

A new subspecies of *Carabus (Aulonocarabus) gaschkewitschi* Motschulsky, 1859 (Coleoptera: Carabidae) from Irkutsk Province

Oleg Berlov

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A new subspecies, *Carabus (Aulonocarabus) gaschkewitschi ippolitovi* O. Berlov, is described

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Oleg Berlov. The State Nature Reserve "Baikalo-Lenskiy", Baikalskaya str. 291-B, Irkutsk, 664026, Russia; e-mail: olegberlov@narod.ru

Web-site: <http://www.zin.ru/Animalia/Coleoptera/rus/berlov.htm>

INTRODUCTION

Carabus gaschkewitschi Motschulsky, 1859 ascribed to the subgenus *Leptinocarabus* Reitter, 1895 according to Jakobson (1906). Later, Breuning (1932) connected this species (under the name *Carabus raddei* A. Morawitz, 1862) with the subgenus *Carabus s.str.* (sectio *Eucarabus* Gehin, 1876). Fifty years after, Berlov has examined the inflated endophallus of *C. gaschkewitschi* and proposed to move this species (together with two related species: *C. kolymensis* and *C. truncaticollis* Eschscholtz, 1833) to the subgenus *Aulonocarabus* Reitter, 1896 (Berlov 1989).

C. gaschkewitschi is widely distributed over mountains from the Lower Amur territories to Transbaikalia. Three subspecies are known: *gaschkewitschi* Motschulsky, 1859 from Amurland, *raddei* A. Morawitz, 1862 from SE-Transbaikalia and *czarensis* Obydov, 1997 from

North Transbaikalia (Lafer 1989, Obydov 1997, Brezina 1999, Bousquet et al. 2003).

In 2003, during the expedition to the State Nature Reserve "Baikalo-Lenskiy" (Irkutsk Province), to my surprise I have found a most western population of *C. gaschkewitschi* Motschulsky, 1859. The beetles were collected in mountains of the Baikalskiy Mts. Ridge. All specimens are rather peculiar morphologically and belong to a new subspecies.

DESCRIPTION

Carabus (Aulonocarabus) gaschkewitschi ippolitovi O. Berlov, ssp. n. (Fig. 1)

Holotype. Male, E. Siberia, Irkutsk Province, Kachug region, reserve "Baikalo-Lenskiy", Baikalskiy Mts. ridge near cape Elokhin (6–7 km

from western bank of the Lake Baikal), 1500 m. alt., 25.VI.2003, O. Berlov leg. Deposited in author's collection (Irkutsk, Russia).

Paratypes. 3 males, 5 females were collected together with holotype. Deposited in author's collection (Irkutsk, Russia).

Habitus as in fig. 1. Total length 18.5–20.0 mm (including mandibles). Width of head 3.4–3.6 mm. Width of pronotum 4.6–5.3 mm. Length of pronotum 3.5–4.1 mm. Width of elytra 7.1–8.0 mm. Length of elytra 11.6–12.7 mm. Body, legs and antennae black. Head and disk of pronotum black, lustrous. Elytra blackish bronze. Lateral margin of elytra with green metallic lustre. Primary elytral pits bright green or bronze, sometimes black with poor bronze hue. Colour pictures are available in the Internet: <http://www.zin.ru/Animalia/Coleoptera/rus/carab115.htm>

Head extended, not thickened, with 1 pair of supraorbital setae. Ratio width of pronotum/width of head 1.35–1.49. Frons with punctures and with shallow wrinkles. Eyes strongly convex. Mandibles relatively short and broad. Antennae short, not reaching middle of elytra in males, few shorter in females. Antennomeres I–IV without pubescence. Male antennomeres V–IX with thiridium (concave hairless area on the underside). Penultimate labial palpomere with 1–2 median setae. Mentum tooth sharp and narrow, long as lateral lobes. Submentum with 1 or 2 pairs of setae.

Prothorax small, transverse, with sides slightly cordate, widest about at middle, 1.26–1.31 as broad as long. Pronotum flattened, with irregularly distributed shallow punctures and with impunctate spaces, usually with few short wrinkles near latero-basal impressions. Median line dis-

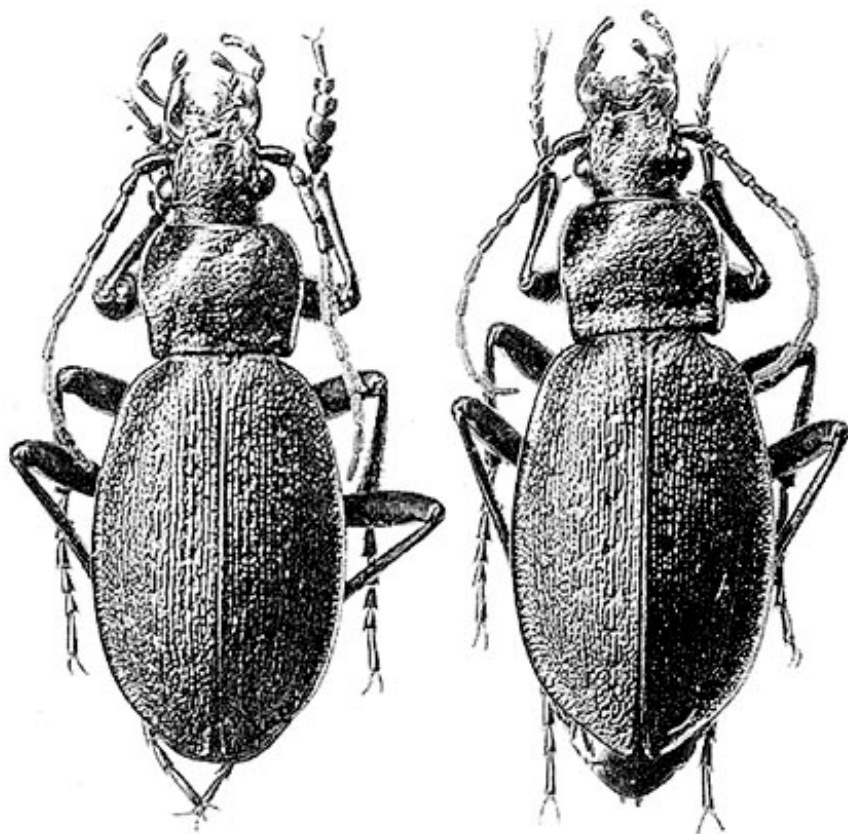


Fig. 1. *Carabus (Aulonocarabus) gaschkewitschi ippolitovi* O. Berlov, ssp. n. (holotype and paratype).

tinct. Latero-basal impressions small, single, linear. Posterior angles triangular, relatively short but distinctly produced backwards, bent downwards and rounded at apex. Lateral groove narrow, regular, with 2 lateral setae, an anterior one at the median position and another near the posterior angle.

Elytra elongate oval, widest behind middle. Ratio length/width 1.60–1.63. Ratio width of elytra/width of pronotum 1.50–1.55. Disk of elytra decidedly flattened. Striae delicately punctated or smooth. Primary pits distinctly projecting, as broad as primary intervals or slightly broader. Primary elytral intervals always wider and more hardly raised than the other intervals, broken by pits into 7–9 segments of irregular length. Areas between the primary intervals with three feebly curved or almost straight ridges and with additional rudimentary rows of short links between primaries and tertiaries, almost evenly elevated.

Ventral surface smooth. Sides of abdominal sternums slightly wrinkled, sternal furrows absent. Sternums IV–V with 2–4 setae. Anal sternum with 10–16 setae near the apex. Metepisternum subquadrate. Metacoxa without anterior seta but with 1–2 small internal setae and with 1 posterior seta. Legs of normal length. Seta on metatrochanter is absent.

Middle femur with 5–11 posterior setae. Hind femur with 2–5 posterior setae.

Aedeagus with small ostium lobe. Lamella triangular, broad and flattened. Shape of inflated endophallus is typical for the species.

Differential diagnosis. The new subspecies *ippolitovi* Berlov differs from three other subspecies of *Carabus gaschkewitschi* Motschulsky, 1859 mainly in having the more flattened body and especially elytra, the metacoxa without anterior seta, and the aedeagus with more wide and flattened lamella. On the other hand, subspecies *czarensis* Obydov, 1997 of the nearest localities (from North Transbaikalia, Kodar Mts. Ridge) is distinguished from the new subspecies

by the several features: upper surface wholly black, pronotum with more dense punctures and wrinkles, elytral pits small, primary elytral intervals broken by pits into 11–13 short segments, other elytral intervals interrupted into short anastomosed links, hind femur with 6–10 posterior setae.

Comments. I think that *ippolitovi* Berlov, ssp. n. is most apotypical subspecies of *Carabus gaschkewitschi* Motschulsky, 1859 because it have some apomorphic character states: the elytra flattened, the pronotum with shallow punctures and with impunctate spaces, the anterior seta of metacoxa and some posterior setae of hind femora are reduced.

Distribution. Now known only from the type locality (south part of Baikalskiy Mts. Ridge, near Cape Elokhin).

Habitat. All specimens were collected in stony mountain tundra on a slope of western exposition, under stones.

Etymology. The subspecies is named in honour of Mikhail Ippolitov, my colleague of the State Nature Reserve "Baikalo-Lenskiy".

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