

**A NEW SUBSPECIES OF *CARABUS (MESOCARABUS)*
PROBLEMATICUS HERBST, 1786
(COLEOPTERA, CARABIDAE)
FROM NORTHERN EUROPEAN RUSSIA**

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ABSTRACT: A new subspecies of *Carabus (Mesocarabus) problematicus*: *Carabus (Mesocarabus) problematicus kolskianus* ssp. n. is described from northern European Russia. Diagnostic data are given.

KEY WORDS: Coleoptera, Carabidae, *Carabus (Mesocarabus) problematicus*, new subspecies, northern European Russia.

Carabus (Mesocarabus) problematicus occurs in Europe from Finland to southern France, including the British Isles. Belgium is situated near the centre of its geographical distribution area. The most northern subspecies *C. (Mesocarabus) problematicus strandi* Born, 1926 has been described from northern Norway. The beetles inhabit mostly the forested area. The species is the typical representative of the European fauna. From territory of Russia the species was not known till now.

In 2008 I have found a small series of this species in the collections of the Zoological Museum of Moscow Lomonosov State University (male and female) and in the collection of the State Museum of Biology (female). These specimens have been collected in the northern European Russia (Kolsky Peninsula, Murman environs). The specimens is rather peculiar morphologically and is distributed very far from the area of other subspecies of *Carabus (Mesocarabus) problematicus*, probably not linked by intermediate populations and are represented by separate subspecies.

The descriptions of *Carabus (Mesocarabus) problematicus kolskianus* ssp. n. is given below.

DESCRIPTION

***Carabus (Mesocarabus) problematicus kolskianus* ssp. n.** (Figs 1,2).

Holotype: male with label: "Murman, Alexandrovsk, L. Zenkevitch"

Papatypes: 2 females: female, same data and same locality; female with label: "Murman, Alexandrovsk env., 1914, L. Zenkevitch".

The holotype and one paratype are preserved in the collection of the Zoological Museum of Moscow Lomonosov State University (Moscow, Russia). One paratype is preserved in the collection of the State Museum of Biology (Moscow, Russia).

Body length in male is 20.5 mm (including mandibles), width 7.6 mm ; body length in females is 21.6 -23.0 mm, width 9.0 - 9.4 mm.

Head thickened or slightly thickened, ratio width of pronotum/width of head 1.84; eyes strongly convex; mandibles long, narrow, strongly incurved ; terebral tooth of the right and left mandibles slightly prominent; retinaculum of the left mandible indistinct, retinaculum of the right mandible slightly prominent; surface of mandibles smooth. Frontal furrows shallow, inside smooth. Frons, vertex and neck smooth, sometimes vertex and neck with few shallow wrinkles. Labrum slightly wider than clypeus, strongly notched, with 2 lateral setae. Antenna protruding beyond the base of pronotum by 3 apical segments; palpi moderately dilated; penultimate segment of the maxillary palpi equal to the last segment; penultimate segment of the labial palpi with 5-7 setae. Mentum tooth triangular, narrow, shorter than lateral lobes ; submentum with 2 setiferous pores.

Prothorax transverse, broadest at about middle; ratio width/length 1.55. Pronotum with coarse punctures and wrinkles; pronotal sculpture more rough and dense laterally. Median longitudinal line distinct; basal foveae small, deep, inside coarsely-wrinkled. Sides of pronotum broadly margined, its margin broader posteriorly; lobes of hind angles very long, triangular, slightly bent downwards. Lateral margin with 2 setiferous pores: one pore at about middle and one pore near hind angle.

Elytrae oval, convex, widest at about middle; shoulders prominent; sides of elytrae broadly margined. Ratio length/width 1.55; ratio width of elytrae/width of pronotum 1.38. Elytral sculpture triploid, homodynamous; all elytral interspaces slightly convex, about equally developed, interrupted into short links. Primary foveoles indistinct; striae coarsely punctured.

Metepisternum with shallow wrinkles, not longer than its width. Abdominal sternites smooth; sternal sulci deep.

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 the species.

Head, antenna, palpi, pronotum and legs black; elytrae brown, elytral margins black.

Differential diagnosis. The new subspecies differs from *C. problematicus strandi* (the area of this subspecies is located most close to an area of the new subspecies) by the following features: sculpture of head and pronotum less rough; elytrae more convex; elytral sculpture homodynamous, all elytral interspaces slightly convex, about equally developed, interrupted into short links (in *C. problematicus strandi*

elytral sculpture more rough, primary elytral interspaces more convex, interrupted into longer links). Head and pronotum of the new subspecies black, elytrae brown (in *C. problematicus strandi* head, pronotum and elytrae dark blue).

Distribution. Northern European Russia, Kolsky Peninsula, Murman environs. Up to now only one population is known.

Habitat. Probably the beetles were collected in the forest.

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Figures 1. *Carabus (Mesocarabus) problematicus kolskianus* ssp. n. (Holotype) 2. *Carabus (Mesocarabus) problematicus kolskianus* ssp. n. (Paratype).