

A new species of the genus *Synapion* Schilsky, 1902 (Coleoptera, Brentidae) from Krasnoyarskii Krai, Russia

Новый вид рода *Synapion* Schilsky, 1902 (Coleoptera, Brentidae) из Красноярского края, Россия

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Ключевые слова: Curculionoidea, Apioninae, Synapiina, новый вид, Северная Сибирь.

Abstract. A new species, *Synapion* (*Parasynapion*) *putoranchik* Legalov, **sp.n.**, from the vicinity of Norilsk in Krasnoyarskii Krai, Russia is described and illustrated. The new species is very similar to *Synapion alexandri* Korotyaev, 1988 and differs in broader elytra, narrower rostrum, less curved apex of aedeagus in lateral projection, and weakly narrowed aedeagus apically. This is the northernmost record of the genus *Synapion* Schilsky, 1902 and the first record for Krasnoyarskii Krai. Distribution map of *Synapion* species is given.

Резюме. В статье описан новый вид *Synapion* (*Parasynapion*) *putoranchik* Legalov, **sp.n.** из окрестностей Норильска Красноярского края. Новый вид очень похож на *Synapion alexandri* Коротяев, 1988, но отличается более широкими надкрыльями, более узкой головотрубкой, слабее изогнутой вершиной эдегуса (при просмотре сбоку) и слабо суженным эдегусом на вершине. Это самая северная находка рода *Synapion* Schilsky, 1902 и первая находка для Красноярского края. Приведена карта распространения видов рода *Synapion*.

Introduction

The subfamily Apioninae of the family Brentidae was represented in West and East Siberia by 96 species recorded by Legalov [2020, 2023] and Legalov and Reshetnikov [2021]. The genus *Synapion* Schilsky, 1902 belongs to the subtribe Synapiina of the tribe Apionini. Three species are known from Siberia, *S. (Parasynapion) alexandri* Korotyaev, 1988 from Tyva, *S. (Parasynapion) lyubechanskii* Legalov, 2023 from Khakassia and *S. (Synapion) ebeninum* (Kirby, 1808) from Kurganskaya and Tyumenskaya Oblasts [Korotyaev, 1988; Legalov, 2020, 2023].

Participants of the Great Scientific Expedition 2022–2023 led by Prof. Viktor V. Glupov (Institute of Systematics and Ecology of Animals, Novosibirsk) collected a new species of the genus *Synapion* near Norilsk City.

This paper describes the new species of the genus *Synapion* from Krasnoyarskii Krai. This is the northernmost record of a species of this genus.

Material and methods

Type specimens of *Synapion putoranchik* sp.n. are deposited in the Institute of Systematics and Ecology of Animals (Russia: Novosibirsk) and *S. alexandri* in the Zoological Institute of the Russian Academy of Sciences (Russia: St. Petersburg).

The photographs (Figs. 1–7) were taken by S.V. Reshetnikov (Novosibirsk).

The terminology of the weevil body is based on Alonso-Zarazaga [1990] and Lawrence et al. [2010].

Nomenclatural acts introduced in the present work are registered in ZooBank (www.zoobank.org) under urn:lsid:zoobank.org:pub: urn:lsid:zoobank.org:pub:D7A101D4-5159-4AEE-9E8F-E8B-EB6C39349.

Results

Insecta: Coleoptera: Curculionoidea:

Brentidae: Apioninae: Apionitae: Apionini: Synapiina
Synapion Schilsky, 1902

Synapion (Parasynapion) Legalov, 2003

Synapion (Parasynapion) putoranchik Legalov, **sp.n.**

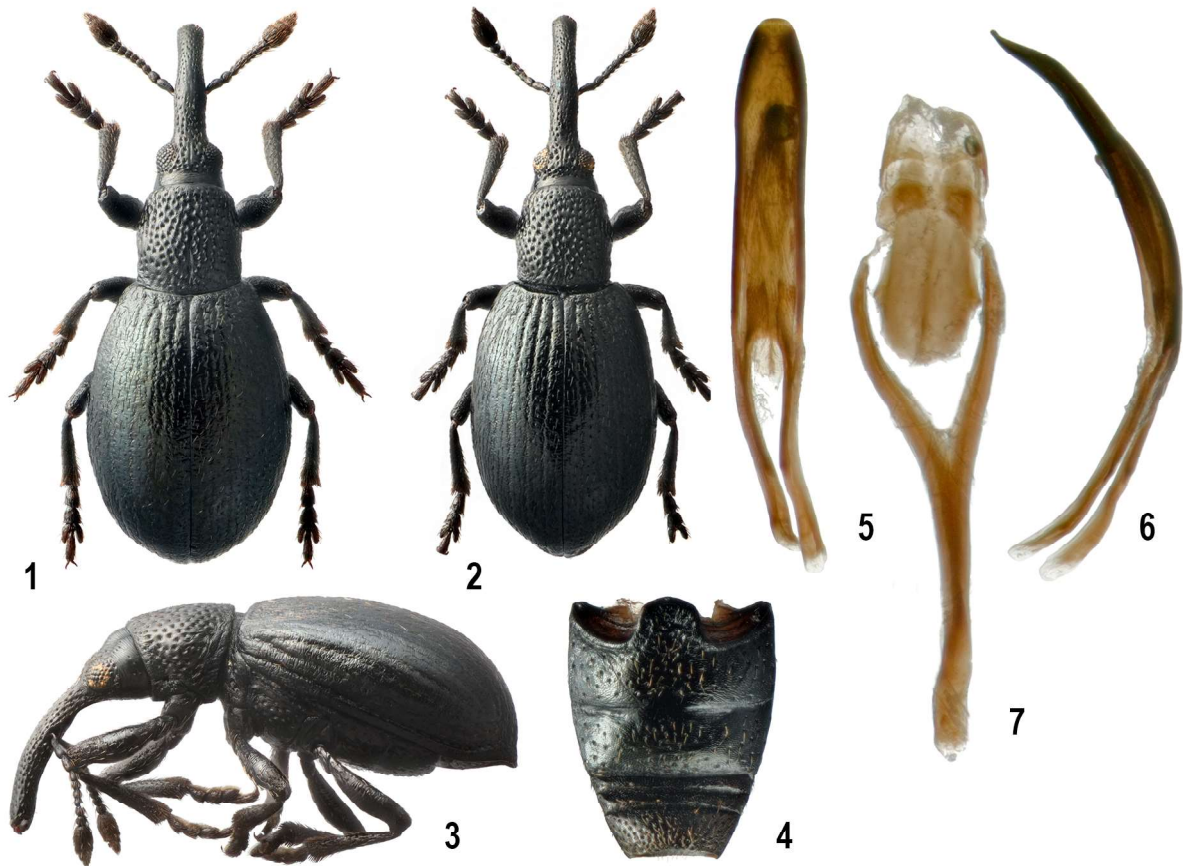
Figs 1–7, 8 (octagon).

Urn:lsid:zoobank.org:act:499107B3-D14D-4354-B0BB-DAB4903CAE84

Material. Russia, *Krasnoyarskii Krai*: Holotype, ♂ — 12 km S of Norilsk, Ergalakh River valley, Norilsk Mountains, 69.20139° N, 88.15955°E, h~250 m a.s.l., 21.VI.–1.VII.2023, A.A. Gurina, R.Yu. Dudko and G.N. Azarkina leg.; paratype, ♀, idem.

Description. Body black, with weak metallic lustre, covered with sparse appressed pale setae. Base of first antennomere brownish.

Male. Rostrum weakly curved, subcylindrical, densely punctate, 5.0 times as long as wide at apex, about 4.4 times as long as wide in middle, about 4.1 times as long as wide at base, about 1.3 times as long as pronotum. Mesorostrum slightly dilated, subglabrous. Antennal scrobes deep, long, directed to under rostrum. Forehead slightly convex, slightly wider than



Figs 1–8. Details of *Synapion putoranchik* sp.n. morphology and distribution of *Synapion* species: holotype, male (1, 4–7) and paratype, female (2, 3) in dorsal (1, 2, 4, 5, 7) and lateral (3, 6) view. 1–3 — habitus; 4 — abdomen; 5, 6 — aedeagus; 7 — tegmen; 8 — distribution map, designations: pink circle — *S. altiatlantidis* and *S. brutum*, yellow circle — *S. falzonii*, blue circle — *S. perraudieri*, black circle — *S. kaulbacki*, red circle — *S. sobolevae*, ring — *S. pistillum*, star — *S. alexandri*, triangle — *S. kerzhneri*, rhombus — *S. lyubchanskii*, octagon — *S. putoranchik* sp.n., square — *S. kozlovi*, black line — areal of *S. ebeninum*.

Рис. 1–8. Детали строения *Synapion putoranchik* sp.n. и распространение видов рода *Synapion*: голотип, самец (1, 4–7) и паратип, самка (2, 3) сверху (1, 2, 4, 5, 7) и сбоку (3, 6). 1–3 — габитус; 4 — брюшко; 5, 6 — эдегус; 7 — тегмен; 8 — карта распространения, обозначения: розовый круг — *S. altiatlantidis* and *S. brutum*, желтый круг — *S. falzonii*, синий круг — *S. perraudieri*, чёрный круг — *S. kaulbacki*, красный круг — *S. sobolevae*, кольцо — *S. pistillum*, звезда — *S. alexandri*, треугольник — *S. kerzhneri*, ромб — *S. lyubchanskii*, восьмиугольник — *S. putoranchik* sp.n., квадрат — *S. kozlovi*, черная линия — ареал *S. ebeninum*.

rostrum base width. Eyes large, rounded, protruding from contour of head, coarsely faceted. Temples short. Antennae straight, inserted ventrally before middle of rostrum, rather long, extend beyond anterior margin of pronotum. Funicle 7-segmented. First antennomere elongate-trapezoidal, about 2.4 times as long as wide. Second antennomere elongate-oval, about 1.4 times as long as wide in middle, about 0.6 times as long as and subequal in width to first antennomere. Third-sixth antennomeres subconical. Third antennomere about 1.4 times as long as wide, 0.6 times as long as and about 0.8 times as narrow as second antennomere. Fourth-sixth antennomeres subequal in width. Fourth antennomere subequal in length and width, slightly shorter than and slightly wider than third antennomere. Fifth antennomere slightly wider than length and slightly shorter than fourth antennomere. Sixth antennomere 0.8 times as long as wide at apex and about 0.9 times as long as wide as fifth antennomere. Seventh and eighth antennomeres wide-conical. Seventh antennomere 0.7 times as long as wide at apex, slightly longer than and about 1.2 times a wide as sixth antennomere. Eighth antennomere about 0.6 times as long as wide at apex, slightly shorter than and about 1.1 times a wide as seventh antennomere. Club compact, about 0.7 times as long as second-eighth antennomeres combined. Ninth antennomere slightly longer than width at apex, 3.0 times as long as and about 1.8 times a wide as eighth antennomere. Tenth antennomere about 0.6 times as long as wide in middle, about 0.6 times as long as and about 0.9 times a wide as ninth antennomere. Eleventh antennomere subequal in length and width at base, subequal in length to and about 0.6 times a wide as tenth antennomere. Pronotum campaniform, about 1.3 times as long as wide at apex, about 1.1 times as long as wide in middle and slightly longer than wide at base. Greatest width near middle. Disk weakly convex, coarsely punctate. Distances between punctation subequal to diameter of points, finely granulate. Sides almost straight, narrowed to apex. Scutellum almost triangular, small. Elytra back pear-shaped, convex, about 2.0 times as long as base width, about 1.3 times as long as wide in middle, about 1.8 times as long as wide in apical quarter, about 2.5 times as long as pronotum. Greatest width beyond middle. Humeri absent. Striae weak. Interstriae wide, weakly convex, slightly transverse-rugose, with row of punctation. Pre- and postcoxal portions of prosternum short. Precoxal portion 0.3 times as long as procoxae. Postcoxal portion about 1.1 times as long as precoxal portion. Pro- and mesocoxal cavities rounded. Precoxal cavities completely separated. Mesocoxal cavities separated. Metacoxal cavities transversely extended. Metaventricle about 1.3 times as long as metacoxal, weakly convex, sparsely punctate. Metanepisternum narrow. First and second ventrites in length, convex, fused, sparsely punctate. First ventrite about 1.7 times as long as metacoxal length. Third-fifth ventrites flat, positioned in different plane than first and second ventrites. Third and fourth ventrites equal in length. Third ventrite about 0.2 times as long as second ventrite, densely punctate. Fifth ventrite convex, 3.0 times as long as fourth ventrite. Legs long. Procoxae conical. Meso- and metacoxae convex. Trochanters elongate. Femora slightly clavate, separated from coxae, without teeth. Tibiae almost straight, rather thick. Tarsi long, with erect setae dorsally. First and second tarsomeres elongate-conical. First tarsomere slightly longer than second tarsomere. Second tarsomere slightly wider than first tarsomere. Third tarsomere conical. Tarsomere long-conical. Claws relatively large, free, without teeth. Total body length (without rostrum) 2.35 mm. Length of rostrum 0.7 mm.

Female. Rostrum about 5.9 times as long as wide at apex, about 5.1 times as long as wide in middle, about 4.6 times as long as wide at base, about 1.5 times as long as pronotum. Forehead slightly wider than rostrum base width. First antennomere 2.2 times as long as wide. Second antennomere about 1.3 times as long as wide in middle, about 0.6 times as long as

and subequal in width to first antennomere. Third antennomere about 1.1 times as long as wide, about 0.8 times as long as and about 0.9 times as narrow as second antennomere. Fourth-sixth antennomeres subequal in length. Fourth antennomere about 0.8 times as long as wide, 0.7 times as long as and slightly wider than third antennomere. Fifth antennomere about 0.7 times as long as wide and slightly wider than fourth antennomere. Sixth antennomere about 0.7 times as long as wide and slightly wider than fifth antennomere. Seventh antennomere about 0.9 times as long as wide at apex, about 1.5 times as long as and about 1.1 times a wide as sixth antennomere. Eighth antennomere about 0.7 times as long as wide at apex, about 0.9 times as long as and about 1.1 times a wide as seventh antennomere. Club compact, about 0.8 times as long as second-eighth antennomeres combined. Ninth antennomere about 0.8 times as long as wide at apex, about 2.0 times as long as and about 1.9 times a wide as eighth antennomere. Tenth antennomere about 0.6 times as long as wide in middle, about 0.8 times as long as and about 0.9 times a wide as ninth antennomere. Eleventh antennomere slightly longer than width at base, about 1.1 times as long as and about 0.7 times a wide as tenth antennomere. Pronotum about 1.3 times as long as wide at apex, about 1.1 times as long as wide in middle and at base. Elytra about 2.2 times as long as base width, about 1.4 times as long as wide in middle, about 2.0 times as long as wide in apical quarter, about 2.7 times as long as pronotum. Precoxal portion 0.3 times as long as procoxae. Postcoxal portion about 1.1 times as long as precoxal portion. Metaventricle about 1.5 times as long as metacoxal. First ventrite about 1.9 times as long as metacoxal length. Second ventrite slightly shorter than first ventrite. Third and fourth ventrites equal in length. Third ventrite about 0.4 times as long as second ventrite. Fifth ventrite about 1.8 times as long as fourth ventrite. Total body length (without rostrum) 2.5 mm. Length of rostrum 0.9 mm.

Comparison. The new species is very similar to *Synapion* (*Parasynapion*) *alexandri* Korotyayev, 1988 from Tyva, but differs in broader elytra, narrower rostrum, less curved apex of aedeagus laterally and weakly narrowed aedeagus apically.

Etymology. The name “*putoranchik*” derived from affectionate diminutive name of Putorana Plateau to reflect species residence in this area.

Habitat. Dry and warmed areas of tundra (Figs. 8–10).

The genus *Synapion* consists of three subgenera, *Synapion* (*Giustiapion*) Legalov, 2003, *Synapion* (*Parasynapion*) Legalov, 2003 and *Synapion* (*Synapion*) [Legalov, 2007; Alonso-Zarazaga et al., 2023]. The subgenus *Synapion* (*Giustiapion*) included three species, *S. (G.) altiatlantis* (Antoine, 1937), *S. (G.) falzonii* (Schatzmayr, 1922) and *S. (G.) perraudieri* (Desbrochers des Loges, 1884), from North Africa and southern Europe (Italy and Greece) (Fig. 8) [Desbrochers des Loges, 1884; Schatzmayr, 1922; Antoine, 1937]. Seven species, *S. (P.) alexandri*, *S. (P.) kaulbacki* (Balfour-Browne, 1944), *S. (P.) kerzhneri* (Ter-Minasian, 1971), *S. (P.) lyubchanskii*, *S. (P.) pistillum* (Faust, 1894), *S. (P.) sobolevae* Korotyayev, 1988 and *S. (P.) putoranchik* sp.n.), from Afghanistan, Kyrgyzstan, Tajikistan, western China, Mongolia and northern and southern Siberia (Fig. 8) are belong to the subgenus *Synapion* (*Parasynapion*) [Faust, 1894; Schilsky, 1902; Balfour-Browne, 1944; Ter-Minasian, 1971; Korotyayev, 1988]. The nominative subgenus includes three species, *S. (S.) brutum* (Peyerimhoff, 1925), *S. (S.) ebeninum*, and *S. (S.) kozlovi* Korotyayev, 1988, from North Africa, Europe, western Siberia and northwestern China (Fig. 8) [Kirby, 1808; Peyerimhoff, 1925; Korotyayev, 1988; Alonso-Zarazaga et al., 2023].

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Figs 9–10. Habitat of *Synapion putoranchik* sp.n. in Ergalakh River valley of Norilsk Mountains, Krasnoyarskii Krai, Russia. 9 — site view of tundra at the sampling location; 10 — location of pitfall trap which caught the species.

Рис. 9–10. Местообитание *Synapion putoranchik* sp.n. в долине реки Ергалах Норильских гор в Красноярском крае. 9 — вид на тундру в месте сбора материала; 10 — расположение почвенной ловушки, в которую были отловлены экземпляры нового вида.

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