

OLIGOCENE BLACK SHALES FROM ROMANIA: CALCAREOUS NANNOFOSSIL AND THEIR PALAEOGEOGRAPHICAL IMPLICATIONS

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The Oligocene black shales are widespread in Romania, in the Carpathian area (East and South Carpathians) as well as in the Transylvania one.

The content of the Oligocene nannoflora assemblages, related to the black shales, reflected the major changes in the palaeoecological and palaeogeographical patterns, taking place into this interval.

The character of the nannofloras from the base of the Oligocene (Lower Rupelian) is a cosmopolitan one.

In the Upper Rupelian, due to the isolation of the Paratethys from the Tethys Realm, the deposition of the black shales started. This is the beginning of the oxygen crisis in the Oligocene deposits from the Carpathian area.

The calcareous nannofossil assemblages reflected these changes, their character became an endemic one.

Starting with the Upper Rupelian and in the Chattian, the nannoflora character is again a cosmopolitan one, pointing out the restoration of the Paratethys connection with the world ocean. It is to mention that the warm nannofossil species (belonging to the *Sphenolithus* and *Discoaster* genera) are very rare in the nannoflora assemblages related to this interval, due to a progressive global cooling. The presence of the Oligocene laminitic limestones, with blooms of calcareous nannofossils, reflected also palaeoecological and palaeogeographical changes: an increase in the nutrient supply, lowered temperature and salinity variability, as well as the renewed communication between the semi-isolated basin of the Paratethys with the open-ocean, due to a high-level rise.