

G. multipinnatus in terms of otolith morphology and also because of contradictory descriptions in older literature, a close look at these fishes is once again of high interest. Re-investigation of specimens from museum collection and new findings may help to solve the puzzle if this is a true goby and if, among all the *G. brevis* specimens, another so far uncharted species is hiding.

High-resolution analyses and reconstruction of the autecology of endemic Lake Pannon ostracods (Late Miocene; Styrian Basin, Austria) [oral presentation]

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Located approx. 45 km SE of Graz (SE-Austria, 15°57'16"E/46°54'15"N) in the Styrian Basin, the Mataschen clay pit represents an exceptional window into a near-shore community of Lake Pannon during Early Tortonian times. The ~30 m thick succession represents a transgressive-regressive phase with a transition from swampy to limnic-deltaic environments. Here we present the results of a multi-proxy palaeoecological reconstruction of a ~2.3 m thick high-resolution interval covering a maximum of 3500 years.

The high-resolution section includes initially shallow, slightly brackish water conditions with depleted oxygenation, before a transgression leads to salinities above 15 psu and better oxygenated conditions. At the top, a meromictic system established due to an increasing fluvial influx. While ostracod species like *Cyprideis mataschensis* seem to tolerate a wide range of salinities and depleted oxygenation, others (i.a. *C. kapfensteinensis*, *Hemicytheria folliculosa* and *Callistocythere* sp.) are more stenoeious in relation to those parameters. By refining the ecological ranges of endemic ostracod species, palaeological conclusions can be significantly improved.

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Depth distribution and convergent evolution of microboring organisms [oral presentation]

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The carbonate boring habit evolved among light-dependent, phototrophic organisms as well as among light-independent organotrophic ones. Although microboring activity is most intensive in shallow tropical waters, the destruction of shells