

LJUBLJANA, JUNIJ 2005

Vol. 13, št. 1: 5–8

**A NEW SUBSPECIES OF THE CATERPILLAR HUNTER
CALOSOMA DESERTICOLA SEMENOV,
1897 FROM MONGOLIA
(COLEOPTERA: CARABIDAE)**

Dmitry OBYDOV

Timiryazev's State Museum of Biology, 123242, Malaya Gruzinskaya str. 15,
Moscow, Russia. E-mail: obydozdv@mtu-net.ru

Abstract - A new subspecies *Calosoma (Caminara) deserticola augustasi* ssp.n. from Mongolia is described and the distinguishing characters are discussed. A substitute name, *Carabus (Morphocarabus) odoratus chlebnikovae* nom. nov., is proposed for *C. (M.) odoratus marinae* Obydov, 2003 (nec Maux, 1995).

KEY WORDS: Coleoptera, Carabidae, new subspecies, substitute name, Mongolia.

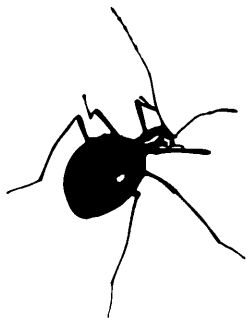
Izvleček NOVA PODVRSTA MOŠKATNIKA *CALOSOMA DESERTICOLA* SEMENOV, 1897, IZ MONGOLIJE (COLEOPTERA: CARABIDAE)

Opisana je nova podvrsta *Calosoma (Caminara) deserticola augustasi* ssp.n. iz Mongolije, obravnavani so razlikovalni znaki. Nadomestno ime *Carabus (Morphocarabus) odoratus chlebnikovae* nom. nov. je predlagano za podvrsto *C. (M.) odoratus marinae* Obydov, 2003 (nec Maux, 1995).

KLJUČNE BESEDE: Coleoptera, Carabidae, nova podvrsta, nadomestno ime, Mongolija.

The present paper includes the description of a new subspecies of *Calosoma (Caminara) deserticola* Semenov, 1897. The described specimens were collected during expeditions to Mongolia in 2003 and 2004. The material was collected in remote and not frequently visited places of Mongolia.

The holotype of the new subspecies is preserved in the collection of the Museum of Biology (Moscow, Russia); paratypes are preserved in the collection of Mr. A. Saldaitis (Vilnius, Lithuania).



LJUBLJANA, JUNIJ 2005

Vol. 13, št. 1: 5–8

**A NEW SUBSPECIES OF THE CATERPILLAR HUNTER
CALOSOMA DESERTICOLA SEMENOV,
1897 FROM MONGOLIA
(COLEOPTERA: CARABIDAE)**

Dmitry OBYDOV

Timiryazev's State Museum of Biology, 123242, Malaya Gruzinskaya str. 15,
Moscow, Russia. E-mail: obydozdv@mtu-net.ru

Abstract - A new subspecies *Calosoma (Caminara) deserticola augustasi* ssp.n. from Mongolia is described and the distinguishing characters are discussed. A substitute name, *Carabus (Morphocarabus) odoratus chlebnikovae* nom. nov., is proposed for *C. (M.) odoratus marinae* Obydov, 2003 (nec Maux, 1995).

KEY WORDS: Coleoptera, Carabidae, new subspecies, substitute name, Mongolia.

Izvleček NOVA PODVRSTA MOŠKATNIKA *CALOSOMA DESERTICOLA* SEMENOV, 1897, IZ MONGOLIJE (COLEOPTERA: CARABIDAE)

Opisana je nova podvrsta *Calosoma (Caminara) deserticola augustasi* ssp.n. iz Mongolije, obravnavani so razlikovalni znaki. Nadomestno ime *Carabus (Morphocarabus) odoratus chlebnikovae* nom. nov. je predlagano za podvrsto *C. (M.) odoratus marinae* Obydov, 2003 (nec Maux, 1995).

KLJUČNE BESEDE: Coleoptera, Carabidae, nova podvrsta, nadomestno ime, Mongolija.

The present paper includes the description of a new subspecies of *Calosoma (Caminara) deserticola* Semenov, 1897. The described specimens were collected during expeditions to Mongolia in 2003 and 2004. The material was collected in remote and not frequently visited places of Mongolia.

The holotype of the new subspecies is preserved in the collection of the Museum of Biology (Moscow, Russia); paratypes are preserved in the collection of Mr. A. Saldaitis (Vilnius, Lithuania).

1. *Calosoma (Caminara) deserticola augustasi* ssp. n. (Figs 1,2,3).

Description: Body length in males is 19.4 - 25.0 mm (including mandibles), width 9.4 - 9.8 mm; body length in females is 25.4 - 25.9 mm, width 10.0 - 11.2 mm.

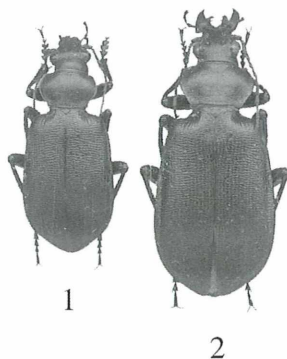
Head slightly thickened, ratio width of pronotum/width of head 1.69; eyes strongly convex; mandibles relatively long and broad, strongly curved; surface of mandibles with coarse long wrinkles and few fine punctures; retinaculum of the right and left mandibles uni-dentate, strongly prominent. Frontal furrows relatively long, deep, inside coarsely punctured, in same specimens with coarse wrinkles. Frons, vertex and neck with dense coarse punctuation, sometimes frons with shallow wrinkles. Labrum wider than clypeus, strongly notched, with two lateral setae. Antenna short, protruding beyond the base of pronotum by 2-3 apical segments; palpi slightly dilated; penultimate segment of the maxillary palpi longer than the last segment; penultimate segment of the labial palpi with 3-5 setae. Mentum tooth triangular, narrow, much shorter than lateral lobes; submentum with two setae.

Prothorax cordiform, broadest about at middle; ratio width/length 1.57. Pronotum flattened with dense coarse punctuation. Median longitudinal line distinct; basal foveae deep, inside coarsely-wrinkled. Sides of pronotum narrowly margined; lobes of hind angles very short, evenly rounded. Lateral margin with two lateral setae.

Elytra oval, relatively convex, widest behind middle; ratio length/width 1.56; ratio width of elytra/width of pronotum 1.44; shoulders prominent; sides of elytra broadly margined, elytral margin coarsely-granular. Elytral sculpture triploid, homodynamous; striae finely punctured; primary elytral foveoles distinct.

Ventral body surface with shallow sparse punctures or nearly smooth, metepisternum with sparse punctures, longer than its width; sides of abdomen slightly wrinkled; sternal sulci long and deep.

Aedeagus (Fig. 3) narrow, evenly curved, apical lamella relatively broad; endophallic structure is characteristic for the species.



Figs 1-2: *Calosoma* (general view): 1. *C. deserticola augustasi* ssp. n. (holotype); 2. *C. deserticola augustasi* ssp. n. (paratype).

1. *Calosoma (Caminara) deserticola augustasi* ssp. n. (Figs 1,2,3).

Description: Body length in males is 19.4 - 25.0 mm (including mandibles), width 9.4 - 9.8 mm; body length in females is 25.4 - 25.9 mm, width 10.0 - 11.2 mm.

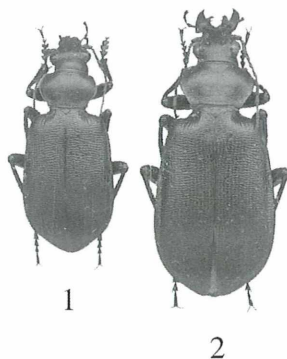
Head slightly thickened, ratio width of pronotum/width of head 1.69; eyes strongly convex; mandibles relatively long and broad, strongly curved; surface of mandibles with coarse long wrinkles and few fine punctures; retinaculum of the right and left mandibles uni-dentate, strongly prominent. Frontal furrows relatively long, deep, inside coarsely punctured, in same specimens with coarse wrinkles. Frons, vertex and neck with dense coarse punctuation, sometimes frons with shallow wrinkles. Labrum wider than clypeus, strongly notched, with two lateral setae. Antenna short, protruding beyond the base of pronotum by 2-3 apical segments; palpi slightly dilated; penultimate segment of the maxillary palpi longer than the last segment; penultimate segment of the labial palpi with 3-5 setae. Mentum tooth triangular, narrow, much shorter than lateral lobes; submentum with two setae.

Prothorax cordiform, broadest about at middle; ratio width/length 1.57. Pronotum flattened with dense coarse punctuation. Median longitudinal line distinct; basal foveae deep, inside coarsely-wrinkled. Sides of pronotum narrowly margined; lobes of hind angles very short, evenly rounded. Lateral margin with two lateral setae.

Elytra oval, relatively convex, widest behind middle; ratio length/width 1.56; ratio width of elytra/width of pronotum 1.44; shoulders prominent; sides of elytra broadly margined, elytral margin coarsely-granular. Elytral sculpture triploid, homodynamous; striae finely punctured; primary elytral foveoles distinct.

Ventral body surface with shallow sparse punctures or nearly smooth, metepisternum with sparse punctures, longer than its width; sides of abdomen slightly wrinkled; sternal sulci long and deep.

Aedeagus (Fig. 3) narrow, evenly curved, apical lamella relatively broad; endophallic structure is characteristic for the species.



Figs 1-2: *Calosoma* (general view): 1. *C. deserticola augustasi* ssp. n. (holotype); 2. *C. deserticola augustasi* ssp. n. (paratype).

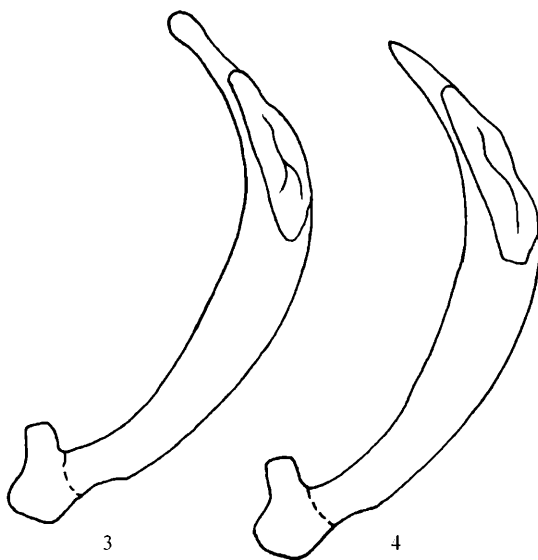
Legs relatively long; male fore tarsi with three dilated segments bearing hairy pads; posterior and middle male tibias moderately or strongly curved.

Body black; primary elytral foveoles bronze or green; sometimes antenna and claws brown; ventral body surface black.

Holotype: male, Mongolia, Gobi-Altai Aimak, 30 km from Bugat to the south-west, 1270 m, 5.VII.2003, S. Churkin leg. (collection of the Moscow Museum of Biology, Russia).

4 paratypes: male, Mongolia, Bayankhongor Aimak, 60 km from Bayankhongor to the south, 1640 m, 45°40'N, 100°41'E, 21.VI.2003, D. Obydov leg.; male, female, Mongolia, Gobi-Altai Aimak, Zahuin Gobi Desert, 1090 m, 6.VI.2004, A. Saldaitis leg.; female, Mongolia, Gobi-Altai Aimak, Sharga Somon env., 1030 m, 1.VII.2004, A. Saldaitis leg. (coll. of the Moscow Museum of Biology, Russia and coll. of A. Saldaitis, Vilnius, Lithuania).

Differential diagnosis. The new subspecies differs from the nominotypical subspecies by following features: frontal furrows deeper; frons, vertex and neck with more rough sculpture; pronotum broader with more dense and more coarse punctuation; pronotal basal foveae deeper, inside with more coarse sculpture; elytra narrower with bigger and deeper primary foveoles; posterior and middle male tibias



Figs 3-4: Aedeagus (lateral view): 3. *C. deserticola augustasi* ssp. n. (holotype); 4. *C. deserticola deserticola* (from Turkmenia).

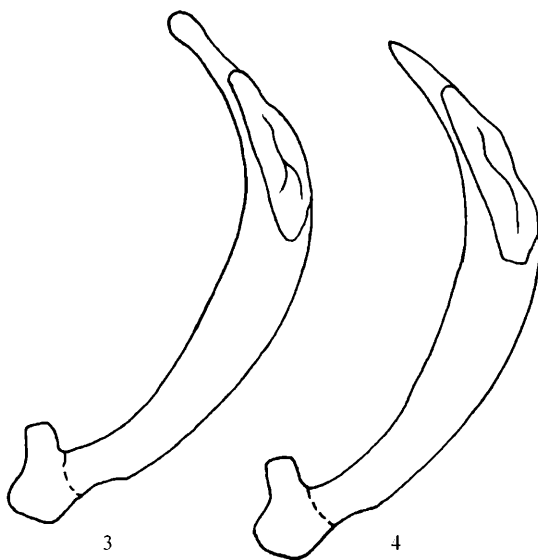
Legs relatively long; male fore tarsi with three dilated segments bearing hairy pads; posterior and middle male tibias moderately or strongly curved.

Body black; primary elytral foveoles bronze or green; sometimes antenna and claws brown; ventral body surface black.

Holotype: male, Mongolia, Gobi-Altai Aimak, 30 km from Bugat to the south-west, 1270 m, 5.VII.2003, S. Churkin leg. (collection of the Moscow Museum of Biology, Russia).

4 paratypes: male, Mongolia, Bayankhongor Aimak, 60 km from Bayankhongor to the south, 1640 m, 45°40'N, 100°41'E, 21.VI.2003, D. Obydov leg.; male, female, Mongolia, Gobi-Altai Aimak, Zahuin Gobi Desert, 1090 m, 6.VI.2004, A. Saldaitis leg.; female, Mongolia, Gobi-Altai Aimak, Sharga Somon env., 1030 m, 1.VII.2004, A. Saldaitis leg. (coll. of the Moscow Museum of Biology, Russia and coll. of A. Saldaitis, Vilnius, Lithuania).

Differential diagnosis. The new subspecies differs from the nominotypical subspecies by following features: frontal furrows deeper; frons, vertex and neck with more rough sculpture; pronotum broader with more dense and more coarse punctuation; pronotal basal foveae deeper, inside with more coarse sculpture; elytra narrower with bigger and deeper primary foveoles; posterior and middle male tibias



Figs 3-4: Aedeagus (lateral view): 3. *C. deserticola augustasi* ssp. n. (holotype); 4. *C. deserticola deserticola* (from Turkmenia).

more curved; sternal sulci longer and deeper; apical lamella of aedeagus broader (Figs 3,4). In general body of the new subspecies longer.

Distribution. Mongolia: Bayankhongor Aimak, Gobi-Altai Aimak.

Habitat. The type series was collected at the elevation of about 1000-1300 m, in sandy semidesert and sandy desert.

Dedication. It is a great pleasure to name this new subspecies in honour of Augustas Saldaitis (Vilnius, Lithuania), the son of my friend Mr. Aidas Saldaitis, who has contributed a lot to the knowledge of the family Arctiidae.

Remark. *Calosoma (Caminara) deserticola* Semenov, 1897 was described from "Transcaspienne" without more precise indication of the type locality. The species inhabit sandy semidesertic steppes, sandy semideserts and sandy deserts of Transcaucasus, south-western Kazakhstan, Turkmenia and Uzbekistan. *Calosoma (Caminara) deserticola augustasi* ssp. n. is known in small number of specimens from several localities of Mongolia. Probably breaking-up areas of *Calosoma (Caminara) deserticola* are the parts of continuous area in the past, isolated soon after the last glaciation and show geological antiquity of this species.

2. *Carabus (Morphocarabus) odoratus chlebnikovae* nom. nov. pro *Carabus (Morphocarabus) odoratus marinae* Obydov, 2003 (nec *Carabus violaceus marinae* Maux, 1995).

Acknowledgements. I wish to express my heartily gratitude to Mr. A. Saldaitis (Vilnius) and Mr. S. Churkin (Moscow) who provided me with the material for study.

References

- Breuning S.,** 1927. Monographie der Gattung *Calosoma* Web. (Carab.). 1. Teil. *Koleopt. Rundsch.*, Bd. 13, Nr. 4-5: 129-232.
- Deuve Th.,** 2004. Illustrated Catalogue of the Genus *Carabus* of the World (Coleoptera: Carabidae). Pensoft, Sofia-Moscow: 459 pp.
- Jeannel R.,** 1940. Les Calosomes. *Mém. Mus. nation. Hist. Nat.* T. XIII, F.1, Paris: 240 pp.
- Maux P.,** 1995. Description d'une nouvelle sous-espèce de *Carabus* (Megodontus) *purpurascens* Fabricius, 1787 (Coleoptera, Carabidae). *Lambillionea*, XCV, 1: 123-125.
- Obydov D.,** 2003. New taxa of the genus *Carabus* L. from Mongolia (Coleoptera, Carabidae). *Lambillionea*, CIII, 4: 639-644.
- Semenov A.,** 1897. Coleoptera nova Rossiae europaea Caucasique III. *Horae Soc. Ent. Ross.*, XXX: 242-250.