



## **Sedimentary environments and fauna of the Late Miocene to Early Pleistocene Slănicul de Buzau Section in the Dacian Basin**

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Pleistocene shortening in the Southeast Carpathians has folded and uplifted the more than 6 km thick Late Miocene to Early Pleistocene foreland basin fill. These strata are now excellently exposed along the Slănicul de Buzau River in Romania. The section provides a detailed insight into the co-evolution of the local sedimentary environment and mollusc- and ostracod fauna, against the backdrop of the evolution of the Dacian Basin. Paleo-environments range from distal shelf to terrestrial and include several types of delta and shoreface environments. Changes in the environment of deposition over time exerted a strong control on the local fauna. The section has a complete magnetostratigraphy, which provides excellent time-control. This facilitates correlations with other Paratethys basins and helps to unravel environmental forcing factors: Some of the larger base-level variations are clearly related to Paratethys-wide events, as is also evident from faunal immigrants. A prominent cyclicity observed in Pliocene strata that intuitively might be ascribed to astronomical forcing, was demonstrably caused by autocyclic delta lobe switching. Diminishing sedimentation rates in the Late Pliocene to Pleistocene are likely related to the basins tectonic evolution, while a final switch to fluvial sedimentation might highlight the arrival of a new sediment supply system.