A NEW RECORD OF THE *CYMUS MELANOCEPHALUS* FIEBER, 1861 (HETEROPTERA: CYMIDAE) FROM LITHUANIA

RADVILĖ MARKEVIČIŪTĖ

Nature Research Centre, Akademijos str. 2, LT-08412 Vilnius, Lithuania.
E-mail: radvile.mark@gmail.com

Introduction

The genus *Cymus* Hahn, 1832 belongs to the family Cymidae and has 41 species (Dellapé & Henry, 2020). Six species of *Cymus* Hahn, 1832 are known in Europe (Aukema, 2020) and three of them: *Cymus aurescens* Distant, 1883, *Cymus claviculus* (Fallén, 1807) and *Cymus glandicolor* Hahn, 1831 – have been recorded in Lithuania (Stonis *et. al*., 2013). *Cymus melanocephalus* Fieber, 1861 (Fig. 1) was found in Lithuania for the first time in 2020. Currently, four species of this genus are known in Lithuania.

The aim of this paper is to present the first record of *Cymus melanocephalus* Fieber, 1861.

Material and Methods

The study was carried out in Pagelužys village, Trakai district (Southern Lithuania; coordinates 54.441066, 24.795016) 26 September 2020. Adult insects were caught using an entomological net and were identified by R. Markevičiūtė. 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 the Nature Research Centre.

A map (Fig. 2) of the collecting site of *C. melanocephalus* 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. Adult insect of *Cymus melanocephalus* Fieber, 1861.

List of species

***Cymus melanocephalus* Fieber, 1861** (Fig. 1)

Pagelužys village, Trakai district (54.441066, 24.795016), 26 09 2020, 2 ♀, 2 ♂ (R. Markevičiūtė).

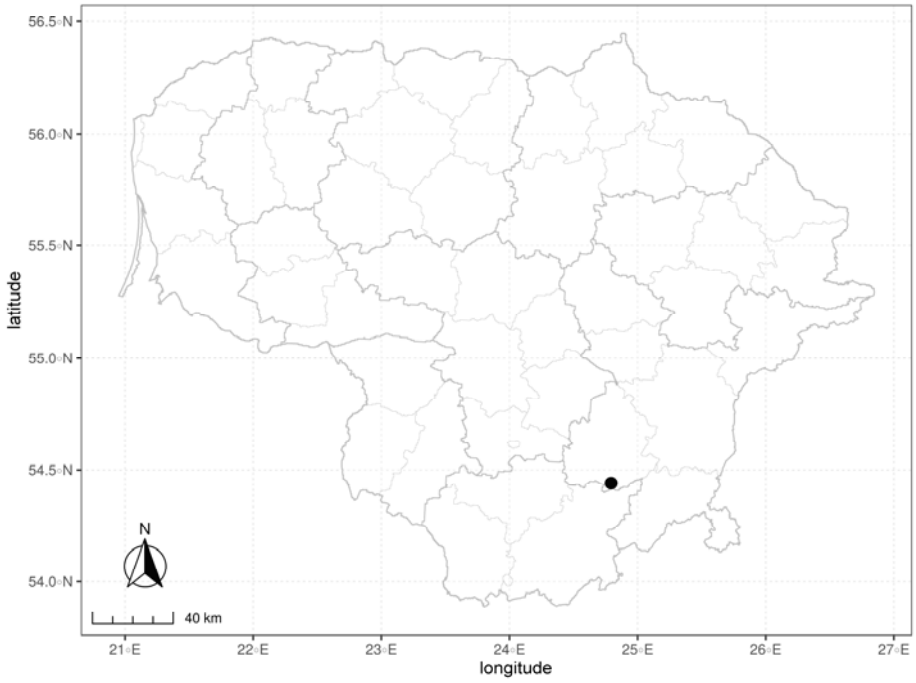

Figure 2. Collecting site of *Cymus melanocephalus* Fieber, 1861 in Lithuania.

Discussion

The species *C. melanocephalus* is identified by a dark brown head (Rintala & Rinne, 2010), a missing pale central keel on scutellum and puncturing all over its wings (Bantock & Botting, 2013). This species can be found in damp areas (Bantock & Botting, 2013) on hostplants such as *Juncus effusus*, *Juncus conglomeratus* and *Juncus gerardii* (Rintala & Rinne, 2010). These insects are monovoltine and overwinter in the imago stage (Akimzhanov *et al*., 2019).

The four species of the genus *Cymus* are distinctively shaped, have a highly punctured body and forewings (Bantock & Botting, 2013). These species are similar, but *C. aurescens* and *C. glandicolor* have a pale keel on the scutellum, as well as dark markings on the cubital wing vein. Another similar species – *C. claviculus* is identified by a narrow impunctate band near the corio-claval suture and as *C. aurescens* and *C. glandicolor*, it has a brown head which is lighter than of *C. melanocephalus*.

Acknowledgements

The author is grateful to reviewers who provided insightful remarks that helped to improve the quality of this paper.

References

Akimzhanov D. S., Esenbekova P. A., Kabak I. I., & Yelikbayev B. K. 2019. Biological and ecological aspects of hemipterans (Heteroptera) Pentatomomortha 1 on the area SNNP" Kolsay Koldery". *EurAsian Journal of BioSciences* 13 (2): 1825–1832.

Aukema B. 2020. Fauna Europaea: Lygaeidae. In Aukema, Berend (eds). Fauna Europaea: Hemiptera Heteroptera. Fauna Europaea version 2020.09 http://www.faunaeur.org (Accessed October 2020).

Bantock T., Botting J. 2013. British Bugs. An online identification guide to UK Hemiptera. Available at: http://www.britishbugs.org.uk/index.html (Accessed October 2020).

Bivand R., Keitt T., Rowlingson B. 2021. *Rgdal: Bindings for the 'Geospatial' Data Abstraction Library*. Available from: https://CRAN.R-project.org/package=rgdal (accessed 12 April 2021)

Dunnington D. 2021. *Ggspatial: Spatial Data Framework for Ggplot2*. Available from: https://CRAN.R-project.org/ package=ggspatial (accessed 12 April 2021).

Dellapé P. M., Henry T. J. 2020. Lygaeoidea Species File. Version 5.0/5.0. http://lygaeoidea.speciesfile.org/ (Accessed October 2020).

R Core Team 2021. *R: A Language and environment for Statistical Computing. Vienna, Austria: R Foundation for Statistical Computing.* Available from: https://www.R-project.org/ (accessed 12 April 2021).

Rintala T., Rinne V. 2010. *Suomen luteet*. Helsinki, Syke: 255–265.

Pebesma E. 2018. "Simple Features for R: Standardized Support for Spatial Vector Data." *The R Journal* 10 (1), 439–446. https://doi.org/10.32614/RJ-2018-009.

Stonis J. R., Remeikis A., Baužys D. 2013. *Pažinkime pasaulio vabzdžius. Blakės. Įvairovė ir pavadinimai*. Vilnius, Edukologija: 57.

Wickham H. 2016. *Ggplot2: elegant Graphics for Data Analysis*. Springer-Verlag, New York. Available from: https://ggplot2.tidyverse.org (accessed 12 April 2021).

Pirmą kartą Lietuvoje aptikta Cymidae šeimos rūšis *Cymus melanocephalus* Fieber, 1861

R. MARKEVIČIŪTĖ

Santrauka

Publikacijoje pateikiami duomenys apie naują Lietuvos faunai Cymidae šeimai priklausančią rūšį tamsiagalvę dirvablakę (*Cymus melanocephalus* Fieber, 1861), aptiktą 2020 metais Trakų rajone, Pagelužio kaime. Taip pat nurodyta sugavimo data, individų skaičius, lytis bei pateikiami pagrindiniai rūšies skiriamieji požymiai.

Received: 10 September, 2021