



Conference Abstract

# The paleoenvironmental reconstruction using fossil invertebrates of Zăton Lake (south-western Romania)

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## Abstract

The Zăton Lake is a closed depression located in the Ponoarele karst area (south-western Romania) formed along a tectonic-erosional window as a NE-SW corridor (250–450 m a.s.l.). In this area Mesozoic sedimentary rocks outcrop, along with the metamorphic basement of the Danubian Domain of the Southern Carpathians. The entire river basin is drained underground through the caves of Zăton (105 m in length) and Bulba (5 km long, developed on three levels). Flooding of the lake is temporary, during periods with high precipitation or the spring snow melting. A total of 34 samples were taken from one sedimentary section of the Zăton Lake and the diversity and abundance of fossil mites was assessed at different depths of the sediments. OSL (optical stimulated luminescence) datings and fossil mites' determination were correlated with sediments geochemistry and rock magnetic properties and record the changes in temperature and vegetation in the area from present day to more than 2000 years ago.

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