



## **Late Holocene paleoenvironmental changes in the Razelm-Sinoe lagoonal system, Danube Delta**

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The Danube Delta developed in the Quaternary, when Danube started to flow into the Black Sea basin; it formed as a sequence of deposits ranging from tens to 300-400 meters thick accumulated mainly during the Late Pleistocene and Holocene.

This study is based on multidisciplinary investigations of a 7-meter-long sediment core recovered from the western bank of Razelm-Sinoe lagoonal system, currently located at about 14 km from the Black Sea shoreline. The evolution of this area was directly influenced by the local sea-level influence, shifting from brackish lagoon to a freshwater lake environment. The identified ostracod assemblages contain oligohaline to mesohaline taxa, represented by Mediterranean and Ponto-Caspian in origin species. The dominant mesohaline specimens are represented by *Cyprideis torosa*, *Heterocythereis amnicola*, *Amnicythere olivia*, *A. pediformis* and *Loxoconcha*

*gibboides*. The mesohaline environment is also highlighted by the occurrence of benthic foraminifera represented almost entirely by *Ammonia tepida* species, with high abundances. The most representative oligohaline ostracod species are *Darwinula stevensoni*, *Candona neglecta*, *Pseudocandona compressa*, *P. albicans* and *Limnocythere inopinata*.

This study offers new insights into the Late Holocene paleoenvironmental and paleogeographic changes that took place in the Danube Delta's Razelm-Sinoe lagoonal system.

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