

Beetles of the superfamily Hydrophiloidea of Kemerovo Area

Жесткокрылые надсемейства Hydrophiloidea Кемеровской области

S.V. Litovkin¹, D.A. Efimov²
С.В. Литовкин¹, Д.А. Ефимов²¹ Samara 443016, Russia, E-mail: sats.lit@gmail.com¹ 443016 Самара, Россия.² Kemerovo State University, Krasnaya str. 6, Kemerovo 650043, Russia. E-mail: efim_d@mail.ru² Кемеровский государственный университет, ул.Красная 6, 650043 Кемерово, Россия.

KEY WORDS: Coleoptera, Hydrophiloidea, fauna, new records, Kemerovo Area, Siberia.

КЛЮЧЕВЫЕ СЛОВА: Coleoptera, Hydrophiloidea, фауна, новые находки, Кемеровская область, Сибирь.

ABSTRACT. An annotated checklist of beetles of the superfamily Hydrophiloidea of Kemerovo Area is given. It includes 55 species of three families: Helophoridae (11 species), Hydrochidae (3) and Hydrophilidae (41). *Helophorus discrepans* Rey, 1885 and *Cryptopleurum crenatum* (Kugelann, 1794) are recorded for the first time for the Asian part of Russia. *Helophorus aspericollis* Angus, 1973 and *Enochrus melanocephalus* (Olivier, 1792) are recorded for the first time for the Western Siberia. Occurrence of species *Cercyon ustulatus* (Preyssler, 1790) in Western Siberia is confirmed. A total of 31 species are recorded for the first time in Kemerovo Area.

РЕЗЮМЕ. Приведён аннотированный список жесткокрылых надсемейства Hydrophiloidea Кемеровской области. Он включает 55 видов из трёх семейств: Helophoridae (11 видов), Hydrochidae (3) и Hydrophilidae (41 вид). *Helophorus discrepans* Rey, 1885 и *Cryptopleurum crenatum* (Kugelann, 1794) впервые приводятся для азиатской части России. *Helophorus aspericollis* Angus, 1973 и *Enochrus melanocephalus* (Olivier, 1792) впервые указываются для Западной Сибири. Подтверждено обитание в Сибири *Cercyon ustulatus* (Preyssler, 1790). В целом, 31 вид впервые приводится для Кемеровской области.

Introduction

Hydrophyloid line of the superfamily Hydrophiloidea (Hydrophiloidea s.str.) includes six families: Helophoridae, Georissidae, Epimetopidae, Hydrochidae, Spercheidae and Hydrophilidae and more than 3500 recent species [Hansen, 1999; Short, 2017]. Five families, except Epimetopidae, and no less than 210 species

are known in the territory of Russia. In Western Siberia, only families Helophoridae, Georissidae, Hydrochidae and Hydrophilidae were reliably recorded [Fikáček et al., 2015; Przewoźny, 2019].

The fauna of Hydrophiloidea of Kemerovo Area is poorly studied. There is only one special publication dedicated to the region's hydrophiloid beetles [Efimov, 2010]. A few information about representatives of the region's superfamily is also contained in a number of faunistic works [Efimov, Zinchenko, 2015; Ryndevich, 2003a, 2017; Hebauer, Ryndevich, 2005], taxonomic revisions and review [Ryndevich, 2003b, 2004; Ryndevich et al., 2017]. In total the listed papers cite data on one species of Helophoridae, two species of Hydrochidae, and 24 species of Hydrophilidae.

This article includes new findings of Hydrophiloid beetles that expand knowledge of the fauna of aquatic beetles as of Kemerovo Area and Western Siberia, and the entire Asian part of Russia.

Material and methods

The present study is based mainly on the material which has been collected by the second author, and has been provided by colleagues.

The main part of the material was determined by the first author, part of Helophoridae was determined by A.A. Prokin and A.S. Sazhnev (Borok) and part of Hydrophilidae and Helophoridae by V.K. Zinchenko (Novosibirsk).

Photographs of beetles and their details were taken with a Nikon D3200 camera, equipped with a microscope objective LOMO PLAN 3.5×0.10. Photographs of genitalia were taken by Canon PowerShot A640 camera, attached with a LOMO Biolam R-17 compound microscope. Stacking and processing of photos carried

out in programs Helicon Focus 5.3 and Adobe Photoshop CS3. The list of all species of Hydrophiloidea noted for the Kemerovo Area with reference to literature, new finds, general distribution and the necessary comments is given below.

A significant part of the material was collected in the vicinity of the biological station of KemSU “Azhendarovo”, Krapivino district, 8 km SSW of Saltymakovo village ~54°45'18"N 87°01'43"E. In the text this locality is briefly indicated as “Azhendarovo”.

Additionally some frequently mentioned names of the collectors are abbreviated as follows: F.A. Budaev (FB), D.A. Efimov (DE), A.V. Korshunov (AK).

Studied material is deposited in private collections of authors, unless otherwise indicated, and partly in the collections of Institute of Systematics and Ecology of Animals (ISEA, Novosibirsk, Russia) and in Papanin Institute for Biology of Inland Waters Russian Academy of Sciences (IBIW RAS, Borok, Russia).

Species new to the Kemerovo Area are indicated by one asterisk (*), species new for the Western Siberia are indicated by double asterisk (**). The species wrong determined earlier are excluded from through numbering. The names of the species are given in a systematic order, but without specifying taxa of a rank lower than the family.

List of taxa

Family HELOPHORIDAE Leach, 1815

1. *Helophorus (Rhopalohelophorus) aspericollis* Angus, 1973**

Fig. 1.

MATERIAL EXAMINED. Kemerovskiy Distr., Krekovo, 55°31'N 85°52'E, 29.VII.2009, 6.VII.2013, DE (8 exs.); Izhmorskiy Distr., Tunda, pond, 18.VIII.2018, DE (1 ex.).

DISTRIBUTION. Eastern Siberia, Russian Far East, Kazakhstan, Mongolia, Western China [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area and Western Siberia.

2. *Helophorus (Rhopalohelophorus) auricollis* Eschscholtz, 1822

REFERENCES. Ryndevich [2003a].

MATERIAL EXAMINED. No specimens examined by authors.

DISTRIBUTION. Western and Eastern Siberia, Russian Far East [Ryndevich, 2003a; Hansen, 2004], Canada, USA [Hansen, 1999].

3. *Helophorus (Rhopalohelophorus) barbarae* Angus, 1985*

MATERIAL EXAMINED. Krapivinskiy Distr., near “Azhendarovo”, 28.V–3.VI.2014, FB (1 ex., ISEA), A. Prokin and A. Sazhnev det.

DISTRIBUTION. South part of European Russia, Western Siberia, Kazakhstan [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area.

4. *Helophorus (Rhopalohelophorus) croaticus* Kuwert, 1886*

MATERIAL EXAMINED. Krapivinskiy Distr., near “Azhendarovo”, 28.V–3.VI.2014, FB (3 exs., ISEA), A. Prokin and A. Sazhnev det.

DISTRIBUTION. Europe, Western and Eastern Siberia, Turkey [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area.

5. *Helophorus (Rhopalohelophorus) discrepans* Rey, 1885**

MATERIAL EXAMINED. Krapivinskiy Distr., near “Azhendarovo”, 2.V.2014, 28.V–3.VI.2014, FB (2 exs., ISEA), A. Prokin and A. Sazhnev det.

DISTRIBUTION. Europe, Morocco, Turkey, Iran [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area and Asian part of Russia.

6. *Helophorus (Rhopalohelophorus) granularis* (Linnaeus, 1760)*

MATERIAL EXAMINED. Kemerovskiy Distr., Krekovo, 55°31'N 85°52'E, 23.VII.2009, 29.VII.2009, DE (2 exs.); Krapivinskiy Distr., “Azhendarovo”, lake, 54°45'46"N 87°01'49"E, 20.V.2012, DE (1 ex.); Yayskiy Distr., Ishim, shore of Yaya River, 10.VII.2012, DE (2 exs.); Tyazhynskiy Distr., Kamyshlovka, 55°58'N 88°32'E, bog, 10.VI.2015, DE (3 exs.); Pritomskiy, pump house, 12.V.2015, FB (1 ex., IBIW), A. Prokin and A. Sazhnev det.; Promyshlennovskiy Distr., Krasninskoe, 12.V.2015, FB (1 ex., IBIW), A. Prokin and A. Sazhnev det.; Kemerovskiy Distr., Pod'yakovo, Bol'shaya Podikova River, 9.VII.2015, DE (3 exs.); Kemerovo, FPK, lake, 55°21'61.0"N 87°13'66.1"E, 26.V.2016, FB (1 ex., IBIW), A. Prokin and A. Sazhnev det.; Izhmorskiy Distr., Novyy Svet, shore of Zolotoy Kitat river, 55°46.160'N 86°39.343'E, 11.VII.2018, DE (1 ex.); Izhmorskiy Distr., Tunda, pond, 18.VIII.2018, DE (3 exs.).

DISTRIBUTION. Europe, Western and Eastern Siberia, Turkey [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area.

7. *Helophorus (Rhopalohelophorus) lapponicus* Thomson, 1853*

MATERIAL EXAMINED. Kemerovskiy Distr., Elykaevo, 55°20'73"N 86°07'26"E, 21.V.2016, FB (1 ex., IBIW), A. Prokin and A. Sazhnev det.

DISTRIBUTION. Eastern Europe, Western and Eastern Siberia, Russian Far East, Middle East, Central Asia, Turkey [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area.

8. *Helophorus (Rhopalohelophorus) nanus* Sturm, 1836*

MATERIAL EXAMINED. Kemerovo, Leninskiy Distr., 7.VI.2009, AK (1 ex.); Krapivinskiy Distr., “Azhendarovo”, lake, 54°45'46"N 87°01'49"E, 20.V.2012, DE (1 ex.); Kemerovo, Kirovskiy Distr., puddle, 2.VI.2016, FB (2 exs., IBIW), A. Prokin and A. Sazhnev det.

DISTRIBUTION. Europe, Western and Eastern Siberia, Russian Far East, Turkey, Northern China [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area.

9. *Helophorus (Rhopalohelophorus) paraminutus* Angus, 1986*

MATERIAL EXAMINED. Krapivinskiy Distr., near “Azhendarovo”, 24.VII.2009, AK (2 exs.).

DISTRIBUTION. Central and Eastern Europe, Western and Eastern Siberia, Turkey [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area.

10. *Helophorus (Rhopalohelophorus) redtenbacheri* Kuwert, 1886*

MATERIAL EXAMINED. Krapivinskiy Distr., near “Azhendarovo”, 28.V–03.VI.2014, FB (1 ex.), V. Zinchenko det.

DISTRIBUTION. Central and Eastern Europe, Western Siberia, Kazakhstan [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area.

11. *Helophorus (Rhopalohelophorus) strigifrons* Thomson, 1868*

MATERIAL EXAMINED. Krapivinskiy Distr., near “Azhendarovo”, 24.VII.2009, AK (1 ex.); Krapivinskiy Distr., near Sarapki, Un’ga River flood-plane, 55°04’N 86°24’E, 14.V.2017, DE (1 ex.); Yayskiy Distr., Beket, 56°22’N 86°28’E, water’s edge, 15.VI.2018, DE (1 ex.), V. Zinchenko det.

DISTRIBUTION. Europe, Western and Eastern Siberia, Turkey [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area.

Family HYDROCHIDAE Thomson, 1859

12. *Hydrochus brevis* (Herbst, 1793)

REFERENCES. Efimov, Zinchenko [2015].

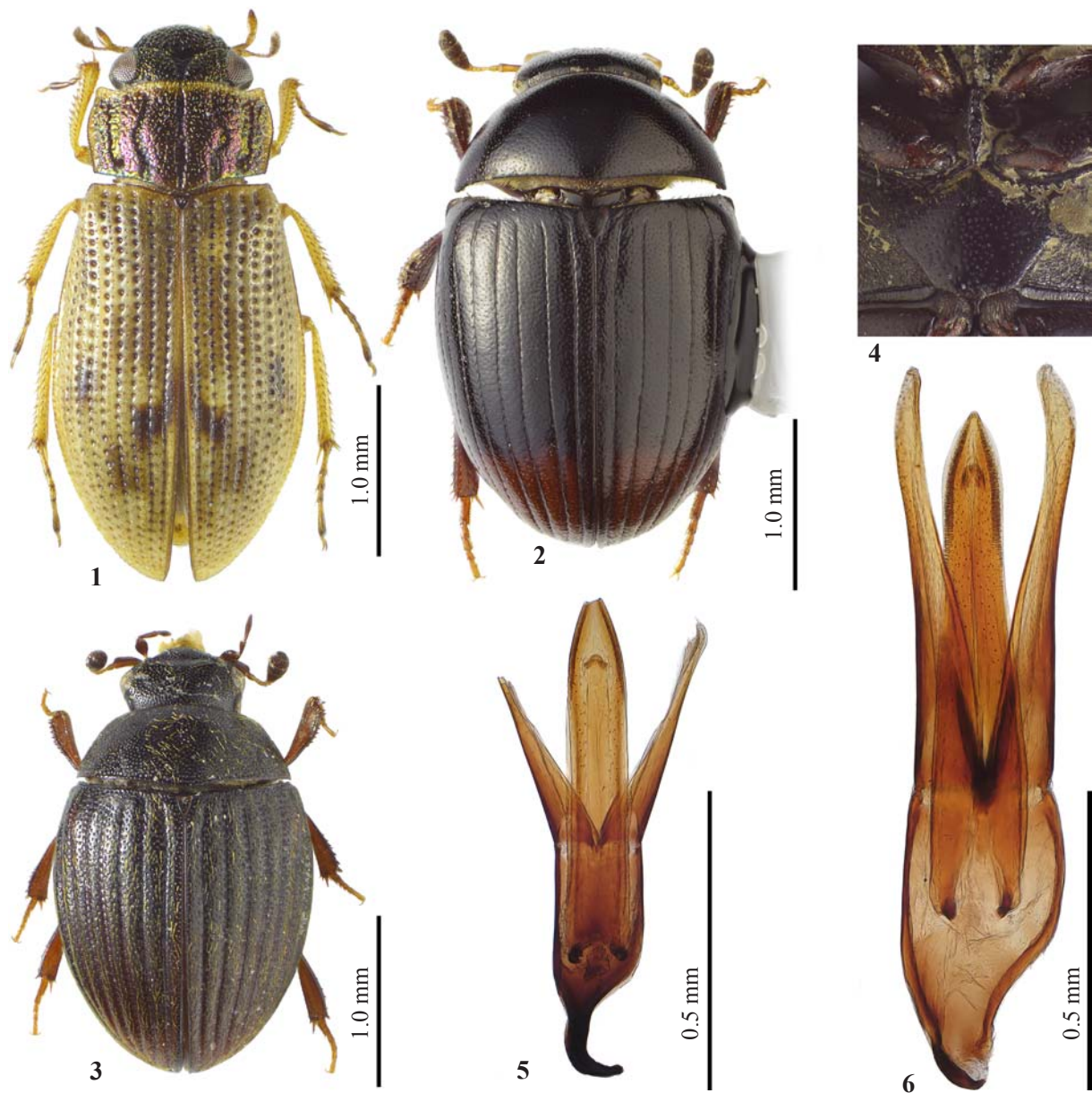
MATERIAL EXAMINED. Tyazhynskiy Distr., Kamyshlovka, 55°58’N 88°32’E, bog, 10.VI.2015, DE (1 ex.).

DISTRIBUTION. Europe, Western and Eastern Siberia, Turkey [Ryndevich, 2014; Efimov, Zinchenko, 2015; Fikáček et al., 2015].

13. *Hydrochus elongatus* (Schaller, 1783)

REFERENCES. Efimov, Zinchenko [2015].

MATERIAL EXAMINED. Yayskiy Distr., Beket, 56°22’N 86°28’E, water’s edge, 15.VI.2018, DE (1 ex.).



Figs 1–6. Hydrophiloidea of Kemerovo Area: 1 — *Helophorus aspericollis*; 2, 4, 6 — *Ceryon ustulatus*; 3, 5 — *Cryptopleurum crenatum*; 1–3 — general view; 4 — meso- and metathorax; 5–6 — aedeagi.

Рис. 1–6. Hydrophiloidea Кемеровской области: 1 — *Helophorus aspericollis*; 2, 4, 6 — *Ceryon ustulatus*; 3, 5 — *Cryptopleurum crenatum*; 1–3 — общий вид; 4 — средне- и заднегрудь; 5–6 — гениталии самцов.

DISTRIBUTION. Europe, Western and Eastern Siberia, Central Asia, Turkey [Fikáček et al., 2015; Przewoźny, 2019].

14. *Hydrochus ignicollis* Motschulsky, 1860*

MATERIAL EXAMINED. Izhmorskiy Distr., Novyy Svet, shore of Zolotoy Kitat river, 55°46'N 86°39'E, 11.VII.2018, DE (1 ex.).

DISTRIBUTION. Europe, Western Siberia, Turkey [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area.

Family HYDROPHILIDAE Latreille, 1802

15. *Berosus (Berosus) luridus* Linnaeus, 1760*

MATERIAL EXAMINED. Leninsk-Kuznetskiy Distr., vicinity of Podgornoe, 54°28'10"N 86°00'26"E, pit, 1.VI.2017, FB (1 ex.).

DISTRIBUTION. Europe, Western Siberia, Turkey, Iran [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area.

REMARKS. Probably the most eastern finding of the species. All reports for Western Siberia [Fikáček et al., 2015] refers to the Chelyabinsk Area [Prokin et al., 2008]. Reports of the species for the Irkutsk Area [Berlov, 1978] requires verification.

16. *Berosus (Berosus) signaticollis* (Charpentier, 1825)

REFERENCES. Efimov [2010].

MATERIAL EXAMINED. Kemerovskiyy Distr., Starochervovo, 55°10'N 86°22'E, 19.IV.2014, FB (1 ex.), V. Zinchenko det.

DISTRIBUTION. Western Palaearctic [Fikáček et al., 2015; Przewoźny, 2019].

17. *Berosus (Enoplurus) spinosus* (Steven, 1808)

REFERENCES. Efimov, Zinchenko [2015].

MATERIAL EXAMINED. No specimens examined by authors.

DISTRIBUTION. Western Palaearctic, Mongolia, China [Fikáček et al., 2015; Przewoźny, 2019].

18. *Laccobius (Dimorpholaccobius) bipunctatus* (Fabricius, 1775)*

MATERIAL EXAMINED. Kemerovskiyy Distr., Zhuravlyovo, 55°08'135"N 86°20.058'E, 21.V.2016, FB (3 exs.).

DISTRIBUTION. Western Palaearctic [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area.

19. *Laccobius (Laccobius) minutus* (Linnaeus, 1758)*

MATERIAL EXAMINED. Kemerovo, small pool, 16.VIII.2009, DE (1 ex.); Kemerovo, water's edge, 9.V.2009, V. Polevod leg. (1 ex.); Kuznetsk Alatau, cordon "Verkhnyaya Ters", Verkhnyaya Ters' River, under stones, 54°10'N 88°07'E, 4.VII.2009, AK (1 ex.); Yayskiy Distr., Ishim, shore of Yaya River, 10.VII.2012, DE (12 exs.); Krapivinskiy Distr., near "Azhendarovo", 20.V.2012, 28.V.–3.VI.2014, 28.VII.2017, FB, DE (8 exs.); Kemerovskiyy Distr., Mozhzhukha, 55°25'N 85°56'E, 9.VI.2013, DE (1 ex.); Promyshlennovskiy Distr., Krasninskoe, 12.V.2015, FB (1 ex.); Kemerovskiyy Distr., Starochervovo, 55°10'N 86°22'E, 22.VI.2015, FB (10 exs.); Kemerovskiyy Distr., Pod'yakovo, bog, 9.VII.2015, DE (1 ex.); Kemerovskiyy Distr., Zhuravlyovo, 55°08'N 86°20'E, 21.V.2016, FB (2 exs.); Leninsk-Kuznetskiy Distr., vicinity of Podgornoe, 54°28'10"N 86°00'26"E, 1.V.2017, 1.VI.2017, 15.VIII.2017, FB (20 exs.); Krapivinskiy Distr., near Bannovo, 55°07'N 86°42'E, 14.V.2017, DE (1 ex.); Krapivinskiy Distr., near Sarapki, Un'ga River flood-plane, 55°04'N 86°24'E, 14.V.2017, DE (1 ex.); Kemerovskiyy Distr., Krekovo, 55°31'N 85°52'E, pond, 20.V.2017, DE (1 ex.); Kemerovo, Krasnoe Lake, 25.VII.2017, FB (1 ex.); Krapivinskiy Distr., Taradanovo, river, 54°45'N 86°40'E, 13.VIII.2017, DE (1 ex.); Izhmorskiy Distr., Novyy Svet, shore of Zolotoy Kitat River, 55°46'N 86°39'E, 11.VII.2018, DE (1 ex.).

DISTRIBUTION. Europe, Northern and Central Asia, Turkey, Mongolia, China [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area.

20. *Laccobius (Laccobius) colon* (Stephens, 1829)*

MATERIAL EXAMINED. Krapivinskiy Distr., "Azhendarovo", lake, 54°45'46"N 87°01'49"E, 21–23.V.2011, 20.V.2012, AK (12 exs.); Izhmorskiy Distr., Tunda, pond, 18.VIII.2018, DE (1 ex.).

DISTRIBUTION. Europe, Northern and Central Asia, Mongolia, China [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area.

21. *Hydrobius fuscipes* (Linnaeus, 1758)

REFERENCES. Efimov [2010].

MATERIAL EXAMINED. Kemerovo, at light, 1.VI.1998, AK (1 ex.), V. Zinchenko det.; Gornaya Shoriya, Tashtagol'skiy Distr., 4 km N Sheregesha, Zelenaya Mt., 29–31.VII.1999, DE (1 ex.), V. Zinchenko det.; Kemerovskiyy Distr., near Sukhaya Rechka, 31.VII.2000, D. Sushchev (1 ex.), V. Zinchenko det.; Gornaya Shoriya, Mustag Mt., 8.VII.2001, DE (1 ex.), V. Zinchenko det.; Kemerovskiyy Distr., Osinovka, at light, 16.VIII.2002, AK (1 ex.), V. Zinchenko det.; Yashkiyskiy Distr., Pashkovo, at light, 17.VI.2003, AK (1 ex.), V. Zinchenko det.; Krapivinskiy Distr., near "Azhendarovo", 20–28.V.2012, 28.V.–3.VI.2014, 02.V.2014, FB, AK (30 exs.), V. Zinchenko det.; Kemerovo, 3.IX.2013, FB (1 ex.), V. Zinchenko det.; Leninsk-Kuznetskiy Distr., near Shabanovo, mouth of Sukhoy creek, 54°40'N 85°32'E, 25.VII.2014, DE (1 ex.); Kemerovskiyy Distr., Starochervovo, 55°10'N 86°22'E, 22.VI.2015, FB (3 exs.); Kemerovskiyy Distr., Elykaevo, 55°20'N 86°07'E, 21.V.2016, FB (2 exs.); Leninsk-Kuznetskiy Distr., vicinity of Podgornoe, 54°28'10"N 86°00'26"E, 1.V.2017, FB (3 exs.); Yayskiy Distr., Beket, 56°22'N 86°28'E, in dung near water, 15.VI.2018, DE (1 ex.); Yashkiyskiy Distr., near Akatsiya, 55°42'N 85°29'E, 20.VI.2018, DE (4 exs.).

DISTRIBUTION. Holarctic [Hansen, 1999; Fikáček et al., 2015; Przewoźny, 2019].

REMARKS. Currently, *Hydrobius fuscipes* is considered as a complex of species, the taxonomic composition of which is not completely understood [Fossen et al., 2016]. The material presented here needs further study.

22. *Hydrochara caraboides* (Linnaeus, 1758)

REFERENCES. Efimov [2010].

MATERIAL EXAMINED. Krapivinskiy Distr., 25.VII.2007, T. Platonova leg. (1 ex.); Krapivinskiy Distr., near "Azhendarovo", 10.–22.VIII.2010, 20.–28.V.2012, 28.V.–03.VI.2014, DE, FB, AK, A. Kostyunin leg. (6 exs.); vicinity of "Azhendarovo", moth of Bugas River, 54°44'N 87°01'E, 10.–30.VII.2008, AK (2 exs.); Promyshlennovskiy Distr., Morozovo, pool, 22.VI.2012, DE (1 ex.).

DISTRIBUTION. Europe, Northern Africa, Western and Eastern Siberia, Turkey, Iran [Fikáček et al., 2015; Przewoźny, 2019].

– *Hydrochara dichroma* (Fairmaire, 1892)

REMARKS. Records of this species for the Kemerovo Area [Efimov, 2010] is based on a mistakenly signed specimen of *Hydrobius fuscipes* (L.).

23. *Hydrophilus aterrimus* Eschscholtz, 1822*

MATERIAL EXAMINED. Kemerovskiyy Distr., Beregovoy, at night on road, 18.VIII.1999, Yu. Danchenko leg. (1 ex.); Krapivinskiy Distr., "Azhendarovo", lake, 54°45'46"N 87°01'49"E, 4.VII.2001, N. Teplova leg. (1 ex.); Kemerovo, near airport, 7.VIII.2003 (2 exs.); Mariinsk, 3.VIII.2004, N. Lobova leg. (1 ex.); Promyshlennaya, 27.VIII.2005, 25.VII.2007, M. Samoshchenko, A. Erin leg. (2 exs.); Yashkiyskiy Distr., Yashkino, at light, 06.–7.VIII.2016, V. Akaev leg. (1 ex., coll. V. Akaev).

DISTRIBUTION. Europe except its westernmost parts, Western Siberia, Turkey, Iran, Turkmenistan [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area.

REMARKS. See comment for the following species.

– *Hydrophilus piceus* (Linnaeus, 1758)

REMARKS. All records from the Kemerovo Area previously cited under this name [Efimov, 2010] belong to

H. aterrimus. The distribution of the species in Western Siberia as a whole requires clarification.

24. *Anacaena lutescens* (Stephens, 1829)

REFERENCES. Ryndevich [2003b]; Efimov [2010].

MATERIAL EXAMINED. Tyazhinskiy Distr., left shore of Uryup River near confluence with Chulyum River, oxbow, 1.VIII.2008, N. Teplova leg. (1 ex.); Kuznetskiy Alatau, cordon "Verkhnyaya Ters", Verkhnyaya Ters' River, under stones, h=409 m a.s.l., 04.VII.2009, AK (1 ex.); Krapivinskiy Distr., near "Azhendarovo", 24.VII.2009, 20–28.V.2012, 20.V.2012, 2.V.2014, 28.V.–03.VI.2014, AK, DE, FB 15 exs.); Promyshlennovskiy Distr., Krasninskoe, 12.V.2015, FB (6 exs.); Tyazhinskiy Distr., Kamyshlovka, 55°58'N 88°32'E, 10.VI.2015, DE (1 ex.); Kemerovskiy Distr., Pod'yakovo, Bolshaya Podikova River, 09.VII.2015, DE (1 ex.); Kemerovskiy Distr., Starochervovo, 55°10'N 86°22'E, 7.IX.2015, FB (1 ex.); Kemerovo Distr. Zhuravlevo, 55°08'N 86°20'E, 21.V.2016, FB (3 exs.); Kemerovskiy Distr., Elykaevo, 55°20'N 86°07'E, 21.V.2016, FB (12 exs.); Krapivinskiy Distr., near Bannovo, 55°70'N 86°42'E, 14.V.2017, DE (1 ex.); Krapivinskiy Distr., near Sarapki, Un'ga River flood-plane, 55°04'N 86°24'E, 14.V.2017, DE (3 exs.); Leninsk-Kuznetskiy Distr., vicinity of Podgornoe, 54°28'10"N 86°00'26"E, 1.VI.2017, FB (3 exs.); Krapivinskiy Distr., Taradanovo, river, 54°45'N 86°40'E 13.VIII.2017, DE (1 ex.); Yayskiy Distr., Beket, 56°22'N 86°28'E, 15.VI.2018, DE (8 exs.); Yashkinskiy Distr., near Akatsiya, 55°42'N 85°29'E, 20.VI.2018, DE (2 exs.); Promyshlennovskiy Distr., 2–3 km S Pushkino, 54°44'N 85°28'E, 8.VIII.2018, DE (2 exs.).

DISTRIBUTION. Western Palaearctic, Russian Far East [Fikáček et al., 2015; Przewoźny, 2019], Canada, USA [Hansen, 1999].

REMARKS. All 49 studied specimens were females; the sex of another 12 specimens was not determined. This, most likely, indicates the homogeneity of the local population and its reproduction through parthenogenesis. As known, most European populations of *A. lutescens* are also parthenogenetic [Shaarawi, Angus, 1990; Ryndevich, 2003b].

25. *Cymbiodyta marginella* (Fabricius, 1792)*

MATERIAL EXAMINED. Krapivinskiy Distr., "Azhendarovo", lake, 54°45'46"N 87°01'49"E, 20.V.2012, DE (1 ex.); Leninsk-Kuznetskiy Distr., vicinity of Podgornoe, 54°28'10"N 86°00'26"E, pit, 15.VIII.2017, FB (1 ex.); Kemerovskiy Distr., Elykaevo, 55°20'N 86°07'E, 21.V.2016, FB (6 exs.).

DISTRIBUTION. Europe, Turkey, Western and Eastern Siberia, Central Asia, Nepal [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area.

26. *Enochrus (Enochrus) melanocephalus* (Olivier, 1792)**

MATERIAL EXAMINED. Kemerovskiy Distr., Starochervovo, 55°10'N 86°22'E, 22.VI.2015, FB (1 ex.).

DISTRIBUTION. Europe, Northern Africa, Western Asia, Eastern Siberia, Russian Far East, Mongolia, Northern China [Fikáček et al., 2015; Przewoźny, 2019; Prokin et al., 2020]. New for Kemerovo Area and Western Siberia.

27. *Enochrus (Lumetus) bicolor* (Fabricius, 1792)*

MATERIAL EXAMINED. Promyshlennovskiy Distr., Morozovo, water's edge of shallow pool, in water, 22.VI.2012, DE (4 exs.); Leninsk-Kuznetskiy Distr., near Shabanovo, moth of Sukhoy creek, 54°40'N 85°32'E, 25.VII.2014, DE (2 exs.); Promyshlennovskiy Distr., Krasninskoe, lake, 12.V.2015, FB (5 exs.); Promyshlennovskiy Distr., 2–3 km S Pushkino, 54°44'N 85°28'E, 8.VIII.2018, DE (2 exs.).

DISTRIBUTION. Palaearctic [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area.

28. *Enochrus (Lumetus) fuscipennis* (Thomson, 1884)*

MATERIAL EXAMINED. Kemerovskiy Distr., Sukhovo, shore of Tom' River, 19.VII.2013, DE (1 ex.); Leninsk-Kuznetskiy Distr.,

near Shabanovo, moth of Sukhoy creek, 54°40'N 85°32'E, pond, 25.VII.2014, DE (1 ex.); Kemerovskiy Distr., Zhuravlevo, 21.V.2016, 55°08'N 86°20'E, FB (1 ex.); Kemerovskiy Distr., Elykaevo, 55°20'N 86°07'E, 21.V.2016, FB (29 exs.).

DISTRIBUTION. Europe, Northern Africa, Western and Central Asia, Western and Eastern Siberia, China [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area.

29. *Enochrus (Lumetus) ochropterus* (Marsham, 1802)*

MATERIAL EXAMINED. Tyazhinskiy Distr., left shore of Uryup River near confluence with Chulyum River, 01.VIII.2008, N. Teplova leg. (1 ex.); Krapivinskiy Distr., near "Azhendarovo", 02.V.2014, FB (2 exs.), V. Zinchenko det.; Kemerovskiy Distr., Elykaevo, 55°20'N 86°07'E, 21.V.2016, FB (4 exs.).

DISTRIBUTION. Europe, Turkey, Western and Eastern Siberia, Iran [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area.

30. *Enochrus (Lumetus) quadripunctatus* (Herbst, 1797)*

MATERIAL EXAMINED. Yashinskiy Distr., Ishim, shore of Yaya River, 10.VII.2012, DE (1 ex.); Kemerovskiy Distr., Osinovka, at light, 16.VIII.2012, AK(1 ex.); Leninsk-Kuznetskiy Distr., near Shabanovo, moth of Sukhoy creek, 54°40'N 85°32'E, 25.VII.2014, DE (2 exs.); Kemerovskiy Distr., Starochervovo, 55°10'N 86°22'E, 22.VI.2015, FB (1 ex.); Kemerovskiy Distr., Elykaevo, 55°20'N 86°07'E, 21.V.2016, FB (17 exs.); Kemerovo, Krasnoe Lake, 25.VII.2017, 21.IX.2017, FB (4 exs.); Promyshlennovskiy Distr., 2–3 km S of Pushkino, 54°44'N 85°28'E, 8.VIII.2018, DE (1 ex.).

DISTRIBUTION. Europe, Turkey, Iran, Northern and Central Asia, Mongolia, China [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area.

31. *Enochrus (Lumetus) testaceus* (Fabricius, 1801)*

MATERIAL EXAMINED. Leninsk-Kuznetskiy Distr., vicinity of Podgornoe, 54°28'10"N 86°00'26"E, pit, 1.VI.2017, 15.VIII.2017, FB (2 exs.); Krapivinskiy Distr., vicinity of Zelenogorskiy, lake, 55°01'N 87°03'E, 9.VII.2017, DE (1 ex.).

DISTRIBUTION. Europe, Northern Africa, Turkey, Iran, Kazakhstan, Western China, Northern Asia, Mongolia, Japan [Fikáček et al., 2015; Przewoźny, 2019; Prokin et al., 2019]. New for Kemerovo Area.

32. *Enochrus (Methydrys) affinis* (Thunberg, 1794)*

MATERIAL EXAMINED. Promyshlennovskiy Distr., Morozovo, 22.VI.2012, DE (1 ex.); Yayskiy Distr., Ishim, shore of Yaya River, 10.VII.2012, DE (1 ex.); Krapivinskiy Distr., near "Azhendarovo", 20–28.V.2012, 28.V.–03.VI.2014, AK, FB (3 exs.), V. Zinchenko det.; Leninsk-Kuznetskiy Distr., near Shabanovo, moth of Sukhoy creek, 54°40'N 85°32'E, 25.VII.2014, DE (1 ex.); Starochervovo, 22.VI.2015, 7.IX.2015, FB (5 exs.); Kemerovskiy Distr., Elykaevo, 55°20'N 86°07'E, 21.V.2016, FB (3 exs.); Kemerovskiy Distr., Krekovo, 55°31'N 85°52'E, pond, 20.V.2017, DE (1 ex.); Leninsk-Kuznetskiy Distr., vicinity of Podgornoe, 54°28'10"N 86°00'26"E, 1.VI.2017, 15.VIII.2017, FB (2 exs.); Kemerovo, Krasnoe Lake, 25.VII.2017, FB (3 exs.); Yayskiy Distr., Beket, 56°22'N 86°28'E, 15.VI.2018, DE (2 exs.); Yashkinskiy Distr., near Akatsiya, 55°42'N 85°29'E, 20.VI.2018, DE (1 ex.).

DISTRIBUTION. Europe, Northern Africa, Iran, Kazakhstan, Northern Asia, China, Japan [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area.

33. *Enochrus (Methydrys) coarctatus* (Gredler, 1863)*

MATERIAL EXAMINED. Krapivinskiy Distr., near "Azhendarovo", 20.V.2012, 20–28.V.2012, 2.V.2014, DE, AK, FB (13 exs.); Yayskiy Distr., Beket, 56°22'N 86°28'E, 15.VI.2018, DE (1 ex.).

DISTRIBUTION. Europe, Turkey, Western Siberia, Russian Far East, Iran, Mongolia [Fikáček et al., 2015; Przewoźny, 2019; Prokin et al., 2020]. New for Kemerovo Area.

34. *Helochaeres obscurus* (Müller, 1776)

REFERENCES. Efimov, Zinchenko [2015].

MATERIAL EXAMINED. Kemerovo, small pool. 16.VIII.2009 (1 ex.); Tyazhynskiy Distr., Kamyshlovka, 55°58'N 88°32'E, 10.VI.2015, DE (1 ex.); Kemerovskiy Distr., Starochervovo, 55°10'N 86°22'E, 22.VI.2015, 07.IX.2015, FB (17 exs.); Kemerovskiy Distr., Elykaevo, 55°20'N 86°07'E, 21.V.2016, FB (7 exs.); Krapivinskiiy Distr., near Bannovo, 55°07'N 86°42'E, 14.V.2017, DE (1 ex.); Leninsk-Kuznetskiy Distr., vicinity of Podgor'noe, 54°28'10"N 86°00'26"E, 01.VI.2017, 15.VIII.2017, FB (7 exs.); Chebulinskiiy Distr., Chumay, Kiya River, 15.VII.2017, FB (1 ex.); Kemerovo, Krasnoe Lake, 25.VII.2017, FB (2 exs.), V. Zinchenko det.; Izhmorskiy Distr., Tunda, pond, 18.VIII.2018, DE (1 ex.); Yashkinskiy Distr., near Akatsiya, 55°42'N 85°29'E, 20.VI.2018, DE (4 exs.).

DISTRIBUTION. Europe, Western Asia, Kazakhstan, Western Siberia, Western China [Fikáček et al., 2015; Przewoźny, 2019].

35. *Coelostoma orbiculare* (Fabricius, 1775)

REFERENCES. Efimov [2010].

MATERIAL EXAMINED. Kemerovo, small pool. 16.VIII.2009 (1 ex.); Krapivinskiiy Distr., near "Azhendarovo", 20.–28.V.2012, 28.VII.2017, AK, DE (17 exs.); Leninsk-Kuznetskiy Distr., near Shabanovo, moth of Sukhoy creek, 54°40'N 85°32'E, 25.VII.2014, DE (1 ex.); Promyshlennovskiy Distr., Krasninskoe lake, 12.V.2015, FB (1 ex.); Tyazhynskiy Distr., Kamyshlovka, 55°58'N 88°32'E, bog, 10.VI.2015, DE (2 exs.); Kemerovskiy Distr., Elykaevo, 55°20'N 86°07'E, 21.V.2016, FB (1 ex.); Krapivinskiiy Distr., vicinity of Zelenogorskiy, lake, 55°01'N 87°03'E, 9.VII.2017, DE (1 ex.); Izhmorskiy Distr., Novyy Svet, shore of Zolotoy Kitat River, 55°46'N 86°39'E, 11.VII.2018, DE (1 ex.).

DISTRIBUTION. Europe, Turkey, Iran, Northern Asia, China [Fikáček et al., 2015; Przewoźny, 2019].

36. *Cercyon (Cercyon) bifenestratus* Küster, 1851

REFERENCES. Efimov [2010].

MATERIAL EXAMINED. Promyshlennovskiy Distr., Morozovo, pool, 22.VI.2012, DE (1 ex.), V. Zinchenko det.; Kemerovskiy Distr., Sukhovo, shore of Tom' River, 19.VII.2013, DE (2 exs.); Prokop'evskiy Distr., near Uskatskiy, Krivoy Uskat River, in water, 21.VIII.2014, DE (1 ex.), V. Zinchenko det.; Tyazhynskiy Distr., Kamyshlovka, 55°58'N 88°32'E, 10.VI.2015, DE (1 ex.), V. Zinchenko det.; Izhmorskiy Distr., near Glukharinka, river, 11.VII.2018, DE (2 exs.).

DISTRIBUTION. Europe, Northern Asia, Kazakhstan, Mongolia [Fikáček et al., 2015; Przewoźny, 2019].

37. *Cercyon (Cercyon) convexusculus* Stephens, 1829

REFERENCES. Ryndevich [2003a].

MATERIAL EXAMINED. No specimens examined by authors.

DISTRIBUTION. Europe, Western and Eastern Siberia [Fikáček et al., 2015; Przewoźny, 2019].

38. *Cercyon (Cercyon) lateralis* (Marshall, 1802)

REFERENCES. Ryndevich [2004]; Efimov [2010].

MATERIAL EXAMINED. Krapivinskiiy Distr., near "Azhendarovo", 14.VII.2012, FB (1 ex.); Kemerovskiy Distr., Krekovo, 55°31'N 85°52'E, 1.VII.2012, 22.VII.2012, 25.VIII.2013, 6.VI.2015, DE (7 exs.); Krapivinskiiy Distr., Sheveli, dung, 14.V.2017, DE (1 ex.).

DISTRIBUTION. Europe, Canary Islands, Northern and Central Asia [Fikáček et al., 2015; Przewoźny, 2019], Canada, USA (introduced) [Hansen, 1999].

39. *Cercyon (Cercyon) marinus* Thomson, 1853

REFERENCES. Efimov [2010].

MATERIAL EXAMINED. Leninsk-Kuznetskiy Distr., 2 km E of Krasnoe vill., solonchak, near water, 54°37'N 85°23'E, 25.VII.2014, DE (1 ex.); Prokop'evskiy Distr., near Uskatskiy, Krivoy Uskat River, in water, 21.VIII.2014, DE (1 ex.), V. Zinchenko det.

DISTRIBUTION. Europe, Turkey, Northern and Central Asia, Mongolia, China, Japan [Fikáček et al., 2015; Przewoźny, 2019], Canada, USA [Hansen, 1999].

40. *Cercyon (Cercyon) pygmaeus* (Illiger, 1801)*

MATERIAL EXAMINED. Krapivinskiiy Distr., Sheveli, dung, 14.V.2017, DE (1 ex.).

DISTRIBUTION. Europe, Egypt, Western and Eastern Siberia, Iran [Fikáček et al., 2015; Przewoźny, 2019], Canada, USA (introduced) [Hansen, 1999]. New for Kemerovo Area.

41. *Cercyon (Cercyon) verus* Shatrovskiy, 1989

REFERENCES. Ryndevich [2003a].

MATERIAL EXAMINED. No specimens examined by authors.

DISTRIBUTION. ?Western Siberia (Kemerovo Area), Russian Far East (Kunashir) [Ryndevich et al., 2017].

REMARKS. The species is recorded for the Kemerovo Area for alone female. His occurrence here requires confirmation [Ryndevich et al., 2017].

42. *Cercyon (Cercyon) quisquilius* (Linnaeus, 1760)

REFERENCES. Ryndevich et al. [2017].

MATERIAL EXAMINED. No specimens examined by authors.

DISTRIBUTION. Species with Polyzoal distribution [Hansen, 1999; Fikáček et al., 2015; Przewoźny, 2019].

43. *Cercyon (Cercyon) unipunctatus* (Linnaeus, 1758)

REFERENCES. Ryndevich et al. [2017].

MATERIAL EXAMINED. No specimens examined by authors.

DISTRIBUTION. Europe, Northern Asia, Northern China [Fikáček et al., 2015; Przewoźny, 2019], Canada, USA (introduced) [Hansen, 1999].

44. *Cercyon (Dicrytocercyon) ustulatus* (Preysslner, 1790)** Figs 2, 4, 6.

MATERIAL EXAMINED. Krapivinskiiy Distr., "Azhendarovo", lake, 54°45'46"N 87°01'49"E, 20.V.2012, DE (1 ex.); Tyazhynskiy Distr., Kamyshlovka, 55°58'N 88°32'E, bog, 10.VI.2015, DE (1 ex.); Izhmorskiy Distr., near Glukharinka, river, 11.VII.2018, DE (2 exs.).

DISTRIBUTION. Europe, Turkey, Iran [Fikáček et al., 2015; Przewoźny, 2019], Canada, USA (introduced) [Hansen, 1999]. Here this species is reliably recorded from Western Siberia for the first time.

REMARKS. An earlier reports of the species for Siberia [Zaitsev, 1908] has not yet been supported by factual material [Ryndevich, 2008]. Siberia has been excluded from the species range in new catalogs [e.g. Fikáček et al., 2015].

45. *Cercyon (Paracercyon) analis* (Paykull, 1798)

REFERENCES. Efimov [2010].

MATERIAL EXAMINED. Kemerovskiy Distr., Krekovo, 55°31'N 85°52'E, 12.VII.2015, DE (1 ex.); vicinity of "Azhendarovo", moth of Bugas River, 54°44'N 87°01'E, 10–30.VII.2008, AK (1 exs.).

DISTRIBUTION. Polyzoal distribution [Hansen, 1999; Fikáček et al., 2015; Przewoźny, 2019].

46. *Cercyon (Paracercyon) laminatus* Sharp, 1873*

MATERIAL EXAMINED. Kemerovo, at light, 01.VI.1998, AK (1 ex.), V. Zinchenko det.

DISTRIBUTION. Polyzoal distribution [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area.

47. *Cryptopleurum crenatum* (Kugelann, 1794)**
Figs. 3, 5.

MATERIAL EXAMINED. Kemerovskiy Distr., Krekovo, 55°31' N 85°52' E, 22.VII.2012, DE (3 exs.)

DISTRIBUTION. Europe, Turkey, Kazakhstan [Fikáček et al., 2015; Przewoźny, 2019]. New for Kemerovo Area and Asian part of Russia.

REMARKS. At least one find of the species was recorded in the USA on the east coast (Washington) [Smetana, 1978]. However, *C. crenatum*, unlike the other two species of the genus mentioned here, was not noted as an introducer anywhere. It is known from Asia only in two specimens: from Turkey (Trabzon) [Mart, 2009] and Kazakhstan (the vicinity of Almaty) [Prokin, 2010].

48. *Cryptopleurum minutum* (Fabricius, 1775)*

MATERIAL EXAMINED. Kemerovskiy Distr., Krekovo, 55°31' N 85°52' E, 22.VII.2012, DE (4 exs.); Belovskiy Distr., vicinity of Novyy Gorodok, Bachatskie Sopki, 16.VIII.2014, DE (1 ex.).

DISTRIBUTION. Europe, Northern and Central Asia, China [Fikáček et al., 2015; Przewoźny, 2019], Canada, USA (introduced) [Hansen, 1999]. New for Kemerovo Area.

49. *Cryptopleurum subtile* Sharp, 1884

REFERENCES. Efimov [2010].

MATERIAL EXAMINED. No specimens examined by authors.

DISTRIBUTION. Polyzonal distribution [Hansen, 1999; Fikáček et al., 2015; Przewoźny, 2019].

– *Megasternum concinnum* (Marsham, 1802)

REMARKS. Findings previously published as *M. concinnum* [Hebauer, Ryndevich, 2005] are currently classified as *M. immaculatum* (Stephens, 1829) [Ryndevich, 2017].

50. *Megasternum immaculatum* (Stephens, 1829)

REFERENCES. Ryndevich [2017].

MATERIAL EXAMINED. No specimens examined by authors.

DISTRIBUTION. Bulgaria, Great Britain, Poland, Western and Eastern Siberia [Ryndevich, 2017; Przewoźny, 2019].

REMARKS. See comment to previous species.

51. *Pachysternum haemorrhoum* Motschulsky, 1866

REFERENCES. Hebauer, Ryndevich [2005]; Efimov [2010].

MATERIAL EXAMINED. Kemerovskiy Distr., Krekovo, 55°31' N 85°52' E, 29.V.2011, 1.VII.2012, DE (4 exs.); Krapivinskiy Distr., near "Azhendarovo", 14.VII.2012, FB (1 ex.); Chebulinskiy Distr., near Shestakovo, 9.VI.2015, DE (3 exs.).

DISTRIBUTION. Northern Asia, Kazakhstan, Mongolia, China, Korea, Japan [Fikáček et al., 2015; Przewoźny, 2019].

52. *Sphaeridium bipustulatum* Fabricius, 1781*

MATERIAL EXAMINED. Yashkinskiy Distr., Pacha, Tom' River flood-plane, 20.VII.2017, DE (3 exs.).

DISTRIBUTION. Holarctic [Przewoźny, 2019]. New for Kemerovo Area.

53. *Sphaeridium lunatum* Fabricius, 1792

REFERENCES. Efimov [2010].

MATERIAL EXAMINED. Krapivinskiy Distr., near "Azhendarovo", 10–30.VII.2008, 19–30.VI.2010, AK (2 exs.), V. Zinchenko det.; Kemerovskiy Distr., Krekovo, 55°31' N 85°52' E, 29.V.2011, 21.VI.2011, 01.VII.2012, DE (3 exs.); Yayskiy Distr., Beket, 56°22' N 86°28' E, 15.VI.2018, DE (2 exs.).

DISTRIBUTION. Holarctic [Przewoźny, 2019].

54. *Sphaeridium marginatum* Fabricius, 1787

REFERENCES. Ryndevich [2003a]; Efimov, Zinchenko [2015]. MATERIAL EXAMINED. Yashkinskiy Distr., Pacha, Tom' River flood-plane, 20.VII.2017, DE (1 ex.).

DISTRIBUTION. Holarctic [Przewoźny, 2019].

55. *Sphaeridium scarabaeoides* (Linnaeus, 1758)

REFERENCES. Efimov [2010].

MATERIAL EXAMINED. Kuznetskiy Alatau, Tisul'skiy Distr., Novyy Berikul', dung, 24.VII.1981, V.I. Eryshov leg. (1 ex.); Kemerovskiy Distr., near Podyakovo, 10.VII.1992, V. Ivanchikhin, Yu. Kabanenko (1 ex.), V. Zinchenko det.; Yashkinskiy Distr., Pacha, Tom' River flood-plane, 20.VII.2017, DE (10 exs.).

DISTRIBUTION. Polyzonal distribution [Przewoźny, 2019].

Results

Thus, 11 species of Helophoridae, 3 species of Hydrochidae and 41 species of Hydrophilidae were found on the territory of Kemerovo Area. In this checklist 31 species of Hydrophiloidea are recorded for the Kemerovo Area for the first time.

Helophorus discrepans and *Cryptopleurum crenatum* are recorded for the first time for the Asian part of Russia. *Helophorus aspericollis* and *Enochrus melanocephalus* are recorded for the first time for the Western Siberia.

Occurrence of species *Cercyon ustulatus* in Western Siberia is confirmed. *Hydrophilus piceus*, *Hydrochara dichroma* and *Megasternum concinnum* are excluded from the faunal checklist.

In the future research the faunal list of hydrophyloid beetles in the region will certainly be updated and supplemented. There is a high probability of finding here representatives of the Georissidae family, two species of which are known from Western Siberia [Przewoźny, 2019], and also widespread Palaearctic species *Spercheus emarginatus* (Schaller, 1783) of Spercheidae.

Acknowledgements. Authors are grateful to A.V. Korshunov, A.E. Kostyunin, V.A. Polevod, D.V. Sushchev, V. Akaev (Kemerovo) for providing the collection material, A.A. Prokin, A.S. Sazhnev (Borok) and V.K. Zinchenko (Novosibirsk) for valuable additional material. Special thanks go to R.B. Angus (London) for checking the definition of *Helophorus aspericollis* from photographs.

The study was supported by the Russian Foundation for Basic Research, project № 20-44-420008.

References

- Berlov E.Ya. 1978. [Water scavenger beetles (Coleoptera, Hydrophilidae) of Irkutsk Area] // Nasekomye vostochnoy Sibiri. Irkutsk. P.65–72 [in Russian].
- Efimov D.A. 2010. [To the knowledge of the fauna of hydrophilid beetles (Coleoptera: Hydrophilidae) of Kemerovo Region] // Caucasian Entomological Bulletin. Vol.6. No.1. P.23–24 [in Russian].
- Efimov D.A., Zinchenko V.K. 2015. [New records of beetles (Coleoptera) in the fauna of Kemerovo Area] // Amurian Zoological Journal. Vol.7. No.3. P.223–226 [in Russian].
- Fikáček M., Angus R.B., Gentili E., Jia F., Minoshima Y.N., Prokin A.A., Przewoźny M., Ryndevich S.K. 2015. Helophoridae Leach, 1815, Hydrochidae Thomson, 1859, Hydrophilidae Latreille,

- 1802 // I. Löbl, D. Löbl (eds.). Catalogue of Palaearctic Coleoptera. Vol.2/1. Hydrophiloidea Staphylinoidea. Revised and Updated Edition. Leiden, Doston: Brill. P.25–33, 35–36, 37–76.
- Fossen E.I., Ekrem T., Nilsson A.N., Bergsten J. 2016. Species delimitation in northern European water scavenger beetles of the genus *Hydrobius* (Coleoptera, Hydrophilidae) // ZooKeys. Vol.564. P.71–120.
- Hansen M. 1999. Hydrophiloidea (s.str.) (Coleoptera) // World Catalogue of Insects. Vol.2. Stenstrup: Appolo Books. 416 pp.
- Hansen M. 2004. Family Helophoridae Leach, 1815 // I. Löbl, A. Smetana (eds.). Catalogue of Palaearctic Coleoptera. Vol.2. Hydrophiloidea, Histeroidea, Staphylinoidea. Stenstrup: Apollo Books. P.36–41.
- Hebauer F., Ryndevich S.K. 2005. New data on the distribution of the Old World Hydrophilidae (Coleoptera) // Acta Coleopterologica. Vol.11. No.1. P.43–51.
- Mart A. 2009. Water scavenger beetles (Coleoptera: Hydrophilidae) provinces of Central Black Sea region of Turkey // Journal of the Entomological Research Society. Vol.11. No.1. P.47–70.
- Prokin A.A. 2010. [New data on the distribution of Hydrochidae and Hydrophilidae (Coleoptera) in Russia and adjacent countries] // Problemy vodnoy entomologii Rossii i sopredel'nykh stran: Materialy X Trikhopterologicheskogo simpoziuma i IV Vserossiiskogo simpoziuma po amfibioteskim i vodnym nasekomyim (Vladikavkaz, Russia, 5–7 May 2010). Vladikavkaz: North Ossetian State University Publ. P.74–78 [in Russian].
- Prokin A.A., Chuluunbaatar G., Angus R.B., Jäch M.A., Petrov P.N., Ryndevich S.K., Byambanyam E., Sazhnev A.S., Hájek J., Shaverdo H. 2020. New records of water beetles (Coleoptera: Gyrinidae, Haliplidae, Noteridae, Dytiscidae, Helophoridae, Hydrophilidae, Hydraenidae) and shore beetles (Coleoptera: Heteroceridae) of Mongolia // Aquatic Insects. Vol.41. No.1. P.1–44. DOI: 10.1080/01650424.2019.1651870.
- Prokin A.A., Ryndevich S.K., Petrov P.N., Andrejeva T.R. 2008. New data on the distribution of Helophoridae, Hydrochidae and Hydrophilidae (Coleoptera) in Russia and adjacent lands // Russian Entomological Journal. Vol.17. No.2. P.1–4.
- Przewoźny M. 2019. Catalogue of Palaearctic Hydrophiloidea (Coleoptera). Internet version 2019.01.01. http://www.waterbeetles.eu/documents/PAL_CAT_Hydrophiloidea_2019.pdf
- Ryndevich S.K. 2003a. Some records of Dytiscidae, Helophoridae, Hydrochidae, Hydrophilidae and Hydraenidae in Russia and other regions (Coleoptera) // Latissimus. No.16. P.17–20.
- Ryndevich S.K. 2003b. A review of the genus *Anacaena* Thomson, 1859 for the European part of Russia and adjacent regions (Coleoptera, Hydrophilidae) // Eurasian Entomological Journal. Vol.2. No.4. P.265–274.
- Ryndevich S.K. 2004. Review of species of the genus *Cercyon* Leach, 1817 of Russia and adjacent regions. I. Subgenus *Cercyon* (s.str.) Leach, 1817. *Cercyon lateralis*-group (Coleoptera: Hydrophilidae) // Annales Universitatis Mariae Curie-Skłodowska (Section C). Vol.59. P.1–13.
- Ryndevich S.K. 2008. Review of species of the genus *Cercyon* Leach, 1817 of Russia and adjacent regions. IV. The subgenus *Paracycreon* Orchymont, 1942 and *Dicyrtocercyon* Ganglbauer, 1904 (Coleoptera: Hydrophilidae) // Zoosystematica Rossica. Vol.17. No.2. P.89–97.
- Ryndevich S.K. 2014. [The fauna of hydrophiloids (Coleoptera: Hydrophiloidea) in the subtaiga zone of the Palaearctic] // BarSU Herald. Series of biological sciences (general biology), agricultural sciences (agronomy). Vol.2. P.19–35 [in Russian].
- Ryndevich S.K. 2017. New faunistic records of hydrophilid beetles (Coleoptera: Hydrophiloidea: Hydrophilidae) from Eurasia // BarSU Herald. Series of biological sciences (general biology), agricultural sciences (agronomy). Vol.5. P.65–70.
- Ryndevich S.K., Jia F., Fikáček M. 2017. A review of the Asian species of the *Cercyon unipunctatus* group (Coleoptera: Hydrophilidae: Sphaeridiinae) // Acta Entomologica Musei Nationalis Pragae. Vol.57. No.2. P.535–576.
- Shaarawi F.A., Angus R.B. 1990. A chromosomal investigation of five European species of *Anacaena* Thomson (Coleoptera: Hydrophilidae) // Entomologica Scandinavica. Vol.21. P.415–426.
- Short A.E. 2017. Systematics of aquatic beetles (Coleoptera): current state and future directions // Systematic Entomology. Vol.43. No.1. P.1–18.
- Smetana A. 1978. Revision of the subfamily Sphaeridiinae of America north of Mexico (Coleoptera: Hydrophilidae) // Memoirs of the Entomological Society of Canada. Vol.110. No.105. P.1–292.
- Zaitsev F.A. 1908. Catalogue des Coleopteres aquatiques des familles des Dryopidae, Georyssidae, Cyathoceridae, Heteroceridae et Hydrophilidae // Horae Societatis Entomologica Rossicae. Vol.38. No.4. P.283–420.