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NEW TAXA OF THE GENUS *CARABUS* L. FROM KAZAKHSTAN AND KIRGIZIA (COLEOPTERA: CARABIDAE)

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Abstract - One new species and one new subspecies: *Carabus (Pantophyrtus) evstigneevi* sp. n. from Kirgizia and *Carabus (Cratocephalus) solskyi toropovi* ssp. n. from Kazakhstan are described and figured. The distinguishing characters are discussed.

Izvešček - NOVI TAKSONI RODU *CARABUS* L. IZ KAZAHSTANA IN KIRGIZIJE (COLEOPTERA: CARABIDAE)

Opisani in prikazani sta nova vrsta in nova podvrsta: *Carabus (Pantophyrtus) evstigneevi* sp. n. iz Kirgizije in *Carabus (Cratocephalus) solskyi toropovi* ssp. n. iz Kazahstana. Obravnavani so razlikovalni znaki.

Carabus (Pantophyrtus) evstigneevi sp. n.

Holotype (Fig. 1): female, Kirgizia, foothills of Talassky Mt Range, Talas City env., 15 km from Kozuchak Vil. to the South, 1000 m, 25.IV.1993, A. Evstigneev leg. (in the collection of Mr. A. Evstigneev, Moscow).

Description:

Body length 32.5 mm, width 11.2 mm.

Colour black; antennal joints, claws and abdominal sternites brownish.

Head (Fig. 5) strongly thickened, ratio width of pronotum/width of head 1.27; eyes moderately convex; angles of cheek evenly rounded; mandibulae stout, moderately elongate, slightly incurved, with obtuse apex, retinaculum of the right mandible with reduced apical and basal tooth; surface of mandibulae with sparse punctures; frontal

furrows slightly divergent, deep and broad, with coarse wrinkles inside; forehead smooth; antennae short, protruding beyond the base of pronotum by one apical joint; labrum slightly wider than clypeus, moderately notched, with two lateral setae. Palpi moderately long, slightly dilated; the last but one joint of the maxillary palpi nearly equal to last joint; the last but one joint of the labial palpi with four setae. The mentum tooth sharply pointed, shorter than lateral lobes; submentum with two setiferous pores and with few coarse wrinkles (Fig. 7).

Pronotum transverse, convex, the broadest before the middle; ratio width/length 1.76. Sides of pronotum weakly rounded anteriorly, then slightly narrowed to hind angles, lobes of hind angles triangular, relatively short; sides of pronotum narrowly margined, at about the middle and before hind angles with deep side incisures. Pronotal disk nearly smooth, anteriorly finely punctured, with no deep mid-line or deep, triangular basal pits. Lateral margin with one setiferous pore at about the middle and one pore near hind angle.

Elytrae oval, very convex, the widest at about the middle, shoulders evenly rounded; sides of elytrae narrowly margined. Ratio length/width 1.56; ratio width of elytrae/width of pronotum 1.37. Elytral sculpture triploid; primary elytral interspaces slightly broader, interrupted into the short links; secondary and tertiary interspaces about equally developed, partially integral and partially interrupted into the long links. Primary foveae deep; striae coarsely punctured.

Metepisterna smooth, slightly longer than its width. Abdominal sternites smooth, sternal sulci deep and long. Legs of normal length.

Differential diagnosis:

Externally slightly resembles *C. (Pantophyrtus) brachypedilus* Morawitz, 1886 but easily differs from the latter by elytral sculpture. Besides, cheek angles of the new species more obtuse, evenly rounded (Figs 5,6); surface of mandibulae with sparse punctures; labrum narrower, moderately notched; frontal furrows deeper; mentum tooth longer and more pointed, pronotum broader with more long hind angles; elytrae broader and more convex.

The new species differs from all known allied species belonging to Subgenus *Pantophyrtus* by more coarse elytral sculpture with interrupted interspaces (in other *Pantophyrtus* elytral sculpture smooth with integral interspaces), and by deep primary foveae, which are reduced in other *Pantophyrtus*.

Derivatio nominis:

The name is dedicated to Mr. Andrei Evstigneev (Moscow), the collector of this new species.

Habitat:

The holotype was collected at an elevation of about 1000 m, in a stone field from under stone.

Carabus (Cratocephalus) solskyi toropovi ssp. n.

Holotype (Fig. 2): male, Kazakhstan, Ili River, Bakanas Vil. env., 300 m, 1.-15.V.1996, S. Toropov leg. (in author's collection, Moscow); paratype (Fig. 3): female, same date and same locality (in the collection of Mr. S. Toropov, Bishkek).

Description:

Length 31.5 mm, width 11.6 mm in male; length 36.8 mm, width 13.2 mm in female.

Colour black, elytrae at male with weak green lustre.

Head thickened; eyes moderately prominent; mandibulae long and relatively broad, in basal part nearly parallel, then incurved and sharply pointed at the apex; frontal furrows interfluent, relatively deep, inside with coarse wrinkles; forehead nearly smooth; posteriorly with few fine wrinkles; antennae moderately long, protruding beyond the base of pronotum in male by three apical joints, in female by two apical joints; labrum strongly notched, wider than clypeus, with two lateral setae. Palpi long, slightly dilated; last but one joint of the maxillary palpi equal to last joint; the last but one joint of the labial palpi with five setae. The mentum tooth shorter than lateral lobes; submentum with two setiferous pores.

Pronotum transverse, moderately convex, the broadest before the middle. Ratio width/length 1.82 (male), 1.84 (female); ratio width of pronotum/width of head 1.43 (male), 1.31 (female). Sides of pronotum broadly margined; lobes of hind angles triangular, relatively short. Pronotal disk with coarse punctures and wrinkles and well marked mid-line and deep oval basal pits. Lateral margin with one setiferous pore before the middle and one pore near hind angle.

Elytrae oblong-oval, the widest at about the middle; shoulders prominent; sides of elytrae broadly margined. Ratio length/width 1.54 (male), 1.58 (female); ratio width of elytrae/width of pronotum 1.28 (male), 1.29 (female). Sculpture of elytrae: all elytral interspaces about equally developed, interrupted by rather deep and coarse foveae into the short links, sometimes interflowing transversely.

Metepisterna and abdominal sternites smooth, metepisterna slightly longer than its width; sternal sulci absent; Legs of normal length; ventral sides of four tarsal segments in males dilated and pubescent (Fig. 8).

Aedeagus: Fig. 10; endophallus: Fig. 11.

Differential diagnosis:

Differs from nominotypical subspecies by dark body coloration (Figs 2-4), by deeper frontal furrows, by longer and less dilated palpi, by narrower pronotum (ratio width/length 1.82 - 1.84, while at *C. s. solskyi*, pronotum more than two times as wide as long); hind angles of pronotum shorter and narrower, lateral margin with two setae (at *C. s. solskyi* with three setae). The new subspecies also differs from *C. s. solskyi* by more dilated and pubescent fourth segments of the male tarsi (Figs 8,9) and the endophallic structure (Figs 11,12).

Derivatio nominis:

The new subspecies is named in honour of Mr. Sergei Toropov (Bishkek), who collected the type specimens.

Habitat: The type specimens were collected in tugai riparian forest in the salt desert.

Remark: *C. s. solskyi* Ballion, 1878 has been described from the Kuldzha environs, without more precise indication of locality. It is distributed in Kazakhstan: Ketmen Mt Range, Eastern part of Terskey Mt Range, Tyshkantau Mt Range, North part of Khan-Tengri (near Narynkol) and also in China: Borokhoro Mt Range, Yinin (Kuldzha) environs, Kunges valley, Juldus, Muzart (Kryzhanovskij, 1953). The nominotypical subspecies inhabits mountain regions, at an altitude of about 2000 m, while *C. s. toropovi* ssp. n. was collected in tugai riparian forest in the salt desert (300 m), very far from the area of the nominotypical subspecies (Bakanas Vil. env., about 200 km from Alma-Ata City to the North), so the type locality of the new form seems to be strongly isolated from the *C. s. solskyi* range.

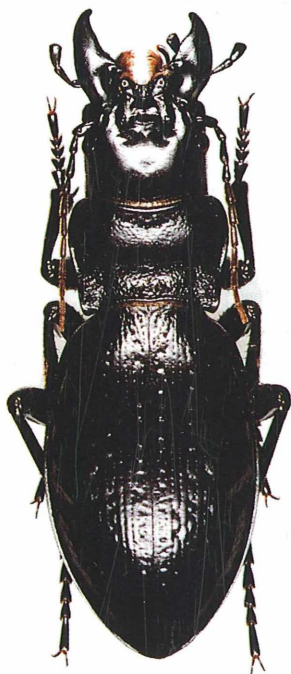


Fig. 1: *C. evstigneevi* sp. n. (Holotype)

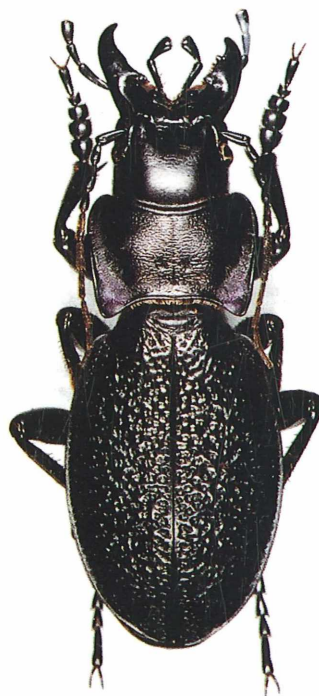


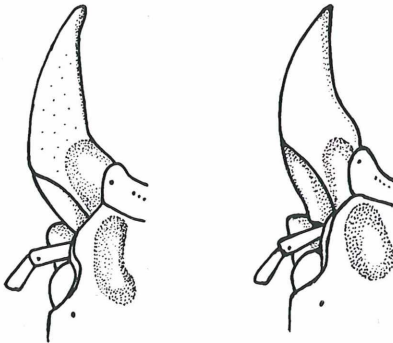
Fig. 2: *C. solskyi toropovi* ssp. n. (Holotype)



Fig. 3: *C. solskyi toropovi* ssp. n. (Paratype)



Fig. 4: *C. solskyi solskyi* Ballion (from Ketmen Mt.)



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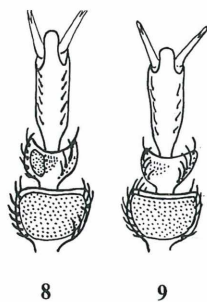
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Figs 5-6: Head, 5: *C. evstigneevi* sp. n., 6: *C. brachypedilus* Morawitz.

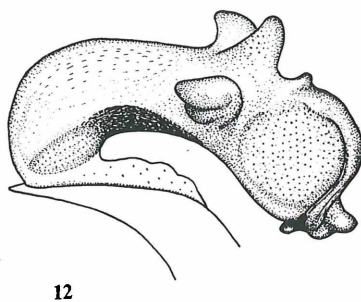
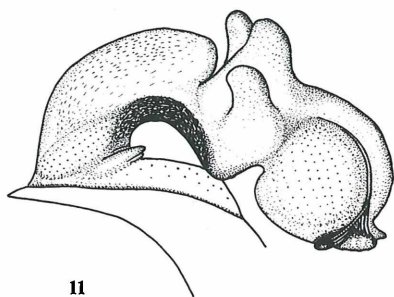


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Fig. 7: Mentum and submentum of *C. evstigneevi* sp. n.



Figs 8-9: Male tarsi (ventral view), 8: *C. s. toropovi* ssp. n., 9: *C. s. solskyi* Ballion. **Fig. 10:** Aedeagus (lateral view) of *C. s. toropovi* ssp. n.



Figs 11-12: Endophallus in complete erection, 11: *C. s. toropovi* ssp. n., 12: *C. s. solskyi* Ballion.

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