

A new spring-snail species (Mollusca: Gastropoda: Risooidea) from Stara Planina Mountain, Bulgaria

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ABSTRACT

A new species named *Bythinella aneliae* sp. n. was described from a spring near the path to Ray Hut, Stara Planina Mountain, Central Bulgaria, N 42° 41' 44'' E 24° 56' 49'', 1075 m alt. This is the second species known to live in this mountain and the forth registered above 1000 meters altitude in the country.

Key words: new species, *Bythinella*, Balkans.

Një specie e re kërmijsh të burimeve (Mollusca: Gastropoda: Risooidea) prej Malit Stara Planina, Bullgari

PËRMBLEDHJE

Specia e emërtuar *Bythinella aneliae* sp. n. përshkruhet prej një burimi afër rrugës për në Ray Hut, Mali Stara Planina, Bullgaria Qëndrore, V 42° 41' 44'' L 24° 56' 49'', në lartësi 1075 m. Kjo është specia e dytë që njihet se jeton në këtë mal dhe e katërta në vend, e regjistruar në lartësi mbi 1000 metra.

Introduction

Recently it was shown that the diversity of *Bythinella* species on Balkans and especially Bulgaria is higher than known before. The Balkan Peninsula is probably the second center of species origin of the members of this genus (GLÖER & PEŠIĆ, 2006, GLÖER & GEORGIEV, 2009, 2011- in press). There are a total of 17 species known to occur in various geographic regions of Bulgaria as the mountains Rhodopes (7 species), Strandza (4 species),

Sredna Gora (2 species), Rila, Belasitsa, Stara Planina, and Upper Thracia (all with only 1 species known). Most of the species were registered at low altitudes below 500 m, and only 3 were found on high terrains above 1000 m. As it was evident some regions of the country are still not investigated in detail or no any studies on this genus were done. The large chain of Stara Planina Mountain divides the territory of Bulgaria on Northern and Southern part as it stretches in its middle from the Black Sea coast (to the east) to the border with Serbia (to the west). In this large rough and steep terrains there was only one *Bythinella* species described till now by GLÖER & PEŠIĆ (2006) – *B. hansboetersi*. It was found in spring waters beneath Levski Peak, near the source of Cherni Osam River. In this paper we describe a second species from this mountain found about 15 kilometers (straight line) south-east of the locality of the previous species.

Material and methods

The snails were collected by hand and the samples were preserved in 75% ethanol. The dissections and measurements of the shell were carried out by means of CETI stereo microscope and an eye-piece micrometer; the photographs were made with camera system with a digital adapter. The type material is stored in the Zoological Museum of Dresden (ZMD). Abbreviations used: N – number of specimens, H - Shell height, W - shell width, AH - aperture height, MTD - Museum für Tierkunde Dresden.

Results and discussion

***Bythinella aneliae* sp. n.**

Material examined: 32 specimens (31 adult, 1 juvenile) from the type locality, 28.11.2010, Slaveya Stoycheva, Anelia Pavlova leg.

Holotype: H = 2.67 mm, W = 1.49 mm, AH = 1.12 mm, SNSD Moll S3278.

Paratypes: 4 ex., SNSD Moll S3279.

Locus typicus: A spring near the path to Ray Hut, Stara Planina Mountain, Central Bulgaria, N 42 ° 41' 44" E 24 ° 56' 49", 1075 m alt.

Etymology: Named after the speleologist and student on biology Anelia Pavlova who helped the junior author in collection of the new species.

Description: Shell: The shell is cylindrical to slightly conical and consists of

4-4.5 convex whorls with well visible growth lines. The apex is obtuse, and the aperture is elongate-ovoid to pyriform, slightly angled at the top in some specimens.

Soft body: mantle is black with white edge, head, snout and tentacles are yellow with black spots, eyes are well visible.

Penis: the penis is longer than the tubular accessory gland, the flagellum is long, and at the end thickened, all of these structures are pale yellow.

Diagnosis: Considering the high levels of endemism of all known Bulgarian species from the genus we made the differential diagnosis according to the most closely occurring species in Stara Planina and Sredna Gora Mountains.

Stara Planina: The known *B. hansboetersi* GLÖER & PEŠIĆ 2006 (type locality 15 north-west of this one of the species described) has a broad based short penis (shorter than the tubular gland), and uniformly black mantle, while the new species has slim penis, longer than the tubular gland and its mantle is black with white edge.

Sredna Gora: *B. srednogorica* GLÖER & GEORGIEV 2009 (type locality at the south slope of the mountain, 56 km south-west of this one of the species described) has a grey mantle, slightly pigmented penis, broad tubular gland and more flat whorls than *B. aneliae* which has black mantle with white edge, non pigmented penis, slimmer tubular gland and more convex whorls.

B. angelovi GLÖER & GEORGIEV 2011- in press (type locality at the crest of the mountain, 50 km south-west of this one of the species described) has penis shorter than the tubular gland and well pigmented head, while in *B. aneliae* the penis is longer than the tubular gland, and the head has small spots of black pigmentation.

Habitat: The species was collected from a small shallow stream, on stones, dead leafs and moss in beech (*Fagus sylvatica*) forest.

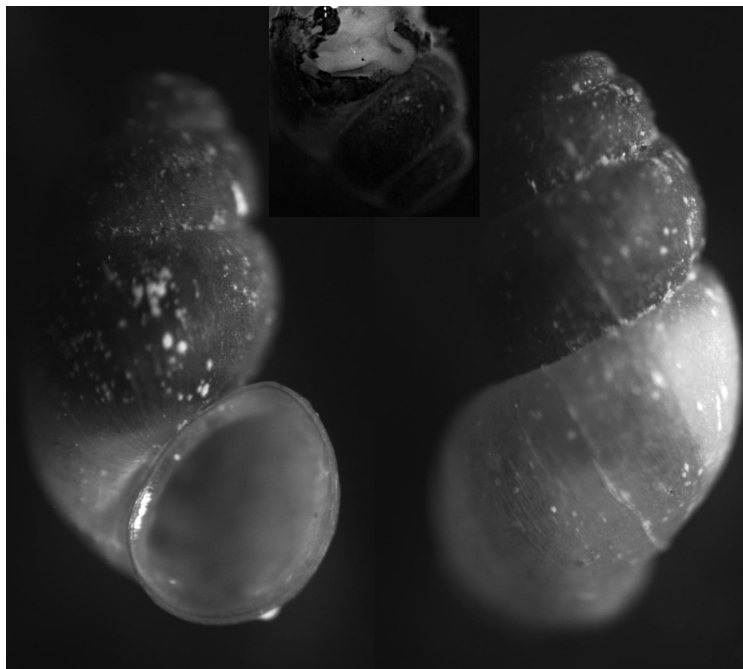


Fig. 1. Front and back side view of the shell of the holotype of *Bythinella aneliae* sp. n. and penis with tubular gland in situ (up in the middle).

References

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