

A first record of *Hebrus ruficeps* and the family Hebridae (Heteroptera: Gerromorpha) from Yakutia (East Siberia)

Первая находка *Hebrus ruficeps* и семейства Hebridae (Heteroptera: Gerromorpha) в Якутии (Восточная Сибирь)

N.N. Vinokurov & N.K. Potapova

Н.Н. Винокуров, Н.К. Потапова

Nikolay N. Vinokurov , Institute for Biological Problems of Cryolithozone of the Siberian Branch of the Russian Academy of Sciences, 41 Lenin Ave., Yakutsk 677980. E-mail: n_vinok@mail.ru

Nadezhda K. Potapova, Institute for Biological Problems of Cryolithozone of the Siberian Branch of the Russian Academy of Sciences, 41 Lenin Ave., Yakutsk 677980. E-mail: nkpotapova@gmail.com

Abstract. *Hebrus* (*Hebrusella*) *ruficeps* Thomson, 1871 (Heteroptera: Hebridae) is recorded for the first time from the Republic of Sakha (Yakutia), East Siberia, approximately 1850 km from the nearest western finding (Irkutsk) and roughly 2080 km from the nearest eastern finding (Artem) of the species. The single specimen was collected in a small grass-sedge hummocky swamp located 19 km west-northwest of Yakutsk.

Резюме. *Hebrus* (*Hebrusella*) *ruficeps* Thomson, 1871 (Heteroptera: Hebridae) впервые найден в Республике Саха (Якутия) (Восточная Сибирь), на расстоянии ок. 1850 км от ближайшей западной находки (Иркутск) и ок. 2080 км от ближайшей восточной находки (Артем) этого вида. Единственный экземпляр был собран в злаково-осоковом кочкарном болотце, расположенном в 19 км к западу-северо-западу от Якутска.

Key words: Yakutia, aquatic heteropterans, Hebridae, fauna, first record

Ключевые слова: Якутия, водные полужесткокрылые, Hebridae, фауна, первое указание

ZooBank Article LSID: 9C0FDAF9-7A5B-42C0-855C-A32FB563DCA7

The small, globally distributed family Hebridae from the infraorder Gerromorpha is represented in Russia by five species of the genus *Hebrus* Curtis, 1831. Among them, *H. (Hebrus) pusillus* (Fallén, 1807) and *H. (Hebrusella) ruficeps* Thomson, 1871 were recorded from southern Siberia (Kanyukova, 1997; Kanyukova, 2006). Hebrids live in damp habitats along the banks of water bodies on aquatic vegetation, in swamps, and on wet mosses. They are predators that prey on small arthropods. Due to their small size, which ranges from 1.3 to

2.4 mm, and their stealthy way of life, these insects remain insufficiently examined.

Hebrus ruficeps is a trans-Eurasian species. It is recorded from nearly all European countries except Spain (Andersen, 1995; Kanyukova, 1998, 2006). In the European part of Russia and the Urals, it is distributed meridionally from the Republic of Karelia to the Rostov Province, and latitudinally from the Pskov and Smolensk provinces to the Sverdlovsk Province (Bodrenkov, 1927; Gapon, 2004; Kanyukova, 1998, 2006; Dyadich-



Fig. 1. Female of *Hebrus (Hebrusella) ruficeps* Thomson, 1871 collected in Yakutia. Photo by D.A. Gapon.

ko et al., 2009; Ukhova et al., 2022). A relict Late Pleistocene enclave exists in the North Caucasus in the Kabardino-Balkarian Republic (Prokin, 2018; Prokin et al., 2019). In the Asian part of Russia, the species was recorded from Irkutsk and the Primorskiy Territory (city of Artem) (Kanyukova, 1998, 2006). In addition, it is known to be

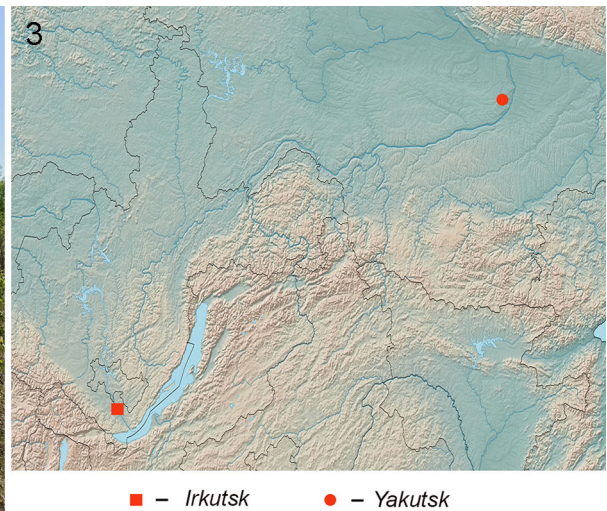
present in Kazakhstan and Uzbekistan (Andersen, 1995; Kanyukova, 2006).

A single overwintered female of *H. ruficeps* (Fig. 1) was found in Central Yakutia on the Lena–Vilyui interfluvium at the 25th kilometer of the Vilyuysk tract (62°06'04"N 129°16'36"E) on 27 May 2023 by E.N. Zykov. The specimen was collected using a sweep net in a grass-sedge hummock swamp that had formed on abandoned arable land overgrown with forest vegetation (Fig. 2). The specimen is stored in the Heteroptera collection at the Zoological Institute of the Russian Academy of Sciences (ZISP), St Petersburg, Russia. This finding is located approximately 1,850 km from the nearest western locality (Irkutsk) and about 2,080 km from the nearest eastern locality (city of Artem) where the species was previously recorded (Fig. 3).

The first record of *H. ruficeps* from Yakutia extends the range of the species in Siberia, which now reaches 62° of north latitude, and adds the new family Hebridae to the regional faunal list.

Acknowledgements

This research was conducted as part of the state assignment of the Ministry of Science and Higher Education of the Russian Federation (No. 121020500194-9). We would like to express our gratitude to A.A. Popov (Institute for Biological Problems of Cryolithozone, Yakutsk) for providing the photograph of the biotope



Figs 2, 3. Habitat of *Hebrus (Hebrusella) ruficeps* Thomson, 1871 in a grass-sedge hummocky swamp in Yakutia (2), and the records of the species in East Siberia (3). Photo by A.A. Popov (2).

where *H. ruficeps* was collected and to D.A. Gapon (ZISP) for photographing the specimen and providing linguistic corrections to the manuscript.

References

- Andersen N.M.** 1995. Superfamily Hebroidea Amyot et Serville, 1831. In: **Aukema B. & Rieger Ch.** (Eds). *Catalogue of the Heteroptera of Palaearctic Region*, 1: 79–83. Amsterdam: Netherlands Entomological Society.
- Bodrenkov G.E.** 1927. Materials on the fauna of Hemiptera – Heteroptera of the Smolensk Governorate. In: *Trudy Smolenskogo obshchestva estestvoispytateley i vrachey pri Smolenskom gosudarstvennom universitete* [Proceedings of the Smolensk Society of Naturalists and Physicians at Smolensk State University], 2: 3–16. Smolensk. (In Russian).
- Dyadichko V.G., Grandova M.A. & Prokin A.A.** 2009. Preliminary results of studying water entomofauna (Insecta: Heteroptera, Coleoptera) the State Natural Reserve “Polystovsky” and adjacent territories of the Pskov area (Russia). *Samarskaya Luka: problemy regional'noy i global'noy ekologii*, 18(2): 168–176. (In Russian).
- Gapon D.A.** 2004. Hemiptera. In: **Sholokhov A.M.** (Ed.). *Flora, fauna i mikrobiota Gosudarstvennogo muzeya-zapovednika M.A. Sholokhova* [Flora, fauna and microbiota of the National M.A. Sholokhov Museum-Reserve]: 91–104. Veshenskaya: South.
- Kanyukova E.V.** 1997. Hebridae of Russia and adjacent countries (Heteroptera). *Zoosystematica Rossica*, 6(1/2): 223–236.
- Kanyukova E.V.** 2006. *Vodnye poluzhestkokrylye nasekomye (Heteroptera: Nepomorpha, Gerromorpha) fauny Rossii i sopredel'nykh stran* [Aquatic and semi-aquatic bugs (Heteroptera: Nepomorpha, Gerromorpha) of the fauna of Russia and neighboring countries]. Vladivostok: Dal'nauka. 279 p. (In Russian).
- Prokin A.A.** 2018. First record of *Hebrus ruficeps* (Heteroptera: Hebridae) from the Caucasus. *Zoosystematica Rossica*, 27(2): 259–260. <https://doi.org/10.31610/zsr/2018.27.2.259>
- Prokin A.A., Sazhnev A.C. & Filippov D.A.** 2019. Glacial relicts in fauna of water insects (Heteroptera; Coleoptera) of sphagnum peatbogs of the North Caucasus. In: **Cherchesova S.K.** (Ed.). *Problemy vodnoy entomologii Rossii i sopredel'nykh territoriy: Materialy VII Vserossiskogo (s mezhdunarodnym uchastiem) nauchnogo simposiuma po amfibioteskim i vodnym nasekomym* [Questions of aquatic entomology in Russia and adjacent territories: Materials of the VII All-Russian (with international participation) scientific symposium on amphibiotic and aquatic insects]: 122–125. Vladikavkaz: North Ossetian State University. (In Russian).
- Ukhova N.L., Sergeeva E.V. & Ivanov S.A.** 2022. Materials on the fauna of true bugs (Heteroptera) of the Visim Nature Reserve. *Amurian zoological Journal*, 14(2): 261–280. (In Russian). <https://doi.org/10.33910/2686-9519-2022-14-2-261-280>

Received 4 November 2023 / Accepted 16 December 2023. Editorial responsibility: D.A. Gapon