

### Two new species of ground-beetles from North-East Asia (Insecta: Coleoptera: Carabidae)

With 8 Figures

A. M. BUDARIN  
Magadan

**Abstract.** There are described and illustrated two new species of Carabidae from North-East Asia: *Curtonotus kurnakovi* BUDARIN et KRYZHANOVSKIJ, and *Pterostichus (Cryobius) safonovae* BUDARIN (*ventricosus* species group).

**Резюме.** Приводится описание двух новых видов жуужелиц (Carabidae) Северо-Востока Азии (Магаданская область): *Curtonotus kurnakovi* BUDARIN et KRYZHANOVSKIJ spec. nov. и *Pterostichus (Cryobius) safonovae* BUDARIN spec. nov. (из группы вида *ventricosus*).

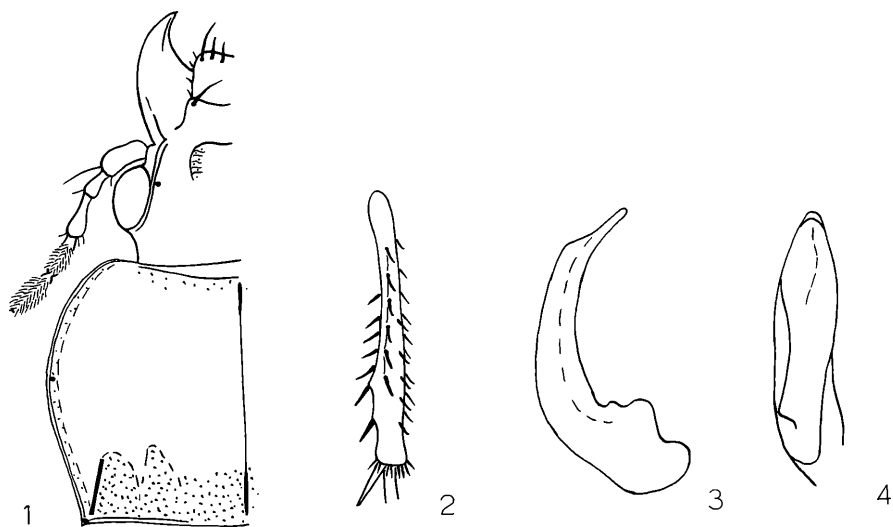
Looking through the carabid collections of my own and that of the Zoological Institute, Russian Academy of Sciences, St. Petersburg (ZIP) deriving from the North-East of Russia, few new species were found by me. Descriptions of two species are given below. Holotypes and majority of paratypes are deposited in ZIP, and two paratypes of each species in Institute of Biological Problems of the North (IBPN), Magadan, and Biological Institute, Vladivostok.

I wish to express my deep gratitude to Dr. O. L. KRYZHANOVSKIJ (St. Petersburg) for his great assistance in preparation of material and descriptions of the new species.

#### *Curtonotus kurnakovi* BUDARIN et KRYZHANOVSKIJ spec. nov. (Figs. 1–4)

**Description.** Length: 10.3–11.6 mm. Body piceous-black, ventral lighter, antennae and legs reddish-brown. Front and vertex glabrous, frontal impressions large oval, deep with several tender punctures and wrinkles. Front with one setiferous puncture near each inner eye margin (2nd posterior puncture is absent). Antennae short, slightly extending over base of pronotum. Pronotum convex, width/length ratio 1.45–1.51 (1.46 in holotype), somewhat heart-shaped, moderately narrowed from middle to slightly prominent posterior angles, widest at middle (Fig. 1). Lateral margin of pronotum with narrow rim and slightly explanated, with sparse punctures and one setiferous puncture near middle and one in each posterior angle. Disk of pronotum smooth, anterior margin with punctures, base densely punctate, with two touched fovea on each side; fold at basal angles sharp and short. Midline sharp, impressed near anterior margin and at base. Elytra flattened, length/width ratio 1.57–1.66 (1.61 in holotype), lateral rims narrow, shoulders prominent, without humera denticle. Elytral intervals slightly convex, furrows deep, dotted; setiferous puncture of 7th furrow small, but distinct; series umbilicata: subhumeral punctures – 6 (sometimes from 5 up to 7), subapical punctures – 6 (sometimes from 5 up to 8). Abdominal sternites with lateral tender dots and wrinkles. Male mesotibiae slender denticled at inner side (Fig. 2). Aedeagus as on Figs. 3–4.

**Material.** Magadan Area: Holotype, male (ZIP), Omsukchan River (Kolyma River basin), 18.05.1952 (B. N. Kurnakov). Paratypes: 21 specimens: 2♀♀, together with holotype; 1♂, 4♀♀,



Figs. 1–4: *Curtonotus kurnakovi* BUDARIN et KRYZHANOVSKIJ spec. nov., paratype ♂ (Magadan area, Khasyn vill., Khasyn River valley). 1 – head and pronotum from above; 2 – mesotibia; 3–4 – aedeagus, lateral respectively apical view.

35 km NW of Myaundzha vill., Tal-Yuryakh River valley, 17.07.1971 (A.M. Budarin); 3♂♂, 5♀♀, Ola Plateau (Ola Table Mountains), Nil River valley, 11.–18.08.1971 (A.M. Budarin); 2♂♂, 1♀, Khasyn vill., Khasyn River valley, 18.07.1972 (?); 1♂, Khasyn vill., pebbly river bank, 13.07.1975 (B.A. Korotyaev); 1♂, 1♀, 5 km NE of Ayan-Yuryakh vill., river valley, 25.07.1974 (E.G. Matis).

**Habitat.** Occur on pebbly river banks in a flood debris.

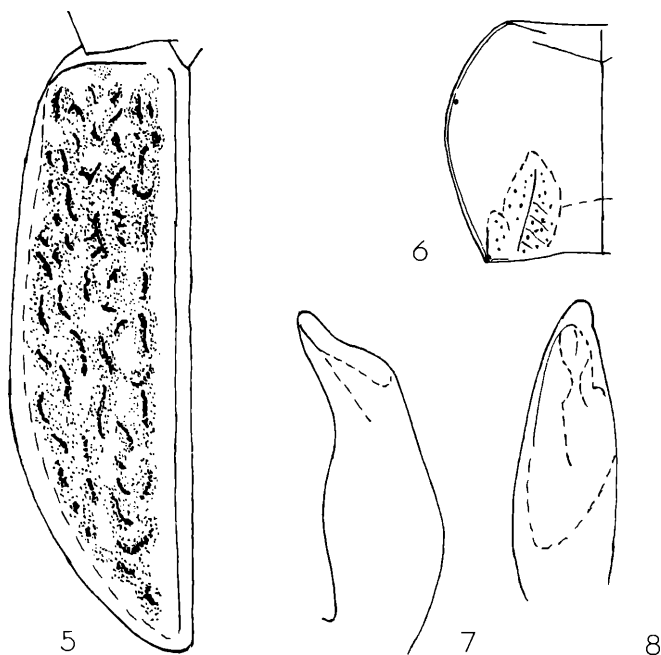
**Comments.** C. LINDROTH (Lund, Sweden) was the first to establish the validity of this species. He examined one specimen (now paratype) and wrote to the second author of this new species. Later on and independently, additional materials were found by its first author.

**Diagnosis.** *Curtonotus kurnakovi* spec. nov. seems to be most similar to *Curtonotus torridus* PANZER and *Curtonotus contractus* PUTZEYS, from which can be easily distinguished by the presence of only one supraorbital setiferous puncture. From other species with one setiferous puncture (*Curtonotus hyperboreus* DEJEAN and *Curtonotus tumidus* A. MORAWITZ) the new species can be separated by the stretched and flattened elytra and also habitually. The new species resembles very much *Curtonotus seishini* JEDLIČKA (one young ♀ paratype was examined only), but has more elongate body.

**Etymology.** The species was named after its first collector B.N. KURNAKOV.

***Pterostichus (Cryobius) safonovae* BUDARIN spec. nov. (Figs. 5–8)**

**Description.** Length: 8.1–9.0 mm (holotype 9.0 mm). Body black, shining, first antennal segment and legs piceous-brown. Head smooth, frontal pits wide and deep, eyes prominent; head with eyes narrower than pronotum. Pronotum (Fig. 6) heart-shaped, its widest part behind the middle, sides evenly rounded from the middle to anterior angles, and almost rectilinearly narrowed posteriad. Basal angles obtuse, their apex with small denticle turned laterally; base of pronotum with two depressions, outer one hatched and small, inner one large, both with sparse and tender punctation; midline sharp on disk only, anteriorly and posteriorly smoothed, somewhat widened and deepened in basal third (Fig. 6).



Figs. 5–8: *Pterostichus (Cryobius) safonovae* BUDARIN spec. nov., paratype ♂ (Magadan area, Kolyma River upper reaches, SE edge of Bol'shoj Annachag). 5 – elytra; 6 – pronotum; 7–8 – aedeagus, lateral respectively apical view.

Elytra (Fig. 5) with almost parallel margins, somewhat wider than base of pronotum, shoulders rounded and without denticle. Elytral sculpture with meshed furrows, with distinct sutural furrow only, which has very sparse and small punctures. Third interval bear row of 5–6 setiferous punctures. Episterna of pro-, meso- and metathorax with tender punctures. 1–2 abdominal sternites with tender punctures laterally, other sternites rugosed. 2th and anal sternites of the male with impression medially. Aedeagus as on Figs. 7–8.

Material. Magadan Area: Holotype, male (ZIP), 23 km N of Magadan, Dukcha River valley, 05.09.1973 (A.B. Budarin). Paratypes: 12 specimens: 4 ♂♂, 1 ♀, together with holotype; 1 ♀, 7–9 km N of Magadan, Dukcha River valley, under stones in moist site, 20.06.1972 (M.M. Budarin); 3 ♂♂, 19–23 km N of Magadan, Dukcha River valley, break through larch forest, under decaying tree trunks, 12.09.1973 (A.M. Budarin); 1 ♂, 5 km NE of Ayan-Yuryakh vill., river valley, 24.07.1974 (B.A. Korotyayev); 1 ♀, Ola Plateau (Ola Table Mountains), Nil River valley, in moist site, 12.08.1971 (A.M. Budarin); 1 ♂, Kolyma River upper reaches, SE edge of Bol'shoj Annachag Mt. Range, Sibit-Tyellakh River drainage-basin, valley of Olen'ck. birch (*Betula middendorffii* Trautv. et C.A. Mey.), in leaf litter, 19.07.1978 (A.M. Budarin).

Diagnosis. Habitually and by some morphological characters, the new species belongs to subgenus *Cryobius* CHAUDOIR (*ventricosus* group according to P. YERYOMIN, personal communication). Most easily the new species can be separated from all other *Cryobius* species by the lack of distinct elytral furrows. The correct placement of *Pterostichus safonovae* spec. nov. within the genus *Pterostichus* needs additional investigation.

Etymology. The species is named after ZOYA A. SAFONOVA.

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Address of the author:

A.M. Budarin, Institute of Biological Problems of the North, Russian Academy of Sciences,  
K. Marx pr. 24, Magadan 685 000 (Russia)

(Received on 14. IX. 1994)

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Autor(en)/Author(s): Budarin A. M.

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