

The first exact locality records from the Turkish Thrace for *Cymatia rogenhoferi* (Fieber, 1864) and *Micronecta pusilla* (Horváth, 1895) (Hemiptera: Heteroptera)

Meral Fent^{1*} Ahmet Dursun²

¹Trakya University, Faculty of Science, Department of Biology, Edirne Türkiye.
E-mail: m_fent@hotmail.com; ORCID iD: 0000-0001-5787-6714

²Amasya University, Faculty of Arts and Science, Department of Biology, Türkiye.
E-mail: ahmetdursun55@hotmail.com; ORCID ID: 0000-0002-5114-7470.

*Corresponding author email: m_fent@hotmail.com

ABSTRACT: In this study, the first exact locality information of two aquatic Heteroptera species, *Cymatia rogenhoferi* (Corixidae) and *Micronecta pusilla* (Micronectidae), which were previously reported from the Thrace Region but whose locality was unknown, was presented.

KEYWORDS: *Cymatia rogenhoferi*, *Micronecta pusilla*, first exact locality, Turkish Thrace.

INTRODUCTION

A total of 31 species/subspecies (5 of them need confirmation) belonging to 7 genera of the family Corixidae Leach, 1815 have been recorded in Türkiye (Fent et al., 2011). *Cymatia* Flor, 1860, a small genus of Corixidae, is represented by 4 species in the Palearctic Region and so far *Cymatia coleoprata* (Fabricius, 1777) and *Cymatia rogenhoferi* (Fieber, 1864) have been recorded from Türkiye

(Aukema, 2018; Fent et al., 2011). However, records of *C. coleoprata* from Türkiye (Asian part) need confirmation (see Fent et al., 2011).

While *C. rogenhoferi* is known from three localities in Anatolia, its record in Thrace Region is based on Jansson's (1986) markings on the map without specifying the locality. *Micronecta* Kirkaldy, 1897, the only genus of the family Micronectidae Jaczewski, 1924, is represented by 36

To cite this article: Fent, M., Dursun, A., 2024, The first exact locality records from the Turkish Thrace for *Cymatia rogenhoferi* (Fieber, 1864) and *Micronecta pusilla* (Horváth, 1895) (Hemiptera: Heteroptera), *J.Het.Turk.*, 6(2):176-178

DOI:10.5281/zenodo.13926907

To link to this article: <https://www.j-ht.org/wp-content/uploads/2024/11/V62-A9.pdf>

Received: Oct 7, 2024; **Revised:** Oct 12, 2024; **Accepted:** Oct 13, 2024; **Published online:** Nov 30, 2024



species and 8 subspecies belonging to 8 subgenera in the Palearctic Region (Aukema, 2018). In Türkiye, three species (*M. pusilla*, *M. scholtzi* and *M. griseola*) and three subspecies (*M. anatolica anatolica*, *M. poweri poweri* and *M. wui alkani*) belonging to two subgenera (*Dichaetonecta* and *Micronecta*) are known.

M. poweri poweri was excluded from the Thrace Region Micronectidae list by Fent et al. (2011), and its records from Anatolia need to be confirmed (see Fent et al., 2011). While *M. griseola*, *M. pusilla* and *M. scholtzi* are known from both the Thrace Region and Anatolia, *M. anatolica anatolica* and *M. wui alkani* were recorded only from Anatolia (Fent et al., 2011, Topkara, 2013; Topkara & Ustaoglu, 2014). *M. pusilla* was reported from 6 localities in Anatolia, but was reported from the Thrace Region without locality information (Jansson, 1986, Fent et al., 2011).

MATERIALS AND METHODS

During the study conducted to determine the aquatic and semi-aquatic Heteroptera fauna of the Thrace Region between 2018-2020, these two species were identified from 4 different aquatic habitats (lake, pond, stream and irrigation pond) in 4 localities belonging to 3 provinces (Edirne, Kırklareli, Tekirdağ). The aquatic forms of *Nepomorpha* infraorder were obtained with the help of plankton scoop from the water and from sand or mud at the water's edge. Jansson (1986) was used in the identification of the species.

RESULTS

NEPOMORPHA Popov, 1968

CORIXOIDEA Leach, 1815

CORIXIDAE Leach, 1815

CYMATIAINAE Walton, 1940

***Cymatia* Flor, 1860**

***Cymatia rogenhoferi* (Fieber, 1864)**

Material examined: Edirne: Uzunköprü - Kurtbey (stream), 41°8'006N 26°35'090E,

53 m, 11.06.2020, 1♀; **Kırklareli:** Kofçaz (irrigation pond), 12.08.2020, 41°56'593N 27°7'685E, 439 m 11♀♀, 12♂♂.

Distribution in Türkiye: European Türkiye: Without locality information (Jansson, 1986, 1995), Edirne, Kırklareli (this study). Asian Türkiye: Ankara, Konya, Van (Hoberlandt, 1952, Jansson, 1986; Kıyak, 2000; Önder et al., 2006; Koçak & Kemal, 2010; Topkara, 2013).

Distribution in Palearctic: Europe:

Austria, Belgium, Bulgaria, Czech Republic, European Kazakhstan, European Türkiye, France, Germany, Great Britain, Hungary, Italy, Moldavia, Netherlands, Poland, Romania, Russia (Central and South European Territories), Serbia, Slovakia, Spain, Switzerland, Ukraine. **North Africa:** Algeria, Morocco. **Asia:** Armenia, Asian Kazakhstan, Asian Türkiye, Azerbaijan, China (Northern and Northwestern Territories), Georgia, Iran, Iraq, Kirgizia, Mongolia, Russia (West Siberia), Saudi Arabia, Tadjikistan, Turkmenistan, Uzbekistan. Extralimital: India (Aukema, 2018).

MICRONECTIDAE Jaczewski, 1924

MICRONECTINAE Jaczewski, 1924

***Micronecta* Kirkaldy, 1897**

***Micronecta pusilla* (Horváth, 1895)**

Edirne: Havsa - Ağayeri (lake), 19.05.2018, 41°28'04N 26°57'45E, 76 m, 4♀♀, 3♂♂; **Tekirdağ:** Muratlı - Hanoğlu (pond), 23.05.2018, 41°12'03N 27°22'15E, 111 m, 1♀, 1♂.

Distribution in Türkiye: European Türkiye: Without locality information (Jansson, 1986, 1995), Edirne, Tekirdağ (this study). Asian Türkiye: Adana, Ankara, Kayseri, Konya, Sivas, Tokat (Jansson, 1986; Özemi & Önder, 1988; Kıyak, 2000; Fent et al., 2011)

Distribution in Palearctic: Europe:

Bulgaria, Croatia, European Türkiye, Hungary, Moldavia, Romania, Russia (South European Territory), Serbia, Ukraine. **Asia:** Asian Kazakhstan, Asian Türkiye, Azerbaijan, Georgia, Iraq, Kirgizia, Syria, Tadjikistan, Turkmenistan, Uzbekistan (Aukema, 2018).

DISCUSSION

In this study conducted between 2018–2020 to determine the aquatic and semi-aquatic Heteroptera fauna in the Thrace Region, the first exact locality records were determined for *Cymatia rogenhoferi* and *Micronecta pusilla* species, which were given by Jansson (1986, 1995) without specifying a definitive locality information. *C. rogenhoferi* is a rare species that has been detected in a small number of localities in the Anatolian part of Türkiye, although it has a wide distribution in Europe and Asia in its Palearctic distribution. In this study, *C. rogenhoferi* specimens were detected in a small stream in Kurtbey village in Edirne-Uzunköprü district and in an irrigation

pond in Kofçaz district of Kırklareli, 2-3 m inland from the shore near the place where the stream feeding the pond flows into the pond. *M. pusilla* is distributed mostly in the Central Anatolian Region of Anatolia. *M. pusilla* specimens were identified in mud and sand in the coastal area of a lake near Ağayeri village of Havsa district of Edirne and a pond in Hanoğlu village of Muratlı district of Tekirdağ.

ACKNOWLEDGMENTS

This study was supported by Trakya University Scientific Research Projects Unit (TÜBAP Project no: 2018-124), we express our gratitude.

REFERENCES

- Aukema, B., 2018, Catalogue of Palaearctic Heteroptera. Naturalis Biodiversity Center. Available from <https://catpalhet.linnaeus.naturalis.nl/> (Date accessed: 03.10.2024).
- Fent, M., Kment, P., Çamur-Elipek, B., Kirgiz, T., 2011, Annotated catalogue of Enicocephalomorpha, Dipsocoromorpha, Nepomorpha, Gerromorpha, and Leptopodomorpha (Hemiptera: Heteroptera) of Turkey, with new records. *Zootaxa*, 2856: 1–84.
- Hoberlandt, L., 1952, Results of the zoological scientific expedition of the National Museum in Praha to Turkey. 2. Hemiptera-Heteroptera I. The aquatic and semiaquatic Heteroptera of Turkey. *Acta Entomologica Musei Nationalis Pragae*, 26 (352) (1948–1950): 1–74 + pls. I–XVII
- Jansson, A., 1986, The Corixidae (Heteroptera) of Europe and some adjacent regions. *Acta Entomologica Fennica*, 52: 1–93.
- Jansson, A., 1995, *Family Corixidae Leach, 1815—water boatmen*. Pp. 26–56. In: Aukema, B. & Rieger, Ch. (eds) *Catalogue of the Heteroptera of the Palaearctic Region*. Vol. 1. *Enicocephalomorpha, Dipsocoromorpha, Nepomorpha, Gerromorpha and Leptopodomorpha*. The Netherlands Entomological Society, Amsterdam, xxvi + 222 pp.
- Kiyak, S., 2000, *Türkiye sucul ve yarısucul Heteroptera Faunası*. Öğün Matbaacılık, Ankara, 46 pp.
- Koçak, A.Ö., Kemal, M., 2010, List of the species of some pterygot orders recorded in the Province Van (East Turkey) and a description of a new species in the family Cicadidae (Insecta). *Priamus*, 12: 130–149.
- Önder, F., Karsavuran, Y., Tezcan, S. & Fent, M., 2006, *Türkiye Heteroptera (Insecta) kataloğu*. (*Heteroptera (Insecta) catalogue of Turkey*). Ege Üniversitesi Ziraat Fakültesi, İzmir, 164 pp.
- Özesmi, U., Önder, F., 1988, Sultan Sazlığı (Kayseri)'nin sucul Heteroptera ve Coleoptera türleri üzerinde faunistik bir çalışma. (Faunistic studies on the aquatic heteropterous and coleopterous insects of Sultan Sazlığı (Kayseri/Turkey). Pp. 177–186. In: IX. *Ulusal Biyoloji Kongresi, 21–23 Eylül 1988, Vol. 2*. Sivas.
- Topkara, E.T., 2013, Contribution to the knowledge on distribution of water boatmen (Heteroptera: Corixidae) in Turkey. *Ege Journal of Fisheries and Aquatic Sciences*, 30 (1):15-19.
- Topkara, E.T., Ustaoglu, R., 2014, A study on the fauna of Aquatic Coleoptera and aquatic-semiaquatic Heteroptera living in Gönen stream (Balıkesir, Çanakkale-Turkey). *Ege Journal of Fisheries and Aquatic Sciences*, 31(1): 19-26.