

A new stygobiotic snail species from North Bulgaria

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Abstract: A new species of *Bythiospeum* Bourguignat 1882 from North Bulgaria, Katselovo village, “Golyamo Selishte” spring is described. This is the smallest species from this genus complex known from the country so far. Its shell height is 1.4-1.5 mm.

Key words: Gastropoda, new species, subterranean, Bulgaria

Introduction

The snails from the complex genus *Bythiospeum* Bourguignat 1882 are exclusively stygobiont species, most of them described on the base of shell morphology (HAASE, 1995). The shells of these species are elongate-conical, some almost cylindrical, varying in height up to 4.9 mm, the penis is simple without any outgrowths (BERNASCONI, 1990). According to BERNASCONI (1990) *Paladilhiopsis* differs from *Bythiospeum* by spiral lines microsculpture on the shell crossing the growth striae. GEORGIEV & GLÖER (2012) studied the shell surface of all known Bulgarian species (N = 9) from the *Bythiospeum* complex and found that they are lacking. Thus, even *Paladilhiopsis* is a true genus, there is no any evidence so far of its occurrence in the country. The problem is also due to lack of live specimens which can be studied anatomically. In this paper we describe a new species of *Bythiospeum* found only as empty shells in spring deposits at a village area in North Bulgaria.

Material and methods

The shells were collected by sieving the spring deposits by sieves. The measurements were carried out by means of CETI stereo microscope and an eyepiece micrometer. The photographs were taken with a camera system with a digital adapter. The material is stored in the Zoological Museum of Hamburg (ZMH), Germany. Abbreviations used: H - shell height, W - shell width.

Results

Bythiospeum iltchokolevi n. sp.

Material examined: 4 shells, from the type locality, 01.01.2012, Iltcho Kolev leg.

Holotype: H = 1.5 mm, W = 0.6 mm, ZMH 79870 (Fig. 1).

Paratypes: 3 shells ZMH 79871.

Locus typicus: Katselovo village, “Golyamo Selishte” spring, N43 31 47.8 E26 05 28.3, 167 m alt. (Fig. 2).



Fig. 1. Holotype of *Bythiospeum iltchokolevi* n. sp.



Fig. 2. The type locality of *Bythiospeum iltchokolevi* n. sp., Katselovo village, “Golyamo Selishte” spring (photo: Iltcho Kolev)

Etymology: Named after Iltcho Kolev who collected the species.

Description: The shell is very small ($H < 1.5$ mm), elongate-conical to almost cylindrical with 4 slightly rounded whorls that have shining surface with fine growth lines, which are forming irregular rounded axial ribs. The apex is rounded, the umbilicus is closed. The aperture is ovoid to slightly pear-shaped with a simple lip, moved under the spire to the shell axis. The operculum and the soft body are unknown. $H = 1.4-1.5$ mm, $W = 0.6$ mm.

Differentiating features: It is the smallest species from the *Bythiospeum* complex known from Bulgaria ($H < 1.5$ mm). Considering its shell morphology it is most similar to *Bythiospeum dourdeni* Georgiev, 2012 described by GEORGIEV (2012). Except for its size it differs by its aperture shape, and the smaller whorl number (ovoid aperture and 4 to 5 whorls in *B. dourdeni*).

Habitat and ecology: Stygobiotic species.

Distribution: Known only from its type locality.

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Нов стигобионтен вид охлюв от северна България

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(Резюме)

Описан е нов вид от комплексния род стигобионтни охлюви *Bythiospeum* – *B. iltchokolevi* n. sp. Новият вид е събран като празни черупки от Илчо Колев в наноси от коритото на извора „Голямо Селище” до с. Кацелово, северна България, N43 31 47.8 E26 05 28.3, 167 м н.в. Това е най-малкият по размери вид от този род известен досега от страната, с височина на черупката под 1,5 мм.