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Contribution to the knowledge for distribution of *Criodrilus lacuum* (Annelida: Oligochaeta: Criodrilidae) from Bulgaria

HRISTO VALCHOVSKI
Department of Soil Microbiology, Institute of Soil Science, Agrotechnologies and Plant Protection "N.Poushkarov", 7 Shosse Bankya Str., 1080 Sofia, Bulgaria
h_valchovski@abv.bg

Abstract. All known records of Criodrilidae earthworms in the country were presented. The current knowledge for distribution of family Criodrilidae in Bulgaria was summarized. In this paper we report new locality of *Criodrilus lacuum* Hoffmeister, 1845. Surprisingly this species was found in one of the parks in Sofia Town. New data confirm its presence in Sofia Plane. Also information about ecology, habitat type locality and short description of *Criodrilus lacuum* was provided.

Keywords: Criodrilidae, new record, distribution, Sofia, Bulgaria.

Introduction

First data of this species for Bulgaria is in 1963 by Russev. In next years Mihailova (1968) cited new localities of *Criodrilus lacuum* in Northern Bulgaria. Uzunov (1980, 1981, 1998, 2006 and 2010) have the major impact of investigation for aquatic oligochaetes. He explores many localities and found most of the records for *Criodrilus lacuum* in Bulgaria.

Materials and methods

The study was carried out in October, 2012 from Dragalevska River in Loven Park, Sofia. The specimens were collected in areas of 0.5 m^2 through formaldehyde method (Raw 1959), combined by digging and hand sorting. The oligochaetes were washed out from the mud and were separated from roots of aquatic weed. The earthworms were killed in 75% ethanol, preserved in 4% formalin and after several days transferred to 75% ethanol. Indentification was carried out using a binocular magnifier. The studied materials were deposited in private collection of Hristo Valchovski (**pcHV**).

Results

Family Criodrilidae Vejdovsky, 1884
***Criodrilus lacuum* Hoffmeister, 1845**
Type locality: Tegel-See, Berlin, Germany.

Material examined: 4 ex. Labeled 'pcHV/14', Bulgaria/ Sofia / Loven (=Game) Park/ in mud sediments on riverbank of Dragalevska River / 42°39.47'N, 23°19.48'E / 19.10.2012, alt. 597m / H. Valchovski leg.' (Fig.1).

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Ecology and habitat. Aquatic oligochaete. Found in mud and roots of aquatic plants in brackish and fresh running waters. In cold weather the species dig deep in the river sediments.

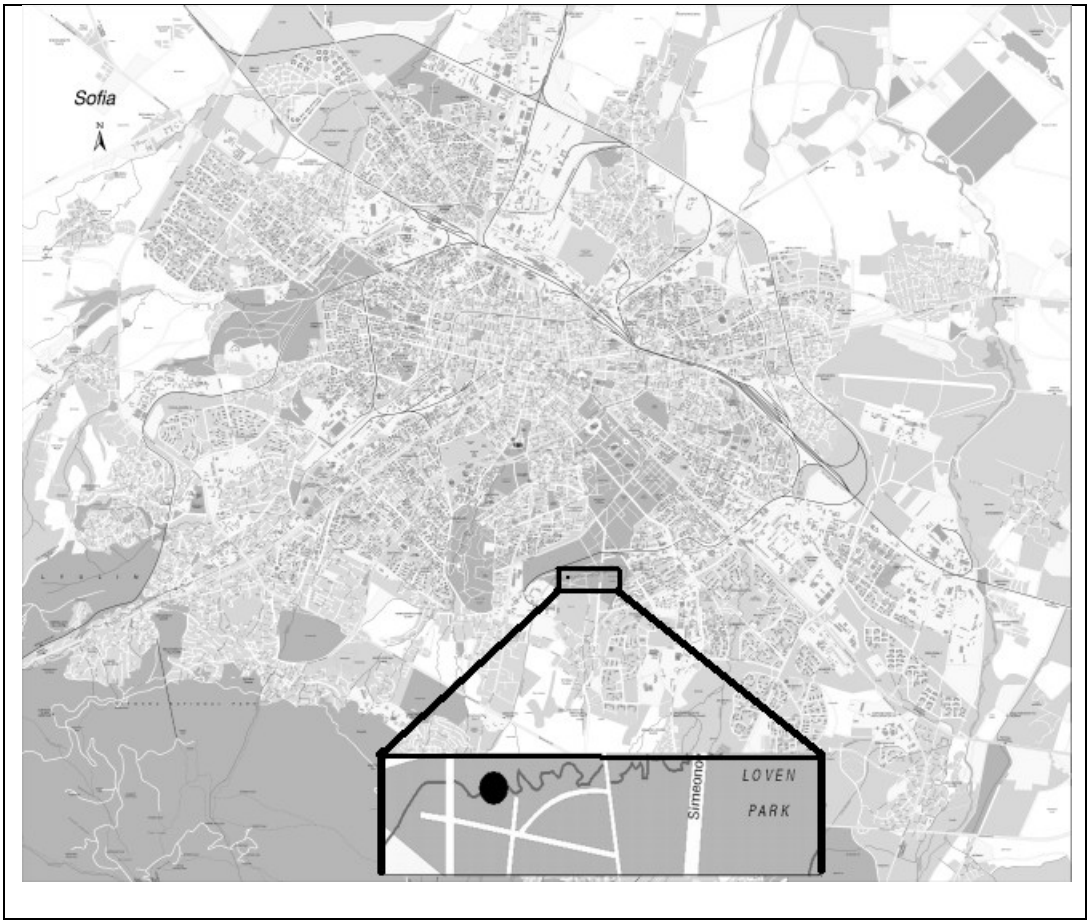

Figure 1. Distribution map of *Criodrilus lacuum* in Sofia (black circle indicate new locality of species in Dragalevska River crossing Loven Park.

Discussion. New localities of *Criodrilus lacuum* is in Dragalevska River. This small river crosses the Loven Park. In this region Dragalevska River is highly polluted with industrial wastes. Besides that, population of *Criodrilus lacuum* is concentrate in curves of the river, where are accumulate organic mud sediments. Obviously, this species could survive in highly polluted area.

Distribution in Bulgaria. Danube River at village of Dolni Vadim; Ogosta River at village of Martinovo and at village of Kobilyak; Skut River at village of Galiche; Iskar River downstream at Svoge and at Oriachovitsa; Blato River at Kostinbrod; Vit River at Komarevo; Beli Vit River upstream near village of Ribaritsa; Ossam River upstream and downstream at Lovetch, at village of Letnitca, and downstream at Levski; Yantra River downstream at Gabrovo, at village of Dolna Oriachovitsa, at Draganovo, at village of Radanovo and at village of Polsko Kossovo; Beli Lom River upstream at Razgrad; Provadiiska River at village of Razdelna; Glavnitsa River at village of Bozveliysko; Madara River downstream at village of Madara; Goliama Kamchiya moth in Black Sea, at village of Grozdyovo, at mouth of Ticha River and at village of Yankovo; Skorpilovska River upstream at village of Shkorpilovtsi; Tundzha River at village of Zimnitsa, upstream at Zrebchevo Dam, at village of Konevets and at village of Radovets; Kalnitca River at village of Boyadzhik; Maritsa River downstream at

Pazardzhik and upstream at Plovdiv; Mirkovska River upstream of mouth Topolnitsa River; Arda River at village of Paspal and downstream of Ivaylovgrad Dam (Uzunov 2010).

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