

New Data on the Ground-Beetle Fauna (Coleoptera, Carabidae) of the Sikhote-Alin Mountains

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Abstract—*Pterostichus kajimurai* Habu et Tanaka, 1957 new for the fauna of Russia and *Perigona nigriceps* (Dejean, 1831) and *Amara distinguenda* A. Morawitz, 1862 both new for the fauna of the Sikhote-Alin Mountains are described. The following new synonymies are proposed: *Carabus careniger* Chaudoir, 1863 (= *C. careniger victorinus* Obydov, 1997, syn. n.) and *C. gossarei vasjurini* Lafer, 1989 (= *C. gossarei venustoides* Deuve, 1990).

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The following abbreviations are used in text: MSPU, Moscow State Pedagogical University; CYuS, Yu. Sundukov's collection, Lazo.

Pterostichus (Eurythoracana) kajimurai

Habu et Tanaka

Pterostichus (Eurythoracana) kajimurai Habu et Tanaka, 1957 : 22. Type locality: Tajimagahara, Urawa C, Saitama (= Urawa, suburb of Tokyo, Saitama Prefecture), Japan.

2 ♂, 1 ♀, Primorskii Territory, lower Arsen'evka River, near Bel'tsovo Vill., 28.VII.2003, Yu. Sundukov, V. Shokhrin (CYuS).

Distribution. Russia: Primorskii Territory; Japan. A new species for the fauna of Russia.

Analysis of the original description (Habu and Tanaka, 1957) and photographs of the holotype [♂, with labels "Holotype *Pterostichus kajimurai* Habu et Tanaka" and "X.29.1954 Tajimagahara Urawa C, Saitama P., H. Kajimura"] allows us to attribute the beetles collected by us in Primorskii Territory to the species *Pterostichus kajimurai*.

The taxonomic status of *P. kajimurai* should be checked, as the taxon is very similar in appearance to *P. (Rhadus) modicellus* Tschitschérine, 1897 described from "Siberie or.: provinces de l'Amur et de l'Ussuri." We failed to find Tschitschérine's type specimen or to examine other material on *P. modicellus*, but analysis of the literature (Jedlička, 1962) has shown that the differences between these species mainly come to the presence (in *P. kajimurai*) or ab-

sence (in *P. modicellus*) of setae on the dorsal side of the claw-segment of tarsi. Unfortunately, Tschitschérine (1897 : 345) did not mention this character in the original description.

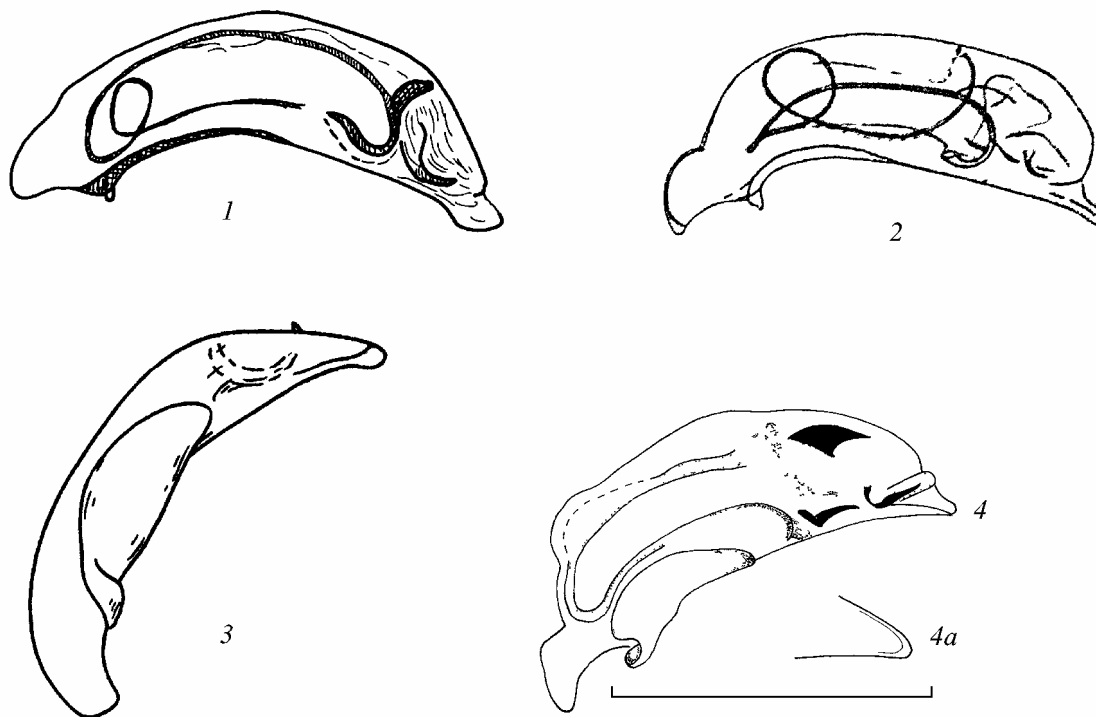
Perigona (Trechicus) nigriceps (Dejean)

Bembidium (Tachys) nigriceps Dejean, 1831 : 44. Type locality: "Amer. Sept.," State of Georgia, USA [type locality was established by Lindroth (1968 : 651)].

1 spm., southern Primorskii Territory, Shkotovskii Distr., Nikolaevskaya Fold, 10 km NE of Mnogoudobnoe Vill., 21–25.VII.1994, Yu. Sundukov (CYuS); 4 spms., southern Primorskii Terr., Lazovskii Nature Reserve, Korpad' locality, 16–19.VII.2005, Yu. Sundukov, V. Shokhrin (CYuS); 2 spms., same locality, 17.VII.2005, K. Makarov (MSPU); 1 spm., southern Primorskii Terr., Lazo-raitsentr Vill., 20–23.VIII.2006, at light, V. Shokhrin (CYuS); 1 spm., southern Primorskii Terr., Kamenushka Vill. near Ussuriisk, 8.VII.1980, Nikitskii (MSPU); 2 spms., same locality, 4.VII.1979, Mikhgeychev, Nikitskii (MSPU).

Distribution. This is a cosmopolitan species widely distributed in the tropical and moderate latitudes of the World, is supposed to originate from southern Asia.

Data on the distribution of *P. nigriceps* in the Russian Far East are discrepant. This species is reported for southern Primorskii Territory in the Key to Insects of the Russian Far East (Lafer, 1989) and is not mentioned for this region in the catalogues of carabid beetles of Russia (Kryzhanovskij et al., 1995) and beetles



Structure of aedeagus of *Perigona nigriceps* (Dejean, 1831): (1) after Basilewsky, 1989 from Africa; (2) after Lindroth, 1968 from Canada; (3) after Jeannel, 1942 from Western Europe; (4) original figure from Sikhote-Alin Mts. [(4a) apex of lamella, ventral view]. Scale 0.5 mm.

of the Palaearctics (Löbl and Smetana, 2003). Our material indicates that *P. nigriceps* is rather widely distributed in the southern part of the Sikhote-Alin Mts., occurring in natural biotopes of the valley broad-leaf forests. According to K.V. Makarov's personal communication, this species is rather widely distributed in the south of Russia and adjacent countries. The collection of MSPU includes material from the following localities: Buryatia, 1.6 km E of Il'inka Station, bank of Selenga River, 1.VIII.1997, A. Anishchenko (3 spms.); Chelyabinsk, 1–7.VIII.2003 [collector is unknown] (1 spm.); Southern Urals, Bashkortostan, Beloretskii Distr., near Tatly Vill., Bagaryshta River, 9.VIII.1995, I. Melnik (1 spm.); Kaluga Prov., Ul'anovskii Distr., Ktsynskoe Forestry, 25.VIII.1978, I. Blonskii (1 spm.); southern Crimea, Nikitskii Botanical Garden, 2.VII.1981, S. Kurbatov (1 spm.); southwestern Moldova, Kagul'skii Distr., near Roshu Vill., 10–11.VII.1990, A. Matalin (1 spm.); same locality, 26–27.VII.1991, A. Matalin (1 spm.).

Despite a nearly worldwide distribution of *P. nigriceps* and a great number of taxonomic publications on this species, the specimens from Primorskii Territory are rather difficult to identify reliably. This species has repeatedly been described by different authors from

various regions of the World (we know no less than 20 junior synonyms of this name), including no less than three reports from eastern Asia and four reports from southeastern Asia (Darlington, 1968). In the course of examination of the Sikhote-Alin material, the author came upon an interesting fact. Figures of the aedeagus of *P. nigriceps* in publications of various authors very strongly differ. For example, compare figures of the aedeagus of specimens of *P. nigriceps* from Western Europe (Jeannel, 1942 : 580), Canada (Lindroth, 1968 : 651), and Africa (Basilewsky, 1989 : 443), and the figure made by me from a slide of a male collected in the southern Sikhote-Alin Mts. (figure).

Amara (Bradytus) distinguenda A. Morawitz

Amara (Bradytus) distinguenda A. Morawitz, 1862 : 218. Type locality: "Kurtuss" on Amur, eastern Siberia, Russia.

1 ♀, Primorskii Terr., southern Sikhote-Alin Mts., Lazo-raitsentr Vill., at light, 20–23.VIII.2006, V. Shokhrin (CYuS),

Distribution. Russia: Chita and Amurskaya provinces, Primorskii Terr.; Mongolia, China: Inner Mongolia, Gansu, Tsinghai.

Earlier, *A. distinguenda* was reported by Jacobson (1905–1916) for Primorskii Territory (Yuzhno-Ussuriiskii Terr.), by Lutshnik (1929 : 4) for the Sikhote-Alin Mts. [based on Kuznetsov-Ugamskii's collections from the environs of Tigrovaya Station], and by Lafer (1977 : 10) from the upper Samarga River. Later, Lafer excluded this species from the fauna of Primorskii Territory and reported it for Russia only from the south of Amur and Chita provinces (Lafer, 1980 : 59, 1989 : 174). The material examined by me confirms that *A. distinguenda* occurs in the southern Sikhote-Alin Mts.

*Notes on the Synonymy of Species
from the Sikhote-Alin Mts.*

1. *Carabus (Aulonocarabus) careniger* Chaudoir, 1863 (= *Carabus (Aulonocarabus) careniger victorianus* Obydov, 1997, syn. n.).

According to recent publications (Brezina, 1999; Löbl and Smetana, 2003; Deuve, 2004), *C. careniger* includes two subspecies: *C. c. careniger* Chaudoir, 1863 and *C. c. victorianus* Obydov, 1997 (= *kusnetzovi* Shilenkov, 1996). Both occur in the southern Sikhote-Alin Mts. *Carabus careniger kusnetzovi* was described from the northern foothills of Mt. Oblachnaya, based on the only small male labeled "Primorskii Territory, Chuguevskii Distr., Sokolovka River, fir-spruce forest, 9.VIII.1974, V. Kuznetsov" (Shilenkov, 1996 : 70). As the name *kusnetzovi* has turned out to be preoccupied for *Carabus kusnetzovi* Semenov, 1903 described from Persia (Semenov, 1903 : 230), this name was later replaced with *victorianus* (Obydov, 1997 : 90).

The author examined extensive material from various localities of the southern Sikhote-Alin Mts.: 437 specimens of *C. careniger*, including 47 spms. from the region of the description and 17 spms. from the highlands of Mt. Oblachnaya, and 205 specimens of *C. canaliculatus* Adams, 1812. The examination has shown that the type specimen of *C. areniger victorianus* must be an abnormal one and should not be distinguished into a subspecies.

2. *Carabus (Aulonocarabus) gossarei vasjurini* Lafer, 1989 (= *Carabus (Eucarabus) gossarei venustoides* Deuve, 1990, syn. n.).

C. gossarei Haury, 1879 is represented in the Sikhote-Alain Mts. by three subspecies: *C. g. gossarei* Haury, 1879, *C. g. imanensis* Lafer, 1989, and *C. g. vasjurini* Lafer, 1989. *C. gossarei imanensis* was

described from the middle Sikhote-Alin Mts., the upper Bolshaya Ussurka River near Taiga Vill. (Lafer, 1989 : 114), and *C. gossarei vasjurini*, from the southern Sikhote-Alin Mts., Mt. Golets (former Mt. Tskhamo-Dynza) (Lafer, 1989 : 114).

Carabus (Eucarabus) gossarei venustoides had been described from the taiga zone of Mt. Oblachnaya (Deuve, 1990 : 26) and further was erroneously reported as a synonym of *C. gossarei imanensis* (Brezina, 1999; Löbl and Smetana, 2003; Deuve, 2004). Based on examination of nearly 700 specimens of all the three subspecies of *C. gossarei* (including 241 spms. from Mt. Oblachnaya), I have concluded that *C. gossarei vasjurini* occurs on Mt. Oblachnaya, and *C. gossarei venustoides* is a synonym of this name.

Carabus (Leptocarabus) reconditus Ivanovs, 1993, described from the environs of Ternei Vill. (Ivanovs, 1993 : 320) and considered by most of modern authors as a synonym of *C. gossarei imanensis*, is actually its synonym.

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