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BATHYSCIMORPHUS ACUMINATUS RUZICKAI SSP. NOV. (LEIODIDAE, CHOLEVINAE, LEPTODIRINI) FROM SLOVENIA

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Abstract – *Bathyscimorphus (Bathyscimorphus) acuminatus ruzickai* ssp. nov. from Slovenia is described, compared with the nominate species, and distinguished from all the known remaining species of the genus. A new nomenclatural act is proposed – change of the status of *Bathyscimorphus* (*Bathyscimorphus*) *byssinus acuminatus* (L. Miller, 1855) to *Bathyscimorphus* (*B.*) *acuminatus* (L. Miller, 1855) stat. nov. A key to the identification of the *Bathyscimorphus* s. str. species is provided.
KEY WORDS: Coleoptera, Leptodirini, *Bathyscimorphus*, new subspecies, taxonomy, nomenclatural change, Slovenia, Radoha.

Izvleček – *BATHYSCIMORPHUS ACUMINATUS RUZICKAI* SSP. NOV. (LEIODIDAE, CHOLEVINAE, LEPTODIRINI) IZ SLOVENIJE

Opisana je nova podvrsta hrošča podzemljarja *Bathyscimorphus* (*Bathyscimorphus*) *acuminatus ruzickai s*sp. nov. iz Slovenije in primerjana z nominalno vrsto ter ločena od vseh drugih znanih vrst rodu. Predlagana je sprememba statusa *Bathyscimorphus* (*Bathyscimorphus*) *byssinus acuminatus* (L. Miller, 1855) v *Bathyscimorphus* (*B.*) *acuminatus* (L. Miller, 1855) stat. nov. Podan je ključ za razločitev vrst rodu *Bathyscimorphus* s. str.
KLJUČNE BESEDE: Coleoptera, Leptodirini, *Bathyscimorphus*, nova podvrsta, taksonomija, sprememba nomenklature, Slovenija, Radoha.

Introduction

The genus *Bathyscimorphus* Jeannel (1911) belongs to the taxonomically complicated tribe Leptodirini which is included in the subfamily Cholevinae within the family Leiodidae. Most numerous subfamily Cholevinae includes more than 2200 species, while the tribe Leptodirini 976 species (Newton 2022).

The first genus and species of Leptodirini – *Leptodirus hochenwarti* F. J. Schmidt, 1832 was described almost 200 years ago. Despite of the long time when

the tribe Leptodirini has been studied, its taxonomy is still far from settled. I follow, in the present paper the generic concept presented by Bognolo (2002).

The genus *Bathyscimorphus* at present comprised 13 described species. Including subspecies 15 taxa have been known in the genus (Bognolo 2002). They were separated in two subgenera differing mainly by the presence or absence of the distal paired endophallic sclerites. Ten of the species belonged to the subgenus *Drovenikia* Bognolo, 2002 and three remaining species to the *Bathyscimorphus* s. str. The 14th species is resurrected in this paper and one subspecies new to science is added. Therefore 14 species and 2 subspecies have to be currently recognised in the genus *Bathyscimorphus.* Eleven of the species were found exclusively in Slovenia, three in Croatia and one species occurs in Slovenia and in Croatia as well.

The new subspecies described in this paper has been found in southern Slovenia in the region of Radoha Mountain. Description is based on the specimens collected mainly during the 1920s. The data on the locality labels of the type series are very brief, as it was usual at the beginning of the last century. The locality labels contained only one more detailed geographical name: "Radoha". Radoha is the mountain plateau in the south-eastern part of Slovenia, located southwest of the mountain pass Vahta. According to the website of the Speleology Club in Novo Mesto (Gorjanci z Radoho Jamarski klub Novo mesto (jknm.si 2024) the limestone surface of Radoha is heavily karstified, rocky and uneven with many sinkholes, caves and abysses (the most known caves in the region are Radoška cave, Mihovska cave and Krojačevka). Taking into account that subterranean beetles were used to be collected during the 19th and the majority of the 20th centuries almost exclusively only in caves, it is reasonable to suppose that also the specimens of the new subspecies were collected in one of the cave or caves, unfortunately not specified on the locality labels (see also the paragraph "Bionomy" in the description of the new subspecies below). The region where the new subspecies was collected, belongs currently to Natura 2000 area Gorjanci – Radoha.

According to Perreau (2000), Bognolo (2002) and Hlaváč at al. (2017) two taxa belonging to *Bathyscimorphus* s. str. occurred in the geographical proximity of Radoha. They are *B.* (*B.*) *uskokensis* (Müller, 1911) known in Slovenia from a small area in Gorjanci and *B.* (*B.*) *byssinus acuminatus* (L. Miller, 1855) reported from the large area northwest of Gorjanci – Radoha. Bognolo, in his genus revision (2002) reported the females of *B.* (*B.*) *byssinus acuminatus* also from Radoha. But I believe that the determination of single females can be disputable. Bognolo (2002) also mentioned, that *B. byssinus acuminatus* has a very vast range, which covers a good part of Dolenjska (southern region of Slovenia), up to the areas of Metlika and Črnomelj; to the north-east it goes beyond the Mountain Snežnik, up to the southern edge of Lake Cerknica (Cerkniško jezero). Bognolo (2002) also stated, without detailed information, that the populations from the area of the Lake Cerknica which border the range of *B. byssinus byssinus*, possess characters that differ somewhat from those of the typical *B. byssinus acuminatus.*

Material and methods

This paper is based on the leiodid material collected mainly during the 1920s, predominantly by Czech entomologist Josef Mařan; several specimens also comes from the collection of Vladimír Zoufal. The material mentioned in this paper is deposited in the collections of NMPC, and ZSPC (the meaning of the abbreviations see below).

The examined specimens have been compared with the non-type material of closely standing species:

Bathyscimorphus byssinus byssinus: Postojna, cave at Predjamski grad ("Lueg pećina"), Absolon's loc. 477, det. Z. Švec, (NMPC - coll. K. Absolon); Borovnica, Pokojišče, Jamovka jama [cave], det. M. Perreau, (ZSPC); The male genitalia of the examined species were compared also with the photographs of the *Bathyscimorphus b. byssinus* genitalia, from type locality Postojnska jama [cave], provided by Slavko Polak (Notranjska Museum, Postojna, Slovenia).

B. byssinus acuminatus: vicinity of Kočevlje, det. Z. Švec, vicinity of Kočevlje, Jama treh bratov, [cave], det. M. Perreau, (ZSPC, NMPC);

B. uskokensis (Müller, 1911): Podbočje Dol, Levakova jama [cave], M. Perreau det.; Gorjanci, jama pri gozdarski koči [cave] na Opatovi gori, det M. Perreau, (all ZSPC);

B. croaticus Bognolo, 2002: Croatia, Pečina u [near] Drežnica, det. M. Perreau, (ZSPC).

Collecting data cited in quotation marks are taken from the locality labels accompanying the examined type specimens. The individual lines from the original locality labels are separated by a slash (/) in this work. The individual labels accompanying the type material are separated by double-slash (//). The holotype and the paratypes are indicated by a red label bearing the status of the specimen (holotypus or paratypus respectively), name of the subspecies, the name of the author, year 2024 and attached to the same pin as the relevant specimen.

The relevant specimens were first softened 24 hours in a 8% Acetic acid, then rinsed in water and subsequently dissected. Dissected male genitalia were taken over 95 % ethyl alcohol into clove oil for 24 hours to rid air bubbles of and to make tegmen clear suitable for observing of the endophallic structures. After that the genitalia were taken over isopropyl alcohol to polyvinylpyrrolidin (Lompe 1986) on a transparent slide added to the same pin or on the same label as the dissected specimen. The dissected specimens bear also a label with the following text: "genitalia in water/ soluble medium/ polyvinylpyrrolidin".

The description is based on the holotype. Variability is mentioned in the paragraph "Variation" and includes features exhibited by paratypes. Those characters that seem to be typical within the subtribe Leptodirina and the genus *Bathyscimorphus* are minimalised or not mentioned in the diagnostic description.

The measurements of the body length were taken from all the specimens examined. The bodies were measured from the outmost anterior margin of head (in the

natural position, head not extended) up to the apex of elytra. Specific measurements of the individual body parts were taken from the holotype only except for data about the variation. The measurements of body parts were measured to the first decimal place of millimetre, the same of genitalia were approximated on two decimal places of millimetre.

Abbreviations of body parts and measurements:
AI–AXI antennomeres I–XI;
AI/AII ratio of the length or width of the antennomeres I and II;
L length;
W width;
W/L ratio between measurements;
TI–TV tarsomeres I–V.

Terminology:
tegmen = median lobe of aedeagus;
procoxal rest = flatly elevated transverse anterior part of mesoventrite;
antero-lateral margin of head = margin or bead running from clypeus just above eye-hole caudally.

Abbreviations of the collections:
NMPC: National Museum, Prague, Czech Republic.
ZSPC: Zdeněk Švec collection, Prague, Czech Republic.

Taxonomy

***Bathyscimorphus* (*Bathyscimorphus*) *acuminatus* (L. Miller, 1855), stat. nov.,** resurrected as species
(Figs. 8, 12)

Adelops acuminatus L. Miller, 1855
Bathyscia acuminata (L. Miller, 1855)
Bathysciola (*Bathyscimorphus*) *byssina* subsp. *acuminata* (L. Miller, 1855)
Bathyscimorphus (*Bathyscimorphus*) *byssinus acuminatus* (L. Miller, 1855), **syn. nov.**

The examination of the *Bathyscimorphus* s.str. species, especially *B. byssinus* and *B. byssinus acuminatus* leads to the conclusions that the status of *B. byssinus acuminatus* should be changed - resurrected from the subspecies to self-standing species.

B. acuminatus (L. Miller, 1855) differs significantly from *B. byssinus* having paramera very feebly widened apically with sparse short terminal setosity and by acute, short rounded tip of tegmen dorsally viewed. On the other hand, *B. byssinus* is morphologically closer to *B. uskokensis* and to *B. croaticus* differing from *B.*

acuminatus by swollen apical part of paramera, presence of apical bush of long thick densely arranged seta and by the presence of the terminal bump on tegmen.

Correct, always the same, position of the aedeagus is extremely important for any correct observation and assessment of the aedeagal and endophallic shapes. When aedeagus is placed in the strictly horizontal position, the differences in the shape of the apical part of tegmen between *B. acuminatus ruzickai* ssp. nov. and *B. acuminatus acuminatus* (and also from other species) is obvious (see also the text concerning genitalia in the diagnostic description of the new subspecies).

Differences and similarity of the male genitalia in the compared species are shown in the Figs. 11 –14 and also in the key presented below.

A key to the identification of the *Bathyscimorphus* s. str. species (endophallus without distal sclerites, while middle and basal sclerites well developed)

1 Tegmen with acute short rounded tip or bearing small bump on its apex in dorsal view on horizontally laid aedeagus (Figs. 5 – 7). …….. 2
- Tegmen broadly rounded on its apex in dorsal view on horizontally laid aedeagus (Fig. 4). Apex distinctly bent in lateral view (Fig. 11). Paramera equipped by several self-standing short thin seta at apex. Endophallus with straight syphon, pair proximally divergent slim half-moon sclerites and pair of bar-shape sclerites (Fig. 4). Length 1.6-1.8 mm. Slovenia (Radoha). … *Bathyscimorphus* (*B.*) *acuminatus ruzickai* **sp. nov.**

2(1) Apex of tegmen with small bump apically in dorsal view. Paramera with bush of long, densely arranged thick seta Figs. 6, 7). …….. 3
- Apex of tegmen acute short rounded in dorsal view. Paramera equipped by several self-standing short thin seta at apex. Endophallus with curved syphon, pair proximally divergent slim half-moon sclerites and pair of bar-shape sclerites (Fig. 5). Length 1.5-1.8 mm. Slovenia (Dolenjska, Southern Notranjska). … *Bathyscimorphus* (*B.*) *acuminatus* (L. Miller, 1855)

3(2) Body size smaller (1.4-1.5 mm). …….. 4
- Body size larger (1.7-2.0 mm). Endophallus with two pairs of bar-shaped not half-moon like sclerites, syphon missing (Fig. 6). Maximum width of elytra at basal fifth of elytral length. Slovenia (Gorjanci), Croatia (Žumberak). … *Bathyscimorphus* (*B.*) *uskokensis* (Müller, 1911)

4(3) Endophallus with straight syphon accompanied with pair of half-moon like sclerites and pair of lateral bar-shaped sclerites (Fig. 7). Paramera (not taking into account length of seta) as long as tegmen. 1.4-1.5 mm. Slovenia (Northern Notranjska, Idrijsko). … *Bathyscimorphus* (*B.*) *byssinus* (Schiødte, 1848)

- Syphon of endophallus missing. Paramera (not taking into account length of seta) longer than tegmen. 1.4-1,5 mm. Croatia (Ogulin). … *Bathyscimorphus* (*B.*) *croaticus* Bognolo, 2002

***Bathyscimorphus* (*Bathyscimorphus*) *acuminatus ruzickai* ssp. nov.**
(Figs 1–4, 8)

Type material. Holotype: ♂, "Radoha/ Carn. viii 24" (NMPC). Paratypes: 34 ♂♂ 8 ♀♀, same data as holotype (NMPC, ZSPC); 5 ♀♀, "Radoha/ Carniolia" (NMPC); 2 ♀♀, "Radoha/ Carn./ Vl. Zoufal// 1310 (NMPC); 1 ♂, same data, in addition "Bathyscimorphus/ byssinus/ acuminatus (Miller, 1855)/ R. Udržal det. 1995 (NMPC); 3 ♀♀, "Radoha/Carn.1924 (NMPC); 2 ♂♂, 4 ♀♀, same data, in addition "Bathyscimorphus/ byssinus/ Schiødte" (NMPC, SPC); 3 ♂♂ 3 ♀♀, "Radoha/ Carn. 1925" (NMPC, ZSPC); 1 ♀, the same data, in addition "Ceutmonocharis/ pusillus Jeann./ Determ. Dr. Knirsch// Bathyscimorphus byssinus/ssp./ R. Udržal det. 1997 (NMPC); 27 ♂♂ 47 ♀♀, "Radoha Carn./ Mařan lgt. " (NMPC, ZSPC); 3 specimens, sex indet (NMPC); 1 ♂, same data, in addition "Bathyscimorphus byssinus/ uskokensis (Müller, 1911/R. Udržal det. 1996 (NMPC); 1 ♀ "Radoha Carn./ Mařan lgt.// Ceutmonocharis/ pusillus Jeann./ Determ. Dr. Knirsch" (NMPC).

Description. Length of body in holotype 1.7 mm, head 0.1 mm, pronotum 0.5 mm, elytra 1.1 mm, antenna 0.9 mm, aedeagus 0.59 mm. Maximum width of head 0.4 mm, pronotum 0.9 mm, elytra 0.9 mm.

Body oval, bathyscioid (Fig. 1). Dorsum light chestnut, surface slightly shining, equipped by adjacent fine golden hair. Dorsal surface micro-sculptured, punctured, visible between hair. Tarsi and antennae yellow-red, covered densely by light semi-erected hair. Ventral surface light chestnut; mesoventral longitudinal carina and coxal margins a little darker. Entire venter covered by chagrin.

Head. Maximum width of head just at rectangular temporal angles. Penultimate maxillary palpomere 1.6 as long as terminal palpomere. Clypeus very feebly flatly emarginate, almost straight anteriorly; clypeal line indistinct, clypeus separated from front by dark line. Eyehole separated from front by acute anterolateral margin, transitioning in tempora forming rectangular pointed edge. Anterolateral margin of head runs from side of clypeus behind up to temporal angles. Eyes completely missing. Surface micro-sculptured predominantly by irregular square or pentagonal cells. Most of cells contains small simple puncture equipped by long hair. Punctures separated approximately by 3-4 times their diameter. Hair oriented anteriorly in central part of head, laterally or antero-laterally on sides. Antenna slim, antennal club five-segmented, all antennomeres distinctly longer than wide (Fig. 2). Antenna inserted antero-dorsally of eyehole. Ratio of length of AI–AXI (AI = 1.0): 1.0-1.3-0.9-0.6-0.7-0.6-1.0-0.6-0.9-0.9-1.5. Ratio of width of AI–AXI (AI = 1.0): 1.0-1.2-0.8-0.6-0.6-0.6-1.0-0.6-1.4-1.4-1.8. Ratio of W/L of AI–AXI: 0.4-0.4-0.9-0.4-0.8-0.4-0.4-0.6-0.6-0.6-0.5. Occipital crest roundly curved.

Pronotum. Broadest at base (Fig. 1). Basal margin slightly concave, hind pronotal angles acute, stretched out backwards. Anterior angles not detectable in dorsal view. Lateral outline of pronotum roundly tapered anteriorly in dorsal view. Lateral margin straight at basal third, flatly curved at anterior two-thirds of its length in lateral view.

Base and anterior margins not bordered. Lateral margins very finely bordered. Surface micro-sculptured with irregular cells similar to those on head but more distinctly expressed. Puncturation sparse and fine, a little sparser than on head with punctures small unobtrusive, equipped by long hair, separated by about 5-8 times their own diameter. Hair oriented caudally at central part of pronotum, postero-laterally near sides. Pronotal epipleura distinctly haired, with hair shorter than on dorsum.

Scutellum. Triangular, sparsely punctured, covered by hair similar as those on pronotum.

Elytra widest just behind base, then evenly roundly narrowed posteriorly. Lateral elytral channel narrow all along its length, finely bordered, both margins not simultaneously visible in dorsal view. Lateral outline of elytra flatly convex in basal two thirds, feebly concave on caudal third of elytral length in lateral view. Surface micro-sculptured with irregular cells larger than those on head and pronotum. Puncturation similar to that on pronotum. Punctures small, unobtrusive, separated by about 6–10 or more times their own diameter, irregularly scattered with feeble tendency to longitudinal seriation. Hair oriented caudally. Sutural striae not developed. Each elytron rounded individually on its apex. Epipleura covered by hair shorter than those on elytral surface.

Legs. Tarsal formula: 5-5-5 in males and 4-5-5 in females. Anterior tarsi slim in females. In males anterior tarsi distinctly dilated, TI broadest, TII-IV gradually narrowed distally. TI as wide as pro-tibia at its mid-length, a little broader than pro-tibia at their apex. Anterior tarsi densely setose beneath. Pro-tibia equipped laterally with longitudinal comb of densely arranged short stout spines along almost their entire length (Fig. 3) as it is typical for the subtribe Leptodirina. Pro- and meso-tibia obliquely terminated, equipped by crown of equally sized short spines, apex of meta-tibia straight with several unequally long spines. Meso-tibia possess also medial and lateral spine apically, longer than those of crown. All tibiae slim, pro-tibia a little broader than meso- and meta-tibia, broadest at distal two-thirds of their length. Meta-femora simple, equally wide all along their length, without specific characters. Meta-tibia 1.5 as long as meta-tarsus.

Mesoventrite. High, narrow, longitudinal mesoventral carina reaches procoxal rest anteriorly. Carina narrow between mid-coxae, anteriorly even narrower forming blunt blade in ventral view. Part of carina located between mid-coxae flat on its ventral surface, with adjacent setae laterally in ventral view. Anterior part very broadly rounded, semi-circular in lateral view. Sides of carina covered by distinct regular chagrin consisting of large cells well detectable in lateral view. Carina reaches partly above metaventrite due to oblique ventro-caudally oriented posterior border (suture between meso- and metaventral carina detectable in lateral view) continuing by metaventral carina up to approximately half of metaventrite length (see also the "Remark" below).

Metatergum and metendosternite sclerites. Without characters specific for species level, their shape corresponding with those typical in *Bathyscimorphus* (Bognolo 2002).

Metaventrite with longitudinal low carina adjacent to the carina on mesoventrite forming an apparently monolithic ridge. Strip of lightly coloured adjacent hair located centrally on metaventrite, lateral parts with irregularly distributed adjacent very sparse hair.

Membranous wings missing.

Male genitalia. The basal lamina of the median lobe semi-elliptical shaped similar as that in other currently known taxa of the genus; its shape resembles coat of arms. Apex of median lobe uniquely shaped in the genus in dorsal view missing any terminal process or bump or acute short rounded tip being broadly rounded (Fig. 4). Broadly rounded apex visible in the direct dorsal view on aedeagus arranged in straight horizontal, non-tilted position. Apical part of median lobe very slightly but distinctly bent downwards (ventrally) in lateral view (Fig. 8). Therefore, the apex of tegmen is seemingly broadly rounded in dorsal view. Operculum transversely oval. Paramera fused basally, broadly divided there, gradually, very feebly, widened apically; apex equipped by several short and fine thin self-standing seta (Fig. 4). Seta a little longer than parameral width on apex. Endophallus without distal sclerites, with short straight, basally swollen, syphon gradually narrowed apically, equipped on each side by pair postero-laterally oriented flatly half-moon shaped sclerites. Altogether basal part of syphon with lateral sclerites resembles terminal tarsomere with claws or reversed letter Y. Beside pair of feebly sclerotized anteriorly located and another pair of bar-shaped caudal divergent sclerites accompany base of syphon. Basally located unpaired but symmetrical sclerites resemble outline of human figure placed on papilionaceous structure.

Female genitalia. Spermatheca is prolonged bilobed with sclerotised lobes and membranous in its central part, therefore rather variable in its shape lacking significant features useful for the diagnosis.

Differential diagnosis. *Bathyscimorphus* (*Bathyscimorphus*) *acuminatus ruzickai* **ssp. nov.** differs from all the up to now known taxa of the nominate subgenus by the broadly rounded apex of the tegmen viewing in the straight dorsal view. The seemingly broadly rounded shape of the tegmen apex is a consequence of the shape of the terminal part of the tegmen that is distinctly bent ventrally. On contrary the apex of the tegmen in the nominative species, *Bathyscimorphus* (*B*.) *acuminatus* (Miller, 1855) is approximately straight laterally viewed (Fig. 9). Therefore, the apex of tegmen in *B. acuminatus* (Fig. 5) is narrowed terminally to acute short rounded tip in the dorsal view. The remaining *Bathyscimorphus* s. str. species possess tegmen terminating in a small bump in the dorsal view.

The endophallic structures in *B*. *acuminatus ruzickai* **ssp. nov.** contain straight short syphon a little longer than the lateral half-moon shaped sclerites. On the other hand, *B. acuminatus acuminatus* possess curved, more than twice as long syphon as lateral half-moon shaped sclerites. Basal endophallic structures in *B. acuminatus acuminatus* are simplified to only the papilionaceous structure in comparison with *B. acuminatus ruzickai* **ssp. nov.**

Taking into account the geographic point of view, the species standing close to *B. acuminatus ruzickai* **ssp. nov.** seems to be *B. uskokensis* (Müller, 1911) and also *B. acuminatus acuminatus*. The shapes of the aedeagus in *B. a. ruzickai* **ssp. nov.** and *B. uskokensis* differ each other more than those between the new subspecies and *B. acuminatus acuminatus.* While the apex is broadly rounded in *B. acuminatus ruzickai* **ssp. nov.,** the same is terminating by a small bump in *B. uskokensis* (Fig. 6) in dorsal view. The apex of tegmen is bent downwards in *B. acuminatus ruzickai* **ssp. nov.** while the same is approximately straight in *B. uskokensis* similarly as in *B. acuminatus acuminatus* (Figs. 9, 10) The new subspecies differs from *B. uskokensis* also by the shape of the endophallic structures and by the type of parameral seta (Figs. 4, 6).

The aedeagus of *B.* (*B.*) *acuminatus ruzickai* **ssp. nov.** (Fig. 4) differs from that in *B. byssinus* (Fig. 7) in a similar way as from *B. acuminatus acuminatus* (Fig. 5) and *B. uskokensis* (Fig. 6) by broadly rounded apex of tegmen in the dorsal view, by curved apex of tegmen (Figs. 8 – 11) in the lateral view and also by the shorter paramera with short apical setosity and by the shape of the endophallic structures.

Variation. Length of body is 1.5–1.8 mm in the type series. The ratio of AI/AII varies between 1.1-1.3. Also, the shape of mesoventral carina in the lateral view varies from that broadly semi-circular rounded to roundly angled anterior part.

Bionomy. Objectively, neither the bionomy nor the collecting circumstances of the new species are known**.** According to the information obtained from Slavko Polak (personal communication) (Notranjska Museum Postojna), the species *B.* (*B.*) *byssinus* closely standing to *B. acuminatus* does not live in a deep subterranean environment but rather in MSS (mesovoid shallow substratum) near the cave entrance. This leads me to the hypothesis, that *B.* (*B.*) *acuminatus ruzickai* **ssp. nov.** probably lives in the same or very similar way.

Etymology. The new subspecies is dedicated to Jan Růžička, my friend, specialist in Cholevinae.

Remark. Jeannel (1924) and Bognolo (2002) stated that mesoventral carina is not extended over metavetrite in the genus *Bathyscimorphus*. Observation of the ventral part of *B. acuminatus ruzickai* ssp. nov. showed a different arrangement. The suture between meso- and metaventral carina is obliquely ventro-caudally arranged. Therefore, the upper part of mesoventral carina significantly exceeds the metaventrite. The remaining species of the genus *Bathyscimorphus* have not been examined from this point of view.

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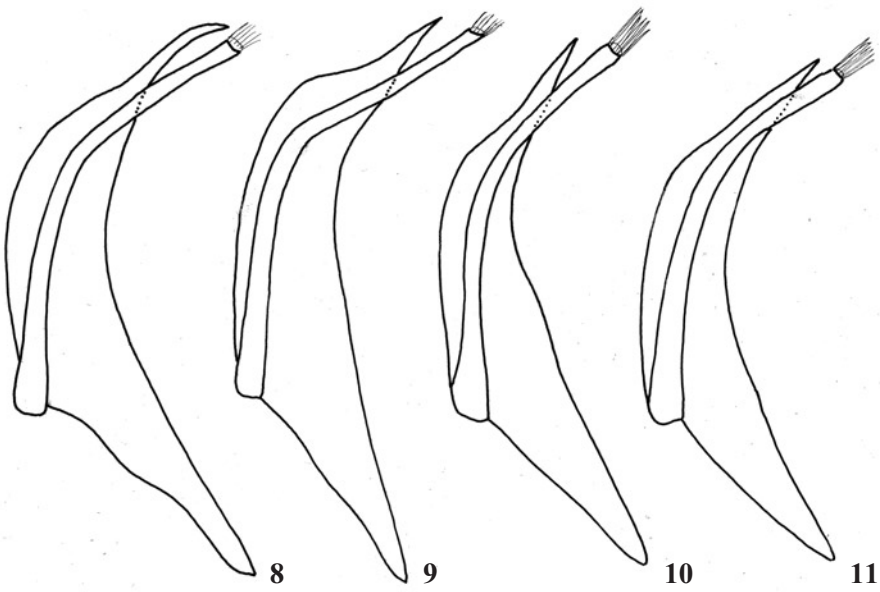
Figs.1–3 *Bathyscimorphus* (*B.*) *acuminatus ruzickai* ssp. nov. 1 – dorsum; 2 – antenna; 3 – right anterior tibia and tarsus. Photographs author – Fig. 1 and J. Růžička – figs 2, 3.

Figs. 4–7 aedeagus dorsally. 4 – *Bathyscimorphus* (*B.*) *acuminatus ruzickai s*sp. nov., 5 – *B.* (*B.*). *acuminatus acuminatus* (Miller, 1855), 6 – *B.* (*B.*). *uskokensis* (Müller, 1911); 7 – *B.* (*B.*) *byssinus* (Schiødte, 1848). Photographs J. Růžička – Fig. 4 and author – Figs. 5-7.



Figs. 8–11 aedeagus laterally. 8 – *Bathyscimorphus* (*B.*) *acuminatus ruzickai s*sp. nov. 9 – *B.* (*B.*). *acuminatus acuminatus* (Miller, 1855); 10 – *B.* (*B.*). *uskokensis* (Müller, 1911); 11 – *B.* (*B.*) *byssinus* (Schiødte, 1848).