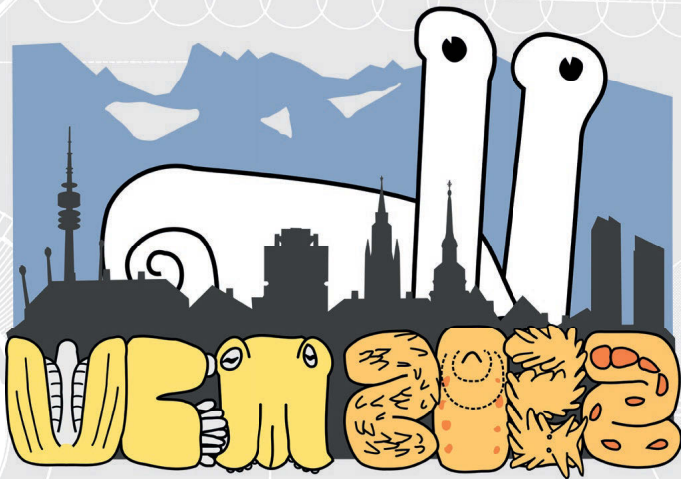


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Zeitschrift für Zoologie



**World Congress of Malacology
Munich 2022**

31st July – 5th August

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Münchhausenstraße 21, 81247 München, Germany

Tel. +49 (0)89 8107-0 – Fax +49 (0)89 8107-300

E-mail: SPIXIANA@snsb.de

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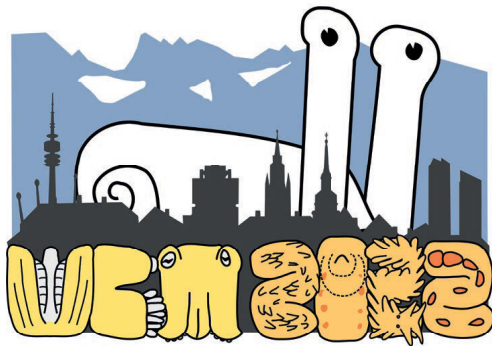
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Franziska S. Bergmeier, Bastian Brenzinger, Timea P. Neusser

LMU Munich, ZSM Munich, Germany

Hidden biodiversity hotspot: A survey of groundwater hydrobiid microsnails from Western Transcaucasia

Elizaveta M. Chertoprud¹, Dmitry M. Palatov^{2,3} & Maxim V. Vinarski³

E-mail: skytuna@yandex.ru

Among the great diversity of hydrobiid snails, the taxa that have adapted to live in groundwaters and cave reservoirs are of particular interest. Though this family is extensively studied, most information on its taxonomy, diversity, and ecology is based on material from European countries, whereas other regions remain relatively understudied. Here, we give an outline of the current knowledge of the hydrobiid fauna of Western Transcaucasia. This territory likely represents a hidden hotspot of biodiversity of the Hydrobiidae, with many endemic genera and species still pending for a formal taxonomical description.

Initial steps in the study of subterranean malacofauna of Caucasus and Transcaucasia were made more than a century ago. No more than 10 species of hydrobiids were known from Transcaucasia. Traditionally, all endemic species of hydrobiid snails from this area were assigned to genera described from the other territories, such as Balkan Peninsula, based on a similar shell shape. However, as it is clear now, this approach is untenable. Our research has questioned the validity of some previously described species and demonstrated substantial differences between the Caucasian and Balkan hydrobiid genera. According to our data, no representatives of the Balkan genera occur in Transcaucasia; all 12 genera and 42 species of stygobiont Hydrobiidae, known in the region to the date, are endemics. Most of them were described since 2014. A total of 12 species were discovered for the first time, and 8 more were redescribed and included in new genera. According to the relative conchological uniformity of the Transcaucasian hydrobiids known to date, these molluscs demonstrate a high diversity in their reproductive anatomy, which indicates presence of several distinct genera in this area. Results of recent molecular studies also support the presence of endemic genera in Caucasus. Each isolated karst massif tends to have its own endemic fauna of the Hydrobiidae. Possibly, the real value of hydrobiid diversity in Transcaucasia is much higher, approaching 80–100 species and several still undiscovered genera.

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¹ Invertebrate Zoology Department of Biological Faculty, Lomonosov Moscow State University, Russia

² A.N. Severtzov Institute of Ecology and Evolution, Moscow, Russia

³ Laboratory of Macroecology & Biogeography of Invertebrates, St. Petersburg State University, Russia