

Distribution of *Octolasion cyaneum* (Savigny, 1826) in Estonia 1993-2008

(Oligochaeta, Lumbricidae)

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Abstract. The aim of the paper is to give an overview about distribution of the endogeic species *Octolasion cyaneum* (Savigny, 1826) in Estonia. First time, this endogeic species was found in 1980s in the Tallinn Botanical Garden (Northern-Estonia). The new results show that *O. cyaneum* is slowly expanding into Estonian territory and becoming more abundant.

Key words. *Octolasion cyaneum*, distribution, Estonia.

Introduction

Earthworms occur all over the world: more than 3500 earthworm species have been described (HENDRIX et al. 2004). About 19 species of lumbricid earthworms are common in Europe (EDWARDS & BOHLEN 1996) and 13 of them are recorded from Estonia. Species of the family Lumbricidae, particularly from genera *Lumbricus*, *Aporrectodea*, *Allolobophora*, *Eisenia*, *Eiseniella*, *Dendrobaena*, *Dendrodrilus*, *Bimastos*, and *Octolasion* have been spread by man in Northern and Western Europe and they become dominant in agricultural lands (EDWARDS & BOHLEN 1996). The first inventory of earthworm species in Estonia carried out by Latvian biologists in 1952-1954 identified 12 species of earthworms (EGLITIS & KAKTINA 1959): anecic species *Lumbricus terrestris* Linnaeus, 1758 and *Aporrectodea longa* (Ude, 1885); endogeic species *Ap. caliginosa* (Savigny, 1826), *Ap. rosea* (Savigny, 1826), *Allolobophora chlorotica* (Savigny, 1826) and *Octolasion lacteum* (Örley, 1881); epigeic species *Eiseniella tetraedra* (Savigny, 1826), *Dendrobaena octaedra* (Savigny, 1826), *Dendrodrilus rubidus* (Savigny, 1826), *L. rubellus* (Hoffmeister, 1843), *L. castaneus* (Savigny, 1826) and *Eisenia foetida* (Savigny, 1826). The dominant species in Estonian soils is *Ap. caliginosa* constituting 70-95% of earthworm communities in arable soils and 40-70% in soils of grasslands and forests (IVASK et al. 2007). During the last 53 years, one new species *O. cyaneum* (Savigny, 1826) was recorded in Estonia increasing the number of species to 13 (TIMM 1999).

Climatically, Estonia belongs to the mixed-forest subregion of the Atlantic-continental region of the temperate zone, which is characterized by warm summers and moderately mild winters (IVASK et al. 2007). The average air temperature in Estonia is highest from July to August (Fig. 2), and total precipitation is higher in August (Fig. 3).

The soil cover of Estonia is characterized by high diversity due to (1) the variable composition of parent material and diverse water conditions, (2) a large share of peatland and peaty