# *HETEROGASTER ARTEMISIAE* SCHILLING, 1829 (HETEROPTERA: HETEROGASTRIDAE) A NEW SPECIES FOR LITHUANIA

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## Introduction

The genus *Heterogaster* Schilling, 1829 has 13 species and belongs to the family Heterogastridae. This family consists of 112 species, 8 of which are known to be extinct (Dellapé & Henry, 2020). Five species of said genus are known in Europe (Aukema, 2021) and one of them – *Heterogaster urticae* (Fabricius, 1775) is known in Lithuania (Stonis *et al.*, 2013). *Heterogaster artemisiae* Schilling, 1829 was found in Lithuania for the first time in 2021. Currently, two species of this genus are known in this country.

The aim of this paper is to present the first record of *Heterogaster artemisiae* in Lithuania.

## Material and Methods

The study was carried out in Raišiai village, Vilnius district (South-eastern Lithuania; coordinates 54.692170, 25.169305), 18th of July, 2021. Adult insect was caught by an entomological net and was identified by R. Markevičiūtė and T. Rintala. The specimen was 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 the Nature Research Centre.

A map (Fig. 1) 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.

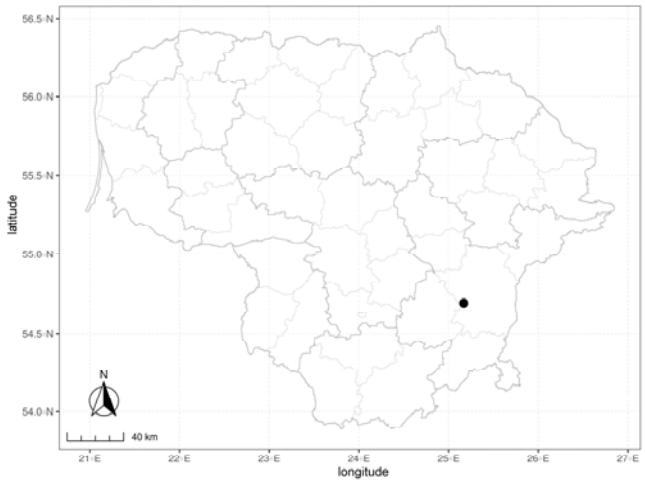


Figure 1. Collecting site of *Heterogaster artemisiae* Schilling, 1829 in Lithuania**.**

## List of species

***Heterogaster artemisiae* Schilling, 1829**

Raišiai village, Vilnius district (54.692170, 25.169305), 18 07 2021, 1 ♀ (R. Markevičiūtė).

## Discussion

The species *H. artemisiae* (Fig. 2 b) is distributed in West Palearctic (Esenbekova *et al*., 2017) and is recognised by the tibiae, which have a dark ring at the base and the antennae, which are largely pale, particularly the second segment (Bantock, Botting, 2013). Final instar nymphs have a distinctive white band across the posterior margin of the pronotum (Bantock, Botting, 2013). This species is found in steppes, on forbs in most dry habitats like rocky mountain slopes, talus or clay soils, ranging up to alpine meadows in warm habitats such as chalk downland, quarries and sand dunes (Esenbekova *et al*., 2017). Insects of this species are generalist herbivores and are found on plants like *Artemisia* sp. or *Thymus* sp (Esenbekova *et al*., 2017). Also, these insects overwinter in the adult stage and one generation of *H. artemisiae* per year is known (Esenbekova *et al*., 2017).

*H. urticae* (Fig. 2 a) is a species similar to *H. artemisiae* and is recognized by the alternate dark and light markings on the legs and connexivum (Bantock, Botting, 2013). Tibiae have three dark bands, the head and pronotum are covered by long erect setae (Bantock, Botting, 2013). *H. urticae* is found in damp areas with rich calcareous soils, in floodplains and moist open forests (Esenbekova *et al*., 2017). These insects feed on *Urtica dioica* or *U. urens* (Rintala, Rinne, 2010). As *H. artemisiae*, *H. urticae* overwinter in the adult stage and is known to have one generation per year (Esenbekova *et al*., 2017).

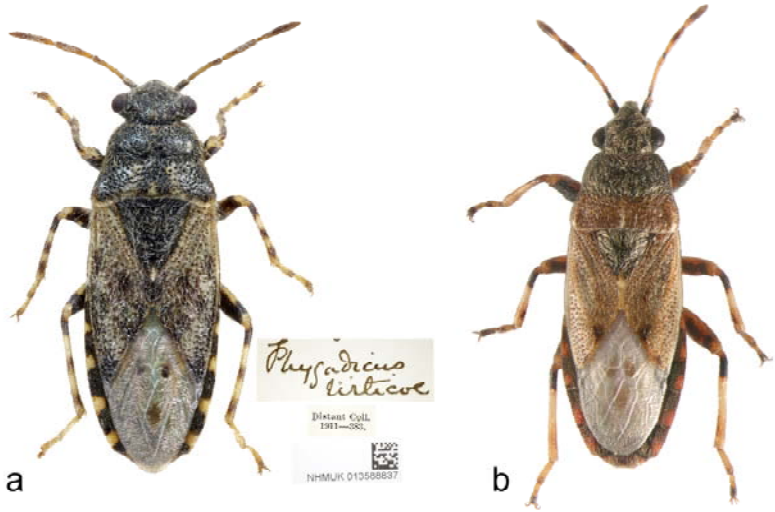


Figure 2. a – *Heterogaster urticae* (Fabricius, 1775) (NHMUK 013588837) from the collection of the Natural History Museum, London; b – *Heterogaster artemisiae* Schilling, 1829 from the collection of the Nature Research Centre, Vilnius.

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## Pirmą kartą Lietuvoje aptikta šeimos Heterogastridae rūšis *Heterogaster artemisiae* Schilling, 1829

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### Santrauka

Publikacijoje pateikiami duomenys apie naują Lietuvoje Heterogastridae šeimai priklausančią rūšį *Heterogaster artemisiae* Schilling, 1829, aptiktą 2021 metais Vilniaus rajone, Raišių kaime. Taip pat nurodyta sugavimo data, individų skaičius bei pateikiami pagrindiniai rūšies skiriamieji požymiai.

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