

A NEW RECORD OF THE *HETEROCORDYLUS* (*HETEROCORDYLUS*) *LEPTOCERUS* (KIRSCHBAUM, 1856) (HETEROPTERA: MIRIDAE) FROM LITHUANIA

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Introduction

There are 19 species of genus *Heterocordylus* Fieber, 1858 (Wachmann *et al.*, 2004) with two subgenera: *Heterocordylus* Fieber, 1858 and *Bothrocranum* Reuter, 1876. Of this genus, 13 species are distributed in Europe (Aukema, 2022). These plant bugs are black, medium-sized and covered in flattened scale-like pale setae (Bantock & Botting, 2013). Males are macropterous, elongated and females are oval (Wachmann *et al.*, 2004).

Species of genus *Heterocordylus* have never been recorded in Lithuania (Stonis *et al.*, 2013), but *Heterocordylus* (*Heterocordylus*) *leptocerus* (Kirschbaum, 1856) (Fig. 1) was found in this country for the first time in 2021. Also, the nearest findings of this species outside of Lithuania are in Belarus and Poland (Aukema, 2022). Insects of *H.* (*H.*) *leptocerus* are 4.1–4.9 mm in length, zoophytophagous, and are found on *Sarothamnus* sp. and *Genista* sp. plants in open or partially shaded environment (Wachmann *et al.*, 2004). Adults are found from the end of May until August (Wachmann *et al.*, 2004). These plant bugs overwinter in egg stage and there is one generation per year (Wachmann *et al.*, 2004).

The aim of this paper is to present the first record of *Heterocordylus* (*Heterocordylus*) *leptocerus* (Kirschbaum, 1856) from Lithuania.



Figure 1. Adult insect of *Heterocordylus* (*Heterocordylus*) *leptocerus* (Kirschbaum, 1856).

Material and Methods

The study was carried out in Pagelužys village, Trakai district (Southern Lithuania; coordinates N54.440286, E24.793396) (Fig. 2) on the 23 of June, 2021. Adult insects were caught by an entomological net and identified by R. Markevičiūtė (R.M.). The insects were studied with an Olympus SZX10 dissecting microscope. Photographs were taken with a digital camera Canon EOS 600D mounted on the same dissecting microscope. The collected material is stored in the collection of Vilnius University Museum of Zoology. The collected specimens were compared with type and non-type specimens from the Natural History Museum, London.

A map (Fig. 2) of the collecting site of *H. (H.) leptocerus* was generated in R version 4.0.4 (R Core Team, 2021), using the ggplot2 (Wickham, 2016), the ggspatial (Dunnington, 2021), the rgdal (Bivand *et al.*, 2021), and the sf (Pebesma, 2018) packages.

List of species

Heterocordylus (Heterocordylus) leptocerus (Kirschbaum, 1856).

Pagelužys village, Trakai district (N54.440286, E24.793396), 23 06 2021, 5 spec. on *Cytisus scoparius*.

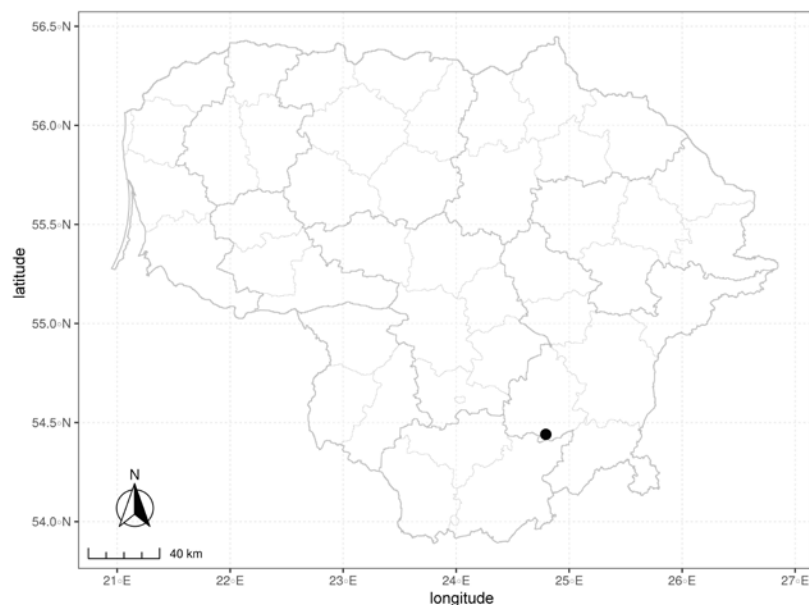


Figure 2. Collecting site of *Heterocordylus (Heterocordylus) leptocerus* (Kirschbaum, 1856) in Lithuania.

Discussion

The species *H. (H.) leptocerus* is extremely similar to *H. (H.) tibialis* (Fig. 3 D). Both of these species are distinguished by black antennae and the width of the second antennal segment, which is only slightly thickened towards the apex. The main difference between these two species is the colour of the tibiae, which in *H. (H.) leptocerus* is black and in *H. (H.) tibialis* it is brown.

Also similar to *H. (H.) leptocerus* is *H. (B.) erythrophthalmus* (Fig. 3 B). The first,

second antennal segments and legs of *H. (B.) erythroththalmus* are brown while the legs and antennal segments of *H. (H.) leptocerus* are black.

The second antennal segment is particularly important in identification of European species (Fig. 3 A, C, E, F). This structure is broad and varies in its shape between different species.

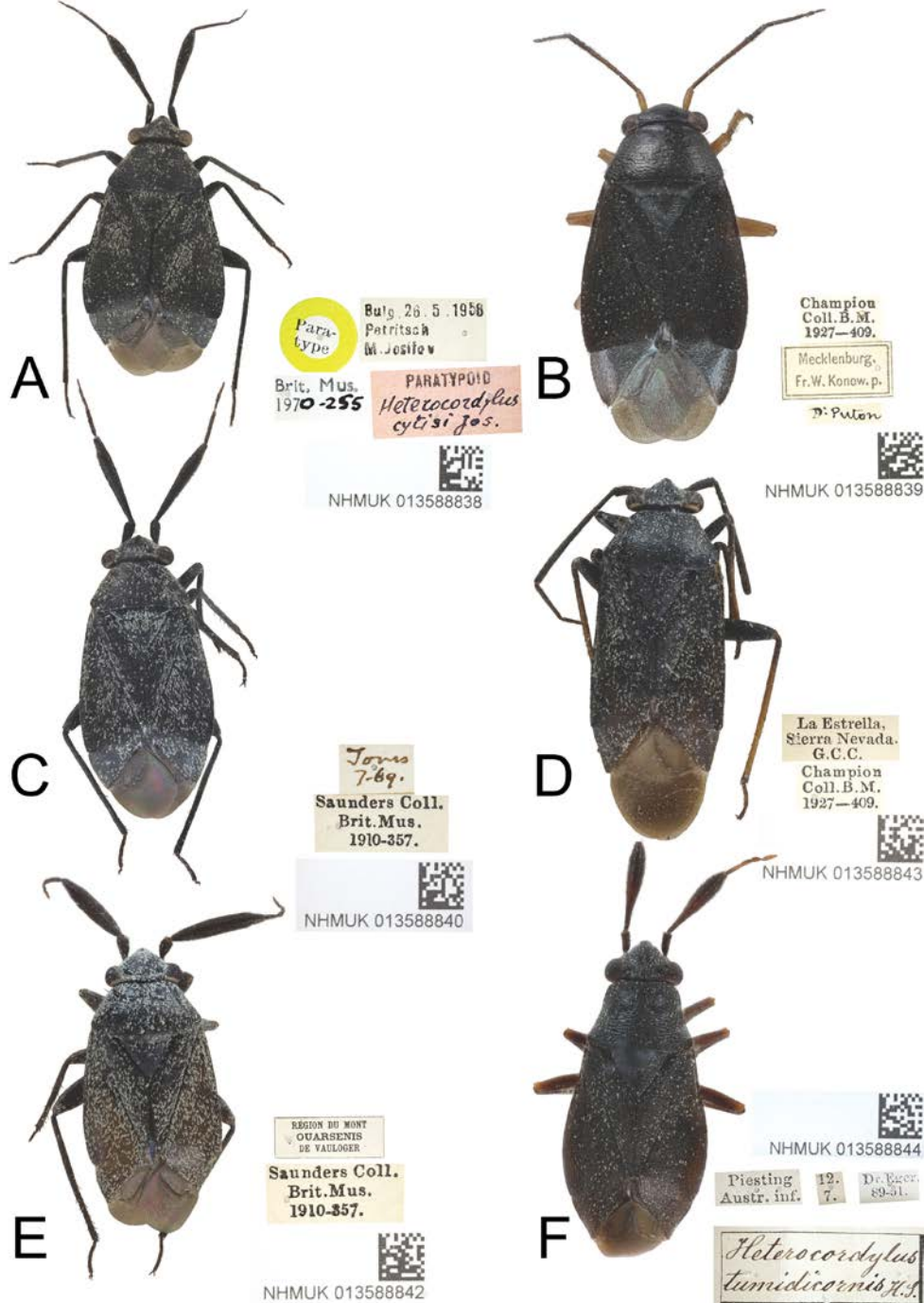


Figure 3. Specimens of the genus *Heterocordylus* Fieber, 1858 species from the collection of the Natural History Museum, London: A – *H. (H.) cytisi* Josifov, 1958 (NHMUK 013588838); B – *H. (B.) erythroththalmus* (Hahn, 1833) (NHMUK 013588839); C – *H. (H.) genistae* (Scopoli, 1763) (NHMUK 013588840); D – *H. (H.) tibialis* (Hahn, 1833) (NHMUK 013588843); E – *H. (H.) parvulus* Reuter, 1881 (NHMUK 013588842); F – *H. (H.) tumidicornis* (Herrich-Schäffer, 1835) (NHMUK 013588844).

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Pirmą kartą Lietuvoje aptikta žolblakių (Miridae) rūšis *Heterocordylus (Heterocordylus) leptocerus* (Kirschbaum, 1856)

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Santrauka

Pateikiami duomenys apie naują Lietuvoje žolblakių (Miridae) šeimai priklausančią rūšį *Heterocordylus (Heterocordylus) leptocerus* (Kirschbaum, 1856), aptiktą 2021 metais Trakų rajone, Pagelūžio kaime. Ši plačiai Europoje paplitusi rūšis randama ant šluotinių raipstų arba prožirnių. Publikacijoje nurodoma sugavimo data, individų skaičius bei pateikiami pagrindiniai rūšies skiriamieji požymiai.

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