New records of aquatic and riparian beetles (Coleoptera) for the fauna of the Vologda Oblast (Russia)

Новые находки водных и прибрежных жесткокрылых (Coleoptera) для фауны Вологодской области (Россия)

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KEY WORDS: Dytiscidae, Helophoridae, Hydrophilidae, Hydraenidae, Elmidae, Limnichidae, European Russia.

ABSTRACT. Thirty species of aquatic and riparian beetles (Coleoptera) from six families: Gyrinidae (1 species), Dytiscidae (14), Helophoridae (2), Hydrophilidae (5), Hydraenidae (7), and Limnichidae (1) are recorded for the Vologda Oblast for the first time. Ochthebius foveolatus and O. flavipes are recorded for North European Territory of Russia for the first time. Record of Gyrinus pullatus from Vologda Oblast is the southernmost in European part of Russia. The presence of Enochris bicolor and Riolus nitens in the Vologda Oblast is confirmed by new findings.

РЕЗЮМЕ. Для Вологодской области впервые приводится 30 видов водных и прибрежных жесткокрылых (Coleoptera) из 6 семейств: Gyrinidae (1 вид), Dytiscidae (14), Helophoridae (2), Hydrophilidae (5), Hydraenidae (7), и Limnichidae (1). Ochthebius foveolatus и O. flavipes впервые приводятся для севера Европейской части России. Находка Gyrinus pullatus из Вологодской области — самая южная для Европейской части России. Обитание Enochris bicolor и Riolus nitens на территории Вологодской области подтверждено новыми находками.

Introduction

The present paper continues our previous research of aquatic and riparian beetles of the Vologda Oblast [Prokin et al., 2016; Sazhnev et al., 2019a, b, 2020; Philippov et al., 2021]. In 2020–2021 aquatic and riparian beetles (Coleoptera) were collected in 16 municipal districts of the Vologda Oblast (north-eastern European Russia). A part of them is recorded for the Vologda Oblast for the first time, what determined the necessity of this publication.

Material and methods

The study is mostly based on the material collected in the Vologda Oblast from May to September 2020–2021 in more than 80 localities in different types of macrohabitats: lowland rivers and streams, mires, lakes and puddles etc. (Figs 1–6).

Different methods were used for material sampling: sweeping with the Balfour-Brown aquatic net, collecting of individuals with aquarium nets in shallow water bodies; “trampling” of Sphagnum beds, splashing of the shores of water bodies; and using a thermophotoelecclor for substrate samples, with 15 days exposure time [Golub et al., 2021; Philippov et al., 2017].

For estimation of potential of hydrogen (pH) and total dissolved solids concentration (TDS, ppm) was used a digital water quality tester EZ9908. The mire groundwater level was measured with a ruler (from the mire surface).

The material is deposited in the water invertebrates collection of the Papanin Institute for Biology of Inland Waters of the Russian Academy of Sciences (IBIW, Borok, Yaroslavl Oblast, Russia).

The materials were examined using a Micromed MC-5-ZOOM LED and Leica M165C stereomicroscopes. The photographs of habitus were taken by A.S. Sazhnev with the Canon EOS 4000D camera and Laowa 2.5 mm F 2.8 Ultra-Macro 2.5–5.0X objective or with the Leica
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MC170 HD (12MPs) digital microscope camera using the extended focus technology (Helicon Focus 7.7.4).

The abbreviations of the collectors names are accepted in the text: AK — A.S. Komarova, DP — D.A. Philippov. Russian names for different types of inhabited localities are translated as: city or town for “gorod”, rural locality for “selo”, settlement for “posyolok”, and village (abbreviation — vill.) for “derevnya”.

In addition to true water beetles ecological group, the list includes riparian beetles (Limnichidae) sensu M.A. Jäch [1998]. The sequence of the higher taxa and subdivisions of Russia are based on the Catalogue of Palaearctic Coleoptera [Fikáček et al., 2015a–b; Jäch, 2015; Hernando, Ribera, 2016; Jäch, Kodada, 2016; Hájek, 2017].

Thirty species (marked *) are recorded for the Vologda Oblast for the first time. The list of species is presented below.

Results

List of species

Family Gyrinidae Latreille, 1810

*Gyrinus (Gyrinus) pullatus Zaitsev, 1908

Figs 7–8.

MATERIAL. Vozhegodsky distr.: 3 km N of Myshchinskaya vill., Pertozero Lake, 60°42’12” N 39°36’11” E, littoral (depth 0.1–0.3 m, sandy-rocky bottom), 10.VII.2020: 1 ex. DP.

NOTE. This record is the southernmost in European part of Russia. Previously this species was recorded for European Russia from the Republic of Karelia (Silfverberg, 2004; Dyadichko, 2013).

Figs 7–8. Gyrinus pullatus: 7 — habitus, 8 — aedeagus, dorsal view. Scale bar: 1.0 mm.

Рис. 7–8. Gyrinus pullatus: 7 — габитус, 8 — эдеагус, сверху. Масштаб: 1.0 мм.
Family Dytiscidae Leach, 1815

*Agalbus (Acatoedes) pseudocypridealis* Schulz, 1933

**MATERIAL.** *Sokolsky distr.*: 2.1 km SE of Gorboro vill., Votcha River, 59°49´29´ ´N 44°33´36´ ´E, rocky bottom, depth 0.2 m, pH=7.7, TDS=163 ppm), 21.VIII.2020, 1 ex., DP, AK.

*Agabus (Gaurodutes) guttatus* (Paykull, 1798)

**MATERIAL.** *Kharovsky distr.*: 2.8 km NE of Grigorovo vill., Chirypadka River, 59°49´29´ N 44°33´36´ E, rocky bottom, depth 0.2–0.5 m, pH=7.7, TDS=163 ppm), 21.VIII.2020, 1 ex., DP, AK.

*Hybius crassus* C.G. Thomson, 1856

**MATERIAL.** *Kichmengsko-Gorodetsky distr.*: 3.8 km N of Podgorka vill., 60°05´18´ N 45°53´38´ E, sandy bottom, pH=7.1, TDS=163 ppm), 23.VII.2020, 1 ex., DP, AK.

*Hybius wasastjernae* C.R. Sahlberg, 1824

**MATERIAL.** *Velekoustyugsky distr.*: 1.9 km S of Dyakonovskaya vila., Buzul'nikove mire, 60°41´27´ N 42°24´15´ E, forested spring fen, spring puddles (depth 0.1 m, peaty bottom, pH=7.6, TDS=390 ppm), 30.VII.2020, 1 ex., DP.

*Rhanthus notaticollis* (Aubé, 1837)

**MATERIAL.** *Volegodsksky distr.*: 0.4 km SW of Eysynino vill., 59°38´54.5´ N 39°17´27.0´ E, pudding in the roadside (depth 0.01–0.1 m, clay bottom), 19.VIII.2020, 1 ex., DP, AK.

*Oreodytes septentrionalis* (Gyllenhall, 1826)

**MATERIAL.** *Velekoustyugsky distr.*: 2.5 km SE of Verkhnyaya Toz'ma vill., Bol'shaya Toz'ma River, 60°33´07´ N 45°14´57´ E, ripal (depth 0.1 m, sandy-rocky bottom, pH=7.8), 16.VII.2020, 1 ex., DP.

*Hydroporus discretus* Fairmaire et Brisout, 1859

**MATERIAL.** *Kharovsky distr.*: 2.6 km N of Sergeevskaya vill., Bol'shaya Toz'ma River, 60°33´07´ N 45°14´57´ E, ripal on the sandbar (depth 0.3–0.7 m, current velocity 0.01–0.2 m/s, pH=7.9, sandy-rocky bottom), 17.VII.2020, 1 ex., DP, AK *Ust-Kubinsky dist.*: 0.3 km SW of Kuznetsovo vill., 59°43´17.5´ N 39°48´21.0´ E, pudding in the roadside of a dirt road (depth 0.1–0.2 m, clay bottom, pH=8.0, TDS=195 ppm), 21.VIII.2020, 4 exs., DP, AK.

Hydroporus nigrata (Fabricius, 1792)

**MATERIAL.** *Velekoustyugsky distr.*: 4 km SE of Verkhnyaya Toz'ma vill., Bol'shaya Toz'ma River, 60°33´07´ N 45°14´57´ E, ripal (depth 0.1 m, sandy-rocky bottom, pH=7.8), 16.VII.2020, 1 ex., AK, DP.

*Hydroporus planus* (Fabricius, 1781)

**MATERIAL.** *Kharovsky distr.*: western part of Kharovsky town, 59°57´15´ N 40°09´50´ E, river (depth 0.2 m, sandy-rocky bottom, pH=7.4, TDS=230 ppm), 21.VIII.2020, 1 ex., DP, AK. *Velikoustyugsky distr.*: 4 km SE of Verkhnyaya Toz'ma vill., Bol'shaya Toz'ma River, 60°33´07´ N 45°14´57´ E, ripal (depth 0.1 m, sandy-rocky bottom, pH=7.8), 16.VII.2020, 2 exs., DP, AK. *Verkhovazhsky distr.*: 5 km SW of Smetanino rural locality, 60°36´41´ N 41°45´32´ E, power line, puddles (clay bottom, depth 0.01–0.1 m), 29.VII.2020, 2 exs., DP.

*Hydroporus planus* (Fabricius, 1781)

**MATERIAL.** *Kharovsky distr.*: western part of Kharovsky town, 59°57´15´ N 40°09´50´ E, pudding in the roadside of an asphalt road (depth 0.1 m, clay-silty bottom, pH=8.2, TDS=240 ppm), 21.VIII.2020, 1 ex., DP, AK.

**Graptoptyes granularis** (Linneaus, 1767)

**MATERIAL.** *Syamzhensky distr.*: 0.2 km SE of Vasyilevskaya vila., Yakhiren'ga River, 60°12´50´ N 41°18´58´ E, river (depth 0.1–0.2 m, rocky bottom, pH=7.4, TDS=62 ppm), 30.VII.2020, 1 ex., DP, AK. *Ust-Kubinsky dist.*: 0.3 km SW of Kuznetsovo vill., 59°43´17.5´ N 39°48´21.0´ E, pudding in the roadside of a dirt road (depth 0.1–0.2 m, clay bottom, pH=8.0, TDS=195 ppm), 21.VIII.2020, 1 ex., DP, AK.

*Ecdyonurus minutus* (Linneaus, 1758)

**MATERIAL.** *Gryazovetsky distr.*: 0.8 km SE of Zimnyak vill., Lezha River, 59°05´44´ N 40°24´12´ E, ripal (depth 0.1–0.2 m, clay bottom, pH=7.4, TDS=240 ppm), 24.VII.2020, 1 ex., DP, AK.
Family Heloporidae Leach, 1815

*Helophorus (Rhopalohelophorus) discrepans* Rey, 1885

**MATERIAL.** Gryazovetsky distr.: 0.5 km SW of Fedorkovo vill., Lukhta River, 59°01′56″N 40°15′46″E, river (depth 0.1–0.4 m, clay-silty bottom, pH=7.7, TDS=318 ppm), 23.VIII.2020, 1 ex., AK, DP; 0.6 km SW of Fedorkovo vill., Lukhta River, 59°01′56″N 40°15′46″E, ripal (depth 0.1–0.4 m, sandy-rocky bottom), 23.VIII.2020, 1 ex., DP, AK.

**Fig. 9.** Hydrobius rottenbergii. Scale bar: 1.0 mm.

**Puc. 9.** Hydrobius rottenbergii. Macurra: 1.0 mm.

*Helophorus (Rhopalohelophorus) flavipes* (Fabricius, 1792)

**MATERIAL.** Gryazovetsky distr.: 0.5 km SW of Fedorkovo vill., Lukhta River, 59°01′56″N 40°15′46″E, river (depth 0.1–0.4 m, clay-silty bottom, pH=7.7, TDS=318 ppm), 23.VIII.2020, 1 ex., AK, DP; 0.6 km SW of Fedorkovo vill., Lukhta River, 59°01′56″N 40°15′46″E, ripal (depth 0.1–0.4 m, sandy-rocky bottom), 23.VIII.2020, 1 ex., DP, AK.

**Fig. 9.** Hydrobius rottenbergii. Scale bar: 1.0 mm.

**Puc. 9.** Hydrobius rottenbergii. Macurra: 1.0 mm.

*Helophorus (Rhopalohelophorus) flavipes* (Fabricius, 1792)

**MATERIAL.** Gryazovetsky distr.: 0.5 km SW of Fedorkovo vill., Lukhta River, 59°01′56″N 40°15′46″E, river (depth 0.1–0.4 m, clay-silty bottom, pH=7.7, TDS=318 ppm), 23.VIII.2020, 1 ex., AK, DP; 0.6 km SW of Fedorkovo vill., Lukhta River, 59°01′56″N 40°15′46″E, ripal (depth 0.1–0.4 m, sandy-rocky bottom), 23.VIII.2020, 1 ex., DP, AK.

**Fig. 9.** Hydrobius rottenbergii. Scale bar: 1.0 mm.

**Puc. 9.** Hydrobius rottenbergii. Macurra: 1.0 mm.

*Helophorus (Rhopalohelophorus) flavipes* (Fabricius, 1792)

**MATERIAL.** Gryazovetsky distr.: 0.5 km SW of Fedorkovo vill., Lukhta River, 59°01′56″N 40°15′46″E, river (depth 0.1–0.4 m, clay-silty bottom, pH=7.7, TDS=318 ppm), 23.VIII.2020, 1 ex., AK, DP; 0.6 km SW of Fedorkovo vill., Lukhta River, 59°01′56″N 40°15′46″E, ripal (depth 0.1–0.4 m, sandy-rocky bottom), 23.VIII.2020, 1 ex., DP, AK.

**Fig. 9.** Hydrobius rottenbergii. Scale bar: 1.0 mm.

**Puc. 9.** Hydrobius rottenbergii. Macurra: 1.0 mm.

*Helophorus (Rhopalohelophorus) flavipes* (Fabricius, 1792)

**MATERIAL.** Gryazovetsky distr.: 0.5 km SW of Fedorkovo vill., Lukhta River, 59°01′56″N 40°15′46″E, river (depth 0.1–0.4 m, clay-silty bottom, pH=7.7, TDS=318 ppm), 23.VIII.2020, 1 ex., AK, DP; 0.6 km SW of Fedorkovo vill., Lukhta River, 59°01′56″N 40°15′46″E, ripal (depth 0.1–0.4 m, sandy-rocky bottom), 23.VIII.2020, 1 ex., DP, AK.

**Fig. 9.** Hydrobius rottenbergii. Scale bar: 1.0 mm.

**Puc. 9.** Hydrobius rottenbergii. Macurra: 1.0 mm.
*Limnebius* (*Limnebius*) *crinifer* Rey, 1885
Figs 22–23.

**MATERIAL.** Gryazovetsky distr.: 0.3 km S of Bol’shoe Denis’evo vill., Kom’yola River, 59°02′45″ N 40°18′19″ E, river (depth 0.1–0.4 m, clay-silty bottom, pH=7.6, TDS=205 ppm), 23.VIII.2020; 20 exs., DP, AK; 0.5 km SW of Fedorkovo vill., Lukhta River, 59°01′56″ N 40°15′46″ E, river (depth 0.1–0.4 m, clay-silty bottom, pH=7.7, TDS=318 ppm), 23.VIII.2020, 14 exs., AK, DP; 0.8 km SE of Zimnyak vill., Lezha River, 59°05′44″ N 40°24′12″ E, ripal (depth 0.1–0.2 m, clay bottom, pH=7.4, TDS=240 ppm), 24.VIII.2020, 4 exs., DP, AK; 0.6 km SE of Zimnyak vill., 59°05′47.5″ N 40°24′13.5″ E, puddle on the road at the edge of the field (depth 0.1 m, clay bottom, pH=7.6, TDS=68 ppm), 24.VIII.2020, 1 ex., DP, AK.

Mezhdurechensky distr.: 2.3 km NE of Markovskoe vill., tributary of Shejbukhta River, 59°16′42″ N 40°52′55″ E, stream (depth 0.1 m, clay-rocky bottom, pH=8.0, TDS=306 ppm), 24.VIII.2020, 3 exs., DP, AK.

Ust-Kubinsky distr.: 0.3 km N of Bol’shoe Denis’evo vill., Kom’yola River, 59°02′45″ N 40°18′19″ E, river (depth 0.1–0.4 m, clay-silty bottom, pH=7.6, TDS=205 ppm), 23.VIII.2020; 20 exs., DP, AK; 0.5 km SW of Fedorkovo vill., Lukhta River, 59°01′56″ N 40°15′46″ E, river (depth 0.1–0.4 m, clay-silty bottom, pH=7.7, TDS=318 ppm), 23.VIII.2020, 14 exs., AK, DP; 0.8 km SE of Zimnyak vill., Lezha River, 59°05′44″ N 40°24′12″ E, ripal (depth 0.1–0.2 m, clay bottom, pH=7.4, TDS=240 ppm), 24.VIII.2020, 4 exs., DP, AK; 0.5 km N of Ul’yanovka vill., Komyola River, 59°02′40″ N 40°11′21″ E, river (depth 0.1–0.6 m, sandy-rocky bottom, pH=7.6, TDS=131 ppm), 23.VIII.2020, 4 exs., AK, DP.

Tarnogsky distr.: 2.6 km N of Sergievskaya vill., Bol’shaya Salanga River, 60°16′02″ N 43°55′48″ E, ripal and on the sandbar (depth 0.3–0.7 m, current velocity 0.01–0.2 m/s, sandy-rocky bottom), 17.VII.2020, 1 ex., DP, AK.

NOTE. This record is the first from the North European Territory of Russia. Previously this species was recorded for European Russia from Central Territory (Moscow, Lipetsk, Ul’yanovsk and Samara Oblasts) [Prokin et al., 2015; Prokin, Nikitsky, 2016; Mazurov et al., 2020].

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*Ochthebius* (*Asiobates*) *alpinus* (Ieniuea, 1979)
Figs 14–15.

**MATERIAL.** Gryazovetsky distr.: 0.5 km N of Ul’yanovka vill., Kom’yola River, 59°02′40″ N 40°11′21″ E, river (depth 0.1–0.6 m, sandy-rocky bottom, pH=7.6, TDS=131 ppm), 23.VIII.2020; 4 exs., AK, DP.

Tarnogsky distr.: Porokhovo vill., 59°05′47.5″ N 40°24′13.5″ E, puddle on the road at the edge of the field (depth 0.1 m, clay bottom, pH=7.6, TDS=68 ppm), 24.VIII.2020, 1 ex., DP, AK.

*Ochthebius* (*Asiobates*) *flavipes* Dalla Torre, 1877
Figs 15–17.

**MATERIAL.** Gryazovetsky distr.: 0.6 km SE of Zimnyak vill., 59°05′47.5″ N 40°24′13.5″ E, puddle on the road at the edge of the field (depth 0.1 m, clay bottom, pH=7.6, TDS=68 ppm), 24.VIII.2020, 1 ex., DP, AK; 1 km SE of Bokrylovo vill., 59°41′40.0″ N 39°51′36.5″ E, puddle on the road at the edge of the field (depth 0.1 m, clay-silty bottom, pH=9.7, TDS=85 ppm), 21.VIII.2020, 1 ex., DP, AK.

NOTE. This record is the first from the North European Territory of Russia. Previously this species was recorded for European Russia from Central Territory (Moscow, Lipetsk, Ul’yanovsk and Samara Oblasts) [Prokin et al., 2015; Prokin, Nikitsky, 2016; Mazurov et al., 2020].

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*Hydraena* spp.: 10–11 — *Hydraena brittensi*; 12–13 — *H. pulchella*; 10, 12 — habitus; 11, 13 — aedeagus, lateral view. Scale bar: for 10, 12 — 1.0 mm; for 11, 13 — 0.3 mm.

Figs 10–13. *Hydraena* spp.: 10–11 — *Hydraena brittensi*; 12–13 — *H. pulchella*. 10, 12 — habitus; 11, 13 — aedeagus, lateral view.
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*Ochthebius (Asiobates) remotus* Reitter, 1885

Figs 18–19.

**MATERIAL.** 

**Gryazovetsky distr.**: 0.5 km N of Ul’yanovka vill., Komyola River, 59°02’40”N 40°11’21”E, ripal (depth 0.1–0.6 m, sandy-rocky bottom, pH=7.6, TDS=131 ppm), 23.VIII.2020; 51 exs., AK, DP. 0.3 km S of Bol’shoe Denis’ev vill., Kom’ya River, 59°02’45”N 40°18’19”E, ripal (depth 0.1–0.4 m, clay-silty bottom, pH=7.6, TDS=205 ppm), 23.VIII.2020, 42 exs., DP, AK.

**Tarnogsky distr.**: 2.6 km N of Sergievskaya vill., Bol’shaya Salanga River, 60°16’02”N 43°55’48”E, ripal and on the sandbar (depth 0.3–0.7 m, current velocity 0.01–0.2 m/s, sandy-rocky bottom), 17.VII.2020, 2 exs., DP, AK; 4 km SE of Krasnoe rural locality, near Aksenovskaya abandoned built-up area, Uftyuga River, 60°29’44”N 43°17’28”E, river backwater (depth 0.1–0.2 m, current velocity 0.01 m/s, pH=7.7, clay bottom), 18.VII.2020, 1 ex., DP, AK; same place; in the riverbed near the water’s edge (depth 0.1–0.5 m, current velocity 0.01–0.1 m/s, pH=7.7, clay bottom), 18.VII.2020, 6 exs., DP, AK; 1 km W of Nikolaevskaya vill., Sheben’ga River, 60°29’36”N 43°31’57”E, ripal and on the sandbar

Figs 14–21. *Ochthebius* spp.: 14–15 — *Ochthebius alpinus*; 16–17 — *O. flavipes*; 18–19 — *O. remotus*; 20–21 — *O. foveolatus*; 14, 16, 18, 20 — habitus; 15, 17, 19, 21 — aedeagus, lateral view. Scale bar: for 14, 16, 18, 20 — 1.0 mm; for 15, 17, 19, 21 — 0.3 mm.

Рис. 14–21. *Ochthebius* spp.: 14–15 — *Ochthebius alpinus*; 16–17 — *O. flavipes*; 18–19 — *O. remotus*; 20–21 — *O. foveolatus*; 14, 16, 18, 20 — габитус; 15, 17, 19, 21 — эдеагус, сбоку. Масштаб: для рис. 14, 16, 18, 20 — 1.0 мм; для рис. 15, 17, 19, 21 — 0.3 мм.
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(depth 0.1–0.5 m, current velocity 0.01–0.1 m/s, pH=7.5, sandy bottom), 19.VII.2020, 1 ex., DP, AK. *Sheksninsky distr.:* 1.5 km N of Bratkovo rural locality, Chyobsara River, 59°09’04”N 38°47’54”E, ripal (depth 0.01–0.1 m; sandy-silty bottom, pH=8.2, TDS=248 ppm), 18.VII.2020, 1 ex., AK, DP. *Usł.-Kubinsky distr.:* Porokhov vill., 59°39’21”N 39°50’25”E, puddles on the road on the bank of the river (depth 0.05 m, clay bottom, pH=7.9, TDS=266 ppm), 21.VIII.2020, 1 ex., DP, AK. *Velikoustyugsky distr.:* 1.5 km N of Mikhninnskaya vill., Sharden’ga River, 60°26’39”N 46°18’56”E, ripal (sandy-silty bottom, pH=8.4, TDS=94 ppm), 15.VII.2020, 9 exs., AK, DP.

*Ochthebius (Ochthebius) foveolatus* Germar, 1824

Figs 20–21.

**MATERIAL.** Velikoustyugsky distr.: near Studenoe vill., Strel’na River, 60°34’51”N 45°32’35”E, ripal (rocky bottom, depth 0.1–0.4 m, pH=8.8), 16.VII.2020, 4 exs., DP, AK.

**NOTE.** This record is the first from the North European Territory of Russia. Previously this species was recorded for Russia from Central European Territory (Samara Oblast) [Prokin et al., 2015].

Family Limnichidae Erichson, 1846

*Riolus nitens* (P.W.J. Müller, 1817)

Figs 24.

**MATERIAL.** Nyuksensky distr.: 4.7 km S of Bobrovskoe vill., Bol’shaya Bobrovka River, 60°26’21”N 44°47’52”E, ripal (depth 0.1–0.4 m, current velocity 0.01–0.1 m/s, pH=8.5, sandy-rocky bottom), 16.VII.2020, 1 ex., DP, AK. Tarnogsky distr.: 4 km SE of Krasnoe rural locality, near Aksenovskaya abandoned built-up area, Uftyuga River, 60°29’44”N 43°17’28”E, in the riverbed near the water’s edge (depth 0.1–0.5 m, current velocity 0.01–0.1 m/s, pH=7.7, clay bottom), 18.VII.2020, 1 ex., DP, AK.

**NOTE.** This rare species was recorded for the Vologda Oblast without locality information [Dumnich et al., 2008]. Our record confirms the presence of the species in the Vologda Oblast. *Riolus nitens* included in Red Data Book of Republic of Karelia [Kuznetsov, 2020] as Data Deficient (DD) taxon.
Conclusions

As a result of our study, species Ochthebius foveolatus and O. flavigipes are recorded for the North European Territory of Russia for the first time. In total, 30 species of aquatic and riparian beetles from six families, Gyrinidae (1 species), Dytiscidae (14), Helophoridae (2), Hydrophilidae (5), Hydraenidae (7), and Limnichidae (1) are recorded for the Vologda Oblast for the first time. The presence of Riobius nitens and Enochrus bicolor in the Vologda Oblast is confirmed by new records. Species Gyroinus pullatus is recorded from southernmost known locality in Eastern part of Russian Federation. Currently, 222 species (including phytophilous not predominantly aquatic species of Chrysomelidae and Curculionidae) of aquatic (177 species), riparian (8) and amphibiotic (37) beetles are registered for the Vologda Oblast: Gyrinidae — 8 species, Haliplidae — 9, Noteridae — 1, Dytiscidae — 77, Helophoridae — 12, Georissidae — 1, Hydrochidae — 3, Spercheidae — 1, Hydrophilidae — 37, Hydraenidae — 16, Scirtidae — 11, Elmidae — 7, Dryopidae — 6, Limnichidae — 2, Heteroceridae — 5, Chrysomelidae — 23 and Curculionidae — 3.

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Competing interests. The authors declare no competing interests.

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