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Additional data on the aquatic and riparian beetle fauna (Coleoptera) of Dagestan with new records for Russia and the North Caucasus

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Abstract. This article is a continuation of the inventory of the fauna of aquatic and water-associated beetles (Coleoptera) in the Republic of Dagestan (the North Caucasus, Russia). Ten species from three water (Halipidae, Helophoridae, Hydrophilidae) and one riparian (Heteroceridae) beetle families are recorded from Dagestan for the first time. *Helophorus mervensis* Semenov, 1900 is recorded for Russia for the first time. *Helophorus kerimi* Ganglbauer, 1901 is recorded for the first time from the European part of Russia and North Caucasus. *Helophorus hammondi* Angus, 1970, *H. syriacus* Kuwert, 1885, and *H. griseus* (Herbst, 1793) are recorded for the first from the North Caucasus.

Key words: Halipidae, Helophoridae, Hydrophilidae, Heteroceridae, new records, North Caucasus, Russia.

Дополнительные данные по фауне водных и околоводных жуков (Coleoptera) Дагестана с новыми находками для России и Северного Кавказа

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Резюме. Настоящая статья является продолжением инвентаризации фауны водных и связанных с водной средой жесткокрылых (Coleoptera) Республики Дагестан (Северный Кавказ, Россия). Десять видов из трех водных (Halipidae, Helophoridae, Hydrophilidae) и одного околоводного (Heteroceridae) семейства жуков впервые указаны из Дагестана. *Helophorus mervensis* Semenov, 1900 впервые приводится для территории России, *Helophorus kerimi* Ganglbauer, 1901 – для фауны европейской части России и Северного Кавказа. Виды *Helophorus hammondi* Angus, 1970, *H. syriacus* Kuwert, 1885 и *H. griseus* (Herbst, 1793) впервые указаны для фауны Северного Кавказа.

Ключевые слова: Halipidae, Helophoridae, Hydrophilidae, Heteroceridae, новые указания, Северный Кавказ, Россия.

Data on the aquatic and riparian beetle fauna of Dagestan were basically summarized in some articles [Brekhov, 2006; Ryndevich, 2007; Prokin et al., 2008; Klicheva et al., 2009; Brekhov et al., 2013; Brekhov, Ilyina, 2016; Sazhnev, Ilyina, 2017; Litovkin et al., 2021]. The present paper continues previous research of the aquatic and riparian beetle fauna of Dagestan and aims to report new regional records.

The paper is mostly based on the specimens collected in the Republic of Dagestan by E.V. Ilyina. The material examined is deposited in the Papanin Institute for Biology of Inland Waters of the Russian Academy of Sciences (Borok, Yaroslavl Region, Russia). The results of the study are provided as a check-list of collected species with faunistic notes on firstly recorded ones, including their general distribution and known records from the North Caucasus. The order of the higher taxa in the list and general distribution are based on catalogues of Palaearctic Coleoptera [Fikáček et al., 2015; Mascagni, 2016; Vondel, 2017; Przewoźny, 2021].

Family Halipidae

Halipus (Liaphlus) variegatus Sturm, 1834

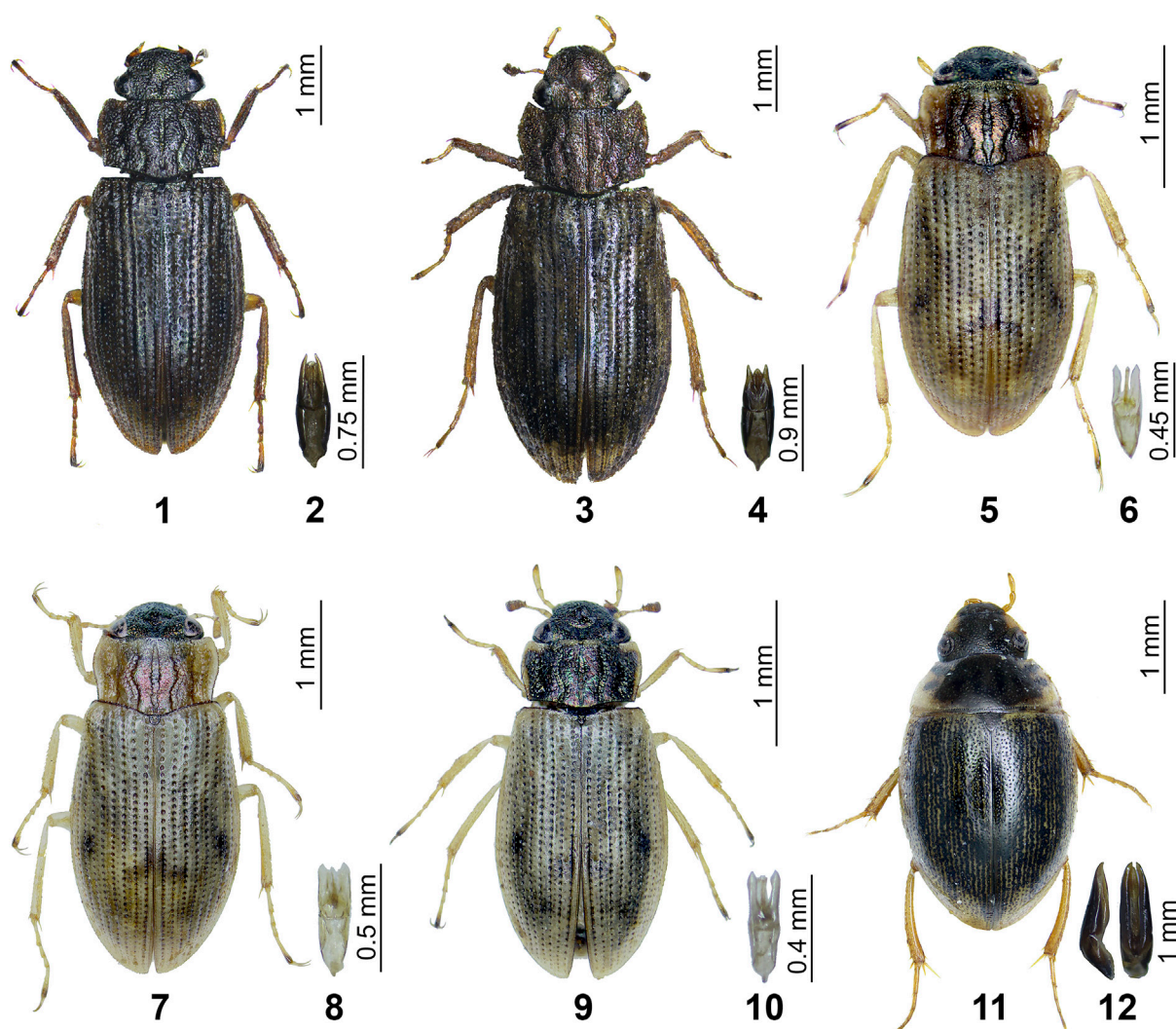
Material. 1♀, Kizilyurt Distr., Novy Chirkey vill. env., Kakayurt (destroyed by an earthquake and uninhabited village), pond, 20.06.2018 (E.V. Ilyina).

Distribution. The first record for the Republic of Dagestan. The species is distributed in North Africa (Algeria), Europe, the North Caucasus and Transcaucasia (Georgia, Azerbaijan), West Asia (Asian part of Turkey, Cyprus, Syria, Israel, Iran), Central Asia (Kyrgyzstan) [Kasymov, 1972; Vondel, 2017]. In the North Caucasus, this species was previously recorded from Krasnodar Region and the Republic of Adygea of Russia [Shapovalov, 2011].

Family Helophoridae

Helophorus (Helophorus) hammondi Angus, 1970
(Figs 1, 2)

Material. 1♂, Nogayskiy Distr., 20 km S Chervlyonnye Buruny vill., “Sosnovka” protected area, at light, 20.06.2019 (E.V. Ilyina).



Figs 1–12. Representatives of the families Helophoridae and Hydrophilidae from Dagestan.

1–2 – *Helophorus hammondi*; 3–4 – *H. syriacus*; 5–6 – *H. mervensis*; 7–8 – *H. kerimi*; 9–10 – *H. griseus*; 11–12 – *Laccobius syriacus*. 1, 3, 5, 7, 9, 11 – imagoes; 2, 4, 6, 8, 10, 12 – aedeagi.

Рис. 1–12. Представители семейств Helophoridae и Hydrophilidae из Дагестана.

1–2 – *Helophorus hammondi*; 3–4 – *H. syriacus*; 5–6 – *H. mervensis*; 7–8 – *H. kerimi*; 9–10 – *H. griseus*; 11–12 – *Laccobius syriacus*. 1, 3, 5, 7, 9, 11 – имаго; 2, 4, 6, 8, 10, 12 – эдеагусы.

Distribution. The first record for the North Caucasus. The species is distributed in south of European Russia (Kalmykia), in Central Asia (Kazakhstan), East Siberia, South and East Asia (India: Ladakh; China: Heilongjiang, Qinghai; Mongolia), and the Russian Far East (Primorskiy Region) [Angus et al., 2019; Przewoźny, 2021].

Helophorus (Helophorus) syriacus Kuwert, 1885
(Figs 3, 4)

Material. 2♂, 3♀, Tarumovka Distr., Kizlyar Bay, at light, 27.06.2020 (E.V. Ilyina).

Distribution. The first record for the North Caucasus. The species is distributed in eastern Europe (Crimea), Transcaucasia (Azerbaijan), West Asia (Asian part of Turkey, Israel, Saudi Arabia, Iran), and Central Asia (Kazakhstan, Uzbekistan, Turkmenistan) [Prokin et al., 2016; Angus et al., 2019; Przewoźny, 2021].

Helophorus (Rhopalohelophorus) mervensis
A.P. Semenov, 1900
(Figs 5, 6)

Material. 1♂, 1♀, Suleyman-Stalskiy Distr., Eminkhyur vill., at light, 13.07.2018 (E.V. Ilyina).

Distribution. The first record for Russia and the North Caucasus. The species is distributed in Transcaucasia (Armenia), West Asia (Asian part of Turkey, Saudi Arabia, Yemen, Iran, Afghanistan), Central Asia (Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan), and South Asia (India: Kashmir) [Przewoźny, 2021].

Helophorus (Rhopalohelophorus) kerimi Ganglbauer, 1901
(Figs 7, 8)

Material. 1♂, Magaramkent Distr., Samur vill., at light, 25.05.2018 (E.V. Ilyina); 1♀, Suleyman-Stalskiy Distr., Eminkhyur vill., at light, 13.07.2018 (E.V. Ilyina).

Distribution. The first record for the European part of Russia and the North Caucasus. The species is distributed in Transcaucasia (Georgia, Azerbaijan), West Asia (Asian part of Turkey, Iran), Central Asia (Kazakhstan, Kyrgyzstan), East and West Siberia, and East Asia (China, Mongolia) [Fikáček et al., 2015; Przewoźny, 2021].

Helophorus (Rhopalohelophorus) griseus (Herbst, 1793)
(Figs 9, 10)

Material. 1♂, Suleyman-Stalskiy Distr., Eminkhyur vill., at light, 13.07.2018 (E.V. Ilyina).

Distribution. The first record for the North Caucasus. The species is distributed in Europe, Transcaucasia (Abkhazia, Armenia), and West Asia (Asian part of Turkey, Iran) [Samin et al., 2015; Przewoźny, 2021].

Family Hydrophilidae

Laccobius (Dimorpholaccobius) syriacus Guillebeau, 1896
(Figs 11, 12)

Material. 2♂, Kumtorkalinskiy Distr., Almalo vill., at light, 25.06.2018 (E.V. Ilyina).

Distribution. The first record for the Republic of Dagestan. The species is distributed in North Africa (Algeria, Egypt), Europe, the North Caucasus and Transcaucasia (Georgia, Armenia, Azerbaijan), West Asia (Asian part of Turkey, Cyprus, Syria, Lebanon, Israel, Jordan, Iraq, Iran), Central Asia (Kazakhstan, Turkmenistan, Kyrgyzstan, Tajikistan, Afghanistan), South and East Asia (India: Meghalaya; Mongolia), and Oriental Region [Fikáček et al., 2015; Przewoźny, 2021]. In the North Caucasus, this species was recorded from Krasnodar Region, the Republic of Adygea and the Republic of North Ossetia–Alania of Russia [Shapovalov et al., 2018].

Cercyon (Cercyon) bifenestratus Küster, 1851

Material. 2♂, 2♀, Babayurt Distr., Alikazgan vill. vicinity, “Terskaya” biostation, Terek River bank, at light, 22.06.2011 (N. Gasanova).

Distribution. The first record for the Republic of Dagestan. The species is distributed in Europe, the North Caucasus and Transcaucasia (Georgia, Armenia), Central Asia (Kazakhstan), West and East Siberia, East Asia (China: Xinjiang; Mongolia) and the Russian Far East [Kasymov, 1972; Fikáček et al., 2015; Przewoźny, 2021]. In the North Caucasus, this species was recorded from the Kabardino-Balkarian Republic of Russia [Kornoukhova, Lvov, 2013].

Cercyon (Cercyon) marinus Thomson, 1853

Material. 1♀, Babayurt Distr., Alikazgan vill. vicinity, “Terskaya” biostation, Terek River bank, at light, 22.06.2011 (N. Gasanova).

Distribution. The first record for the Republic of Dagestan. This record confirms the presence of the species in the Caucasus. Previously, the species was known from this territory only from the published records indicating ‘Caucasus’ without locality information [Przewoźny, 2021]. The species is distributed in Europe, the Caucasus, West Asia (Asian part of Turkey), Central Asia (Kazakhstan, Turkmenistan), West and East Siberia, South and East Asia (Nepal, China, Mongolia), and the Far East (Russia, Japan) [Przewoźny, 2021].

Family Heteroceridae

Heterocerus fuscus fuscus Kiesenwetter, 1843

Material. 1♂, Nogayskiy Distr., 20 km S Chervlyonnye Buruny vill., “Sosnovka” protected area, at light, 20.06.2019 (E.V. Ilyina).

Distribution. The first record for the Republic of Dagestan. The species is distributed in Europe, the North Caucasus and Transcaucasia (Armenia), West Asia (Iran), Central Asia (Kazakhstan, Uzbekistan, Turkmenistan, Kyrgyzstan, Tajikistan), West and East Siberia [Mascagni, 2016; Prokin et al., 2016; Litovkin, Sazhnev, 2018; Sazhnev, 2020]. In the North Caucasus this species was recorded from Krasnodar Region and the Republic of Adygea of Russia [Sazhnev, 2017].

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