

## First record of endemic earthworm *Cernosvitovia rebeli* (Rosa, 1897) (Clitellata, Annelida) from western parts of Stara planina Mountains

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**Abstract.** The current study deals with earthworm biodiversity of Western Stara planina Mountains. Endemic earthworm species *Cernosvitovia rebeli* (Rosa, 1897) proved to be new record for the lumbricid fauna of the Western Stara planina Mountains. This is the western occurrence of this rare species on the territory of Bulgaria. The paper proved information about ecology, habitats and distribution of *Cernosvitovia rebeli*.

**Key words:** Lumbricidae, earthworms, Bulgaria.

### Introduction

Western Stara planina Mountains is situated in the eastern parts of Balkan Peninsula. The mountains are bordered by Targovishki Timok River and Visochicha River by the west and Zlatishki pass to the east. Western Stara planina Mountains is 190 km long and about 15 to 50 km wide, with highest peak Midžor at 2.169 meters a.s.l. The mountains' land area covers 4.196 km<sup>2</sup>. Western Stara planina Mountains are divided to 20 smaller mountains.

Exploration of earthworm fauna from Western Stara planina Mountains was launched by Černosvitov (1937). His work was continued by Plisko (1963), Mršić (1991), Stojanović (1996) and Szederjesi (2013). Recently, Stojanović *et al.* (2013) summarized the earthworm knowledge of Stara planina Mountains.

### Material and Methods

The field investigations were carried out during the autumn of 2016. Earthworms were collected by the diluted formaldehyde method (Raw, 1959) complemented with digging and hand-sorting. All the specimens were killed in 96% ethanol, fixed in 4% formalin solution and in 96% ethanol, and then transferred into 75% ethanol. The material is deposited in the Institute of Soil Science, Agrotechnologies and Plant Protection “N. Poushkarov”, Sofia, Bulgaria in private earthworm collection of Hristo Valchovski (PCHV). Identification of species was done in accordance to Mršić (1991).

## Results and Discussion

### Family Lumbricidae Rafinesque-Schmaltz, 1815

#### Genus *Cernosvitovia* Omodeo 1956

#### *Cernosvitovia rebeli* (Rosa, 1897)

*Allolobophora rebeli* Rosa, 1897: 2.

*Octolasion rebeli*: Černosvitov 1934: 77.; 1937: 89; Mihailova 1966: 194.

*Cernosvitovia rebeli*: Valchovski 2012: 91; Szederjesi 2013: 78.

Distribution: Balkan endemic species (Mršić 1991).

Habitat: forests, pastures, foothills (Mihailova 1966).

Material examined: PCHV/62 two ex., Svoge County, Lukovo village, beech forest, 925 m a.s.l., 42° 52' 24N 23° 05' 06E, 01.09. 2016, leg. H. Valchovski.

Current record is first from the western parts of Stara planina Mts. Till now *Cernosvitovia rebeli* was registered from central parts of Stara planina Mts. (Rosa 1897; Černosvitov 1934). Also this endemic species was found on the territory of Bulgaria from Strandja Mts. (Černosvitov 1937, Szederjesi 2013) and eastern parts of Rhodope Mts. (Mihailova 1966; Szederjesi 2013). Recently *Cernosvitovia rebeli* was found from Sredna Gora Mts. (Valchovski & Velizarova 2016). On the Balkan Peninsula *Cernosvitovia rebeli* was registered with single locality from Greece (Michalis 1982), Serbia (Stojanović *et al.* 2008), Albania (Szederjesi & Csuzdi 2012a) and Romania (Csuzdi & Pop 2007).

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