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A NEW SUBSPECIES OF *CARABUS (CARABUS) ARVENSIS* HERBST,
FROM SOUTH KURIL ISLANDS
(Coleoptera, Carabidae)

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Résumé. Dans cet article une nouvelle sous-espèce de *Carabus (Carabus) arvensis*: *Carabus (Carabus) arvensis klitini* ssp. n. de Kuril île de Sud. Ses caractères distinctifs sont énoncés.

Abstract. A new subspecies of *Carabus (Carabus) arvensis*: *Carabus (Carabus) arvensis klitini* ssp. n. is described from South Kuril Islands. Diagnostic data are given.

Key words: Coleoptera, Carabidae, *Carabus (Carabus) arvensis*, new subspecies, South Kuril Islands.

Introduction

Carabus (Carabus) arvensis Herbst, 1784 was known earlier from Hokkaido and South Kuril Islands. *Carabus (Carabus) arvensis hokkaidoensis* Lapouge, 1924 has been described from Hokkaido Island ("Teshio"). This subspecies is distributed also on two South Kuril Islands (Kunashir and Shikotan Islands). I have studied one specimen (male) of *Carabus arvensis* with label "Iturup Isl." (Zoological Museum of Moscow Lomonosov State University). This specimen also is very close to *Carabus arvensis hokkaidoensis*. From other South Kuril Islands *Carabus arvensis* was not known till now.

In 2006 a large series (24 males and 23 females) of *Carabus arvensis* was collected in Urup Island. This Island is situated about 30 km away to the north-east from Iturup Island. While studying the specimens, I came to a conclusion that the specimens are represented a new subspecies of *Carabus arvensis*, most probably limited to Urup Island. The collected specimens are rather peculiar morphologically and is very close to *Carabus (Carabus) arvensis jurgitae* Deuve, 1993 from western Altai.

The descriptions of *Carabus (Carabus) arvensis klitini* ssp. n. is given below.

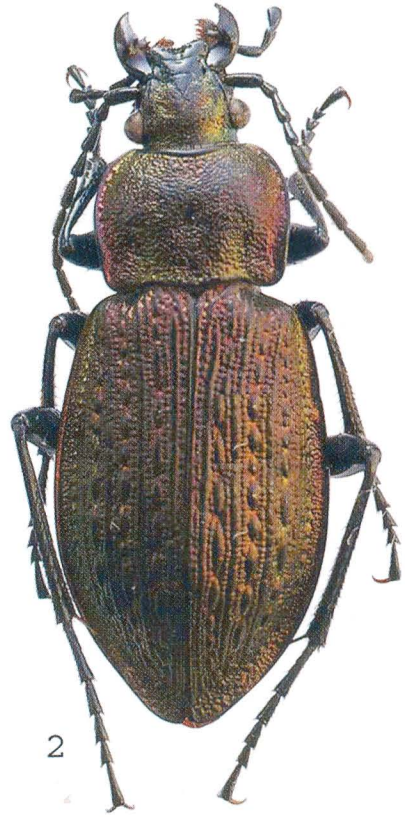
Description

Carabus (Carabus) arvensis klitini ssp. n. (Figs 1,2).

Description: Body length in males is 15.2 - 16.8 mm (including mandibles), width 5.4 - 5.8 mm; body length in females is 17.0 - 17.9 mm, width 6.2 - 6.8 mm.

Head not thickened, ratio width of pronotum/width of head 1.88; eyes strongly convex; mandibles short, slightly incurved; terebral tooth of the right and left mandibles bi-dentate, moderately prominent; retinaculum of the right and left mandibles slightly prominent; surface of mandibles smooth. Frontal furrows short and shallow, inside with sparse punctures. Frons with sparse punctures, vertex and neck coarsely punctured. Labrum slightly wider than clypeus, slightly notched, without lateral setae. Antennae protruding beyond the base of pronotum by 4 apical segments; palpi moderately dilated; penultimate segment of the maxillary palpi equal to the last segment; penultimate segment of the labial palpi with 2 setae. Mentum tooth triangular, shorter than lateral lobes; submentum with 2 setiferous pores.

Prothorax transverse, slightly cordiform, broadest at about middle; ratio width/length 1.36. Pronotum with coarse punctures and wrinkles, its punctuation more rough and dense laterally. Median longitudinal line indistinct; basal foveae oval, not deep, inside with sparse punctures. Sides of pronotum narrowly margined, its margin broader and slightly bent upwards posteriorly; lobes of hind angles evenly rounded, slightly bent downwards. Lateral margin with 2-3 setiferous pores: one pore at about middle and one or two pores near hind angle.



Elytrae oval, convex, widest at about middle; shoulders strongly prominent; sides of elytrae narrowly margined. Ratio length/width 1.50; ratio width of elytrae/width of pronotum 1.42. Elytral sculpture rough, triploid, homodynamous; all elytral interspaces convex, about equally developed. Primary foveoles indistinct; striae coarsely punctured.

Metepisternum smooth, slightly longer than its width. Abdominal sternites smooth; sternal sulci indistinct to absent.

Legs of normal length; fore male tarsi with four dilated segments bearing hairy pads. Shape of aedeagus and endophallic structure in general is characteristic for species.

Coloration bronze, reddish-bronze, cooper, greenish-bronze, bluish-black; mandibles, palpi, antennae, legs and ventral body surface black.

Discussion

The new subspecies differs from *Carabus arvensis hokkaidoensis* by following features: head broader; eyes more convex; mandibles shorter, less incurved; frons, vertex and neck with more rough sculpture; pronotum broader, punctuation of pronotum less rough and dense, margination of pronotum in general broader; lobes of hind angles shorter and broader; elytrae shorter and more convex; elytral sculpture more rough; primary elytral interspaces a little more developed, interrupted into longer links. Body shorter (15.2 - 17.9 mm (in *Carabus arvensis hokkaidoensis* body length is 19.8 - 25.6 mm).

Distribution: Up to now only one population from Urup Island (South Kuril Islands) is known.

Habitat: The beetles were collected on the grasses slopes and in the thickets of riverside plants.

Dedication: It is a great pleasure to name this new subspecies in honour of Dr. Andrey K. KLITIN, the hydrobiologist from South-Sakhalinsk who has contributed a lot to the knowledge of the sea fauna of Kuriles.

Material examined: Holotype: male with label: "South Kuril Islands, Urup Isl., Schukin's Gulf, Stream in Vicinities of Cape of Vasin, 22-24.07.2006, A.K. Klitin leg."; **Paratypes:** 23 males, 23 females, same data and same locality.

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Figures (Photo by A. KLITIN)

Fig. 1. *Carabus arvensis klitini* ssp. n. (Holotype).

Fig. 2. *Carabus arvensis klitini* ssp. n. (Paratype).

Fig. 3. South Kuril Islands: Urup Island. Biotope of *Carabus arvensis klitini* ssp. n. Photo by A. Klitin.

Fig. 4. South Kuril Islands: Urup Island; riverside plants. Biotope of *Carabus arvensis klitini* ssp. n.