

BRIEF
COMMUNICATIONS

Materials to the Fauna of Marsh Beetles (Coleoptera: Scirtidae) of the Primorsky Krai Protected Areas, with Notes on Synonymy¹

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Abstract—An annotated list of 17 species from four genera of marsh beetles (Scirtidae) from Primorsky krai is given. For the first time, the article presents the data on the species of Scirtidae from four specially protected natural areas of Primorsky krai: Sikhote-Alin Nature Reserve—11 species, Khanka Nature Reserve—2 species, Far Eastern State Marine Reserve—3 species, and Kedrovaya Pad Nature Reserve—2 species. Additionally, 5 species are given for the islands of the Peter the Great Bay. *Sacodes kaszabi* Klausnitzer, 1973 is recorded for the Russia for the first time. *Scirtes sobrinus* Lewis, 1895 is recorded for the Sakhalin oblast for the first time. Based on the material studied, and the examination of the structures of male and female genitalia, the following synonymy is proposed: *Contacyphon wuorentausi* Nyholm, 1949 = *C. ozensis* (Satô, 1982), syn. n.

Keywords: Coleoptera, Scirtidae, fauna, new record, new synonymy, Far East, Russia

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Adult marsh-beetles are terrestrial, often attracting to artificial lights and normally found on grassy vegetation not far from the water. Their mainly hydrobiontic larvae inhabit various water bodies: watercourses, mires, lakes, small ponds and other. Pupation occurs predominantly on land, rarely just above or slightly below the water surface. Larvae are detritivorous, the feeding type of adults is not clear (Kireichuk, 2001; Litovkin and Efimov, 2017).

The world fauna of Scirtidae includes about 1600 species (Lawrence, 2016), while about 340 species are distributed in the Palaearctic region (Klausnitzer, 2016), and according to various sources 49 species are known from Russia (Lobanov et al., 2017). The marsh-beetles fauna of Russian Far East is still poorly known although numerous studies have already been published (Klausnitzer, 1977, 1982; Lafer, 1989; Maksimenkov, 1995; Kireichuk, 2001; Nyholm, 2002; Yoshitomi and Nikitsky, 2004; Gusakov, 2009; Kurbatov, 2013). Recent catalogues (Klausnitzer, 2016; Lobanov et al., 2017) summarized all literature records of Russian Far East marsh-beetles, and currently Far Eastern fauna of Scirtidae includes about 31 species.

Kiesenwetter (1874) provided the first record of Scirtidae from Primorsky krai (South Ussuri). Later his data were reported in the catalogs of Jacobson

(1913). Some faunistic data are published in more recent works (Klausnitzer, 1977; Lafer, 1989; Maksimenkov, 1995; Kireichuk, 2001; Nyholm, 2002; Gusakov, 2009).

The aim of this paper is to report new records and to provide a complete list of the species of the Scirtidae currently known from Primorsky krai. The article attempts to summarize all the data on Scirtidae of Russian Far East.

The present study is based on the material collected by the second author, Sergeev M.S. (MS) in Primorsky krai from 2015–2020 in five localities of Primorsky krai (Fig. 1a): A—Sikhote-Alin Nature Reserve; B—Khanka Nature Reserve: natural landmark “Chyortovo boloto,” environs of Pavlo-Fedorovka village (45.1731 N, 133.2161 E); natural landmark “Sopka Luzanova,” (44.5545 N, 132.3879 E), and environs of Spassk-Dalny (44.6322 N, 132.8365 E) and environs of the Stepnoye village (44.630 N, 132.7332 E); C—Far Eastern State Marine Reserve: Popov Island, Pogranichnaya Bay, (42.9543 N, 131.7383 E), Vityaz Bay, (42.5974 N, 131.2024 E); D—Kedrovaya Pad Nature Reserve: floodplain of Kedrovaya River (43.0933 N, 131.5631 E), environs of Barabash village (43.1579 N, 131.4721 E); E—Russky Island: Akhlestyshev Cape (42.9958 N, 131.9280 E), environs of Tobizin Cape (42.9671 N, 131.8922 E).

¹ This article is translated by the authors.

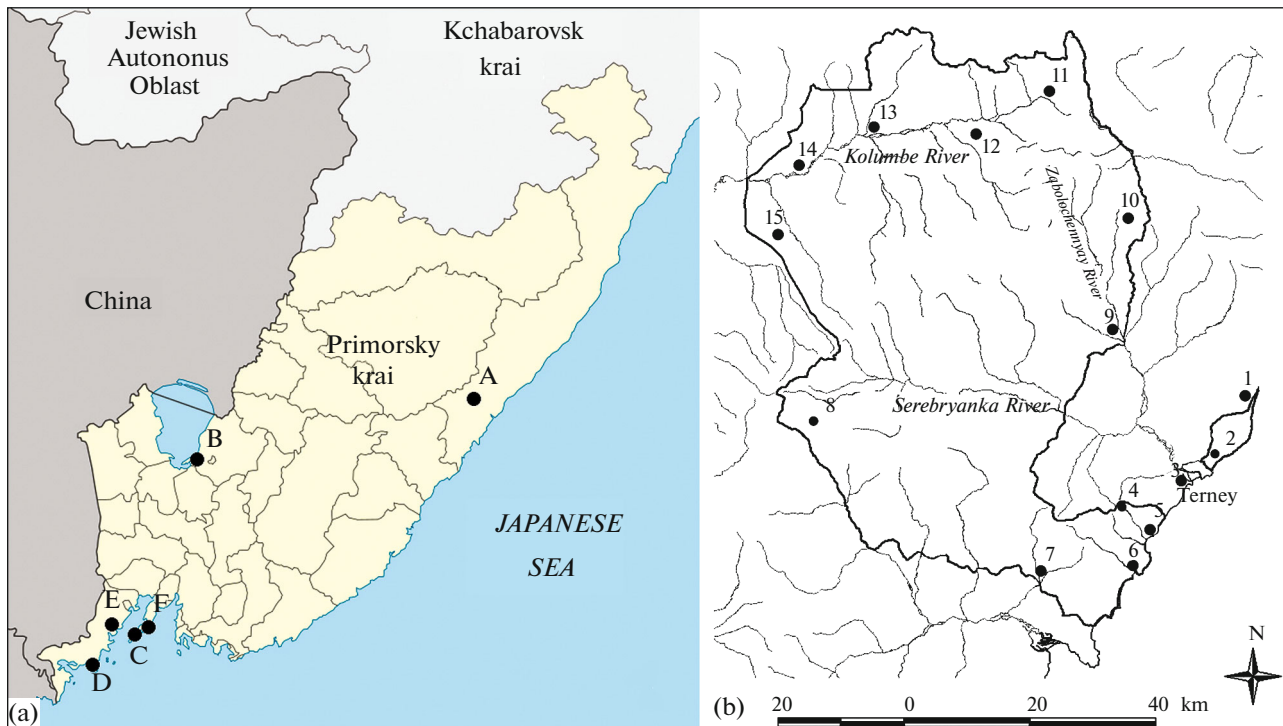


Fig. 1. Localities of Primorsky krai (a) and Sikhote-Alin Nature Reserve (b), where the material was collected (notation in the text). (●) Localities, where the material was collected. There is an interpretation in the text.

On the territory of the Sikhote-Alin Nature Reserve, material was collected in more than 15 natural landmarks (Fig. 1b):

1, 2.—Abrek: Upolnomochenny stream (45.1589 N, 136.7775 E); floodplain Skrytaya River (45.0982 N, 136.6908 E);

3.—environs of Terney, floodplain of Serebryanka River (45.0335 N, 136.3733 E), environs of Malaya Bay, oak forest (45.0301 N, 136.6382 E).

4, 5.—Blagodatnoe: Sukhoy stream (44.5857 N, 136.3109 E), environs of Blagodatnoe Lake (44.5714 N, 136.3250 E);

6.—Golubichnoe, environs of Golubichnoe Lake (44.5430 N, 136.3136 E);

7.—Kunaleyka, floodplain of Khanov stream (44.5325 N, 136.2018 E);

8.—Kabany: floodplain of Kabany stream (45.1102 N, 135.8672 E).

9.—Yasnaya, floodplain of Zabolochennaya River (44.5325 N, 136.2018 E);

10.—Solontsovy, up stream of Zabolochennaya River, Izyubrinoye Lake (45.4259 N, 136.5114 E);

11.—Teremok, up stream of Kolumbe River (45.3400 N, 136.2610 E);

12.—Ust-Prokhnodnaya, wetland on natural solonchak (45.3324 N, 136.1365 E);

13.—Svetlaya, floodplain of Kolumbe River (45.5389 N, 135.9850 E);

14.—Jupiter: floodplain of Kolumbe River (45.5387 N 135.9855 E), floodplain of Jupiter stream (45.5765 N, 135.8928 E);

15.—Venera, floodplain of Venera stream (45.2962 N, 135.8010 E).

All natural landmarks in the Sikhote-Alin Nature Reserve are traditionally allocated areas of its territory, tied to stations and include parts of the basins of the main rivers or large streams (Pimenova, 2016). The collection of material was carried out mainly by mowing with an entomological net over the vegetation and using a light trap.

The Russian identification keys (Medvedev, 1965; Lafer, 1989; Kireichuk, 2001) do not allow the proper identification of the majority species of the scirtid fauna of the Russian Far East. The material was identified by the first author (Sazhnev A.S.) using special literature (Satô, 1982; Nyholm, 1949, 2002; Yoshitomi, 2005; Klausnitzer, 2009). Species identification was based on the structure of male and female genitalia. The pre-extracted genitalia were dissected, macerated in the 10% water solution of KOH at room temperature, rinsed in ethanol, mechanically cleared from the remaining tissues and stored in glycerol.

The taxonomic system of the family Scirtidae and distribution of their species are given according to Klausnitzer (2016). All collected material is deposited in the Collection of aquatic invertebrates of the Papanin Institute for Biology of Inland Waters (Borok,

Russia)—IBIW (depository not listed in the text), the additional material is deposited in the entomological collection of the Federal Scientific Center of the East Asia Terrestrial Biodiversity Far Eastern Branch of the Russian Academy of Sciences (Vladivostok, Russia)—EATB.

Photography was taken using a stereomicroscope MC-5-ZOOM LED with ToupCam 10.0 MP CMOS camera. Photography enhanced by using Helicon Focus v. 7.6.4.

*List of the Scirtid Species Recorded
and Collected from Primorsky Krai*

Family Scirtidae Fleming, 1821

Subfamily Scirtinae Fleming, 1821

***Contacyphon consobrinus* Nyholm, 1949.**

Material examined. **Kedrovaya Pad Nature Reserve:** floodplain of Kedrovaya River, May 1, 2015, 1♂ (MS); environs of Barabash village, May 10, 2019, 1♂ (MS), same place, June 8, 2019, 2♀♀ (MS); **Primorsky kraï:** Terneysky district, environs of Terney, floodplain of Serebryanka River, August 9, 2015, 1♂ (MS); **Sikhote-Alin Nature Reserve:** natural landmark Abrek, floodplain Skrytaya River, June 24, 2015, 1♀ (MS); natural landmark Blagodatnoe, environs of Blagodatnoe Lake, August 18, 2015, 3♂♂ (MS); natural landmark Yasnaya, floodplain of Zabolochennaya River, May 17, 2016, 1♀ (MS); natural landmark Svetlaya, floodplain of Kolumbe River, July 9, 2017, 1♀ (MS); natural landmark Jupiter, floodplain of Kolumbe River, Jupiter stream, July 13, 2017, 1♂, 1♀ (MS); natural landmark Golubichnoe, environs Golubichnoe Lake, July 4, 2018, 1♀ (MS); natural landmark Venera, floodplain of Venera stream, July 1–4, 2019, 1♀ (MS).

Addition material. **Sakhalin oblast:** Kunashir Island, natural landmark Alyokhinsky, 45.9547 N, 145.5927 E, $h = 13$ m, September 17–18, 2009, 1 ex. (A. Zaitsev) EATB, same place, western shore of lake Peschanoe, 43.9436 N, 145.5883 E, August 22, 2009, 1 ex. (K. Makarov) EATB.

Distribution. Russia: Far East (Khabarovsk, Primorsky kraï) (Nyholm, 1949; Lafer, 1989; Maksimenkov, 1995; Klausnitzer, 2016). North Korea, South Korea, Japan (Klausnitzer, 2016).

***C. kongsbergensis* Munster, 1924.**

Material examined. **Sikhote-Alin Nature Reserve:** natural landmark Blagodatnoe, Sukhoy stream, July 8, 2015, 1♂, 1♀ (MS); natural landmark Blagodatnoe, environs of Blagodatnoe Lake, August 8, 2016, 1♂, 1♀ (MS); **Far Eastern State Marine Reserve:** Popov Island, Pogranichnaya Bay, August 27, 2018, 6♂♂, 7♀♀ (MS).

Distribution. Russia: Far East (Lafer, 1989). Europe, West and East Siberia, Mongolia, Nearctic Region (Klausnitzer, 2016).

***C. padi* (Linnaeus, 1758).**

Material examined. **Primorsky kraï:** Terneysky district, environs of Terney, floodplain of Serebryanka River, June 23, 2015, 1♂ (MS), same place, June 13, 2016, 2♂♂ (MS), same place, June 26, 2017, 1 ex. (MS); **Sikhote-Alin Nature Reserve:** natural landmark Blagodatnoe, environs of Blagodatnoe Lake, May 21, 2016, 5♂♂ (MS), same place, May 28, 2017, 3 exs. (MS); natural landmark Abrek, environs of Upolnomochenny stream, July 8, 2017, 1 ex. (MS); natural landmark Yasnaya, floodplain of Zabolochennaya River, May 17, 2016, 14 exs. (MS), same place, window traps, May 18–29, 2017, 1 ex. (MS), same place, May 10, 2018, 1 ex. (MS); natural landmark Golubichnoe, environs of Golubichnoe Lake, June 29, 2016, 3♂♂ (MS), same place, June 2, 2018, 8 exs. (MS), same place, September 20, 2018, 1 ex. (MS); natural landmark Kunaleyka, floodplain of Khanov stream, May 1, 2018, 2 exs. (MS); **Kedrovaya Pad Nature Reserve:** environs of Barabash village, June 8, 2019, 4 exs. (MS); **Far Eastern State Marine Reserve:** Popov Island, Alekseeva Bay, May 3, 2019, 2 exs. (MS); **Rusky Island:** Akhlestyshev Cape, May 24, 2019, 6 exs. (MS).

Addition material. **Sakhalin oblast:** Kunashir Island, Alyokhinskaya Zastava, 43.9183 N, 145.5261 E, June 3, 2011, 1 ex. (A. Matalin) EATB; same place, Alyokhin Cape, the mouth of the Alyokhina River, $h = 100$ m, 43.9250 N, 145.5455 E, 1 ex. (K. Makarov) EATB.

Distribution. Russia: Far East (Lafer, 1989; Maksimenkov, 1995; Klausnitzer, 2016). Europe, North Africa, Middle East, North Asia, North Korea, and Japan (Klausnitzer, 2016).

***C. palustris* C.G. Thomson, 1855.**

Material examined. **Sikhote-Alin Nature Reserve:** natural landmark Golubichnoe, environs Golubichnoe Lake, June 29, 2016, 8♂♂, 1♀ (MS), same place, July 15, 2017, 1♀ (MS); natural landmark Ust-Prokhodnaya, wetland on natural solonetz, May 19, 2018, 1♀ (MS). **Primorsky kraï:** Terneysky district, environs of Terney, floodplain of Serebryanka River, June 26, 2017, 1♂ (MS); **Rusky Island:** environs of Tobizin Cape, August 24, 2019, 2♂♂, 1♀ (MS).

Distribution. Russia: Far East (Maksimenkov, 1995; Klausnitzer, 2016). Europe, North Africa, Middle East, Middle and North Asia including Far East of Russia, and North Korea (Klausnitzer, 2016).

***C. pubescens* (Fabricius, 1792).**

Material examined. **Primorsky kraï:** Terneysky district, environs of Terney, floodplain of Serebryanka River, June 23, 2015, June 13, 2016, 3♀♀ (MS); **Sikhote-Alin Nature Reserve:** natural landmark Golubichnoe, environs of Golubichnoe Lake, June 29, 2016, 1♂ (MS); natural landmark Blagodatnoe, environs of Blagodatnoe Lake, June 13, 2018, 3♀♀ (MS).

Distribution. Russia: Far East (Lafer, 1989; Maksimenkov, 1995; Klausnitzer, 2016). Europe, Middle East, North Asia, North America (Klausnitzer, 2016).

***C. ussuricus* Nyholm, 1948.**

Material examined. **Khanka Nature Reserve:** natural landmark “Sopka Luzanova,” July 5, 2016, 7♂♂, 1♀ (MS), same place, July 9, 2016, 1♀ (MS); **Primorsky krai:** Spassky district, environs of Stepnoe village, July 10, 2016, 2♂♂ (MS), same place, environs of Spassk-Dalny, at the light, 21:00–23:30 p.m., July 10, 2016, 2♂♂ (MS); **Russky Island:** Akhlestyshv Cape, May 24, 2019, 1♂, 2♀♀ (MS); **Far Eastern State Marine Reserve:** Vityaz bay, September 12, 2019, 1♂ (MS).

Distribution. Russia: Far East (Primorsky krai) (Nyholm, 1948; Lafer, 1989; Maksimenkov, 1995; Gusakov, 2009; Klausnitzer, 2016). Japan (Klausnitzer, 2016).

***C. variabilis* (Thunberg, 1787).**

Material examined. **Primorsky krai:** Terneysky district, environs of Terney, floodplain of Serebryanka River, June 23, 2015, 3♂♂ (MS), same place, June 13, 2016, 1♂, 3♀♀ (MS), same place, June 26, 2017, 1♂ (MS); environs of Malaya Bay, oak forest, July 8, 2020, 1♀ (MS); **Sikhote-Alin Nature Reserve:** natural landmark Ust-Prokhnodnaya, wetland on natural solonetz, June 18, 2015, 5♂♂, 1♀ (MS), same place, May 19, 2018, 1♀ (MS), same place, May 27, 2020, 1♀ (MS); natural landmark Yasnaya, floodplain of Zabolochennaya River, May 17, 2016, 1♂ (MS); natural landmark Kunaleyka, floodplain of Khanov stream, October 2, 2016, 2♂♂, 1♀ (MS); natural landmark Golubichnoe, environs Golubichnoe Lake, June 2, 2018, 1♀ (MS); natural landmark Teremok, up stream of Kolumbe River, June 9, 2018, 2♂♂ (MS).

Addition material. **Sakhalin oblast:** Kunashir Island, Veslovsky Peninsula, 1.5 km S Veslo Cape, 43.6658 N, 145.5366 E, July 20–21, 2008, 1 ex. (K. Makarov) EATB; same place, caldera of Golovnin Volcano, south shore of Gorychee Lake, 43.8719 N, 145.4952 E, July 20–25, 2011, 1 ex. (K. Makarov, A. Zaitsev) EATB.

Distribution. Russia: Far East (Lafer, 1989; Maksimenkov, 1995). Palaearctic species (Klausnitzer, 2016).

***C. wuorentausi* Nyholm, 1949.**

Material examined. **Sikhote-Alin Nature Reserve:** natural landmark Blagodotnoe, Sukhoy stream, July 8, 2015, 1♂ (MS); natural landmark Solontsovy, up stream of Zabolochennaya River, Izyubrinnoe Lake, September 1, 2015, 2♂♂, 3♀♀ (MS); natural landmark Ust-Prokhnodnaya, wetland on natural solonetz, August 27, 2016, 1♀ (MS).

Remark. The species *Contacyphon wuorentausi* Nyholm, 1949 was described from Vladivostok (Nyholm, 1949) (on female), and *Contacyphon ozensis* (Satô, 1982) was described from Japan, Honshu (on male) (Satô, 1982). Taxon “*ozensis*” was redescribed in detail by Yoshitomi (2005). Based on the material studied, and the examination of the structures of male and female genitalia, we managed to associate males

and females of “two” species, thus following synonymy is proposed: *Contacyphon wuorentausi* Nyholm, 1949 = *C. ozensis* (Satô, 1982), syn. n.

Distribution. Far East of Russia and Japan (Klausnitzer, 2016).

***Odeles inornatus* (Lewis, 1895).**

Material examined. **Sikhote-Alin Nature Reserve:** natural landmark Kabany: floodplain of Kabany stream, May 29, 2015, 1 ex. (MS).

Distribution. Russia: Far East (Primorsky krai) (Gusakov, 2009; Klausnitzer, 2016). Japan, “Korea” (Klausnitzer, 2016).

***Sacodes kaszabi* Klausnitzer, 1973. (Fig. 2).**

Material examined. **Sikhote-Alin Nature Reserve:** Terneysky district, environs of Terney, oak-broad-leaf forest, coast of the stream, net-sweeping, June 14, 2018, 1♂ (MS).

Remark. Recorded from the Russia for the first time.

Distribution. Russia: Far East (Primorsky krai) (this paper), North Korea (Klausnitzer, 1973, 2016).

***Scirtes japonicus* Kiesenwetter, 1874.**

Material examined. **Primorsky krai:** Khasansky district, environs of Ryazanovka village, August 17, 2010, 3 exs. (Shablin) EATB; **Russky Island:** Akhlestyshv Cape, May 24, 2019, 2♂♂, 1♀ (MS).

Distribution. Russia: Far East (Primorsky krai: Anuchinsky district, Khasansky district, Ussuriysky district, Lazovsky district (Maksimenkov, 1995; Nyholm, 2002; Gusakov, 2009; Klausnitzer, 2016). North Korea, China (Yunnan), Taiwan, Japan, Oriental (Southeastern Asia), Nearctic (North America) (Klausnitzer, 2016), and Australian Regions (Hawaii Islands) (Yoshitomi, 2008).

***S. sobrinus* Lewis, 1895.**

Material examined. **Sikhote-Alin Nature Reserve:** natural landmark Golubichnoe, environs Golubichnoe Lake, June 28–30, 2016, 1♂ (MS); **Khanka Nature Reserve:** natural landmark “Sopka Luzanova,” July 5, 2016, 11♂♂, 7♀♀ (MS), same place, July 7, 2016, 2♂♂ (MS); natural landmark “Chyortovo boloto,” environs of Pavlo-Fedorovka village, July 12, 2016, 2♂♂, 2♀♀ (MS); **Primorsky krai:** Spassky district, environs of Stepnoe village, July 10, 2016, 1♂ (MS).

Addition material. **Sakhalin oblast:** Kunashir Island, Veslovsky Peninsula, 1.5 km S Veslo Cape, 43.6658 N, 145.5366 E, July 20–21, 2008, 3 exs. (I. Melnik) EATB.

Distribution. Russia: Far East (Primorsky krai) (Gusakov, 2009; Klausnitzer, 2016). North Korea, and Japan (Klausnitzer, 2016). First record for Sakhalin oblast.

***S. ussuriensis* Nyholm, 2002.**

Material examined. **Sikhote-Alin Nature Reserve:** natural landmark Blagodotnoe, environs of Blagodotnoe Lake, June 7, 2018, 1♂ (MS).

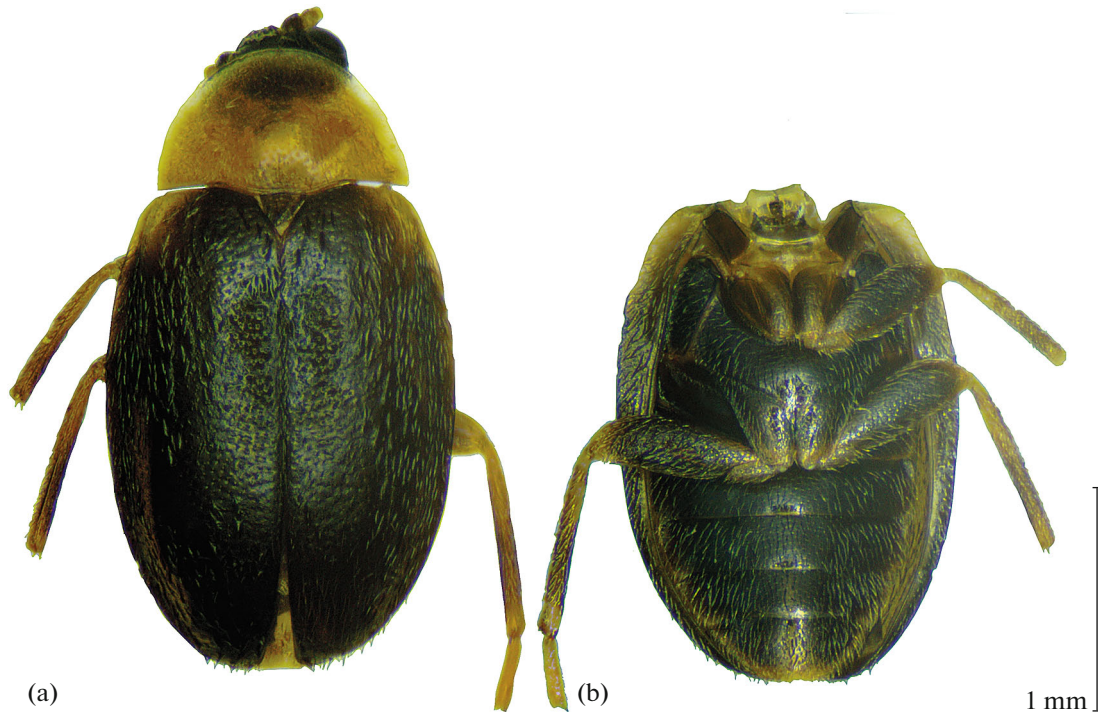


Fig. 2. *Sacodes kaszabi* Klausnitzer, 1973, male from Primorsky krai: (a) dorsal view, (b) ventral view of the thorax (part) and the abdomen.

Distribution. Endemic of Primorsky krai. Russia: Far East (Primorsky krai: described from “Ussuri” (Primorsky krai, Spassky district) (Nyholm, 2002; Klausnitzer, 2016).

For Primorsky krai, according to the literature data, four more species of Scirtidae are known.

***Contacyphon coreanicus* Klausnitzer, 1975.**

Remark. No specimen of this species has been studied for this paper.

Distribution. Far East of Russia, North Korea (Klausnitzer, 2016). For Primorsky krai species is known from Vladivostok (Okeanskaya station) (Maksimov, 1995).

***Sacodes protecta* Harold, 1880.**

Remark. No specimen of this species has been studied for this paper.

Distribution. Far East of Russia and Japan (Klausnitzer, 2016). Species is known from Kunashir Island (south slope of Alyokhin Cape, window traps, August 1–5, 2011, 1♀ (K. Makarov, A. Zaitsev) (http://www.zin.ru/animalia/coleoptera/rus/scirt_ru.htm), but it was not previously recorded for the Sakhalin oblast (Klausnitzer, 1982; Yoshitomi and Nikitsky, 2004). For Primorsky krai species were recorded by Klausnitzer (1977) and Gusakov (2009).

***S. tsushimensis* Yoshitomi, 1997.**

Remark. No specimen of this species has been studied for this paper.

Distribution. Far East of Russia (Gusakov, 2009), Taiwan, and Japan (Klausnitzer, 2016). For Russia this species known only from Primorsky krai (Gusakov, 2009).

***Scirtes ovatulus* Lewis, 1895.**

Remark. No specimen of this species has been studied for this paper.

Distribution. Far East of Russia and Japan (Klausnitzer, 2016). Primorsky krai: Khanka Lake, Anuchinsky district (Vinogradovka), Ussuriysk (Kamenushka), Yakovlevsky district, (Yakovlevka) (Maksimov, 1995).

The Primorsky krai current fauna of Scirtidae includes 17 species of four genera. 11 species (*Contacyphon consobrinus*, *C. kongsbergensis*, *C. padi*, *C. palustris*, *C. pubescens*, *C. variabilis*, *C. wuorentausi*, *Odeles inornatus*, *Sacodes kaszabi*, *Scirtes sobrinus*, and *S. ussuriensis*) are recorded from Sikhote-Alin Nature Reserve for the first time. For the first time, presents data on the species of Scirtidae from Khanka Nature Reserve—2 species (*Contacyphon ussuriensis* and *Scirtes sobrinus*), Far Eastern State Marine Reserve—3 species (*Contacyphon kongsbergensis*, *C. padi*, *C. ussuriensis*) and Kedrovaya Pad Nature Reserve—2 species (*Contacyphon consobrinus* and *C. padi*); additionally, 5 species (*Contacyphon kongsbergensis*, *C. padi*, *C. palustris*, *C. ussuriensis*, and *Scirtes japonicus*) are given for the islands of Peter the Great Bay. *Sacodes kaszabi* is recorded in Russia for the first time. As additional

Table 1. The number of species of the family Scirtidae in the faunas of the Russian Far East and its separate regions

Scirtid species	SANR	LNR	PK	SO	RFE
<i>Elodes kojimai</i> Nakane, 1963	—	—	—	+	+
<i>Contactyphon consobrinus</i> Nyholm, 1949	+	—	+	+	+
<i>C. coreanicus</i> Klausnitzer, 1975	—	—	+	—	+
<i>C. echinatus</i> Klausnitzer, 1982	—	—	—	+	+
<i>C. fuscomarginalis</i> Nakane, 1963	—	—	—	+	+
<i>C. kongsbergensis</i> Munster, 1924	+	—	+	+	+
<i>C. obscuratus</i> Klausnitzer, 1982	—	—	—	+	+
<i>C. padi</i> (Linnaeus, 1758)	+	—	+	+	+
<i>C. palustris</i> C.G. Thomson, 1855	+	—	+	—	+
<i>C. pubescens</i> (Fabricius, 1792)	+	—	+	+	+
<i>C. punctipennis</i> Sharp, 1872	—	—	—	—	+
<i>C. ussuricus</i> Nyholm, 1948	—	+	+	—	+
<i>C. variabilis</i> (Thunberg, 1787)	+	—	+	+	+
<i>C. wuorentausi</i> Nyholm, 1949	+	—	+	—	+
<i>Nyholmia ainu</i> Nakane, 1963	—	—	—	+	+
<i>N. patiens</i> Klausnitzer, 1982	—	—	—	+	+
<i>Odeles inornatus</i> (Lewis, 1895)	+	+	+	+	+
<i>O. wilsoni</i> Pic, 1918	—	—	—	+	+
<i>Ora mavatarii</i> Nakane, 1958	—	—	—	—	?
<i>Prionocyphon ovalis</i> Kiesenwetter, 1874	—	—	—	+	+
<i>Sacodes flavicollis</i> (Kiesenwetter, 1859)	—	—	—	—	?
<i>Sacodes kaszabi</i> Klausnitzer, 1973	+	—	+	—	+
<i>S. mamaevi</i> Klausnitzer, 1977	—	—	—	—	+
<i>S. minima</i> Klausnitzer, 1973	—	—	—	+	+
<i>S. nakanei</i> Klausnitzer, 1973	—	—	—	—	?
<i>S. protecta</i> Harold, 1880	—	+	+	+	+
<i>S. tsushimensis</i> Yoshitomi, 1997	—	+	+	—	+
<i>Scirtes japonicus</i> Kiesenwetter, 1874	—	+	+	—	+
<i>S. ovatulus</i> Lewis, 1895	—	+	+	—	+
<i>S. sobrinus</i> Lewis, 1895	+	+	+	+	+
<i>S. ussuriensis</i> Nyholm, 2002	+	—	+	—	+
Total	11	7	17	17	31

SANR—Sikhote-Alin Nature Reserve (original data), LNR—Lazovsky Nature Reserve (Gusakov, 2009), PK—Primorsky krai (Klausnitzer, 1977; Lafer, 1989; Maksimenkov, 1995; Kireichuk, 2001; Nyholm, 2002; Gusakov, 2009; original data); SO—Sakhalin oblast (Klausnitzer, 1982; Yoshitomi and Nikitsky, 2004; Kurbatov, 2013); RFE—Russian Far East (Klausnitzer, 2016; Lobanov et al., 2017; original data); ?—records require verification.

material, *Scirtes sobrinus* is recorded for the Sakhalin oblast for the first time.

Of the 17 species of the family treated herein, *Scirtes ussuriensis* is known only from Primorsky krai, 11 species are endemics of Far East (geographical region that includes the Russian Far East, Eastern and Southeastern Asia), and only 4 species have Trans-Eurasian and Holarctic distributions.

Separated regions of the Russian Far East are studied to varying degrees (Table 1). The most explored regions are Sakhalin oblast (Sakhalin Island and the Kuril Islands), and now Primorsky krai. The scirtid fauna of Primorsky krai has a transitional shape: on the one hand, it includes Eurosiberian (boreal) species, and on the other hand, *Stenopean nemorose* species. Significant differences between scirtid faunas of

Sikhote-Alin Nature Reserve and Lazovsky Nature Reserve lies in their poor knowledge (for example from Lazovsky Nature Reserve as *Cyphon* spp. recorded non differentiated species), but in fact it represents a single fauna.

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COMPLIANCE WITH ETHICAL STANDARDS

Conflict of interests. The authors declare that they have no conflicts of interest.

Statement on the welfare of animals. All applicable international, national, and/or institutional guidelines for the care and use of animals were followed.

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