

A new subspecies of *Carabus (Cratocephalus) solskyi* Ballion, 1878 from Tianshan Mountains, Xinjiang province, Northwest China (Coleoptera Carabidae)

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ABSTRACT A new subspecies of *Carabus (Cratocephalus) solskyi* Ballion, 1878 from Xinjiang Province, Northwest China is described and figured.

KEY WORDS Coleoptera; Carabidae; *Carabus*; *Cratocephalus*; new subspecies; Xinjiang; China.

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INTRODUCTION

Through the courtesy of Mr. Chengyi Zhao (Guangzhou, China), we recently had an opportunity to examine a short series of *Carabus (Cratocephalus) solskyi* Ballion, 1878 collected near Kashi, southeast from Yining in Xinjiang Province.

These specimens are well discriminated from all the hitherto known races of the species, particularly by *C. solskyi solskyi* and *C. solskyi toropovi* Obyedov (1997).

We are describing them as new subspecies in the following lines.

RESULTS

Systematics

Ordo COLEOPTERA Linnaeus, 1758
Subordo ADEPHAGA Schellenberg, 1806
Familia CARABIDAE Latreille, 1802
Subfamilia CARABINAE Latreille, 1802
Genus *Carabus* Linnaeus, 1758
Subgenus *Cratocephalus* Kirsch, 1859

Carabus (Cratocephalus) solskyi chengyii n. ssp.
(Figs. 1–4) - <http://zoobank.org:act:97EBA6E9-5290-470A-8B44-EA8272E6A925>

EXAMINED MATERIAL. Holotype male, China, Xinjiang province, Yining County, Kashi Township Reservoir, VII.2020. The holotype is temporarily housed at the author's collection (Ivan Rapuzzi, Prepotto, Italy) waiting to be definitively deposited in a public Institution. Paratypes: 1 male and 2 females, same data as the holotype, preserved in the author's collections.

DESCRIPTION OF HOLOTYPE. Length including mandibles 30 mm (Fig. 1), maximum width of elytra: 11.7 mm. Upper surface with strong metallic lustre, very shiny: elytra green; pronotum black, largely violet margined; black head; ventral surface, legs, palpi, antennae, and mandibles black. The head is stout but somewhat smaller and more elongated, frons flattered; mandibles broader and very elongate, apex strongly acuminate; the left one with a slightly prominent obtuse basal ridge. Second antennal segment strongly depressed. Hind angles of pronotum forming long and triangular lobes,

longer prominent and bent downwards. Very rough and wrinkled elytral sculpture, stronger and deeper foveae with strong green metallic lustre; all intervals disrupted. Male aedeagus typical of the species; more regularly curved in frontal view (Fig. 2), lateral view (Fig. 3). Legs of normal length, the fourth segment of male protarsi is dilated with the ventral side strongly pubescent.

VARIABILITY. The paratypes have no substantial morphological differences with the holotype. The females (Fig. 4) are of slightly larger size (31 to 33 mm); the body shape is larger and more rounded.

ETYMOLOGY. The new subspecies is named in honour of Mr. Chengyi Zhao (Wuxi, China), lucky collector of the type specimens.

DISTRIBUTION. *Carabus (Cratocephalus) solskyi sensu lato* is widespread in a large area of Central Tianshan and Borohoro Mountains (Deuve, 2013). Through its areal the species has a scarce variability, *C. (Cratocephalus) solskyi toropovi* was established upon specimens from the Northwest limit of the species (Bakanas, Ili river, North from Almaty, Kazakhstan). The new subspecies seems isolated on the hills on the east side of Kax River valley that well divides its areal from the typonominal subspecies.



Figures 1–3. *Carabus (Cratocephalus) solskyi chengyii* n. ssp. holotype (Fig. 1) with aedeagus in lateral view (Fig. 2) and aedeagus in dorsal view (Fig. 3). Figure 4. *Carabus (Cratocephalus) solskyi chengyii* n. ssp. paratype female.

REMARKS. Morphologically, *C. (Cratocephalus) solskyi chengyii* n. ssp. is easily distinguished from *C. solskyi solskyi* and *C. solskyi toropovi* by strong metallic lustre of elytra and pronotum, shorter and rounded body shape, smaller and flatter head, longer and narrower mandibles, and stronger and wrinkled elytral sculpture (see also Obydov, 1997; Deuve, 2013).

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REFERENCES

- Deuve Th., 2013. *Cychrus, Calosoma et Carabus* de Chine. Pensoft Series Faunistica no 105, 316 pp.
- Obydov D., 1997. New taxa of the genus *Carabus* L. from Kazakhstan and Kirgizia (Coleoptera: Carsabidae). Acta entomologica slovenica (Ljubljana), 5: 103–108. <http://www.dlib.si/?URN=URN:NBN:SI:DOC-IYEMVSL1>

