

Review of the families Gyrinidae, Haliplidae, Noteridae, Dytiscidae, Helophoridae, Hydrochidae, Hydrophilidae, Heteroceridae, Dryopidae, Elmidae, Hydraenidae and Scirtidae (Coleoptera) of Kemerovo Oblast, Russia

Обзор семейств Gyrinidae, Haliplidae, Noteridae, Dytiscidae, Helophoridae, Hydrochidae, Hydrophilidae, Heteroceridae, Dryopidae, Elmidae, Hydraenidae и Scirtidae (Coleoptera) Кемеровской области

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KEY WORDS: water beetles, fauna, new records, Western Siberia.

КЛЮЧЕВЫЕ СЛОВА: водные жесткокрылые, фауна, новые находки, Западная Сибирь.

ABSTRACT. All published data on the fauna of water beetles of the Kemerovo Oblast are summarised and supplemented with new findings. A total of 173 species from 12 families are registered in Kemerovo Oblast: Gyrinidae (7 species), Haliplidae (11), Noteridae (2), Dytiscidae (70), Helophoridae (12), Hydrochidae (3), Hydrophilidae (29 water and riparian, 16 terrestrial), Heteroceridae (7), Dryopidae (1), Elmidae (1), Hydraenidae (5) and Scirtidae (9). Twenty three species are recorded for the Kemerovo Oblast for the first time. *Agabus blatta* Jakowlew, 1897 is reported for the fauna of Russia for the first time.

РЕЗЮМЕ. Все опубликованные данные по фауне водных, прибрежных и родственных им наземных жесткокрылых Кемеровской области обобщены и дополнены новыми находками. Всего в области зарегистрированы 173 вида из 12 семейств: Gyrinidae (7 видов), Haliplidae (11), Noteridae (2), Dytiscidae (70), Helophoridae (12), Hydrochidae (3), Hydrophilidae (29 водных и прибрежных, 16 наземных), Heteroceridae (7), Dryopidae (1), Elmidae (1), Hydraenidae (5) и Scirtidae (9). Впервые для Кемеровской области приводятся двадцать три вида. Вид *Agabus blatta* Jakowlew, 1897 впервые приводится для фауны России.

Introduction

The fauna of water, riparian (partly Hydrophilidae, Heteroceridae) and taxonomically similar terrestrial (part of Hydrophilidae) Coleoptera of Kemerovo Oblast has been actively studied in recent years. As a result, the region has become the most studied in Siberia [Prokin *et al.*, 2022]. Information on various species of water beetles can be found in regional faunistic [Efimov, 2010; Efimov, Zinchenko, 2015; Efimov, Litovkin, 2015; Budaev, 2016; Litovkin, Efimov, 2017, 2020; Budaev *et al.*, 2018, 2019], and ecological [Budaev, Ereemeeva, 2021] publications. Some species of water beetles are recorded in taxonomic and faunal revisions [Ryndevich, 2003a, b, 2004, 2017; Hebauer, Ryndevich, 2005; Ryndevich *et al.*, 2017; Litovkin, 2023]. One species was described from Kemerovo Oblast using previously published material [Litovkin, Efimov, 2017; Klausnitzer, 2023]. Single species is listed in the regional Red Data Book [Budaev, 2021].

The aim of this study is to summarise all published data on the named beetles groups of Kemerovo Oblast and to publish new findings.

Material and methods

The article contains previously unpublished material from the collections of the second author (DE) and A.V. Korshunov (AK). The names of other collectors are given in the label data. The species identification was done by the first author. In the 'material' section, the sampling location, date of collection, number and sex of specimens, if known, are given. The material is deposited in the authors' collections.

The following short names of localities are used in the list of species:

- Azhendarovo** — Krapivinskiy District, 8 km SSW of Saltymakovo vill., Azhendarovo research biological station of Kemerovo State University, 24.VII.2009 (AK), 05.VIII.2009 (D. Sidorov leg.), 21–22.VIII.2010 (DE); 54°45'N 87°01'E, 165 m alt., 24–31.VIII.2013 (AK); shore of Azhendarovo Lake, 54°45'45.4"N 87°01'50.4"E, 150 m alt., 20–24.VII.2015, at light (AK).
- Akatsia** — Yashkinskiy District, env. of Akatsia vill., 55°42.148'N 85°29.008'E, 20.VI.2018 (DE).
- Andreyevka** — Kemerovskiy District, env. of Andreyevka vill., 55°27'40"N 86°14'49"E, pond, 2020 (DE).
- Bannovo** — Krapivinskiy District, env. of Bannovo vill., 55°07'N 86°42'E, 14.V.2017 (DE).
- Beket** — Yayskiy District, Beket vill., 15.VI.2018 (DE).
- Bekovo** — Belovskiy District, 4 km S of Bekovo vill., 54°19'40.7"N 86°12'44.7"E, steppe slope, at light, 10–12.VII.2020 (AK).
- Bertshikul** — Tisulskiy District, Bertshikul Lake, 12.VII.2012 (N. Teplova leg.).
- Botsad** — Kemerovo, Leninskiy District, Kuzbass botanical garden, 55°21'57.7"N 86°11'32.6", 180 m alt., soil traps (29.V.2021), at light (other dates) (AK).
- Demyanovka** — Leninsk-Kuznetskiy District, Demyanovka vill., 10–17.VII.2005.
- Ishim** — Yayskiy District, Ishim vill., Yaya River, 10.07.2012.
- Kortshugan** — Topkinskiy District, env. of Maly Kortshugan vill., Maly Kortshugan River, 27.VIII.2016 (DE).
- Kozhukh** — Tchbulinskiy District, 9 km S of Tshumay vill., mouth of Kozhukh River, 55°39.5'N 87°49.5'E, 3.VII.2019 (S. Luzyanin leg.).
- Krekovo** — Kemerovskiy District, Krekovo vill., 55°31'N 85°52'E, 29.07.2009, 26.VI.2011 (DE).
- Letyazhka** — Izhmorskiy District, env. of Letyazhka vill., Maly Antibes River, 18.VIII.2018 (DE).
- Morozovo** — Promyshlennovskiy District, Morozovo vill., 22.VI.2012 (DE).
- Mozzhukha** — Kemerovskiy District, 4 km W of Mozzhukha vill., soil traps, 5.IX.2018 (AK).
- Novokuznetsk** — Novokuznetsk, 53°39'48"N 86°56'17"E, 24.VII.2021 (DE).
- Okunevka** — Promyshlennovskiy District, 2.5 km S from Okunevo vill., 54°55'39.8"N 85°24'14.1"E, 152 m, Okunevka River, at light, 14–16.VIII.2021 (AK).
- Orbita** — Topkinskiy District, Orbita gardening partnership, pond, 55°14'44"N 85°45'31"E (2020) (DE), 55°14'55"N 85°45'48"E (2021) (DE), 55°14'57"N 85°45'57"E (2022 and 2023) (DE).
- Petrovskiy** — Kemerovo city, Petrovskiy District, 55°28'45"N 86°09'32"E and 55°28'59"N 86°09'54"E, dummed tributary of Osinovka River, lake (for *Dytiscus*), and stagnant water body, 25.VIII.2021 (DE).

Podgornoye — Leninsk-Kuznetskiy District, near Podgornoye vill., 1.VI.2017.

Podyakovo — Kemerovskiy District, Podyakovo vill., lake, 1.VII.1986 (O. Simitchenkova leg.); 3.VII.2007 (Yu. Zhuravlev leg.); 3–10.07.2007 (AK); at light, 7.VII.2007 (DE); 9.VII.2015 (DE).

Polutornik — Tisulskiy District, 10 km N from Polutornik vill., 1–8.VII.2009 (O. Artemova leg.).

Pushkino — Promyshlennovskiy District, 2–3 km S from Pushkino vill., 54°44'N 85°28'E, 8.VIII.2018 (DE).

Sarapki — Krapivinskiy District, env. of Sarapki vill., Unga River, 55°04'N 86°24'E, 14.V.2017 (DE).

Shabanovo — Leninsk-Kuznetskiy District, env. of Shabanovo vill., mouth of Sukhoy rutshey, 54°40'N 85°32'E, pond, 25.VII.2014 (DE).

Shestakovo — Tchbulinskiy District, env. of Shestakovo vill., slopes, 55°52'59.8"N 87°59'08.6"E, 15–18.VI.2015 (AK); Shestakovo vill., 55°53'26.0"N 87°57'32.2"E, at light, 18–30.VII.2019 (AK).

Shorokhovo — Novokuznetskiy District, env. of Shorokhovo vill., Tishinskiy Territory, 53°57'14.1"N 87°15'44.6"E, meadow, at light, 14–16.VIII.2020 (AK).

Taradanovo — Krapivinskiy District, Taradanovo vill., river, 54°45'N 86°40'E, 13.VIII.2017 (DE).

Tomskaya Pisanitsa — Yashkinskiy District, Tomskaya Pisanitsa Museum, 55°39'46.3"N 85°37'28.3"E, 82 m alt., at light, 29–30.IV.2022 (AK); 55°39'46.3"N 85°37'29.1"E, 98 m alt., at light, 20–21.V.2022, 13–15.VI.2022 (AK); 55°40'06.7"N 85°36'26.8"E, 124 m alt., at light, 9–13.VII.2022 (AK); 55°40'17.5"N 85°36'45.4"E, 122 m alt., at light, 1–2.IX.2022 (AK).

Treshchevskiy — Topkinskiy District, Treshchevskiy vill., 28.IX.2005 (M. Kokh leg.).

Tunda — Izhmorskiy District, Tunda vill., pond, 18.VIII.2018 (DE).

Tyazhinskiy — Tyazhinskiy vill., 28.VI.2020 (Yu. Skripko leg.).

Ussa — Mezhduretshenskiy District, right bank of Ussa River at 2–4 km up to mouth, 8–9.VIII.1999 (DE).

Verkhnyaya Ters' — Novokuznetskiy District, "Verkhnyaya Ters'" guarding point, 54°10'35"N 88°07'19"E, 400 m alt., 12.VII.2009 (AK).

Zelenogorskiy — Krapivinskiy District, env. of Zelenogorskiy vill., Tom' River, 55°01'N 87°05'E, 9.VII.2017 (DE).

Distribution is provided only for species new to the region. They are marked with an asterisk (*) in the text.

The summary table (Tab. 1) contains all species listed for the Kemerovo Oblast, as well as references to publications containing original data on them. A reference marked with an asterisk (*) in the table means that the material on the taxon given therein was partially or completely studied by the first author. Names are given in the text and in the table, in systematic order according to modern nomenclature.

Photographs of beetles and their details were taken with a Nikon D3300 DSLR camera, equipped with a microscope objectives LOMO 3.7×0.11 or LOMO 8×0.20 or photo objective Helios-44-2. Stacking and processing of photos carried out in programs digiCamContol 2.1.2.0, Nikon Capture NX-D, Zerene Stacker 1.04 and Adobe Photoshop CS3.

Temporary genital preparations were photographed in mixed (top and bottom) light. They were pre-cleaned from soft tissues with 10% KOH solution and clarified in glycerol or immediately clarified with lactic acid.

Table 1. Water, riparian and some terrestrial beetles of Kemerovo Oblast.**Таблица 1.** Водные, прибрежные и некоторые наземные жуки Кемеровской области.

Taxon		Original records
GYRINIDAE		
1	<i>Gyrinus (Gyrinus) minutus</i> Fabricius, 1798	Budaev <i>et al.</i> , 2019*; this article
2	<i>Gyrinus (Gyrinus) marinus</i> Gyllenhal, 1808	Budaev <i>et al.</i> , 2019*
3	<i>Gyrinus (Gyrinus) natator</i> (Linnaeus, 1758)	Budaev <i>et al.</i> , 2019*; this article
4	<i>Gyrinus (Gyrinus) opacus</i> C.R. Sahlberg, 1819	Budaev <i>et al.</i> , 2019; this article
5	<i>Gyrinus (Gyrinus) paykulli</i> Ochs, 1927	this article
6	<i>Gyrinus (Gyrinus) substriatus</i> Stephens, 1828	Budaev <i>et al.</i> , 2019
7	<i>Orectochilus villosus</i> (O.F. Müller, 1776)	Budaev <i>et al.</i> , 2019; this article
HALIPLIDAE		
1	<i>Brychius elevatus</i> (Panzer, 1793)	this article
2	<i>Haliphus (Halipidius) confinis</i> Stephens, 1828	Budaev <i>et al.</i> , 2018
3	<i>Haliphus (Halipidius) varius</i> Nikolai, 1822	Budaev, 2016
4	<i>Haliphus (Haliphus) apicalis</i> C.G. Thomson, 1868	Budaev <i>et al.</i> , 2018
5	<i>Haliphus (Haliphus) fluvialis</i> Aube, 1836	Budaev <i>et al.</i> , 2018; this article
6	<i>Haliphus (Haliphus) immaculatus</i> Gerhardt, 1877	Budaev <i>et al.</i> , 2018; this article
7	<i>Haliphus (Haliphus) lineolatus</i> Mannerheim, 1844	Budaev <i>et al.</i> , 2018
8	<i>Haliphus (Haliphus) ruficollis</i> (De Geer, 1774)	Budaev <i>et al.</i> , 2018; this article
9	<i>Haliphus (Haliphus) sibiricus</i> Motschulsky, 1860	Budaev <i>et al.</i> , 2018; this article
10	<i>Haliphus (Liaphlus) flavicollis</i> Sturm, 1834	Budaev <i>et al.</i> , 2018
11	<i>Haliphus (Liaphlus) fulvus</i> (Fabricius, 1801)	Budaev <i>et al.</i> , 2018
NOTERIDAE		
1	<i>Noterus clavicornis</i> (De Geer, 1774)	Budaev <i>et al.</i> , 2019
2	<i>Noterus crassicornis</i> (O.F. Müller, 1776)	Budaev <i>et al.</i> , 2019*
DYTISCIDAE		
1	<i>Agabus (Acatodes) clypealis</i> (C.G. Thomson, 1867)	Budaev <i>et al.</i> , 2019
2	<i>Agabus (Acatodes) congener</i> (Thunberg, 1794)	Budaev <i>et al.</i> , 2019*; this article
3	<i>Agabus (Acatodes) fuscipennis</i> (Paykull, 1798)	Budaev <i>et al.</i> , 2019*; this article
4	<i>Agabus (Acatodes) sturmi</i> (Gyllenhal, 1808)	Budaev <i>et al.</i> , 2019*; this article
5	<i>Agabus (Agabus) labiatus</i> (Brahm, 1790)	Budaev <i>et al.</i> , 2019*
6	<i>Agabus (Agabus) lineatus</i> (Gebler, 1848)	Budaev <i>et al.</i> , 2019
7	<i>Agabus (Agabus) uralensis</i> Nilsson et Petrov, 2006	this article
8	<i>Agabus (Gaurodytes) adpressus</i> Aubé, 1837	this article
9	<i>Agabus (Gaurodytes) affinis</i> (Paykull, 1798)	Budaev <i>et al.</i> , 2019*
10	<i>Agabus (Gaurodytes) blatta</i> Jakowlew, 1897	this article
11	<i>Agabus (Gaurodytes) unguicularis</i> (C.G. Thomson, 1867)	Budaev <i>et al.</i> , 2019
12	<i>Ilybius ater</i> (De Geer, 1774)	Budaev <i>et al.</i> , 2019; this article
13	<i>Ilybius balkei</i> Fery et Nilsson, 1993	Budaev <i>et al.</i> , 2019; this article
14	<i>Ilybius crassus</i> C.G. Thomson, 1856	Budaev <i>et al.</i> , 2019
15	<i>Ilybius erichsoni</i> (Gemminger et Harold, 1868)	Budaev <i>et al.</i> , 2019; this article
16	<i>Ilybius fenestratus</i> (Fabricius, 1781)	Budaev <i>et al.</i> , 2019
17	<i>Ilybius fuliginosus</i> (Fabricius, 1792)	Budaev <i>et al.</i> , 2019*; this article
18	<i>Ilybius guttiger</i> (Gyllenhal, 1808)	this article
19	<i>Ilybius lenensis</i> Nilsson, 2000	this article
20	<i>Ilybius neglectus</i> (Erichson, 1837)	Budaev <i>et al.</i> , 2019
21	<i>Ilybius subaeneus</i> Erichson, 1837	Budaev <i>et al.</i> , 2019
22	<i>Ilybius subtilis</i> (Erichson, 1837)	Budaev <i>et al.</i> , 2019*; this article
23	<i>Platambus maculatus</i> (Linnaeus, 1758)	Budaev <i>et al.</i> , 2019
24	<i>Colymbetes dahuricus</i> Aube, 1837	Budaev <i>et al.</i> , 2019
25	<i>Colymbetes dolabratus</i> (Paykull, 1798)	Budaev <i>et al.</i> , 2019
26	<i>Colymbetes paykulli</i> Erichson, 1837	Budaev <i>et al.</i> , 2019
27	<i>Colymbetes striatus</i> (Linnaeus, 1758)	Budaev <i>et al.</i> , 2019; this article
28	<i>Rhantus bistriatus</i> (Bergsträsser, 1777)	Budaev <i>et al.</i> , 2019
29	<i>Rhantus exsoletus</i> (Forster, 1771)	Budaev <i>et al.</i> , 2019; this article
30	<i>Rhantus frontalis</i> (Marsham, 1802)	Budaev <i>et al.</i> , 2019; this article
31	<i>Rhantus latitans</i> Sharp, 1882	Budaev <i>et al.</i> , 2019

Table 1. (continued)
Таблица 1 (продолжение)

32	<i>Rhantus suturalis</i> (W.S. Macleay, 1825)	Budaev <i>et al.</i> , 2019
33	<i>Acilius (Acilius) canaliculatus</i> (Nicolai, 1822)	Budaev <i>et al.</i> , 2019; this article
34	<i>Acilius (Acilius) sulcatus</i> (Linnaeus, 1758)	Budaev <i>et al.</i> , 2019
35	<i>Graphoderus austriacus</i> (Sturm, 1834)	this article
36	<i>Graphoderus zonatus verrucifer</i> (C.R. Sahlberg, 1824)	Budaev <i>et al.</i> , 2019
37	<i>Dytiscus circumcinctus</i> Ahrens, 1811	Budaev <i>et al.</i> , 2019; this article
38	<i>Dytiscus marginalis</i> Linnaeus, 1758	Budaev <i>et al.</i> , 2019; this article
39	<i>Hydaticus (Hydaticus) aruspex</i> Clark, 1864	Budaev <i>et al.</i> , 2019
40	<i>Hydroglyphus geminus</i> (Fabricius, 1792)	Budaev <i>et al.</i> , 2019*; this article
41	<i>Nebioporus airumilus</i> (Kolenati, 1845)	Budaev <i>et al.</i> , 2019
42	<i>Nebioporus depressus</i> (Fabricius, 1775)	Budaev <i>et al.</i> , 2019
43	<i>Nectoporus sanmarkii sanmarkii</i> (Sahlberg, 1826)	this article
44	<i>Neonectes natrix</i> (Sharp, 1884)	Budaev <i>et al.</i> , 2019
45	<i>Hydroporus angustatus</i> Sturm, 1835	Budaev <i>et al.</i> , 2019*; this article
46	<i>Hydroporus dorsalis</i> (Fabricius, 1787)	Budaev <i>et al.</i> , 2019
47	<i>Hydroporus figuratus</i> (Gyllenhal, 1826)	Budaev <i>et al.</i> , 2019
48	<i>Hydroporus fuscipennis</i> Schaum, 1867	Budaev <i>et al.</i> , 2019; this article
49	<i>Hydroporus incognitus</i> Sharp, 1869	this article
50	<i>Hydroporus memnonius</i> Nicolai, 1822	Budaev <i>et al.</i> , 2019
51	<i>Hydroporus nigrita</i> (Fabricius, 1792)	this article
52	<i>Hydroporus palustris</i> (Linnaeus, 1760)	Budaev <i>et al.</i> , 2019; this article
53	<i>Hydroporus cf. pseudopubescens</i> Zimmermann, 1919	this article
54	<i>Hydroporus rufifrons</i> (O.F. Müller, 1776)	this article
55	<i>Hydroporus striola</i> (Gyllenhal, 1826)	Budaev <i>et al.</i> , 2019*; this article
56	<i>Hydroporus tristis</i> (Paykull, 1798)	Budaev <i>et al.</i> , 2019*
57	<i>Graptodytes bilineatus</i> (Sturm, 1835)	this article
58	<i>Porhydrus lineatus</i> (Fabricius, 1775)	Budaev <i>et al.</i> , 2019; this article
59	<i>Clemnius decoratus</i> (Gyllenhal, 1810)	Budaev <i>et al.</i> , 2019
60	<i>Hygrotus (Coelambus) enneagrammus</i> (Ahrens, 1833)	Budaev <i>et al.</i> , 2019; this article
61	<i>Hygrotus (Coelambus) flaviventris</i> (Motschulsky, 1859)	Budaev <i>et al.</i> , 2019
62	<i>Hygrotus (Leptolambus) impressopunctatus</i> (Schaller, 1783)	Budaev <i>et al.</i> , 2019*; this article
63	<i>Hygrotus (Leptolambus) parallellogrammus</i> (Ahrens, 1812)	Budaev <i>et al.</i> , 2019; this article
64	<i>Hygrotus (Hygrotus) inaequalis</i> (Fabricius, 1777)	Budaev <i>et al.</i> , 2019; this article
65	<i>Hygrotus (Hygrotus) quinquelineatus</i> (Zetterstedt, 1828)	Budaev <i>et al.</i> , 2019
66	<i>Hygrotus (Hygrotus) versicolor</i> (Schaller, 1783)	Budaev <i>et al.</i> , 2019
67	<i>Hyphydrus ovatus</i> (Linnaeus, 1760)	Budaev <i>et al.</i> , 2019; this article
68	<i>Laccophilus hyalinus</i> (De Geer, 1774)	Budaev <i>et al.</i> , 2019*
69	<i>Laccophilus minutus</i> (Linnaeus, 1758)	Budaev <i>et al.</i> , 2019
70	<i>Laccophilus poecilus</i> Klug, 1834	Budaev <i>et al.</i> , 2019
HYDROCHIDAE		
1	<i>Hydrochus elongatus</i> (Schaller, 1783)	Efimov, Zinchenko, 2015; Litovkin, Efimov, 2020*; this article
2	<i>Hydrochus brevis</i> (Herbst, 1793)	Efimov, Zinchenko, 2015; Litovkin, Efimov, 2020*
3	<i>Hydrochus ignicollis</i> Motschulsky, 1860	Litovkin, Efimov, 2020*; this article
HELOPHORIDAE		
1	<i>Helophorus (Transithelophorus) crinitus</i> Ganglbauer, 1901	this article
2	<i>Helophorus (Rhopalohelophorus) aspericollis</i> Angus, 1973	Litovkin, Efimov, 2020*; this article
3	<i>Helophorus (Rhopalohelophorus) auricollis</i> Eschscholtz, 1822	Ryndevich, 2003a
4	<i>Helophorus (Rhopalohelophorus) barbarae</i> Angus, 1985	Litovkin, Efimov, 2020
5	<i>Helophorus (Rhopalohelophorus) croaticus</i> Kuwert, 1886	Litovkin, Efimov, 2020
6	<i>Helophorus (Rhopalohelophorus) discrepans</i> Rey, 1885	Litovkin, Efimov, 2020
7	<i>Helophorus (Rhopalohelophorus) granularis</i> (Linnaeus, 1760)	Litovkin, Efimov, 2020*; this article
8	<i>Helophorus (Rhopalohelophorus) lapponicus</i> Thomson, 1853	Litovkin, Efimov, 2020
9	<i>Helophorus (Rhopalohelophorus) nanus</i> Sturm, 1836	Litovkin, Efimov, 2020*
10	<i>Helophorus (Rhopalohelophorus) paraminutus</i> Angus, 1986	Litovkin, Efimov, 2020*; this article

Table 1. (continued)
Таблица 1 (продолжение)

11	<i>Helophorus (Rhopalohelophorus) redtenbacheri</i> Kuwert, 1886	Litovkin, Efimov, 2020
12	<i>Helophorus (Rhopalohelophorus) strigifrons</i> Thomson, 1868	Litovkin, Efimov, 2020*; this article
HYDROPHILIDAE		
water and riparian species		
1	<i>Berosus (Berosus) luridus</i> (Linnaeus, 1760)	Budaev, 2018; Litovkin, Efimov, 2020*
2	<i>Berosus (Berosus) signaticollis</i> (Charpentier, 1825)	Efimov, 2010; Litovkin, Efimov, 2020
3	<i>Berosus (Enoplurus) frontifoveatus</i> Kuwert, 1888	this article
4	<i>Berosus (Enoplurus) spinosus</i> (Steven, 1878)	Efimov, Zinchenko, 2015; Budaev, 2018
5	<i>Laccobius (Dimorpholaccobius) bipunctatus</i> (Fabricius, 1775)	Litovkin, Efimov, 2020*; this article
6	<i>Laccobius (Laccobius) minutus</i> (Linnaeus, 1758)	Budaev, 2018; Litovkin, Efimov, 2020*; this article
7	<i>Laccobius (Laccobius) colon</i> (Stephens, 1829)	Litovkin, Efimov, 2020*
8	<i>Paracymus aeneus</i> (Germar, 1824)	this article
9	<i>Hydrobius fuscipes</i> (Linnaeus, 1758) sensu lato	Efimov, 2010; Budaev, 2018; Litovkin, Efimov, 2020*; this article
10	<i>Hydrochara caraboides</i> (Linnaeus, 1758)	Efimov, 2010; Budaev, 2018; Litovkin, Efimov, 2020*
11	<i>Hydrophilus aterrimus</i> Eschscholtz, 1822	Litovkin, Efimov, 2020*
12	<i>Anacaena limbata</i> (Fabricius, 1792)	Budaev, 2018
13	<i>Anacaena lutescens</i> (Stephens, 1829)	Ryndevidch, 2003b; Efimov, 2010; Budaev, 2018; Litovkin, Efimov, 2020*; this article
14	<i>Cymbiodyta marginella</i> (Fabricius, 1792)	Litovkin, Efimov, 2020*; this article
15	<i>Enochrus (Enochrus) melanocephalus</i> (Olivier, 1792)	Litovkin, Efimov, 2020*; this article
16	<i>Enochrus (Lumetus) bicolor</i> (Fabricius, 1792)	Litovkin, Efimov, 2020*; this article
17	<i>Enochrus (Lumetus) fuscipennis</i> (Thomson, 1884)	Budaev, 2018; Litovkin, Efimov, 2020*; this article
18	<i>Enochrus (Lumetus) ochropterus</i> (Marsham, 1802)	Litovkin, Efimov, 2020*
19	<i>Enochrus (Lumetus) quadripunctatus</i> (Herbst, 1797)	Budaev, 2018; Litovkin, Efimov, 2020*; this article
20	<i>Enochrus (Lumetus) testaceus</i> (Fabricius, 1801)	Litovkin, Efimov, 2020*; this article
21	<i>Enochrus (Methydus) affinis</i> (Thunberg, 1794)	Budaev, 2018; Litovkin, Efimov, 2020*; this article
22	<i>Enochrus (Methydus) coarctatus</i> (Gredler, 1863)	Budaev, 2018; Litovkin, Efimov, 2020*; this article
23	<i>Helochares obscurus</i> (O.F. Müller, 1776)	Efimov, Zinchenko, 2015; Budaev, 2018; Litovkin, Efimov, 2020*; this article
24	<i>Coelostoma orbiculare</i> (Fabricius, 1775)	Efimov, 2010; Budaev, 2018; Litovkin, Efimov, 2020*; this article
25	<i>Cercyon (Cercyon) bifenestratus</i> Küster, 1851	Efimov, 2010; Litovkin, Efimov, 2020*; this article
26	<i>Cercyon (Cercyon) convexiusculus</i> Stephens, 1829	Ryndevidch, 2003a; this article
27	<i>Cercyon (Cercyon) marinus</i> Thomson, 1853	Efimov, 2010; Budaev, 2018; Litovkin, Efimov, 2020*; this article
28	<i>Cercyon (Cercyon) tristis</i> (Illiger, 1801)	this article
29	<i>Cercyon (Dicystocercyon) ustulatus</i> (Preyssler, 1790)	Litovkin, Efimov, 2020*; this article
terrestrial species		
30	<i>Cercyon (Cercyon) lateralis</i> (Marsham, 1802)	Ryndevidch, 2004; Efimov, 2010; Litovkin, Efimov, 2020*; this article
31	<i>Cercyon (Cercyon) pygmaeus</i> (Illiger, 1801)	Litovkin, Efimov, 2020*; this article
32	<i>Cercyon (Cercyon) verus</i> Shatrovskiy, 1989 (?)	Ryndevidch, 2003a
33	<i>Cercyon (Cercyon) quisquilius</i> (Linnaeus, 1760)	Ryndevidch <i>et al.</i> , 2017; this article
34	<i>Cercyon (Cercyon) unipunctatus</i> (Linnaeus, 1758)	Efimov, Zinchenko, 2015; Ryndevidch <i>et al.</i> , 2017; this article
35	<i>Cercyon (Paracercyon) analis</i> (Paykull, 1798)	Efimov, 2010; Litovkin, Efimov, 2020*
36	<i>Cercyon (Paracercyon) laminatus</i> Sharp, 1873	Litovkin, Efimov, 2020*; this article
37	<i>Cryptopleurum crenatum</i> (Kugelann, 1794)	Litovkin, Efimov, 2020*
38	<i>Cryptopleurum minutum</i> (Fabricius, 1775)	Litovkin, Efimov, 2020*; this article
39	<i>Cryptopleurum subtile</i> Sharp, 1884	Efimov, 2010
40	<i>Megasternum immaculatum</i> (Stephens, 1829)	Ryndevidch, 2017
41	<i>Pachysternum haemorrhoum</i> Motschulsky, 1866	Hebauer, Ryndevidch, 2005; Efimov, 2010; Litovkin, Efimov, 2020*; this article
42	<i>Sphaeridium bipustulatum</i> Fabricius, 1781	Litovkin, Efimov, 2020*
43	<i>Sphaeridium lunatum</i> Fabricius, 1792	Efimov, 2010; Litovkin, Efimov, 2020*
44	<i>Sphaeridium marginatum</i> Fabricius, 1787	Ryndevidch, 2003a; Efimov, Zinchenko, 2015; Litovkin, Efimov, 2020*

Table 1. (continued)
Таблица 1 (окончание)

45	<i>Sphaeridium scarabaeoides</i> (Linnaeus, 1758)	Efimov, 2010; Litovkin, Efimov, 2020*
DRYOPIDAE		
1	<i>Dryops auriculatus</i> (Geoffroy, 1785)	Efimov, Zinchenko, 2015
ELMIDAE		
1	<i>Stenelmis koreana</i> Satô, 1978	Litovkin et al., 2019*; this article
HYDRAENIDAE		
1	<i>Hydraena (Hydraena) riparia</i> Kugelann, 1794	Budaev, Eremeeva, 2021; this article
2	<i>Hydraena (Hydraena) cf. palustris</i> Erichson, 1837	this article
3	<i>Ochthebius (Asiobates) flavipes</i> Dalla Torre, 1877	Zinchenko, 2015; this article
4	<i>Ochthebius (Asiobates) cf. hungaricus</i> Endrödy-Younga, 1967	this article
5	<i>Limnebius (Limnebius) parvulus</i> (Herbst, 1797)	this article
HETEROCERIDAE		
1	<i>Augyles intermedius</i> (Kiesenwetter, 1843)	Efimov, Litovkin, 2015*; this article
2	<i>Heterocerus fenestratus</i> (Thunberg, 1784)	Efimov, Litovkin, 2015*; this article
3	<i>Heterocerus fossor</i> Kiesenwetter, 1843	this article
4	<i>Heterocerus fuscus</i> Kiesenwetter, 1843	Efimov, Litovkin, 2015*; this article
5	<i>Heterocerus marginatus</i> (Fabricius, 1787)	Efimov, Litovkin, 2015*; this article
6	<i>Heterocerus obsoletus</i> Curtis, 1828	Efimov, Litovkin, 2015*; this article
7	<i>Heterocerus parallelus</i> Gebler, 1830	this article
SCIRTIDAE		
1	<i>Scirtes hemisphaericus</i> (Linnaeus, 1758)	Litovkin, 2023*
2	<i>Contacyphon coarctatus</i> (Paykull, 1799)	Litovkin, Efimov, 2017*; this article
3	<i>Contacyphon padi</i> (Linnaeus, 1758)	Litovkin, Efimov, 2017*; this article
4	<i>Contacyphon palustris</i> (C.G. Thomson, 1855)	Litovkin, Efimov, 2017*
5	<i>Contacyphon pubescens</i> (Fabricius, 1792)	Litovkin, Efimov, 2017*
6	<i>Contacyphon variabilis</i> (Thunberg, 1787)	Litovkin, Efimov, 2017*; this article
7	<i>Contacyphon zoltani</i> Klausnitzer, 2023	Litovkin, Efimov, 2017*; Klausnitzer, 2022/2023
8	<i>Elodes tricuspidis</i> Nyholm, 1985	Litovkin, Efimov, 2017*
9	<i>Microcara testacea</i> (Linnaeus, 1767)	Litovkin, Efimov, 2017*

Results

List of species

Family **Gyrinidae** Latreille, 1810

Gyrinus (Gyrinus) minutus Fabricius, 1798
MATERIAL. Sarapki, 14.V.2017 — 1 ex.; Okunevka, 14–16.VIII.2021 — 1 ex.

Gyrinus (Gyrinus) natator (Linnaeus, 1758)
MATERIAL. Tomskaya Pisanitsa, 29–30.IV.2022 — 1 ♀.

Gyrinus (Gyrinus) opacus C. Sahlberg, 1819
MATERIAL. Verkhnyaya Ters', 12.VII.2009 — 1 ♂.
REMARKS. The studied male does not have reticulation on elytra. In Russia, *G. opacus* with smooth elytra were also recorded in the Irkutsk Oblast [Angus, 2011].

**Gyrinus (Gyrinus) paykulli* Ochs, 1927
MATERIAL. Tomskaya Pisanitsa, 29–30.IV.2022 — 1 ♂.
DISTRIBUTION. Europe, European part of Russia, Middle East, Kazakhstan and Central Asia, Siberia, Mongolia, China [Hájek, Fery, 2022]. In Siberia species is indicated eastwards to the Selenga River [Lafer, 1989]. Lectotype and paralectotypes of this species recently labelled originate from Barnaul (Altai Region) [Fery, Hájek, 2021].

Orectochilus villosus (O.F. Müller, 1776)
MATERIAL. Azhendarovo, 20–24.VII.2015 — 1 ex.

Family **Halipidae** Aubé, 1836

**Brychius elevatus* (Panzer, 1793)
MATERIAL. Letyazhka, 18.VIII.2018 — 1 ex.
DISTRIBUTION. Europe, European part of Russia, Western and Eastern Siberia, Iraq, Iran, Kyrgyzstan [Vondel, 2017]. In Siberia species is known eastwards at least to the south-west of Yakutia [Zaitsev, 1953].

Halipus (Halipus) fluviatilis Aubé, 1836
MATERIAL. Orbita, 24.VII.2020, 9.VIII.2020 — 1 ♂, 1 ♀.

Halipus (Halipus) immaculatus Gerhardt, 1877
MATERIAL. Orbita, 3.VII.2020, 24.VII.2020, 9.VIII.2020 — 3 ♂♂, 6 ♀♀.

Halipus (Halipus) ruficollis (De Geer, 1774)
MATERIAL. Azhendarovo, 20–24.VII.2015 — 4 ♂♂, 3 ♀♀; Akatsia, 20.VI.2018 — 1 ♂; Orbita, 9.VIII.2020, 12.VI.2021, 6.VIII.2022 — 2 ♂♂, 1 ♀; Andreyevka, 8.VII.2020, 14.VIII.2020 — 3 ♂♂, 4 ♀♀; Novokuznetsk, 24.VII.2021 — 2 ♂♂.

Halipus (Halipus) sibiricus Motschulsky, 1860
MATERIAL. Orbita, 3.VII.2020, 24.VII.2020, 6–11.VIII.2023 — 1 ♂, 3 ♀♀; Novokuznetsk, 24.VII.2021 — 1 ♂.

Family **Dytiscidae** Leach, 1815

Agabus (Acatodes) congener (Thunberg, 1794)
MATERIAL. Azhendarovo, 20–24.VII.2015 — 2 ♂♂.

Agabus (Acatodes) fuscipennis (Paykull, 1798)
MATERIAL. Polutornik, 1–8.VII.2009 — 1 ex.

Agabus (Acatodes) sturmii (Gyllenhal, 1808)
MATERIAL. Bertshikul, 12.VII.2012 — 1 ♂; Beket, 15.VI.2018 — 1 ♂; Orbita, 24.VII.2020 — 1 ♀.

**Agabus (Agabus) uralensis* Nilsson et Petrov, 2006
Figs 1–2.

MATERIAL. Azhendarovo, 20–24.VII.2015 — 1 ♂.

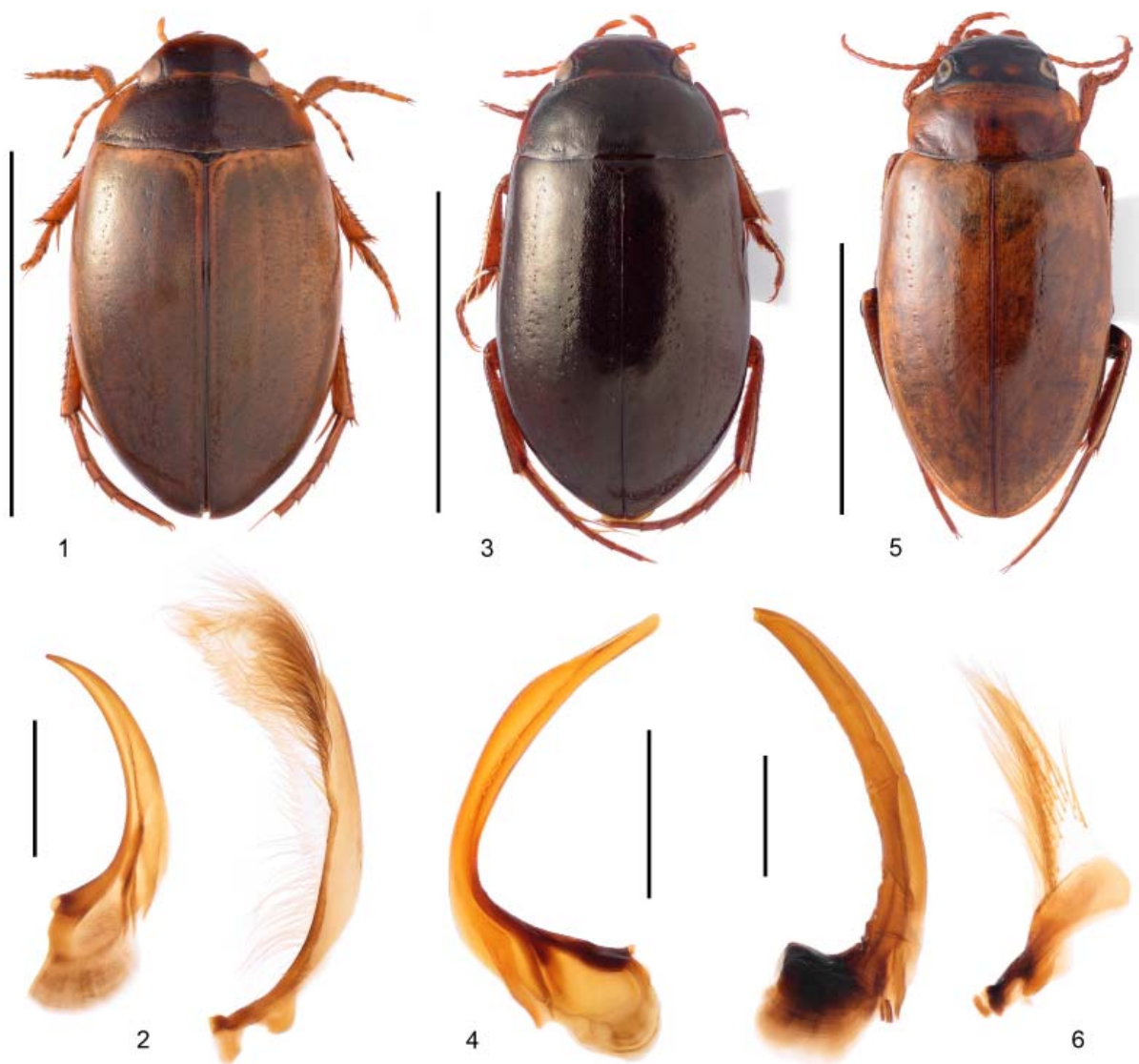
DISTRIBUTION. Species was recorded from Udmurtia, Chelyabinsk Oblast and Krasnoyarsk Territory, habitat in Kazakhstan requires confirmation [Nilsson, Petrov, 2006].

**Agabus (Gaurodytes) adpressus* Aubé, 1837
Figs 3–4.

MATERIAL. Shestakovo, 18–30.VII.2019 — 1 ♂, 1 ♀.
DISTRIBUTION. Holarctic [Nilsson, Hájek, 2024].

***Agabus (Gaurodytes) blatta* Jakowlew, 1897
Figs 5–6.

MATERIAL. Shestakovo, 18–30.VII.2019, A.A. Prokin det. — 1 ♂



Figs 1–6. Dytiscidae of Kemerovo Oblast: 1–2 — *Agabus uralensis*: male, dorsal habitus (1); penis in left view and left paramere (2); 3–4 — *Agabus adpressus*: male, dorsal habitus (3); penis in right view (4); 5–6 — *Agabus blatta*: male, dorsal habitus (5); penis in left view (deformed, apex is broken off) and left paramere (6). Scale bars 5 mm (1, 3, 5) and 0.5 mm (2, 4, 6). Photographs by S.V. Litovkin.

Рис. 1–6. Дытисциды Кемеровской области: 1–2 — *Agabus uralensis*: самец дорсально (1); пенис слева и левая парамера (2); 3–4 — *Agabus adpressus*: самец дорсально (3); пенис справа (4); 5–6 — *Agabus blatta*: самец дорсально (5); пенис слева (деформирован, вершина обломана) и левая парамера (6). Масштабные линейки 5 мм (1, 3, 5) и 0,5 мм (2, 4, 6). Фотографии С.В. Литовкина.

DISTRIBUTION. China (Xinjiang, Qinghai) [Nilsson, 1995], Mongolia [Prokin *et al.*, 2020], Kyrgyzstan [Nilsson, Hájek, 2024].

New for Russia.

Ilybius ater (De Geer, 1774)

MATERIAL. Ussa, 8–9.VIII.1999 — 1 ex.; Demyanovka, 10–17.VII.2005 — 1 ♂; Azhendarovo, 24–31.VIII.2013, 20–24.VII.2015 — 1 ♂, 1 ♀; Kortshugan, 27.VIII.2016 — 1 ♀; Orbita, 3.VIII.2020 — 1 ♂; Botsad, 29.V.2021, 15–16.VI.2021 — 1 ♂, 1 ♀; Tomskaya Pisanitsa, 29–30.IV.2022 — 4 ♂♂, 2 ♀♀.

Ilybius balkei (Fery et Nilsson, 1993)
Figs 7–8.

MATERIAL. Azhendarovo, 20–24.VII.2015 — 1 ♂.

Ilybius erichsoni (Gemminger et Harold, 1868)

MATERIAL. Treshchevskiy, 28.IX.2005 — 1 ♂; Podyakovo, 3.VII.2007, 7.VII.2007, 3–10.VII.2007 — 2 ♂♂, ?1 ♀; Azhendarovo, 20–24.VII.2015 — 1 ♂; Tomskaya Pisanitsa, 29–30.IV.2022 — 1 ♂, 4 ♀♀, 9–13.VII.2022 — 1 ♀; Orbita, 7.VII.2023 — 1 ♂, 2 ♀♀.

Ilybius fuliginosus (Fabricius, 1792)

MATERIAL. Podyakovo, 1.VII.1986 — 1 ex.; Demyanovka, 10.VII.2005 — 1 ex.; Verkhnyaya Ters', 12.VII.2009 — 1 ex.; Azhendarovo, 24–31.VIII.2013, 20–24.VII.2015 — 7 ex.; Shestakovo, 15–18.VI.2015 — 2 ♂♂, 1 ♀; Tunda, 18.VIII.2018 — 1 ♀; Orbita, 18.VII.2020 — 1 ♂; Novokuznetsk, 24.VII.2021 — 2 ex.

**Ilybius guttiger* (Gyllenhal, 1808)
Figs 9–10.

MATERIAL. Azhendarovo, 20–24.VII.2015 — 2 ♂♂, 1 ♀.

DISTRIBUTION. Europe, European part of Russia, Western Siberia [Nilsson, Hájek, 2024]. In Siberia species is recorded from the south of the Tyumen Oblast [Petrov, 2002], Buryatia and Transbaikal Territory [Tomilova, 1957], but the last records require verification [Berlov, Berlov, 1996].

**Ilybius lenensis* Nilsson, 2000
Figs 11–12.

MATERIAL. Azhendarovo, 20–24.VII.2015 — 2 ♂♂, 6 ♀♀.

DISTRIBUTION. The species is known only from Siberia: Khanty-Mansi Autonomous District ("Vas Jugán") and along the Yenisei and Lena Rivers [Fery, Nilsson, 1993 as *Agabus aenescens* Poppius, 1905].

Ilybius subtilis (Erichson, 1837)

MATERIAL. Shestakovo, 15–18.VI.2015, 18–30.VII.2019 — 1 ♂, 2 ♀♀; Azhendarovo, 20–24.VII.2015 — 1 ♂, 2 ♀♀; Orbita, 24.VII.2020 — 1 ♂; Botsad, 15–16.VI.2021 — 1 ♀; Tomskaya Pisanitsa, 29–30.IV.2022 — 1 ♂.

Colymbetes striatus (Linnaeus, 1758)

MATERIAL. Tomskaya Pisanitsa, 29–30.IV.2022 — 1 ♂, 1 ♀.

Rhantus exsoletus (Forster, 1771)

MATERIAL. Shestakovo, 15–18.VI.2015 — 1 ♀.

Rhantus frontalis (Marsham, 1802)

MATERIAL. Azhendarovo, 21–22.VIII.2010, 20–24.VII.2015 — 2 ♂♂, 2 ♀♀; Shestakovo, 15–18.VI.2015 — 1 ♀; Tomskaya Pisanitsa, 29–30.IV.2022 — 2 ♂♂, 1 ♀.

Acilius canaliculatus (Nicolai, 1822)

MATERIAL. Tunda, 18.VIII.2018 — 1 ♂.

**Graphoderus austriacus* (Sturm, 1834)

MATERIAL. Kozhukh, 3.VII.2019 — 1 ♀.

DISTRIBUTION. Palaearctic [Nilsson, Hájek, 2024].

Hydroglyphus geminus (Fabricius, 1792)

MATERIAL. Azhendarovo, 24.VII.2009, 20–24.VII.2015 — 2 ex.; Ishim, 10.VII.2012 — 1 ex.

**Nectoporus sanmarkii sanmarkii* (Sahlberg, 1826)

MATERIAL. Verkhnyaya Ters', 12.VII.2009, V. Zinchenko det. — 1 ex.

DISTRIBUTION. Holarctic [Nilsson, Hájek, 2024].

Hydroporus angustatus Sturm, 1835

MATERIAL. Azhendarovo, 20–24.VII.2015 — 3 ex.; Orbita, 18.VII.2020 — 1 ex.; Andreyevka, 14.VIII.2020 — 1 ex.

Hydroporus fuscipennis Schaum, 1867

MATERIAL. Azhendarovo, 20–24.VII.2015 — 1 ♂, 2 ex.

**Hydroporus incognitus* Sharp, 1869

MATERIAL. Azhendarovo, 24.VII.2009 — 1 ♂; Tomskaya Pisanitsa, 13–15.VI.2022 — ?1 ♀.

DISTRIBUTION. Europe, European part of Russia, Western and Eastern Siberia [Kirejtshuk, 2001; Nilsson, Hájek, 2024]. In Siberia from the Urals to Baikal [Berlov, Berlov, 1996], Tyumen (Yamalo-Nenets Autonomous District) and Irkutsk Oblasts, Buryatia [Andrejeva, Petrov, 2004; Petrov, 2010; Angus, 2011].

**Hydroporus nigrita* (Fabricius, 1792)

MATERIAL. Azhendarovo, 24.VII.2009 — 1 ♂; Krekovo, 26.VI.2011 — 1 ♂.

DISTRIBUTION. Europe, European part of Russia, Siberia, Kazakhstan, Kyrgyzstan [Nilsson, Hájek, 2024]. In Siberia species is known from Yamalo-Nenets Autonomous District and territories adjacent of Kemerovo Oblast [Shaverdo, 2004].

Hydroporus palustris (Linnaeus, 1760)

MATERIAL. Azhendarovo, 24.VII.2009, 20–24.VII.2015 — 1 ♂, 1 ♀, 8 ex.; Andreyevka, 14.VIII.2020 — 1 ♀.

**Hydroporus cf. pseudopubescens* Zimmermann, 1919
Fig. 13.

MATERIAL. Azhendarovo, 24.VII.2009, 20–24.VII.2015 — 3 ♀♀.

REMARKS. The studied beetles are similar in size and colouration to *H. striola* and differ from it primarily in the absence of distinct reticulation on elytra and pronotum. Weak reticulation is visible only along the anterior and lateral margins of pronotum and in the posterior third of elytra. They are also characterised by a wider lateral border of pronotum, coarser punctures of elytra and pronotum, considerably coarser punctures of the last ventrite of abdomen and sharply delineated light wedge-shaped spot in the anterior part of the head.

DISTRIBUTION. *Hydroporus pseudopubescens* is known only from Siberia: Tyumen Oblast (Khanty-Mansi Autonomous District, Yamalo-Nenets Autonomous District), Yakutia. Habitat in European part of Russia is questionable [Fery, Petrov, 2006].

**Hydroporus rufifrons* (O.F. Müller, 1776)
Figs 14–15.

MATERIAL. Azhendarovo, 20–24.VII.2015 — 1 ♂, 2 ♀♀, 7 ex.

DISTRIBUTION. Europe, European part of Russia, Western and Eastern Siberia [Zaitsev, 1953; Nilsson, Hájek, 2024].

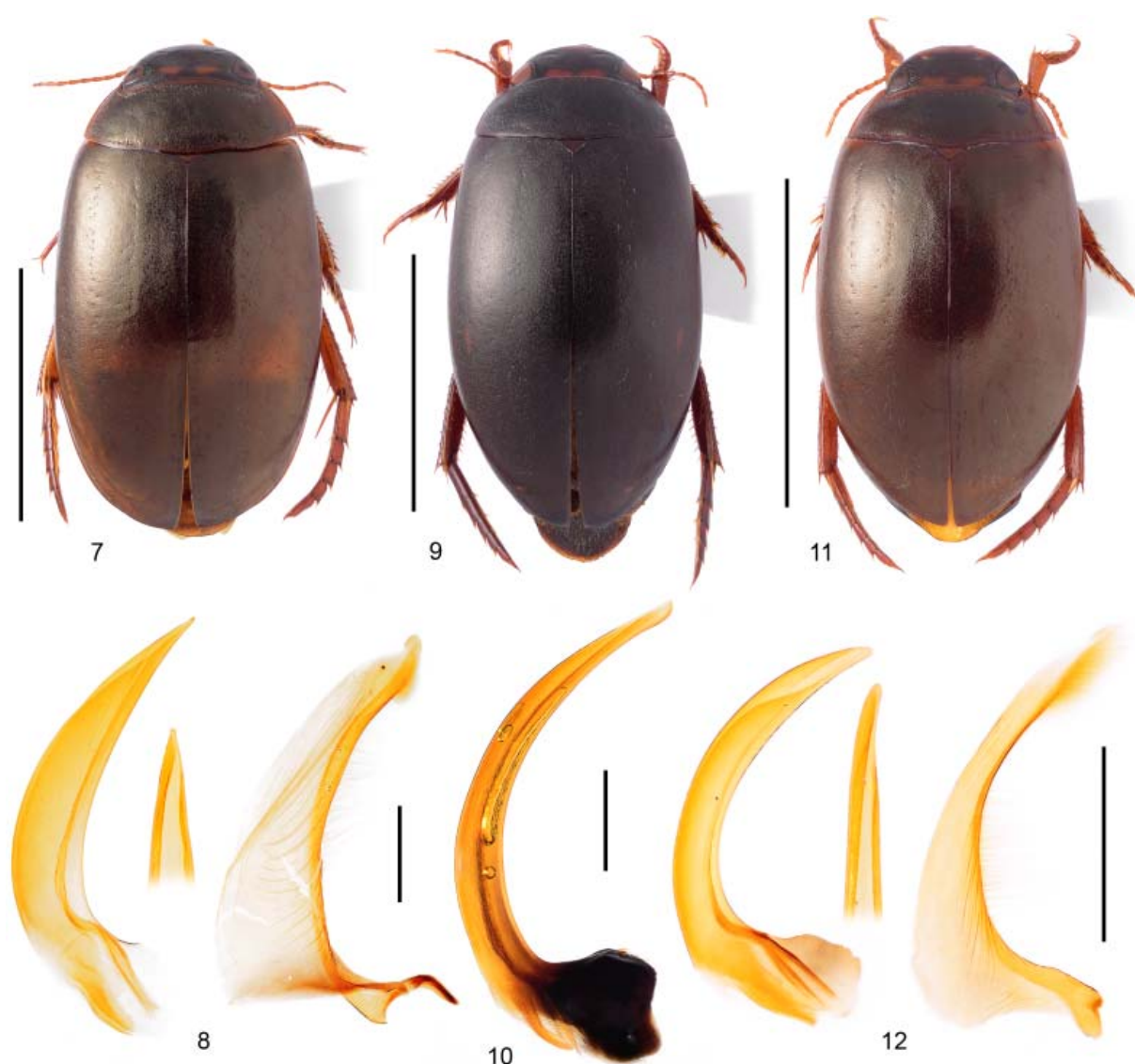
Hydroporus striola (Gyllenhal, 1826)

MATERIAL. Podyakovo, 3–10.VII.2007 — 1 ♂; Azhendarovo, 24.VII.2009, 20–24.VII.2015 — 37 ex.; Ishim, 10.VII.2012 — 1 ♂; Botsad, 24–25.V.2021 — 1 ♂, 1 ♀; Orbita, 22.V.2023 — 1 ♀.

**Graptodytes bilineatus* (Sturm, 1835)

MATERIAL. Morozovo, 22.VI.2012 — 1 ♂.

DISTRIBUTION. Europe, European part of Russia and Caucasus, Siberia eastward to Yakutsk [Zaitsev, 1953; Nilsson, Hájek, 2024], Kazakhstan [Kirejtshuk, 2001; Hájek, Fery, 2014; own data].



Figs 7–12. Dytiscidae of Kemerovo Oblast: 7–8 — *Ilybius balkei*: teneral male, dorsal habitus (7); penis in right view, apex of penis in ventral view and right paramere (8); 9–10 — *Ilybius guttiger*: male, dorsal habitus (9); penis in right view (10); 11–12 — *Ilybius lenensis*: male, dorsal habitus (11); penis in right view, apex of penis in ventral view and right paramere (12). Scale bars 5 mm (7, 9, 11) and 0.5 mm (8, 10, 12). Photographs by S.V. Litovkin.

Рис. 7–12. Дытисциды Кемеровской области: 7–8 — *Ilybius balkei*: неокрепший самец дорсально (7); пенис справа, вершина пениса вентрально и правая параметра (8); 9–10 — *Ilybius guttiger*: самец дорсально (9); пенис справа (10); 11–12 — *Ilybius lenensis*: самец дорсально (11); пенис справа, вершина пениса вентрально и правая параметра (12). Масштабные линейки 5 мм (7, 9, 11) и 0,5 мм (8, 10, 12). Фотографии С.В. Литовкина.

Porhydrus lineatus (Fabricius, 1775)

MATERIAL. Azhendarovo, 20–24.VII.2015 — 1 ex.

Hygrotus (Hygrotus) inaequalis (Fabricius, 1777)

MATERIAL. Azhendarovo, 20–24.VII.2015 — 3 ex.; Kortshugan, 27.VIII.2016 — 1 ex.; Orbita, 9.VIII.2020, 17.VIII.2021 — 2 ex.; Andreyevka, 14.VIII.2020 — 1 ex.; Novokuznetsk, 24.VII.2021 — 1 ex.

Hygrotus (Coelambus) enneagrammus (Ahrens, 1833)

MATERIAL. Botsad, 17–18.VI.2021 — 1 ♂, 2 ♀.

Hygrotus (Leptolambus) impressopunctatus (Schaller, 1783)

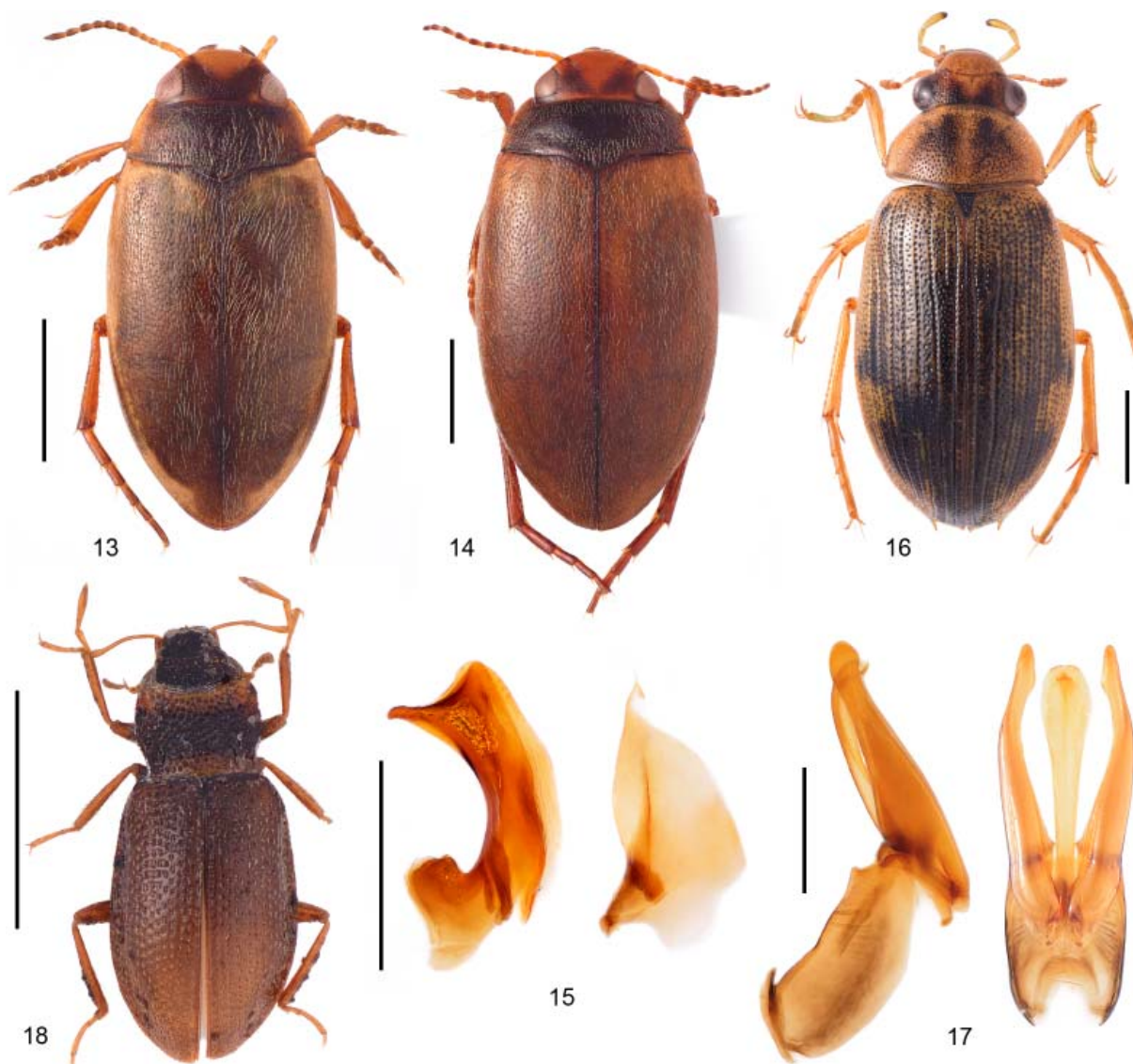
MATERIAL. Azhendarovo, 20–24.VII.2015 — 13 ex.

Hygrotus (Leptolambus) parallellogrammus (Ahrens, 1812)

MATERIAL. Azhendarovo, 20–24.VII.2015 — 1 ♀.

Hyphydrus ovatus (Linnaeus, 1760)

MATERIAL. Orbita, 18.VII.2020, 9.VIII.2020, 17.VIII.2021 — 1 ♂, 2 ex.



Figs 13–18. Dytiscidae, Hydrophilidae and Hydraenidae of Kemerovo Oblast: 13 — *Hydroporus* cf. *pseudopubescens*: female, dorsal habitus; 14–15 — *Hydroporus rufifrons*: female, dorsal habitus (14); penis in left view and left paramere (15); 16–17 — *Berosus frontifoveatus*: male, dorsal habitus (16); aedeagus in left and dorsal views (17); 18 — *Hydraena* cf. *palustris*: female, dorsal habitus. Scale bars 1 mm (13, 14, 16, 18) and 0.5 mm (15, 17). Photographs by S.V. Litovkin.

Рис. 13–18. Дытисциды, Гидрофилidae и Гидраениды Кемеровской области: 13 — *Hydroporus* cf. *pseudopubescens*: самка дорсально; 14–15 — *Hydroporus rufifrons*: самка дорсально (14); пенис слева и левая парамера (15); 16–17 — *Berosus frontifoveatus*: самец дорсально (16); эдегус слева и дорсально (17); 18 — *Hydraena* cf. *palustris*: самка дорсально. Масштабные линейки 1 мм (13, 14, 16, 18) и 0,5 мм (15, 17). Фотографии С.В. Литовкина.

Dytiscus circumcinctus Ahrens, 1811

MATERIAL. Azhendarovo, 5.VIII.2009 — 1 ♀; Okunevka, 14–16.VIII.2021 — 1 ♂; Petrovskiy, 25.VIII.2021 — 1 ♀.

Dytiscus marginalis Linnaeus, 1758

MATERIAL. Letyazhka, 18.VIII.2018 — 1 ♂; Tyazhinskiy, 28.VI.2020 — 1 ♂.

Family **Helophoridae** Leach, 1815**Helophorus (Transithelophorus) crinitus* Ganglbauer, 1901

MATERIAL. Okunevka, 14–16.VIII.2021 — 1 ex.

DISTRIBUTION. Asian part of Russia, China [Przewoźny, 2022]. In Russia it is known from the north of the Kulunda Plain, from Irkutsk Oblast, Primorsky and Khabarovsk territories [Angus, 1995; Kirejtshuk, Shatrovskiy, 2001].

Helophorus (Rhopalohelophorus) aspericollis Angus, 1973

MATERIAL. Podyakovo, 9.VII.2015 — 2 ♀♀; Orbita, 3.VII.2020 — 1 ♀.

Helophorus (Rhopalohelophorus) granularis (Linnaeus, 1760)

MATERIAL. Azhendarovo, 20–24.VII.2015 — 5 exs.; Mozzhukha, 5.IX.2018 — 1 ex.; Orbita, 3.VII.2020, 22.V.2023, 7.VII.2023 — 2 ♂♂, 1 ♀.

Helophorus (Rhopalohelophorus) paraminutus Angus, 1986

MATERIAL. Botsad, 17–18.VI.2021 — 1 ♂.

Helophorus (Rhopalohelophorus) strigifrons Thomson, 1868

MATERIAL. Azhendarovo, 20–24.VII.2015 — 1 ex.

Family **Hydrochidae** Thomson, 1859*Hydrochus elongatus* (Schaller, 1783)

MATERIAL. Azhendarovo, 20–24.VII.2015 — 2 ex.; Andreyevka, 14.VII.2020, 14.VIII.2020 — 1 ♂, 2 ♀♀; Petrovskiy, 25.VIII.2021 — 1 ♂.

Hydrochus ignicollis Motschulsky, 1860

MATERIAL. Petrovskiy, 25.VIII.2021 — 1 ♂, 1 ♀.

Family **Hydrophilidae** Latreille, 1802**Berosus (Enoplurus) frontifoveatus* Kuwert, 1888 Figs 16–17.

MATERIAL. Botsad, 17–18.VI.2021 — 1 ♂, 1 ♀.

DISTRIBUTION. Western Palearctic, including European Russia, eastwards to Western Siberia, Kazakhstan and Afghanistan [Przewoźny, 2022]. For Western Siberia, the species is listed from Chelyabinsk Oblast [Prokin *et al.*, 2008].

The easternmost registration of this species.

**Paracymus aeneus* (Germar, 1824)

MATERIAL. Botsad, 17–18.VI.2021 — 1 ex.

DISTRIBUTION. Transpalearctic [Przewoźny, 2022].

Laccobius (Dimorpholaccobius) bipunctatus (Fabricius, 1775)

MATERIAL. Orbita, 3.VII.2020, 6–11.VIII.2023 — 2 ♀♀; Andreyevka, 8.VII.2020 — 1 ♀; Novokuznetsk, 24.VII.2021 — 1 ♂, 1 ♀.

Laccobius (Laccobius) minutus (Linnaeus, 1758)

MATERIAL. Azhendarovo, 20–24.VII.2015 — 5 ex.; Orbita, 3.VII.2020, 18.VII.2020, 24.VII.2020, 3.VIII.2020, 12.VI.2021, 9.VII.2021, 6–11.VIII.2023 — 10 ex.; Andreyevka, 8.VII.2020, 14.VIII.2020 — 7 ex.; Petrovskiy, 25.VIII.2021 — 2 ♂♂, 1 ♀.

Hydrobius fuscipes (Linnaeus, 1758) sensu lato

MATERIAL. Azhendarovo, 24.VII.2009 — 2 ex.; Shestakovo, 15–18.VI.2015, 18–30.VII.2019 — 3 ex.; Andreyevka, 8.VII.2020 — 2 ex.; Bekovo, 10–12.VII.2020 — 1 ex.; Novokuznetsk, 24.VII.2021 — 6 ex.; Okunevka, 14–16.VIII.2021 — 9 ex.; Tomskaya Pisanitsa, 29–30.IV.2022 — 1 ex.

Anacaena lutescens (Stephens, 1829)

MATERIAL. Azhendarovo, 20–24.VII.2015 — 4 ex.; Orbita, 3.VII.2020, 18.VII.2020, 24.VII.2020, 3.VIII.2020, 9.VIII.2020, 22.VIII.2021, 6.VIII.2022, 6–11.VIII.2023 — 15 ♀♀, 17 ex.; Andreyevka, 8.VII.2020, 14.VIII.2020 — 11 ex.; Petrovskiy, 25.VIII.2021 — 19 ♀♀; Novokuznetsk, 24.VII.2021 — 1 ♀.

REMARKS. All 35 specimens, whose sex was determined, were females. This fact again supports the assumption of parthenogenetic reproduction of the local population [Litovkin, Efimov, 2020].

Cymbiodyta marginella (Fabricius, 1792)

MATERIAL. Petrovskiy, 25.VIII.2021 — 1 ex.; Tomskaya Pisanitsa, 29–30.IV.2022 — 1 ex.

Enochrus (Enochrus) melanocephalus (Olivier, 1793)

MATERIAL. Andreyevka, 8.VII.2020 — 1 ex.; Botsad, 17–18.VI.2021 — 1 ex.

Enochrus (Lumetus) bicolor (Fabricius, 1792)

MATERIAL. Shorokhovo, 14–16.VIII.2020 — 1 ex.; Botsad, 24–25.V.2021, 17–18.VI.2021 — 1 ♂, 7 ♀♀; Tomskaya Pisanitsa, 29–30.IV.2022, 13–15.VI.2022 — 4 ♀♀.

Enochrus (Lumetus) fuscipennis (Thomson, 1884)

MATERIAL. Azhendarovo, 20–24.VII.2015 — 3 ♂♂, 1 ♀; Shestakovo, 15–18.VI.2015 — 2 ♂♂, 2 ♀♀.

Enochrus (Lumetus) quadripunctatus (Herbst, 1797)

MATERIAL. Azhendarovo, 20–24.VII.2015 — 2 ♀♀; Shorokhovo, 14–16.VIII.2020 — 2 ♂♂, 1 ♀; Botsad, 17–18.VI.2021 — 1 ♂.

Enochrus (Lumetus) testaceus (Fabricius, 1801)

MATERIAL. Azhendarovo, 20–24.VII.2015 — ? 1 ♀; Andreyevka, 8.VII.2020, 14.VIII.2020 — 2 ♂♂, 1 ♀; Botsad, 17–18.VI.2021 — 1 ♂, 1 ♀; Tomskaya Pisanitsa, 29–30.IV.2022 — 2 ♀♀.

Enochrus (Methydrus) affinis (Thunberg, 1794)

MATERIAL. Shestakovo, 15–18.VI.2015 — 3 ex.; Azhendarovo, 20–24.VII.2015 — 39 ex.; Orbita, 3.VII.2020, 9.VIII.2020, 12.VI.2021 — 1 ♂, 2 ♀♀; Andreyevka, 8.VII.2020, 14.VIII.2020 — 3 ex.; Botsad, 24–25.V.2021, 17–18.VI.2021 — 6 ex.; Tomskaya Pisanitsa, 29–30.IV.2022 — 2 ex.

Enochrus (Methydus) coarctatus (Gredler, 1863)

MATERIAL. Shestakovo, 15–18.VI.2015 — 1 ex.; Azhendarovo, 20–24.VII.2015 — 28 ex.; Andreyevka, 14.VIII.2020 — 1 ex.; Botsad, 17–18.VI.2021 — 10 ex.; Novokuznetsk, 24.VII.2021 — 1 ex.; Petrovskiy, 25.VIII.2021 — 1 ex.; Tomskaya Pisanitsa, 29–30.IV.2022 — 2 ex.

Helochares (Helochares) obscurus (O.F. Müller, 1776)

MATERIAL. Azhendarovo, 20–24.VII.2015 — 6 ex.; Orbita, 3.VII.2020, 9.VII.2021 — 2 ex.; Andreyevka, 8.VII.2020, 14.VII.2020, 14.VIII.2020 — 9 ex.; Petrovskiy, 25.VIII.2021 — 6 ex.

Coelostoma (Coelostoma) orbiculare (Fabricius, 1775)

MATERIAL. Azhendarovo, 20–24.VII.2015 — 1 ex.; Andreyevka, 8.VII.2020 — 1 ex.; Orbita, 3.VIII.2020, 9.VIII.2020, 12.VI.2021, 26.VIII.2022 — 8 ex.; Shorokhovo, 14–16.VIII.2020 — 1 ex.; Okunevka, 14–16.VIII.2021 — 1 ex.

Cercyon (Cercyon) bifenestratus Küster, 1851

MATERIAL. Azhendarovo, 20–24.VII.2015 — 1 ♀.

Cercyon (Cercyon) convexiusculus Stephens, 1829

MATERIAL. Andreyevka, 8.VII.2020 — 1 ex.

Cercyon (Cercyon) marinus Thomson, 1853

MATERIAL. Shestakovo, 15–18.VI.2015 — 6 ex.; Azhendarovo, 20–24.VII.2015 — 1 ♂, 5 ex.; Shorokhovo, 14–16.VIII.2020 — 7 ex.; Botsad, 24–25.V.2021, 17–18.VI.2021 — 13 ex.; Tomskaya Pisanitsa, 20–21.V.2022 — 2 ex.; Tomskaya Pisanitsa, 29–30.IV.2022, 13–15.VI.2022 — 10 ex.

Cercyon (Cercyon) quisquilius (Linnaeus, 1760)

MATERIAL. Shorokhovo, 14–16.VIII.2020 — 1 ♀; Novokuznetsk, 24.VII.2021 — 2 ex.

Cercyon (Cercyon) pygmaeus (Illiger, 1801)

MATERIAL. Novokuznetsk, 24.VII.2021 — 2 ex.

**Cercyon (Cercyon) tristis* (Illiger, 1801)

MATERIAL. Azhendarovo, 20–24.VII.2015 — 1 ♂, 1 ♀; Botsad, 24–25.V.2021 — 1 ♂, 1 ex.

DISTRIBUTION. Europe, Russia up to Far East, China, Mongolia [Przewoźny, 2022]. In Siberia, the species is known from Omsk Oblast [Ryndevich, 2003a].

Cercyon (Cercyon) lateralis (Marshall, 1802)

MATERIAL. Orbita, 26.VIII.2022 — 1 ex.; Orbita, 7.VII.2023 — 1 ♀.

Cercyon (Cercyon) unipunctatus (Linnaeus, 1758)

MATERIAL. Shorokhovo, 14–16.VIII.2020 — 1 ♀.

Cercyon (Dicyrtocercyon) ustulatus (Preysslér, 1790)

MATERIAL. Andreyevka, 8.VII.2020, 14.VII.2020, 14.VIII.2020 — 4 ex.; Orbita, 18.VII.2020, 24.VII.2020, 3.VIII.2020, 9.VIII.2020 — 7 ex.; Orbita, 17.VIII.2021, 22.VIII.2021 — 3 ex.; Orbita, 6.VIII.2022, 26.VIII.2022 — 2 ex.

Cercyon (Paracycreon) laminatus Sharp, 1873

MATERIAL. Mozhukha, 5.IX.2018 — 2 ex.; Shestakovo, 18–30.VII.2019 — 1 ex.; Shorokhovo, 14–16.VIII.2020 — 8 ex.; Orbita, 7.VII.2023 — 1 ♀.

Pachysternum haemorrhoum Motschulsky, 1866

MATERIAL. Novokuznetsk, 24.VII.2021 — 2 ex.; Orbita, 7.VII.2023 — 2 ex.

Cryptopleurum minutum (Fabricius, 1775)

MATERIAL. Novokuznetsk, 24.VII.2021 — 2 ex.

Family **Heteroceridae** Macleay, 1825*Augyles intermedius* (Kiesenwetter, 1843)

MATERIAL. Azhendarovo, 20–24.VII.2015 — 1 ♂; Tomskaya Pisanitsa, 13–15.VI.2022 — 1 ex.

Heterocerus fenestratus (Thunberg, 1784)

MATERIAL. Shestakovo, 15–18.VI.2015 — 6 ex.; Azhendarovo, 20–24.VII.2015 — 38 ex.; Bekovo, 10–12.VII.2020 — 1 ex.; Shorokhovo, 14–16.VIII.2020 — 21 ex.; Botsad, 24–25.V.2021, 17–18.VI.2021 — 20 ex.; Okunevka, 14–16.VIII.2021 — 4 ex.; Tomskaya Pisanitsa, 29–30.IV.2022, 1–2.IX.2022 — 5 ex.; Orbita, 6–11.VIII.2023 — 1 ex.

**Heterocerus fossor* Kiesenwetter, 1843

MATERIAL. Tomskaya Pisanitsa, 13–15.VI.2022 — 2 ♀♀.

DISTRIBUTION. Europe, European part of Russia, Turkey, Iran, Kazakhstan and Central Asia (?), Siberia [Mascagni, 2016]. In Western Siberia this species is known from several regions [Sazhnev *et al.*, 2023].

Heterocerus fuscus Kiesenwetter, 1843

MATERIAL. Shestakovo, 15–18.VI.2015 — 1 ex.; Azhendarovo, 20–24.VII.2015 — 5 ex.; Andreyevka, 14.VII.2020 — 1 ex.; Orbita, 31.VII.2021 — 1 ex.

Heterocerus marginatus (Fabricius, 1787)

MATERIAL. Azhendarovo, 20–24.VII.2015 — 3 ex.

Heterocerus obsoletus Curtis, 1828

MATERIAL. Bekovo, 10–12.VII.2020 — 1 ex.; Botsad, 24–25.V.2021, 17–18.VI.2021 — 37 ex.; Tomskaya Pisanitsa, 29–30.IV.2022 — 1 ex.

**Heterocerus parallelus* Gebler, 1830

MATERIAL. Tomskaya Pisanitsa, 1–2.IX.2022 — 1 ♀.

DISTRIBUTION. Europe, European part of Russia, Lebanon, Kazakhstan and Central Asia, Siberia, Mongolia [Mascagni, 2016]. This species was originally described from the Altai Region and is known from other regions of Western Siberia [Sazhnev *et al.*, 2023].

Family **Elmidae** Curtis, 1830*Stenelmis koreana* Satô, 1978

MATERIAL. Azhendarovo, 20–24.VII.2015 — 1 ♀.

REMARKS. Female *S. koreana*, which flew into the light, was photographed on 03.VIII.2023 in Novosibirsk City, Nizhnyaya El'tsovka (<https://www.inaturalist.org/observations/176546498>, photo by M.A. Abdurashitov). The features visible in the photographs are sufficient to determine species and sex. Thus, in Russia, the species is recorded from the Jewish Autonomous Region, Kemerovo and Novosibirsk Oblasts [Litovkin *et al.*, 2019].

Family **Hydraenidae** Mulsant, 1844*Hydraena (Hydraena) riparia* Kugelann, 1794

MATERIAL. Krekovo, 29.VII.2009 — 1 ♀; Taradanovo, 13.VIII.2017 — 1 ♀; Beket, 15.VI.2018 — 1 ♂.

DISTRIBUTION. Transpalearctic [Jäch, Skale, 2015]. This species is mentioned for Kemerovo Oblast in a recent paper [Budaev, Ereemeeva, 2021], where its biology is discussed, but no collections data are given.

**Hydraena (Hydraena) cf. palustris* Erichson, 1837
Fig. 18.

MATERIAL. Bannovo, 14.V.2017 — 1 ♀.

REMARKS. The female is externally similar to *H. palustris* and differs from *H. riparia* Kugelann, 1794 by the structure of the last abdominal sternite. *Hydraena palustris* is one of two species of the genus given for Western Siberia, but without distribution details here.

DISTRIBUTION. Europe, European part of Russia, Western Siberia [Jäch, Prokin, 2005; Jäch, Skale, 2015].

Ochthebius (Asiobates) flavipes Dalla Torre, 1877

MATERIAL. Bannovo, 14.V.2017 — 1 ♂.

**Ochthebius (Asiobates) cf. hungaricus* Endrödy-Younga, 1967

MATERIAL. Podyakovo, 9.VII.2015 — 1 ♀.

REMARKS. The female differs from *O. flavipes* Dalla Torre, 1877 by the almost completely black colouration of the upper side of the body. Only these two species of the *O. rugulosus* species complex are known from Western Siberia.

DISTRIBUTION. Europe except western part, European part of Russia, Siberia, Kazakhstan [Jäch, Skale, 2015; Zinchenko, 2015]. In Siberia, the species is known from Tyumen and Novosibirsk Oblasts, Altai Krai, Irkutsk Oblast [Jäch, 1998; Jäch, Prokin, 2005; Angus, 2011; Zinchenko, 2015].

**Limnebius (Limnebius) parvulus* (Herbst, 1797)

MATERIAL. Ishim, 10.VII.2012 — 3 ♂♂; Shabanovo, 25.VII.2014 — ?1 ♀; Podgornoye, 1.VI.2017 — 1 ♂; Orbita, 16.VII.2021 — ?1 ♀.

DISTRIBUTION. Europe except western part, European part of Russia, Siberia [Jäch, Skale, 2015; Zinchenko, 2015]. In Siberia, the species is known from Tyumen, Novosibirsk and Irkutsk Oblasts [Jäch, 1993; Jäch, Prokin, 2005; Angus, 2011; Zinchenko, 2015].

Family Scirtidae Fleming, 1821

Contacyphon coarctatus (Paykull, 1799)

MATERIAL. Orbita, 9.VII.2021 — 1 ♂.

Contacyphon padi (Linnaeus, 1758)

MATERIAL. Beket, 15.VI.2018 — 1 ex.; Akatsia, 20.VI.2018 — 1 ex.; Orbita, 25.VIII.2022 — 1 ex.

Contacyphon variabilis (Thunberg, 1787)

MATERIAL. Pushkino, 8.VIII.2018 — 1 ♂; Botsad, 15–16.VI.2021, 25.VIII.2022 — 2 ♀♀.

Discussion

Thus, 173 species from 12 families of water, riparian and related terrestrial beetles are recorded from Kemerovo Oblast, including Gyrinidae (7 species), Haliplidae (11), Noteridae (2), Dytiscidae (70), Helophoridae (12), Hydrochidae (3), Hydrophilidae (29 water and riparian, 16 terrestrial), Heteroceridae (7), Dryopidae (1), Elmidae (1), Hydraenidae (5) and Scirtidae (9). Twenty three

species are recorded for the first time from Kemerovo Oblast.

Agabus blatta Jakowlew, 1897 is reported from Russia for the first time. Some published records need to be verified.

Obviously, the faunistic list obtained is not yet complete. We should expect additions in all families except Noteridae. There is no doubt that representatives of the families Spercheidae, Georissidae and Limnichidae can be found in the Kemerovo Oblast.

Competing interests. The authors declare no competing interests.

Acknowledgements. Authors are grateful to A.V. Korsunov and S.L. Luzyanin (Kemerovo) for the provided material, and to A.A. Prokin (Borok) and P.N. Petrov (Moscow) for clarifying the identification of some species.

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