri and Scottia dacica. The presence of Scottia dacica can be regarded as a marker for the Lower Dacian. The boundary between Dacian and Romanian is relatively difficult to be defined using only the micropaleontological data.
The Pontian stage represents a time interval when the Eastern Paratethys (including the Black Sea region) experienced few transgressive and regressive moments, partly related to MSC-events (Krijgsman et al., 2010). The Pontian sedimentary sequences can rich up to 1700 m being dominated by pelitic sediments especially in the lower part. The most common ostracod species are represented by Bakunella dorsoarcuata, Candona (Pontoniella) acuminata, C. (Caspiolla) balcanica, C. (Caspiocypris) ex gr. alta, Leptocythere (Amnicythere) palimpsesta, L. (A) andrussovi, Tyrrhenocythere sp.
Bellow the Pontian sediments there is a predominantly sandy interval (up to 1000 m thickness) with silty and clayly intercalations. The uppermost part of this succession is very rich in microgastropods (Hydrobia, Theodoxus species) and Congeria novorossica shell fragments. These rich layers with Congeria novorossica have been recorded on shore at the top part of Meotian sediments being associated with the onset of the transgressive moment recognized at Meotian/Pontian boundary in Eastern Paratethys. Previously, this interval has been incorporated to the Pontian stage, but according with the new data we suggest the Meotian age for it.
The underlying deposits (less than 200 m) are represented by silts and clays that contain rare Elphidium species as well many foraminifers and ostracods reworked from the Senonian chalk. We attribute this interval to the Sarmatian stage.

Key words: Upper Miocene, Pliocene, Black Sea, Ostracods.

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