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First reliable record of *Contacyphon quadrum* (Klausnitzer, 1980) (Coleoptera: Scirtidae) from Russia and the North Caucasus

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Abstract. The rare marsh beetle, *Contacyphon quadrum* (Klausnitzer, 1980) (Coleoptera: Scirtidae), is reliably recorded from Russia and the North Caucasus for the first time. The type locality for this species is problematic; according to various sources, *C. quadrum* was described from Armenia, Azerbaijan, or Russia (Dagestan). No new finds of the species have been reported since its description. The present study is based on new material collected in the Kabardino-Balkarian Republic using an interception trap. The paper features illustrations of the aedeagi of *C. quadrum* and its related species from *coarctatus* group. Additionally, the scirtid species *Microcara luteicornis* Reitter, 1888 is recorded from the Kabardino-Balkarian Republic for the first time.

Keywords: beetles, Caucasus, Kabardino-Balkarian Republic, marsh beetles, Russia

Первое достоверное указание *Contacyphon quadrum* (Klausnitzer, 1980) (Coleoptera: Scirtidae) из России и Северного Кавказа

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Аннотация. Редкий вид жука-трясинника *Contacyphon quadrum* (Klausnitzer, 1980) (Coleoptera: Scirtidae) впервые достоверно приводится для России и Северного Кавказа. Типовое местонахождение (*locus typicus*) для этого вида остается проблематичным; согласно различным источникам, *Contacyphon quadrum* был описан из Армении, Азербайджана или России (Дагестан). Дополнительных находок вида известно не было. Новый материал был собран в Республике Кабардино-Балкария с использованием ловушки перехвата. В статье приводятся изображения эдеагусов *Contacyphon quadrum* и близких видов из группы *coarctatus*. Также впервые для территории Кабардино-Балкарии приводится вид *Microcara luteicornis* Reitter, 1888.

Ключевые слова: жуки, Кавказ, Республика Кабардино-Балкария, трясинники, Россия

Introduction

The marsh beetle (Coleoptera: Scirtidae) fauna of Russia comprises 55 species from 10 genera (Gusakov 2022; Sazhnev 2023a; 2023b). Of these, the genus *Contacyphon* is represented by 22 species (Sazhnev 2023b). A generalized list of the Scirtidae fauna of the Northwest Caucasus includes 19 species from six genera (Sadykov et al. 2022). The Caucasus region thus remains promising for new scirtid discoveries.

Material and methods

One male of *Contacyphon quadrum* (Klausnitzer, 1980) was collected using an interception trap (Volodchenko, Seleznev 2022) mounted on the trunk of a beech tree (*Fagus* sp.). The trap was set in a beech forest at an altitude of 808 m a.s.l. in the Kabardino-Balkarian Republic (North Caucasus) and was exposed from 20 May 20 to 5 June 2025.

The beetle was prepared for examination. The aedeagus was cleared in lactic acid for 24 hours. After removing excess membranes and tissues with dissecting needles, it was transferred to a clean portion of lactic acid for photography.

Photographs were taken with an Olympus DP23 6Mpx digital camera mounted on an Olympus CX43 compound microscope. Image stacking was performed using Zerene Stacker 1.04 software, and the final plates were composed using Inkscape.

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

Results and discussion

Contacyphon quadrum (Klausnitzer, 1980) (Fig. 1)

Material examined: 1♂, *Russia*: North Caucasus, Kabardino-Balkarian Republic, 3 km SE of Khasania vill. 808 m a.s.l., beech forest, interception trap, 20.05.–25.06.2025, A. N. Volodchenko leg. (IBIW).

The type locality for *C. quadrum* is problematic. According to various sources, this species was described from Armenia, Azerbaijan, or southern Russia (Dagestan).

In the original description, the type locality was given as ‘Wartapiu’ (Klausnitzer 1980); this locality, according to M. V. Maximenkov (Maximenkov 1995), lies in Armenia. Later, B. Klausnitzer (Klausnitzer 2009) suggested that the type locality of *C. quadrum* belongs to the territory of Russia — ‘Wartatil in Dagestan’ (Klausnitzer 2009). However, in the Catalogue of Palaearctic Coleoptera, the same author (Klausnitzer 2016) listed two countries for *C. Quadrum* — Armenia and Azerbaijan — with Russia absent from the distribution.

The holotype of *C. quadrum* was collected by the entomologist M. E. Ter-Minassian. Given the collector’s extensive expeditionary work in the Caucasus region, the type locality could be geographically assigned to any of the countries listed above. Consequently, the present find represents not only the first record for the North Caucasus but also the first reliable record for Russia.

C. quadrum differs from related species of the *coarctatus* group in the structure of the genitalia, primarily the aedeagus. Images of two closely related species described from Turkey and known from Transcaucasia are presented below in comparison with a photograph of the aedeagus of *C. quadrum* from Kabardino-Balkaria (Fig.).

Little is known about the ecology and biology of *C. quadrum* species. The holotype was collected from an oak tree (Klausnitzer 1980), whereas the new find is associated with a beech tree. *C. quadrum* is probably confined to broad-leaved forests and may develop in phytotelmata, as do some other Scirtidae species (*Sacodes*, *Prionocyphon*, and certain *Contacyphon*).

Together with *C. quadrum*, the following beetle species were collected: **Staphylinidae** — *Lordithon thoracicus* (Fabricius, 1777); *Autalia longicornis* Scheerpeltz, 1947; *Atheta castanoptera* (Mannerheim, 1830); *Atheta crassicornis* (Fabricius, 1793); *Atheta* sp.; *Bolitochara obliqua* Erichson, 1837; *Bolitochara tecta* Assing, 2014; *Scaphisoma agaricinum* (Linnaeus, 1758); *Philonthus succicola* C. Thomson, 1860; *Quedius (Microsaurus) edmundi* Coiffait, 1969; **Leiodidae** — *Agathidium* sp.; *Anisotoma orbicularis*

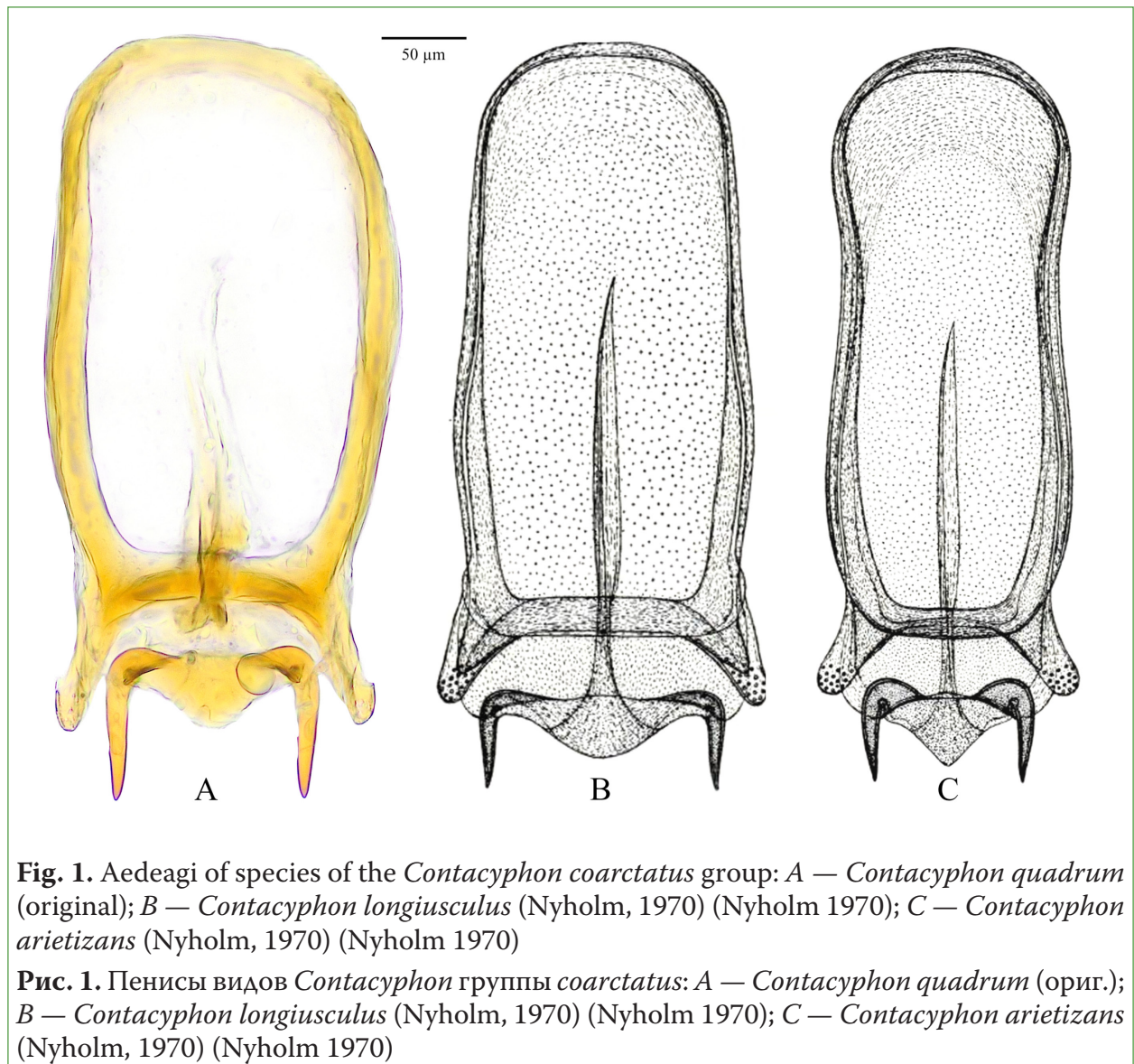


Fig. 1. Aedeagi of species of the *Contacyphon coarctatus* group: A — *Contacyphon quadrum* (original); B — *Contacyphon longiusculus* (Nyholm, 1970) (Nyholm 1970); C — *Contacyphon arietizans* (Nyholm, 1970) (Nyholm 1970)

Рис. 1. Пенисы видов *Contacyphon* группы *coarctatus*: A — *Contacyphon quadrum* (ориг.); B — *Contacyphon longiusculus* (Nyholm, 1970) (Nyholm 1970); C — *Contacyphon arietizans* (Nyholm, 1970) (Nyholm 1970)

(Herbst, 1791); *Catops* sp., and **Scirtidae** — *Microcara luteicornis* Reitter, 1888.

The latter species, *Microcara luteicornis*, is also recorded from Kabardino-Balkaria for the first time.

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References

- Gusakov, A. A. (2022) A new species of marsh beetles *Elodes martae* (Coleoptera: Scirtidae) from Moscow. *Humanity space: International Almanac*, vol. 11, no. 4, pp. 499–503. <https://doi.org/10.24412/2226-0773-2022-11-4-499-503> (In Russian)
- Klausnitzer, B. (1980) Bemerkenswerte Cyphon-Funde aus der Sowjetunion (Col., Helodidae) [Notable cyphon finds from the Soviet Union (Col., Helodidae)]. *Entomologische Nachrichten*, vol. 24, no. 8, pp. 123–126. (In German)
- Klausnitzer, B. (2009) *Insecta: Coleoptera: Scirtidae. Süßwasserfauna von Mitteleuropa. Bd. 20/17* [*Insecta: Coleoptera: Scirtidae. Freshwater fauna of Central Europe. Vol. 20/17*]. Heidelberg: Spektrum Akademischer Verlag, 326 p. <https://doi.org/10.1007/978-3-8274-2187-6> (In German)

- Klausnitzer, B. (2016) Family Scirtidae Fleming, 1821. In: I. Löbl, D. Löbl (eds.). *Catalogue of Palaearctic Coleoptera. Vol. 3. Scarabaeoidea — Scirtoidea — Dascilloidea — Buprestoidea — Byrrhoidea*. Leiden; Boston: Brill Publ., pp. 412–425. (In English)
- Maximenkov, M. V. (1995) New data on the faunistics of Palearctic Helodidae (Coleoptera). In: I. K. Lopatin (ed.). *Fauna and taxonomy: Proceedings of Zoological Museum of the Byelorussian University. Iss. 1*. Minsk: Navuka i tekhnika Publ., pp. 154–162. (In Russian)
- Nyholm, T. (1970) Beiträge zur Kenntnis der paläarktischen Helodiden. 1. *Cyphon*-Arten aus der Türkei. Studien über die Familie Helodidae. XI [Contributions to the knowledge of Palearctic helodis. 1. *Cyphon* species from Turkey. Studies on the family Helodidae. XI]. *Entomologisk Tidskrift*, vol. 91, pp. 24–41. (In German)
- Sadykov, R. K., Shapovalov, M. I., Sazhnev, A. S. (2022) Materials to the fauna of marsh beetles (Coleoptera: Scirtidae) of the Northwest Caucasus. *Caucasian Entomological Bulletin*, vol. 18, no. 2, pp. 279–286. <https://doi.org/10.23885/181433262022182-279286> (In Russian)
- Sazhnev, A. S. (2023a) An Asian species, *Sacodes martae* (Gusakov, 2022), comb. n. (Coleoptera: Scirtidae), described from Moscow (Russia). *Caucasian Entomological Bulletin*, vol. 19, no. 2, pp. 243–245. <https://doi.org/10.5281/zenodo.8359971> (In Russian)
- Sazhnev, A. S. (2023b) New and interesting records of beetles family Scirtidae (Coleoptera) on the territory of European part of Russia. *Transactions of Papanin Institute for Biology of Inland Waters RAS*, no. 101 (104), pp. 49–54. <https://doi.org/10.47021/0320-3557-2023-48-53> (In Russian)
- Volodchenko, A. N., Seleznev, D. G. (2022) Communities of saproxylic beetles of silver birch (*Betula pendula* Roth.) in the Voroninsky Nature Reserve. *Contemporary Problems of Ecology*, vol. 15, no. 1, pp. 71–82. <https://doi.org/10.1134/S1995425522010097> (In English)

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