

Stygobiont ostracods from a deep cave Njemica (Biokovo Mt., Croatia)

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1. Draft of the cave Njemica after Visković, 2020. 2. Geographic position of the Biokovo Mountain within the Dinaric karst area (Mihevec et al, 2010). 3. Map of the Biokovo with highest the highest mountain peaks https://sites.google.com/site/prirodneljepotehrvatskejs/ primorska-hrvatska/park-prirode-biokovo



Absolute ostracod species abundance in samples of the Njemica cave.

Njemica is the deepest cave on Biokovo Mountain (-936 m). It is primarily a vertical speleological object characterized by alternating spacious large halls and large verticals. At the bottom of the pit is a deep siphon lake with an unclear hydrological regime. The cave sediments were identified as slackwater deposits. Such deposits are formed in an environment of saturated conditions with higher groundwater levels, isolated from flowing streams. They had deposited from suspension when the bottom of the cave was submerged in water. Sub-recent ostracods were found within the sediment. The ostracods are composed of known recent species from the Dinaric karst area.



A rich ostracod fauna including two species that are referable to two families, *Pseudocypridopsis sywulai* Petkovski, Scharf, and Keyser, 2009, within the Cyprididae family, and *Phreatocandona* cf. *motasi* Danielopol, 1982, within the Candonidae family, were identified. Based on the ostracod assemblage deep caves in the Dinaric karst region, acted as depocenters from where ostracods can migrate.





Topographic cross section through Biokovo Mountain with indicated position of the Njemica cave channels, spatial distribution of sampling sites (NB and NS), and tentative position of deep karstic aquifer with indicated local recharge and discharge directions. **B**) The Bivouac sampling site (NB). **C**) The siphon sampling site (NS). **D**) Bottom and top layers on NB site with indicated sampling area. **E**) Bottom and top layers on NS site with indicated sampling area.

Selected SEM photomicrograph of adult and juvenile ostracods. 1-16. *Pseudocypridopsis sywulai*. 17-23. *Phreatocandona* cf. motasi.

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