

Montenegrospeum, a New Genus of Hydrobiid Snails (Gastropoda: Risooidea) from Montenegro

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Abstract: Live specimens of *Bythiospeum bogici* Pešić & Glöer, 2012 were discovered from the spring Taban in the central part of Montenegro. Anatomical studies revealed that this species belongs to a new genus, which is erected here as *Montenegrospeum* gen. n., with the type and only species *Montenegrospeum bogici* (Pešić & Glöer, 2012) comb. n.

Key words: Hydrobiidae, new genus, taxonomy, Montenegro

Introduction

The genus *Bythiospeum* Bourguignat, 1882 consists of small hydrobiid snails widespread from western Europe to Caucasus and Uzbekistan (BOETERS 1998). This group is considered as one of the most diverse amongst European hydrobiids (GLÖER 2002). However, as suggested by some authors (e.g., GEORGIEV 2012; PEŠIĆ, GLÖER 2012), it is very likely that *Bythiospeum* represents a complex of closely related genera, probably each of them with limited distribution. Most of these species live strictly in subterranean, running or interstitial water and karst springs, and because sampling in these habitats is difficult, most of them are known only from empty shells. Exploring the taxonomic status of these species is impossible without collecting living specimens for a proper anatomical description.

Recently, we described *Bythiospeum bogici* Pešić & Glöer, 2012 from underground waters of the spring Taban located in the central part of Montenegro (PEŠIĆ, GLÖER 2012). Morphologically, this species resembles representatives of the genus *Bythiospeum*. However, originally no living specimens were found from the type locality.

Recently, we were able to collect live specimens of the same species. Anatomical studies revealed that this species belongs to a new genus, *Montenegrospeum* gen. n., which is erected in the present article.

Materials and Methods

The specimens of *Bythiospeum bogici* Pešić & Glöer, 2012, were collected in November 15, 2012, from the spring Taban, Montenegro. In order to collect live specimens, the spring sediments were transported into the laboratory, soaked in tap water and left in the dark for a few days in order to leave enough time for live animals to reach the surface of the sediment. It is worth noting that samples exhibiting the presence of living hypogean animals were taken immediately after a period of strong rain. The living specimens were fixed in 95% ethanol. The sampled animals were analyzed both morphometrically and anatomically. Images of the shell, soft body and genitalia were photographed with a Leica digital camera system. The studied material

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is stored in the Zoological Museum of Hamburg (ZMH).

Results and Discussion

Systematics

Genus *Montenegrospeum* gen. n.

Diagnosis. Shell conically-cylindrical, consisting of 5.5 convex whorls, with deep suture; apex blunt and broad. Shell surface smooth. Aperture weekly sinuated from lateral view. Penis with one distally truncated and apically-projecting outgrowth situated in middle of organ.

Type species: *Montenegrospeum bogici* (Pešić & Glöer, 2012) comb. n.

Etymology. Named after its occurrence in Montenegro.

Differential diagnosis. The presence of a small outgrowth on the left side of the penis differentiates *Montenegrospeum* gen. n. from *Iglica* Wagner, 1927 and *Bythiospeum* Bourguignat, 1882, which have a simple penis without an outgrowth (BOETERS 1998, GLÖER 2002). Due to the presence of the above-mentioned character, the new genus appears to be closely related to *Balkanospeum* Georgiev, 2012. This genus was erected for *Balkanospeum schniebsae* (Georgiev, 2011) from Bulgaria, a species originally described as a member of *Bythiospeum* (see GEORGIEV 2011). However, these two genera can be clearly distinguished by the morphology of the penis. While the penis of *Balkanospeum* has a small and rounded hump-shaped outgrowth located in the apical third and flattened laterally (GEORGIEV 2012), *Montenegrospeum* gen. n. possesses a distally truncated and apically-directed projection situated in the middle of the penis (Fig. 3). Furthermore, the shell of *Montenegrospeum* gen. n. is rather cylindrical, with 5.5 convex whorls compared the elongate-conical shell with 4.5-5 rounded whorls in *Balkanospeum* (see GEORGIEV 2012).

References

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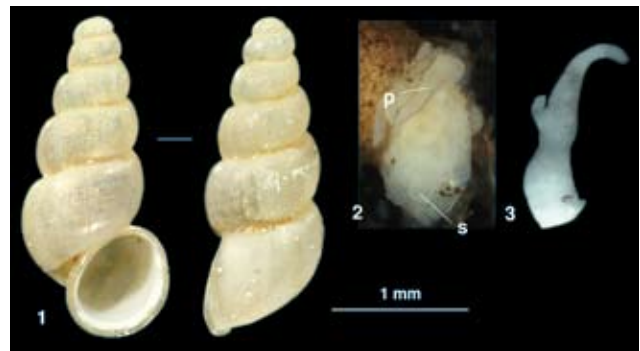


Fig. 1-3. *Montenegrospeum bogici* (Pešić & Glöer, 2012) gen. n., comb. n. from spring Taban (Podgorica, Montenegro): 1 – shell, 2 – soft body, 3 – penis. Abbreviations: p = penis, s = snout

Montenegrospeum bogici (Pešić & Glöer 2012) comb. n.

(Figs. 1-3)

Type locality: Montenegro, Podgorica, spring Taban, 42°31.653 N, 19°13.145 E, altitude 105 m.

Material examined: 7 living specimens and 14 empty shells from the type locality, 15 November 2012, leg. Pešić.

Description. Shell conically-cylindrical, consisting of 5.5 convex whorls, with deep suture; apex blunt (Fig. 1). Shell surface smooth and silky, whitish and translucent, with slit-like umbilicus. Peristome in adults bent to outside from lateral view. Basis of aperture pulled forward.

Head and mantle without pigmentation; no eyes (Fig. 2). Penis with broad proximal part, narrowing in thickened middle part, bearing one distally-truncated and apically-projected outgrowth; from outgrowth, width of penis gradually tapering in distal direction, terminating with bluntly-pointed tip (Fig. 3).

Distribution. Montenegro; known only from the type locality.

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