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Настоящий выпуск Трудов содержит статьи энтомологов-гименоптерологов, принимавших участие в подготовке первого тома "Аннотированного каталога перепончатокрылых насекомых России" (Труды Зоологического института РАН, "Приложение 6", 2017), со сведениями о составе и распространении сидячебрюхих (Symphyta) и жалоносных (Aculeata) перепончатокрылых насекомых на территории России. В выпуск включены статьи, содержащие новые, подробные, уточненные и исправленные данные о находках, разнообразии и географическом распределении (в первую очередь – в пределах России) пилильщиков, муравьев, разнообразных групп ос из семейств Embolemidae, Bethylidae, Mutillidae, Pompilidae, Vespidae, Sphecidae и Crabronidae и пчел из семейств Colletidae, Andrenidae, Halictidae, Megachilidae, Melittidae и Apidae.

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A new faunistic data on the Hymenoptera of Russia

Новые фаунистическиие данные по перепончатокрылым насекомым России

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Новые данные по фауне пилильщиков (Hymenoptera: Symphyta) России

Ю.Н. Сундуков

A new data on the Symphyta fauna (Hymenoptera) of Russia

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Резюме. Подготовлен список 57 новых для фауны России или ее отдельных регионов таксонов Symphyta, относящихся к 5 семействам. Из них впервые для фауны России приводятся 14 родов, 36 видов и 1 подвид, впервые для Хакасии – 1 вид, для Красноярского края – 4, Бурятии – 1, Забайкальского края – 1, Приморского края – 5, Сахалина – 1 и Курильских островов – 13 видов. Для *Euura nivalis* (Muche, 1973) предложено новое замещающее название *Euura elbrus* Sundukov, **nom. n**.

Ключевые слова. Hymenoptera, Symphyta, Россия, фауна, новые таксоны.

Abstract. The list of 57 Symphyta taxa of five families new for the fauna of Russia or its separate regions was prepared. Of these, 14 genera, 36 species and one subspecies are recorded for the fauna of Russia for the first time, for Khakassia – 1 species, Krasnoyarsk Territory – 4, Buryatia – 1, Zabaykalskiy Territory – 1, Primorskiy Territory – 5, Sakhalin – 1, and Kuril Islands – 13 species. A new substitute name *Euura elbrus* Sundukov, **nom. n**. is proposed for secondary homonym *Euura nivalis* (Muche, 1973),

Key words. Hymenoptera, Symphyta, Russia, fauna, new taxa.

Введение

На основании изучения собственных сборов автора в Республике Бурятия (2009), Приморском крае (2006–2011) и на южных Курильских островах (2012–2015), а также материалов, поступивших в распоряжение автора от В.П. Шохрина (Лазовский заповедник, Лазо, Приморский край) из Приморского края, К.В. Макарова (Московский государственный педагогический университет, Москва) с о. Кунашир, М.Ю. Прощалыкина и В.М. Локтионова (ФНЦ Биоразнообразия ДВО РАН, Владивосток) из Хакасии, юга Красноярского края, с Сахалина и Кунашира, подготовлен список 56 новых для фауны России или ее отдельных регионов таксонов Symphyta, относящихся к 5 семействам. Из них впервые для фауны России приводятся 12 родов, 35 видов и 1 подвид, для фауны Хакасии – 1 вид, для Красноярского края – 4, Бурятии – 1, Забайкальского края – 1, Приморского края – 5, Сахалина – 1 и Курильских островов – 13 видов. Весь приведенный в статье материал хранится в коллекции автора. Для вторичного омонима *Euura nivalis* (Muche, 1973) предложено новое замещающее название – *Euura elbrus* Sundukov, **nom. n**.

Семейства, подсемейства, роды и виды в приведенном ниже аннотированном списке приводятся в алфавитном порядке. Литературные источники с первоописаниями таксонов в списке литературы не приводятся.

Аннотированный список

Семейство Argidae

Подсемейство Arginae

***Arge flavomixta* (André, 1881)**

Hylotoma flavomixta André, 1881: 574; типовое местонахождение: “Sibiria or.”, Россия.

Arge sp. 1: Сундуков, 2009: 215; 2011: 126.

Изученный материал. Приморский край: 3 ♀, Лазовский заповедник, ручей Второй Лог, 15–17.VI.2007 (Ю. Сундуков); 2 ♂, 9 ♀, Лазовский район, ручей Лукьянов Лог, 24–25.VI.2008 (Ю. Сундуков).

Распространение. Россия: “Sibiria or.” (André, 1881), Приморский край. – Корея.

Замечания. Впервые указывается для фауны Приморского края. Ранее вид приводился нами для Приморского края как *Arge* sp. 1 (Сундуков, 2009, 2011). Идентификация вида проведена по определительной таблице видов *Arge* Schrank, 1802 Кореи (Choi et al., 2016).

***Arge hasegawae* Takeuchi, 1927**

Arge hasegawae Takeuchi, 1927: 381; типовое местонахождение: “Mt. Kaga”, Северная Корея.

Arge sp. 2: Сундуков, 2009: 215; 2011: 126.

Изученный материал. Приморский край: 1 ♂, 2 ♀, Лазовский район, ручей Лукьянов Лог, 24–25.VI.2008 (Ю. Сундуков).

Распространение. Россия: Приморский край. – Корея.

Замечания. Новый вид для фауны России. Ранее вид приводился нами для Приморского края как *Arge* sp. 2 (Сундуков, 2009, 2011). Идентификация вида проведена по определительной таблице видов *Arge* Кореи (Choi et al., 2016).

***Arge pseudorejecta* Wei et Lee, 2016**

Arge pseudorejecta Wei et Lee, 2016: 187; типовое местонахождение: “Jiaohe”, Гирин, Китай.

Arge sp. 4: Сундуков, 2009: 215.

Изученный материал. Приморский край: 1 ♂, Лазовский заповедник, бухта Петрова, 6.VIII.2008 (Ю. Сундуков); 1 ♀, там же, урочище Корпадь, 8–11.VII.2007 (Ю. Сундуков).

Распространение. Россия: Приморский край. – СВ Китай, Корея.

Замечания. Новый вид для фауны России. Ранее приводился нами для Приморского края как *Arge* sp. 4 (Сундуков, 2009). Идентификация вида проведена по определительной таблице видов *Arge* Кореи (Choi et al., 2016) и на основании анализа первоописания.

Семейство Cephidae

Подсемейство Cephinae

***Caenocephus xanthopus* Shinohara, 1999**

Caenocephus xanthopus Shinohara, 1999: 68; типовое местонахождение: “Mure”, Хонсю, Япония.

Изученный материал. Приморский край: 1 ♀, Лазовский район, окр. с. Лазо, 2.VI.2010 (Ю. Сундуков).

Распространение. Россия: Приморский край. – Корея, Япония (Хонсю).

Замечания. Новый вид для фауны России. Идентификация вида проведена по определительной таблице для рода *Caenocephus* Konow, 1896 мировой фауны и анализу первоописания *C. xanthopus* (Shinohara, 1999).

***Stenocephus oncogaster* Shinohara, 1999**

Stenocephus oncogaster Shinohara, 1999: 63; типовое местонахождение: “Karuizawa”, Хонсю, Япония.

Изученный материал. Курильские острова: 1 ♀, о. Кунашир, вулкан Менделеева, ручей Докторский, 24.VI.2016 (Ю. и Л. Сундуковы).

Распространение. Россия: Курильские острова (Кунашир). – Центральный Китай, Корея, Япония (Хоккайдо, Хонсю).

Замечания. Новые род и вид для фауны России. Идентификация вида проведена на основе анализа первоописаний видов рода *Stenocephus* Shinohara, 1999 (Shinohara, 1999).

Семейство Diprionidae

Подсемейство Diprioninae

Gilpinia hokkaidoensis Hara et Shinohara, 2015

Gilpinia hokkaidoensis Hara et Shinohara, 2015: 32; типовое местонахождение: "Yamada-onsen 800 m", Хоккайдо, Япония.

Gilpinia sp.: Сундуков, 2015: 247.

Изученный материал. Курильские острова: 1 ♀, о. Кунашир, верховья р. Золотая, 25.VII.2013 (Ю. Сундуков); 1 ♀, там же, правый приток р. Северянка, 16.VIII.2013 (Ю. Сундуков); 1 ♂, 1 ♀, там же, нижнее течение р. Саратовка, 16.VII.2014 (Ю. и Л. Сундуковы); 2 ♂, там же, ручей Болотова, 30.VII.2014 (Ю. и Л. Сундуковы); 2 ♂, там же, нижнее течение р. Филатова, 31.VII.2014 (Л. Сундукова); 1 ♂, там же, среднее течение р. Андреевка, 12.VIII.2014 (Ю. и Л. Сундуковы); 1 ♀, там же, Третьяково, 19–25.VI.2008 (К. Макаров); 1 ♀, там же, озеро к югу от оз. Песчаное, 8.VII.2008 (К. Макаров).

Распространение. Россия: Курильские острова (Кунашир). – Япония (Хоккайдо).

Замечания. Новый вид для фауны России. Ранее приводился нами для о. Кунашир как *Gilpinia* sp. (Сундуков, 2015). Идентификация вида проведена по определительной таблице для видовой группы *G. abieticola* мировой фауны и анализу первоописания *G. hokkaidoensis* (Hara, Shinohara, 2015). Особи с Кунашира отличаются от японских экземпляров слабее развитым светлым рисунком на груди и брюшке, но в остальном соответствуют морфологической характеристике, приведенной в первоописании.

Nesodiprion japonicus (Marlatt, 1898)

Lophyrus japonicus Marlatt, 1898: 506; типовое местонахождение: "Gifu", Хонсю, Япония.

Изученный материал. Приморский край: 1 ♀, верховья р. Уссури, устье ручья Забытый, 14–16.VI.2010 (Ю. Сундуков).

Распространение. Россия: Приморский край. – Китай (Тайвань), Корея, Япония (повсеместно), США (Калифорния).

Замечания. Новый род и вид для фауны России. Идентификация таксона проведена по морфологическим диагнозам рода *Nesodiprion* Rohwer, 1910 и вида *N. japonicus*, а также по определительной таблице *Nesodiprion* мировой фауны (Hara, Smith, 2012).

Monoctenus nipponicus Takeuchi, 1940

Monoctenus nipponicus Takeuchi, 1940: 187; типовое местонахождение: "Katayama, near Ogaki", Хонсю, Япония.

Изученный материал. Приморский край: 5 ♀, Лазовский заповедник, бухта Проселочная, на можжевельнике, 1–7.VII.2006 (Ю. Сундуков).

Распространение. Россия: Приморский край. – Япония (Хонсю).

Замечания. Новый вид для фауны России. Идентификация вида проведена в результате анализа первоописания *M. nipponicus* и определительных таблиц (Takeuchi, 1940; Okutani, 1958; Togashi, 2001).

Семейство Orussidae

Подсемейство Orussinae

Orussus abietinus (Scopoli, 1763)

Sphex abietina Scopoli, 1763: 296; типовое местонахождение: Европа.

Изученный материал. Забайкальский край: 1 ♀, окр. Читы, р. Кайдаловка, 24.VI.1912 (Кирхнер).

Распространение. Россия: центр и юг европейской части, Кавказ, Южный Урал, Иркутская область, Забайкальский край. – Европа, Грузия, Турция, Сирия, Иран, Казахстан.

Замечания. Первое указание для фауны Забайкальского края. Самые восточные находки этого вида были известны из Иркутской области (Сундуков, 2014). На Дальнем Востоке России, в Корее и СВ Китае обитает близкий к нему вид *O. coreanus* Takeuchi, 1938 (Сундуков, 2014).

Семейство Tenthredinidae

Подсемейство Allantinae

Allantus (*Emphytus*) *basalis basalis* (Klug, 1818)

Tenthredo (*Emphytus*) *basalis* Klug, 1818: 282; типовое местонахождение: Европа.

Изученный материал. Курильские острова: 1 ♀, о. Кунашир, нижнее течение р. Филатова, 31.VII.2014 (Ю. и Л. Сундуковы).

Распространение. Россия: европейская часть, Урал, Сибирь, Якутия, Забайкалье, юг Дальнего Востока, Курильские острова (Кунашир), Камчатка. – Европа, Турция, Монголия, СВ Китай, Корея, Япония (Хоккайдо, Хонсю), Северная Америка.

Замечания. Впервые приводится для фауны Курильского архипелага. В каталоге сидячебрюхих Дальнего Востока России он не указывался с Курильских островов (Сундуков, Лелей, 2012). Для идентификации таксона использованы определительные таблицы видов рода *Allantus* Panzer, 1801 европейской части СССР и подрода *Emphytus* Klug, 1815 с территории Китая (Желоховцев, 1988; Li et al., 2011).

Apethymus kunugi Togashi, 2005

Apethymus kunugi Togashi, 2005a: 382; типовое местонахождение: “Mt. Matsugamine, Utsunomiya City”, Хонсю, Япония.

Apethymus proceratis: Сундуков, Лелей, 2012: 72.

Изученный материал. Приморский край: более 300 ♀♀, Лазовский заповедник: урочище Корпадь, 8–12.X 2009; устье р. Быструшка, 13–14.X 2009, 12–13.X 2010 и 19–20.X 2011; нижнее течение ручей Правый Угловой, 21.X 2009 и 26.X 2011; среднее течение р. Соколовка, 22.X 2009; перевал р. Соколовка – ручья Правый Угловой, 18.X 2007, 21.X 2009 и 22.X 2010; бухта Петрова, 3.XI 2011. Весь материал собран Ю. Сундуковым.

Распространение. Россия: Приморский край. – Япония (Хонсю).

Замечания. Новый вид для фауны России. Указывался автором (Сундуков, Лелей, 2012) как *A. proceratis* Lee et Ryu, 1996. Переданные на определение экземпляры этого вида, по мнению А. Тэгера (A. Taeger, Müncheberg, Germany), вероятнее всего, относятся к *A. kunugi* Togashi, 2005.

Apethymus kuri Takeuchi, 1952

Apethymus kuri Takeuchi, 1952: 39; типовое местонахождение: “Kyoto”, Хонсю, Япония.

Изученный материал. Курильские острова: 1 ♀, о. Кунашир, мыс Ивановский, дубняк, 28.IX.2013 (Ю. Сундуков); 2 ♀, там же, 18–21.IX.2014 (Ю. Сундуков).

Распространение. Россия: Курильские острова (Кунашир). – Япония (повсеместно).

Замечания. Новый вид для фауны России. Определение вида проведено с использованием статей по роду *Apethymus* Benson, 1939 (Koch, 1988; Togashi, 2005a; Zhu, Wei, 2008; Sundukov, 2010).

Beleses satonis (Takeuchi, 1929)

Abeleses satonis Takeuchi, 1929: 512; типовое местонахождение: “Naraken”, Хонсю, Япония.

Изученный материал. Курильские острова: 2 ♀, о. Кунашир, мыс Ивановский, 8 и 9.VII.2013 (Ю. и Л. Сундуковы).

Распространение. Россия: Курильские острова (Кунашир). – Корея, Япония (повсеместно).

Замечания. Новые род и вид для фауны России. Идентификация таксона проведена по морфологическому диагнозу рода *Beleses* Cameron, 1877 и определительным таблицам для родов и видов, приведенных в работах японских и корейских авторов (Takeuchi, 1952; Okutani, 1965; Togashi, 1999, 2004a; Lee et al., 2000).

***Filixungulia alboclypea* Wei, 1997**

Filixungulia alboclypea Wei, 1997: 113; типовое местонахождение: “Gaolingzi”, Гирин, СВ Китай.

Изученный материал. Приморский край: 1 ♂, 1 ♀, «Anisimovka 5 km SSE, 500 m, 43.124° N, 132.796° E, 15.VI.2017, A. Taeger, M. Proshchalykin, T. Schmitt, V. Loktionov leg.».

Распространение. Россия: Приморский край. – СВ Китай.

Замечания. Новый род и вид для фауны России. Сведения о материале и определении этого вида были предоставлены А. Тэгером (A. Taeger, Müncheberg, Germany).

***Stenemphytus nakabusensis* (Takeuchi, 1929)**

Allantus (*Emphytus*) *nakabusensis* Takeuchi, 1929: 500; типовое местонахождение: Япония.

Изученный материал. Курильские острова: 1 ♂, 3 ♀, о. Кунашир, кальдера вулкана Головнина, 7–9.VI.2013 (Ю. и Л. Сундуковы).

Распространение. Россия: Курильские острова (Кунашир). – Корея, Япония (повсеместно).

Замечания. Новые род и вид для фауны России. Принадлежность изученных экземпляров к роду *Stenemphytus* Wei et Nie, 1999 проверена по первоописанию рода (Wei, Nie, 1999), а определение вида – по работам японских авторов (Takeuchi, 1929; Togashi, 2003).

***Taxonus abdominis* Lee et Ryu, 1996**

Taxonus abdominis Lee et Ryu, 1996: 24; типовое местонахождение: “Kap’ynggun”, Корея.

Изученный материал. Приморский край: 6 ♀, Лазовский район, ручей Лукьянов Лог, 24 и 25.VI.2008 (Ю. Сундуков).

Распространение. Россия: Приморский край. – Корея.

Замечания. Новый вид для фауны России. Изученные экземпляры соответствуют морфологической характеристике, данной в первоописании (Lee, Ryu, 1996), но правильность их идентификации требует дополнительной проверки.

Подсемейство Athaliinae

***Athalia circularis circularis* (Klug, 1815)**

Tenthredo (*Allantus*) *rosae* var. *circularis* Klug, 1815: 129; типовое местонахождение: Европа.

Изученный материал. Красноярский край: 2 ♀, окр. Красноярска, 2.VII.2012 (М. Прощалыкин, В. Локтионов). Хакасия: 1 ♀, Белый Яр, 12.VII.2012 (М. Прощалыкин, В. Локтионов).

Распространение. Россия: европейская часть, Кавказ, Крым, Урал, Западная Сибирь, Хакасия, Красноярский край. – Европа, Северная Африка, Закавказье, Турция, Средняя Азия, Казахстан, Пакистан, Северо-Западная Индия.

Замечания. Впервые приводится для фауны Красноярского края. Самые восточные находки этого подвида были известны из Хакасии (Василенко, 2011). К востоку от оз. Байкал встречается другой подвид – *A. circularis melanoptera* Benson, 1962, описанный из Северо-Восточного Китая (Benson, 1962). Идентификация таксона проведена по определительным таблицам Р.Б. Бенсона (Benson, 1962), А.Н. Желоховцева (1988) и С.В. Василенко (2011).

***Athalia circularis melanoptera* Benson, 1962**

Athalia circularis melanoptera Benson, 1962: 365; типовое местонахождение: “Harbin”, Хэйлунцзян, Китай.

Изученный материал. Сахалин: 1 ♂, Лопатино, 13 км Ю Невельска, 16 и 17.VII.2011 (М. Прощалыкин, В. Локтионов). Курильские острова: 1 ♂, о. Кунашир, Третьяково, ручей Валентины, 26.IX.2009 (И. Мельник).

Распространение. Россия: Прибайкалье, Забайкалье, Амурская область, Сахалин, Курильские острова (Кунашир), Камчатка. – Монголия, СВ Китай, Корея.

Замечания. Впервые приводится для фауны Сахалина и Курильских островов. Определение изученных экземпляров проведено путем анализа первоописания подвида *A. c. melanoptera* и определительных таблиц для рода *Athalia* Leach, 1817, приведенных в работах Р.Б. Бенсона (Benson, 1962), А.Н. Желоховцева (1988) и С.В. Василенко (2011).

***Athalia decorata* Konow, 1900**

Athalia decorata Konow, 1900: 120; типовое местонахождение: “Irkutsk”, Россия.

Изученный материал. Хакасия: 1 ♂, Жемчужный, оз. Шира, 14.VII.2012 (М. Прощалыкин, В. Локтионов). Красноярский край: 2 ♂, окр. Минусинска, 4.VII.2012 (М. Прощалыкин, В. Локтионов). Приморский край: 1 ♀, Лазовский район, устье ручья Герасимов, 11.VII.2010 (Ю. Сундуков); 4 ♂, 1 ♀, Лазовский заповедник, урочище Америка, 16–18.VIII.2010 (Ю. Сундуков).

Распространение. Россия: Красноярский край, Хакасия, Иркутская область, Бурятия, Забайкальский край, Амурская область, Приморский край. – СЗ Китай.

Замечания. Впервые приводится для Красноярского края, Хакасии и Приморского края. Изученный материал заметно расширяет ареал *A. decorata* как на запад, так и на восток. Идентификация вида проведена по работам Р.Б. Бенсона (Benson, 1962) и С.В. Василенко (2011).

***Athalia infumata* (Marlatt, 1898)**

Phyllotoma infumata Marlatt, 1898: 494; типовое местонахождение: “Gifu Mountains”, Хонсю, Япония.

Изученный материал. Приморский край: 2 ♂, Лазовский заповедник, бухта Проселочная, 3–5.VII.2007 (Ю. Сундуков, В. Шохрин). Курильские острова: 2 ♂, о. Кунашир, ручей Змеиный, 21.VII.2013 (Ю. и Л. Сундуковы); 1 ♂, там же, среднее течение р. Северянка, 27.VII.2013 (Ю. Сундуков); 2 ♀, там же, мыс Ивановский, 1–6.IX.2013 (Ю. и Л. Сундуковы); 1 ♂, 1 ♀, там же, 13.IX.2013 (Ю. и Л. Сундуковы).

Распространение. Россия: Приморский край, Сахалин, Курильские острова (Кунашир). – ЮВ Китай, Корея, Япония (повсеместно), Северная Индия.

Замечания. Впервые приводится для фауны Приморского края и Курильских островов. Идентификация изученных экземпляров проведена по определительным таблицам и морфологическим диагнозам, приведенным в работах по роду *Athalia* (Benson, 1962; Abe, 1988; Василенко, 2011).

***Athalia japonica* (Klug, 1815)**

Tenthredo (*Allantus*) *japonica* Klug, 1815: 131; типовое местонахождение: “Tokio”, Хонсю, Япония.

Изученный материал. Курильские острова: 1 ♀, о. Кунашир, Рудное, 1–3.VII.2008 (К. Макаров); 2 ♂, там же, ручей Асин, 22.VIII.2008 (К. Макаров); 1 ♂, 1 ♀, там же, устье р. Алехина, 19.VIII.2009 (К. Макаров, А. Зайцев); 1 ♀, там же, мыс Столбчатый, 31.VII–1.VIII.2011 (М. Прощалыкин, В. Локтионов); 1 ♂, там же, Третьяково, 27.VII.2011 (М. Прощалыкин, В. Локтионов); 1 ♂, 1 ♀, там же, 21–23.VIII.2013 (Ю. и Л. Сундуковы); 1 ♀, там же, мыс Докучаева, верховья ручья, 5.VIII.2013 (Ю. Сундуков); 1 ♂, 1 ♀, там же, верховья р. Золотая, 400–550 м, 19.VIII.2013 (Ю. Сундуков); 2 ♀, там же, мыс Ивановский, 8 и 9.VII.2013 (Ю. и Л. Сундуковы).

Распространение. Россия: Алтай, юг Восточной Сибири, юг Дальнего Востока, Курильские острова (Кунашир). – СВ Казахстан, В Китай, Тайвань, Корея, Япония (повсеместно), Северо-Восточная Индия.

Замечания. Впервые приводится для фауны Курильского архипелага. Идентификация изученных экземпляров проведена по определительным таблицам и морфологическим диагнозам, приведенным в работах по роду *Athalia* (Benson, 1962; Abe, 1988; Василенко, 2011).

***Athalia liberta* (Klug, 1815)**

Tenthredo (*Allantus*) *rosae* var. *liberta* Klug, 1815: 129; типовое местонахождение: Европа.

Изученный материал. Красноярский край: 1 ♂, окр. Минусинска, 4.VII.2012 (М. Прощалыкин, В. Локтионов).

Распространение. Россия: европейская часть (кроме севера), Кавказ, Урал, Красноярский край. – Европа, Закавказье, Турция, Иран, Средняя Азия, СЗ Китай, Тибет, Северо-Западная Индия.

Замечания. Впервые приводится для фауны Красноярского края. Изученный материал заметно расширяет ареал *A. liberta* на восток. Идентификация вида проведена по работам Р.Б. Бенсона (Benson, 1962), А.Н. Желоховцева (1988) и С.В. Василенко (2011).

***Athalia rosae rosae* (Linnaeus, 1758)**

Tenthredo rosae Linnaeus, 1758: 557; типовое местонахождение: Европа.

Изученный материал. Красноярский край: 3 ♂, 2 ♀, Курагинский район, р. Ничка, 6.VII.2012 (М. Прощалыкин, В. Локтионов); 7 ♂, 11 ♀, там же, окр. Минусинска, 9–10.VII.2012 (М. Прощалыкин, В. Локтионов); 1 ♀, там же, Тесь, р. Туба, 7.VII.2012 (М. Прощалыкин, В. Локтионов).

Распространение. Россия: европейская часть, Кавказ, Крым, Урал, Западная Сибирь, Хакасия, юг Красноярского края. – Европа, Северная Африка, Закавказье, Передняя Азия, Казахстан.

Замечания. Впервые приводится для фауны Красноярского края. Изученные из Красноярского края экземпляры имеют типичную для номинативного подвида окраску мезонотума и ног (Benson, 1962; Василенко, 2011).

***Athalia rosae ruficornis* Jakovlev, 1888**

Athalia spinarum var. *ruficornis* Jakovlev, 1888: 373; типовое местонахождение: "Irkutsk", Россия.

Изученный материал. Бурятия: 1 ♀, хр. Хамар-Дабан, р. Переемная, Тальцы, 24.VII.2009 (Ю. и Л. Сундуковы); 1 ♂, 1 ♀, там же, Танхой, 6.VIII.2009 (Ю. Сундуков). Курильские острова: 1 ♂, о. Кунашир, мыс Столбчатый, 31.VII–1.VIII.2011 (М. Прощалыкин, В. Локтионов); 1 ♂, 1 ♀, там же, Третьяково, 27–28.VII.2011 (М. Прощалыкин, В. Локтионов); 1 ♂, там же, оз. Песчаное, 28.VII.2011 (М. Прощалыкин, В. Локтионов); 1 ♂, там же, мыс Ивановский, 8–9.VII.2013 (Ю. и Л. Сундуковы); 1 ♂, там же, ручей Змеиный, 21.VII.2013 (Ю. и Л. Сундуковы); 3 ♂, там же, Третьяково, 23.VIII.2013 (Ю. и Л. Сундуковы).

Распространение. Россия: Иркутская область, Бурятия, юг Дальнего Востока, Курильские острова (Кунашир). – Монголия, Китай, Корея, Япония (повсеместно), Северо-Западная Индия.

Замечания. Впервые приводится для фауны Бурятии и Курильских островов. Идентификация изученных экземпляров проведена по работам, посвященным роду *Athalia* (Benson, 1962; Abe, 1988; Василенко, 2011).

Подсемейство Blennocampinae

***Apareophora coreana* Sato, 1928**

Apareophora coreana Sato, 1928: 187; типовое местонахождение: "Suigen", Корея.

Изученный материал. Приморский край: 2 ♀, Лазовский заповедник, ручей Второй Соболиный, 15–17.VI.2007 (Ю. Сундуков).

Распространение. Россия: Приморский край. – Северный Китай, Корея.

Замечания. Новые род и вид для фауны России. Принадлежность изученных экземпляров к роду *Apareophora* Sato, 1928 проверена по его первоописанию и определителю родов фауны Японии (Sato, 1928; Takeuchi, 1952). Видовая идентификация проведена по определительным таблицам для таксонов из Японии, Кореи и Китая (Togashi, 1964; Wei, 1997; Lee, Ryu, 1998).

***Eutomostethus apicalis* (Matsumura, 1912)**

Monophadnus apicalis Matsumura, 1912: 66; типовое местонахождение: "Sapporo", Хоккайдо, Япония.

Изученный материал. Курильские острова: 2 ♀, о. Кунашир, п-ов Ловцова, ручей Малый, 17.VIII.2015 (Ю. и Л. Сундуковы).

Распространение. Россия: Сахалин, Курильские острова (Кунашир). – Япония (Хоккайдо, Хонсю, Сикоку).

Замечания. Впервые приводится для фауны Курильского архипелага. Определение вида проведено по ревизии японских видов (Seiyama, 1981).

***Lagonis opacicollis* (Malaise, 1931)**

Rhadinoceraea opacicollis Malaise, 1931: 209; типовое местонахождение: "Hakodate", Хоккайдо, Япония.

Изученный материал. Курильские острова: 4 ♀, о. Шикотан, бухта Церковная, на бузине, 18–20.VII.2012 (Ю. Сундуков); 1 ♀, о. Кунашир, полуостров Ловцова, исток ручья Малый, 20.VIII.2015 (Ю. и Л. Сундуковы).

Распространение. Россия: Курильские острова (Кунашир, Шикотан). – Япония (Хоккайдо, Хонсю, Сикоку).

Замечания. Новые род и вид для фауны России. Таксономическая принадлежность вида проверена по результатам анализа публикаций, касающихся этого таксона (Ермоленко, 1971; Malaise, 1931; Takeuchi, 1952; Togashi, 2009).

***Masaakia longivaginata* Takeuchi, 1950**

Masaakia longivaginata Takeuchi, 1950: 18; типовое местонахождение: Хонсю, Япония.

Изученный материал. Курильские острова: 2 ♀, о. Кунашир, ручей Дальний, 7.VIII.2013 (Ю. и Л. Сундуковы).

Распространение. Россия: Курильские острова (Кунашир). – Япония (Хонсю).

Замечания. Новый вид для фауны России. Принадлежность изученных экземпляров к роду *Masaakia* Takeuchi, 1950 проверена по определителю родов фауны Японии (Takeuchi, 1952). Видовая идентификация проведена по определительным таблицам для таксонов из Японии и Южных Курил (Togashi, 2002, 2005b; Haris, 2006).

***Monophadnoides tuberculatus* Smith et Wei, 2015**

Monophadnoides tuberculatus Smith et Wei, 2015: 204; типовое местонахождение: "Kuandian, Baishilazi", Ляонин, Китай.

Изученный материал. Приморский край: 1 ♂, 6 ♀, Лазовский заповедник, урочище Америка, 13–16.VI.2008 (Ю. Сундуков).

Распространение. Россия: Приморский край. – СВ Китай, Корея.

Замечания. Новый вид для фауны России. Изученные экземпляры соответствуют морфологической характеристике *M. tuberculatus* (Smith, Wei, 2015).

***Phymatocera nipponica* Togashi, 1958**

Phymatocera nipponica Togashi, 1958: 161; типовое местонахождение: "Mt. Shiritaka near Tsurugi", Хонсю, Япония.

Изученный материал. Курильские острова: 2 ♂, 5 ♀, о. Шикотан, бухта Церковная, 28–29.VII.2012 (Ю. Сундуков).

Распространение. Россия: Сахалин, Курильские острова (Шикотан). – Корея, Япония (Хонсю, Сикоку, Кюсю).

Замечания. Впервые приводится для фауны Курильского архипелага. Принадлежность изученных экземпляров к роду *Phymatocera* Dahlbom, 1835 проверена по определительным таблицам и диагнозам родов фауны Японии и европейской части России (Takeuchi, 1952; Желоховцев, 1988). Видовая идентификация проведена по работам И. Тогаши (Togashi, 1958, 2004b).

***Phymatoceropsis melanogaster* He, Wei et Zhang, 2005**

Phymatoceropsis melanogaster He, Wei, Zhang, 2005: 618; типовое местонахождение: "Mt. Heng", Хунань, Китай.

Изученный материал. Приморский край: 1 ♀, Лазовский заповедник, бухта Петрова, 16–19.VI.2008 (В. Шохрин).

Распространение. Россия: Приморский край. – Центральный и Юго-Восточный Китай.

Замечания. Новый вид для фауны России. Изученная самка очень близка к *Ph. melanogaster* He et Wei, Zhang по морфологическому диагнозу и фотографиям первоописания (He et al., 2005), но правильность ее определения требует дополнительной проверки.

***Senoclidea koreana* (Konow, 1898)**

Monophadnus koreanus Konow, 1898: 234; типовое местонахождение: "Gensan", Корея.

Изученный материал. Приморский край: 1 ♀, Лазовский заповедник, урочище Америка, 13–16.VI.2008 (Ю. Сундуков).

Распространение. Россия: Приморский край. – В Китай, Корея.

Замечания. Новые род и вид для фауны России. Принадлежность изученной самки к роду *Senoclidea* Rohwer, 1912 проверена по первоописанию (Rohwer, 1912). Видовая идентификация проведена путем анализа публикаций по видам этого рода из Восточной Азии (Konow, 1898; Rohwer, 1912; Togashi, 1988; Wei, 1997).

Подсемейство Heterarthrinae

***Okutanius lobatus* D.R. Smith, 1981**

Okutanius lobatus D.R. Smith, 1981: 769; типовое местонахождение: "Suigen, Chosen", Сувон, Корея.

Изученный материал. Приморский край: 1 ♀, Лазовский заповедник, урочище Америка, 13–16.VI.2008 (Ю. Сундуков).

Распространение. Россия: Приморский край. – Корея.

Замечания. Новые род и вид для фауны России. Определение вида проведено путем анализа морфологических описаний рода *Okutanius* D.R. Smith, 1981 и двух его видов (Smith, 1981; Wei, 1994).

Подсемейство Nematinae

Anoplonyx orientis D.R. Smith, 1988

Anoplonyx orientis D.R. Smith, 1988: 569; типовое местонахождение: “Azuma, Iburi”, Хоккайдо, Япония.

Изученный материал. Курильские острова: 3 ♀, о. Шикотан, бухта Церковная, на Larix kurilensis Mayr, 24–25.VI.2012 (Ю. Сундуков).

Распространение. Россия: Курильские острова (Шикотан). – Япония (Хоккайдо, Хонсю).

Замечания. Новый вид для фауны России. Изученные экземпляры соответствуют морфологическому диагнозу вида и сравнительному анализу, данным в работе Д.Р. Смита (Smith, 1988).

Euura elbrus Sundukov, nom. n.

Nematus nivalis Muche, 1973: 223; типовое местонахождение: “Elbrus, 10 km NE Itkol”, Кабардино-Балкария, Россия [= *Euura nivalis* (Muche, 1973)], вторичный омоним *Pontania nivalis* Vikberg, 1970: 14 [= *Euura nivalis* (Vikberg, 1970)].

Euura elbrus Sundukov, **nom. n**., новое замещающее название для *Nematus nivalis* Muche, 1973.

Распространение. Россия: Кабардино-Балкария. – Грузия.

Замечания. Изучение голотипа *Nematus nivalis* Muche, 1973 позволило перевести этот таксон в род *Amauronematus* Konow, 1890 (Blank et al., 2009), а в результате ревизии родов подсемейства Nematinae, *Amauronematus* и *Pontania* Costa, 1852 были признаны младшими субъективными синонимами рода *Euura* Newman, 1837 (Prous et al., 2014). Таким образом, *Nematus nivalis* Muche, 1973 стал вторичным омонимом *Pontania nivalis* Vikberg, 1970.

Mesoneura koreana Ryu, Kim et Lee, 1991

Mesoneura koreana Ryu, Kim et Lee, 1991: 222; типовое местонахождение: “Puryong Valley”, Корея.

Изученный материал. Приморский край: 4 ♀, Лазовский район, долина р. Лазовка у с. Лазо, 28–29.VI.2006 и 11.VI.2008 (Ю. Сундуков).

Распространение. Россия: Приморский край. – Корея.

Замечания. Новый вид для фауны России. Принадлежность изученных экземпляров к роду *Mesoneura* Hartig, 1837 уточнена по определительным таблицам родов (Желоховцев, 1988; Takeuchi, 1952), а определение вида – путем анализа морфологических диагнозов восточноазиатских видов (Ryu et al., 1991; Togashi, 1996, 1998; Wei, 1998).

Nematus japonicus (Takeuchi, 1921)

Croesus japonicus Takeuchi, 1921: 398; типовое местонахождение: “Gifu”, Хонсю, Япония.

Изученный материал. Курильские острова: 4 ♀, о. Шикотан, Крабозаводское, 22–23.VII и 18–20.VIII.2012 (Ю. Сундуков); 2 ♂, там же, бухта Церковная, 25–29.VIII и 30.VIII–3.IX.2012 (Ю. Сундуков).

Распространение. Россия: Приморский край, Сахалин, Курильские острова (Шикотан), Камчатка. – Корея, Япония (Хоккайдо, Хонсю).

Замечания. Новый вид для фауны Курильского архипелага. Изученные экземпляры идентифицированы по определительным таблицам родов (Желоховцев, 1988; Takeuchi, 1952) и определителю японских видов рода *Craesus* Leach, 1817 (Togashi, 1997).

Подсемейство Selandriinae

Dolerus (*Dolerus*) *germanicus aterrimus* Zhelochovtsev, 1935

Dolerus pratensis aterrimus Zhelochovtsev, 1935: 82; типовое местонахождение: “Hakodate”, Хоккайдо, Япония.

Изученный материал. Курильские острова: 1 ♀, о. Шикотан, бухта Церковная, 24–25.VI.2012 (Ю. Сундуков); 1 ♀, там же, 1.VII.2012 (Ю. Сундуков).

Распространение. Россия: Курильские острова (Шикотан). – Япония (Хоккайдо).

Замечания. Новый подвид для фауны России. Идентификация таксона проведена путем анализа первоописания и определительной таблицы японских видов рода *Dolerus* Panzer, 1801 (Zhelochovtsev, 1935; Haris, 2001).

***Dolerus* (*Equidolerus*) *subfasciatus* F. Smith, 1874**

Dolerus subfasciatus F. Smith, 1874: 384; типовое местонахождение: “Hiogo”, Хонсю, Япония.

Изученный материал. Курильские острова: 1 ♀, о. Шикотан, бухта Церковная, 11.VII.2012 (Ю. Сундуков).

Распространение. Россия: Курильские острова (Шикотан). – Япония (Хонсю, Сикоку).

Замечания. Новый вид для фауны России. Идентификация вида проведена путем анализа первоописания и определительной таблицы японских видов рода *Dolerus* Panzer, 1801 (Smith, 1874; Haris, 2001).

***Neostromboceros gracilis* Takeuchi, 1941**

Neostromboceros gracilis Takeuchi, 1941: 253; типовое местонахождение: “Mt. Daisen”, Хонсю, Япония.

Изученный материал. Курильские острова: 2 ♀, о. Кунашир, долина р. Северянка, 17.VI.2014 (Ю. Сундуков).

Распространение. Россия: Курильские острова (Кунашир). – Япония (Хоккайдо, Хонсю, Сикоку).

Замечания. Новые род и вид для фауны России. Принадлежность изученных экземпляров к роду *Neostromboceros* Rohwer, 1912 проверена по определительной таблице родов (Takeuchi, 1941), а определение вида – путем анализа первоописаний и определителей японских видов (Takeuchi, 1941; Naito, 1979).

***Neostromboceros nipponicus* Takeuchi, 1941**

Neostromboceros nipponicus Takeuchi, 1941: 257; типовое местонахождение: “Yamashina”, Хонсю, Япония.

Изученный материал. Курильские острова: 3 ♀, о. Кунашир, долина р. Северянка, 13–15.VI.2014 (Ю. Сундуков).

Распространение. Россия: Курильские острова (Кунашир). – Центральный Китай, Япония (Хонсю, Сикоку, Кюсю).

Замечания. Новые род и вид для фауны России. Принадлежность изученных экземпляров к роду *Neostromboceros* проверена по определительной таблице родов (Takeuchi, 1941), а определение вида – путем анализа первоописаний и определителей японских видов (Takeuchi, 1941; Naito, 1979).

***Pseudohemitaxonus parvus* Naito, 1969**

Pseudohemitaxonus parvus Naito, 1969: 404; типовое местонахождение: “Kamikochi”, Хонсю, Япония.

Изученный материал. Курильские острова: 3 ♀, о. Кунашир, долина р. Северянка, 27.VII.2013 и 17.VI.2014 (Ю. Сундуков).

Распространение. Россия: Курильские острова (Кунашир). – Япония (Хоккайдо, Хонсю).

Замечания. Новые род и вид для фауны России. Принадлежность изученных экземпляров к роду *Pseudohemitaxonus* Conde, 1932 проверена по определительной таблице родов трибы Strongylogasterini (Naito, 1990a), а определение вида – путем анализа первоописаний и определителя японских видов (Naito, 1969).

***Rocalia longipennis* Takeuchi, 1952**

Rocalia longipennis Takeuchi, 1952: 57; типовое местонахождение: “Shimajima near Kamikochi”, Хонсю, Япония.

Изученный материал. Курильские острова: 2 ♀, о. Кунашир, мыс Докучаева, северный склон вулкана Руруй, 300 м, 31.VII.2013 (Ю. Сундуков).

Распространение. Россия: Курильские острова (Кунашир). – Финляндия, Япония (Хоккайдо, Хонсю).

Замечания. Новые род и вид для фауны России. Принадлежность изученных экземпляров к роду *Rocalia* Takeuchi, 1952 проверена по первоописанию и определительным таблицам родов фауны Японии, а определение вида – путем анализа первоописаний и определителей японских видов и видов мировой фауны (Takeuchi, 1952; Naito, 1988; Naito, Huang, 1992).

***Strongylogaster moiwana* Matsumura, 1912**

Strongylogaster moiwanus Matsumura, 1912: 59; типовое местонахождение: “Sapporo”, Хоккайдо, Япония.

Изученный материал. Курильские острова: 1 ♂, о. Кунашир, ручей Кривоножка, 20–22.VI.2013 (Ю. и Л. Сундуковы).

Распространение. Россия: Курильские острова (Кунашир). – Япония (Хоккайдо, Хонсю, Сикоку).

Замечания. Новый вид для фауны России. Идентификация вида проведена по определительным таблицам японских родов и видов рода *Strongylogaster* Dahlbom, 1835 (Takeuchi, 1941; Naito, 1980).

***Strongylogaster multifasciata* (Geoffroy, 1785)**

Tenthredo multi-fasciata Geoffroy in Fourcroy, 1785: 368; типовое местонахождение: Европа.

Изученный материал. Курильские острова: 4 ♀, о. Шикотан, бухта Церковная, 24–25.VI.2012 (Ю. Сундуков); 3 ♀, там же, 26–27.VI.2012 (Ю. Сундуков); 1 ♀, там же, 13–14.VII.2012 (Ю. Сундуков); 1 ♀, о. Кунашир, ручей Кривоножка, 20–22.VI.2013 (Ю. и Л. Сундуковы); 2 ♀, там же, мыс Ивановский, 8–9.VII.2013 (Ю. и Л. Сундуковы); 1 ♀, там же, 11–12.VII.2013 (Ю. и Л. Сундуковы).

Распространение. Россия: европейская часть (кроме севера), Кавказ, Урал, Сибирь, юг Дальнего Востока, Курильские острова (Кунашир, Шикотан). – Европа, Грузия, Передняя Азия, Иран, Тайвань, Корея, Япония (повсеместно).

Замечания. Новый вид для фауны Курильского архипелага. Идентификация вида проведена по определительным таблицам для японских родов и видов рода *Strongylogaster* (Takeuchi, 1941; Naito, 1980).

***Strongylogaster rubra* Naito, 1980**

Strongylogaster ruber Naito, 1980: 397; типовое местонахождение: “Mt. Oginosen”, Хонсю, Япония.

Изученный материал. Курильские острова: 3 ♀, о. Кунашир, мыс Ивановский, 8 и 9.VII.2013 (Ю. и Л. Сундуковы).

Распространение. Россия: Иркутская область, Курильские острова (Кунашир). – Корея, Япония (Хоккайдо, Хонсю).

Замечания. Новый вид для фауны Курильского архипелага. Идентификация вида проведена по первоописанию и определительным таблицам для японских и восточносибирских видов рода *Strongylogaster* (Naito, 1980, 1990b).

***Thrinax athyrii* (Naito, 1971)**

Hemitaxonus athyrii Naito, 1971: 26; типовое местонахождение: “Sasayama”, Хонсю, Япония.

Изученный материал. Курильские острова: 3 ♀, о. Кунашир, р. Филатова, 25–28.VI.2013 (Ю. Сундуков); 4 ♀, там же, нижнее течение р. Саратовка, 22.VII.2014 (Ю. и Л. Сундуковы).

Распространение. Россия: Курильские острова (Кунашир). – Япония (повсеместно).

Замечания. Новый вид для фауны России. Идентификация таксона проведена по морфологическим диагнозам и определительной таблице палеарктических видов (Naito, 1971).

***Thrinax takeuchii* (Naito, 1971)**

Hemitaxonus takeuchii Naito, 1971: 27; типовое местонахождение: “Yukomambetsu”, Хоккайдо, Япония.

Изученный материал. Курильские острова: 2 ♀, о. Кунашир, мыс Ивановский, 8 и 9.VII.2013 (Ю. и Л. Сундуковы).

Распространение. Россия: Курильские острова (Кунашир). – Япония (Хоккайдо, Хонсю).

Замечания. Новый вид для фауны России. Идентификация таксона проведена по морфологическим диагнозам и определительной таблице палеарктических видов (Naito, 1971).

Подсемейство Tenthredininae

***Corymbas aperta* (Takeuchi, 1919)**

Siobloides aperta Takeuchi, 1919: 18; типовое местонахождение: Япония.

Изученный материал. Курильские острова: 1 ♀, о. Кунашир, нижнее течение р. Саратовка, 26.VII.2014 (Ю. и Л. Сундуковы).

Распространение. Россия: Курильские острова (Кунашир). – Япония (повсеместно).

Замечания. Новый вид для фауны России. Принадлежность изученной самки к роду *Corymbas* Konow, 1903 проверена по определительной таблице и морфологическому диагнозу родов фа-

уны Японии (Takeuchi, 1952). Видовая принадлежность выявлена путем анализа определительных таблиц и морфологических диагнозов японских и китайских видов (Takeuchi, 1936; Togashi, 1972; Wei, Zhang, 2009).

***Lagidina platycerus platycerus* (Marlatt, 1898)**

Tenthredo platycerus Marlatt, 1898: 501; типовое местонахождение: "Gifu", Хонсю, Япония.

Изученный материал. Курильские острова: 1 ♂, 3 ♀, о. Кунашир, нижнее течение р. Саратовка, 3–4.VII.2014 (Ю. и Л. Сундуковы).

Распространение. Россия: Курильские острова (Кунашир). – Япония (Хонсю, Сикоку, Кюсю, Цусима).

Замечания. Новые род и вид для фауны России. Принадлежность изученных экземпляров к роду *Lagidina* Malaise, 1945 проверена по определительной таблице и морфологическому диагнозу родов фауны Японии (Takeuchi, 1952), а видовая принадлежность – путем анализа определительных таблиц и морфологических диагнозов японских видов (Naito, 1970).

***Macrophya* (*Macrophya*) *sanguinolenta* (Gmelin, 1790)**

Tenthredo sanguinolenta Gmelin, 1790: 2666; типовое местонахождение: Европа.

Изученный материал. Приморский край: 1 ♀, Лазовский район, окр. Лазо, 27.VI–10.VII.2011 (В. Шохрин). Курильские острова: 1 ♀, о. Кунашир, нижнее течение р. Золотая, 24.VII.2013 (Ю. и Л. Сундуковы).

Распространение. Россия: европейская часть, Кавказ, Урал, Прибайкалье, Амурская область, Приморский край, Сахалин, Курильские острова (Кунашир). – Европа, Закавказье, Турция, Казахстан, Монголия, Северный Китай, Корея.

Замечания. Новый вид для фауны Приморского края и Курильских островов. Вид определен по российским и японским публикациям (Желоховцев, 1988; Takeuchi, 1937; Shinohara, 2015).

***Macrophya coxalis* (Motschulsky, 1866)**

Dolerus coxalis Motschulsky, 1866: 182; типовое местонахождение: "Hiogo", Хонсю, Япония.

Изученный материал. Курильские острова: 1 ♀, о. Кунашир, ручей Змеиный, 21.VII.2013 (Ю. и Л. Сундуковы); 2 ♀, там же, нижнее течение р. Северянка, 27.VII.2013 (Ю. и Л. Сундуковы); 1 ♀, там же, ручей Дальний, 8.VIII.2013 (Ю. и Л. Сундуковы).

Распространение. Россия: Курильские острова (Кунашир). – Восточный Китай, Корея, Япония (повсеместно).

Замечания. Новый вид для фауны России. Определение изученных экземпляров проведено по работам японских авторов (Takeuchi, 1937; Shinohara, 2015).

***Macrophya timida* F. Smith, 1874**

Macrophya timida F. Smith, 1874: 380; типовое местонахождение: "Hiogo", Хонсю, Япония.

Изученный материал. Приморский край: 1 ♀, Лазовский заповедник, бухта Проселочная, 14–16.VI.2011 (В. Шохрин).

Распространение. Россия: Приморский край. – Китай (Shinohara, 2015), Корея, Япония (повсеместно).

Замечания. Новый вид для фауны России. Определение изученной самки проведено по работам японских авторов (Takeuchi, 1937; Shinohara, 2015).

***Siobla takeuchii* Shinohara, Wei et Niu, 2013**

Siobla takeuchii Shinohara, Wei et Niu, 2013: 22; типовое местонахождение: "Ashiu-enshurin", Хонсю, Япония.

Изученный материал. Курильские острова: 2 ♂, 4 ♀, о. Шикотан, Крабозаводское, 22 и 23.VII.2012 (Ю. Сундуков); 2 ♀, там же, 18–20.VIII.2012 (Ю. Сундуков).

Распространение. Россия: Курильские острова (Шикотан). – Япония (Хоккайдо, Хонсю, Кюсю).

Замечания. Новый вид для фауны России. Изученные с Шикотана экземпляры соответствуют морфологической характеристике, данной в ревизии А. Синохары с соавторами (Shinohara et al, 2013).

***Tenthredo* (*Propodea*) *fentoni* W.F. Kirby, 1882**

Tenthredo fentoni W.F. Kirby, 1882: 304; типовое местонахождение: “Tokio”, Хонсю, Япония.

Изученный материал. Курильские острова: 2 ♀, о. Кунашир, мыс Докучаева, безымянный ручей, 1.VIII.2013 (Ю. Сундуков); 2 ♂, 5 ♀, там же, верховья ручья, 5.VIII.2013 (Ю. Сундуков); 1 ♂, 2 ♀, там же, полуостров Ловцова, среднее течение ручья Малый, 17.VIII.2015 (Ю. и Л. Сундуковы); 3 ♂, 2 ♀, там же, исток ручья Малый, 20.VIII.2015 (Ю. и Л. Сундуковы).

Распространение. Россия: юг Хабаровского края, Курильские острова (Кунашир). – СВ Китай, Корея, Япония (повсеместно).

Замечания. Новый вид для фауны Курильского архипелага. Обычен в северной части Кунашира. Взрослые насекомые держатся под пологом горных темнохвойных лесов, неспешно перелетая с папоротника на папоротник.

Правильность определения изученных экземпляров проверена по ревизии подрода *Propodea* Malaise, 1945 мировой фауны (Wu et al., 2016).

***Tenthredo* (*Tenthredella*) *velox velox* Fabricius, 1798**

Tenthredo velox Fabricius, 1798: 216; типовое местонахождение: Европа.

Изученный материал. Приморский край: 4 ♂, 9 ♀, Алексеевкий хребет, г. Ольховая, 1550 м, верхняя граница темнохвойного леса, 27–29.VII.2007 (Ю. Сундуков); 1 ♀, там же, Лазовский район, окр. Лазо, 11.VI.2008 (Ю. Сундуков).

Распространение. Россия: европейская часть, Кавказ, Урал, Сибирь, Амурская область, Хабаровский и Приморский края, Магаданская область. – Европа, Монголия.

Замечания. Новый вид для фауны Приморского края. У верхней границы леса на г. Ольховая взрослые особи этого вида были обычны на цветах зонтичных (Apiaceae) и спиреи (Spiracea sp.). Определение изученных экземпляров осуществлено по определителю пилильщиков европейской части СССР (Желоховцев, 1988).

***Tenthredo flavipectus* (Matsumura, 1912)**

Allantus flavipectus Matsumura, 1912: 54; типовое местонахождение: “Kumamoto”, Кюсю, Япония.

Изученный материал. Курильские острова: 2 ♀, о. Кунашир, нижнее течение р. Саратовка, 16.VII.2014 (Ю. и Л. Сундуковы); 1 ♀, там же, 26.VII.2014 (Ю. и Л. Сундуковы).

Распространение. Россия: Курильские острова (Кунашир). – Япония (повсеместно).

Замечания. Новый вид для фауны России. Идентификация изученных самок проверена путем анализа морфологических характеристик, данных в работах японских авторов для *T. flavipectus* и его синонима *T. nigripectus* (Matsumura, 1912) (Matsumura, 1912; Shinohara, 2005).

***Tenthredopsis nassata* (Linnaeus, 1767)**

Tenthredo nassata Linnaeus, 1767: 926; типовое местонахождение: Европа.

Изученный материал. Курильские острова: 2 ♀, о. Шикотан, бухта Церковная, 11.VII.2012 (Ю. Сундуков); 2 ♀, там же, 28 и 29.VII.2012 (Ю. Сундуков); 2 ♂, 3 ♀, о. Кунашир, среднее течение р. Северянка, 17.VI.2014 (Ю. Сундуков).

Распространение. Россия: европейская часть, Кавказ, Крым, Урал, Сибирь, Забайкалье, Дальний Восток, Курильские острова (Кунашир, Шикотан). – Европа, Закавказье, Турция, Средняя Азия, Монголия, Центральный Китай, Япония.

Замечания. Впервые приводится для фауны Курильского архипелага. По нашим наблюдениям, обычный вид на юге Бурятии, юге Приморского края и Южных Курилах.

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New taxa records of the rare family Embolemidae (Hymenoptera: Chrysidoidea) in the Russian Far East

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Новые находки таксонов редкого семейства Embolemidae (Hymenoptera: Chrysidoidea) на Дальнем Востоке России

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Abstract. New records of two rare Embolemidae species, *Ampulicomorpha thauma* Rasnitsyn et Matveev, 1989 and *Embolemus sensitivus* Xu, Olmi et Guglielmino, 2012, in the Russian Far East are provided.

Key words. Wasps, Embolemidae, Eastern Palaearctic, Amur Province, Kunashir Island.

Резюме. Приводятся новые места находок на Дальнем Востоке России 2 редких видов ос сем. Embolemidae – *Ampulicomorpha thauma* Rasnitsyn et Matveev, 1989 и *Embolemus sensitivus* Xu, Olmi et Guglielmino, 2012.

Ключевые слова. Осы, Embolemidae, Восточная Палеарктика, Амурская область, остров Кунашир.

Introduction

Embolemidae (Hymenoptera: Chrysidoidea) is a small family of wasps which develop in the nymphs of planthoppers (Hemiptera: Auchenorrhyncha) (Varrone, Olmi, 2012; Guglielmino, Buckle, 2013; Achterberg, Kats, 2000; Olmi et al., 2014a, 2014b). Embolemid females are micropterous, brachypterous or macropterous, but males always macropterous. Besides primary sexual dimorphism (genitalia, absence or strong reduction of wings in females), females of these wasps additionally differ from males by distinctly elongated scape, which is longer than flagellomere 1 (in male scape short, obviously shorter than flagellomere 1).

Three extant genera are known in this family: worldwide distributed *Embolemus* Westwood, 1833, parasitoids of nymphs of Cixiidae, and *Ampulicomorpha* Ashmead, 1893, parasitoids of nymphs of Achilidae, as well as the Eastern Palaearctic *Trogloembolemus* Olmi, Mita et Guglielmino, 2014 with unknown biology (Olmi, 1996; Olmi et al., 2014b). Also three fossil genera were described in Embolemidae: *Bais-*

sobius Rasnitsyn, 1975, *Embolemopsis* Olmi, Rasnitsyn et Guglielmino, 2010 and *Cretembolemus* Olmi, Rasnitsyn, Brothers et Guglielmino, 2014 (Olmi et al., 2014a, 2014b).

All three extant genera are known in the Palaearctic Region: *Ampulicomorpha* with two species, *Embolemus* with seven species, and exclusively Japanese *Trogloembolemus* with one species. In Russia, two genera and five species were recorded (Trjapitzin, 1978; Rasnitsyn, Matveev, 1989; Belokobylskij, 1990; Olmi et al., 2014a).

In this paper, the new records of two rare embolemid species are documented. Studied material is stored in the collections of the Federal Scientific Center of the East Asia Terrestrial Biodiversity (Vladivostok) and Zoological Institute RAS (St Petersburg).

Taxonomy

Genus *Ampulicomorpha* Ashmead, 1893

Type species: *Ampulicomorpha confusa* Ashmead, 1893, by original designation.

This is a small genus with worldwide distribution. The member of this genus are known as parasitoids of the nymphs of Achilidae living in rotten logs and feeding on hyphal sheets of shelf fungi (Olmi et al., 2014a, 2014b). The status of this genus is discussed: Achterberg and Kats (2000) considered it as synonym of *Embolemus*, but Olmi with coauthors (Olmi, 1996; Olmi et al., 2014a, 2014b) treated it as valid taxon. For resolving of this question requires deep phylogenetic analysis on the basis not only morphological, but also molecular and biochemical data.

Ampulicomorpha thauma Rasnitsyn et Matveev, 1989

Rasnitsyn, Matveev, 1989: 657; Achterberg, Kats, 2000: 268 (as *Embolemus thaumus* and as provisional synonym of *E. hachijoensis* Hirashima et Yamagushi, 1976); Olmi et al., 2014a: 106.

Material examined. Russia. Sakhalin Province: Kuril Islands, SW of Kunashir Island, Ivanovskiy Cape, 11.IX.2013 (Yu. & L. Sundukovy), 1 ♀.

Distribution. Russia: European part (Rostov Province), *Far East (Kunashir I.). – Korea, ?Japan.

Remark. Discovery of *A. thauma* in the Eastern Asia needs to be confirmed after study of males of this species which are still unknown.

Genus *Embolemus* Westwood, 1833

Type species: *Embolemus ruddii* Westwood, 1833, by monotypy.

This is the largest and worldwide distributed embolemid genus. Members of this genus are known as parasitoids of Cixiidae nymphs living in the soil and feeding on roots (Varrone, Olmi 2012; Olmi et al., 2014a, 2014b). In the world fauna 34 species are known (including one fossil), in the Palaearctic Region – 7, in Russia – 4 (*E. pecki* Olmi, 1997, *E. sensitivus* Xu, Olmi et Guglielmino, 2012, *E. ruddii* Westwood, 1833 and *E. tauricus* Olmi, Belokobylskij et Guglielmino, 2014).

Embolemus sensitivus Xu, Olmi et Guglielmino, 2012

Xu et al., 2012: 118; Olmi et al., 2014a: 100; 2014b: 431.

Material examined. Russia. Amur Province, Khingan Nature Reserve: Khingan forestry, Dyrovatka River, mixed forest, 8.VIII.2016 (D. Kochetkov), 1 ♂; Khingan forestry, Tarmanchukan River, 49°13′07″N, 130°31′48″E, 26 & 27.VIII.2016 (D. Kochetkov), 2 ♂.

Distribution. Russia: Far East (*Amur Prov., Primorskiy Terr.). – China (North, South-West, South-East), Korea, Japan (Hokkaido, Honshu, Kyushu, Shikoku), Vietnam.

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New data on the distribution of bethylid wasps (Hymenoptera: Bethylidae) in Russia

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Новые данные по распространению ос-бетилид (Hymenoptera: Bethylidae) в России

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Abstract. The new data on distributions of six species of bethylid wasps in the fauna of Russia are given. Of them, *Acrepyris masii* (Giordani Soika, 1933), *Pseudisobrachium subcyaneum* (Haliday, 1838), *Odontepyris erucarus* (Szelenyi, 1958), *Laelius femoralis* (Förster, 1860), and *Sclerodermus domesticus* Klug, 1809 are recorded in the fauna of Russia for the first time.

Key words. Hymenoptera, Bethylidae, fauna, new data, Palaearctic Region

Резюме. Приводятся новые данные по распространению 6 видов ос-бетилид на территории России. Из них *Acrepyris masii* (Giordani Soika, 1933), *Pseudisobrachium subcyaneum* (Haliday, 1838), *Odontepyris erucarus* (Szelenyi, 1958), *Laelius femoralis* (Förster, 1860) и *Sclerodermus domesticus* Klug, 1809 впервые указываются для фауны России.

Ключевые слова. Hymenoptera, Bethylidae, фауна, новые данные, Палеарктика

Introduction

Up to present only ten species of Bethylidae were known in the fauna of the European part of Russia (Kieffer, 1914; Trjapitzin, 1978; Argaman, 2003). After study of the materials in the collections of the Zoological Institute (St Petersburg; ZISP) and Zoological Museum of the Moscow State University (ZMMU) additional taxa for the fauna of Russia and new data for distribution of some species are added. New records are asterisked (*) in the text.

Family Bethylidae

Subfamily Pristocerinae

***Acrepyris masii* (Giordani Soika, 1933)**

Material examined. *Russia. Krasnodar Terr.: Sochi, 21.IX–2.X.1926 (A. Shestakov), 3 ♂. Crimea Rep.: Evpatoria, 9. IX.1905 (V. Yakovlev), 1 ♂; Koktebel', 1–8.VIII.2007 (K. Tomkovich), 2 ♂.

Distribution. *Russia: Krasnodar Terr., Crimea Rep. – Europe (Soika, 1933; Alencar et al., 2016).

***Pristocera depressa* (Fabricius, 1805)**

Material examined. Russia. *Rostov Prov.: Rodionovo-Nesvetay District, Persyanovka, 15.IV.1999 (D. Dubovikoff), 2 ♂, 2 ♀. *Volgograd Prov.: Kotluban', 22.III–12.IV.2007 (K. Grebennikov), 2 ♂. *Astrakhan Prov.: Baskunchak Lake, 48,193ºN, 46,813ºE, 1 & 2.V.2010 (K. Tomkovich), 1 ♂. Crimea Rep.: Kerch, 22.I.1902 & 25.II.1903 (collector unknown), 2 ♂; Symferopol, 4.III.1978 (S. Mosyakin), 1 ♂.

Distribution. Russia: Crimea Rep. (Trjapitzin, 1978), *Rostov, *Volgograd and *Astrakhan Provinces. – Europe.

***Pseudisobrachium subcyaneum* (Haliday, 1838)**

Material examined. *Russia. Ryazan Prov.: Gremyachka, 20–22.VIII.1899, 26.VIII.1901, and 6.IX.1902 (A. Semenov), 5 ♂. Lipetsk Prov.: Donskoe, 23–28.VIII.1999 (K. Tomkovich), 4 ♂; Kursk Prov.: Petropavlovskoe, 11.IX.1937 (D. Dovnar), 1 ♂; Central Chernozemny Nature Reserve, 24 & 25.VIII.1963 (K. Arnoldi), 2 ♂. Voronezh Prov.: Taly, 10.IX.1938 (A. Lyubischev), 1 ♂; Ramon', 31.VII–23.VIII.1949, 5 ♂, 6.IX.1950, 1 ♂, 3–24.VIII.1951, 7 ♂, and 14.VIII.1952, 1 ♂ (V. Negrobov); Olkhovatka, 6.VIII.1951 (V. Negrobov), 1 ♂; 20 km SW Bobrov, 30. VII.1979 (N. Storozheva), 2 ♂. Udmurtia Rep.: Mouth of Siva River, 31.VII.1989 (A. Sitdikov), 2 ♂. Chuvash Rep.: Prisurskiy Nature Reserve, Atrat', 29.VII–9.VIII.2016 (L. Egorov), 1 ♀. Ulyanovsk Prov.: 8 km S Shilovka, 2.VIII.2009 (A. Kovalev), 1 ♂; 4 km S Vyazovka, 3.VIII.1998 (V. Isaeva), 1 ♂. Samara Prov.: Vilovatoe 28.VIII.2009 (K. Samartsev), 1 ♂. Chelyabinsk Prov.: Varna District, Nikolaevka, 21.VI.1998 (V. Olshvang), 1 ♂. Orenburg Prov.: Orsk, 8.VIII.1936 (I. Chetyrkina), 1 ♂; 20 km S Sagarchin, 17–20.VIII.2004 (V. Krivokhatskiy), 1 ♂; 18 km NNE Podgornoe, 15.VIII.2004 (E. Narchuk), 2 ♂. Volgograd Prov.: Sarepta [= Volgograd], 1868 (A. Becker), 2 ♂; Erzovka, 4.VIII.1985 (E. Komarov), 1 ♂; Elton Lake, 14–16.VII.2012 (K. Samartsev), 1 ♂; Baybaev, 16 & 17.IX.2015 (D. Astakhov), 6 ♂. Astrakhan Prov.: Kharabaly, 4.VIII.1974 (V. Kostyukov), 2 ♂; Dosang, 22.VI.2004 (A. Khalaim), 1 ♂; Baskunchak Lake, 29.VII.1995 (K. Tomkovich), 3 ♂; Bogdo-Baskunchak Nature Reserve, 10 & 11.VII.2014 (K. Grebennikov), 1 ♂. Krasnodar Terr.: Lazarevskoe, 3–24.X.1980, 21 ♂, 11.IX–9.X.1981, 124 ♂ (V. Tobias), 27.IX–2.X.1985 (A. Kirejtshuk), 1 ♂, 16–17.IX.2015 (E. Tselikh), 2 ♂. Crimea Rep.: Steregushchee, 21.VII.1995 (V. Kolyada), 1 ♂; Krestyanovka, 27.VII.1949 (I. Maltsev), 1 ♂; Koktebel', 1–8.IX.2007 (K. Tomkovich), 2 ♂; Karadag, 7.VIII.1994 (V. Krivokhatskiy), 3 ♂; Bakhchisaray District, Zagorskoe Reservoir, 7.IX. 2006 (A. Fateryga), 1 ♂.

Distribution. *Russia: Udmurtia and Chuvash Rep., Ryazan, Lipetsk, Kursk, Voronezh Prov., Krasnodar Terr., Crimea Rep., Volgograd, Astrakhan, Ulyanovsk, Samara, Chelyabinsk, Orenburg Prov. – Europe.

Subfamily Bethylinae

***Odontepyris erucarus* (Szelenyi, 1958)**

Material examined. *Russia. Samara Prov.: Zhiguli Nature Reserve, 24.VII.1948 (A. Chistovskiy), 1 ♀; Domashka, 8 & 9.V.2011 and 29.VI.2011 (V. Chemyreva), 2 ♀. Volgograd Prov.: Shcherbatovka, 7 & 8.VIII.2008 (K. Grebennikov), 1 ♀; Trekhostrovskaya, 25.VII.2008 (K. Grebennikov), 1 ♀. Kalmykia: Idzhyl, 13.VII.2015 (S. Belokobylskij), 1 ♂. Crimea Rep.: Symferopol District, Dacha-Gorka, 30.VI.2013 (S. Ivanov), 1 ♀.

Distribution. *Russia: Samara and Volgograd Prov., Kalmyk and Crimea Rep. – Europe.

Subfamily Epyrinae

***Laelius femoralis* (Förster, 1860)**

Material examined. *Russia: Moscow Prov.: Ostroga, 15.VIII.1996 (V. Gorbatovskiy), 2 ♀.

Distribution. *Russia: Moscow Prov. – Europe.

Subfamily Scleroderminae

***Sclerodermus domesticus* Klug, 1809**

Material examined. *Russia. Bryansk Prov.: Velikaya Topal', 11.VII.1968 (V. Gorbatovskiy), 1 ♀. Volgograd Prov.: Sarepta [= Volgograd], 1872 (A. Becker), 1 ♀. Krasnodar Terr.: Anapa, 11.XI.1989, from pupa of *Semanotus russicus* (F.) (A. Miroshnikov), 3 ♀. Crimea Rep.: Evpatoria, 15.XII.1905 (V. Yakovlev), 1 ♀; Sevastopol, 25.V.1908, 2 ♀., 24.V.1910, 1 ♀, (W. Pliginskiy); Sevastopol, 9.VII.1940, from *Oligomerus ptilinoides* Woll. (Anobiidae) (V. Parfentiev), 1 ♀; Symferopol, 28.I–2.II.1952 (I. Maltsev), 20 ♀.

Distribution. *Russia: Bryansk and Volgograd Prov., Krasnodar Terr., Crimea Rep. – Europe.

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New records of the velvet ants (Hymenoptera: Mutillidae) and spider wasps (Hymenoptera: Pompilidae) from Russia

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Новые находки ос-немок (Hymenoptera: Mutillidae) и дорожных ос (Hymenoptera: Pompilidae) в России

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Abstract. The velvet ants genera *Artiotilla* Invrea, 1950 and *Neotrogaspidia* Lelej, 1996 and four species, *Myrmilla etzchmiadzini* (Radoszkowski, 1885), *Ephutomma angustata* (Skorikov, 1935), *Artiotilla biguttata* (Costa, 1859), and *Neotrogaspidia hammeri* (Suárez, 1959), are newly recorded in the fauna of Russia. The distribution of five species of velvet ants is enlarged within the regions of Russia. Eight species of spider wasps are newly recorded from Dagestan Republic, one of them, *Evagetes sahlbergi* (F. Morawitz, 1893), also from the south of the European part of Russia.

Key words. Velvet ants, spider wasps, fauna, Palaearctic Region.

Резюме. Роды *Artiotilla* Invrea, 1950 и *Neotrogaspidia* Lelej, 1996, и 4 вида [*Myrmilla etzchmiadzini* (Radoszkowski, 1885), *Ephutomma angustata* (Skorikov, 1935), *Artiotilla biguttata* (Costa, 1859) и *Neotrogaspidia hammeri* (Suárez, 1959)] ос-немок указываются впервые для фауны России. Распространение еще 5 видов немок расширено в пределах России. Восемь видов дорожных ос впервые указываются для Дагестана, один из них, *Evagetes sahlbergi* (F. Morawitz, 1893) – также впервые для юга европейской части России.

Ключевые слова. Осы-немки, дорожные осы, фауна, Палеарктика.

Introduction

This paper is based on the material collected in 1995, 2008, 2009, 2015, and 2017 years in Yaroslavl and Astrakhan Provinces, Kalmyk, Dagestan and Altai Republics, and Altai Territory. The examined material (52 specimens) is deposited in the collections of the Federal Scientific Center of the East Asia Terre-

strial Diversity, Vladivostok (IBSS), and the Institute of Systematics and Ecology of Animals, Novosibirsk (ISEN). General distribution of velvet ants species follows Lelej (1985, 2002), and spider wasps species – Loktionov and Lelej (2017). New distribution records are marked with an asterisk (*).

List of species

Family Mutillidae

***Artiotilla biguttata* (Costa, 1859)**

Material examined. Russia: 1 ♀, Dagestan Rep., 9 km SSE Kochubey, 22.VII.2015 (V. Loktionov, M. Proshchalykin, M. Mokrousov); 2 ♀, Dagestan Rep., Derbent, Kamysh-chai valley, 41,908º N, 48,233º E, 12.VI.2017 (M. Mokrousov); 1 ♂, Dagestan Rep., Derbent, 41,1º N, 48,289º E, 24.VIII.2017 (M. Mokrousov) (IBSS).

Distribution. *Russia: European part (North Caucasus). – S Europe, Azerbaijan, Cyprus, Turkey, Palestine, Iran, Turkmenistan.

***Ephutomma angustata* (Skorikov, 1935)**

Material examined. Russia: 2 ♂, Kalmyk Rep., Nature Reserve "Chernye Zemli", 45º56' N 46º01' E, 5 & 6.VII.2017 (Zh. Savranskaya) (IBSS).

Distribution. *Russia: European part (South). – Iran, Central Asia, Kazakhstan.

***Myrmilla* (*Myrmilla*) *etzchmiadzini* (Radoszkowski, 1885)**

Material examined. Russia: 4 ♀, Dagestan Rep., Derbent, Kamysh-chai valley, 41,908º N, 48,233º E, 10 & 11.VI.2017 (M. Mokrousov) (IBSS).

Distribution. *Russia: European part (North Caucasus). – Armenia, Azerbaijan, Iran.

***Myrmilla* (*Pseudomutilla*) *vutshetitshi* Skorikov, 1927**

Material examined. Russia: 2 ♀, Kalmyk Rep., Gorodovikovsk, 25.V.2015 (Zh. Savranskaya) (IBSS).

Distribution. Russia: European part (*South, North Caucasus, Crimea). – W, S and E Europe, Turkey, Syria.

***Mutilla europaea* Linnaeus, 1758**

Material examined. Russia: 1 ♀, Altai Terr., Barnaul, 17.V.2009 (Yu. Danilov); 1 ♀, Altai Rep., Kurayskiy ridge, 29 & 30.VI.2008 (A. Barkalov) (ISEN).

Distribution. Russia: European part (North, North-West, Central, East, North Caucasus, Crimea), Ural, Western Siberia (Novosibirsk Prov., *Altai Terr., *Altai Rep.). – Europe, North Africa, Turkey, Kazakhstan.

***Mutilla marginata* Baer, 1848**

Material examined. Russia: 1 ♀, Yaroslavl Prov., Pleshcheyevo Lake, 21.V.1995 (M. Klepikov) (IBSS).

Distribution. Russia: European part (North, North-West, *Central, East, Crimea), Ural. – W, S and E Europe, Georgia, Syria.

***Neotrogaspidia hammeri* (Suárez, 1959)**

Material examined. Russia: 1 ♀, Dagestan Rep., Derbent, Kamysh-chai valley, 41,908º N, 48,233º E, 11.VI.2017 (M. Mokrousov) (IBSS).

Distribution. *Russia: European part (North Caucasus). – S Europe, Armenia, Azerbaijan, Turkey, Cyprus, Palestine, Iran, Turkmenistan.

***Smicromyrme* (*Eremotilla*) *schwarzi* Suárez, 1975**

Material examined. Russia: 1 ♂, Dagestan Rep., Samur Nature Reserve, 41.86º N, 48.55º E, 6.VI.2017 (M. Mokrousov); 9 ♂, Dagestan Rep., Derbent, Kamysh-chai valley, 41,908º N, 48,277º E, 10–12.VI.2017 (M. Mokrousov) (IBSS).

Distribution. Russia (*North Caucasus, Crimea). – S and E Europe, Georgia, Armenia, Azerbaijan, Turkey.

***Tropidotilla sareptana* (André, 1901)**

Material examined. Russia: 1 ♀, Dagestan Rep., 12 km SSW Kizlyar, Novy Terek River, 23.VI.2015 (V. Loktionov, M. Proshchalykin, M. Mokrousov) (IBSS).

Distribution. Russia: European part (South, *North Caucasus). – Armenia, Azerbaijan, Turkey.

Family Pompilidae

***Batozonellus truchnemus* (F. Morawitz, 1888)**

Material examined. Russia: 7 ♀, 7 ♂, Astrakhan Prov., Volzhskiy, 23.VII, 12–18.VIII.2017 (M. Mokrousov) (IBSS).

Distribution. Russia: European part (South). – Azerbaijan, Turkmenistan, Kyrgyzstan, Kazakhstan.

Remark. The species was first recorded from Russia (Kalmyk Republic) by S. Zonstein (2002) but without data of material. The species is newly recorded from Astrakhan Prov.

***Cryptocheilus variipennis* Šustera, 1924**

Material examined. Russia: 1 ♀, Dagestan Rep., 10 km S Derbent, 11.VI.2017 (M. Mokrousov) (IBSS).

Distribution. Russia: European part (South, *North Caucasus). – W and S Europe, Turkey, Syria, Jordan.

***Eoferreola variabilis* (Eversmann, 1849)**

Material examined. Russia: 1 ♀, Dagestan Rep., Kumtorkalinskiy District, Barkhan Sarykum, 31.V.2017 (M. Mokrousov) (IBSS).

Distribution. Russia: European part (South, Crimea, *North Caucasus), Ural. – S Europe, Algeria, Egypt, Turkey, Syria, Iran, Uzbekistan, Kyrgyzstan, Kazakhstan.

***Evagetes pontomoravicus* (Šustera, 1938)**

Material examined. Russia: 1 ♀, Dagestan Rep., Derbent, Kamysh-chai valley, 14.VI.2017 (M. Mokrousov) (IBSS).

Distribution. Russia: European part (South, *North Caucasus, Crimea), Eastern Siberia (Buryatia Rep., Zabaykalskiy Terr.). – S and E Europe, North Africa, Turkey, Cyprus, Turkmenistan, Kyrgyzstan, Kazakhstan, Mongolia.

***Evagetes sahlbergi* (F. Morawitz, 1893)**

Material examined. Russia: 1 ♀, Dagestan Rep., Kumtorkalinskiy District, Barkhan Sarykum, 31.V.2017 (M. Mokrousov) (IBSS).

Distribution. Russia: European part (North, North-West, Central, *North Caucasus), Far East (Primorskiy and Kamchatka Terr., Magadan Prov., Chukot Autonomous Area). –Europe, Tajikistan, Kyrgyzstan, Mongolia.

***Evagetes proximus* (Dahlbom, 1845)**

Material examined. Russia: 1 ♂, Dagestan Rep., Kumtorkalinskiy District, Barkhan Sarykum, 31.V.2017 (M. Mokrousov) (IBSS).

Distribution. Russia: European part (North-West, Central, *North Caucasus, Crimea), Western Siberia (Altai Terr.), Eastern Siberia (Irkutsk Prov., Buryatia Rep., Zabaykalskiy Terr.), Far East (Amur Prov., Khabarovsk and Primorskiy Terr., Magadan Prov.). – Europe, Turkey, Iran, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, China (Gansu, Inner Mongolia, Ningxia, Hebei), Japan (Hokkaido).

***Priocnemis minuta* (Vander Linden, 1827)**

Material examined. Russia: 1 ♂, Dagestan Rep., Magaramkent, Samur Reserve, 8.VI.2017 (M. Mokrousov) (IBSS).

Distribution. Russia: European part (Central, East, *North Caucasus, Crimea), Eastern Siberia (Buryatia Rep.), Far East (Primorskiy Terr.). – Europe, Turkey, Cyprus, Turkmenistan, Kyrgyzstan, Kazakhstan.

***Tachyagetes filicornis* (Tournier, 1889)**

Material examined. Russia: 1 ♀, Dagestan Rep., 5 km SW Magaramkent, 10.VI.2017 (M. Mokrousov); 3 ♀, Dagestan Rep., Derbent, Kamysh-chai valley, 11 & 12.VI.2017 (M. Mokrousov) (IBSS).

Distribution. Russia: European part (South, *North Caucasus). – W, S and E Europe, Morocco, Turkey, Cyprus, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia.

***Telostegus inermis* (Brullé, 1833)**

Material examined. Russia: 1 ♀, Dagestan Rep., Kumtorkalinskiy District, Barkhan Sarykum, 31.V.2017 (M. Mokrousov) (IBSS).

Distribution. Russia: European part (South, *North Caucasus). – W, S and E Europe, Morocco, Algeria, Turkey, Cyprus, Iran, Tajikistan, Kyrgyzstan, Kazakhstan.

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New and noteworthy records of solitary vespid wasps (Hymenoptera: Vespidae: Masarinae, Eumeninae) in Russia

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Новые и примечательные находки одиночных складчатокрылых ос (Hymenoptera: Vespidae: Masarinae, Eumeninae) в России

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Abstract. New records of 30 species of solitary vespid wasps in Russia are given. *Antepipona cribrata* (Morawitz, 1885) and *Eustenancistrocerus tegularis* (Morawitz, 1885) are recorded for Russia for the first time and *Jucancistrocerus minutepunctatus* Giordani Soika, 1970 for Russia and Azerbaijan. Thirteen species are new for Western Siberia, one species for Eastern Siberia, and seven species for the North Caucasus. Presence of *Ancistrocerus raddei* (Kostylev, 1940) in the fauna of Russia is confirmed. *Pseudepipona niveopicta* Giordani Soika, 1970 and *P. tricolor* Gusenleitner, 1976 replaced to the subgenus *Deuterepipona* Blüthgen, 1951.

Key words. Pollen wasps, potter wasps, fauna, distribution, Russia, Siberia, North Caucasus.

Резюме. Приводятся новые находки 30 видов одиночных складчатокрылых ос в фауне России. *Antepipona cribrata* (Morawitz, 1885) и *Eustenancistrocerus tegularis* (Morawitz, 1885) впервые отмечены для России, а *Jucancistrocerus minutepunctatus* Giordani Soika, 1970 – для России и Азербайджана. Тринадцать видов впервые отмечены в фауне Западной Сибири, 1 вид – в Восточной Сибири и 7 видов – на Северном Кавказе. Подтверждено обитание в России *Ancistrocerus raddei* (Kostylev, 1940). *Pseudepipona niveopicta* Giordani Soika, 1970 и *P. tricolor* Gusenleitner, 1976 перемещены в подрод *Deuterepipona* Blüthgen, 1951.

Ключевые слова. Осы-мазарины, осы-эвменины, фауна, распространение, Россия, Сибирь, Северный Кавказ.

Introduction

Solitary wasps of the family Vespidae are represented in the fauna of Russia by two species of pollen wasps (subfamily Masarinae) and more than 150 species of potter wasps (subfamily Eumeninae) (Fateryga, 2017). Complete list of species in these subfamilies in the Russian fauna will be published in the preparing "Annotated catalogue of Hymenoptera of Russia". The purpose of the present study is to document several previously unpublished records of Masarinae and Eumeninae from poor studied regions of Russia such are, first of all, Western Siberia and the North Caucasus. With adding the present data, the number of species of Eumeninae in Russia increases to 157 known species (except two unidentified species, see below).

Material and methods

The material for the present study was mainly the specimens deposited in the collection of the Institute of Systematics and Ecology of Animals, Russian Academy of Sciences, Siberian Branch, Novosibirsk, Russia (ISEN) as well as some specimens collected in 2016–2017 by the authors and colleagues and deposited in the collection of the Taurida Academy of the V.I. Vernadsky Crimean Federal University, Simferopol, Russia (formerly V.I. Vernadsky Taurida National University) (CFUS). The distribution of species is given according mainly to Kurzenko (1977, 1978, 1995, 2012) and Gusenleitner (2013a, 2013b) with some additions according to Fateryga (2017). The abbreviations of the regions of Russia (in distribution sections) are as follows: EP – European part (without the North Caucasus and Crimea); NC – North Caucasus; CR – Crimea; UR – Ural; WS – Western Siberia; ES – Eastern Siberia; FE – Far East. New records are asterisked (*).

Subfamily Masarinae

***Celonites sibiricus* Gusenleitner, 2007**

Material examined. Russia: Altai Republic, Kosh-Agach District, upper reaches of Aktru Glacier, 50.1° N 87.7° E, 2519 m, 6.VII.2006 (A. Barkalov), 1 ♀; Altai Republic, Kosh-Agach District, lower reaches of Aktru Glacier, 50.07° N 87.74° E, 2600 m, 14–15.VII.2008 (A. Barkalov), 1 ♀ (ISEN).

Distribution. Russia (WS).

Remarks. This is just the second record of this species since its first description (Gusenleitner, 2007); the species is known only from its type locality near Aktru Glacier.

Subfamily Eumeninae

***Allodynerus floricola* (de Saussure, 1853)**

Material examined. Russia: Krasnodar Territory, Gelendzhyk, khutor Dzhankhot, pine forest, 10.VI.2017 (A. Fateryga), 1 ♀ (CFUS).

Distribution. Russia (*NC, CR). – W, E and S Europe, North Africa, Armenia, Turkey, Cyprus, Jordan.

***Ancistrocerus densepilosellus* Cameron, 1911**

Material examined. Russia: Novosibirsk Province, Novosibirsk, vicinity of Akademgorodok, coast of water reservoir, on Achillea millefolium, 5.VIII.2017 (A. Fateryga), 1 ♂ (CFUS); Altai Territory, Barnaul, vicinity of Yuzhny, cutting in pine forest, 9.VIII.2017 (A. Fateryga), 1 ♂ (CFUS).

Distribution. Russia (*WS, ES, FE). – Mongolia, ?China, Korea, Japan.

Remarks. This species has probably broader distribution but some of its records could be confused with another species, *Ancistrocerus scoticus* (Curtis, 1826).

***Ancistrocerus dusmetiolus* (Strand, 1914)**

Material examined. Russia: Altai Republic, Kosh-Agach District, 5 km SE Chagan-Uzun, Tydtuyaryk River, 50°04.367′ N 88°25.193′ E, 1780 m, 11.VII.2016 (V. Loktionov, M. Proshchalykin), 1 ♂ (CFUS).

Distribution. Russia (*WS, ES). – W, E and S Europe, Turkey, Afghanistan, Central Asia, Kazakhstan.

***Ancistrocerus hangaicus* Kurzenko, 1977**

Material examined. Russia: Altai Republic, Teletskoye Lake, vicinity of cordon Chiri, sweeping, 4.VIII.1967 (Artamonov), 1 ♀; Altai Republic, Kosh-Agach District, plateau Ukok, Muzdy-Bulak Lake, 49.3° N 87.7° E, 2420 m, 30.VI.2005 (A. Barkalov), 1 ♀ (ISEN); Altai Republic, Kosh-Agach District, 12 km SE Aktash, Chuya River, 50°13.852′ N 87°42.981′ E, 1570 m, 4 & 13.VII.2016 (V. Loktionov, M. Proshchalykin), 2 ♀ (CFUS).

Distribution. Russia (*WS, ES, FE). – Mongolia.

Remarks. Males of this species are still unknown.

***Ancistrocerus ichneumonideus* (Ratzeburg, 1844)**

Material examined. Russia: Altai Republic, Ondugay District, 8 km SEE Ondugay, Ursul River, 50°43.855′ N 86°14.513′ E, 760 m, 28.VI.2016 (V. Loktionov, M. Proshchalykin), 1 ♂; Altai Republic, Kosh-Agach District, 14 km SE Aktash, Chuya River, 50°13.984′ N 87°45.471′ E, 1450 m, 2.VII.2016 (V. Loktionov, M. Proshchalykin), 1 ♀ (CFUS).

Distribution. Russia (EP, NC, UR, *WS, ES). – W, E, N and S Europe, Caucasus, Turkey, Kazakhstan, Mongolia.

***Ancistrocerus raddei* (Kostylev, 1940)**

Material examined. Russia: Altai Republic, Chuyskaya steppe, 10.VII.1959, (Ershov), 1 ♀; Zabaykalskiy Territory, 8 km WNW Nizhny Tsasuchey, left bank of Onon River near bridge, Malyi Batur valley, steppe, 1.VII.1996, (V. Dubatolov, O. Kosterin), 1 ♀ (ISEN).

Distribution. Russia (*WS, ES). – Mongolia, China.

Remarks. These records confirm the presence of *A. raddei* in Russia; it was previously reported from Zabaykalskiy Territory with doubts (Kurzenko, 1977, 1995).

***Antepipona cribrata* (Morawitz, 1885)**

Material examined. Russia: Dagestan, Derbent District, valley of Kamyshchay River, 41.908° N 48.233° E, 10–12. VI.2017, (M. Mokrousov), 3 ♀, 1 ♂ (CFUS).

Distribution. *Russia (NC). – Armenia, Azerbaijan, Turkey, Afghanistan.

***Antepipona nigricornis* (Morawitz, 1885)**

Material examined. Russia: Dagestan, Derbent District, valley of Kamyshchay River, 41.908° N 48.233° E, 10.VI.2017, (M. Mokrousov), 1 ♀ (CFUS).

Distribution. Russia (*NC, CR). – W and S Europe, Turkey, Turkmenistan.

***Brachyodynerus quadrimaculatus* (André, 1884)**

Material examined. Russia: Dagestan, Derbent District, valley of Kamyshchay River, 41.908° N 48.233° E, 11 & 12.VI.2017, (M. Mokrousov), 1 ♀, 1 ♂ (CFUS).

Distribution. Russia (EP, *NC, CR). – Greece, Azerbaijan, Turkey.

***Eumenes* (*Eumenes*) *mongolicus* Morawitz, 1889**

Material examined. Altai Republic, 16 km SE Inya, Chuya River, 50°24.153′ N 86°50.088′ E, 860 m, 29.VI.2016 (V. Loktionov, M. Proshchalykin), 1 ♀; Altai Republic, Kosh-Agach District, 14 km SE Aktash, Chuya River, 50°13.984′ N 87°45.471′ E, 1450 m, 1.VII.2016 (V. Loktionov, M. Proshchalykin), 1 ♀; Altai Republic, Kosh-Agach District, 15 km SE Kuray, Chuya River, 50°11.163′ N 88°07.067′ E, 1600 m, 5, 6 & 8.VII.2016 (V. Loktionov, M. Proshchalykin), 4 ♀; Altai Republic, Ondugay District, 8 km SEE Ondugay, Ursul River, 50°43.855′ N 86°14.513′ E, 760 m, 14.VII.2016 (V. Loktionov, M. Proshchalykin), 1 ♀ (CFUS).

Distribution. Russia (*WS, ES). – Kyrgyzstan, Mongolia, China.

***Eumenes* (*Eumenes*) *sareptanus* André, 1884**

Material examined. Russia: Omsk Province, Cherlak District, Bolshoy Atmas, 53.957° N 75.037° E, 14–17.VI.2012 (Yu. Danilov), 1 ♀; Novosibirsk Province, vicinity of Karasuk, 9.VI.1982 (A. Barkalov), 1 ♂; Novosibirsk Province, Karasuk District, 20 km W Karasuk, 17.VII.2007 (Yu. Danilov), 1 ♀; Altai Territory, Klyuchi, state arboretum, 14.VII.1952 (Zolotarenko), 1 ♀; Altai Territory, Slavgorod District, vicinity of Yarovoe, steppe, forest belts, 11.VII.2008 (Yu. Danilov), 1 ♂; Altai Territory, Zmeinogorsk District, vicinity of Kolyvanskoye Lake, 51°21′ N 82°10′ E, Malaise traps, 24.VII.2011 (A. Byvaltsev, Yu. Danilov), 1 ♀ (ISEN).

Distribution. Russia (EP, NC, CR, UR, *WS). – W, E and S Europe, Caucasus, Turkey, Central Asia, Kazakhstan.

***Euodynerus* (*Euodynerus*) *disconotatus* (Lichtenstein, 1884)**

Material examined. Russia: Dagestan, Derbent District, valley of Kamyshchay River, 41.908° N 48.233° E, 12.VI.2017 (M. Mokrousov), 1 ♂ (CFUS).

Distribution. Russia (*NC, CR). – W, E and S Europe, Caucasus, Turkey, Cyprus, Jordan, Saudi Arabia, Iraq, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan.

***Euodynerus* (*Pareuodynerus*) *nipanicus* (von Schulthess, 1908)**

Material examined. Russia: Zabaykalskiy Territory, N edge of Zun-Torey Lake from Chikhalan area to Gydyrgun area, steppe, 12.VII.1996, (V. Dubatolov, O. Kosterin), 1 ♀; Zabaykalskiy Territory, vicinity of Nizhny Tsasuchey, bottomland of Onon River from Verkhny Tsasuchey to bridge, 15.VII.1996, (V. Dubatolov, O. Kosterin), 1 ♀; Zabaykalskiy Territory, 55 km NE Argunsk, Nizhnyaya Vereya, 10.VIII.1996, (V. Dubatolov), 1 ♂; Zabaykalskiy Territory, Nizhny Tsasuchey, dead in trailer, 21.VII.1997, (V. Dubatolov, O. Kosterin), 1 ♂ (ISEN).

Distribution. Russia (*ES, FE). – ?Mongolia, China, Korea, Japan, SE Asia.

Remarks. The reports of *Euodynerus* (*Pareuodynerus*) *notatus* (Jurine, 1807) from Russian Far East (Kurzenko, 1995, 2012) refer, at least partially, to *E. nipanicus* (Kim, 2012). The reports of *E. notatus* from Western Siberia (Altai), Eastern Siberia (Irkutsk Province, Buryatia, Yakutia, and Zabaykalskiy Territory), and Mongolia (Kurzenko, 1977, 1995, 2012; Abasheev, 2016; Buyanjargal *et al.*, 2016) may also, at least partially, refer to *E. nipanicus*. The borders of distribution of West Palaearctic species (*E. notatus*) and Far Eastern and Oriental species (*E. nipanicus*) in Siberia are currently unclear.

***Eustenancistrocerus* (*Eustenancistrocerus*) *tegularis* (Morawitz, 1885)**

Material examined. Russia: Dagestan, Derbent District, valley of Kamyshchay River, 41.908° N 48.233° E, 10 & 12.VI.2017 (M. Mokrousov), 12 ♂ (CFUS).

Distribution. *Russia (NC). – ?Greece, Caucasus, ?Iran, Central Asia, Kazakhstan.

***Jucancistrocerus* (*Jucancistrocerus*) *minutepunctatus* Giordani Soika, 1970**

Material examined. Russia: Kalmykia, Yashkul District, 23 km E Yashkul, 46.153° N 45.646° E, 31.V. & 1.VI.2016 (M. Mokrousov), 3 ♂. Azerbaijan: Gobustan, 17.V.2000 (V. Dolin), 1 ♀ (CFUS).

Distribution. *Russia (EP), Armenia, *Azerbaijan.

***Katamenes tauricus* (de Saussure, 1855)**

Material examined. Russia: Altai Territory, Kalmanka District, 2 km S of Internat Station, renewing burnt wood, sands, dirt road, 14.VIII.2008 (Yu. Danilov), 1 ♀ (ISEN).

Distribution. Russia (CR, *WS, ES). – Iran, Afghanistan, Kyrgyzstan, Kazakhstan, Mongolia, China, India.

Remarks. This species is problematic and requires the revision due to its absence in the type locality (Crimea). The name *K. tauricus* could be a synonym or a subspecies of *K. dimidiatus* (Brullé, 1832), while the valid name for the species mentioned here could be in that case *K. latipes* (Sickmann, 1894) (Fateryga, 2018).

***Leptochilus* (*Euleptochilus*) *limbiferus achaeus* Gusenleitner, 1970**

Material examined. Russia: Krasnodar Territory, Anapa, Supsekh, Mt. Lysaya, 8.VI.2017 (A. Fateryga), 3 ♀, 1 ♂; ibid., on Dorycnium herbaceum, 8.VI.2017 (A. Fateryga), 1 ♂ (CFUS).

Distribution. Russia (NC). – E and S Europe.

Remarks. This is the second record of this rare taxon from Russia (Fateryga, 2017).

***Leptochilus* (*Lionotulus*) sp.**

Material examined. Russia: Altai Republic, Kosh-Agach District, 5 km SE Chagan-Uzun, Tydtuyaryk River, 50°04.367′ N 88°25.193′ E, 1780 m, 11.VII.2016 (V. Loktionov, M. Proshchalykin), 2 ♀ (CFUS).

Remarks. This is obviously a species new for the fauna of Russia and the first representative of the genus found in Russia outside its European part (including the North Caucasus and Crimea). Unfortunately, the identification of the species is not possible yet.

***Microdynerus* (*Microdynerus*) *exilis* (Herrich-Schäffer, 1839)**

Material examined. Russia: Dagestan, Kumtorkalinskiy District, Barkhan Sarykum, 43.01° N 47.237° E, 31.V. & 1.VI.2017 (M. Mokrousov), 1 ♀, 1 ♂ (CFUS).

Distribution. Russia (EP, *NC). – W, E and S Europe, North Africa, Caucasus, Turkey.

***Odynerus* (*Spinicoxa*) *albopictus calcaratus* (Morawitz, 1885)**

Material examined. Russia: Dagestan, Kumtorkalinskiy District, Narat-Tyube Ridge, 42.98° N 47.23° E, 2.VI.2017 (M. Mokrousov), 2 ♀, 1 ♂ (CFUS).

Distribution. Russia (*NC, CR). – E and S Europe, ?North Africa, Caucasus, Turkey, Syria, Jordan, Israel, Iraq, Iran, Turkmenistan, Uzbekistan, Kazakhstan.

***Odynerus* (*Spinicoxa*) *fulvitarsis* (Morawitz, 1895)**

Material examined. Russia: Dagestan, Tarumovka District, Kuma River, 44.933° N 46.489° E, 3 & 4.VI.2016 (M. Mokrousov), 4 ♀; Dagestan, Tarumovka District, 11 km SSW Artezian, Kuma River, 44.935° N 46.455° E, 27.V.2017 (M. Mokrousov), 1 ♂; Dagestan, Magaramkent District, Samur Reserve, 41.86° N 48.55° E, 5.VI.2017 (M. Mokrousov), 2 ♀ (CFUS).

Distribution. Russia (EP, *NC). – Caucasus, Turkey, Turkmenistan, Uzbekistan, Kazakhstan.

***Onychopterocheilus* (*Asiapterocheilus*) sp.**

Material examined. Russia: Altai Republic, Kosh-Agach District, 24 km NWW Aktash, Chuya River, 50°21.518′ N 87°16.247′ E, 1040 m, 30.VI.2016 (V. Loktionov, M. Proshchalykin), 1 ♂ (CFUS).

Remarks. This is the first record of the subgenus *Asiapterocheilus* Kurzenko, 1988 from Russia. Unfortunately, the identification of the species is not possible yet; probably it could not been identified without the revision of the whole subgenus.

***Onychopterocheilus* (*Onychopterocheilus*) *crabroniformis* (Morawitz, 1867)**

Material examined. Russia: Altai Territory, Barnaul, 5 km S Yuzhny, south slope to valley of Ob' River, steppe, 24.V.2011 (Yu. Danilov), 1 ♂ (ISEN).

Distribution. Russia (EP, UR, *WS, ES). – Kazakhstan.

***Pseudepipona* (*Deuterepipona*) *niveopicta* Giordani Soika, 1970**

Material examined. Russia: Dagestan, Derbent District, valley of Kamyshchay River, 41.908° N 48.233° E, 13.VI.2017 (M. Mokrousov), 1 ♀ (CFUS).

Distribution. Russia (NC). – Turkey.

Remarks. This is the second record of *P. niveopicta* from Russia; the first one was reported not long ago (Gusenleitner, 2013a). This species is traditionally placed within the subgenus *Pseudepipona* s.str. (Giordani Soika, 1970; van der Vecht, Fisher, 1972) but we replace it here to the subgenus *Deuterepipona* Blüthgen, 1951. Describing this subgenus (as a genus), Blüthgen (1951) included only the type species, *P. ionia* (de Saussure, 1855). In the catalogue of the "Palaearctic Eumenidae", van der Vecht and Fisher (1972) listed four species of the subgenus *Deuterepipona*, *P. ankarensis* Giordani Soika, 1970, *P. herzi* (Morawitz, 1895), and *P. inexspectata* Blüthgen, 1955 were added to the type species. According to Gusenleitner (1998), the differences of *Deuterepipona* from *Pseudepipona* s.str. are male mandible without deep emargination below basal tooth, and propodeum of both sexes without distinctly protruded lateral teeth. However the latter character is met in some species of *Pseudepipona* s.str. as well, e.g., *P. augusta* (Morawitz, 1867) (Gusenleitner, 1998). According to Kurzenko (1978) the difference between *Deuterepipona* and *Pseudepipona* s.str. (in addition to the structure of male mandible) is in the structure of pronotum: obtuse lateral corners (with lateral sides somewhat convergent basally) are in *Deuterepipona* but rectangular lateral corners (with parallel lateral sides) are in *Pseudepipona* s.str. This character is, in our opinion, more significant for distinguishing these two subgenera than the structure of propodeum. Thus we have hereby placed *P. niveopicta* within

the subgenus *Deuterepipona* according to the structure of its pronotum which has obtuse lateral corners with lateral sides somewhat convergent basally (see drawing in Giordani Soika, 1970: 146). Moreover, the propodeum of this species has just very small, indistinctive lateral teeth. Unfortunately, describing *P. niveopicta*, Giordani Soika (1970: 144–147) did not provide any information about male mandible except its coloration. However, he wrote that his new species was similar to *P. superba* (Morawitz, 1867), which male has mandible without deep emargination below basal tooth (see below).

***Pseudepipona* (*Deuterepipona*) *superba* (Morawitz, 1867)**

Material examined. Russia: Volgograd Province, Elton Lake, semi-deserts, sweeping on flowers in gully, 4.VI.1996 (V. Dubatolov, I. Lyubechanskiy), 8 ♀ (ISEN).

Distribution. Russia (EP, CR), ?Azerbaijan.

Remarks. Being a rare species known by few records, *P. superba* was traditionally placed within the subgenus *Pseudepipona* s.str. (van der Vecht, Fisher, 1972) but Tobias and Kurzenko (1978: 171) placed it within the subgenus *Deuterepipona*. It has male mandible without deep emargination below basal tooth, pronotum with obtuse lateral corners (with lateral sides somewhat convergent basally), and propodeum without distinctly protruded lateral teeth. *Pseudepipona tricolor* Gusenleitner, 1976 is very similar to this species according to its description (Gusenleitner, 1976: 115–116). Thus, *P. tricolor* must be also placed within the subgenus *Deuterepipona* according to the structure of its pronotum which has obtuse lateral corners with lateral sides somewhat convergent basally (see photo in Dvořák, Castro, 2007: 231). Unfortunately, describing *P. tricolor*, Gusenleitner did not provide any description of male mandible except the information on its coloration. However, he wrote that his new species is similar to *P. niveopicta* (which is similar, according to its description, to *P. superba* having male mandible without deep emargination below basal tooth). Taxonomic isolation of *P. tricolor* which is known from Russia (NC) (Gusenleitner, 1976), Iran (Gusenleitner, 2013a), and Kazakhstan (Dvořák, Castro, 2007) from *P. superba* known from Russia (EP, CR) (Tobias, Kurzenko, 1978) and Azerbaijan (Aliyeva, 2010) must be verified.

***Pterocheilus* (*Pterocheilus*) *phaleratus* (Panzer, 1797)**

Material examined. Russia: Novosibirsk Province, Karasuk District, Troitskoye, steppe, VI.1974 (Kulikov), 1 ♂; Altai Territory, Barnaul, 5 km S Yuzhny, south slope to valley of Ob' River, steppe, 24.V.2011 (Yu. Danilov), 1 ♂; Altai Territory, Pavlovsk District, Kolyvanskoye, 45°02′ N 82°53′ E, 21.VII.2014 (K. Tishakova), 1 ♀; Altai Territory, Volchikha District, near Solonovka, 20.VII.2015 (A. Byvaltsev, E. Danilov), 1 ♂ (ISEN).

Distribution. Russia (EP, CR, UR, *WS), W, E, N and S Europe, Georgia, Azerbaijan, Turkey, Kazakhstan, Mongolia.

***Stenodynerus bluethgeni* van der Vecht, 1971**

Material examined. Russia: Novosibirsk Province, Novosibirsk, vicinity of Akademgorodok, coast of water reservoir, on Achillea millefolium, 5.VIII.2017 (A. Fateryga), 1 ♀ (CFUS).

Distribution. Russia (EP, NC, CR, UR, *WS, ES), W, E and S Europe, Caucasus, Turkey, Iran, Turkmenistan, Kazakhstan, China.

***Stenodynerus fastidiosissimus difficilis* (Morawitz, 1867)**

Material examined. Russia: Altai Territory, Kurya District, near Nikolayevka, 16.VII.2015 (A. Byvaltsev, E. Danilov), 1 ♀ (ISEN).

Distribution. Russia (EP, NC, CR, UR, *WS), E and S Europe, Caucasus, Turkey, Iran, Central Asia, Kazakhstan.

***Symmorphus* (*Symmorphus*) *murarius* (Linnaeus, 1758)**

Material examined. Russia: Tyumen Province, Nizhnyaya Tavda District, vicinity of Kuntybayka Lake, 11.VII.1996 (P. Sitnikov), 1 ♀ (ISEN).

Distribution. Russia (EP, NC, CR, UR, *WS, ES, FE), W, E, N and S Europe, North Africa, Caucasus, Turkey, Iran, Central Asia, Kazakhstan, Korea.

Remarks. This species is very common but its records from Western Siberia were not documented previously.

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Интересные находки муравьев (Hymenoptera: Formicidae) из Поволжья и Дагестана

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Interesting records of the ants (Hymenoptera: Formicidae) from Volga region and Dagestan

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Резюме. Вид *Trichomyrmex perplexus* (Radchenko, 1997) впервые указывается для фауны России. *Strongylognathus rehbinderi* Forel, 1904) впервые обнаружен в Дагестане, *Stenamma debile* (Förster, 1850) – в Нижегородской области, *Liometopum microcephalum* (Panzer, 1798) – в бассейне р. Дон, *Cataglyphis pallida* Mayr, 1877 – в Волгоградской области и Республике Калмыкия, *Camponotus fedtschenkoi* Mayr, 1877 – на Северном Кавказе. *Rossomyrmex proformicarum* Arnol'di, 1928 вновь отмечен в Дагестане (впервые за последние 90 лет) и впервые обнаружен в его южной части. Для указанных находок приведены подробные данные (географические координаты, биотопы и т.д.), обсуждается возможное распространение этих видов в России.

Ключевые слова. Formicidae, муравьи, Поволжье, Дагестан, новые находки.

Abstract. The species *Trichomyrmex perplexus* (Radchenko, 1997) is recorded for the fauna of Russia for the first time. *Strongylognathus rehbinderi* Forel, 1904) was first discovered in the Dagestan, *Stenamma debile* (Förster, 1850) in Nizhny Novgorod Province, *Liometopum microcephalum* (Panzer, 1798) in the Don River basin, *Cataglyphis pallida* Mayr, 1877 in Volgograd Province and Kalmykia, *Camponotus fedtschenkoi* Mayr, 1877 in the North Caucasus. *Rossomyrmex proformicarum* Arnol'di, 1928 was again discovered in Dagestan after 90 years, and for the first time in the southern part of Republic. Detailed data (geographic coordinates, biotopes, etc.) are given for the all findings, the possible distribution of these species in Russia is also discussed.

Keywords. Formicidae, ants, Volga region, Dagestan, new records.

Введение

Фауна муравьев (Hymenoptera: Formicidae) большинства регионов России остается недостаточно изученной. Это относится, в том числе, к Поволжью (особенно Нижнему) и Дагестану.

Первые относительно обширные, систематические сведения о мирмекофауне Поволжья содержатся в монографии М.Д. Рузского (Рузский, 1905, 1907). Из ранних публикаций по Среднему

Поволжью известна статья Ю. Селенкина по муравьям бассейна р. Вятки (Селенкин, 1921), материалы которой позже (с некоторыми дополнениями) вошли в книгу «Животный мир Кировской области» (Леви и др., 1974). Дальнейшие фаунистические исследования муравьев в Среднем Поволжье относятся уже ко второй половине XX в. В обобщающей статье по региону приводятся сведения о 80 видах муравьев (Зрянин, Зрянина, 2007). Наиболее полно изученной в Среднем Поволжье представляется Нижегородская область, где на данный момент достоверно известны 54 вида муравьев. Тем не менее, ряд видов указан для области лишь в последнее время (Мокроусов, Зрянин, 2010; Кувшинова, Зрянин, 2013; Зрянин, Лисицын, 2017).

Мирмекофауна Нижнего Поволжья до XXI в. оставалась изученной крайне слабо. В 2002 г. был издан значительно устаревший к настоящему времени каталог муравьев региона (Гребенников и др., 2002), содержащий 77 видов. Позднее была защищена кандидатская диссертация по муравьям Калмыкии, в которой приводились 56 видов (Савранская, 2007). Опубликованы аннотированный список муравьев Джаныбека и прилежащей территории (Волгоградская область), включающий 28 видов (Зрянин и др., 2009), и еще несколько небольших сообщений о находках некоторых видов в регионе, часть из которых упоминается в настоящей статье. Однако изучение мирмекофауны Нижнего Поволжья по-прежнему остается актуальной задачей в контексте изучения фауны муравьев России, прежде всего в связи с расположением региона на крайнем юго-востоке европейской части страны, на границе с пустынными и степными сообществами Западного Казахстана.

Некоторые сведения о составе и распределении фауны муравьев Дагестана приведены в вышеупомянутой сводке М.Д. Рузского. Позднее Н.Н. Кузнецовым-Угамским (Kuznetzov-Ugamskij, 1929) был дан краткий обзор мирмекофауны Дагестана, включающий всего 60 видов. После этого новые сведения о муравьях данного региона приводились в нескольких статьях Д.А. Дубовикова (Дубовиков, 1997, 1998, 2002). Недавно опубликован предварительный перечень муравьев Дагестанского заповедника (Юсупов, 2016), насчитывающий 65 видов (часть из которых точно не идентифицирована). Однако опубликованные сведения остаются фрагментарными и явно недостаточны для характеристики мирмекофауны Дагестана в целом. Таким образом, изучение муравьев данного региона остается важной и актуальной задачей в рамках познания мирмекофауны России, что определяется как слабой изученностью, так и расположением Дагестана на границе с Восточным Закавказьем, где фауна Formicidae отличается высоким разнообразием и самобытностью.

В данной статье приведены новые находки видов муравьев из Поволжья (Нижегородская и Волгоградская области, Калмыкия) и Дагестана (его центральной и южной части), представляющие существенный зоогеографический интерес и дополняющие имеющиеся в литературе сведения о мирмекофауне этих территорий.

Материалы и методы

Представленные в статье находки были сделаны в ходе экспедиционных и стационарных исследований авторов в период с 2012 по 2017 гг. на территории вышеуказанных регионов. Ниже приведены расположение и географические координаты (система координат WGS–84) мест сбора материала, на котором основаны опубликованные здесь указания. В последующем тексте используются сокращенные обозначения данных локалитетов.

Места сбора материала

Нижний Новгород: памятник природы «Дубрава ботанического сада ННГУ», ЮВ окраина Н. Новгорода, при пос. Дубенки; Приокское лесничество (Бакка, Киселева, 2008) – 56,2566° N, 44,0235° E.

Зрянин: Волгоградская область, Суровикинский район, 0.5 км Ю хутора Зрянин, пойма р. Лиски – 48,6286° N, 43,1638° E.

Калач-на-Дону: Волгоградская область, Калачевский район, г. Калач-на-Дону, лог Березовый у пересечения с улицей 21-й армии – 48,7023° N, 43,4966° E.

Голубинские пески: Волгоградская область, Калачевский район, 2.5 км С хутора Рюмино-Красноярский (Голубинские пески), берег р. Дон – 48,8399° N, 43,6033° E.

Давсна: Республика Калмыкия, Черноземельский район, 20 км В пос. Хулхута (пески Давсна) – 46,2926° N, 46,6731° E.

Сарыкум: Республика Дагестан, Кумторкалинский район, 4.5 км ЮЗ с. Коркмаскала (южнее бархана Сарыкум, участок «Сарыкумские барханы» Дагестанского заповедника) – 43,0002° N, 47,2325° E.

Нижний Рукель: Республика Дагестан, Дербентский район, 1.5 км ЮЗ с. Нижний Рукель – 41,9642° N, 48,2708° E.

Камышчай: Республика Дагестан, Дербентский район, 4 км З с. Музаим (близ левого берега реки Камышчай): точка 1 – 41,9076° N, 48,2330° E; точка 2 – 41,9046° N, 48,2372° E.

Результаты и их обсуждение

Ниже приведены сведения о новых, наиболее интересных находках муравьев, полученных в ходе обработки собранного материала. Указанные экземпляры хранятся в коллекциях авторов (КГ – К.А. Гребенников, ВЗ – В.А. Зрянин) и Зоологического института Российской академии наук (С.-Петербург; ЗИН).

***Trichomyrmex perplexus* (Radchenko, 1997)**

Исследованный материал. Нижний Рукель: 10.VI.2017, каменистые глинистые пустынные участки, гнезда в почве и под камнями (К.А. Гребенников), 10 рабочих (КГ). *Камышчай:* точка 1 – 10–12.VI.2017, каменистые глинистые пустынные участки, рабочие, фуражирующие в утреннее и вечернее время на почве, гнезда в почве и под камнями (К.А. Гребенников), 30 рабочих (КГ, ЗИН).

Замечания. Вид был описан в составе рода *Monomorium* Mayr, 1855 А.Г. Радченко и указан для Закавказья, Турции, материковой Греции, островов Эгейского моря (Radchenko, 1997), а позднее перемещен в восстановленный род *Trichomyrmex* Mayr, 1865 (Ward et al., 2015). Вероятно, к этому же виду относятся указания *Monomorium dentigerum* (Roger, 1862) для Восточного Закавказья (Аракелян, 1994). Для территории Дагестана и России вид указывается впервые.

В обоих указанных локалитетах является одним из наиболее обычных видов муравьев на каменистых глинистых пустынных участках, встречаясь, однако, только в наиболее аридных и разреженных сообществах и избегая более мезофитных. Гнезда располагаются в земле, рабочие активны на поверхности почвы преимущественно в сумеречное и ночное время (в пасмурную погоду также днем). Вид не был выявлен на сухих участках других районов Южного Дагестана, включая приграничные с Азербайджаном. Специфика местности, в которой собран *T. perplexus*, позволяет предполагать, что в Дербентском и Сулейман-Стальском районах Дагестана (преимущественно в бассейне р. Рубас) существует изолированный северный фрагмент ареала данного вида. Здесь же возможно выявление других видов муравьев, как и других групп насекомых, характерных для пустынь Восточного Закавказья.

***Strongylognathus rehbinderi* Forel, 1904**

Исследованный материал. Сарыкум: 01.VI.2017, сухой луг близ бархана Сарыкум, на грунтовой дороге (К.А. Гребенников), 15 рабочих (КГ, ЗИН).

Замечания. Впервые указывается для Дагестана.

Колонна рабочих *S. rehbinderi* [с куколками и рабочими *Tetramorium* (из группы *T. chefketi*)] была обнаружена в вечернее время (около 19 ч). Поскольку местообитание, в котором выявлен вид, не обладает какой-либо выраженной спецификой, весьма вероятно, что *S. rehbinderi* широко распространен, как минимум, в южной половине Дагестана (а, возможно, и шире на Восточном Кавказе), но трудно выявляем в связи с редкостью и скрытным образом жизни.

***Stenamma debile* (Förster, 1850)**

Исследованный материал. Нижний Новгород: 17.VIII.2017, трансекта на участке высоковозрастной водораздельной дубравы лещиново-снытевой, кв. 37, из почвенной ловушки (В.А. Зрянин), 1 рабочий (ВЗ).

Замечания. До работ М. Дюбуа (DuBois, 1993, 1998), показавшего самостоятельность *S. debile*, этот вид считался младшим синонимом *S. westwoodi* Westwood, 1840 и приводился под этим названием в региональных сводках, в том числе и по Кавказу. В Поволжье он отмечался для Ка-

лача-на-Дону (Ануфриев, Зрянин, 1995) и Волгограда (Гребенников, 2014). Указание для Казани в «Определителе насекомых европейской части СССР» (Арнольди, Длусский, 1978) сомнительно, поскольку в более ранних работах (Рузский, 1905; Арнольди, 1975) подобные указания отсутствуют, и материал по виду из данного локалитета нам неизвестен. Таким образом, находка в нагорной дубраве Нижнего Новгорода является первым достоверным указанием *S. debile* для Среднего Поволжья.

Как и все представители рода, *S. debile* является криптобионтным подстилочным видом с мелкими моногинными семьями и одиночным типом фуражировки. Это обусловливает сложность его обнаружения даже в местах экологического оптимума. Предпочитает широколиственные леса. В дубраве Ботанического сада ННГУ на 1000 ловушко-суток был зафиксирован лишь 1 рабочий данного вида. Находка *S. debile* в Нижнем Новгороде интересна как своеобразная точка отсчета, показывающая необходимый объем выборки для учета подобных видов на границе ареала.

***Liometopum microcephalum* (Panzer, 1798)**

Исследованный материал. Зрянин: 17.VIII.2012, на стволах ивы белой (Salix alba) и на поверхности почвы в пойме р. Лиска (В.А. Зрянин, М.В. Мокроусов), 30 рабочих (ВЗ, ЗИН); 28.V.2017, на стволах ивы белой (К.А. Гребенников), 20 рабочих (КГ, ЗИН). *Калач-на-Дону*: 12.VIII.2012, на стволах ивы белой и на поверхности почвы (В.А. Зрянин), 30 рабочих (ВЗ, ЗИН).

Замечания. Вид ранее достоверно указывался в Нижнем Поволжье лишь из Волго-Ахтубинской долины (в пределах Волгоградской области и Республики Калмыкия) и окр. Волгограда (Рузский, 1907; Гребенников и др., 2002; Гребенников, 2014), занесен в Красную книгу Республики Калмыкия (Савранская, 2013). Кроме того, указан в России для Западного Кавказа (Туапсе: Рузский, 1905). Исследования авторов позволили впервые выявить вид также в пределах бассейна Среднего Дона.

В обоих указанных локалитетах выявлены значительные по численности и занимаемой площади устойчивые колонии, гнезда которых размещены в стволах и ветвях крупных деревьев ивы белой (ветлы – Salix alba L.). Аналогичные места обитания характерны и для колоний, выявленных ранее в Волго-Ахтубинской долине (Гребенников, 2014). Несмотря на то, что вид ранее неоднократно указывался для Волгоградской области, его находки в бассейне Дона существенно дополняют данные о распространении *L. microcephalum* в России.

***Cataglyphis pallida* Mayr, 1877**

Давсна: 30.V.2016, открытые участки рыхлых песков, гнезда в почве (К.А. Гребенников), 10 рабочих (КГ, ЗИН). *Голубинские пески:* 11.VII.2015, рыхлые пески на берегу р. Дон (М.В. Мокроусов), 1 рабочий (ВЗ).

Замечания. Вид ранее достоверно указывался в Нижнем Поволжье лишь из окр. пос. Досанг в Красноярском районе Астраханской области (Гребенников и др., 2002). На территории России также известен из Дагестана (Дубовиков, 2002; Юсупов, 2016) и Ростовской области (Дубовиков, Хачиков, 2004). Исследования авторов позволили впервые выявить вид также в пределах Республики Калмыкия и Волгоградской области.

На песчаном массиве Давсна *C. pallida* является одним из наиболее обычных видов муравьев. Гнезда данного вида в большом количестве встречаются на незакрепленных участках рыхлых песков (барханах, грядах, склонах). В Голубинских песках численность и особенности распределения точно не установлены. Представленные находки вида существенно дополняют сведения о его распространении в России. Находка в песках Северо-Западного Прикаспия подтверждает распространение *C. pallida* вокруг всего побережья Каспийского моря. Находка же в Голубинских песках показывает, что вид широко распространен на песчаных массивах надпойменных террас левого берега Дона. Не вызывает сомнений обитание *C. pallida* также и на Арчедино-Донских песках в Волгоградской области (расположенных между точкой находки в Ростовской области и указанной здесь) и Цимлянских песках на границе Волгоградской и Ростовской областей. Вероятнее всего, фрагмент ареала вида в долине Дона носит изолированный реликтовый характер, как и обитание в этом районе других животных, характерных для Прикаспия (например, круглоголовки-вертихвостки и полуденной полевки).

***Camponotus fedtschenkoi* Mayr, 1877**

Исследованный материал. Камышчай: точка 1 – 13.VI.2017, каменистые глинистые пустынные участки, рабочие фуражируют в ночное время (около 23 ч) на почве (К.А. Гребенников), 3 рабочих (КГ); точка 2 – 12.VI.2017, каменистые песчаные пустынные участки, гнездо под камнем (М.В. Мокроусов), 10 рабочих (КГ, ЗИН).

Замечания. Вид ранее достоверно приводился для территории России только из окр. оз. Баскунчак в Астраханской области, где особенности его распространения, экологической приуроченности и биологии были подробно описаны ранее (Гребенников, Аникин, 2015). Он также известен из сопредельного с Дагестаном Восточного Закавказья (Аракелян, 1994). В данной статье вид впервые приводится для восточной части Северного Кавказа:

Вероятно, не редкий вид в указанной местности (но относительно трудно выявляем при низкой численности в связи с исключительно ночной активностью). Нахождение *C. fedtschenkoi* к северу от Большого Кавказа позволяет предполагать, что данный вид встречается и севернее и, возможно, локально распространен вдоль всего Каспийского моря.

***Rossomyrmex proformicarum* Arnol'di, 1928**

Исследованный материал. Камышчай: точка 1 – 11–13.VI.2017, каменистые глинистые пустынные участки, на грунтовой дороге (К.А. Гребенников), 3 самки, 1 рабочий (КГ, ЗИН).

Замечания. Вид ранее приводился для Дагестана (Дубовиков, 2002) по материалам Зоологического музея МГУ (Москва) с этикеткой «Dagestan, Kum-Tarkali, 30.07.1928» (Дагестан, Кумторкала – ныне не существующее, разрушенное землетрясением в 1970 г. село на правом берегу р. Шура-Озень и ныне не действующая железнодорожная станция у южного подножия бархана Сарыкум). Таким образом, приводимая здесь находка вида является первым достоверным указанием *R. proformicarum* в Дагестане спустя почти 90 лет после предыдущей и первой – для южной части республики.

Бескрылые самки *R. proformicarum* обнаруживались одиночно на грунтовой дороге в утреннее и вечернее время, в одном из случаев вместе с самкой также был собран рабочий. По всей вероятности, данной находке предшествовал лёт самок и самцов данного вида. Поиски самцов и гнезда *R. proformicarum* не принесли положительного результата. В обсуждаемом местообитании в большом числе встречается *Proformica epinotalis* Kuznetsov-Ugamsky, 1927, рабовладельцем которого является рассматриваемый вид. Таким образом, данная находка позволяет предполагать, что *R. proformicarum* широко распространен в Дагестане, однако (как и в других регионах) почти не выявляется в связи с редкостью и специфическим образом жизни.

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New data on the ants of the genus *Myrmica* Latreille (Hymenoptera: Formicidae) from the North Caucasus

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Новые данные о муравьях рода *Myrmica* Latreille (Hymenoptera: Formicidae) с Северного Кавказа

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Abstract. A new data on the North Caucasian *Myrmica* ants is presented, particularly: males of *M. elbrusi* Radchenko et Yusupov are described for the first time; based on the male morphology the taxonomic position of this species is revised and it is placed to the *M. dshungarica* species-group. *M. bakurianica* Arnoldi, which was previously known from Georgia, and European species *M. vandeli* Bondroit are recorded for the first time from the North Caucasus and Russia. Differences of both latter species from related *Myrmica* species are given.

Key words. *Myrmica elbrusi*, first description of male, *M. bakurianica*, *M. vandeli*, new records, fauna of Russia.

Резюме. Представлены новые данные о муравьях *Myrmica* Северного Кавказа, в частности: впервые описаны самцы *M. elbrusi* Radchenko et Yusupov; на основании морфологии самцов пересматривается таксономическое положение этого вида, и он перемещен в группу видов *M. dshungarica*. *M. bakurianica* Arnoldi, ранее известный из Грузии, и европейский вид *M. vandeli* Bondroit, впервые обнаружены на Северном Кавказе и в России. Приведены отличия обоих последних видов от близких видов рода *Myrmica*.

Ключевые слова. *Myrmica elbrusi*, первое описание самца, *M. bakurianica*, *M. vandeli*, новые находки, фауны России.

Introduction

The first data on the ants of the genus *Myrmica* Latreille from Caucasus were introduced by Mayr (1859) and later by Nassonov (1889), Ruzsky (1902, 1905), Karawajew (1926), Arnoldi (1934, 1970), Seifert (1988), Radchenko (1994a–1994e), Arakelyan (1994) and some others. These and other data were summarized in the monograph of Radchenko, Elmes (2010). Several *Myrmica* species were described from Transcaucasia, *M. caucasicola* Arnoldi and *M. bakurianica* Arnoldi (Arnoldi, 1934, 1970), and also from

the North Caucasus, *M. jennyae* Elmes, Radchenko et Aktaç (Elmes et al., 2002) (Asia Minor and Dagestan) and *M. elbrusi* Radchenko et Yusupov (Radchenko, Yusupov, 2012). As a result, 22 *Myrmica* species are known so far from the Caucasian region.

Some Transcaucasian *Myrmica* species were not known in the North Caucasus until now. Only *M. ravasinii* Finzi was found in North Ossetia-Alania and in South Ossetia (Radchenko et al., 2016), and recently second co-author of this paper found two more *Myrmica* species for the fauna of North Caucasus: *M. bakurianica* and *M. vandeli* Bondroit (both are recorded for Russia for the first times). Additionally, he found males of *M. elbrusi*, which we are first describing below.

Material and methods

We examined four males of *M. elbrusi,* 30 workers and nine males of *M. bakurianica* collected in Kabardino-Balkaria, Russia, as well as five workers, four males and two queens of the latter species from Borzhomi, Georgia (including the neotype), and one male of *M. vandeli* collected in Kabardino-Balkaria, Russia. Newly collected material is stored in the Institute of Ecology of Mountain territories, RAS (Nalchik, Russia) and in the Schmalhausen Institute of Zoology of the National Academy of Sciences of Ukraine (Kiev, Ukraine).

For the comparison we previously and recently examined many tens of workers, queens and males of *M. scabrinodis* Nylander*, M. sabuleti* Meinert*, M. specioides* Bondroit, *M. hellenica* Finzi*, M. bibikoffi* Kutter and *M. hirsuta* Elmes, including type specimens (for more details see Radchenko, Elmes, 2010).

In this paper the following measurements of specimens (accurate to 0.01 mm) were made to calculate various ratios:

HL – maximum length of head in dorsal view, measured in a straight line from the anteriormost point of clypeus (including any carina or ruga, if they protrude beyond the anterior margin) to the mid-point of occipital margin;

HW – maximum width of head in dorsal view behind (above) the eyes;

FW – minimum width of frons between the frontal carinae (workers);

FLW – maximum distance between the outer borders of the frontal lobes (workers);

SL – maximum straight-line length of scape from its apex to the articulation with condylar bulb;

OL – maximum diameter of eye;

ML – diagonal length of the mesosoma (seen in profile) from the most anterodorsal point of mesosoma to posterior margin of propodeal lobes (males);

MH – height of mesosoma, measured from upper level of mesonotum perpendicularly to the level of the lower margin of mesopleuron (males);

SCW –maximum width of scutum in dorsal view (males);

SCL – length of scutum + scutellum in dorsal view (males);

HTL – maximum length of hind tibia, measured from the junction with femur to the junction with the first tarsal joint;

PL – maximum length of petiole in dorsal view, measured from the posterodorsal margin of petiole to the articulation with propodeum; the petiole should be positioned so that measured points lay on the same plane;

PW – maximum width of petiole in dorsal view;

PH – maximum height of petiole in profile, measured from the uppermost point of the petiolar node perpendicularly to the virtual line between the anteroventral (just behind the subpetiolar process) and posteroventral points of petiole;

PPL – maximum length of postpetiole in dorsal view between its visible anterior and posterior margins;

PPW – maximum width of postpetiole in dorsal view;

PPH – maximum height of postpetiole in profile from the uppermost to the lowermost point, measured perpendicularly to the tergo-sternal suture;

ESL – maximum length of propodeal spine in profile, measured along the spine from its tip to the deepest point of the propodeal constriction at the base of the spine (workers).

For simplicity, we give ratios of various measurements (e.g. HL/HW or ML/MH, etc.) rather than name and abbreviate various indices (e.g. CI or MI).

Results

Myrmica elbrusi Radchenko et Yusupov, 2012

(Figs 1–4)

Material examined: four males, Russia, Kabardino-Balkaria, gorge Bashil-Auzusu River, 43°12'08.2" N, 42°58'38.5" E, two nest samples (Nos. 20a–15 and 22–15) 5.VIII.2015, with workers.

Male (first description). Head distinctly longer than broad, with moderately convex sides and occipital margin and widely rounded occipital corners. Eyes big, *ca*. 0.3 of head width, situated distinctly in front of head sides, more than twice longer than gena. Ocelli well developed but quite small. Anterior clypeal margin very narrowly rounded and somewhat prominent, not-notched medially. Antennae 13-segmented, with barely defined 4-segmented club; scape long, subequal to head width; second funicular segment *ca.* 1.5 times longer than third one. Mandibles with seven teeth.

Mesosoma relatively long, *ca*. 1.6 times longer than high, scutum moderately convex, scutellum does not project dorsally above scutum (seen in profile). Propodeum with blunt subtriangular tooth-like tubercles, its dorsal surface subequal to posterior one. Petiole with short peduncle and massive and quite long node, its dorsal surface very slightly convex; postpetiole massive, distinctly higher than long, with convex dorsum, *ca*. 1.3 times wider than petiole. Middle and hind tibiae with well developed, quite big pectinate spur. Forewing with typical for *Myrmica* venation (i.e. with closed cell *mcu*, an open cell *3r* and vein *2+3RS* reduced proximally so that cells *1+2r* and *rm* only partly separated).

In general, quite coarsely sculptured species. Frons, genae and area between ocelli with quite coarse longitudinal rugae, rest of head dorsum with coarse reticulation, surface between rugae finely punctated while looks more or less shiny; clypeus with transversal rugosity. Mandibles longitudinally rugulose.

Whole mesosoma, both dorsally and laterally, with quite coarse longitudinal rugae. Sides of petiolar node with fine and short longitudinal striation, its dorsum with superficial microsculpture developed in various extents, but quite shiny. Postpetiole laterally with fine longitudinal striation, dorsally smooth and shiny. Gaster smooth and shiny.

Head margins and mandibles with numerous, relatively long and curved suberect hairs. Mesosoma, petiole and gaster with abundant quite long suberect hairs (they much sparser and shorter on propodeum). Tibiae and tarsi with relatively short subdecumbent to suberect hairs, the longest hairs on tibiae shorter than the maximal tibial width, those on basitarsus subequal or only slightly longer than its maximal width. Scape with abundant but not long suberect to subdecumbent hairs, longest hairs shorter than maximal width of scape.

Colour. Body dark reddish-brown, appendages somewhat lighter.

Measurements in mm, ordered as mean (min-max): HL 0.92 (0.91–0.94); HW 0.825 (0.82–0.83); SL 0.82 (0.81–0.82); OL 0.27; ML 1.71 (1.66–1.76); MH 1.03 (0.99–1.07); SCW 0.78 (0.75–0.79); SCL 1.17 (1.13–1.20); PL 0.51 (0.48–0.52); PH 0.38 (0.35–0.40); PW 0.37 (0.34–0.38); PPL 0.43 (0.42–0.44); PPH 0.49 (0.47–0.51); PPW 0.48 (0.47–0.49); HTL 1.07 (1.05–1.08).

Ratios: HL/HW 1.11 (1.10–1.13); SL/HL 0.89 (0.88–0.90); SL/HW 0.99 (0.98–1.00); OL/HL 0.30 (0.29–0.30); ML/MH 1.67 (1.65–1.69); SCL/SCW 1.49 (1.46–1.51); PL/HL 0.56 (0.53–0.57); PL/PH 1.34 (1.29–1.38); PPL/HL 0.47 (0.48–0.46); PPL/PPH 0.88 (0.85–0.89); PPL/PPW 0.89; PPW/PW 1.31 (1.28–1.38).

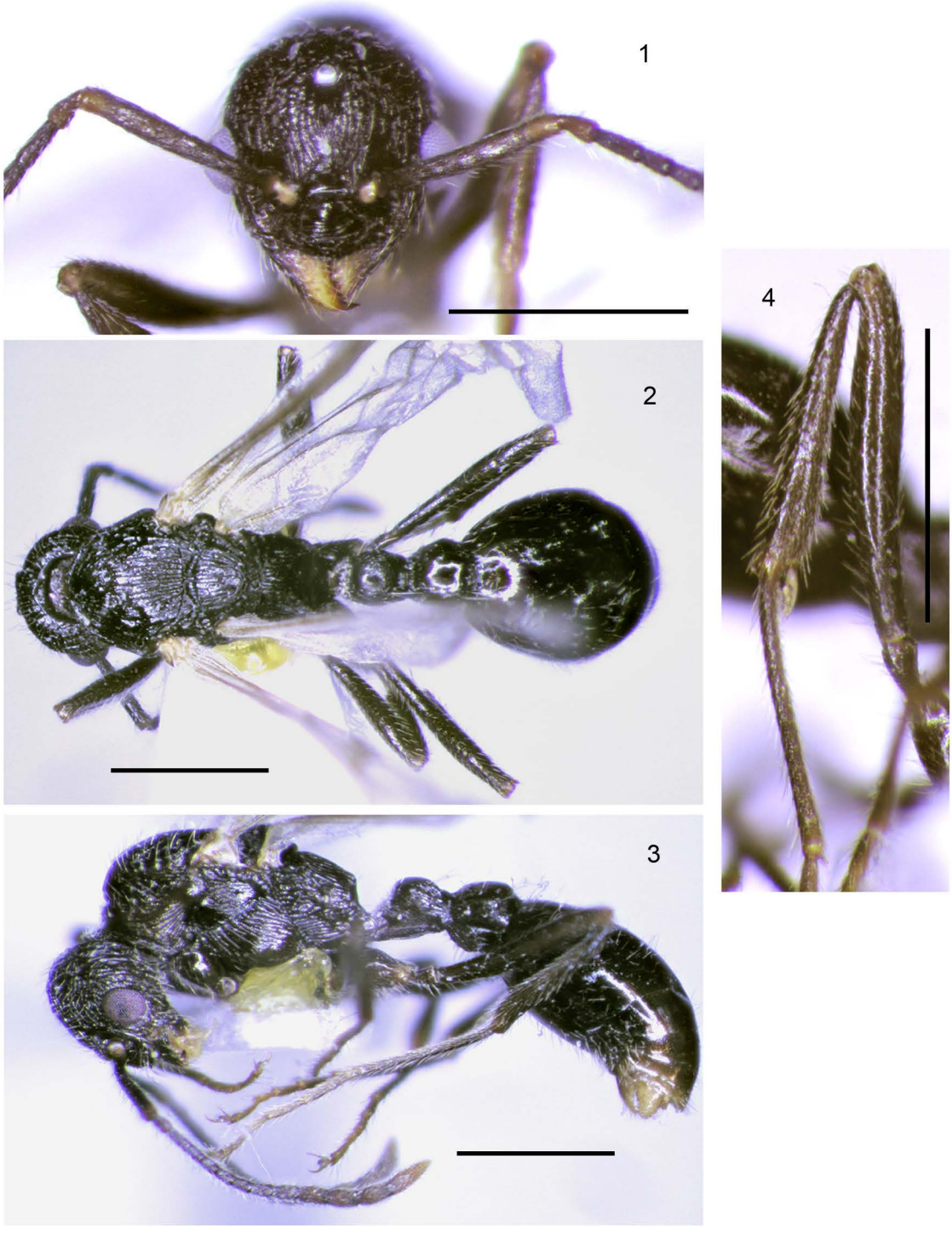
Remarks. This mountain species seems to be endemic of the North Caucasus, inhabiting subalpine meadows, floodplain terraces of rivers and edges of mixed forests (pine with birch) at altitudes 2070–2130 m, where build nests in the soil, often under stones.

As was stressed earlier (Radchenko, Yusupov, 2012), workers and queens of *M. elbrusi* are so well distinct from all known *Myrmica* species occurring in the Euro-Caucasian region, that cannot be placed to any species-group recognized there. On the other hand, they share diagnostic features with both the *M. rugosa* and *M. dshungarica* species groups. By the main diagnostic features of workers and queens, the species of these groups are hardly distinguishable, but workers of the *M. rugosa* group are larger and have more coarse body sculpture than those of *M. dshungarica* group (Radchenko, Elmes, 2010). Thus, as we described *M. elbrusi* based on workers and queens only, we tentatively placed it to the *M. rugosa* species group.

However, the mentioned groups well separated by the characters of the males, particularly by the length of their scape: males of the *M. dshungarica* group have long antennal scape (SL/HW $\geq$ 1.0) while scape of the *M. rugosa* group males are much shorter (SL/HW < 0.6). Now, after detection that males of *M. elbrusi* have long scape (SL/HW = 0.98–1.00), we have to alter our previous opinion and propose now tentatively place this species to the *M. dshungarica* group or even establish to this species one more, *M. elbrusi* species group. Possibly, this question may be resolved after carrying out comparative molecularly-genetic investigation of *M. elbrusi* and species from the *M. dshungarica* and *M. rugosa* groups.

Myrmica bakurianica Arnoldi

This somewhat enigmatic species has been briefly described based on all castes by Arnoldi (1970) from the vicinity of Bakuriani (Georgia) in a key as *M. pilosiscapus* subsp. *bakurianica*. Until now it was



Figs 1–4. Male of *Myrmica elbrusi*. 1– head, dorsal view; 2 – body, dorsal view; 3 – body, lateral view; 4 – hind leg. Scale bars: 1 mm.

known only from the type series (5 workers, 4 males and 2 queens), and from the 6 workers (including the neotype), 3 queens and 3 males, collected near Borzhomi, Georgia (for more details see Seifert, 1988; Radchenko, 1994c; Radchenko, Elmes, 2010). A nest series that includes 30 workers and nine males were collected recently by second co-author in Russia (Kabardino-Balkaria, vicinity of the village Verhnyi Kurp, Tersky Range, 43º49′61.2" N, 44º37′57.2" E, h = 307 m, 8.IX.2013). It is the first record of this species not only for the North Caucasus, but also for Russia.

M. bakurianica seems to be Caucasian endemic and supposedly very rare species. On the other hand, at least some of the older records of *M. scabrinodis* from Caucasus (e.g. Ruzsky, 1902, 1905; Karawajew, 1926) may belong to *M. bakurianica*.

This species was placed to the *M. specioides*-complex of the *M. scabrinodis* species group (Radchenko, Elmes, 2010), and in Caucasus it can be confused with several related species, especially with *M. scabrinodis* and *M. specioides*, or even with *M. hellenica*.

However, its workers well differ from the latter species by the much narrower frons and more extended frontal lobes (mean FW/HW = 0.39, mean FLW/HW = 1.34 in *M. bakurianica vs*. 0.43 and 1.15 in *M. hellenica*, respectively), and by the distinctly bigger lobe at the base of scape.

By the shape of the frontal carinae and frontal lobes its workers resemble *M. specioides* (means FW/HW = 0.39…0.38, means FLW/HW = 1.34…1.32, respectively), but differ those of *M. scabrinodis* that have narrower frons and more extended frontal lobes (mean FW/HW = 0.36 and mean FLW/HW > 1.40). The shape of petiolar node of *M. bakurianica* and *M. specioides* is also similar: it is without a distinct dorsal plate, while in *M. scabrinodis* petiole has a distinct horizontal or slightly declined posteriorly dorsal plate. *M. bakurianica* resembles *M. scabrinodis* by the length of propodeal spines, but differs from *M. specioides*: mean ESL/HW in first two species ≥ 1.40 *vs.* 1.36 in the latter (Figs. 5, 8, 11). Additionally, the lobe at the base of scape in *M. bakurianica* is generally bigger than in *M. specioides* and similar to that in *M. scabrinodis*.

Nevertheless, workers and queens of *M. bakurianica* well differ from all mentioned species by the much denser and coarser, whitish standing hairs on the antennal scape, head margins and body.

Similarly, males of *M. bakurianica* share features of three mentioned species: by the length and pilosity of the scape they are similar to *M. specioides* and *M. hellenica*, but have much longer standing hairs on the tibiae and tarsi: middle and hind tibiae and tarsi on both anterior and posterior surfaces have very long and erect, often curved hairs, the longest hairs on the tibiae are distinctly longer than the maximum width of tibia, those on the basitarsus more than twice as long as its maximal width, similar to but somewhat shorter than those of the males of *M. scabrinodis*. In contrary, in *M. specioides* and *M. hellenica* the middle and hind tibiae and tarsi have much shorter hairs, the longest hairs on the tibiae are not longer than the tibial width, same on the basitarsus less than twice as long as its width (Figs. 6, 7, 9, 10, 12, 13).

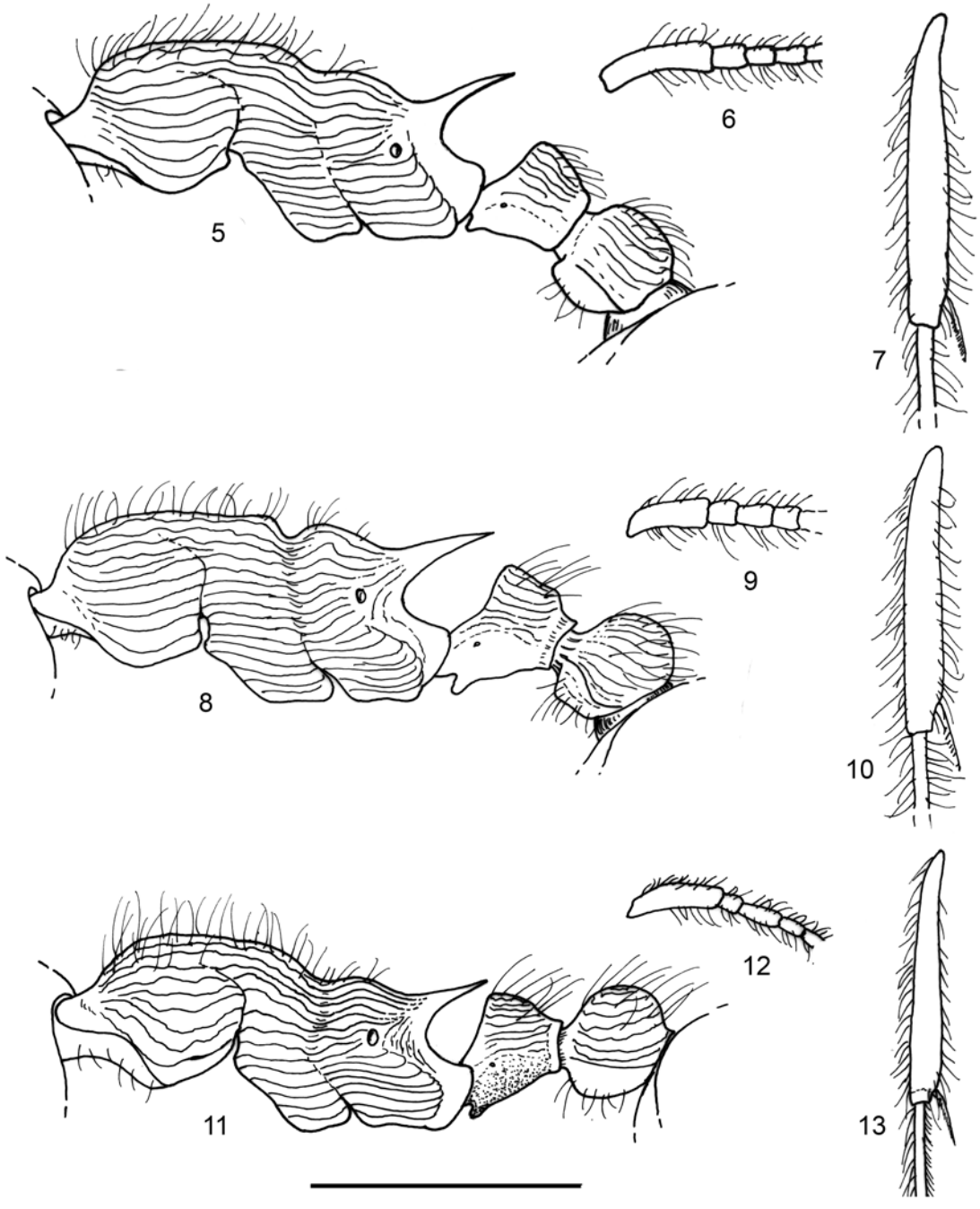
Ecology. One nest of this species has been found in a ground under tree, on steppe site with sparse trees.

***Myrmica vandeli* Bondroit**

M. vandeli Bondroit was described from queens and males from France (Bondroit, 1920) and was known only from the type series for more than 50 years, until Kutter (1977) described workers of this species from Switzerland. Later on this species has been recorded from the Central European countries, Pyrenees, southern Sweden, England and Wales, Balkans and western Ukraine (for details see Elmes et al., 2003; Radchenko, Elmes, 2003, 2010; Czechowski et al., 2012; Radchenko, 2016).

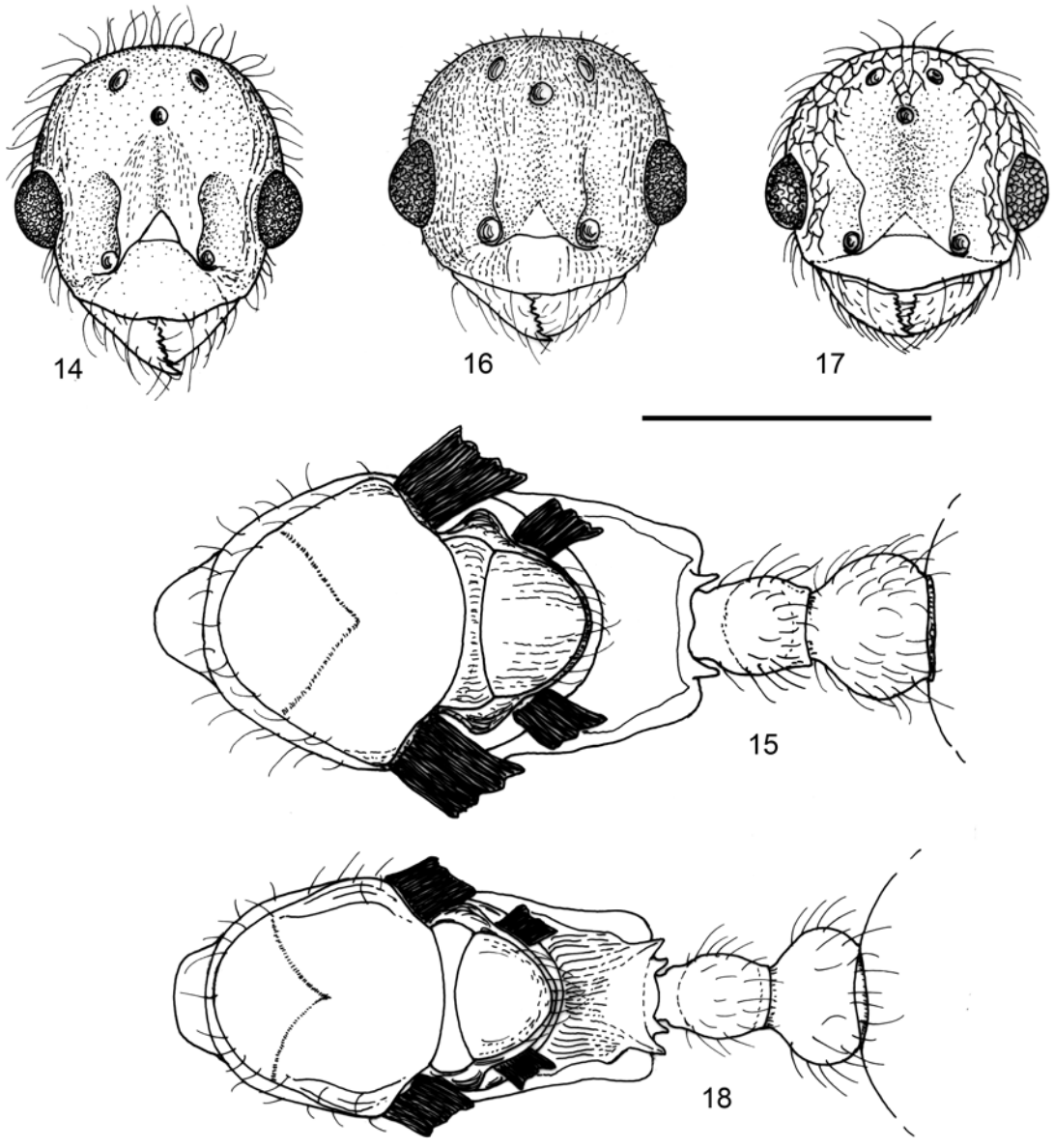
M. vandeli requires wet and warm conditions at the nest site and the most preferable its habitats are wet to very wet grasslands, but not true bogs or swamps. In some parts of its area there were found nest containing only workers (sometimes also gynes and males) of *M. vandeli*, but in other parts mixed colonies containing workers of *M. vandeli* and *M. scabrinodis* exist. Elmes et al. (2003) supposed that *M. vandeli* may be a temporary (perhaps even facultative?) social parasite of *M. scabrinodis*, and in the optimal ecological conditions it might successfully compete with *M. scabrinodis* and reproduce new colonies by queen foundation or by colony fission, but at the edge of its range queens might have to resort to temporary social parasitism of *M. scabrinodis* to establish a new colony. Such mixed colonies containing workers of both species, were found in England, France, Poland, Ukraine, etc.

We placed *M. vandeli* to the *M. sabuleti*-complex of the *M. scabrinodis* species group (Radchenko, Elmes, 2003, 2010). Workers of *M. vandeli* appear very similar to those of *M. scabrinodis* by the shape of



Figs 5–13. Details of structure of *Myrmica bakurianica* (5–7), *M. scabrinodis* (8–10) and *M. specioides* (11–13) (5, 8, 11 – workers; 6, 7, 9, 10, 12, 13 – males). 5, 8, 11 – mesosoma and waist in profile; 6, 9, 12 – antennal scape and three basal funicular segments; 7, 10, 13 – hind tibia and base of basitarsus. Scale bar: 1 mm.

mesosoma, propodeal spines and waist, by the size and shape of the lobe at the bent of the scape, by the shape of frontal carinae and frontal lobes, but differ from the latter by more abundant standing hairs on the body (e.g. petiole with > 10, often > 20 hairs *vs*. < 10, usually ≤ 8 hairs in *M. scabrinodis*), by the presence of at least shallow medial notch on the anterior clypeal margin, by the less coarse, almost straight longitudinal rugosity on the mesosomal dorsum (*vs*. strong reticulation in *M. scabrinodis*), by the reduced (to various extents) sculpture of the petiolar and postpetiolar dorsum, and finally, by its reduced tibial spurs.



Figs 14–18. Details of structure of males of *Myrmica vandeli* (14, 15), *M. sabuleti* (16), *M. bibikoffi* (17) and *M. hirsuta* (18). 14, 16, 17 – head, dorsal view; 15, 18 – mesosoma and waist, dorsal view. Scale bar: 1 mm.

Queens of *M. vandeli* differ from those of all species of the *M. scabrinodis* group by their large size, very dark, almost black body colour, and especially by the characteristic longitudinally-concentric rugosity on the petiolar node dorsum.

At the same time, males of *M. vandeli* have relatively long scape (mean SL/HW = 0.60) and may be confused only with three Palaearctic *Myrmica* species: *M. sabuleti*, *M. bibikoffi* and *M. hirsuta*. *M. sabuleti* is quite common free-living Euro-Caucasian species, but two latter species are social parasites. *M. bibikoffi* is known only from four nest samples collected in Switzerland, Germany and Spain, and *M. hirsuta* is rare but more widespread European species, distributed from England in the west to Nizhniy Novgorod (Russia) in the east.

Males of *M. vandeli* are easily separated from those of *M. sabuleti* by the presence of abundant long standing hairs on the head margins and scape, and by the much shorter hairs on the mid and hind tibiae (Figs 14, 16). On the other hand, by the presence of long standing hairs on the head margins they are similar to

M. bibikoffi and *M. hirsuta*, but differs from the first by the absence of the distinct reticulation on the lateral and posterior parts of head dorsum (Figs 14, 17), and from the latter – by the distinctly narrower postpetiole (PPW/HW = 0.45–0.60 *vs*. 0.64–0.70) (Figs 15, 18).

Until now the known range of *M. vandeli* was West Europe with easternmost point in Transcarpathian Province of Ukraine (Radchenko, 2009) (Fig. 19), but second co-author of this paper collected nest sample (57 workers) of *M. specioi*des in Kabardino-Balkaria (gorge of the Baksan River between village Verkhniy Baksan and town Tyrnyauz (43º35′71.9” N, 42º56′27.1” E) at an altitude 1371 m on the glade of sea buckthorn forest, where we surprisingly found the single male that we with any doubt identified as *M. vandeli*, but any worker of *M. vandeli* was not found it this sample.

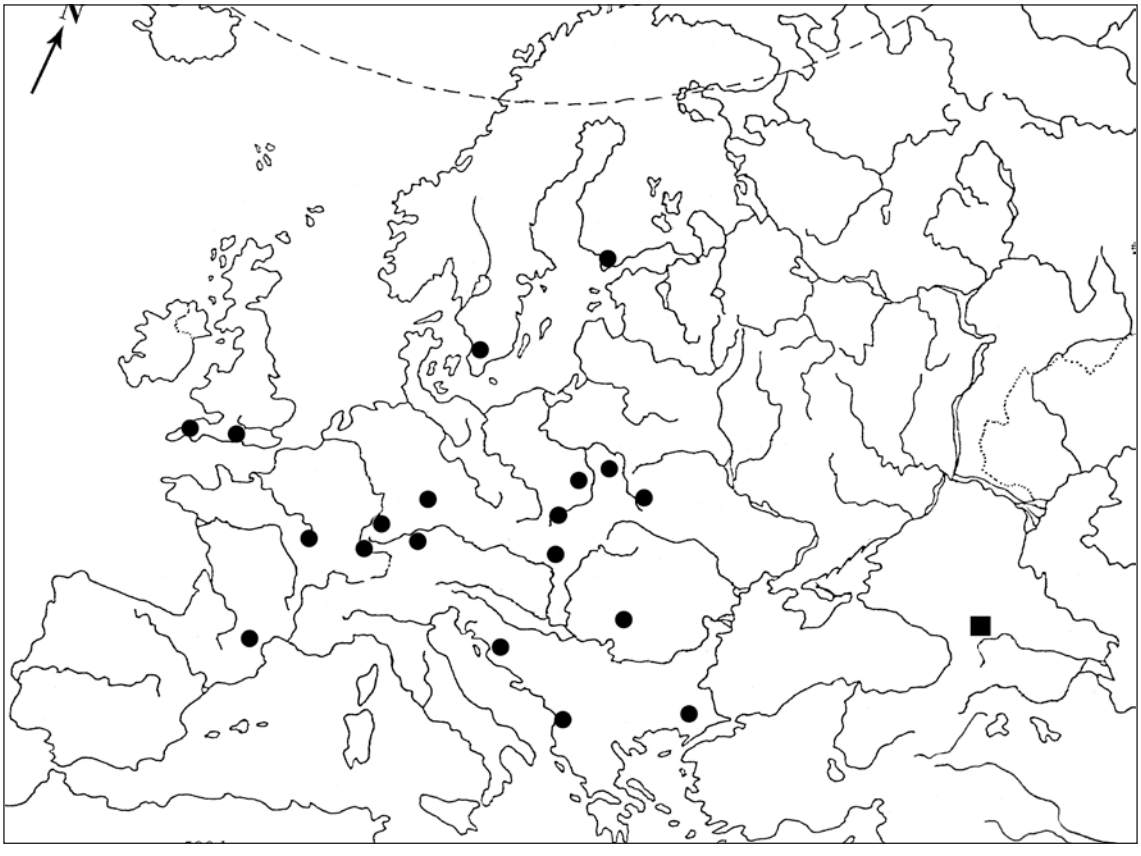


Fig. 19. Map of distribution of *Myrmica vandeli* (dots – previously known localities, square – new locality).

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New records of sphecid digger wasps (Hymenoptera: Apoidea: Sphecidae) in Russia

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Новые находки роющих ос семейства Sphecidae (Hymenoptera: Apoidea) в России

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Abstract. The genus *Chilosphex* Menke, 1976 and three species of sphecid digger wasps, *Chalybion walteri* (Kohl, 1889), *Sphex pruinosus* Germar, 1817 and *Chilosphex argyrius* (Brullé, 1833), are recorded from Russia for the first time. *Ammophila hungarica* Mocsáry, 1883 is newly recorded from North Caucasus.

Key words. Sphecid digger wasps, fauna, distribution, Russia.

Резюме. Род *Chilosphex* Menke, 1976 и 3 вида – *Chalybion walteri* (Kohl, 1889), *Sphex pruinosus* Germar, 1817 и *Chilosphex argyrius* (Brullé, 1833) – указываются впервые для фауны России, а *Ammophila hungarica* Mocsáry, 1883 – впервые для Северного Кавказа.

Ключевые слова. Роющие осы, фауна, распространение, Россия.

Introduction

Digger wasps from fam. Sphecidae is mainly large, actively flying and clearly visible insects. Sphecid wasps characterized by caring of posterity. The females make the nests and provide it by provision – paralyzed or dead insects from the orders of Orthoptera, Dyctioptera, Lepidoptera, Hymenoptera, as well as spiders. The adult insects feed on nectar and pollinating the flowering plants. The elongated mouthparts of most Sphecidae allows them to visit flowers with deeply located nectaries. Sphecidae make their nests in the ground, often in sandy soils; the females of *Sceliphron* Klug, 1801 make the mud-nests and *Chalybion* Dahlbom, 1843 arrange nests in the ready cavities. Most of Sphecidae prefer the open landscapes; they are rare in the forests (Bohart, Menke, 1976; Kazenas, 2001).

The family distributed worldwide, mainly in arid, semiarid and tropical regions. Number of taxa: Word – 19 genera and 779 species, Palaearctic – 13 and 260, Russia – 11 and 68 accordingly (Pulawski, 2017 and current data).

This note is in addition to the already published paper (Danilov, Mokrousov, 2017). Complete list of species of Sphecidae in the Russian fauna will be published in the preparing "Annotated catalogue of Hymenoptera of Russia".

Material and methods

This paper is based on the material collected by Mikhail V. Mokrousov in June – August 2017 in Dagestan Republic and Astrakhan Province of Russia. The material is kept in the Institute of Systematics and Ecology of Animals, SB RAS, Novosibirsk, Russia (ISEN). The general distribution is given by Pulawski, 2017. New records are asterisked (*).

List of species

***Chalybion walteri* (Kohl, 1889)**

Material examined. Russia: Dagestan: Kumtorkalinskiy District, Dagestan State Reserve, "Barkhan Sarykum", 43.01º N, 47.237º E, 1–2.VI.2017, 6 ♂; Derbent District, Kamyshchay River valley, 41.908° N 48.233° E, 11–13.VI.2017, 3 ♂.

Distribution. *Russia (Dagestan Republic). – Greece, Egypt, Turkey, Syria, Jordan, Iran, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan.

***Sphex pruinosus* Germar, 1817**

Material examined. Russia: Astrakhan Prov.:Yenotayevskiy District, near Volzhskiy, 46.965° N, 47.53° E, 14.VIII.2017, 3 ♂. Dagestan Republic: Derbent District, Kamyshchay River valley, 41.908° N 48.233° E, 21.VIII.2017, 5 ♂; Derbent, 42.1° N, 48.289° E, 24.VIII.2017, 1 ♂.

Distribution. *Russia (Astrakhan Prov., Dagestan Republic). – France, Portugal, Spain, Italy, Malta, Croatia, Macedonia, Albania, Bulgaria, Greece, Cyprus, Morocco, Algeria, Tunisia, Libya, Egypt, Turkey, Syria, Lebanon, Israel, Iran, Yemen, Oman, Saudi Arabia, UAE, Pakistan, Afghanistan, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan; Ethiopia, Djibouti; India.

***Chilosphex argyrius* (Brullé, 1833)**

Material examined. Russia: Dagestan: Derbent District, Kamyshchay River valley, 41.908° N 48.233° E, 10.VI.2017, 7 ♂, 3 ♀; Derbent District, 10 km S Derbent, 41.961° N 48.27° E, 11.VI.2017, 3 ♂.

Distribution. *Russia (Dagestan Republic). – France, Luxembourg, Slovenia, Spain, Italy, Croatia, Greece, Turkey, Israel, Iraq, Iran, Turkmenistan.

Remark. The genus and species are recorded from Russia for the first time.

***Ammophila hungarica* Mocsáry, 1883**

Material examined. Russia: Dagestan, Magaramkent District, Samur Reserve, 41.86° N, 48.55° E, 7–8.VI.2017, 2 ♀.

Distribution. Russia (*Dagestan and Crimea Republics, Omsk and Novosibirsk Prov., Altai Terr.). – France, Belgium, Austria, Czech Republic, Slovakia, Hungary, Slovenia, Portugal, Spain, Italy, Romania, Bulgaria, Greece, Cyprus, Morocco, Armenia, Turkey, Syria, Jordan, Iran, Afghanistan, Turkmenistan, Uzbekistan, Tajikistan, Kazakhstan.

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Additions and corrections to the fauna and distribution of digger wasps (Hymenoptera: Crabronidae) of Russia

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Дополнения и исправления к фауне и распространению роющих ос (Hymenoptera: Crabronidae) России

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Abstract. A new synonymy, *Didineis kozhevnikovi* Kokujev, 1906 = *Didineis lunicornis* (Fabricius, 1798) (syn. n.) is proposed. *Cerceris apakensis* Tsuneki, 1961, *C. conica* Shestakov, 1918, *C. cupes* Shestakov, 1918, *C. falcifera* Tsuneki, 1961, *Dryudella picticornis* (Gussakovskij, 1927), *Plenoculus murgabensis* (Gussakovskij, 1928), and *Pseudoscolia marshakovi* Kazenas, 1994 are newly recorded from Russia and *Didineis wuestneii* Handlirsch, 1888 from Moldova. The distribution of *Alysson cameroni* Yasumatsu et Masuda, 1932 in Russia is limited by Kuril Island (Kunashir) only, and records of this species from mainland of Russia belong to *A. verhoeffi* Tsuneki, 1967 which is recorded from Russia for the first time.

Key words. Crabronid wasps, fauna, distribution, synonymy, Russia.

Резюме. Предложена новая синонимия: *Didineis kozhevnikovi* Kokujev, 1906 = *Didineis lunicornis* (Fabricius, 1798) (syn. n.). *Cerceris apakensis* Tsuneki, 1961, *C. conica* Shestakov, 1918, *C. cupes* Shestakov, 1918, *C. falcifera* Tsuneki, 1961, *Dryudella picticornis* (Gussakovskij, 1927), *Plenoculus murgabensis* (Gussakovskij, 1928) и *Pseudoscolia marshakovi* Kazenas, 1994 впервые отмечены в фауне России, а *Didineis wuestneii* Handlirsch, 1888 – для Молдовы. Распространение *Alysson cameroni* Yasumatsu et Masuda, 1932 в России ограничено Курильскими островами (о. Кунашир), а указания этого вида с материковой части России относятся к *A. verhoeffi* Tsuneki, 1967, который указывается впервые для России.

Ключевые слова. Роющие осы, фауна, распространение, синонимия, Россия.

Introduction

Digger wasps of the family Crabronidae are very diverse group, both morphologically and biologically, and characterized by caring of posterity. The females of crabronid wasps make the nests and provide it by provision, paralyzed or dead insects from different orders and spiders. Crabronid digger wasps make their nests in the ground, often in sandy soils; in rotten wood or xylophagous burrows; some species make

the mud-nests or arrange nests in the ready cavities; rarely larvae developed as ectoparasites on the active hosts. Some species of these wasps are cleptoparasitoids. The adult insects often feed on nectar and pollinating the flowering plants.

The family distributed worldwide, mainly it is known in the arid and semiarid regions. Number of taxa: Word – about 250 genera and 8900 species (Pulawski, 2017), Palaearctic – 84 and about 2000, Russia – 75 and 613 accordingly.

This note is in addition to the already published papers (Nemkov, 2009; Mokrousov *et al*., 2016; Mokrousov, 2017a, 2017b). Complete list of species of Crabronidae in the Russian fauna will be published in the preparing "Annotated catalogue of Hymenoptera of Russia".

Material and methods

This paper is based on the material deposited in: Zoological Institute of Russian Academy of Sciences (St Petersburg, Russia; ZISP); Zoological Museum, Moscow State University (Moscow, Russia; ZMMU); Institute of Systematics and Ecology of Animals, Siberian Branch of Russian Academy of Sciences (Novosibirsk, Russia; ISEN); Federal Scientific Center of the East Asia Terrestrial Biodiversity, Far East Branch of the Russian Academy of Sciences (Vladivostok, Russia; FSC); I.I. Schmalhgausen Institute of Zoology of National Academy of Sciences of Ukraine (Kiev, Ukraine; ZIK); private collection of M.V. Mokrousov (Nizhny Novgorod, Russia; MC). The general distribution is given after Pulawski, 2017. New records are asterisked (*).

List of species

***Alysson cameroni* Yasumatsu et Masuda, 1932**

Material examined. Russia: Kuril Islands, Kunashir, Golovnin Volcano, 24.VII.1973 (D. Kasparyan), 1 ♂, (ZISP); Kuril Islands, Kunashir, Dubovoe, 31.VII 1989 (P. Nemkov), 1 ♂, (FSC).

Distribution. Russia (Kuril Islands). – Japan (Hokkaido, Honshu).

Note. All records of *Alysson cameroni* from mainland of Russia (Kazenas, 1980; Nemkov *et al.*, 1995; Nemkov, 2009, 2014) belongs to *A. verhoeffi* Tsuneki, 1967.

***Alysson verhoeffi* Tsuneki, 1967**

Material examined. Russia: Khabarovsk Terr., Khabarovsk, 26.VIII.1979 (V. Ermolenko), 1 ♀ (ZIK). China: Liaoning, 50 km N Shenyang (Mukden), 20.VII.1952 (I. Rubtsov), 1 ♂, (ZISP).

Distribution. Russia (Amur Prov., *Khabarovsk and Primorskiy Terr.). – China (Heilongjiang, *Liaoning), Korea.

Note. It was erroneously recorded for Russia as *Alysson cameroni* Yasumatsu et Masuda, 1932 (Kazenas, 1980; Nemkov *et al*., 1995; Nemkov, 2009, 2014) (see upper).

***Cerceris apakensis* Tsuneki, 1961**

Material examined. Russia: Zabaykalskiy Terr., Onon District, Daursky Nature Reserve, near Zun-Torey Lake, 29.VI.1996 (V. Dubatolov, O. Kosterin), 1 ♂ (ISEN); Onon District, Onon River near Nizhny Tsasuchey, 17–20.VII.1997 (V. Dubatolov, O. Kosterin, O. Berezina), 1 ♀, 4 ♂ (ISEN).

Distribution. *Russia (Zabaykalskiy Terr.). – Mongolia, China (Inner Mongolia).

***Cerceris conica* Shestakov, 1918**

Material examined. Russia: Karachaevo-Cherkesk Rep., Teberda, Djamagat valley, 9.VIII.1953 (E. Ahrens), 3 ♀ (ZISP).

Distribution. *Russia (Karachaevo-Cherkesk Rep.). – Armenia, Turkey, Turkmenistan.

***Cerceris cupes* Shestakov, 1918**

Material examined. Russia: Altai Rep., Kosh-Agach District, Kuray steppe, 1545 m, 50.17° N, 87.90° E, 9.VII.2006 (A. Barkalov), 1 ♂ (ISEN).

Distribution. *Russia (Altai Rep.). – Turkey, Turkmenistan, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan.

***Cerceris falcifera* Tsuneki, 1961**

Material examined. Russia: Zabaykalskiy Terr., Onon District, Onon River near Nizhny Tsasuchey, 30.VI.1996 (V. Dubatolov, O. Kosterin), 1 ♂ (ISEN).

Distribution. *Russia (Zabaykalskiy Terr.). – China (Beijing).

***Crossocerus* (*Oxycrabro*) *acanthophorus* (Kohl, 1892)**

Material examined. Russia: Kalmykia Rep., Yashalta District, Oktyabrskiy, 46°10'27.4" N, 42°47'23.7" E, 2.VI.2011 (M. Mokrousov), 1 ♂ (MC). Dagestan Rep., 5 km SW Magaramkent, 41.573° N, 28.247° E, 10.VI.2017 (M. Mokrousov), 1 ♂ (MC).

Distribution. Russia (*Kalmykia and *Dagestan Rep., Altai Terr.). – Portugal, Spain, France, Switzerland, Germany, Austria, Italy, Slovenia, Greece, Czech Republic, Slovakia, Hungary, Bulgaria, Algeria, Libya, Ukraine, Belarus, Latvia, Lithuania, Cyprus, Turkey, Syria, Israel, Iran, Tajikistan, Kazakhstan, Mongolia.

***Didineis lunicornis* (Fabricius, 1798)**

Didineis kozhevnikovi Kokujev, 1906, **syn. n.**

Material examined. Russia: Ivanovo Prov., Puchezh District, near Gusarinka vill., 28.VIII.2013 (M. Mokrousov), 1 ♀ (MC). Bryansk Prov., Klintzi, 14.VII.1968 (V. Gorbatovskiy), 1 ♂ (ZMMU). Orel Prov., Orel, 22.VIII.1941 (V. Vinogradov), 1 ♂ (ZMMU). Penza Prov., Penza, 29.IX.2011 and 17–18.VIII.2012 (L. Egorov), 3 ♀ (MC). Chuvash Rep., Batyrevo District, near Malye Shigirdany, 6.VII.2012 (L. Egorov), 1 ♂ (MC); Yalchiki District, Lasch-Tayaba, 3.VIII.2013 (L. Egorov), 1 ♀, 3 ♂ (MC).

Distribution. Russia (Yaroslavl, Kostroma, Moscow, *Ivanovo, Nizhegorodskaya and Ryazan Prov., Mordovia Rep., *Bryansk, *Orel, Tambov, *Penza, Kursk and Belgorod Prov., Udmurtia, Mary El and *Chuvash Rep., Rostov Prov., Krasnodar Terr., Bashkortostan Rep.). – Great Britain, Spain, Netherlands, Belgium, Luxemburg, France, Switzerland, Denmark, Germany, Austria, Italy, Slovenia, Croatia, Serbia, Greece, Poland, Czech Republic, Slovakia, Hungary, Romania, Bulgaria, Algeria, Egypt, Ukraine, Belarus, Abkhazia, ?China (Inner Mongolia).

Note. In the original description (Kokujev, 1906) *Didineis kozhevnikovi* Kokuev, 1906 (holotype, ♀, Russia, Moscow Prov., Serpukhov District, 1–3.VIII (M. Katkov); ZISP, examined) differs from *D. lunicornis* (Fabricius, 1798) by coloration of pronotum and metasoma and punctuation of metasomal terga. Actually, the punctuation of holotype does not differ from most specimens of typical *D. lunicornis*. The coloration of pronotum and metasoma varies widely in *D. lunicornis*. There are all transitions from specimens with completely black to specimens with completely red pronotum, including those collected together. Based on such variety we regards *D. kozhevnikovi* Kokujev, 1906 as a junior subjective synonym of *D. lunicornis* (Fabricius, 1798).

***Didineis wuestneii* Handlirsch, 1888.**

Material examined. Russia: Volgograd Prov., Kotluban', 5.VII.2008 (K. Grebennikov), 1 ♀ (MC). Moldova: Kishinev, 14.VI.1988 (N. Vinokurov), 1 ♂ (MC).

Distribution. Russia (Rostov and *Volgograd Prov.). – Italy, Slovenia, Croatia, Serbia, Czech Republic, Hungary, Bulgaria, *Moldova, Ukraine, Azerbaijan, Turkey.

***Dryudella picticornis* (Gussakovskij, 1927)**

Material examined. Russia: Astrakhan Prov., Enotaevka District, near Volzhskiy vill., 46.965° N, 47.53° E, 18.VIII.2017 (M. Mokrousov), 1 ♂ (MC). Orenburg Prov., Svetlinskiy District, Nature Reserve "Orenburgskiy", plot "Aschisayskaya steppe", 12.VIII 2012 (K. Fadeev), 1 ♂ (MC).

Distribution. *Russia (Astrakhan and Orenburg Prov.). – Bulgaria, Moldova, Ukraine, Turkey, Kazakhstan.

***Eremiasphecium bicolor* (Gussakovskij, 1930)**

Material examined. Russia: Kalmykia Rep., Chernozemelskiy District, 20 km E Khulhuta, 46.292° N, 46.672° E, 31.V.2016 (M. Mokrousov), 1 ♀ (MC). Astrakhan Prov., Enotaevka District, near Volzhskiy vill., 46.965° N, 47.53° E,

26–27.V.2016 (M. Mokrousov), 1 ♀, 7 ♂ (MC; ZISP); Krasny Yar District, Dosang, 46.911° N, 47.926° E, 6.VI.2016 (M. Mokrousov), 1 ♂ (MC).

Distribution. *Russia (Kalmykia Rep., Astrakhan Prov.). – Turkmenistan, Uzbekistan, Kazakhstan.

***Eremiasphecium desertorum* (Gussakovskij, 1930)**

Material examined. Russia: Kalmykia Rep., Chernozemelskiy District, 20 km E Khulhuta, 46.292° N, 46.672° E, 30.V.2016 (M. Mokrousov), 1 ♂ (MC).

Distribution. *Russia (Kalmykia Rep.). – Turkmenistan, Uzbekistan.

***Gastrosericus waltlii* Spinola, 1839**

Material examined. Russia: Astrakhan Prov., 14 km NW Narimanov, 46.768° N, 47.7° E, 27.VII.2015 (S. Belokobylskij, V. Loktionov, M. Mokrousov, M. Proshchalykin), 9 ♀, 4 ♂ (MC); 13 km S Liman, 45.672° N, 47.24° E, 25.VII.2015 (S. Belokobylskij, V. Loktionov, M. Mokrousov, M. Proshchalykin), 3 ♀, 8 ♂ (MC); near Zamiany, 46.816° N, 47.616° E, 22.VIII.2015 (M. Mokrousov), 1 ♀, 1 ♂ (MC); Enotaevka District, near Volzhskiy vill., 46.965° N, 47.53° E, 7.VIII.2016 (M. Mokrousov), 1 ♂ (MC). Dagestan Rep., 27 km N Kochubey, 44.639° N, 46.591° E, 21.VII.2015 (S. Belokobylskij, V. Loktionov, M. Mokrousov, M. Proshchalykin), 1 ♀, 1 ♂ (MC).

Distribution. Russia (*Astrakhan Prov., Kalmykia and *Dagestan Rep.). – Greece, Morocco, Algeria, Libya, Egypt, Sudan, Eritrea, Armenia, Turkey, Cyprus, Syria, Jordan, Israel, Oman, Qatar, Saudi Arabia, United Arab Emirates, Yemen, Iraq, Iran, Pakistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, China (Inner Mongolia), India, Africa.

***Oryttus kaszabi* Tsuneki, 1971**

Material examined. Russia: Altai Rep., 16 km SE Inya, 50°24.153’ N, 086°50.088’ E, 29.VI.2016 (V. Loktionov, M. Proshchalykin), 1 ♂ (MC).

Distribution. Russia (*Altai and Tyva Rep., Zabaykalskiy Terr.). – Kyrgyzstan, Kazakhstan, Mongolia.

***Plenoculus murgabensis* (Gussakovskij, 1928)**

Material examined. Russia: Astrakhan Prov., Enotaevka District, near Volzhskiy vill., 46.965° N 47.53° E, 8.VII.2017 (M. Mokrousov), 1 ♀ (MC).

Distribution. *Russia (Astrakhan Prov.). – Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.

***Pseudoscolia marshakovi* Kazenas, 1994**

Material examined. Russia: Astrakhan Prov., Enotaevka District, near Volzhskiy vill., 46.965° N 47.53° E, 7–9.VII.2017 (M. Mokrousov), 3 ♀ (MC).

Distribution. *Russia (Astrakhan Prov.). – Turkmenistan.

***Tachytes etruscus etruscus* (Rossi, 1790)**

Material examined. Russia: Dagestan, 12 km SSW Kizlyar, 43.747° N, 46.665° E, 23.VII.2015 (S. Belokobylskij, V. Loktionov, M. Mokrousov, M. Proshchalykin), 1 ♀, 8 ♂ (MC). Altai Terr., near Blagoveschenka, Kuchukskoe Lake, 19 & 21.VII.2017 (M. Proshchalykin), 2 ♂ (MC); Blagoveschenka District, 18 km NNW Rodino, Kuchuk River, 22.VII.2017 (M. Proshchalykin), 1 ♀ (MC).

Distribution. Russia (Belgorod, Samara, Rostov, Volgograd and Astrakhan Prov., Krasnodar Terr., *Dagestan and Crimea Rep., Orenburg Prov., *Altai Terr.). – Spain, France, Austria, Italy, Croatia, Albania, Greece, Czech Republic, Slovakia, Hungary, Romania, Bulgaria, Algeria, Ukraine, Cyprus, Turkey, Syria, Israel, Saudi Arabia, Iran, Turkmenistan, Kazakhstan, Mongolia; Africa.

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New records of bees of the genus *Hylaeus* Fabricius (Hymenoptera: Colletidae) in the European part of Russia and North Caucasus

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Новые находки пчел рода *Hylaeus* Fabricius (Hymenoptera: Colletidae) из европейской части России и с Северного Кавказа

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Abstract. As a supplement to a previously published study on Russian *Hylaeus* species, here we report further records of twenty one species from the European part of Russia and North Caucasus. Of which four species newly recorded from North Caucasus, *Hylaeus cornutus* Curtis, 1831 (Krasnodar Territory, Dagestan and Adygea Republics), *H. difformis* (Eversmann, 1852) (Krasnodar Territory), *H. leptocephalus* (Morawitz, 1871) (Krasnodar Territory), and *H. punctulatissimus* Smith, 1842 (Krasnodar Territory), and two species newly recorded from the south of the European part of Russia (Volgograd Province), *Hylaeus incongruus* Förster, 1871 and *H. lineolatus* (Schenck, 1861).

Key words. Fauna, Apiformes, Western Palaearctic region.

Резюме. В дополнение к предыдущим исследованиям рода *Hylaeus* в России приводится список 21 вида из европейской части и Северного Кавказа. Из них 4 вида впервые указываются для фауны Северного Кавказа: *Hylaeus cornutus* Curtis, 1831 (Краснодарский край, Республика Дагестан, Республика Адыгея), *H. difformis* (Eversmann, 1852) (Краснодарский край), *H. leptocephalus* (Morawitz, 1871) (Краснодарский край), *H. punctulatissimus* Smith, 1842 (Краснодарский край) и 2 вида для юга европейской части (Волгоградская область): *Hylaeus incongruus* Förster, 1871 и *H. lineolatus* (Schenck, 1861).

Ключевые слова. Фауна, Apiformes, Западная Палеарктика.

Introduction

The genus *Hylaeus* Fabricius, 1793 is a worldwide lineage of bees constituting a rather small percentage of the total bee fauna (Michener, 2007). The genus comprises presently 52 subgenera and about 600 species (Michener, 2007; Dathe, 2015). More than 200 species are known from the Palaearctic region with centres of its diversity in the Mediterranean Basin and Central Asia. The fauna of Russia has recently been

studied quite well and includes 57 species (Eversmann, 1852; Osytshnjuk, 1970; Osytshnjuk et al., 1978; Proshchalykin, Dathe, 2012, 2016a, 2016b; Proshchalykin, Astafurova, 2016; Proshchalykin et al., 2017).

This paper is based on a vast material collected in 2015 in the North Caucasus and southeast of the European part of Russia and on the collection of the Zoological Institute, St Petersburg (ZISP).

The following abbreviations for collectors are used: AS – A. Shestakov, LW – L. Wollmann, MM – M. Mokrousov, MP – M. Proshchalykin, SB – S. Belokobylskij, VL – V. Loktionov, VR – V. Rudolf. Distribution of *Hylaeus* species generally follow Proshchalykin (2017). New records are marked with an asterisk (*).

List of species

***Hylaeus* (*Abrupta*) *cornutus* Curtis, 1831**

Material examined. Russia: Volgograd Prov., Sarepta [=Volgograd], 15.VIII.1929, Shestakov's collection, 1 ♀. Krasnodar Terr., Sochi, 24.IX.1926 (AS), 2 ♂. *Adygea, Shuntuk, Maykop, 12.VII.1938 (Andreeva), 1 ♀. *Dagestan Rep., 9 km SSE Kochubey, 21 & 22.VII.2015 (MP, VL, MM, SB), 1 ♂.

Distribution. Russia (European part, *North Caucasus, Crimea). – Europe, North Africa, Armenia, Azerbaijan, Turkey, Syria, Israel, Iran.

***Hylaeus* (*Dentigera*) *breviceps* Morawitz, 1876**

Material examined. Russia: Dagestan Rep., 12 km SSW Kizlyar, 22 & 23.VII.2015 (MP, VL, MM, SB), 1 ♀, 3 ♂.

Distribution. Russia (North Caucasus, Crimea). – Europe, Tajikistan.

***Hylaeus* (*Dentigera*) *brevicornis* Nylander, 1852**

Material examined. Russia: Dagestan Rep., 9 km SSE Kochubey, 21 & 22.VII.2015 (MP, VL, MM, SB), 3 ♂; 12 km SSW Kizlyar, 22 & 23.VII.2015 (MP, VL, MM, SB), 5 ♀, 4 ♂.

Distribution. Russia (European part, North Caucasus, Crimea, Siberia). – Europe, North Africa, Azerbaijan, Turkey, Israel, Iran, Central Asia.

***Hylaeus* (*Dentigera*) *gredleri* Förster, 1871**

Material examined. Russia: Astrakhan Prov., 13 km S Liman, 24–26.VII.2015 (MP, VL, MM, SB), 4 ♀. Dagestan Rep., 9 km SSE Kochubey, 21 & 22.VII.2015 (MP, VL, MM, SB), 8 ♀; 12 km SSW Kizlyar, 22 & 23.VII.2015 (MP, VL, MM, SB), 4 ♂.

Distribution. Russia (European part, North Caucasus, Ural, Western Siberia). – Europe, North Africa, Azerbaijan, Turkey, Lebanon.

***Hylaeus* (*Hylaeus*) *angustatus* (Schenck, 1861)**

Material examined. Russia: Volgograd Prov., Sarepta [=Volgograd], 23–26.VII.1926 (AS), 4 ♂. Dagestan Rep., 9 km SSE Kochubey, 21 & 22.VII.2015 (MP, VL, MM, SB), 4 ♀; 12 km SSW Kizlyar, 22 & 23.VII.2015 (MP, VL, MM, SB), 2 ♀, 3 ♂.

Distribution. Russia (European part, North Caucasus, Crimea, Siberia). – Europe, North Africa, Azerbaijan, Turkey, Lebanon, Iran, Mongolia.

***Hylaeus* (*Hylaeus*) *annulatus* (Linnaeus, 1758)**

Material examined. Russia: Leningrad Prov., Peterburg [=St. Petersburg], Popovka, 26.VII.1901 & 7.VII.1926 (LW), 3 ♂. Yaroslavl Prov., Yaroslavl, 2–26.VII.1928 (AS), 1 ♀, 3 ♂. Kostroma Prov., Kostroma, 10.VII.1924, Gussakovskij's collection, 1 ♀.

Distribution. Russia (European part, Crimea, Ural, Siberia, Far East). – Europe, Armenia, Azerbaijan, Mongolia, North America.

***Hylaeus* (*Hylaeus*) *communis* Nylander, 1852**

Material examined. Russia: Yaroslavl Prov., Yaroslavl, 13–17.VII.1927 (AS), 13 ♀. Dagestan Rep., 9 km SSE Kochubey, 21 & 22.VII.2015 (MP, VL, MM, SB), 4 ♂; 12 km SSW Kizlyar, 22 & 23.VII.2015 (MP, VL, MM, SB), 1 ♀.

Distribution. Russia (European part, North Caucasus, Crimea, Ural, Siberia, Far East). – Europe, North Africa, Azerbaijan, Turkey, Lebanon, Iran, Central Asia, Kazakhstan.

***Hylaeus* (*Hylaeus*) *leptocephalus* (Morawitz, 1871)**

Material examined. Russia: Belgorod Prov., Borisovka, 20.VII.1957 (Wu), 1 ♀. Volgograd Prov., Sarepta [=Volgograd], Chepurinskaya balka, 23.VII.1926 & 16.VIII.1929 (AS), 2 ♂; 6 km SW Kamyshin, 10 & 25.VII.2015 (MP, VL, MM, SB), 4 ♂. *Krasnodar Terr., Sochi, 31.IX.1926 (AS), 1 ♂.

Distribution. Russia (European part, *North Caucasus, Siberia, Far East). – Europe, Armenia, Azerbaijan, Iran.

***Hylaeus* (*Hylaeus*) *moricei* (Friese, 1898)**

Material examined. Russia: Kalmykia Rep., 22 km E Yashkul', 16–18.VII.2015 (MP, VL, MM, SB), 1 ♀; 17 km SWW Artezian, Kuma River, 18–21.VII.2015 (MP, VL, MM, SB), 5 ♀, 5 ♂. Krasnodar Terr., 3 km S Lazorevskoe, 20.VIII.1952 (VR), 5 ♂.

Distribution. Russia (European part, North Caucasus, Eastern Siberia). – Europe, North Africa, Armenia, Azerbaijan, Turkey, Iran.

***Hylaeus* (*Hylaeus*) *scutellaris* Morawitz, 1874**

Material examined. Russia: Krasnodar Terr., 3 km S Lazorevskoe, 20.VIII.1952 (VR), 2 ♀, 6 ♂.

Distribution. Russia (European part, North Caucasus). – Azerbaijan, Afghanistan, Turkmenistan, Uzbekistan.

***Hylaeus* (*Koptogaster*) *punctulatissimus* Smith, 1842**

Material examined. Russia: *Krasnodar Terr., 3 km S Lazorevskoe, 20.VIII.1952 (VR), 1 ♀.

Distribution. Russia (European part, *North Caucasus, Crimea). – Europe, North Africa, Azerbaijan, Turkey, Israel.

***Hylaeus* (*Lambdopsis*) *dilatatus* (Kirby, 1802)**

Material examined. Russia: Yaroslavl Prov., Yaroslavl, 22.VI.1925 (AS), 1 ♂. Volgograd Prov., Sarepta [=Volgograd], 16.VIII.1929, Shestakov's collection, 3 ♀. Krasnodar Terr., Sochi, 27.IX.1926 (AS), 1 ♀. Dagestan Rep., 9 km SSE Kochubey, 21 & 22.VII.2015 (MP, VL, MM, SB), 1 ♀, 5 ♂; 12 km SSW Kizlyar, 22 & 23.VII.2015 (MP, VL, MM, SB), 8 ♀, 4 ♂.

Distribution. Russia (European part, North Caucasus, Crimea, Ural, Siberia). – Europe, North Africa, Azerbaijan, Turkey, Kazakhstan.

***Hylaeus* (*Paraprosopis*) *lineolatus* (Schenck, 1861)**

Material examined. Russia: *Volgograd Prov., 6 km SW Kamyshin, 10 & 28.VII.2015 (MP, VL, MM, SB), 3 ♀, 5 ♂; 18 km NNE Kalach-on-Don, 10–13.VII.2015 (MP, VL, MM, SB), 1 ♂. Krasnodar Terr., Sochi, 27.IX.1926 (AS), 1 ♂.

Distribution. Russia (European part, North Caucasus, Crimea). – Europe, North Africa, Azerbaijan, Turkey, Jordan, Lebanon, Israel.

***Hylaeus* (*Paraprosopis*) *sinuatus* (Schenck, 1853)**

Material examined. Russia: Krasnodar Terr., 3 km S Lazorevskoe, 20.VIII.1952 (VR), 2 ♂.

Distribution. Russia (European part, North Caucasus, Crimea). – Europe, North Africa, Azerbaijan, Turkey, Iraq, Iran.

***Hylaeus* (*Paraprosopis*) *styriacus* Förster, 1871**

Material examined. Russia: Krasnodar Terr., 3 km S Lazorevskoe, 8 & 20.VIII.1952 (VR), 3 ♀.

Distribution. Russia (European part, North Caucasus, Crimea, Western Siberia). – Europe, Armenia, Azerbaijan, Turkey, Lebanon, Iran.

***Hylaeus* (*Patagiata*) *difformis* (Eversmann, 1852)**

Material examined. Russia: Yaroslavl Prov., Yaroslavl, 3–14.VII.1928 (AS), 5 ♂. *Krasnodar Terr., Krasnaya polyana, 30.VI.1909 (A. Yakovlev), 1 ♂.

Distribution. Russia (European part, North Caucasus, Crimea, Ural, Western Siberia, Far East). – Europe, North Africa, Azerbaijan, Turkey, Iran, China.

***Hylaeus* (*Prosopis*) *confusus* Nylander, 1852**

Material examined. Russia: Leningradskaya Prov., Petersburg [=St Petersburg], Popovka, 7.VII.1926 (LW), 3 ♀. Belgorod Prov., Borisovka, 27.VI.1959 (Wu), 1 ♂.

Distribution. Russia (European part, North Caucasus, Crimea, Siberia, Far East). – Europe, Armenia, Azerbaijan, Turkey, Central Asia, Mongolia, China, Japan.

***Hylaeus* (*Prosopis*) *gibbus* Saunders, 1850**

Material examined. Russia: Yaroslavl Prov., Berditsino, 3.VII.1927 (A. Yakovlev), 2 ♀, 2 ♂. Krasnodar Terr., Sochi, Razdol'noe, 9–31.VIII.1926 (AS), 6 ♂.

Distribution. Russia (European part, North Caucasus, Crimea). – Europe, North Africa, Azerbaijan, Turkey, Iraq, Iran.

***Hylaeus* (*Prosopis*) *incongruus* Förster, 1871**

Material examined. Russia: *Volgograd Prov., 6 km SW Kamyshin, 10 & 28.VII.2015 (MP, VL, MM, SB), 5 ♀, 5 ♂.

Distribution. Russia (European part, North Caucasus, Eastern Siberia). – Europe.

***Hylaeus* (*Prosopis*) *meridionalis* Förster, 1871**

Material examined. Russia: Volgograd Prov., Sarepta [=Volgograd], Chepurinskaya balka 12.VIII.1928 (AS), 4 ♂; 6 km SW Kamyshin, 28.VII.2015 (MP, VL, MM, SB), 2 ♂.

Distribution. Russia (European part, North Caucasus). – Europe, North Africa, Azerbaijan, Turkey, Jordan, Israel.

***Hylaeus* (*Prosopis*) *variegatus* (Fabricius, 1798)**

Material examined. Russia: Krasnodar Terr., 3 km S Lazorevskoe, 8 & 20.VIII.1952 (VR), 5 ♂.

Distribution. Russia (European part, North Caucasus, Crimea, Ural, Siberia, Far East). – Europe, North Africa, Armenia, Azerbaijan, Turkey, Syria, Lebanon, Iran, Central Asia, Mongolia, China.

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Contribution to the fauna of the genus *Andrena* Fabricius (Hymenoptera: Apoidea: Andrenidae) of Western Siberia

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К фауне рода *Andrena* Fabricius (Hymenoptera: Apoidea: Andrenidae) Западной Сибири

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Abstract. In addition to a previously published study about Siberian *Andrena* bees here report 63 new or little known species for the fauna of Western Siberia. Seven species, *Andrena colonialis* Morawitz, 1886, *A. enslinella* Stoekhert, 1924, *A. florivaga* Eversmann, 1852, *A. flavipes* Panzer, 1799, *A. hypopolia* Schmiedeknecht, 1884, *A. pallitarsis* Pérez, 1903, and *A. proxima* (Kirby, 1802), are recorded from Siberia for the first time, and 12 species are newly recorded from Western Siberia. A total of 72 species are currently known from Western Siberia.

Key words. Apiformes, biodiversity, new records, Russia, Palaearctic region.

Резюме. В дополнение к предыдущим данным по пчелам рода *Andrena* Сибири приводится список новых и малоизвестных для фауны Западной Сибири видов. Из них 7 видов [*Andrena colonialis* Morawitz, 1886, *A. enslinella* Stoekhert, 1924, *A. florivaga* Eversmann, 1852, *A. flavipes* Panzer, 1799, *A. hypopolia* Schmiedeknecht, 1884, *A. pallitarsis* Pérez, 1903 и *A. proxima* (Kirby, 1802)] впервые указываются для Сибири и 12 видов – для Западной Сибири. Всего в фауне андрен Западной Сибири в настоящее время известны 72 вида.

Ключевые слова. Apiformes, биоразнообразие, новые находки, Россия, Палеарктика.

Introduction

Andrena Fabricius, 1775 is one of the largest bee genus in the World. It unite about 1500 species and almost 950 among them are known from the Palearctic region (Gusenleitner, Schwarz, 2002). Genus is distributed throughout the Holarctic region, south in Western Hemisphere to Panama, where one species occurs in the tropical lowlands, in Africa through the East African highlands and south to the Cape of Good Hope, and in Asia to the mountains of southern India and of Malaysia (Michener, 2007).

Currently 226 species are known in the fauna of Russia (Proshchalykin et al., 2017), but the *Andrena* fauna of Siberia is particularly unexplored. Up to end of XIX century Siberia in Russia was recognized as the territory from Ural Mountains in the west to the Pacific Ocean in the east. Very often at that time the entomologists used for the type locality «Siberia occidentalis» (Western Siberia) or «Siberia orientalis» (Eastern Siberia, Far East); even now many foreign entomologists divide Siberia thereby. Currently, Siberia includes 14 administrative regions of the Russian Federation with an area about 9.7 millions sq. m (Yurkovskaya et al., 2008) and is divided into two large parts: Western Siberia (Tyumen, Omsk, Tomsk, Novosibirsk and Kemerovo Provinces, Altai Territory, Altai Republic) and Eastern Siberia (Khakassia and Tyva Republics, Krasnoyarsk Territory, Irkutsk Province, Buryatia and Sakha Republic (Yakutia), Zabaykalskiy Territory).

Here we continue our study of *Andrena* bees of Siberia started in 2010 (Sidorov, Eremeeva, 2010; Sidorov, 2016; Sidorov, Proshchalykin, 2017a, 2017b). The aim of the present paper is publication of the previously unknown taxa records of the *Andrena* species in Western Siberia. *Andrena wilkella* (Kirby, 1802) [as *A. convexiuscula* (Kirby, 1802)], *Andrena thoracica* (Fabricius, 1775), *A. marginata* Fabricius, 1776 [as *A. cetii* (Schrank, 1781)] and *A. pilipes* Fabricius, 1781 [as *Apis carbonaria* auct.] were the first species of the genus to be recorded from Western Siberia (Kemerovo Prov. and Altai Terr.) (Wnukowskij, 1926, 1927) and a total of two *Andrena* taxa have since been described from Western Siberia: *Andrena altaica* Lebedev, 1932 and *Andrena callopyrrha kozlovi* Osytshnjuk, 1994 [=*Andrena callopyrrha* Cockerell, 1929] (Proshchalykin, Lelej, 2013). Fifty three *Andrena* species have been recorded from Western Siberia so far (Wnukowsky, 1936; Lavrov, 1927; Sedykh, 1974; Shumakova et al., 1982; Konusova, 1998; Konusova, Yanyushkin, 2000; Osytshnjuk et al., 2005, 2008; Sidorov, Eremeeva, 2010; Sidorov, 2016).

Based on a comprehensive study of specimens in various collections we here list 63 species of the genus *Andrena*, with 12 species newly recorded from Western Siberia, seven of which are newly recorded from Siberia as a whole. A total 72 species of the genus *Andrena* are currently known from Western Siberia.

Material and methods

The results presented in this paper are based on 3000 specimens mainly collected in the last few decades by entomologists in Western Siberia, that are currently housed in the collections of the Kemerovo, Tomsk and Novosibirsk State Universities, Scientific Center of the East Asia Terrestrial Biodiversity FEB RAS (Vladivostok), Zoological Institute RAS (St Petersburg) and Institute of Systematics and Ecology of Animals SB RAS (Novosibirsk). For detailed synonymy of *Andrena* species see Gusenleitner and Schwarz (2002), the general distribution follows Proshchalykin et al. (2017). We have used the following abbreviations for collectors: AL – A.S. Lelej; DS – D.A. Sidorov; MP – M.Yu. Proshchalykin; NE – N.I. Eremeeva; OK – O.L. Konusova; SB – S.A. Belokobylskij; SYa – S.N. Yakovleva; VL – V.M. Loktionov. New distribution records are marked with an asterisk (*).

List of species

***Andrena angarensis* Cockerell, 1929**

Material examined. Russia. *Tomsk Prov.:* Tomsk, 29.VI.1998, OK, 1 ♀. *Kemerovo Prov.:* 5 km NE of Prokopyevsk, 16.VII.2007, DS, 1 ♀; Malaya Salairka, 13.VII.2010, S. Luzyanin, 2 ♀. *Altai Terr.:* 8 km S of Biysk, Ust'-Katun', 6.VII.2007, SB, 1 ♀, 1 ♂; Biysk, 6.VII.2007, SB, 1 ♀, 4 ♂; 30 km S of Kurya, Savvushka, 31.VII–1.VIII.2007, SB, 2 ♂. *Altai Rep.:* 20 km SE of Onguday, 6.VII.2007, SB, 1 ♂; Chemal, 19–21.VII.2007, SB, 1 ♀; Ust'-Koksa, 18.VII.2013, MP, VL, 2 ♀; Kayancha, 15.VIII.2014, DS, 3 ♀; 8 km SEE of Onguday, 27.VI–15.VII.2016, MP, VL, 1 ♀, 2 ♂; 14 km SE of Aktash, 1.VII.2016, MP, VL, 1 ♀, 1 ♂; 17 km W of Aktash, Boki River, 13.VII.2016, MP, VL, 1 ♂.

*Distribution***.** Russia (*Tomsk and Kemerovo Prov., *Altai Rep., Eastern Siberia, Far East). – Kyrgyzstan, Mongolia.

Andrena argentata **Smith, 1844**

Material examined. Russia. *Tomsk Prov.:* Kireyevsk, 1.VIII.1996, OK, 1 ♀; 7.VIII.1998, OK, 1 ♀; 3.VIII.1999, OK, 1 ♀. *Novosibirsk Prov.:* Zavyalovo, 22.VII.2011, A. Singatullina, 1 ♀. *Altai Terr.:* Barnaul, 11.V.2006, Yu. Danilov, 2 ♂.

*Distribution***.** Russia (European part, Ural, *Tomsk and *Novosibirsk Prov., Altai Terr., Eastern Siberia, Far East). – Europe, Caucasus, Kazakhstan.

Andrena atrata **Friese, 1887**

Material examined. Russia. *Novosibirsk Prov.:* Karasuk, 9.VI.1982, A. Barkalov, 1 ♂. *Kemerovo Prov.:* Shabanovo, 29.VI–3.VII.1998, NE, 7 ♀, 2 ♂.

*Distribution***.** Russia (European part, Ural, *Novosibirsk and *Kemerovo Prov., Eastern Siberia). – Europe, Caucasus, Kazakhstan.

Andrena barbilabris **(Kirby, 1802)**

Material examined. Russia. *Tomsk Prov.:* Tomsk, 23.VI.1997, OK, 1 ♀; 21.V.1999, OK, 1 ♂; ibid., 2.VI.1999, OK, 1 ♂; ibid., 6.VI.2000, OK, 2 ♀; ibid., 26.V.2002, OK, 1 ♀. *Altai Terr.:* Barnaul, 11.V.2006, Yu. Danilov, 1 ♂.

*Distribution***.** Russia (European part, Ural, Tyumen and Tomsk Prov., *Altai Terr., Eastern Siberia, Far East). – Europe, Turkey, Kazakhstan, Mongolia, China, Japan, Northern America.

Andrena bicolor **Fabricius, 1775**

Material examined. Russia. *Tomsk Prov.:* Tomsk distr., 41st km station, 27.IV–2.V.1997, OK, 4 ♀; ibid., 10.V.1998, OK, 2 ♂; ibid., 24.V.1998, OK, 1 ♀, 1 ♂; Tomsk, 30.VI.1997, OK, 1 ♀; Prosekino, 6.VII.1997, OK, 1 ♂; Tomsk, Sennaya Kurya 14.VII.1999, OK, 1 ♂; 40 km SE of Tomsk, 8–14.V.2000, OK, 4 ♂; ibid., 14–20.V.2001, OK, 2 ♀; Berlinka, 24.IV.2001, D. Kurbatskiy, 1 ♀; 5 km S of Tomsk, 9.VI.2001, OK, 1 ♂. *Kemerovo Prov.:* 8 km SE of Kemerovo, 18.V.1998, NE, 3 ♀; Prokopyevsk, 13.V.1999, NE, 1 ♀; Kemerovo, 22.IV.2001, NE, 1 ♂; ibid., 22.IV–5.V.2004, DS, 3 ♀, 1 ♂; 17 km S of Kemerovo, 19.V.2001, NE, 1 ♀; 4 km NW of Zhuravlevo, 2.VII.2006, SYa, 1 ♀; ibid., 30.V.2009, DS, 1 ♀; ibid., 6.VII.2011, DS, 1 ♀; 5 km NE of Prokopyevsk, 14.VII.2006, DS, 2 ♀; ibid., 11.V.2008, DS, 1 ♂; ibid., 9.V.2009, DS, 3 ♀, 1 ♂; 7 km SW of Guryevsk, 5.VII.2007, A. Starovoytova, 1 ♀; Makarakskiy, 6–10.VII.2007, DS, 1 ♀, 3 ♂; 10 km NW of Kemerovo, 16.V.2008, DS, 5 ♀; ibid., 15.V.2010, DS, 1 ♀; 4 km S of Taradanovo, 2.VI.2008, DS, 3 ♀; 2 km SE of Chumay, 9.VII.2008, A. Kostyunin, 1 ♀; 10 km SW of Mundybash, 29.VII.2007, DS, 1 ♀; 10 km SW of Gorskino, 8.VII.2009, N. Vasyukova, 1 ♂; 10 km NE of Sheveli, 15.VII.2009, DS, 1 ♂; Azhendarovo biostation, 3.VIII.2009, DS, 1 ♀; 12 km NW of Kemerovo, 1.VII.2012, D. Efimov, 1 ♀. *Altai Rep.:* Souzga, 18.VII.1958, 1 ♂; Artybash, 24.VII.2007, SB, 1 ♀; 24 km NW of Aktash, 30.VI.2016, MP, VL, 1 ♀, 2 ♂; 14 km SE of Aktash, 1–4.VII.2016, MP, VL, 2 ♂; 15 km SE of Kuray, 5–6.VII.2016, MP, VL, 1 ♂; 5 km SE of Chagan-Uzun, 11-12.VII.2016, MP, VL, 1 ♀.

*Distribution***.** Russia (European part, Ural, *Tomsk and Kemerovo Prov., *Altai Rep., Eastern Siberia). – Europe, North Africa, Caucasus, Turkey, Israel, Iran, Mongolia, China.

Andrena chrysopyga **Schenck, 1853**

Material examined. Russia. *Omsk Prov.:* Krasny Oktyabr', 25.VI.2011, A. Byvaltsev, 1 ♀; Bol'shoy Atmas, 28.VI.2011, A. Byvaltsev, 1 ♀; ibid. 14–15.VI.2012, A. Byvaltsev, 4 ♀; ibid. 15–16.VI.2012, A. Proskuryakova, 5 ♀; ibid. 15.VI.2012, K. Belova, 1 ♀; Tatarka, 13.VI.2012, A. Proskuryakova, 1 ♀. *Tomsk Prov.:* Desyatovo, 19.VI.1990, OK, 1 ♂. *Kemerovo Prov.:* 4 km NW of Zhuravlevo, 4.VII.1995, N. Konovalchik, 1 ♂; ibid. 23–27.VI.2000, NE, 2 ♀; ibid. 28–30.VI.2006, SYa, 1 ♀, 1 ♂; ibid. 3–8.VII.2006, DS, 2 ♀; ibid. 29.V.2009, DS, 1 ♀; 31.VII.2009, D. Efimov, 1 ♀; Shabanovo, 10–16.VII.1995, NE, 2 ♂; ibid. 28.VI.1998, NE, 1 ♀; ibid. 29.VI.1998, Erofeeva, 1 ♀; ibid. 30.VI.1998, N. Kornienko, 1 ♀; ibid. 1.VII.1998, Kolmakova, 1 ♀; ibid. 1.VII.1998, N. Mishov, 2 ♀; ibid. 3 &4.VII.1998, NE, 3 ♂; ibid. 4.VII.1998, O. Pastushenko, 1 ♀; 5 km S of Krasnoe, 8.VI.2008, DS, 5 ♀, 3 ♂; 10 km SW of Gorskino, 28.VI.2009, A. Kapustina, 1 ♂; ibid. 8.VII.2009, N. Vasyukova, 3 ♂; ibid. 9.VII.2009, I. Korotkova, 1 ♂; ibid. 9.VII.2009, A. Topolya, 1 ♂; Podyakovo, 1.VII.2010, N. Teplova, 1 ♀; Shestakovo, 9.VI.2015, D. Efimov, 1 ♂. *Altai Rep.:* 14 km SE of Aktash, 1–4.VII.2016, MP, VL, 3 ♀.

*Distribution***.** Russia (European part, Ural, *Omsk, *Tomsk and *Kemerovo Prov., Altai Terr., *Altai Rep., Eastern Siberia). – Europe, Caucasus, Turkey, Kyrgyzstan, Kazakhstan.

Andrena chrysosceles **(Kirby, 1802)**

Material examined. Russia. *Omsk Prov.:* Omsk, 7.V.1985, A. Barkalov, 1 ♂. *Tomsk Prov.:* Tomsk, 25.V.1996, OK, 1 ♂; ibid. 24.VI–1.VII.1996, OK, 2 ♀; ibid. 1–14.V.1997, OK, 5 ♂; ibid. 16–25.VI.1997, OK, 4 ♀; ibid. 27–31.V.1998, OK, 1 ♀,

1 ♂; ibid. 3.VII.1998, OK, 1 ♀; ibid. 20.V.1999, OK, 1 ♂; ibid. 23.VI.1999, OK, 1 ♀; ibid. 29.V–6.VI.2000, OK, 2 ♀; ibid. 22.VI.2000, OK, 1 ♀; Tomsk distr., 41st km station, 5.VI.1999, OK, 1 ♀; Kolarovo, 20.VI.2000, L. Grishaev, 3 ♀. *Kemerovo Prov.:* Kemerovo, 31.V.1999, NE, 1 ♀; ibid. 14.VII.2007, T. Khorenkova, 1 ♀; 4 km NW of Zhuravlevo, 13.VI.1999, NE, 1 ♀; 7 km SW of Guryevsk, 1.VII.2007, C. Baranova, 1 ♀; ibid. 10.VII.2007, N. Toropova, 1 ♀; Makarakskiy, 3–7.VII.2007, SYa, 4 ♀, 1 ♂; 9 km W of Taradanovo, 1.VI.2008, DS, 1 ♀; 15 km W of Kondoma, 22.VII.2008, DS, 1 ♀; 10 km NE of Sheveli, 15.VII.2009, DS, 1 ♀; Azhendarovo biostation, 2–3.VIII.2009, DS, 3 ♀; 2 km E of Abyshevo, 4.VI.2015, DS, 2 ♀; 17 km NW of Kemerovo, 9.VII.2015, D. Efimov, 1 ♂. *Altai Rep.:* Ust'-Koksa, 18.VII.2013, MP, VL, 3 ♀.

*Distribution***.** Russia (European part, Ural, *Omsk, *Tomsk and Kemerovo Prov., *Altai Rep.). – Europe, Caucasus, Turkey, Kazakhstan.

Andrena cineraria **(Linnaeus, 1758)**

Material examined. Russia. *Tomsk Prov.:* Kireyevsk, 27.VI.1989, OK, 1 ♂; ibid. 16.VII–8.VIII.1995, OK, 2 ♀; Tomsk, 17.VI.1990, OK, 1 ♂; ibid. 29.VI.1995, OK, 1 ♂; ibid. 27.VI.1996, Peshkova, 1 ♂; ibid. 27.VI.1997, OK, 1 ♀; ibid. 14.VII.1999, Yanyushkin, 1 ♀; ibid. 6.VI.2000, OK, 1 ♂; ibid. 29.VI.2000, Lukyanova, 1 ♀; ibid. 28.V.2001, OK, 1 ♂; ibid. 19.VI.2001, L. Grishaev, 1 ♀; ibid. 22.VI.2001, OK, 1 ♀; Anikino, 12.VI.1995, OK, 1 ♀; 1.VI.1999, OK, 1 ♂; Kislovka, 26.VI.1995, OK, 1 ♀; Khaldeyevo, 18.VII.1996, OK, 1 ♀; Tomsk, Sennaya Kurya, 20.VI.2001, OK, 1 ♂. *Novosibirsk Prov.:* Chany biostation, 24.VI.1985, A. Kharitonov, 1 ♂. *Kemerovo Prov.:* Podyakovo, 15.VII.1989, Khlebnikov, 1 ♀; 1.VII.1993, Posokhina, 1 ♀; 17 km S of Kemerovo, 7–9.1994, Eremkina, 1 ♀; Azhendarovo biostation, 7.VII.1996, K. Zubko, 1 ♀; Kemerovo, 15.VII.1996, NE, 1 ♀; ibid. 5.V.2001, NE, 1 ♂; ibid. 28.V.2004, NE, 2 ♀; ibid. 19.V.2006, DS, 2 ♀; ibid. 26.V.2006, SYa, 1 ♀, 1 ♂; ibid. 3.VI.2006, DS, 2 ♀; ibid. 16.V.2007, S. Luzyanin, 1 ♀; ibid., 3–7.VIII.2009, DS, 2 ♀; ibid. 19.VII.2015, E. Bibik, 2 ♀; Ursk, 28.VII.1997, NE, 1 ♀; Tisulskiy distr., Gorodok, 4.VII.1999, NE, Budnikov, 2 ♀; Prokopyevsk, 17.VI.1999, D. Efimov, 1 ♀; 4 km NW of Zhuravlevo, 29.VI.1999, N. Kornienko, 1 ♀; ibid. 26–27.VI.2000, NE, 2 ♀; ibid. 30.V.2009, DS, 1 ♀; 8.VII.2011, DS, 1 ♀; Makarakskiy, 3.VII.2007, SYa, 1 ♀; 5 km S of Krasnoe, 8.VI.2008, DS, 1 ♀; 10 km SW of Gorskino, 2.VII.2009, A. Topolya, 2 ♂; ibid. 3.VII.2009, S. Babayants, 1 ♂; 10 km NE of Sheveli, 15.VII.2009, DS, 1 ♀. *Altai Rep.:* 20 km SE of Onguday, 6.VII.2007, SB, 6 ♀; 15 km SE of Kuray, 29.VI–10.VII.2016, MP, VL, 22 ♀; 16 km SE of Inya, 29.VI.2016, MP, VL, 1 ♂; 24 km NW of Aktash, 30.VI.2016, MP, VL, 4 ♀; 14 km SE of Aktash, 1–4.VII.2016, MP, VL, 11 ♀; 5 km SE of Chagan-Uzun, 11–12.VII.2016, MP, VL, 1 ♀.

*Distribution***.** Russia (European part, Ural, Omsk, Tomsk, *Novosibirsk and Kemerovo Prov., Altai Terr., Eastern Siberia, Far East). – Europe, North Africa, Caucasus, Turkey, Israel, Iran, Afghanistan, Pakistan, Turkmenistan, Kazakhstan, Mongolia, China, Korea.

Andrena clarkella **(Kirby, 1802)**

Material examined. Russia. *Tomsk Prov.:* Tomsk, 3.V.1995, OK, 1 ♀; ibid., 5–7.V.1996, OK, 3 ♀, 1 ♂; ibid., 5.V.1999, OK, 1 ♀; ibid., 2.IV.2000, OK, 1 ♀; ibid., 24.IV.2000, OK, 1 ♀; Tomsk distr., 41st km station, 3.V.1996, OK, 2 ♀, 6 ♂; ibid., 10.V.1997, OK, 1 ♀; ibid., 2.V.1999, OK, 2 ♂; Kislovka, 18.IV.1997, OK, 1 ♀; Seversk, 3.V.1999, OK, 1 ♀; 40 km SE of Tomsk, 1.V.2000, OK, 1 ♂. *Kemerovo Prov.:* Alayevo, 25.V.2001, Kurbatskiy, 1 ♀; Prokopyevsk, 9.V.2006, DS, 1 ♂; 8 km E of Karakan, 2.VII.2015, D. Sushchov, 1 ♀.

*Distribution***.** Russia (European part, Ural, Tomsk, Novosibirsk and *Kemerovo Prov., Altai Terr., Krasnoyarsk Terr., Eastern Siberia, Far East). – Europe, North America.

Andrena coitana **(Kirby, 1802)**

Material examined. Russia. *Tomsk Prov.:* Tomsk distr., Kurya, 8.VII.1996, OK, 1 ♂; Tomsk, 27.VI–23.VII.1997, OK, 3 ♂; Tomsk distr., 41st km station, 9.VII.1998, OK, 1 ♂; ibid., 23–26.VII.1998, OK, 2 ♀; ibid., 4.VII.1999, OK, 1 ♂; Tomsk, Sennaya Kurya 5–14.VII.1999, OK, 2 ♀, 6 ♂; ibid., 2000, OK, 1 ♂; ibid., 20.VI.2001, OK, 1 ♀, 1 ♂. Kemerovo Prov.*:* Sredniaya Ters' River, 4.VIII.1996, M. Shcherbakov, 2 ♀; 2 km NE of Prokopyevsk, 27.VII.2003, DS, 1 ♀; Kemerovo, 16.VII.2004, NE, 1 ♂; 5 km NE of Bolshaya Talda, 18.VII.2004, DS, 1 ♂; 5 km NE of Prokopyevsk, 27.VII.2004, DS, 1 ♀; ibid., 9.VIII.2005, DS, 1 ♀; ibid., 26.VII.2007, DS, 1 ♂; ibid., 12.VIII.2008, DS, 2 ♀; 5 km SE of Urop, 21–23.VII.2006, DS, 2 ♂; ibid., 21–22.VII.2006, SYa, 1 ♀, 1 ♂; Leninsk-Kuznetskiy, 29.VII.2006, SYa, 1 ♀; Azhendarovo biostation, 6–8.VIII.2006, DS, 3 ♀, 1 ♂; ibid., 7.VIII.2009, DS, 1 ♀; 2 km SE of Chumay, 6–10.VII.2008, Yu. Samsonova, 2 ♀; ibid., 11.VII.2008, T. Karnaukhova, 1 ♀; 15 km W of Kondoma, 23.VII.2008, DS, 1 ♀; 10 km SW of Gorskino, 9.VII.2009, D. Yurikova, 1 ♂; 4 km NW of Zhuravlevo, 8.VII.2011, DS, 1 ♂; Malaya Salairka, 13.VII.2010, S. Luzyanin, 1 ♂. *Altai Terr.:* Malakhovo, 12.VII.1984, Kester, 1 ♀. *Altai Rep.:* 80 km SSE of Ust'-Koksa, 25–28.VII.2013, MP, VL, 1 ♂.

*Distribution***.** Russia (European part, Ural, Tomsk and Kemerovo Prov., Altai Terr., Eastern Siberia, Far East). – Europe, Caucasus, Turkey, Kyrgyzstan, Kazakhstan, China, Korea, Japan.

Andrena colonialis **Morawitz, 1886**

Material examined. Russia. *Novosibirsk Prov.:* 8 km SE of Berdsk, 2–3.VIII.2010, MP, 2 ♂; Karasuk biostation, 4–12.VII.2015, K. Belova, 4 ♂. *Altai Terr.:* Barnaul, 5 km SE of Yuzhniy, 23.VII.2005, Yu. Danilov, 1 ♀; 30 km S of Kurya,

Savvushka, 31.VII, 1.VIII.2007, SB, 1 ♀, Barnaul, Yuzhniy, 3.VIII.2010, MP, 3 ♀, 1 ♂; 9.VIII.2010, A. Byvaltsev, Yu. Danilov, 4 ♀.

*Distribution***.** Russia (European part, *Novosibirsk Prov., *Altai Terr.). – Europe, Caucasus.

***Andrena combinata* (Christ, 1791)**

Material examined. Russia. *Tomsk Prov.:* Tomsk, 27.VI.2000, OK, 1 ♂; Kireyevsk, 5.VII.2001, OK, 1 ♀. *Novosibirsk Prov.:* 40 km NE of Novosibirsk, 27–30.VI.1981, A. Teplishchev, 3 ♀. Kemerovo Prov.*:* 2 km NW of Kolmogorovo, 28.VI.1996, NE, 1 ♀; Azhendarovo biostation, 9.VII.1996, K. Zubko, 1 ♀; Shabanovo, 4.VII.1998, NE, 1 ♀; Makarakskiy, 3.VII.2007, S. Dronova, 1 ♀; ibid., 3–4.VII.2007, SYa, 2 ♀; 5 km NW of Podyakovo, 30.VI.2009, A. Korshunov, 1 ♀. *Altai Rep.:* 24 km NW of Aktash, 30.VI.2016, MP, VL, 1 ♀; 14 km SE of Aktash, 1–13.VII.2016, MP, VL, 19 ♀.

*Distribution***.** Russia (European part, Ural, Tomsk, *Novosibirsk and *Kemerovo Prov., *Altai Rep., Eastern Siberia, Far East). – Europe, North Africa, Caucasus, Turkey, Syria, Kyrgyzstan, Kazakhstan, Mongolia, China.

***Andrena comta* Eversmann, 1852**

Material examined. Russia. *Novosibirsk Prov.:* 8 km SE of Berdsk, 2–3.VIII.2010, MP, 2 ♂; Karasuk biostation, 4–12.VII.2015, K. Belova, 4 ♂. *Kemerovo Prov.:* 110 km W of Guryevsk, 12.VIII.1999, NE, 1 ♂; 5 km NE of Prokopyevsk, 27.VII.2004, DS, 1 ♀; ibid., 6.VIII.2005, DS, 1 ♀; 15.VIII.2009, DS, 1 ♀; Belovo, 12.VIII.2006, Gubkova, 1 ♀; 5 km SE of Starobachaty, 24.VIII.2007, S. Luzyanin, 1 ♂; 10 km SE of Ursk, 23.VII.2008, N. Teplova, 2 ♂. *Altai Terr.:* 30 km S of Kurya, Savvushka, 31.VII–1.VIII.2007, SB, 1 ♀, 5 ♂; Barnaul, Yuzhniy, 3.VIII.2010, MP, 1 ♂; Mel'nikovo, A. Byvaltsev, 19.VII.2015, 3 ♀; Solonovka, A. Byvaltsev, 21.VII.2015, 1 ♀; Yarovoye Lake, 22.VII.2015, A. Byvaltsev, 1 ♂.

*Distribution***.** Russia (Ural, *Novosibirsk and Kemerovo Prov., *Altai Terr., Eastern Siberia, Far East). – Europe, Kazakhstan, Mongolia, China, Japan.

***Andrena curvungula* Thomson, 1870**

Material examined. Russia. *Omsk Prov.:* Bol'shoy Atmas, 12.VI.2012, A. Proskuryakova, 1 ♀; ibid., 15.VI.2012, K. Belova, 1 ♀. *Tomsk Prov.:* Tomsk, 1972–1975, E. Grishina, 1 ♀; Prosekino, 26.VI.1997, OK, 1 ♂. *Kemerovo Prov.:* Kemerovo, 31.V.2005, NE, 1 ♀; 8 km E of Karakan, 12.VI.2006, DS, 1 ♂; 2 km NE of Prokopyevsk, 23.VI.2006, DS, 1 ♂; 5 km NE of Prokopyevsk, 23.VI.2006, DS, 1 ♀; 4 km NW of Zhuravlevo, 30.VI–8.VII.2006, DS, 10 ♀; 2 km E of Abyshevo, 4.VI.2015, DS, 1 ♀, 2 ♂. *Altai Rep.:* 16 km SE of Inya, 29.VI.2016, MP, VL, 1 ♀.

*Distribution***.** Russia (European part, Ural, *Omsk, Tomsk and Kemerovo Prov., *Altai Rep.). – Europe, Caucasus, Turkey, Kazakhstan.

***Andrena dentata* Smith, 1879**

Material examined. Russia. *Tomsk Prov.:* Tomsk, 29.VI.1996, OK, 1 ♀; ibid., 2.VII.1998, OK, 1 ♂; Tomsk distr., 41st km station, 23.VI.2007, OK, 1 ♀. *Kemerovo Prov.:* Azhendarovo biostation, 7.VII.1996, K. Zubko, 1 ♀; 17 km S of Kemerovo, 16.VI.2000, NE, 1 ♀; Podyakovo, 11.VI.2001, NE, 1 ♀; Kemerovo, 21.VII.2002, NE, 1 ♀; ibid., 16.V.2007, S. Luzyanin, 1 ♀; Promyshlennaya, 12.VII.2007, M. Samoshchenko, 1 ♀; 4 km S of Taradanovo, 2.VI.2008, DS, 2 ♀; 8 km E of Karakan, 3.VI.2008, DS, 1 ♀.

*Distribution***.** Russia (*Tomsk and Kemerovo Prov., Far East). – China, Korea, Japan.

***Andrena denticulata* (Kirby, 1802)**

Material examined. Russia. *Tomsk Prov.:* 20 km S of Asino, 2001, L. Grishaev, 4 ♀; Chernyshovka, 21.VII.1997, OK, 1 ♂; Kireyevsk, VII.1989, 1 ♂; ibid., 7.VIII.1999, OK, 1 ♂; 40 km SE of Tomsk, 21.VII.2000, OK, 1 ♀; Tomsk, 5.VI.2001, OK, 1 ♂; ibid., 9.VII.2001, OK, 1 ♂. *Kemerovo Prov.:* Ursk, 28.VII.1997, NE, 1 ♀; Salair, 23.VII.1999, N. Kornienko, 1 ♀; Sary-Chumysh, 10.VII.2002, NE, 1 ♂; 5 km NE of Bolshaya Talda, 18.VII.2004, DS, 1 ♀; Leninsk-Kuznetskiy, 29.VII.2006, SYa, 1 ♀; 15 km W of Kondoma, 22.VII.2008, DS, 4 ♀, 1 ♂; Azhendarovo biostation, 23–24.VII.2009, A. Korshunov, 2 ♀.

*Distribution***.** Russia (European part, Ural, Tomsk and Kemerovo Prov., Eastern Siberia, Far East). – Europe, Caucasus, Kazakhstan, Mongolia, China, Korea, Japan.

***Andrena ehnbergi* Morawitz, 1888**

Material examined. Russia. *Omsk Prov.:* Tatarka, 17.VI.2012, K. Belova, 1 ♂; ibid., A. Byvaltsev, 1 ♂. *Kemerovo Prov.:* Krasnoe, 13.VII.2004, DS, 1 ♀; 5 km NE of Prokopyevsk, 27.VII.2004, DS, 1 ♀; 4 km NW of Zhuravlevo, 8.VII.2006, DS, 1 ♀; ibid., 8.VII.2011, DS, 3 ♀; 5 km SE of Urop, 22–23.VII.2006, DS, 3 ♀; Krasnobrodskiy, 6.VIII.2007, S. Luzyanin, 1 ♀; 10 km SE of Ursk, 23.VII.2008, N. Teplova, 3 ♀; 5 km NE of Prokopyevsk, 15.VIII.2008, DS, 1 ♂; ibid., 15.VIII.2009,

DS, 2 ♀; Malaya Salairka, 13.VII.2010, S. Luzyanin, 3 ♀. *Altai Terr.:* Barnaul, Yuzhniy, 3.VIII.2010, MP, 1 ♀. *Altai Rep.:* N 50° 30′ E 86° 34′ Katun' River, 14.VIII.2014, DS, 4 ♀; Kayancha, 15.VIII.2014, DS, 6 ♀; 5 km SE of Chagan-Uzun, 11–12. VII.2016, MP, VL, 1 ♀; 17 km W of Aktash, Boki River, 13.VII.2016, MP, VL, 3 ♀, 1 ♂.

*Distribution***.** Russia (Ural, *Omsk and *Kemerovo Prov., *Altai Terr., *Altai Rep., Eastern Siberia, Far East). – Mongolia, China.

Andrena enslinella **Stoekhert, 1924**

Material examined. Russia. *Kemerovo Prov.:* Bekovo, 26.V.2001, NE, 1 ♂; 2 km E of Abyshevo, 4.VI.2015, DS, 1 ♂.

*Distribution***.** Russia (European part, Ural, *Kemerovo Prov.). – Europe, Caucasus, Turkey, Iran.

Andrena falsifica **Perkins, 1915**

Material examined. Russia. *Kemerovo Prov.:* 5 km NW of Kemerovo, 2.VI.1999, E. Zinchuk, 1 ♀; Prokopyevsk, 17.VI.1999, D. Efimov, 1 ♀; Bekovo, 26.V.2001, NE, 5 ♀; ibid., 20.V.2005, NE, 2 ♀; Kemerovo, 26.V.2006, DS, 2 ♀; 5 km NE of Prokopyevsk, 11.V.2008, DS, 1 ♀, 1 ♂; 10 km NW of Kemerovo, 14–16.V.2008, DS, 4 ♀; 15 km NW of Kemerovo, 22.V.2008, DS, 3 ♀, 1 ♂; 7 km NE of Karakan, 2.VI.2008, DS, 1 ♀; 4 km S of Taradanovo, 2.VI.2008, DS, 1 ♀; 8 km E of Karakan, 3.VI.2008, DS, 5 ♀; 15 km SE of Karakan, 4.VI.2008, DS, 5 ♀; 4 km NW of Zhuravlevo, 29–30.V.2009, DS, 15 ♀; 2 km E of Abyshevo, 4.VI.2015, DS, 9 ♀.

*Distribution***.** Russia (European part, Ural, *Kemerovo Prov., Eastern Siberia). – Europe, Caucasus.

Andrena florivaga **Eversmann, 1852**

Material examined. Russia. *Novosibirsk Prov.:* Chany biostation, 26.VI.1985, A. Kharitonov, 1 ♀. *Kemerovo Prov.:* 8 km E of Karakan, 3.VI.2008, DS, 2 ♀; 5 km NE of Prokopyevsk, 9.V.2009, DS, 5 ♂.

*Distribution***.** Russia (European part, Ural, *Novosibirsk and *Kemerovo Prov.). – Europe, Turkey, Iran, Kazakhstan.

Andrena flavipes **Panzer, 1799**

Material examined. Russia. *Altai Rep.:* 80 km SSE of Ust'-Koksa, 25–28.VII.2013, MP, VL, 1 ♀.

*Distribution***.** Russia (European part, Ural, *Altai). – Europe, North Africa, Caucasus, Turkey, Israel, Syria, Jordan, Iraq, Iran, Afghanistan, Central Asia, Kazakhstan, China, Nepal, India, Northern America.

Andrena fucata **Smith, 1847**

Material examined. Russia. *Tomsk Prov.:* Kireyevsk, 7.VII.1983, P. Fedorov, 1 ♀; ibid., 1.VII.1992, Chadova, 1 ♀; ibid., 23.VII.1995, OK, 1 ♀; Prosekino, 16.VI.1996, OK, 1 ♀; Tomsk, 16.VI.1997, OK, 1 ♂; ibid., 25.VI.1997, Kirilenko, 1 ♀; ibid., 11.VII.1999, OK, 1 ♀; ibid., 27.VI.2000, OK, 1 ♀; ibid., 19.VI.2001, L. Grishaev, 1 ♀; OK, 1 ♂; Tomsk distr., 41st km station, 13.VI.1998, OK, 1 ♀; ibid., 5.VI.1999, OK, 1 ♂; Kolarovo, 20.VI.2000, L. Grishaev, 1 ♀; Timiryazevo, 26.VI.2000, OK, 1 ♀; Berlinka, 6–24.VI.2001, D. Kurbatskiy, 2 ♀. *Kemerovo Prov.:* Podyakovo, 30.VI.1993, Volkov, Khozyainov, 1 ♀; ibid., 5.VII.2007, S. Shueva, 1 ♀; ibid., 1.VII.2010, N. Teplova, 1 ♀; Kemerovo, 10.VII.1995, NE, 1 ♀; ibid., 15.VII.1995, NE, 1 ♀; ibid., 5–28.V.2004, NE, 2 ♀; ibid., 14.VII.2004, DS, 1 ♀; ibid., 31.V.2005, DS, 1 ♀; ibid., 21.VI.2007, SYa, 1 ♀; ibid., 17.VII.2017, D. Starchikova, 1 ♀; 8 km SE of Kemerovo, 18.V.1998, NE, 1 ♀; Prokopyevsk, 17–18.VI.1999, D. Efimov, 3 ♂; 17 km S of Kemerovo, 11–16.VI.2000, NE, 1 ♀, 1 ♂; Sary-Chumysh, 4.VII.2002, NE, 1 ♀; 8 km E of Karakan, 12.VI.2006, SYa, 7 ♀, 4 ♂; Salair, 22.VI.2006, Mogilevtseva, 1 ♀; 4 km NW of Zhuravlevo, 29.VI–8.VII.2006, DS, 4 ♀; Makarakskiy, 1–7. VII.2007, SYa, 6 ♀; ibid., 3.VII.2007, S. Luzyanin, 1 ♀; ibid., 7.VII.2007, V. Tetenova, 1 ♀; 7 km SW of Guryevsk, 10.VII.2007, N. Toropova, 1 ♀; Cheryomushki, 26.VIII.2007, P. Pichugina, 1 ♂; 2 km SE of Chumay, 29.VI.2008, O. Barinova, 1 ♀; 5 km NE of Novokuznetsk, 7.VI.2008, DS, 1 ♂; 10 km N of Polutornik, 1–11.VII.2009, DS, 16 ♀; ibid., 6.VII.2009, M. Masalkina, 1 ♀; Azhendarovo biostation, 1–20.VII.2010, A. Korshunov, 1 ♂; 17 km S of Kemerovo, 16.VII.2010, I. Moor –1 ♀; 2 km E of Abyshevo, 4.VI.2015, DS, 1 ♀. *Altai Rep.:* Ust'-Koksa, 18.VII.2013, MP, VL, 1 ♀; Katunskiy ridge, Taymenye Lake, 23.VII.2013, MP, VL, 2 ♀; 14 km SE of Aktash, 2–4.VII.2016, MP, VL, 1 ♀; 15 km SE of Kuray, 5–6.VII.2016, MP, VL, 4 ♀.

*Distribution***.** Russia (European part, Ural, *Tomsk and Kemerovo Prov., *Altai Rep., Eastern Siberia). – Europe, Caucasus, Turkey, Kazakhstan.

Andrena fulvago **(Christ, 1791)**

Material examined. Russia. *Kemerovo Prov.:* Prokopyevsk, 17.VI.1999, D. Efimov, 1 ♀; Bekovo, 20.V.2005, NE, 1 ♀. *Altai Rep.:* 15 km SE of Kuray, 5–6.VII.2016, MP, VL, 2 ♀.

*Distribution***.** Russia (European part, Ural, *Kemerovo Prov., *Altai Rep., Eastern Siberia). – Europe, Caucasus, Turkey.

Andrena fulvida Schenck, 1853

Material examined. Russia. *Tomsk Prov.:* Tomsk distr., 41st km station, 23.VI.1998, OK, 1 ♀. *Kemerovo Prov.:* Tisulskiy distr., Gorodok, 26.VI.1999, D. Sushchov, 1 ♀; Sary-Chumysh, 10.VII.2002, NE, 1 ♀; 8 km E of Karakan, 12.VI.2006, SYa, 1 ♀; 4 km NW of Zhuravlevo, 2.VII.2006, SYa, 1 ♀; Makarakskiy, 30.VI.2007, DS, 1 ♀; ibid., 3–9. VII.2007, SYa, 5 ♀; 10 km S of Kostenkovo, 8.VI.2008, DS, 1 ♀; 3 km W of Ust'-Kabyrza, 6.VII.2008, DS, 1 ♀; 10 km N of Polutornik, 4–8.VII.2009, DS, 4 ♀; Makarakskiy, 9.VII.2010, E. Yamshchikov, 1 ♀; 2 km E of Abyshevo, 4.VI.2015, DS, 2 ♀. *Altai Rep.:* 80 km SSE of Ust'-Koksa, 25–28.VII.2013, MP, VL, 1 ♀; 24 km NW of Aktash, 30.VI.2016, MP, VL, 1 ♀.

*Distribution***.** Russia (European part, *Tomsk and Kemerovo Prov., *Altai Rep., Eastern Siberia, Far East). – Europe.

Andrena gallica Schmiedeknecht, 1883

Material examined. Russia. *Omsk Prov.:* Bol'shoy Atmas, 31.VII.2015, A. Byvaltsev, 2 ♀, 2 ♂. Kemerovo Prov.*:* Belovo, 23.VIII.2007, DS, 1 ♀; 10 km NW of Kemerovo, 14.V.2008, DS, 1 ♀; ibid., 15.V.2010, DS, 2 ♀, 1 ♂; ibid., 30.IV.2011, DS, 2 ♀, 1 ♂; ibid., 28.IV.2013, A. Korshunov, 1 ♂; 5 km S of Krasnoe, 8.VI.2008, DS, 1 ♀; 6 km N of Kalachevo, 31.VII.2008, DS, 1 ♀; 5 km NE of Prokopyevsk, 9.V.2009, DS, 1 ♂; ibid., 15.VIII.2009, DS, 6 ♀. Altai Terr.*:* 30 km S of Kurya, Savvushka, 31.VII, 1.VIII.2007, SB, 1 ♂; Barnaul, Yuzhniy, 3.VIII.2010, MP, 1 ♂; ibid., 9.VIII.2010, A. Byvaltsev, Yu. Danilov, 1 ♂; Borovskoye, 22.VII.2011, A. Byvaltsev, Yu. Danilov, 1 ♂; Kolyvanskoe Lake, 25.VII.2011, A. Byvaltsev, Yu. Danilov, 1 ♂; Pospelikha, 16.VII.2015, A. Byvaltsev, 5 ♀, 1 ♂; Mel'nikovo, 19.VII.2015, A. Byvaltsev, 2 ♀, 2 ♂; Solonovka, 21.VII.2015, A. Byvaltsev, 1 ♀.

*Distribution***.** Russia (European part, Ural, *Omsk and Kemerovo Prov., *Altai Terr., Eastern Siberia). – Europe, Caucasus, Turkey, Kazakhstan.

Andrena gelriae van der Vecht, 1927

Material examined. Russia. *Omsk Prov.:* Krasny Oktyabr', 25.VI.2011, N. Kholodina, 1 ♂; Tatarka, 13.VI.2012, K. Belova, 1 ♂. *Tomsk Prov.:* Tomsk, 26.VI.1998, OK, 1 ♂; ibid., 14.VII.1998, OK, 1 ♂; ibid., 19.VI.2001, OK, 1 ♂; Tomsk, Kurya, 21.VI.1999, OK, 1 ♂; Kireyevsk, 3.VII.1999, OK, 1 ♂; Berlinka, 6.VI.2001, D. Kurbatskiy, 1 ♂; Tomsk, Sennaya Kurya 20.VI.2001, OK, 1 ♂. *Kemerovo Prov.:* Shabanovo, 29.VI–13.VII.1995, NE, 3 ♂; ibid., 29.VI–3.VII.1998, NE, 8 ♂; Kemerovo, 1.VII.1997, NE, 1 ♂; ibid., 18.VI.1998, N. Kornienko, 2 ♂; ibid., 1.VII.1999, Grebenkina, 1 ♂; ibid., 1.VII.1999, Pirogova, 1 ♂; ibid., 8.VI.2008, DS, 1 ♂; 4 km NW of Zhuravlevo, 23–24.VI.2000, NE, 3 ♂; 2 km NE of Prokopyevsk, 23.VI.2006, DS, 4 ♂; 5 km NE of Prokopyevsk, 23.VI.2006, DS, 3 ♂; 17 km S of Kemerovo, 12.VII.2009, D. Astafyeva, 1 ♂. *Altai Rep.:* Ust'-Koksa, 18.VII.2013, MP, VL, 3 ♂.

*Distribution***.** Russia (European part, Ural, *Omsk, *Tomsk and *Kemerovo Prov., *Altai Rep., Eastern Siberia, Far East). – Europe, Caucasus, Turkey.

Andrena haemorrhoa (Fabricius, 1781)

Material examined. Russia. *Tomsk Prov.:* Tomsk, 20.VI.1994, Fedorovich, 1 ♀; ibid., 15.VI.1995, OK, 1 ♀; ibid., 8–25.V.1996, OK, 2 ♀; ibid., 24.VI.1996, OK, 1 ♀; ibid., 11.IV–1.V.1997, OK, 3 ♂; ibid., 1–27.V.1997, OK, 4 ♀; ibid., 25.VI.1997, Fedorova, Naletina, Samokhvalova, 1 ♀; ibid., 29.VI.1997, OK, 1 ♂; ibid., 8–28.V.1998, OK, 1 ♀, 1 ♂; ibid., 17–28.V.1999, OK, 2 ♀; ibid., 23.V.1999, Yanyushkin, 1 ♀; ibid., 29.V–27.VI.2000, OK, 6 ♀, 1 ♂; ibid., 18.VI.2001, L. Grishaev, 1 ♀; Kislovka, 4.VII.1995, OK, 1 ♀; Tomsk distr., 41st km station, 10.V.1998, OK, 1 ♂; Tomsk, Tom' River, 3.V.1999, OK, 1 ♂; Kolarovo, 20.VI.2000, L. Grishaev, 1 ♀. *Novosibirsk Prov.:* Maly Chan Lake, 14.V.1982, A. Barkalov, 1 ♂. *Kemerovo Prov.:* Kemerovo, 17.V.1998, NE, 4 ♂; ibid., 5.V.2001, NE, 2 ♀, 2 ♂; ibid., 5.V.2004, DS, 1 ♀, 5 ♂; ibid., NE, 10 ♂; ibid., 24.IV.2005, DS, 1 ♂; ibid., 7.VI.2006, SYa, 1 ♂; ibid., 22.IV–8.V.2007, DS, 2 ♂; ibid., 16.V.2007, S. Luzyanin, 1 ♀; ibid., 29.V.2007, NE, 1 ♀; ibid., 21.VI.2007, SYa, 1 ♀; ibid., 24.IV.2009, V. Polevod, 1 ♂; ibid., 13.V.2011, S. Luzyanin, 1 ♀; Bekovo, 26.V.2001, NE, 1 ♀; Makarakskiy, 3.VII.2007, N. Auns, 1 ♀; 9 km W of Taradanovo, 1.VI.2008, DS, 1 ♀; 5 km S of Krasnoe, 8.VI.2008, DS, 1 ♀; 4 km NW of Zhuravlevo, 30.V.2009, DS, 1 ♀; 2 km E of Abyshevo, 4.VI.2015, DS, 1 ♀; 8 km E of Yurga, 6.V.2016, DS, 1 ♂.

*Distribution***.** Russia (European part, Ural, Tomsk, *Novosibirsk and Kemerovo Prov., Altai Terr., Eastern Siberia, Far East). – Europe, North Africa, Caucasus, Turkey, Syria, Iran, Turkmenistan, Kazakhstan, Mongolia, China, Korea, Japan.

Andrena helvola (Linnaeus, 1758)

Material examined. Russia. *Tomsk Prov.:* Tomsk, 29.V.1995, OK, 1 ♀; ibid., 22.VI.1996, OK, 1 ♀; ibid., 11–19. VI.1997, OK, 3 ♀; ibid., 27.V–26.VI.1998, OK, 4 ♀; ibid., 17.V.1999, OK, 1 ♂; ibid., 16.V–8.VI.2000, OK, 3 ♀, 3 ♂; Anikino, 16–25.VI.1995, OK, 3 ♀; 5 km S of Tomsk, 9.VI.2001, OK, 1 ♂. *Novosibirsk Prov.:* Novosibirsk, 10–13.V.2011, A. Korshunov, 1 ♀. *Kemerovo Prov.:* 8 km SE of Kemerovo, 18.V.1998, NE, 3 ♂; 17 km S of Kemerovo, 16.VI.2000, NE, 2 ♀; Kemerovo, 5.V–3.VI.2004, NE, 2 ♀; ibid., 31.V.2005, DS, 1 ♀; ibid., 21.VI.2007, SYa, 1 ♀; 8 km E of Karakan, 12.VI.2006,

SYa, 1 ♀; 7 km NE of Karakan, 2.VI.2008, DS, 3 ♀; 4 km S of Taradanovo, 2.VI.2008, DS, 5 ♀; 15 km SE of Karakan, 3–4.VI.2008, DS, 9 ♀; 8 km E of Yurga, 6.V.2016, DS, 1 ♂.

*Distribution***.** Russia (European part, Ural, *Tomsk, *Novosibirsk and Kemerovo Prov.). – Europe, Caucasus, Turkey, Kazakhstan, China.

Andrena humilis Imhoff, 1832

Material examined. Russia. *Tomsk Prov.:* Tomsk distr., 41st km station, 17.VII.1996, OK, 1 ♀; ibid., 19.VII.1998, OK, 2 ♀; 40 km SE of Tomsk, 17.VI.2001, OK, 1 ♀. *Kemerovo Prov.:* Prokopyevsk, 17–18.VI.1999, D. Efimov, 2 ♂; Tisulskiy distr., Gorodok, 4.VII.1999, NE, 1 ♀; Makarakskiy, 30.VI.2007, DS, 1 ♀; ibid., 3.VII.2007, S. Luzyanin, 1 ♀; ibid., 30.VI.2010, Yu. Kraus, 1 ♂; ibid., 1.VII.2010, E. Yamshchikov, 1 ♂; 10 km N of Polutornik, 1–3.VII.2009, DS, 6 ♀. *Altai Rep.:* Gorno-Altaisk, Kyzyl–Ozek, 1.VII.1977, 1 ♀.

*Distribution***.** Russia (European part, Ural, *Tomsk and Kemerovo Prov., *Altai Rep., Far East). – Europe, North Africa, Caucasus, Turkey, Iran, Kyrgyzstan, Kazakhstan.

Andrena hypopolia Schmiedeknecht, 1884

Material examined. Russia. *Novosibirsk Prov.:* Karasuk, 1–9.VI.1982, A. Barkalov, 6 ♀; 9.VI.1982, A. Barkalov, Sipko, 4 ♀; Sipko, 2 ♀.

*Distribution***.** Russia (European part, *Novosibirsk Prov.). – Europe.

Andrena kerriae Hirashima, 1965

Material examined. Russia. *Kemerovo Prov.:* 8 km E of Karakan, 3.VI.2008, SYa, 2 ♀, 3 ♂; 10 km NW of Kemerovo, 23.V.2010, DS, 1 ♀; Makarakskiy, 5.VII.2010, E. Yamshchikov, 1 ♀.

*Distribution***.** Russia (Kemerovo Prov., Eastern Siberia, Far East). – China, Korea, Japan.

Andrena labialis (Kirby, 1802)

Material examined. Russia. *Omsk Prov.:* Tatarka, 30.VI.2011, A. Byvaltsev, 1 ♂; ibid., 13.VI.2012, K. Belova, 1 ♀, 1 ♂; ibid., 17.VI.2012, A. Proskuryakova, 1 ♀; Bol'shoy Atmas, 14.VI.2012, A. Proskuryakova, 1 ♀; ibid., 15.VI.2012, K. Belova, 1 ♀. *Tomsk Prov.:* Kireyevsk, VII.1989, 2 ♂; ibid., 8.VIII.1995, OK, 4 ♀; ibid., 1.VIII.1996, OK, 4 ♀; ibid., 4.VII.1999, OK, 1 ♂; ibid., 2–12.VII.2001, OK, 2 ♀, 1 ♂; ibid., 10.VII.2001, Bagirov, 1 ♂; Tomsk distr., 41st km station, 20.VII.1996, OK, 1 ♀; ibid., 19.VII.1998, OK, 1 ♀; ibid., 11.VII.1999, OK, 1 ♂; Tomsk, 27.VI.1997, OK, 1 ♀; ibid., 28.V.1998, OK, 1 ♀; ibid., 20.VI.2000, Lukyanova, 1 ♂; 13–22.VI.2001, OK, 1 ♀, 4 ♂; 40 km SE of Tomsk, 25.VI.2000, OK, 1 ♀; Tomsk, Sennaya Kurya, 20.VI.2001, OK, 1 ♀. *Novosibirsk Prov.:* Burmistrovo, 27.VI.2007, Students, 1 ♀; Karasuk biostation, 30.VI–11.VII.2015, K. Belova, 4 ♀, 1 ♂; Suzun, A. Bevaltsev, 14–15.VII.2015, 4 ♀. *Kemerovo Prov.:* Podyakovo, 15.VI.1993, Berlyubskaya, 1 ♂; ibid., 6.VII.1993, NE, 1 ♀; ibid., 27.VI.1994, NE, 1 ♂; ibid., 12.VII.1998, NE, 1 ♂; ibid., 7.VII.2003, NE, 2 ♀; ibid., 1.VII.2007, E. Lityayeva, 1 ♂; 5 km S of Leninsk-Kuznetskiy, 6.VII.1995, N. Teplova, 1 ♀; Shabanovo, 9.VII.1995, NE, 1 ♂; ibid., 1.VII.1998, G. Stepanyuk, 1 ♀; ibid., 14.VII.2004, DS, 1 ♀; 4 km NW of Zhuravlevo, 13.VI.1999, NE, 1 ♂; ibid., 13.VI.1999, N. Kornienko, 1 ♂; ibid., 24.VI.2000, NE, 1 ♀; ibid., 2.VII.2006, SYa, 2 ♂; ibid., 3.VII.2006, DS, 1 ♀; ibid., 31.VII.2009, D. Efimov, 1 ♀; Azhendarovo biostation, 1.VII.2001, N. Teplova, 1 ♂; ibid., 20.VII.2008, A. Korshunov, 1 ♂; ibid., 23–24.VII.2009, A. Korshunov, 1 ♀; ibid., 2–8.VIII.2009, DS, 8 ♀; Sary-Chumysh, 10.VII.2002, NE, 2 ♂; Kemerovo, 17.VI.2004, NE, 1 ♂; Krasnoe, 13.VII.2004, DS, 1 ♀; 5 km NE of Bolshaya Talda, 18.VII.2004, DS, 1 ♀; 2 km NE of Prokopyevsk, 23.VI.2006, DS, 1 ♂; 5 km NE of Prokopyevsk, 23.VI.2006, DS, 1 ♀; Malaya Salairka, 15.VI.2007, S. Luzyanin, 1 ♂; ibid., 13.VII.2010, S. Luzyanin, 1 ♀; Promyshlennaya, 27.VII.2007, M. Samoshchenko, 1 ♀; 15 km W of Kondoma, 22.VII.2008, DS, 4 ♀; 10 km SW of Gorskino, 29.VI–2.VII.2009, A. Topolya, 2 ♂; ibid., 7.VII.2009, N. Vasyukova, 2 ♂; ibid., 8.VII.2009, A. Kapustina, 2 ♂; ibid., 9.VII.2009, I. Korotkova, 1 ♂; 5 km NW of Podyakovo, 30.VI.2009, A. Korshunov, 1 ♂; 20 km S Kemerovo, 6.VII.2009, D. Astafyeva, 1 ♀; 10 km N of Polutornik, 8.VII.2009, DS, 1 ♀; 7 km N of Krapivinskiy, Tom' River, 14.VII.2009, DS, 2 ♀, 23 ♂; 10 km NE of Sheveli, 15.VII.2009, DS, 1 ♂; 17 km S of Kemerovo, 10.VII.2010, D. Efimov, 1 ♂. *Altai Terr.:* Barnaul, Yuzhniy, 3.VIII.2010, MP, 3 ♀; Solonovka, 21.VII.2015, A. Byvaltsev, 1 ♀. *Altai Rep.:* 24 km NW of Aktash, 30.VI.2016, MP, VL, 3 ♂; 14 km SE of Aktash, 2–13.VII.2016, MP, VL, 8 ♀, 4 ♂.

*Distribution***.** Russia (European part, Ural, *Omsk, *Tomsk, *Novosibirsk and Kemerovo Prov., *Altai Terr., *Altai Rep., Eastern Siberia). – Europe, North Africa, Caucasus, Turkey, Syria, Iran, Afghanistan, Kyrgyzstan, Uzbekistan, Tajikistan, Kazakhstan.

Andrena labiata Fabricius, 1781

Material examined. Russia. *Tomsk Prov.:* Kireyevsk, 8.VIII.1995, OK, 1 ♂; Prosekino, 6.VI.1996, OK, 1 ♀; Tomsk, 25.V.1996, OK, 1 ♂; ibid., 16.V.1997, OK, 2 ♂; ibid., 2.VI.1998, OK, 1 ♀; ibid., 21.V.1999, OK, 1 ♀; ibid., 30.V–6.VI.2000,

OK, 2 ♀. *Kemerovo Prov.:* Bekovo, 26.V.2001, NE, 1 ♀, 2 ♂; Kemerovo, 10.VI.2006, DS, 1 ♂; ibid., SYa, 1 ♂; 4 km NW of Zhuravlevo, 1.VII.2006, DS, 1 ♀; ibid., 29–30.V.2009, DS, 8 ♀, 8 ♂; Makarakskiy, 1.VII.2007, SYa, 1 ♂; 8 km E of Karakan, 3.VI.2008, DS, 2 ♀; 15 km SE of Karakan, 4.VI.2008, DS, 1 ♂; 5 km S of Krasnoe, 8.VI.2008, DS, 1 ♀, 1 ♂; 10 km N of Polutornik, 2.VII.2009, DS, 1 ♂; 10 km SW of Gorskino, 8.VII.2009, N. Vasyukova, 1 ♂; ibid., 9.VII.2009, I. Korotkova, 1 ♀; 2 km E of Abyshevo, 4.VI.2015, DS, 5 ♂. *Altai Rep.:* 10–13 km NW of Turochak, 6.VI.1999, A. Kireychuk, 1 ♀; 20 km SE of Onguday, 6.VII.2007, SB, 1 ♀; 14 km SE of Aktash, 2–4.VII.2016, MP, VL, 2 ♀, 2 ♂; 15 km SE of Kuray, 5–10.VII.2016, MP, VL, 1 ♀, 1 ♂.

*Distribution***.** Russia (European part, Ural, *Tomsk and *Kemerovo Prov., *Altai Rep., Eastern Siberia). – Europe, Caucasus, Turkey, Iran, Kyrgyzstan, Kazakhstan.

***Andrena lapponica* Zetterstedt, 1838**

Material examined. Russia. *Tomsk Prov.:* Kislovka, 11.VI.1996, OK, 1 ♀.

*Distribution***.** Russia (European part, Ural, Tyumen and *Tomsk Prov., Eastern Siberia, Far East). – Europe, Caucasus, Kyrgyzstan, Kazakhstan, Japan.

***Andrena lathyri* Alfken, 1899**

Material examined. Russia. *Tomsk Prov.:* Tomsk, 16.VII.1935, E. Prizhitulskaya, 1 ♀. *Novosibirsk Prov.:* Novosibirsk, 21.VI.2007, Students, 1 ♀. *Kemerovo Prov.:* 8 km E of Karakan, 12.VI.2006, SYa, 3 ♀; 3.VI.2008, ibid., DS, 1 ♀.

*Distribution***.** Russia (European part, *Tomsk, *Novosibirsk and *Kemerovo Prov., Eastern Siberia, Far East). – Europe, Caucasus, Turkey.

***Andrena marginata* Fabricius, 1776**

Material examined. Russia. *Kemerovo Prov.:* 5 km SE of Starobachaty, 24.VIII.2007, DS, 1 ♀; 5 km NE of Prokopyevsk, 24.VIII.2008, DS, 1 ♀.

*Distribution***.** Russia (European part, Ural, Tyumen and *Kemerovo Prov., Eastern Siberia, Far East). – Europe, North Africa, Caucasus, Turkey, Kazakhstan, Turkmenistan.

***Andrena maukensis* Matsumura, 1911**

Material examined. Russia. *Kemerovo Prov.:* 4 km NW of Zhuravlevo, 2.VII.2006, SYa, 1 ♀; Makarakskiy, 3–9.VII.2007, SYa, 2 ♀; 7 km NE of Karakan, 2.VI.2008, DS, 1 ♂.

*Distribution***.** Russia (Kemerovo Prov., Eastern Siberia, Far East). – Japan.

***Andrena minutuloides* Perkins, 1914**

Material examined. Russia. *Tomsk Prov.:* Anikino-Kolarovo, 22.VI.1996, OK, 1 ♀; Tomsk, 20.VI.1997, OK, 2 ♀; ibid., 2.VII.1998, OK, 1 ♀; ibid., 7.VI.1999, OK, 1 ♀; ibid., 20–22.VI.2000, OK, 2 ♀; ibid., 19.VI.2001, OK, 1 ♀; ibid., 26.VI.2001, L. Grishaev, 1 ♀; Predtechensk, 7.VII.1997, OK, 1 ♀; Porosino, 15.VII.1998, Cherkasov, 1 ♀; Tomsk distr., 41st km station, 26.VI.1999, OK, 1 ♀, 1 ♂. *Kemerovo Prov.:* 5 km S of Leninsk-Kuznetskiy, 6.VII.1995, N. Teplova, 1 ♀; Shabanovo, 26.VI.1998, Yerofeeva, 1 ♂; ibid., 3.VII.1998, NE, 2 ♀; ibid., 3.VII.1998, N. Kornienko, 1 ♀; Kemerovo, 1.VII.1999, Tankova, 1 ♀; ibid., 11.VI–1.VIII.2004, NE, 3 ♂; ibid., 16.VII.2004, NE, 1 ♀; ibid., 19–26.V.2006, DS, 6 ♀, 1 ♂; ibid., 26.V–7.VI.2006, SYa, 2 ♀; ibid., 21.VI.2007, SYa, 6 ♀; 2 km NE of Sheveli, 27.VI.2000, V. Polevod, 1 ♂; Sary-Chumysh, 10.VII.2002, NE, 1 ♀; 5 km NE of Prokopyevsk, 23.VI.2006, DS, 1 ♂; ibid., 11.V.2008, DS, 5 ♂; 4 km NW of Zhuravlevo, 28.VI–2.VII.2006, SYa, 6 ♀, 1 ♂; 5 km SE of Urop, 22.VII.2006, SYa, 1 ♀; Makarakskiy, 1–10.VII.2007, SYa, 4 ♀; ibid., 5.VII.2007, V. Tetenova, 1 ♂; Belovo, 23.VIII.2007, DS, 1 ♀; 10 km NW of Kemerovo, 14–16.V.2008, DS, 7 ♀, 4 ♂; ibid., 23.V.2010, DS, 3 ♀, 1 ♂; ibid., 30.IV.2011, DS, 2 ♂; 15 km NW of Kemerovo, 22.V.2008, DS, 5 ♀; 9 km W of Taradanovo, 1.VI.2008, DS, 1 ♀; 7 km NE of Karakan, 2.VI.2008, DS, 1 ♂; 4 km S of Taradanovo, 2.VI.2008, DS, 1 ♀; 5 km NE of Novokuznetsk, 7.VI.2008, DS, 1 ♀; Azhendarovo biostation, 20.VII.2008, A. Korshunov, 1 ♀; ibid., 8.VIII.2009, DS, 1 ♀; 15 km W of Kondoma, 23.VII.2008, DS, 7 ♀; 10 km SW of Gorskino, 28.VI.2009, I. Korotkova, 1 ♂; ibid., 2–8.VII.2009, N. Vasyukova, 3 ♀; 6 km SW of Mundybash, 14.VI.2011, DS, 5 ♂; 15 km SE of Karakan, 16.V.2015, D. Efimov, 1 ♂; 2 km E of Abyshevo, 4.VI.2015, DS, 5 ♀; 8 km E of Yurga, 6.V.2016, DS, 1 ♀. *Altai Terr.:* 30 km S of Kurya, Savvushka, 31.VII, 1.VIII.2007, SB, 2 ♀, 6 ♂. *Altai Rep.:* Ust'-Koksa, 18.VII.2013, MP, VL, 1 ♀; Shebalino, 27.VI.2016, MP, VL, 1 ♀; 14 km SE of Aktash, 1–4.VII.2016, MP, VL, 2 ♀.

*Distribution***.** Russia (European part, Ural, *Tomsk and Kemerovo Prov., *Altai Terr., *Altai Rep.). – Europe, Caucasus, Turkey, Iran.

***Andrena nanaeformis* Noskiewicz, 1925**

Material examined. Russia. *Kemerovo Prov.:* Kemerovo, 7.V.2001, NE, 1 ♀; ibid., 26.V.2006, DS, 3 ♀; 5 km NE of Prokopyevsk, 27.VII.2004, DS, 1 ♀; ibid., 11.V.2008, DS, 8 ♀; ibid., 15.VIII.2008, DS, 1 ♀; ibid., 9.V.2009, DS, 12 ♀; ibid.,

15.VIII.2009, DS, 1 ♀; 5 km SE of Urop, 23.VII.2006, DS, 1 ♀, 1 ♂; Azhendarovo biostation, 12.VIII.2006, SYa, 1 ♀; ibid., 21–23.V.2011, A. Korshunov, A. Kostyunin, 1 ♀; 4 km NW of Zhuravlevo, 10.V.2008, NE, 1 ♀; ibid., 30.V.2009, DS, 2 ♀, 3 ♂; 10 km NW of Kemerovo, 14–16.V.2008, DS, 8 ♀, 6 ♂; ibid., 30.IV.2011, DS, 1 ♀; 15 km NW of Kemerovo, 22.V.2008, DS, 2 ♀; 15 km W of Kondoma, 22.VII.2008, DS, 1 ♂; 2 km E of Abyshevo, 4.VI.2015, DS, 1 ♀. *Altai Rep.:* 20 km SE of Onguday, 6.VII.2007, SB, 1 ♀.

*Distribution***.** Russia (European part, Ural, *Kemerovo Prov., Altai Terr., Altai Rep., Eastern Siberia). – Europe, Caucasus, Kazakhstan.

***Andrena nanula* Nylander, 1848**

Material examined. Russia. *Kemerovo Prov.:* 17 km S of Kemerovo, 23.VII.2000, NE, 1 ♀; Leninsk-Kuznetskiy, 13.VII.2006, SYa, 1 ♂; 5 km SE of Urop, 21.VII.2006, SYa, 2 ♀; Azhendarovo biostation, 6.VIII.2006, SYa, 1 ♀, 1 ♂; ibid., 2–8.VIII.2009, DS, 24 ♀, 2 ♂; Belovo, 23.VIII.2007, DS, 2 ♀. *Altai Terr.:* Biysk, 6.VII.2007, SB, 1 ♀. *Altai Rep.:* Ust'-Koksa, 18.VII.2013, MP, VL, 1 ♀.

*Distribution***.** Russia (European part, Ural, Kemerovo Prov., *Altai Terr., *Altai Rep., Eastern Siberia, Far East). – Europe, Caucasus.

***Andrena nippon* Tadauchi et Hirashima, 1983**

Material examined. Russia. *Tomsk Prov.:* Tomsk, 1.V.1997, OK, 1 ♀; ibid., 9–28.V.1998, OK, 1 ♀, 1 ♂; Tomsk, Tom' River, 3.V.1999, OK, 1 ♂; Anikino, 18.V.1999, OK, 1 ♀. *Kemerovo Prov.:* Kemerovo, 15.V.1999, NE, 1 ♀; ibid., 19–26.V.2006, DS, 3 ♀; ibid., 8.V.2008, DS, 1 ♂; 10 km NW of Kemerovo, 14–16.V.2008, DS, 4 ♀; ibid., 15.V.2010, DS, 1 ♀; ibid., 23.V.2010, DS, 4 ♀; ibid., 30.IV.2011, DS, 1 ♀; ibid., 28.IV.2013, A. Korshunov, 1 ♀; 5 km S of Krasnoe, 8.VI.2008, DS, 1 ♀; 5 km NE of Prokopyevsk, 9.V.2009, DS, 8 ♀; 20 km SE of Kemerovo, 17.VII.2009, DS, 6 ♂.

*Distribution***.** Russia (*Tomsk and Kemerovo Prov., Eastern Siberia, Far East). – China, Korea, Japan.

***Andrena nitida* (Müller, 1776)**

Material examined. Russia. *Tomsk Prov.:* Devyatkino, 19.VI.1990, OK, 1 ♂; Kireyevsk, 17.VII.1995, OK, 1 ♀; ibid., 5–11.VII.2001, OK, 2 ♀; ibid., 15.VII.2002, OK, 1 ♀; Tomsk, 20.V–20.VI.1996, OK, 1 ♀, 2 ♂; ibid., 23.IV–1.V.1997, OK, 3 ♂; ibid., 14–16.V.1997, OK, 2 ♀; ibid., 20.VI.1997, OK, 1 ♀; ibid., 25.VI.1997, S. Fomenko, 1 ♀; ibid., 8–17.V.1998, OK, 1 ♀, 1 ♂; ibid., 22.VI.1998, OK, 1 ♀; ibid., 17.V.1999, OK, 1 ♀; ibid., 19.V–6.VI.2000, OK, 1 ♀, 4 ♂; ibid., 24–28.V.2001, OK, 2 ♂; Yuvala, VI.1997, A. Dinges, 1 ♀; Anikino, 29.V.1998, OK, 1 ♂; ibid., 16.VII.1998, OK, 1 ♀; ibid., 18.VI.1999, OK, 1 ♂; Koloskovo, 25.VI.1998, A. Rodionov, 1 ♀; Tomsk, Tom' River, 3.V.1999, OK, 1 ♂; Seversk, 27.V.1999, L. Grishaev, 2 ♀; Tomsk distr., 41st km station, 26.VI.1999, OK, 1 ♀, 1 ♂; 5 km S of Tomsk, 2.V.2000, OK, 1 ♂. *Kemerovo Prov.:* Podyakovo, 3.VII.1993, NE, 1 ♀; 2 km NW of Kolmogorovo, 5.VII.1993, D. Sushchov, 1 ♀; Kemerovo, 22.IV.1997, D. Sushchov, 1 ♀; ibid., 28.VI.1997, Kotova, 1 ♀; ibid., 5.V.2001, NE, 3 ♂; ibid., 28.V–3.VI.2004, NE, 2 ♀, 1 ♂; ibid., 21.VI.2004, NE, 1 ♀; ibid., 25.IV.2007, DS, 1 ♀, 1 ♂; ibid., 16.V.2007, NE, 1 ♀, S. Luzyanin, 1 ♀; ibid., 10.VI.2007, SYa, 1 ♀; ibid., 7.V.2008, N. Skalon, 1 ♀; 8 km SE of Kemerovo, 18.V.1998, NE, 2 ♀; Shabanovo, 26.VI.1998, Yerofeeva, 1 ♂; 4 km NW of Zhuravlevo, 29.VI.1999, N. Kornienko, 1 ♀; ibid., 2.VII.2006, SYa, 2 ♀; ibid., 8.VII.2006, DS, 2 ♀; ibid., 8.VII.2011, DS, 1 ♂; Tisulskiy distr., Gorodok, 30.VI.1999, Krivonogova, 1 ♀; 6 km S of Kemerovo, 21.VI.2004, L. Chernova, 1 ♀; Topki, 21.VI.2004, Ya. Kazarinova, 1 ♀; 8 km E of Karakan, 12.VI.2006, SYa, 1 ♀; Makarakskiy, 30.VI.2007, DS, 1 ♂; ibid., 1.VII.2007, K. Zhuleiko, 1 ♂; ibid., 1–4.VII.2007, S. Luzyanin, 3 ♀, 1 ♂; ibid., 4.VII.2007, S. Dronova, 1 ♀; ibid., 5.VII.2007, SYa, 1 ♂; 10 km N of Polutornik, 2.VII.2009, DS, 1 ♀; 7 km NE of Karakan, 2.VI.2008, DS, 2 ♀; 5 km S of Krasnoe, 8.VI.2008, DS, 1 ♀; 10 km NE of Sheveli, 15.VII.2009, DS, 2 ♀; 6 km SW of Mundybash, 14.VI.2011, DS, 4 ♂; 8 km E of Yurga, 6.V.2016, DS, 1 ♀.

*Distribution***.** Russia (European part, Ural, *Tomsk and Kemerovo Prov.). – Europe, North Africa, Caucasus, Turkey, Iran, Central Asia, Kazakhstan.

***Andrena nitidiuscula* Schenck, 1853**

Material examined. Russia. *Tomsk Prov.:* Tomsk distr., 41st km station, 20.VII.1996, OK, 1 ♂. *Kemerovo Prov.:* Shabanovo, 3.VII.1998, NE, 1 ♂; 10 km SE of Ursk, 23.VII.2008, N. Teplova, 1 ♂; Azhendarovo biostation, 2–8.VIII.2009, DS, 2 ♀, 3 ♂; 17 km NW of Kemerovo, 9.VII.2015, D. Efimov, 1 ♀.

*Distribution***.** Russia (European part, *Tomsk and Kemerovo Prov., Eastern Siberia, Far East). – Europe, North Africa, Caucasus, Turkey, Syria, Israel, Iran, Mongolia, China.

***Andrena ovatula* (Kirby, 1802)**

Material examined. Russia. *Omsk Prov.:* Tatarka, 17.VI.2012, A. Proskuryakova, 1 ♀. *Tomsk Prov.:* Chernyshevka, 24.VI.1995, OK, 1 ♀; Tomsk, 19.VI.1996, T. Yachmenyova, 1 ♀; ibid., 1.V.1997, OK, 1 ♂; ibid., 15.VII.1997, OK, 1 ♂; ibid.,

28.V.1998, OK, 1 ♂; ibid., 6.VI.2000, OK, 1 ♀. *Novosibirsk Prov.:* Novosibirsk, 5.VIII.2010, A. Byvaltsev, 1 ♂. *Kemerovo Prov.:* 5 km NE of Bolshaya Talda, 18.VII.2004, DS, 2 ♂; Kemerovo, 19.V–10.VI.2006, DS, 9 ♂; 1 ibid., 9.V–7.VI.2006, SYa, 6 ♂; ibid., 19.V.2009, A. Korshunov, 1 ♂; 8 km E of Karakan, 12.VI.2006, SYa, 1 ♂; ibid., 3.VI.2008, DS, 43 ♂; 5 km NE of Prokopyevsk, 11.V.2008, DS, 2 ♂; 10 km NW of Kemerovo, 14–16.V.2008, DS, 14 ♂; ibid., 15–23.V.2010, DS, 16 ♂; ibid., 30.IV.2011, DS, 10 ♂; 15 km NW of Kemerovo, 22.V.2008, DS, 2 ♂; 15 km SE of Karakan, 4.VI.2008, DS, 9 ♂; Azhendarovo biostation, 20.VII.2008, A. Korshunov, 1 ♂; 6 km N of Kalachevo, 31.VII.2008, DS, 27 ♂; 4 km NW of Zhuravlevo, 29.V.2009, DS, 1 ♂; ibid., 8.VII.2011, DS, 7 ♂; 8 km E of Yurga, 6.V.2016, DS, 1 ♂. *Altai Terr.:* 30 km S of Kurya, Savvushka, 1.VIII.2007, SB, 1 ♂; Klepechikha, 23.VII.2011, A. Byvaltsev, Yu. Danilov, 3 ♂; Pospelikha, 19.VII.2015, 1 ♀; Mel'nikovo, 19.VII.2015, 3 ♀.

*Distribution***.** Russia (European part, Ural, *Omsk, *Tomsk, *Novosibirsk and *Kemerovo Prov., Altai Terr., Eastern Siberia, Far East). – Europe, North Africa, Caucasus, Turkey, Israel , Syria, Iraq, Iran, Afghanistan, Central Asia, Kazakhstan, China.

***Andrena pallitarsis* Pérez, 1903**

Material examined. Russia. *Kemerovo Prov.:* 5 km SE of Urop, 20–22.VII.2006, DS, 4 ♂; 23.VII.2006, D. Sushchov, 1 ♀, 1 ♂; 5 km NE of Prokopyevsk, 26.VII.2007, DS, 1 ♀, 1 ♂; 4 km NW of Zhuravlevo, 8.VII.2011, DS, 1 ♂.

*Distribution***.** Russia (Ural, *Kemerovo Prov.). – Europe.

***Andrena pilipes* Fabricius, 1781**

Material examined. Russia. *Novosibirsk Prov.:* 8 km SE of Berdsk, 3.VIII.2010, MP, 1 ♂; Karasuk, 20–25.V.2014, D. Efimov, 2 ♂. *Kemerovo Prov.:* Podyakovo, 3.VII.1993, Volkov, Khozyainov, 1 ♀; Shabanovo, 30.VI.1995, N. Teplova, 1 ♀; ibid., 14.VI.1998, N. Kornienko, 1 ♀; ibid., 28.VI–4.VII.1998, NE, 12 ♀; ibid., 1.VII.1998, N. Mishov, 1 ♀; 4 km NW of Zhuravlevo, 13.VI.1999, NE, 2 ♂; ibid., 13.VI.1999, D. Sushchov, 1 ♂; ibid., 25.VI.2000, NE, 1 ♂; Kemerovo, 3.VI.2004, NE, 1 ♂; Tisulskiy distr., Gorodok, 26.VI.1999, Semenova, 1 ♀. *Altai Terr.:* Mel'nikovo, 19.VII.2015, 1 ♂. *Altai Rep.:* 8 km SEE of Onguday, 27–28.VI.2016, MP, VL, 1 ♀; 14 km SE of Aktash, 2–13.VII.2016, MP, VL, 4 ♀.

*Distribution***.** Russia (European part, Ural, *Novosibirsk and *Kemerovo Prov., Altai Terr., *Altai Rep., Eastern Siberia, Far East). – Europe, North Africa, Caucasus, Turkey, Syria, Israel, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, Mongolia, China, India.

***Andrena praecox* (Scopoli, 1763)**

Material examined. Russia. *Tomsk Prov.:* Tomsk, 16.IV–2.V.1997, OK, 1 ♀, 4 ♂; ibid., 8–17.V.1998, OK, 4 ♂; ibid., 16.V–8.VI.2000, OK, 5 ♀; ibid., 10.V.2001, OK, 1 ♀; Kislovka, 18.IV.1997, OK, 1 ♂; Tomsk distr., 41st km station, 10.V.1998, OK, 1 ♂; Anikino, 1.V.1999, OK, 1 ♂; ibid., 26.V.1999, OK, 1 ♀; Tomsk, Tom' River, 3–4.VI.1999, OK, 2 ♀; 5 km S of Tomsk, 15.V.2000, OK, 1 ♀; Berlinka, 9.V.2001, D. Kurbatskiy, 1 ♀. *Novosibirsk Prov.:* Maly Chan Lake, 14.V.1982, A. Barkalov, 1 ♂. *Kemerovo Prov.:* Kemerovo, 15.V.1999, NE, 1 ♀; ibid., 7.V.2001, NE, 1 ♀, 3 ♂; ibid., 5–28.V.2004, NE, 2 ♀; ibid., 19.IV.2009, DS, 1 ♂; Prokopyevsk, 10.V.2008, DS, 1 ♂; 10 km NW of Kemerovo, 16.V.2008, DS, 1 ♀; Azhendarovo biostation, 21–23.V.2011, A. Korshunov, A. Kostyunin, 2 ♀.

*Distribution***.** Russia (European part, Ural, *Tomsk, *Novosibirsk and Kemerovo Prov., Eastern Siberia). – Europe, Caucasus, Turkey, Kazakhstan.

***Andrena proxima* (Kirby, 1802)**

Material examined. Russia. *Tomsk Prov.:* Tomsk, Tom' River, 22.VI.1999, OK, 1 ♂; Tomsk, 1.VII.2000, Koog, 1 ♀; ibid., 26.VI.2001, Bagirov, 1 ♀. *Kemerovo Prov.:* Kemerovo, 4.V.2005, S. Luzyanin, 1 ♀.

*Distribution***.** Russia (European part, Ural, *Tomsk and *Kemerovo Prov.). – Europe, North Africa, Caucasus, Turkey, Central Asia.

***Andrena ranunculorum* Morawitz, 1877**

Material examined. Russia. *Novosibirsk Prov.:* Maly Chan Lake, 14.V.1982, A. Barkalov, 1 ♂. *Kemerovo Prov.:* Kemerovo, 26.V.1998, D. Sushchov, 1 ♂; ibid., 19.V.2006, DS, 1 ♂. *Altai Rep.:* 14 km SE of Aktash, 1–4.VII.2016, MP, VL, 6 ♀; 10 km SE of Aktash, Chuya River, 2.VII.2016, MP, VL, 1 ♀; 15 km SE of Kuray, 5–10.VII.2016, MP, VL, 5 ♀.

*Distribution***.** Russia (European part, Ural, *Novosibirsk and *Kemerovo Prov., *Altai Rep., Eastern Siberia). – Europe, Caucasus, Turkey, Iran, Turkmenistan.

***Andrena rosae* Panzer, 1801**

Material examined. Russia. *Tomsk Prov.:* Tomsk, 7.VII.1990, OK, 1 ♂; ibid., 20.V.1996, OK, 1 ♀; ibid., 25.VI.1997, OK, 1 ♀; ibid., 17.V.1999, Yanyushkin, 1 ♀; ibid., 22.V.2000, OK, 2 ♀; ibid., 26.VI.2001, L. Grishaev, 1 ♂; Tomsk distr., 41st

km station, 18.V.1996, OK, 1 ♀; ibid., 2.V.1999, OK, 1 ♂; Tomsk, Tom' River, 3.V.1999, OK, 1 ♂; ibid., 10.VII.1999, OK, 1 ♀; Kireyevsk, 4.VII.1999, OK, 1 ♂; ibid., 18.VII.2000, OK, 1 ♀; ibid., 5.VII.2001, OK, 1 ♀; 5 km S of Tomsk, 2.V.2000, OK, 1 ♀; 19.V.2001, OK, 1 ♂. *Novosibirsk Prov.:* Novosibirsk, 2.VIII.2010, MP, 5 ♂; ibid., 2.VIII.2010, A. Byvaltsev, 1 ♂; Yevsino, 29.VI.2012, A. Byvaltsev, 1 ♂. *Kemerovo Prov.:* Ursk, 28.VII.1997, D. Sushchov, 1 ♂; 17 km S of Kemerovo, 23.V.1998, D. Sushchov, 1 ♀; ibid., 14.V.2001, NE, 1 ♀; Kemerovo, 5.V.2004, NE, 1 ♀; ibid., 8.V.2006, DS, 1 ♀; ibid., 19.VII.2015, E. Bibik, 1 ♀; Krasnoe, 13.VII.2004, DS, 1 ♂; Leninsk-Kuznetskiy, 12.VII.2006, SYa, 1 ♀; 5 km SE of Urop, 22.VII.2006, SYa, 1 ♂; Azhendarovo biostation, 8.VIII.2006, DS, 1 ♀, 1 ♂; ibid., 20.VII–6.VIII.2008, A. Korshunov, 1 ♀, 2 ♂; ibid., 21–23.V.2011, A. Korshunov, A. Kostyunin, 1 ♀; 15 km W of Kondoma, 23.VII.2008, DS, 2 ♀; 5 km NE of Prokopyevsk, 9.V.2009, DS, 1 ♀; 4 km NW of Zhuravlevo, 30.V.2009, DS, 1 ♀; 20 km SE of Kemerovo, 17.VII.2009, DS, 2 ♂; 10 km NW of Kemerovo, 30.IV.2011, DS, 1 ♀. *Altai Terr.:* Pospelikha, A. Byvaltsev, 16.VII.2015, 1 ♀. *Altai Rep.:* 14 km SE of Aktash, 13.VII.2016, MP, VL, 1 ♀.

*Distribution***.** Russia (European part, Ural, Tomsk, *Novosibirsk and Kemerovo Prov., *Altai Terr., *Altai Rep., Eastern Siberia, Far East). – Europe, Caucasus, Turkey, Iran, Kyrgyzstan, Kazakhstan, Mongolia, China, Korea, Japan.

Andrena ruficrus Nylander, 1848

Material examined. Russia. *Tomsk Prov.:* Tomsk distr., 41st km station, 1–8.VI.1996, OK, 2 ♀; ibid., 20.V.1997, OK, 1 ♀; ibid., 10.V.1998, OK, 4 ♂; ibid., 2.V.1999, OK, 1 ♀, 2 ♂; ibid., 23.V.1999, OK, 2 ♀; Tomsk, 13–23.IV.1997, OK, 3 ♂; ibid., 8–17.V.1998, OK, 1 ♀, 2 ♂; ibid., 25.V.2000, OK, 1 ♀; Tomsk, Tom' River, 3–4.V.1999, OK, 2 ♂; 40 km SE of Tomsk, 14.V.2000, OK, 3 ♀; Kedroviy, Korga River, 22.V.2000, P. Nefedyev, 1 ♀; 5 km S of Tomsk, 9.VI.2001, OK, 1 ♂. *Kemerovo Prov.:* 15 km NW of Kemerovo, 22.V.2008, DS, 1 ♀; 15 km SE of Karakan, 4.VI.2008, DS, 1 ♂.

*Distribution***.** Russia (European part, Ural, *Tomsk and Kemerovo Prov., Eastern Siberia, Far East). – Europe, Turkey, Kyrgyzstan, Kazakhstan, Korea, Japan.

Andrena rufizona Imhoff, 1834

Material examined. Russia. *Tomsk Prov.:* Prosekino, 4.VI.1997, OK, 1 ♂; Tomsk, Kurya, 22.VI.1997, OK, 1 ♂; ibid., 21.VI.1999, OK, 3 ♂; Tomsk, 24.VI.1997, OK, 2 ♂. *Novosibirsk Prov.:* Novosibirsk, 2.VIII.2010, MP, 1 ♂; Yevsino, 29.VI.2006, A. Byvaltsev, 4 ♂. *Kemerovo Prov.:* 4 km NW of Zhuravlevo, 27.VI.2000, NE, 1 ♂; ibid., 29.VI.2006, SYa, 2 ♀, 3 ♂; ibid., 30.VI–3.VII.2006, DS, 4 ♀; Makarakskiy, 2.VII.2007, T. Platonova, 1 ♀; ibid., 10.VII.2007, K. Zhuleyko, 1 ♀; 5 km NW of Podyakovo, 30.VI.2009, A. Korshunov, 1 ♂. *Altai Rep.:* 15 km SE of Kuray, 5–6.VII.2016, MP, VL, 1 ♀.

*Distribution***.** Russia (European part, Ural, *Tomsk, *Novosibirsk and *Kemerovo Prov., Altai Terr., Eastern Siberia). – Europe, Caucasus, Kazakhstan.

Andrena sibirica Morawitz, 1888

Material examined. Russia. *Novosibirsk Prov.:* 8 km SE of Berdsk, 2–3.VIII.2010, MP, 2 ♀. *Kemerovo Prov.:* Krasnoe, 14.VII.2004, DS, 1 ♀; 5 km NE of Bolshaya Talda, 18.VII.2004, DS, 2 ♀, 1 ♂; 5 km NE of Prokopyevsk, 27.VII.2004, DS, 1 ♀, 2 ♂; ibid., 26.VII.2007, DS, 2 ♂; ibid., 15.VIII.2009, DS, 4 ♀; 17 km S of Kemerovo, 20.VII.2005, NE, 2 ♀; 5 km SE of Urop, 20–23.VII.2006, DS, 3 ♀; ibid., 21.VII.2006, SYa, 1 ♂; 5 km S of Leninsk-Kuznetskiy, 27.VII.2006, N. Teplova, 1 ♂; Azhendarovo biostation, 12.VIII.2006, SYa, 1 ♀; Kemerovo, 31.VII–2.VIII.2007, K. Agoshkov, 2 ♀, 1 ♂; Krasnobrodskiy, 2.VIII.2007, S. Luzyanin, 1 ♀; 8 km E of Kemerovo, 27.VII.2008, NE, 1 ♀; Malaya Salairka, 13.VII.2010, S. Luzyanin, 1 ♀; Mariinsk, 16.VIII.2010, M. Slepukhova, 1 ♀; 4 km NW of Zhuravlevo, 6.VII.2011, DS, 1 ♂. *Altai Terr.:* 30 km S of Kurya, Savvushka, 31.VII–1.VIII.2007, SB, 1 ♂; Barnaul, Yuzhniy, 3.VIII.2010, MP, 1 ♀, 1 ♂; ibid., 8.VIII.2010, A. Byvaltsev, Yu. Danilov, 1 ♂; Mel'nikovo, 19.VII.2015, A. Byvaltsev, 2 ♀. *Altai Rep.:* 10–15 km SW of Kuray, 12.VII.2007, SB, 1 ♂; Kayancha, 15.VIII.2014, DS, 1 ♀.

*Distribution***.** Russia (Ural, *Novosibirsk and *Kemerovo Prov., *Altai Terr., *Altai Rep., Eastern Siberia, Far East). – Kazakhstan, Mongolia, China.

Andrena simillima Smith, 1851

Material examined. Russia. *Tomsk Prov.:* Tomsk, 8.VII.1997, OK, 1 ♀; Tomsk distr., Porosino, 15.VII.1998, Cherkasov, 1 ♀. *Kemerovo Prov.:* 5 km NE of Prokopyevsk, 27.VII.2004, DS, 2 ♀; ibid., 9–16.VIII.2005, DS, 2 ♀; ibid., 12–15.VIII.2009, DS, 10 ♀, 2 ♂; 10 km N of Kiselevsk, 2.VIII.2005, NE, 1 ♀; 4 km NW of Zhuravlevo, 8.VII.2006, DS, 1 ♀; ibid., 8.VII.2011, DS, 1 ♀; 5 km SE of Urop, 23.VII.2006, DS, 1 ♀; Guryevsk, 21.VIII.2007, DS, 1 ♀; 5 km SE of Starobachaty, 24.VIII.2007, DS, 1 ♀, S. Luzyanin, 2 ♀; ibid., 5.VIII.2010, DS, 1 ♂; 6 km N of Kalachevo, 31.VII.2008, DS, 3 ♀. *Altai Terr.:* 30 km S of Kurya, Savvushka, 31.VII–1.VIII.2007, SB, 1 ♀; Barnaul, Yuzhniy, 3.VIII.2010, MP, 2 ♀; Mel'nikovo, 19.VII.2015, A. Byvaltsev, 1 ♀. *Altai Rep.:* Kayancha, 15.VIII.2014, DS –1 ♀.

*Distribution***.** Russia (European part, Ural, *Tomsk and Kemerovo Prov., *Altai Terr., *Altai Rep., Eastern Siberia). – Europe, Caucasus, Iran, Mongolia.

Andrena subopaca Nylander, 1848

Material examined. Russia. *Tomsk Prov.:* Tomsk, 26.VI.1989, Devyatova, 1 ♀; ibid., 31.V–16.VI.1990, OK, 2 ♀; ibid., 16.V–11.VI.1997, OK, 2 ♀, 1 ♂; ibid., 25.VI–3.VII.1997, OK, 2 ♀; ibid., 9–26.VI.1998, OK, 2 ♀; ibid., 22–23.VI.1999, OK, 3 ♀; ibid., 29.V.2000, OK, 1 ♀; Devyatkino, 19.VI.1990, OK, 1 ♀; Tomsk distr., 41st km station, 14.VI.1997, OK, 1 ♀; Tomsk, Kurya, 22.VI.1997, OK, 1 ♀; 40 km SE of Tomsk, 12.VI.2000, OK, 1 ♀; ibid., 11.VI.2001, OK, 1 ♀; Kireyevsk, 6.VII.2001, OK, 1 ♀. *Kemerovo Prov.:* Podyakovo, 3.VII.1993, NE, 1 ♀; 8 km SE of Kemerovo, 18.V.1998, D. Sushchov, 2 ♀; Kemerovo, 19–26.VI.2004, NE, 2 ♀; ibid., 24.VI.2011, S. Luzyanin, 1 ♀; 4 km NW of Zhuravlevo, 3.VII.2006, DS, 5 ♀; ibid., 30.V.2009, DS, 1 ♂; ibid., 6–8.VII.2011, DS, 2 ♀; Makarakskiy, 30.VI–6.VII.2007, DS, 4 ♀; ibid., 3–10.VII.2007, SYa, 7 ♀; ibid., 9.VII.2007, S. Mayburova, 1 ♀; 9 km W of Taradanovo, 1.VI.2008, DS, 7 ♂; 4 km S of Taradanovo, 2.VI.2008, DS, 1 ♂; 8 km E of Karakan, 3.VI.2008, DS, 1 ♀; 15 km SE of Karakan, 4.VI.2008, DS, 1 ♀, 1 ♂; 5 km NE of Novokuznetsk, 7.VI.2008, DS, 1 ♀; Azhendarovo biostation, 20.VII.2008, A. Korshunov, 1 ♀; 10 km N of Polutornik, 2.VII.2009, Yu. Kulyomin, 1 ♀; ibid., 3–9.VII.2009, DS, 14 ♀; 12 km NW of Kemerovo, 24.VI.2012, D. Efimov, 1 ♀. *Altai Terr.:* Biysk, 6.VII.2007, SB, 2 ♀; 8 km S of Biysk, Ust'-Katun', 7.VII.2007, SB, 2 ♀. *Altai Rep.:* Katunskiy ridge, Taymenye Lake, 20–23.VII.2013, MP, VL, 6 ♀.

*Distribution***.** Russia (European part, Ural, *Tomsk and Kemerovo Prov., *Altai Terr., *Altai Rep., Eastern Siberia, Far East). – Europe, Caucasus, Kazakhstan, China, Japan.

Andrena tarsata Nylander, 1848

Material examined. Russia. *Kemerovo Prov.:* Guryevsk, 21.VIII.2007, DS, 1 ♂. *Altai Rep.:* 8 km SW of Kuray, 11.VII.2007, SB, 1 ♀; 80 km SSE of Ust'-Koksa, 25–28.VII.2013, MP, VL, 2 ♀, 1 ♂; 8 km SEE of Onguday, 27–28.VI.2016, MP, VL, 1 ♀; 14 km SE of Aktash, 1–4.VII.2016, MP, VL, 2 ♀, 1 ♂; 12 km SE of Kosh-Agach, 9.VII.2016, MP, VL, 1 ♂; 15 km SE of Kuray, 5–10.VII.2016, MP, VL, 46 ♀, 3 ♂.

*Distribution***.** Russia (European part, Ural, *Kemerovo Prov., *Altai Rep., Eastern Siberia, Far East). – Europe, Caucasus, Turkey, Mongolia, China.

Andrena thoracica (Fabricius, 1775)

Material examined. Russia. *Tomsk Prov.:* Kireyevsk, 23.VII.1995, OK, 1 ♀; ibid., 23.VII.1997, OK, 1 ♂; ibid., 18.VII.2000, OK, 2 ♀; Tomsk, 28.V.1996, OK, 1 ♀; ibid., 10–23.IV.1997, OK, 5 ♂; ibid., 23.VIII.1998, OK, 1 ♂; Seversk, Tom' River, 8.VII.1999, L. Grishaev, 1 ♀. *Novosibirsk Prov.:* Chany biostation, 26.VI.1985, A. Kharitonov, 1 ♂; 8.5 km S of Berdsk, 2.VIII.2010, A. Byvaltsev, 1 ♂; 8 km SE of Berdsk, 3.VIII.2010, MP, 2 ♂; Novosibirsk, 5.VIII.2010, A. Byvaltsev, 1 ♂. *Kemerovo Prov.:* Podyakovo, 14.VII.1991, Lomakin, 1 ♀; 17 km S of Kemerovo, 15.V.1994, NE, 1 ♀; Kemerovo, 1.VII.1997, NE, 1 ♂; ibid., 22.IV–5.V.2004, DS, 4 ♀, 1 ♂; ibid., 5.V.2004, NE, 4 ♀; ibid., 25.IV.2007, DS, 3 ♀; ibid., 1.V.2007, V. Polevod, 1 ♀; Bekovo, 26.V.1998, D. Sushchov, 1 ♀; ibid., 26.V.2001, NE, 1 ♀; Salair, 20.VII.1999, NE, 1 ♀; Tsypino, 30.VII.2003, E. Streltsova, 1 ♀; 10 km W of Guryevsk, 14.VII.2005, NE, 1 ♀; 4 km NW of Zhuravlevo, 8.VII.2006, DS, 1 ♀; ibid., 29.V.2009, DS, 1 ♀; 5 km SE of Urop, 22.VII.2006, SYa, 1 ♀; Krasnobrodskiy, 2.VIII.2007, S. Luzyanin, 1 ♀; 10 km NW of Kemerovo, 14–16.V.2008, DS, 3 ♀; ibid., 15–23.V.2010, DS, 2 ♀, 1 ♂; ibid., 30.IV.2011, DS, 1 ♀, 1 ♂; ibid., 28.IV.2013, A. Korshunov, 1 ♀; 15 km W of Kondoma, 22.VII.2008, DS, 1 ♂; 6 km N of Kalachevo, 31.VII.2008, DS, 1 ♀, 3 ♂; 5 km NE of Prokopyevsk, 9.V.2009, DS, 5 ♀. *Altai Terr.:* 30 km S of Kurya, Savvushka, 31.VII–1.VIII.2007, SB, 1 ♂; Barnaul, Yuzhniy, 3.VIII.2010, MP, 2 ♀, 1 ♂.

*Distribution***.** Russia (European part, Ural, Omsk, *Tomsk, *Novosibirsk and Kemerovo Prov., Altai Terr., Eastern Siberia, Far East). – Europe, North Africa, Caucasus, Turkey, Israel, Jordan, Lebanon, Iran, Afghanistan, Turkmenistan, Uzbekistan, Tajikistan, Mongolia, China, Korea.

Andrena tibialis (Kirby, 1802)

Material examined. Russia. *Omsk Prov.:* Bol'shoy Atmas, 27.VI.2011, N. Kholodina, 2 ♂; ibid., 28–29.VI.2011, A. Byvaltsev, 17 ♀, 2 ♂; ibid., A. Proskuryakova, 2 ♂. *Tomsk Prov.:* Tomsk distr., 41st km station, 27.IV.1997, OK, 1 ♂; 20 km S of Asino, 2001, L. Grishaev, 1 ♀. *Novosibirsk Prov.:* Maly Chan Lake, 15.V.1982, A. Barkalov, 5 ♂; Karasuk, 25.VI.1982, A. Barkalov, 1 ♀; ibid., 1–5.V.2014, D. Efimov, 1 ♀, 3 ♂. *Kemerovo Prov.:* Kemerovo, 14.VII.2004, NE, 1 ♀; ibid., 17.VII.1996, NE, 1 ♂; 5 km NE of Bolshaya Talda, 18.VII.2004, DS, 1 ♀; 5 km S of Leninsk-Kuznetskiy, 27.VII.2006, N. Teplova, 1 ♀; 4 km NW of Zhuravlevo, 8.VII.2006, DS, 1 ♂; Shabanovo, 14.VII.2004, DS, 1 ♂. *Altai Terr.:* Barnaul, Yuzhniy, 25.IV.2006, Yu. Danilov, 1 ♂; Novoromanovo, 8.V.2006, Yu. Danilov, 1 ♂.

*Distribution***.** Russia (European part, Ural, *Omsk, *Tomsk, *Novosibirsk and *Kemerovo Prov., *Altai Terr., Eastern Siberia, Far East). – Europe, Caucasus, Turkey, Iran, Kyrgyzstan, Kazakhstan, China.

Andrena transbaicalica Popov, 1949

Material examined. Russia. *Tomsk Prov.:* Tomsk, 23.V.1995, OK, 1 ♀; ibid., 26–29.V.1997, OK, 2 ♂; ibid., 17.V.1998, OK, 1 ♂; Seversk, 27.V.1999, L. Grishaev, 1 ♀; *Novosibirsk Prov.:* Novosibirsk, CSBG SB RAS, 21.VI.2007, Students, 1 ♀. *Kemerovo Prov.:* Kemerovo, 31.VII.2005, DS, 2 ♂; 10 km NW of Kemerovo, 28.IV.2013, A. Korshunov, 1 ♂.

*Distribution***.** Russia (*Tomsk Prov., *Novosibirsk and *Kemerovo Prov., Eastern Siberia, Far East). – Korea, Japan.

***Andrena tridentata* (Kirby, 1802)**

Material examined. Russia. *Novosibirsk Prov.:* Karasuk biostation, 17.VIII.2015, K. Belova, 1 ♀. *Kemerovo Prov.:* Krasnoe, 14.VII.2004, DS, 1 ♂; 5 km NE of Prokopyevsk, 27.VII.2004, DS, 1 ♀; ibid., 9.VIII.2005, DS, 2 ♀; ibid., 15.VIII.2008, DS, 6 ♀; ibid., 15.VIII.2009, DS, 5 ♀; 17 km S of Kemerovo, 20.VII.2005, NE, 1 ♀; Krasnobrodskiy, 3.VIII.2005, S. Luzyanin, 1 ♂; Podyakovo, 3.VII.2007, E. Lityayeva, 1 ♀; Belovo, 23.VIII.2007, DS, 3 ♀; Guryevsk, 23.VIII.2007, DS, 1 ♀; 5 km SE of Starobachaty, 24.VIII.2007, S. Luzyanin, 1 ♀, DS, 1 ♀; Kiselevsk, 14.VIII.2010, A. Tikhonova, 1 ♀. *Altai Terr.:* Rubtsovsk, 20.VIII.1952, 1 ♀. *Altai Rep.:* Kayancha, 15.VIII.2014, DS, 1 ♀.

*Distribution***.** Russia (European part, Ural, *Novosibirsk and Kemerovo Prov., *Altai Terr., *Altai Rep.). – Europe.

***Andrena vaga* Panzer, 1799**

Material examined. Russia. *Tomsk Prov.:* Tomsk, 4–20.V.1996, OK, 3 ♀, 3 ♂; ibid., 10–25.IV.1997, OK, 2 ♀, 1 ♂; ibid., 11.V.1998, OK, 1 ♂; 5 km S of Tomsk, 20.IV.1997, OK, 4 ♂; ibid., 1.V.1999, OK, 1 ♂; ibid., 20.IV–2.V.2000, OK, 7 ♂; Seversk, 3.V.1999, OK, 1 ♂; ibid., 15.V.2000, L. Grishaev, 1 ♀; Tomsk, Tom' River, 3.V.1999, OK, 1 ♂. *Kemerovo Prov.:* Kemerovo, 22.IV.1997, NE, 1 ♀; ibid., D. Sushchov, 3 ♀; ibid., 15.V.1998, NE, 2 ♀; ibid., 26.V.1998, D. Sushchov, 2 ♀; ibid., 5.V.2001, NE, 1 ♀; ibid., 19.V.2003, NE, 2 ♀; ibid., 5.V.2004, NE, 7 ♀, 24 ♂; ibid., 5.V.2004, DS, 1 ♀; ibid., 2.VI.2004, A. Taubert, 1 ♀; ibid., 24.IV.2005, DS, 6 ♂; ibid., 9.V.2005, DS, 2 ♀; ibid., 19–26.V.2006, NE, 4 ♀, 2 ♂; ibid., 3.VI.2006, DS, 5 ♀; ibid., 22.IV–8.V.2007, DS, 2 ♀, 2 ♂; ibid., 16.V.2007, S. Luzyanin, 1 ♀; 10 km NW of Kemerovo, 23.V.2010, DS, 1 ♀.

*Distribution***.** Russia (European part, Ural, Omsk, Tomsk and Kemerovo Prov., Eastern Siberia). – Europe, Caucasus, Turkey, Kyrgyzstan, Kazakhstan.

***Andrena ventralis* Imhoff, 1832**

Material examined. Russia. *Tomsk Prov.:* 5 km S of Tomsk, 13–20.IV.1997, OK, 2 ♀, 5 ♂; ibid., 2.V.2000, OK, 1 ♂; ibid., 9.V.2001, OK, 1 ♂; ibid., 9.VI.2001, OK, 2 ♂; Tomsk, 20.IV.1997, OK, 1 ♂; ibid., 27.V.1997, OK, 1 ♀; ibid., 16.V.2000, OK, 2 ♂; ibid., 15.V.2001, Bagirov, 1 ♂. *Kemerovo Prov.:* Kemerovo, 26.V.2006, DS, 1 ♀; ibid., 25.IV.2007, DS, 1 ♀.

*Distribution***.** Russia (European part, Ural, Omsk, *Tomsk and Kemerovo Prov., Eastern Siberia). – Europe, Caucasus, Turkey, Central Asia, Kazakhstan, China, Korea, Japan.

***Andrena wilkella* (Kirby, 1802)**

Material examined. Russia. *Tomsk Prov.:* Tomsk, 29.VI.1995, OK, 1 ♂; ibid., 11.VI–7.VII.1997, OK, 6 ♂; ibid., 7–28.VII.1998, OK, 2 ♂; ibid., 3.VI.1999, OK, 1 ♂; ibid., 20.VI.2000, OK, 1 ♂; ibid., 19–22.VI.2001, OK, 2 ♂; Tomsk, 26.VI.1997, A. Khudobets, 1 ♂; Prosekino, 1.VII.1997, OK, 1 ♂; Kolarovo, 20.VI.2000, L. Grishaev, 1 ♂. *Novosibirsk Prov.:* Yevsino, 29.VI.2012, A. Byvaltsev, 2 ♂. *Kemerovo Prov.:* Shabanovo, 30.VI–16.VII.1995, NE, 3 ♂; ibid., 30.VI.1998, NE, 1 ♂; Kemerovo, 17.VII.1996, Mureeva, 1 ♂; D. Sushchov, 3 ♀; ibid., 15.V.1998, NE, 2 ♀; ibid., 26.V.1998, D. Sushchov, 2 ♀; ibid., 1.VII.1997, NE, 1 ♂; 17 km S of Kemerovo, 27.VI.1998, Zaitseva, 1 ♂; Sary-Chumysh, 5.VII.2002, NE, 1 ♂; Krasnoe, 12.VII.2004, DS, 1 ♂; 5 km NE of Prokopyevsk, 23.VI.2006, DS, 1 ♂; ibid., 14.VI.2006, DS, 3 ♂; 4 km NW of Zhuravlevo, 2.VII.2006, DS, 2 ♂; Malaya Salairka, 15.VI.2007, S. Luzyanin, 1 ♂; Makarakskiy, 30.VI.2007, DS, 2 ♂; ibid., V. Babushkina, 1 ♂; ibid., 1–5.VII.2007, SYa, 7 ♂; ibid., 9.VII.2007, D. Orlova, 2 ♂; 2 km SE of Chumay, 1.VII.2008, D. Yurikova, 1 ♂; ibid., 10.VII.2008, Yu. Samsonova, 1 ♂; 3 km SW of Gorskino, 3–9.VII.2009, A. Kapustina, 1 ♂; ibid., A. Topolya, 4 ♂; ibid., I. Korotkova, 9 ♂; ibid., N. Vasyukova, 14 ♂; 10 km N of Polutornik, 10–14.VII.2009, DS, 5 ♂.

*Distribution***.** Russia (European part, Ural, *Tomsk, *Novosibirsk and Kemerovo Prov., Altai Terr., Eastern Siberia). – Europe, North Africa, Caucasus, Turkey, Kyrgyzstan, Kazakhstan, China, Northern America.

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Additional data on the short-tongued bee fauna (Hymenoptera: Apoidea: Andrenidae, Halictidae, Melittidae) of Russia

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Дополнительные данные о короткоязычковых пчелах (Hymenoptera: Apoidea: Andrenidae, Halictidae, Melittidae) России

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Abstract. New data on distribution of 22 species of Russian short-tongued bees are given. Of them, the follow species are record for the first time: *Halictus sajoi* Blüthgen, 1923 from Ural; *H. gavarnicus* Pérez, 1903 from Siberia; *Nomiapis fugax* (Morawitz, 1877) from European part of Russia; *Lasioglossum clypeare* (Schenck, 1853) from Crimea; *Lasioglossum corvinum* (Morawitz, 1877), *L. glabriusculum* (Morawitz, 1872), *L. griseolum* (Morawitz, 1872), *L. limbellum* (Morawitz, 1876), *L. lineare* (Schenck, 1869), and *Pseudapis elegantissima* (Popov, 1949) from North Caucasus. Four Halictidae species are excluded from the fauna of Russia.

Key words. Biodiversity, Apiformes, Palaearctic region.

Резюме. Приводятся новые данные по распространению 22 видов короткохоботковых пчел в России. Из них, *Halictus sajoi* Blüthgen, 1923 впервые указывается для Урала, *H. gavarnicus* Pérez, 1903 – для Сибири, *Nomiapis fugax* (Morawitz, 1877) – для европейской части России, *Lasioglossum clypeare* (Schenck, 1853) – для Крыма, *Lasioglossum corvinum* (Morawitz, 1877), *L. glabriusculum* (Morawitz, 1872), *L. griseolum* (Morawitz, 1872), *L. limbellum* (Morawitz, 1876), *L. lineare* (Schenck, 1869) и *Pseudapis elegantissima* (Popov, 1949) – для Северного Кавказа. Четыре вида семейства Halictidae исключены из фауны России.

Ключевые слова. Биоразнообразие, Anthophila, Палеарктика.

Introduction

About 1200 species of bees (Hymenoptera: Apoidea: Apiformes) are recorded for the Russian fauna, and more than one half of them belongs to the short-tongued bees: Colletidae – 100 species, Andrenidae – 245, Halictidae – 263, Melittidae – 25 (Proshchalykin, Astafurova, 2017a). Here we continue our study of the taxonomic diversity and distribution patterns of the bees of Russia (Astafurova, Proshchalykin, 2015, 2016, 2017a;

Proshchalykin, Astafurova, 2016; Proshchalykin et al., 2017a, 2017b; Astafurova et al., 2017) that started in 2015 in the preparation of the "Annotated catalogue of Hymenoptera of Russia". This paper is based on a material collected by authors in the North Caucasus and the European part of Russia and on the collection of the Zoological Institute, St Petersburg (ZISP). Distribution of species generally follow Astafurova, Proshchalykin (2017b) and Proshchalykin, Astafurova (2017b). New distribution records are marked with an asterisk (*).

List of species

Family Andrenidae

***Panurginus romani* Aurivillius, 1914**

Material examined. Russia: *Altai Terr., Taymenye Lake, 20–23.VII.2003 (M. Proshchalykin, V. Loktionov), 5 ♂; *Tyva Rep., Shuurmak, Shuurmak River, 11–12.VII.2003 (M. Proshchalykin, V. Loktionov), 5 ♀.

Distribution. Russia (European part, Siberia, Far East). – Europe.

Family Halictidae

***Halictus* (*Monilapis*) *sajoi* Blüthgen, 1923**

Material examined. Russia: *Orenburg Prov., Orenburg, 12.VII.1926 (Vorontsovskiy), 1 ♀.

Distribution. Russia (European part, Crimea, *Ural). – Europe, Azerbaijan, Armenia, Turkey, Iran, Turkmenistan, Kyrgyzstan, Kazakhstan.

***Halictus* (*Seladonia*) *gavarnicus* Pérez, 1903**

Material examined. Russia: *Altai Rep., Yailyu, 12–13.IX.1988 (E. Korneeva), 2 ♂, 3 ♀ [Yu. Pesenko determination, 1999].

Distribution. Russia (European part, North Caucasus, Crimea, Ural, *Western Siberia, Far East). – Europe, Caucasus, Turkey, Mongolia, China.

***Halictus* (*Seladonia*) *semitectus* Morawitz, 1874**

Material examined. Russia: *Altai Terr., Lebyazhye, 6.VIII.1948 (M. Nikolskaya), 2 ♀.

Distribution. Russia (European part, Ural, Siberia, Far East). – Europe, Armenia, Afghanistan, Mongolia, China.

***Lasioglossum* (*Evylaeus*) *albipes albipes* (Fabricius, 1781)**

Material examined. Russia: *Leningradskaya Prov., Luga, 1 & 29.VII.2005 (Yu. Astafurova), 2 ♀.

Distribution. Russia (European part, North Caucasus, Ural, Siberia, Far East). – Europe, North Africa, Georgia, Turkey, Iran, Central Asia, Mongolia, China, Korea, Japan.

***Lasioglossum* (*Evylaeus*) *aeratum* (Kirby, 1802)**

Material examined. Russia: *Leningradskaya Prov., Luga, 21.VI.2005 (Yu. Astafurova), 1 ♀.

Distribution. Russia (European part, North Caucasus). – Europe, Turkey, Syria, Iran, Central Asia, Kazakhstan.

***Lasioglossum* (*Evylaeus*) *clypeare* (Schenck, 1853)**

Material examined. Russia: *Crimea Rep., Rybachye, 17.VI.1963 (A. Osychnjuk), 1 ♀; Kazantip, 13.VI.1963 (A. Osychnjuk), 1 ♀.

Distribution. Russia (European part, North Caucasus, *Crimea, Ural). – Europe, Turkey, Iran, Kyrgyzstan, Kazakhstan.

***Lasioglossum* (*Evylaeus*) *convexiusculum* (Schenck, 1853)**

Material examined. Russia: *Belgorod Prov., Borisovka, 23.VI.1958 (Y. Wu), 1 ♀.

Distribution. Russia (European part, Ural). – Europe, Turkey, Iran.

***Lasioglossum* (*Evylaeus*) *corvinum* (Morawitz, 1877)**

Material examined. Russia: *Krasnodar Terr., Sochi, 30.VIII.1926 (A. Shestakov), 1 ♀, 1 ♂.

Distribution. Russia (European part, *North Caucasus, Crimea). – Europe, North Africa, Caucasus, Turkey, Iran.

***Lasioglossum* (*Evylaeus*) *glabriusculum glabriusculum* (Morawitz, 1872)**

Material examined. Russia: *Krasnodar Terr., Sochi, Okhun, 27.IX.1926 (A. Shestakov), 2 ♂, 1 ♀ [P. Bluthgen determinated as *Halictus glabriusculus*]; *Stavropol Terr., Petrovskoye, 17.IV.1927 (V. Belizin), 1 ♂.

Distribution. Russia (European part, *North Caucasus). – Europe, Georgia, Turkey, Syria, Jordan, Israel, Iran.

***Lasioglossum* (*Evylaeus*) *griseolum griseolum* (Morawitz, 1872)**

Material examined. Russia: *Krasnodar Terr., Sochi, Razdolnoe, 15.IX.1926 (A. Shestakov), 1 ♂ [P. Bluthgen determinated as *Halictus griseolus*].

Distribution. Russia (European part, *North Caucasus). – Europe, Turkey, Israel, Iran, Afghanistan.

***Lasioglossum* (*Evylaeus*) *limbellum* (Morawitz, 1876)**

Material examined. Russia: *Dagestan Rep., Derbent, 6.V. (coll. F. Morawitz), 1 ♀.

Distribution. Russia (European part, *North Caucasus). – Europe, North Africa, Caucasus, Turkey, Israel, Iran, Afghanistan, Uzbekistan, Tajikistan, China.

***Lasioglossum* (*Evylaeus*) *lineare* (Schenck, 1869)**

Material examined. Russia: *Krasnodar Terr., Varenkovskaya, 26.VI.1924 (Gittermann), 1 ♂.

Distribution. Russia (European part, *North Caucasus, Crimea). – Europe, Caucasus, Turkey, Syria, Israel, Iran, Turkmenistan.

***Lasioglossum* (*Evylaeus*) *parvulum* (Schenck, 1853)**

Material examined. Russia: *Komi Rep., Leika, 10.VII.1969 (L. Kupchikova), 1 ♀.

Distribution. Russia (European part, North Caucasus, Ural). – Europe, Armenia, Turkey, Iran.

***Lasioglossum* (*Evylaeus*) *quadrinotatulum* (Schenck, 1861)**

Material examined. Russia: *Volgograd Prov., Sarepta [=Volgograd], 16.V.1909 (D. Glasunov), 1 ♀.

Distribution. Russia (European part, Ural, Eastern Siberia). – Europe, Turkey.

***Lasioglossum* (*Evylaeus*) *quadrisignatum* (Schenck, 1853)**

Material examined. Russia: *Saratov Prov., Elushanka, 30.VII.1933 (L. Zimina), 1 ♀ [V. Gussakovskij det.].

Distribution. Russia (European part, Crimea). – Europe, Caucasus, Turkey, Iran.

***Lasioglossum* (*Evylaeus*) *tarsatum* (Schenck, 1869)**

Material examined. Russia: *Volgograd Prov., Sarepta [=Volgograd], 21.V.1909 (D. Glasunov), 4 ♀.

Distribution. Russia (European part). – Europe, Afghanistan.

***Lasioglossum* (*Lasioglossum*) *leucozonium* (Schrank, 1781)**

Material examined. Russia: *Leningradskaya Prov., Luga, 21.VI–1.VII.2005 (Yu. Astafurova), 3 ♀.

Distribution. Russia (European part, Crimea, Ural, Eastern Siberia, Far East). – Europe, North Africa, Caucasus, Turkey, Near East, Afghanistan, Pakistan, Central Asia, Kazakhstan, Mongolia, China, India, North America.

***Nomiapis fugax* (Morawitz, 1877)**

Material examined. Russia: *Astrakhan Prov., 13 km S Liman, 24–26.VII.2015 (M. Proshchalykin); 30 ♀, 10 ♂; *Kalmykia Rep.: 17 km SWW Artezian, 18–21.VII.2015 (M. Proshchalykin), 14 ♀, 11 ♂; 4 km NE Yashkul', 16.VII.2015 (M. Proshchalykin), 1 ♂; 3 km SSE Tsagan-Nur, 13.VII.2015 (M. Proshchalykin), 1 ♀.

Distribution. Russia (*European part, North Caucasus, Eastern Siberia). – North Africa, Armenia, Azerbaijan, Turkey, Iran, Pakistan, Central Asia, Kazakhstan, China (NW).

***Pseudapis elegantissima* (Popov, 1949)**

Material examined. Russia: *Dagestan Rep., 9 km SSE Kochubey, 21–22.VII.2015 (M. Proshchalykin), 2 ♀, 4 ♂; Astrakhan Prov.: 13 km S Liman, 24–26.VII.2015 (M. Proshchalykin), 2 ♀.

Distribution. Russia (European part, *North Caucasus). – Azerbaijan, Iran, Turkmenistan, Uzbekistan, Tajikistan, Kazakhstan.

Family Melittidae

***Dasypoda hirtipes* (Fabricius, 1793)**

Material examined. Russia: *Novosibirsk Prov., Novosibirsk, Akademgorodok, 1–6.VIII.2017 (Yu. Astafurova), 5 ♀.

Distribution. Russia (European part, North Caucasus, Crimea, Ural, Siberia, Far East). – Europe, North Africa, Caucasus, Turkey, Iran, Kazakhstan, Mongolia, China.

***Melitta tricincta* Kirby, 1802**

Material examined. Russia: *Irkutsk Prov., "Irkuzk" [=Irkutsk] (collection by E. Eversmann), 1 ♂ (lectotype of *Andrena microstigma* Eversmann, 1852).

Distribution. Russia (European part, North Caucasus, Crimea, Ural, Siberia, Far East). – Europe, Kazakhstan, China.

Species excluded from the fauna of Russia

***Halictus* (*Hexataenites*) *fulvipes* (Klug, 1817)**

Records of the species from Crimea (Strand, 1909; Proshchalykin, Astafurova, 2012) and Rostov Prov. (Pesenko, 1972) were based on misidentifications and actually refers to *H. cochlearitarsis* (Dours, 1872).

***Lasioglossum* (*Lasioglossum*) *majus* (Nylander, 1852)**

According to Ebmer (2011) the records of the species from Central Asia and Ural were based on misidentifications and actually refers to *Lasioglossum discum* (Smith, 1853); the same way it record from Moscow Prov. by Mosolov (1905) is possible misidentification (Levchenko, 2015).

***Lasioglossum* (*Lasioglossum*) *sexmaculatum* (Schenck, 1853)**

The records of this species by Pesenko (1986) from Russia and Sitdikov (1986) from Udmurtia were based on misidentifications and actually refers to *Lasioglossum tungusicum* Ebmer, 1978 (Pesenko, 2006). The same way, the record of *L. sexmaculatum* from Moscow Prov. by Levchenko (2015) is wrong.

***Lasioglossum* (*Lasioglossum*) *subfasciatum* (Imhoff, 1832)**

This species were recorded by Pesenko (1986) from south of the European part of USSR without accurate locations. We have not found specimens of this species from Russia in the collection of ZISP.

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New data on megachilid bees (Hymenoptera: Megachilidae) of the European part of Russia

A.V. Fateryga

Новые данные о пчелах-мегахилидах (Hymenoptera: Megachilidae) европейской части России

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Abstract. New data on distribution of 15 species of megachilid bees are given. *Pseudoanthidium melanurum* (Klug, 1832) is recorded from Russia for the first time; *Hoplitis fulva* (Eversmann, 1852) is newly recorded from Crimea; 13 species are found in the North Caucasus for the first time. Eight species listed for the European part of Russia in the "Fauna Europaea" Internet database must be excluded from the Russian fauna.

Key words. Fauna, distribution, North Caucasus, Crimea.

Резюме. Приводятся новые данные о распространении 15 видов пчел-мегахилид. *Pseudoanthidium melanurum* (Klug, 1832) впервые отмечен для фауны России, а *Hoplitis fulva* (Eversmann, 1852) – для Крыма; 13 видов указываются впервые для Северного Кавказа. Восемь видов, указанных для фауны европейской части России в электронной базе «Fauna Europaea», должны быть исключены из нее.

Ключевые слова. Фауна, распространение, Северный Кавказ, Крым.

Introduction

The present contribution is made within the framework of the preparation of "Annotated catalogue of Hymenoptera of Russia" in which the author takes part in the chapter on the bee family Megachilidae. More than 190 species of these bees are known in the Russian fauna (Proshchalykin, Astafurova, 2017) which are either described from Russia or confirmed by collection specimens. Some other species reports, especially represented in the Internet databases, require further confirmation. At the same time, new species records are expected in the southern regions of Russia (North Caucasus and Crimea). The bees of the North Caucasus are poor studied (Proshchalykin, Astafurova, 2017). For Crimea, however, the comprehensive faunistic paper on Megachilidae has been already submitted for publication (Fateryga et al., 2018).

The present paper adds one species of megachilid bees new for Russia, another one new for Crimea, and 13 species new for the North Caucasus. Additionally, eight species listed for the European Russia in the "Fauna Europaea" Internet database are excluded from the Russian fauna. Complete list of the family Megachilidae recorded in the fauna of Russia will be published in the "Annotated catalogue of Hymenoptera of Russia".

Material and methods

The material for the present study was collected mainly in 2017 by the author and colleagues. It is deposited in the collection of the Taurida Academy of the V.I. Vernadsky Crimean Federal University, Simferopol, Russia (formerly V.I. Vernadsky Taurida National University) (CFUS) and in private collection of I.B. Popov, Krasnodar, Russia (CIPK). The distribution of species is given mainly according to Banaszak and Romasenko (2001), Kuhlmann et al. (2015), Ascher and Pickering (2017) and Müller (2017). The abbreviations of the regions of Russia (in distribution sections) are as follows: EP – European part (without the North Caucasus and Crimea); NC – North Caucasus; CR – Crimea; UR – Ural; WS – Western Siberia; ES – Eastern Siberia; FE – Far East. New records are asterisked (*). The North Caucasus region includes Krasnodar and Stavropol Territories, and the republics of Adygea, Karachay-Cherkessia, Kabardino-Balkaria, North Ossetia-Alania, Ingushetia, Chechnya and Dagestan.

Results

Anthidium (*Anthidium*) *punctatum* Latreille, 1809

Material examined. Russia: Dagestan, Derbent District, valley of Kamyshchay River, 41.908° N 48.233° E, 11.VI.2017 (M. Mokrousov), 1 ♂ (CFUS).

Distribution. Russia (EP, *NC, UR, WS, ES, FE). – Europe, North Africa, Azerbaijan, Turkey, Syria, Israel, Iran, Uzbekistan, Kyrgyzstan, Kazakhstan, China.

Icteranthidium grohmanni (Spinola, 1838)

Material examined. Russia: Dagestan, Magaramkent District, Samur Reserve, 41.86° N 48.55° E, 5.VI.2017 (M. Mokrousov), 1 ♀, 1 ♂ (CFUS).

Distribution. Russia (*NC, CR). – W, E and S Europe, North Africa, Armenia, Turkey, Cyprus, Syria, Lebanon, Israel, Iran, Kyrgyzstan.

Hoplitis (*Alcidamea*) *acuticornis* (Dufour et Perris, 1840)

Material examined. Russia: Krasnodar Terr., Gelendzhyk, khutor Dzhankhot, pine forest, 10.VI.2017 (A. Fateryga), 1 ♀, (CFUS).

Distribution. Russia (EP, *NC, CR, UR, WS, ES). – W, E and S Europe, North Africa, Armenia, Turkey, Cyprus, Syria, Jordan, Israel, Iran, Turkmenistan, Tajikistan, Kyrgyzstan, Kazakhstan.

Remarks. This species is very common but its records from the North Caucasus were not documented previously.

Hoplitis (*Alcidamea*) *fulva* (Eversmann, 1852)

Material examined. Russia: Crimea, Arabat Spit, Kamenskoye – Solyanoye, on Teucrium chamaedrys, 23.VI.2017 (A. Fateryga), 1 ♀, 3 ♂; ibid., on Linaria genistifolia, 23.VII.2017 (A. Fateryga), 1 ♀ (CFUS).

Distribution. Russia (EP, *CR, UR, ES). – E Europe, Armenia, Azerbaijan, Turkey, Syria, Jordan, Kazakhstan, Mongolia, China.

Remarks. Females of this species collected pollen from flowers of Teucrium chamaedrys L. (Fig. 1) along with the males feeding on them (Fig. 2). The female recorded on Linaria genistifolia (L.) Mill. were without pollen in the scopa, and it was caught when T. chamaedrys was already withered.

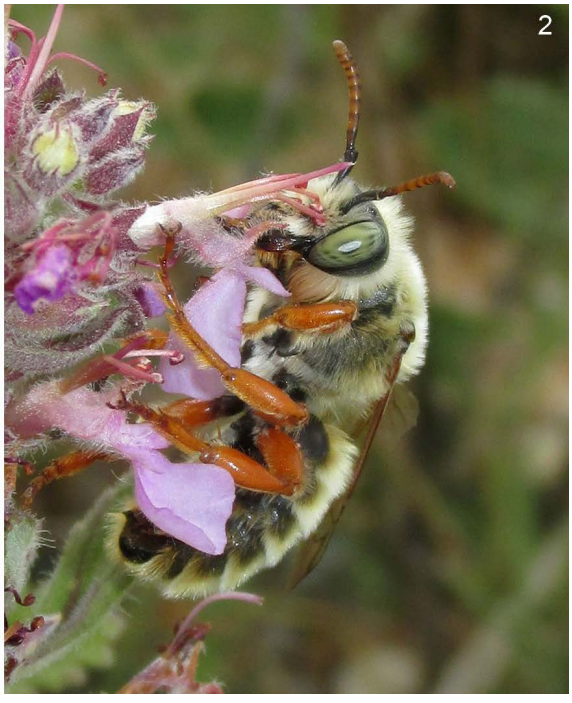
Hoplitis (*Anthocopa*) *mocsaryi* (Friese, 1895)

Material examined. Russia: Krasnodar Terr., Anapa, Supsekh, Mt. Lysaya, 8.VI.2017, on Linum lanuginosum (A. Fateryga), 2 ♀, 1 ♂ (CFUS).

Distribution. Russia (*NC, CR). – W, E and S Europe, Armenia, Turkey, Israel, Iran.

Megachile (*Eutricharaea*) *leachella* Curtis, 1828

Material examined. Russia: Krasnodar Terr., Anapa, vicinity of Vityazevo, on Glycyrrhiza glabra, 7.VI.2017 (A. Fateryga), 6 ♂; Dagestan, Magaramkent District, Samur Reserve, 41.86° N, 48.55° E, 5.VI.2017 (M. Mokrousov), 1 ♂ (CFUS).



Figures 1 – 2. Female (1) and male (2) of *Hoplitis fulva* (Eversmann) on flowers of Teucrium chamaedrys.

Distribution. Russia (EP, *NC, CR, UR, WS, ES, FE). – Europe, North Africa, Georgia, Azerbaijan, Turkey, Iran, China.

Remarks. This species is very common but its records from the North Caucasus were not documented previously.

***Megachile* (*Eutricharaea*) *rotundata* (Fabricius, 1787)**

Material examined. Russia: Krasnodar Terr., Anapa, Supsekh, Mt. Lysaya, 8.VI.2017 (A. Fateryga), 1 ♂ (CFUS); Krasnodar Terr., Krasnodar, stanitsa Elizavetinskaya, 22.VII.2017 (I. Popov), 1 ♀, 1 ♂ (CIPK).

Distribution. Russia (EP, *NC, CR, UR, WS, ES, FE). – Europe, North Africa, Georgia, Azerbaijan, Turkey, Cyprus, Iran, Pakistan, Turkmenistan, Kazakhstan, Mongolia, China, Japan; India; introduced in North and South America, Australia and New Zealand.

Remarks. This species is very common but its records from the North Caucasus were not documented previously.

***Osmia* (*Allosmia*) *rufohirta* Latreille, 1811**

Material examined. Russia: Krasnodar Terr., Anapa, Supsekh, Mt. Lysaya, 8.VI.2017, on Hedysarum tauricum (A. Fateryga), 3 ♀ (CFUS).

Distribution. Russia (*NC, CR). – W, E and S Europe, North Africa, Georgia, Armenia, Turkey, Syria, Jordan, Israel, Iran, China.

Remarks. This species is very common but its records from the North Caucasus were not documented previously.

***Osmia* (*Erythrosmia*) *andrenoides* Spinola, 1808**

Material examined. Russia: Krasnodar Terr., Anapa, Supsekh, Mt. Lysaya, 8.VI.2017 (A. Fateryga), 1 ♀; Krasnodar Terr., Gelendzhyk, khutor Dzhankhot, pine forest, 10.VI.2017 (A. Fateryga), 1 ♀; Dagestan, 5 km SW Magaramkent, 41.573° N 48.247° E, 10.VI.2017 (M. Mokrousov), 1 ♀ (CFUS).

Distribution. Russia (*NC, CR). – W, E and S Europe, Georgia, Turkey, Cyprus, Syria, Jordan, Israel, Iran.

Remarks. This species is very common but its records from the North Caucasus were not documented previously.

***Osmia* (*Helicosmia*) *aurulenta* (Panzer, 1799)**

Material examined. Russia: Krasnodar Terr., Anapa, Supsekh, Mt. Lysaya, 8.VI.2017, 1 ♀, (A. Fateryga); ibid., on Hedysarum tauricum, 8.VI.2017 (A. Fateryga), 1 ♀ (CFUS).

Distribution. Russia (EP, *NC, CR). – Europe, Caucasus, Turkey, Lebanon, Iran.

Remarks. This species is very common but its records from the North Caucasus were not documented previously.

***Osmia* (*Helicosmia*) *dimidiata* Morawitz, 1870**

Material examined. Russia: Krasnodar Terr., Temryuk District, Taman' Peninsula, vicinity of Priazovskiy, steppe, coast of the Azov Sea, 12.VI.2011 (I. Popov), 2 ♀ (CIPK).

Distribution. Russia (*NC, CR). – W, E and S Europe, North Africa, Caucasus, Turkey, Cyprus, Lebanon, Israel, Iran, Turkmenistan, Kyrgyzstan.

Remarks. This species was described from the Caucasus without details on the locality (Morawitz, 1870); its records from the North Caucasus were not documented previously.

***Osmia* (*Pyrosmia*) *cephalotes longiceps* Morawitz, 1876**

Material examined. Russia: Krasnodar Terr., Anapa, vicinity of Bolshoy Utrish, juniper forest, 9.VI.2017 (A. Fateryga), 4 ♀; Krasnodar Terr., Gelendzhyk, khutor Dzhankhot, pine forest, 10.VI.2017 (A. Fateryga), 1 ♀, 1 ♂ (CFUS).

Distribution. Russia (*NC, CR). – E and S Europe, Caucasus, Turkey, Cyprus, Syria, Jordan, Israel, Iran, Turkmenistan, Uzbekistan.

***Osmia* (*Pyrosmia*) *submicans* Morawitz, 1870**

Material examined. Russia: Krasnodar Terr., Gelendzhyk, khutor Dzhankhot, on Vicia villosa, 10.VI.2017 (A. Fateryga), 1 ♀ (CFUS).

Distribution. Russia (*NC, CR). – W, E and S Europe, North Africa, Turkey, Cyprus, Syria, Jordan, Lebanon, Israel, Kazakhstan.

***Pseudoanthidium* (*Royanthidium*) *melanurum* (Klug, 1832)**

Material examined. Russia: Krasnodar Terr., Novorossiysk, Verkhnebakanskiy, 5.VII.2012 (I. Popov), 1 ♀, 1 ♂ (CFUS).

Distribution. *Russia (NC). – W, E and S Europe, N Africa, Georgia, Azerbaijan, Turkey, Syria, Lebanon, Israel, Iran.

***Stelis* (*Protostelis*) *signata flavescens* Friese, 1925**

Material examined. Russia: Krasnodar Terr., Anapa, vicinity of Vityazevo, 7.VI.2017, on Glycyrrhiza glabra (A. Fateryga), 1 ♂; Dagestan, Kumtorkalinskiy District, Barkhan Sarykum, 43.01° N, 47.237° E, 31.V.2017 (M. Mokrousov), 1 ♂ (CFUS).

Distribution. Russia (EP, *NC, CR, UR). – W, E and S Europe, North Africa, Armenia, Azerbaijan, Turkey, Cyprus, Syria, Lebanon, Israel, Iraq, Iran, Kazakhstan.

Corrections

The following species of megachilid bees listed in the "Fauna Europaea" Internet database (Polaszek, 2013) must be excluded from the fauna of Russia: *Chelostoma* (*Chelostoma*) *grande* (Nylander, 1852), *Coelioxys* (*Allocoelioxys*) *acanthura* (Illiger, 1806), *C.* (*Mesocoelioxys*) *argenteus* Lepeletier de Saint-Fargeau, 1841, *Hoplitis* (*Hoplitis*) *lepeletieri* (Pérez, 1879), *Rhodanthidium* (*Rhodanthidium*) *septemdentatum* (Latreille, 1809), *Stelis* (*Heterostelis*) *hungarica* Noskiewicz, 1962, *S.* (*Stelis*) *franconica* Blüthgen, 1930, and *S.* (*S.*) *iugae* Noskiewicz, 1962. All of them are reported in this database for the Northwest of European Russia. It is obvious that this is the result of a mistake. There are no any documented records of these species for Russia. For example, *S. hungarica*, which is often regarded as a synonym of *S.* (*Heterostelis*) *annulata* (Lepeletier de Saint-Fargeau, 1841), is known by just a single female from Hungary (Kasparek,

2015). Most other species are not so rare but they usually have even more southern distribution. Probably, the erroneous reports of all of these species from Russia in the "Fauna Europaea" database were caused by the presence of them in the "Keys to the insects of the European part of the USSR" (Osytshnjuk et al., 1978) where they are actually not reported for Russia but are reported for south or southwest of the USSR European part (which actually include also Ukraine and the Republic of Moldova).

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New data and corrections to the fauna of bees of the family Apidae (Hymenoptera) of Russia

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Новые данные и уточнения по фауне пчел семейства Apidae (Hymenoptera) России

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Abstract. An annotated list of 62 species of bees recorded from Russia is given. The new species, *Nomada obscuriceps* Schwarz et Levchenko, **sp. n.**, is described from Irkutsk Province. New distribution data in regions of Russia is given for 59 and for other areas of former USSR territory is presented for four species. The most northerly distribution range for *Nomada bluethgeni* Stöckhert, 1944 and *N. mutabilis* Morawitz, 1871 is published. Doubtful and questionable distribution records of Apidae in Russia are discussed, including seven species erroneously reported from Russia.

Key words. Biodiversity, new records, distribution range, taxonomy, Palaearctic region.

Резюме. Приведен аннотированный список 62 видов пчёл семейства Apidae России. Новый вид *Nomada obscuriceps* Schwarz et Levchenko, **sp. n.** описан из Иркутской области. Для 59 видов указаны новые данные по распространению в регионах России и для 4 видов – новые данные по распространению в странах бывшего СССР. Опубликованы самые северные точки ареалов *Nomada bluethgeni* Stöckhert, 1944 и *N. mutabilis* Morawitz, 1871. Проанализированы ошибочные и сомнительные указания по распространению пчёл семейства Apidae в России, включая 7 ошибочно отмеченных для России видов.

Ключевые слова. Биоразнобразие, новые находки, распространение, таксономия, Палеарктика.

Introdution

Approximately 1200 species of bees (Hymenoptera: Apoidea: Apiformes) are recorded from the territory of modern Russia, and about a third of it belonged to the family Apidae (Proshchalykin, Astafurova, 2017). It is not the final tally and much researches are still needed in the vast museum collections as well as in the nature. As a result of the preliminary survey combined with an analysis of the literature, 14 new Apidae species have been added to the fauna of Russian bees by authors (Proshchalykin et al., 2017). In this paper we present further material on the distribution of the bees family Apidae in Russia.

The most of material used in this paper is deposited in the Zoological Institut of the Russian Academy of Sciences (St Petersburg; ZISP), and in the annotated list below those specimens are given without any special acronym. Where specimens are deposited in other collections the following acronyms are used: FSCV – Federal Scientific Centre of East Asian Terrestrial Biodiversity (former Institute of Biology and Soil Science), Vladivostok, Russia; NSU – Novosibirsk State University collection, Novosibirsk; PCMS – private collection of Maximilian Schwarz, Ansfelden, Austria; ZMMU – Zoological Museum of Moscow University, Moscow, Russia. M. Schwarz collection will be deposited in the Biological Center in Upper Austria State Museum (Biologiezentrum, Oberösterreichisches Landesmuseum), Linz, Austria. New regional records are indicated with an asterisk (*).

The identification of *Nomada* Scopoli species with additional records of 30 species from the total 61 has been made by M. Schwarz in the collection of ZISP. All work on the genus *Bombus* Latreille has been made by A. Byvaltsev. Very substantial work has been made by A. Sitdikov on *Eucera* Scopoli and by A. Ponomareva on *Anthophora* Latreille and *Amegilla* Friese in the ZISP collection, but the results of work on these three genera have not yet been published. An analysis of the distribution ranges of all species, excluding *Bombus*, and identification of additional genera and of the specimen of *N. mutabilis* Morawitz from Kirov Province have been made by T. Levchenko.

List of species

Ceratina cucurbitina (Rossi, 1792)

Material examined. Bryansk Prov.: Pochep, 52°56′ N, 33°27′ E, 18.VII.1937 (I. Baskakov), 1 ♀ (ZMMU); Krasnodar Terr.: Lazarevskoye, 43°55′ N, 39°20′ E, 12.VII.1937 (K. Popov), 1 ♀ (ZMMU); Sochi, 43°35′ N, 39°43′ E, 12.VI (N. Filippov), 1 ♂ (ZMMU).

Distribution. Russia: European part (*Bryansk Prov., Krasnodar Terr., Crimean Rep.). – Europe from France and Portugal to Slovakia and Greece, North Africa from Morocco to Tunisia, Azerbaijan, Turkey, Israel, Jordan, China (Zhejiang) (Daly, 1983; Wu, 2000; Filatov, 2003; Aliev, Quamarli, 2010; Grace, 2010).

Note. Records for Krasnodar Terr., the Black Sea coast, are mapped at Atlas Hymenoptera (http://www.atlashymenoptera.net/page.asp?id=192), but examined material has not yet been published.

Nomada alboguttata Herrich-Schäffer, 1839

Material examined. Crimea Rep.: Salgir, 44°53′ N, 34°11′ E, 22.IV.1899 (A. Bazhenov), 1 ♂; Sevastopol, 44°36′ N, 33°32′ E, 1926, 1 ♀.

Distribution. Russia: European part from Karelia to Rostov Prov. and *Crimea Rep., S Ural (Bashkortostan), Krasnoyarsk and Kamchatka Terr. – Europe up to 70º N, Georgia, Azerbaijan, Japan (Levchenko, 2013; Proshchalykin, Schwarz, 2017).

Nomada bluethgeni Stöckhert, 1944

Material examined. Ryazan Prov.: Gremyachka, 53°29′ N, 39°31′ E, 29.VI.1900 (A. Semenov-Tyan-Shansky), 1 ♀; Volgograd Prov.: Krasnoarmeysk district of Volgograd (Sarepta), 48°30′ N, 44°33′ E (F. Morawitz), 2 ♀; Rostov Prov.: Proletarskiy, 46°42′ N, 41°43′ E, 25.V.1967 (Yu. Pesenko), 2 ♀; Persiyanovskiy, 47°31′ N, 40°06′ E, 6.VI.1971, 1 ♀, 14.VI.1971 (Yu. Pesenko), 1 ♂, Bagaevskaya, 47°19′ N, 40°23′ E, 9.V.1970, 1 ♂, 10.V.1970 (Yu. Pesenko), 1 ♂; Crimea Rep.: Karatau, 44°51′ N, 34°29′ E (Vitgalm), 1 ♂; Krasnodar Terr.: Slavianskiy, 44°41′ N, 40°31′ E, 17.VI.1938 (V. Rudolf), 1 ♀.

Distribution. Russia: European part (Ryazan, *Rostov and Volgograd Prov., *Crimea Rep.), North Caucasus (Krasnodar Terr.). – Europe from south to Thuringia, Azerbaijan (Stöckhert, 1944; Aliev, 2011).

Note. The record from Ryazan Prov. is the most northerly in the distribution range of this species.

Nomada braunsiana Schmiedeknecht, 1882

Material examined. Tambov Prov.: Michurinsk (former Kozlov), 52°53′ N, 40°29′ E (Lange), 1 ♂; Rostov Prov.: Rostov-on-Don, 47°14′ N, 39°42′ E, 21.V.1967 (Yu. Pesenko), 1 ♂; Crimea Rep.: Simferopol, 44°57′ N, 34°16′ E, 7.VII.1898, 1 ♀.

Distribution. Russia: European part (*Tambov and *Rostov Prov., *Crimea Rep.), North Caucasus (Stavropol Terr.). – Europe from France and Spain to Poland (53º N) and Greece, Turkey, Jordan (Celary, 1995; Grace, 2010).

***Nomada castellana* Dusmet, 1913**

Material examined. Yaroslavl Prov.: Berditsyno, 57°27′ N, 40°06′ E, 7.VI.1908 (A. Yakovlev), 1 ♂; Ryazan Prov.: Gremyachka, 53°29′ N, 39°31′ E, 12.VI.1900, 1 ♂, 15.VI.1900, 1 ♀, 22.VI.1900 (A. Semenov-Tyan-Shansky), 1 ♀; Belgorod Prov.: Borisovka, 50°36′ N, 36°01′ E, 2.VI.1904 (S. Malyshev), 1 ♀; ibid., 19.V.1959(Y.-R. Wu), 1 ♂; Rostov Prov.: Persiyanovskiy, 47°31′ N, 40°06′ E, 11.V.1971 (Yu. Pesenko), 1 ♂.

Distribution. Russia: European part (Kirov, *Yaroslavl, Moscow, *Ryazan, *Belgorod and *Rostov Prov.), E Siberia (Irkutsk Prov.). – Europe from Belgium and Spain to Lithuania and Romania, Azerbaijan, Kazakhstan (Levchenko, 2013; Levchenko, Yuferev, 2013).

***Nomada cruenta* Schmiedeknecht, 1882**

Material examined. Rostov Prov.: Bagaevskaya, 47°19′ N, 40°23′ E, 1.VI.1970 (Yu. Pesenko), 3 ♂, Persiyanovskiy, 47°31′ N, 40°06′ E, 17.VI.1971 (Yu. Pesenko), 1 ♂; Crimea Rep.: Sevastopol, 44°36′ N, 33°32′ E, 4.VI.1909 (W. Pliginski), 1 ♀.

Distribution. Russia: south of the European part (*Rostov Prov., Crimea Rep.). – Europe from Spain to Greece in the south and to Chech Rep. in the north, Azerbaijan, Turkey. (Paglianom, 1994; Grace, 2010; Aliev, 2011; Filatov, 2013).

***Nomada erythrocephala* Morawitz, 1871**

Material examined. Volgograd Prov.: Krasnoarmeysk district of Volgograd (Sarepta), 48°30′ N, 44°33′ E (F. Morawitz), 4 ♀; Dagestan Rep.: Derbent, 42°04′ N, 48°17′ E (F. Morawitz), 1 ♂.

Distribution. Russia: south of the European part (Volgograd Prov.), North Caucasus (*Dagestan Rep.). – South of Europe up to Romania, Armenia, Turkey, Cyprus (Gurvich, 1931; Ban-Calefariu, 2006; Grace, 2010; Aliev, 2011).

***Nomada femoralis* Morawitz, 1869**

Material examined. Bryansk Prov.: Velikaya Topal′, 52°32′ N, 32°21′ E, 11.VIII.1968 (V. Gorbatovskiy), 1 ♀; Crimea Rep.: Sevastopol, 44°36′ N, 33°32′ E, 18.IV.1908 and 7.V.1917 (W. Pilginski), 2 ♀.

Distribution. Russia: European part (*Bryansk and Perm Prov., Crimea Rep.). – Europe up to Lithuania, North Africa (Tunisia), Azerbaijan, Turkey, Syria, Palestine, Iran (Celary, 1995; Lykov, 2000, Filatov, 2006; Grace, 2010; Aliev, 2011).

***Nomada fuscicornis* Nylander, 1848**

Material examined. Saint Petersburg: Lesnoye, 59°59′ N, 30°20′ E, 2.VII.1864 (F. Morawitz), 4 ♀; Yaroslavl Prov.: Berditsyno, 57°27′ N, 40°06′ E, 11.VII.1894 (A. Yakovlev), 1 ♂; Belgorod Prov.: Borisovka, 50°36′ N, 36°01′ E, 1.VIII.1916 (S. Malyshev), 1 ♀; North Ossetia Rep.: Vladikavkaz, 43°01′ N, 44°41′ E (F. Morawitz), 1 ♀.

Distribution. Russia: European part up to Karelia, North Caucasus (*North Ossetia Rep.), S Ural (Bashkortostan), W Siberia (Tomsk Prov., Altai Terr.). – Europe up to 64º N (Elfving, 1968; Levchenko, 2013; Proshchalykin, Schwarz, 2017).

***Nomada goodeniana* (Kirby, 1802)**

Material examined. Kostroma Prov.: Kostroma, 57°46′ N, 40°56′ E, 26.IV.1920, 1 ♀; Nizherorodskaya Prov.: vicinity of Pavlov, Volchikha, 55°57′ N, 43°05′ E, 1894 (A. Yakovlev), 1 ♀; Belgorod Prov.: Borisovka, 50°36′ N, 36°01′ E, 3.IV.1906 (S. Malyshev), 1 ♀; Tatarstan: Kazan, 55°47′ N, 49°07′ E (F. Morawitz), 1 ♀; Volgograd Prov.: Krasnoarmeysk district of Volgograd (Sarepta), 48°30′ N, 44°33′ E (F. Morawitz), 1 ♂; ibid., 18.IV.1907 (M. Koch), 1 ♂; Orenburg Prov.: Orenburg, 51°46′ N, 55°06′ E, 18.IV.1925 (P. Vorontsovskiy), 1 ♂.

Distribution. Russia: European part from Karelia to *Volgograd Prov., Crimea Rep., S Ural (Bashkortostan), W Siberia (Tomsk Prov., Altai Terr.), E Siberia (Irkutsk Prov.). – Europe up to 63º N, Azerbaijan, Turkey, Kyrgyzstan, Kazakhstan (Elfving, 1968; Filatov, 2006; Grace, 2010; Levchenko, 2013; Proshchalykin, Schwarz, 2017).

***Nomada guttulata* Schenck, 1861**

Material examined. Ryazan Prov.: Gremyachka, 53°29′ N, 39°31′ E, 15.VI.1909 (A. Semenov-Tyan-Shansky), 1 ♀; Tambov Prov.: Michurinsk (former Kozlov), 52°53′ N, 40°29′ E (Lange), 1 ♀; Volgograd Prov.: Krasnoarmeysk district of Volgograd (Sarepta), 48°30′ N, 44°33′ E (Backer), 1 ♀; Dagestan Rep.: Derbent, 42°04′ N, 48°17′ E (F. Morawitz), 1 ♀; Orenburg Prov.: Orenburg, 51°46′ N, 55°06′ E, 6.V.1924 (P. Vorontsovskiy), 1 ♀.

Distribution. Russia: European part from Moscow Prov. and Udmurtia to *Volgograd Prov., North Caucasus (*Dagestan Rep.), S Ural (Bashkortostan, Orenburg Prov.), Khakassia Rep., Primorskiy Terr. – Europe up to 58° N, Kazakhstan, Japan (Levchenko, 2013; Proshchalykin, Schwarz, 2017).

***Nomada hungarica* Dalla Torre et Friese, 1894**

Material examined. Volgograd Prov.: Krasnoarmeysk district of Volgograd (Sarepta), 48°30′ N, 44°33′ E (Backer), 2 ♂.

Distribution. Russia: south of the European part (*Volgograd Prov.), S Ural (Bashkortostan). – Europe (Hungary, Greece), Turkey (Nikiforuk, 1957; Alexander, Schwarz, 1994; Grace, 2010).

***Nomada immaculata* Morawitz, 1874**

Material examined. Volgograd Prov.: Krasnoarmeysk district of Volgograd (Sarepta), 48°30′ N, 44°33′ E (Backer), 2 ♀, 2 ♂; Dagestan Rep.: Derbent, 42°04′ N, 48°17′ E (F. Morawitz), 1 ♂.

Distribution. Russia: south of the European part (*Volgograd Prov.), North Caucasus (Dagestan Rep.). – Europe (Hungary, Greece), Armenia, Cyprus, Afghanistan, Pakistan (Gurvich, 1931; Schwarz, 1980; Alexander, Schwarz, 1994; Grace, 2010; Józan, 2011).

Note. The female of *Nomada immaculata* Morawitz, 1874 collected by D.M. Glasunow in Dshisak (now Jizzak), the centre of Jizzakh Region, Uzbekistan (Morawitz, 1893), belongs to *Nomada caspia* Morawitz, 1894 (= *Nomada graeca* Schwarz, 1967) (Schwarz, 1980), widespread in Greece, Turkey, Israel (Grace, 2010) and the south-west Turkmenistan coast of the Caspian Sea (Chikishlyar) (Gurvich, 1931).

***Nomada integra* Brülle, 1832**

Material examined. Leningradskaya Prov.: Nikolskoe (former Sivoritsy), 59°29′ N, 30°00′ E, 17.VI. & 4.VII.1920 (Birulya), 2 ♀; Yaroslavl Prov.: Berditsyno, 57°27′ N, 40°06′ E, 19.VI.1897 & 3.VI.1906 (A. Yakovlev), 1 ♀, 1 ♂; Tambov Prov.: Michurinsk (former Kozlov), 52°53′ N, 40°29′ E (Lange), 2 ♀; Rostov Prov., Volgodonsk, 47°32′ N, 42°12′ E, 8.VI.1967 (Yu. Pesenko), 1 ♂.

Distribution. Russia: European part from *Leningradskaya and Kirov Prov. to Rostov Prov., S Ural (Bashkortostan), North Caucasus (Stavropol Terr., Karachay-Cherkess Rep.), E Siberia (Krasnoyarsk Terr.). – Europe from Norway to Portugal and Greece, North Africa (Morocco, Algeria, Tunisia), Caucasus, Turkey, Cyprus, Israel, Kazakhstan (Nikiforuk, 1957; Schwarz, 1967b; Pesenko, 1974; Dathe, 1980; Chenikalova, 2005; Levchenko, 2013; Levchenko, Yuferev, 2013; Proshchalykin, Schwarz, 2017).

***Nomada italica* Dalla Torre et Friese, 1894**

Material examined. Belgorod Prov.: Borisovka, 50°36′ N, 36°01′ E, 17.VI.1907 (S. Malyshev), 1 ♀; Orenburg Prov.: Orenburg, 51°46′ N, 55°06′ E, 2.V.1925, 18.VIII & 3.IX.1928 (P. Vorontsovskiy), 3 ♀, 1 ♂.

Distribution. Russia: European part (*Belgorod and Lipetsk Prov.), S Ural (*Orenburg Prov.), W Siberia (Altai Terr.), E Siberia (Krasnoyarsk Terr., Khakassia and Buryatia Rep.). – Europe up to 54º N in Poland, Azerbaijan, Turkey, Kazakhstan (Kuznetsova, 1990; Celary, 1995; Mitai, Tadauchi, 2008; Grace, 2010; Proshchalykin, Schwarz, 2017).

***Nomada kohli* Schmiedeknecht, 1882**

Material examined. Ryazan Prov.: Gremyachka, 53°29′ N, 39°31′ E, 3.VIII.1908 (A. Semenov-Tyan-Shansky), 1 ♂; Volgograd Prov.: Krasnoarmeysk district of Volgograd (Sarepta), 48°30′ N, 44°33′ E, 20.VI.1907 (M. Koch), 1 ♂; Crimea Rep.: Simferopol, Djen Safu, 44°55′ N, 34°09′ E, 26.VI.1909 (A. Bazhenov), 1 ♂; Staryi Krym, 45°01′ N, 35°05′ E, 9.VII.1904 (D. Rasumov), 1 ♂; Krasnodar Terr.: Sochi, Razdol'noie, 43°35′ N, 39°46′E, 20.VIII.1926 (A. Shestakov), 1 ♂; Dagestan Rep.: Derbent, 42°04′ N, 48°17′ E (Backer), 1 ♂.

Distribution. Russia: European part (*Ryazan and *Volgograd Prov., Crimea Rep.), North Caucasus (*Krasnodar Terr., *Dagestan Rep.). – Europe (south part up to France and Czech Republic), North Africa (Algeria) (Pagliano, 1994; Filatov, 2006; Straka et al., 2007).

***Nomada lathburiana* (Kirby, 1802)**

Material examined. Yaroslavl Prov.: Berditsyno, 57°27′ N, 40°06′ E, 16.V.1926 (A. Yakovlev), 2 ♂; Volgograd Prov.: Krasnoarmeysk district of Volgograd (Sarepta), 48°30′ N, 44°33′ E, 24.IV.1907 (M. Koch), 4 ♂; Karachay-Cherkess Rep.: Teberda, 43°27′ N, 41°45′ E, 27.VI.1935 (L. Arends), 1 ♂.

Distribution. Russia: European part from Karelia and Komi to Volgograd Prov., North Caucasus (*Karachay-Cherkess Rep.), S Ural (Bashkortostan), W Siberia (Tumen and Tomsk Prov., Altai Terr.), E Siberia (Khakassia and Tyva Rep., Krasnoyarsk Terr., Irkutsk Prov., Buryatia, Yakutia, Zabaykalskiy Terr.). – Europe up to 64º N in Finland, Caucasus, Kazakhstan (Elfving, 1968; Levchenko, 2013; Proshchalykin, Schwarz, 2017).

***Nomada leucophthalma* (Kirby, 1802)**

Material examined. Leningradskaya Prov.: Roshchino, 60°14′ N, 29°36′ E, 15.V.1982 (V. Trjapitzin), 1 ♂; Yaroslavl Prov.: Godenovo, 56°58′ N, 39°27′ E (A. Shestakov), 1 ♂; Volgograd Prov.: Krasnoarmeysk district of Volgograd (Sarepta), 48°30′ N, 44°33′ E (F. Morawitz), 1 ♀ ibid., 15.IV.1907 (Backer), 1 ♂.

Distribution. Russia: European part from Murmansk Prov. and Komi to * Volgograd Prov., W Siberia (Tomsk Prov.), E Siberia (Yakutia), Far East (Primorskiy and Kamchatka Terr.). – Europe up to 69º N, Kazakhstan, Mongolia, Japan. (Elfving, 1968; Levchenko, 2013).

***Nomada lutea* Eversmann, 1852**

Material examined. Crimea Rep., Dzhankoy, 45°42′ N, 34°23′ E, 7.VII.1926 (V. Kuznetsov), 3 ♂.

Distribution. Russia: south of the European part (*Crimea Rep.), S Ural (Orenburg Prov., Spassk). – Kazakhstan (Eversmann, 1852; Schwarz, 1980).

***Nomada moeschleri* Alfken, 1913**

Material examined. Leningradskaya Prov.: Nikolskoe (former Sivoritsy), 59°29′ N, 30°00′ E, 4.VII.1920 (Birulya), 1 ♀; Orenburg Prov.: Orenburg, 51°46′ N, 55°06′ E, 6.V.1924 (P. Vorontsovskiy), 2 ♂.

Distribution. Russia: European part from Kaliningrad and Kirov Prov. to Penza Prov., S Ural (*Orenburg Prov.), E Siberia (Krasnoyarsk Terr., Irkutsk Prov., Zabaykalskiy Terr.). – Europe to the east of Sweden and Switzerland and up to 61º N, Azerbaijan, Uzbekistan, Kazakhstan (Celary, 1995; Aliev, 2011; Shibaev, Polumordvinov, 2012; Levchenko, 2013; Proshchalykin, Schwarz, 2017).

***Nomada mutabilis* Morawitz, 1871**

Material examined. Kirov Prov.: Kirov, 58°36′ N, 49°39′ E, VII.1940, Apiaceae (V. Telov), 1 ♂; Volgograd Prov.: Krasnoarmeysk district of Volgograd (Sarepta), 48°30′N, 44°33′E (Backer), 2 ♀, 1 ♂; Crimea Rep.: Kerch, 45°20′N, 36°28′E, 15.V.1917 (V. et E. Kuznetsov), 1 ♂; Orenburg Prov.: Orenburg, 51°46′ N, 55°06′ E, 26.V.1925, 1 ♂, 12, 14, 24.VII.1928 (P. Vorontsovskiy), 3 ♀.

Distribution. Russia: European part from Moscow and *Kirov Prov. to Crimea Rep. and Volgograd Prov., S Ural (Bashkortostan), E Siberia (Khakassia Rep., Irkutsk Prov.). – Europe up to Denmark and Lithuania, North Africa, Georgia, Azerbaijan, Turkey, Iran, Turkmenistan, Kyrgyzstan, Kazakhstan, Nepal, India (Filatov, 2006; Grace, 2010; Levchenko, 2013; Proshchalykin, Schwarz, 2017).

Note. The record of *N. mutabilis* from Kirov Prov. at 58º N is the most northerly in the distribution range of this species.

***Nomada noskiewiczi* Schwarz, 1966**

Material examined. Krasnodar Terr.: Krasnaya Polyana, 43°40′ N, 40°12′ E, 30.VI. & 3.VII.1909 (M. Yakovlev) 4 ♀.

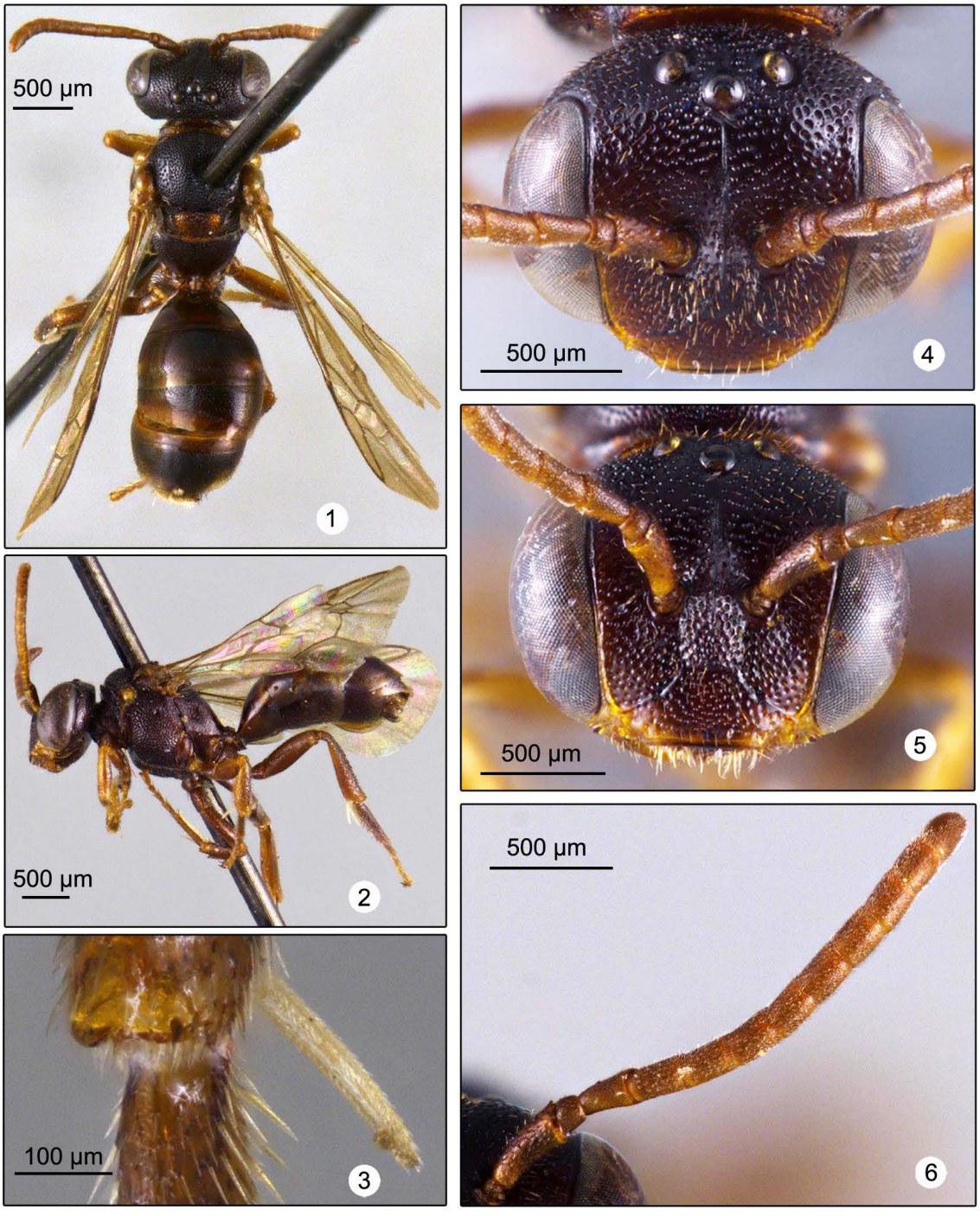
Distribution. Russia: east of European part (Udmurtia), North Caucasus (*Krasnodar Terr.). – Europe (Austria, Hungary, Czech Republic, Slovakia) (Levchenko, 2013).

***Nomada obscuriceps* Schwarz et Levchenko, sp. n.**

Description. Female (Figs 1–6). Similar to *Nomada alpigena* Schwarz, Gusenleitner et Mazzucco, 1999 (Schwarz et al., 1999) including the presence of only two submarginal cells in the forewing. Both species also share a similar shape to the narrow pronotal collar with a carinate anterior margin.

Antennae shorter than in *N. alpigena*. Segment 3 slightly shorter than segment 4 (relative length relationship 10 : 11); segments 5 to 9 gradually becoming relatively shorter: relative width : length relationship is 7 : 10 in segment 5 becoming 9 : 10 in segment 9. Antennae slightly clubbed. In *N. alpigena*, the antennal segments are longer and the third and fourth segments are of equal length.

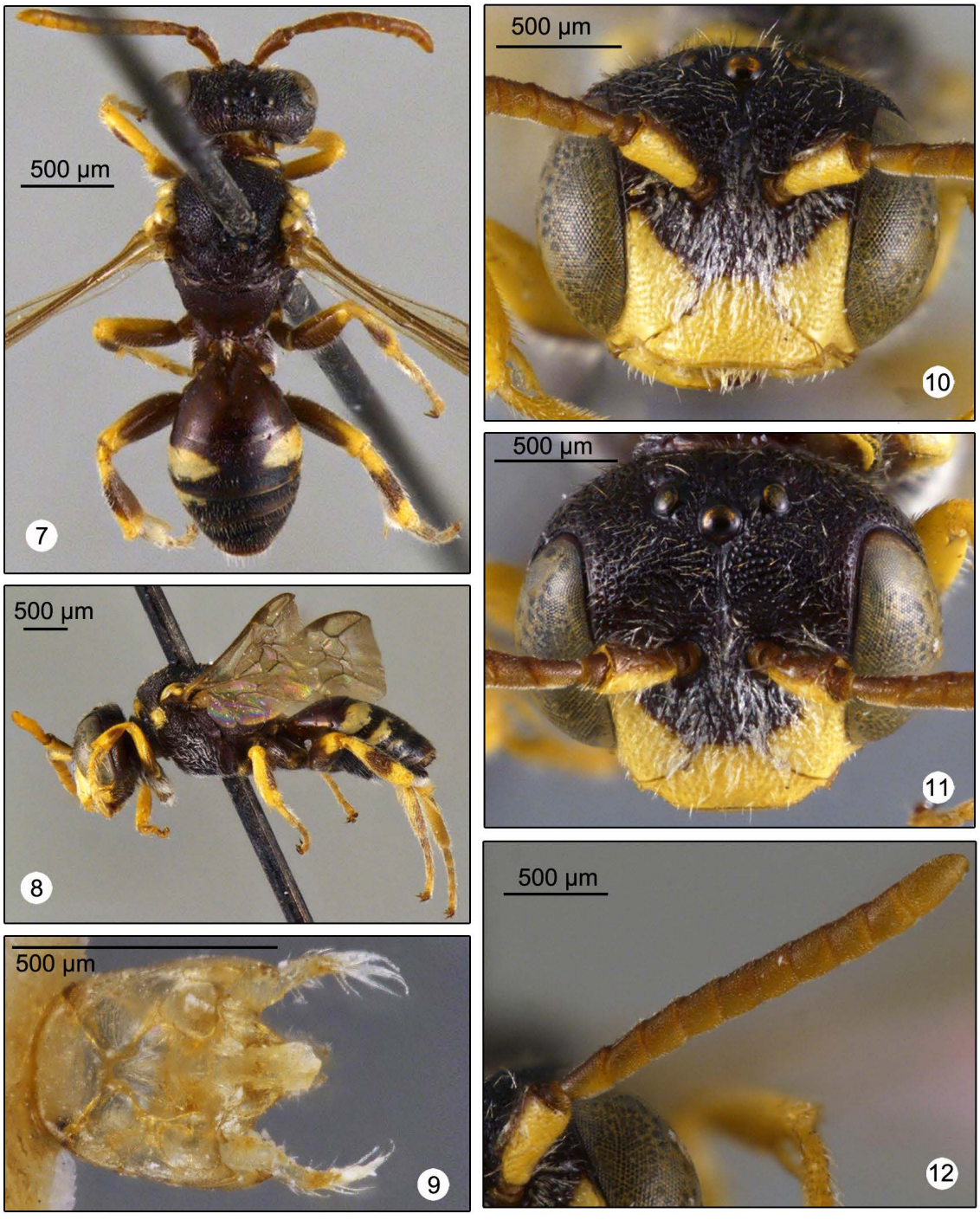
The frons and vertex of new species has scattered punctures, usually separated by smooth and shining interspaces twice the diameter of a puncture. In *N. alpigena*, the puncturation on frons and vertex is as coarse and dense as that on the



Figs 1–6. *N. obscuriceps* Schwarz et Levchenko, **sp. n.**, female, holotype. 1, 2 − habitus (1 – dorsal view, 2 – lateral view); 3 − apex of tibia 3; 4, 5 − head; 6 − antenna.

mesonotum, with sub-contiguous punctures. Puncturation of tergites is finer and more scattered in *N. obscuriceps* **sp. n.** as compared with *N. alpigena*, particularly so on tergite 2.

The new species is conspicuously darker than *N. alpigena*. Brownish and quite bright areas are: mouthparts, clypeus, antennae, pronotum, pronotal lobes, tegulae, tubercules of scutellum, postscutellum, propodeum, tergites 1, 2 and 5, and legs. Tergite 2 with small, lateral yellow spot on each side. In *N. alpigena,* the large, cushion-like scutellum and the postscutellum



Figs 7–12. *N. obscuriceps* Schwarz et Levchenko, **sp. n.**, male, paratype. 7, 8 − habitus (7 – dorsal view, 8 – lateral view); 9 − genitalia; 10, 11 − head; 12 − antenna.

are light red, tergites 1 and 2 reddish; a narrow reddish-yellow band on the distal side of disc of tergite 1; tergite 2 with one large and tergite 3 with one small yellow lateral spot on each side; tergite 5 with a large median yellowish maculation; tibia 3 mostly with three short, inconspicuous dark thorn-like setae and a somewhat longer light bristle close to the apex. Metatarsus 3 slightly conical, narrowing towards the apex (parallel-sided in *N. alpigena*).

Length: 4.0 mm.

Male (Figs 7–12). Clearly distinguished from *N. alpigena* by longer antennal segments and a more scattered puncturation on frons and vertex. In particular the punctures on the frons close to the antennal sockets are separated by smooth shining interstices of up to one puncture diameter in size (puncturation in *N. alpigena* very dense with practically contiguous punctures). The light colouration is somewhat reduced; scutellum and postscutellum black (scutellum of *N. alpigena* with reddish tubercules). The metatarsus of the hind legs conically narrows towards the apex, whereas it is flatter and parallel-sided in *N. alpigena*.

Length: 4.0 mm.

Type material. Holotype: Irkutsk Prov., Irkutsk, 52°17′ N, 104°18′ E, 9.VI.1979 (M. Kraus), 1 ♀ (PCMS).

Paratypes. Udmurtia: Izhevsk, 56°51′ N, 53°13′ E, 26.VII.1979 (A. Sitdikov), 1 ♀ (ZISP), Irkutsk Prov.: Irkutsk, 52°17′ N, 104°18′ E (V. Yakovlev), 1 ♀ (ZISP); ibid., 9.VI.1979 (M. Kraus), 1 ♀, 1 ♂ (PCMS).

Nomada opaca Alfken, 1913

Material examined. Leningradskaya Prov.: Popovka, 59°40′ N, 30°42′ E (L. Wolmann), 1 ♀.

Distribution. Russia: north-west of European part (*Leningradskaya Prov., Karelia), E Siberia (Irkutsk Prov.), Far East (Primorskiy Terr.). – Europe from Sweden, Belgium and Switzerland to Finland, Lithuania, and Slovenia (Elfving, 1968; Celary, 1995; Gogala, 1999; Proshchalykin, Schwarz, 2017).

Nomada pectoralis Morawitz, 1877

Material examined. Stavropol Terr.: Manych, 45°59′ N, 43°31′ E, 29.V.1926 (V. Belizin), 1 ♂.

Distribution. Russia: European part (Lipetsk and Rostov Prov.), North Caucasus (*Stavropol Terr.), S Ural (Bashkortostan). – Azerbaijan, Turkmenia (Gurvich, 1931; Nikiforuk, 1957; Pesenko, 1974; Schwarz, 1980; Kuznetsova, 1990).

Nomada posthuma Blüthgen, 1949

Material examined. Kursk Prov.: Kursk, 51°43′ N, 36°11′ E, 8.V.1907 (S. Malyshev), 2 ♀, 3 ♂.

Distribution. Russia: European part (*Kursk Prov.), E Siberia (Irkutsk Prov.), Far East (Primorskiy Terr.). – Europe (Switzerland, Germany, Austria, Hungaria, Poland), Nepal (Alexander, Schwarz, 1994; Amiet et al., 2007; Scheuchl, 2008; Proshchalykin, Schwarz, 2017).

Note. The species is reported from „European USSR" (Scheuchl, 2008) without specific location. Precise material from the European part of Russia is published here for the first time.

Nomada sexfasciata Panzer, 1799

Material examined. Yaroslavl Prov.: Berditsyno, 57°27′ N, 40°06′ E, 20.V.1892 & 29.VI.1908 (A. Yakovlev), 1 ♀, 2 ♂; Ryazan Prov.: Gremyachka, 53°29′ N, 39°31′ E, 13.VI.1909 (A. Semenov-Tyan-Shansky), 1 ♂; Kursk Prov.: Kursk, 51°43′ N, 36°11′ E, 28.IV.1902 & 1.V.1907 (S. Malyshev), 2 ♀, 3 ♂; Belgorod Prov.: Borisovka, 50°36′ N, 36°01′ E, 29.V.1958 (Y.-R. Wu), 1 ♀; Crimea Rep.: Bel′bek, 44°41′ N, 33°34′ E, 3.V.1909 (W. Pliginski), 1 ♀; Orenburg Prov.: Orenburg, 51°46′ N, 55°06′ E, 2.V.1925 (P. Vorontsovskiy), 1 ♀.

Distribution. Russia: European part from *Yaroslavl and Kirov Prov. to *Belgorod and Penza Prov. and in *Crimea Rep., North Caucasus (Chechnya), S Ural (Bashkortostan, *Orenburg Prov.), W Siberia (Tomsk Prov., Altai Rep.), E Siberia (Khakassia Rep., Irkutsk Prov., Buryatia, Zabaykalskiy Terr.), Far East (Amur Prov., Khabarovsk and Primorskyi Terr.). – Europe up to 58º N, North Africa (Morocco, Algeria), Azerbaijan, Israel, Iran, Turkmenistan, Kazakhstan, Korean Peninsula (Gurvich, 1931; Proshchalykin, 2012; Shibaev, Polumordvinov, 2012; Levchenko, 2013; Levchenko, Yuferev, 2013).

Nomada sheppardana (Kirby, 1802)

Material examined. Belgorod Prov.: Borisovka, 50°36′ N, 36°01′ E, 19.VII.1907 (S. Malyshev), 1 ♀ ibid., 28 & 29.V.1959 (Y.-R. Wu), 3 ♂.

Distribution. Russia: European part (*Belgorod Prov., Tatarstan, Rostov Prov.). – Europe from Denmark (up to 56º N) and Portugal to Slovakia and Greece, North Africa from Morocco to Tunisia (Pesenko, 1974; Celary, 1995; Sapaev, 2004; Madsen, Calabuig, 2012).

Nomada stigma Fabricius, 1804

Material examined. Rostov Prov.: Chaltyr′, 47°17′ N, 39°30′ E, 21.VI.1967 (Yu. Pesenko), 1 ♀; Orlovskiy, 46°52′ N, 42°03′ E, 20.VI.1969 (Khamin), 1 ♀; Crimea Rep.: Saki, 45°08′ N, 33°34′ E, 30.VII. & 1.VIII.1913 (W. Pliginski), 2 ♀; Adygea: Shuntuk, 44°27′ N, 40°10′ E, 23 & 24.VI.1938, (Andreeva), 2 ♂.

Distribution. Russia: European part from Karelia and Udmurtia to Crimea Rep. and Rostov Prov., North Caucasus (*Adygea); S Ural (Bashkortostan), W Siberia (Tomsk Prov., Altai Rep.), E Siberia (Krasnoyarsk Terr., Irkutsk Prov., Yakutia). – Europe up to 62º N, North Africa (Algeria), Armenia, Azerbaijan, Turkey, Cyprus, Uzbekistan, Kazakhstan (Gurvich, 1931; Elfving, 1968; Pesenko, 1974; Filatov, 2006; Levchenko, 2013; Proshchalykin, Schwarz, 2017).

***Nomada striata* Fabricius, 1793**

Material examined. Yaroslavl Prov.: Berditsyno, 57°27′ N, 40°06′ E, 7 & 29.VI.1908 (A. Yakovlev), 1 ♀, 1 ♂; Tambov Prov.: Michurinsk (former Kozlov), 52°53′ N, 40°29′ E (Lange), 1 ♂; Rostov Prov.: Volgodonsk, 47°32′ N, 42°12′ E, 8.VI.1967 (Yu. Pesenko), 1 ♀, 11 ♂; Crimea Rep.: Simferopol, 44°57′ N, 34°16′ E, 10.V.1899 (A. Bazhenov), 1 ♀; Orenburg Prov.: Orenburg, 51°46′ N, 55°06′ E, 2.V.1925 (P. Vorontsovskiy), 1 ♂.

Distribution. Russia: European part from Karelia and Kirov Prov. to *Crimea Rep. and *Rostov Prov., North Caucasus (Karachaevo-Cherkessia Rep.), S Ural (Bashkortostan), W Siberia (Tomsk Prov., Altai Rep.), E Siberia (Buryatia, Yakutia, Zabaykalskiy Terr.), Far East (Primorskiy Terr.). – Europe up to 67º N, Cyprus, Kazakhstan (Elfving, 1968; Levchenko, 2013; Levchenko, Yuferev, 2013).

***Nomada sybarita* Schmiedeknecht, 1882**

Material examined. Tomsk Prov.: Kireevsk, 56°21′ N, 84°05′ E, 30.VII – 5.VIII.1999 (O. Konusova), 5 ♀.

Distribution. Russia: S Ural (Bashkortostan), W Siberia (*Tomsk Prov.). – Europe (Austria, Hungary, Czech Republic (Moravia), Albaia), Azerbaijan (Nikiforuk, 1957; Schwarz, 1967a; Alexander, Schwarz, 1994; Scheuchl, 2008; Aliev, 2011).

***Nomada tenella* Mocsáry, 1883**

Material examined. Volgograd Prov.: Krasnoarmeysk district of Volgograd (Sarepta), 48°30′ N, 44°33′ E (F. Morawitz), 1 ♂; Rostov Prov.: Orlovskiy, 46°52′ N, 42°03′ E, 31.V.1967 (Yu. Pesenko), 1 ♂; Dagestan Rep.: Makhachkala, Petrovsk, 43°00′ N, 47°28′ E, 30.IV.1925 (A. Kirichenko), 1 ♂; Crimea Rep.: Simferopol env., Alma, 44°48′ N, 34°04′ E, 6.V.1913 (W. Pliginski), 1 ♂; Orenburg Prov.: Orenburg, 51°46′ N, 55°06′ E, 5.VI.1929 (P. Vorontsovskiy), 1 ♀.

Distribution. Russia: European part (Udmurtia, *Volgograd and Rostov Prov., *Crimea Rep.), S Ural (*Orenburg Prov.), E Siberia (Buryatia, Yakutia). – Azerbaijan, Iran, Turkmenistan, Kazakhstan (West Kazakhstan Prov.) (Sitdikov, 1986; Aliev, 2011; Proshchalykin, Schwarz, 2017).

***Eucera dalmatica* Lepeletier, 1841**

Material examined. Crimea Rep.: Kerch, 45°20′ N, 36°28′ E, 15.V.1917 (A. Kirichenko), 1 ♀; Azerbaijan: Sheki (former Nukha) env., 41°11′ N, 47°10′ E, 18.V.1928 (Bocharnikov), 1 ♀, 1 ♂; Armenia: Bargushat, 39°13′ N, 46°27′ E, 20.VI.1959 (V. Rikhter), 1 ♂.

Distribution. Russia: south of the European part (*Crimea Rep.), North Caucasus (Stavropol Terr.). – South of Europe up to S France and Romania, Armenia, *Azerbaijan, Turkey, Cyprus, Iran (Friese, 1896; Popov, 1967b; Chenikalova, 2005; Grace, 2010; Ortiz-Sánchez, Roberts, 2007).

***Eucera chrysopyga* Pérez, 1879**

Material examined. Crimea Rep.: Bel′bek, 44°41′ N, 33°34′ E, 6.V.1897 (N. Kuznetsov), 1 ♀; Orenburg Prov.: Orenburg, 51°46′ N, 55°06′ E, 15.VII.1928 (P. Vorontsovskiy), 2 ♀.

Distribution. Russia: south of the European part (Volgograd and Rostov Prov., *Crimea Rep.), S Ural (*Orenburg Prov.). – South of Europe up to France and Hungary, North Africa (Algeria), Caucasus, Iran, Kazakhstan, China (Gansu, Hebei, Beijing) (Friese, 1896; Popov, 1967b; Pesenko, 1974; Wu, 2000; Marikovskaya, 2001).

Note. Species is recorded for "Caucasus" without location (Friese, 1896). Sitdikov has noted (in his manuscript of 1988, deposited in ZISP) this species for North Caucasus and Azerbaijan. This material has not been found and examined. The same location "Caucasus" is noted for *Melecta baerii* (Radoszkowski, 1865) ("Cauca Mlokos" (Lieftinck, 1980) – possibly collected by L.A. Młokosiewicz in the Caucasus, more likely Transcaucasia) and *Nomada hera* Schwarz, 1965 (Rußland: 1 ♂ Kaukasus, leg. Leder) (Schwarz, 1965). The confirmatory material of *N. hera* for Russian North Caucasus is deposited in ZISP collection: Dagestan Rep.: Makhachkala, Petrovsk, 43°00′ N, 47°28′ E, 30.IV.1925 (A. Kirichenko), 1 ♂.

***Eucera kullenbergi* Tkalců, 1984**

Material examined. Moldova: Kishinev, 47°00′ N, 28°51′ E, 7.VII.1967(Talitskiy), 1 ♀; Azerbaijan: Salakhly, 41°14′ N, 45°16′ E, 20.IV.1963 (Gavrilenko), 3 ♀, 3 ♂.

Distribution. Russia: south of the European part (Crimea Rep.). – South and East Europe (*Moldova, Greece), *Azebaijan, Turkey, Iran (Tkalců, 1984; Kholodov, 1999).

Note. Sitdikov has noted in his manuscript of 1988 (deposited in ZISP), that he recorded the first specimens of this species from the former USSR (Moldova, Crimea and Azerbaijan), but he did not publish this information.

***Eucera nigrescens* Pérez, 1879**

Material examined. Rostov Prov.: Bagaevskaya, 47°19′ N, 40°23′ E, 20.V.1967 (Yu. Pesenko), 1 ♀; Krasnodar Terr.: Slavyansk, 45°15′ N, 38°07′ E, 3.VI.1937, Medicago (Koshur), 1 ♀; Crimea Rep.: Krasnolesie, 44°50′ N, 34°13′ E, 17 & 23.V.1983 (A. Zagulyaev), 2 ♀; Aypetri, 44°27′ N, 34°03′ E, 30.V.1983 (A. Zagulyaev), 1 ♀; Moldova: Kishinev, 47°00′ N, 28°51′ E, 21.V.1959 (E. Sugonyaev), 1 ♀; Armenia:Yerevan, 40°11′ N, 44°31′ E, 6.V.1925 (Ryabov), 1 ♂; Georgia: Lagodekhi, 41°49′ N, 46°17′ E, 17.IV.1910 (collector unknown), 1 ♂; Azerbaijan: Kusary, 41°25′ N, 48°25′ E, 5.V.1928 (Bocharnikov), 1 ♂; Turkmenistan: Makhtumkuli (former Kara-Kala), 38°26′ N, 56°17′ E, 8.V.1979 (Yu. Pesenko), 1 ♀.

Distribution. Russia: south of the European part (*Rostov Prov., Crimea Rep.), North Caucasus (*Krasnodar Terr.). – Europe up to 52º N in Netherlands, *Caucasus, Turkey, Jordan, Iran, *Turkmenistan (Popov, 1967b; Peeters et al., 1999; Filatov, 2006; Grace, 2010).

***Eucera seminuda* Brülle, 1832**

Material examined. Crimea Rep.: Sevastopol, 44°36′ N, 33°32′ E, 14.IV.1906, 15 & 17.IV.1909 (W. Pliginski), 1 ♀, 3 ♂.

Distribution. Russia: European part (Voronezh and Volgograd Prov., *Crimea Rep.). – South of Europe up to Spain and Hungary, North Africa (Algeria, Morocco), Azerbaijan,Turkey (Friese, 1896; Lopatin, Dobrynin, 2005; Maharramov, Bayramov, 2014).

***Eucera vittulata* Noskiewicz, 1936**

Material examined. Belgorod Prov.: Borisovka, 50°36′ N, 36°01′ E, 23.V.1906 (S. Malyshev), 2 ♀ and 1 ♂; Voronezh Prov.: no location, 1964 (G. Shaposhnikov), 1 ♀; Armenia: Yerevan, 40°11′ N, 44°31′ E (F. Morawitz), 2 ♀.

Distribution. Russia: European part (*Belgorod, *Voronezh and Rostov Prov.), North Caucasus (Stavropol Terr.). – South Europe up to Dnestr in the east, Azerbaijan, Turkey (Friese, 1896; Pesenko, 1974; Chenikalova, 2005; Grace, 2010; Maharramov, Bayramov, 2014).

***Tetraloniella inulae* (Tkalců, 1979)**

Material examined. Rostov Prov.: Rostov-on-Don, 47°14′ N, 39°42′ E, 24.VII.1963 (Yu. Pesenko), 1 ♀; Volgograd Prov.: Krasnoarmeysk district of Volgograd (Sarepta), 48°30′ N, 44°33′ E, 16.VII.1929 (A. Shestakov), 1 ♀; Krasnodar Terr.: Sochi, 43°35′ N, 39°43′ E, 17.IX.1926 (A. Shestakov), 2 ♀; Stavropol Terr.: Svetlograd (former Petrovskoe), 45°19′ N, 42°51′ E, 4.IX.1927 (V. Belizin), 1 ♀; Orenburg Prov.: Orenburg, 51°46′ N, 55°06′ E, 24.VII.1928 (P. Vorontsovskiy), 1 ♀.

Distribution. Russia: south of the European part (*Rostov and *Volgograd Prov., Crimea Rep.), North Caucasus (*Krasnodar and *Stavropol Terr.), S Ural (*Orenburg Prov.). – Europe from Austria and Italy to Romania anf Greece, Cyprus, Iran (Tkalců, 1979; Filatov, Ivanov, 2007).

Notes. This species belongs to the *T. ruficornis*-group with six species in Europe (Tkalců, 1979). All records of *Tetraloniella ruficornis* (Fabricius, 1804) for Russia (Nikiforuk, 1957; Pesenko, 1974; Sapaev, 2004 and other) need to be reexamined. T. Levchenko has found in ZISP collection two species under this name: *T. inulae* (Tkalců, 1979) and *T. julliani* (Pérez, 1879). The second species is present in the south of the European part of Russia, southern Europe up to France and Romania, Turkey, Iran and Turkmenistan (Friese, 1896; Gurvich, 1931; Tkalců, 1979; Filatov, 2006). Examined specimens of *T. julliani* from Russia are: Rostov Prov.: Rostov-on-Don, 47°14′ N, 39°42′ E, 20.VII.1963, 1 ♀, 30.VII.1963 (Yu. Pesenko), 2 ♀; Volgograd Prov.: Krasnoarmeysk district of Volgograd (Sarepta), 48°30′ N, 44°33′ E, 16–20.VII.1926 (A. Shestakov), 1 ♀; Crimea Rep.: Dzhankoy, 45°42′ N, 34°23′ E, 26.VII.1926 (V. Kuznetsov), 1 ♀.

***Amegilla garrula* (Rossi, 1790)**

Material examined. Krasnodar Terr.: Tuapse, 44°06′ N, 39°05′ E, 1912 (Sakhanovskiy), 1 ♀.

Distribution. Russia: North Caucasus (*Krasnodar Terr.). – South of Europe up to France, Hungary and Dnepr, Abkhasia, Georgia, Iran, Turkmenistan, Kazakhstan (Friese, 1897; Popov, 1950, 1954; Skhirtladze, 1981).

Note. Ponomareva (1967) has recorded this species for North Caucasus without location. Material examined by Ponomareva is published here for the first time.

***Amegilla salviae* (Morawitz, 1876)**

Material examined. Dagestan Rep.: Derbent, 42°04′ N, 48°17′ E (F. Morawitz), 1 ♂.

Distribution. Russia: European part (Crimea Rep.), North Caucasus (*Dagestan Rep.). – East of Europe to Hungary and Croatia in the west, North Africa, Armenia, Cyprus, Turkey, Iran, China (Xinjiang, Inner Mongolia, Gansu) (Friese, 1897; Prisner, 1957; Popov, 1967b; Wu, 2000; Filatov, 2003; Grace, 2010).

***Anthophora arctica* Morawitz, 1883**

Material examined. Tajikistan: Peter the Great Ridge, Cursy-Tasch on Kara-Schura River, 38°52’ N, 71°25’ E, 2.VII.1911(A. Golbek), 1 ♂.

Distribution. Russia: E Siberia (Yakutia, Zabaykalskiy Terr.), Far East (Amur Prov.). – *Tajikistan, China (Xinjiang) (Wu, 2000; Proshchalykin, 2012).

Note. Marikovskaya (1976) reported this species for the mountains of Central Asia without location. Possibly a reference to the specimen identified by Ponomareva from Tadjikistan.

***Anthophora bimaculata* (Panzer, 1798)**

Material examined. Volgograd Prov.: Krasnoarmeysk district of Volgograd (Sarepta), 13.VI.1907, 2 ♂, 8.VII.1907(H. Koch), 5 ♂.

Distribution. Russia: European part from Leningradskaya and Kirov Prov. to *Volgograd Prov. – Europe up to England and Denmark, Georgia, Turkey, Iran, Uzbekistan, Tajikistan, Kazakhstan, China (Xinjiang) (Friese, 1897; Ponomareva, 1967; Wu, 2000; Levchenko, 2011).

***Anthophora cincreus* (Friese, 1896)**

Material examined. Dagestan Rep.: Derbent, 42°04′ N, 48°17′ E (F. Morawitz), 1 ♀; Orenburg Prov.: Orenburg, 51°46′ N, 55°06′ E, 18.V.1927 (P. Vorontsovskiy), 1 ♀, 1 ♂.

Distribution. Russia: south of the European part (Volgograd Prov.), North Caucasus (*Dagestan Rep.), S Ural (*Orenburg Prov.). – Caucasus (Transcaucasia without location), Kazakhstan, Turkmenistan (Friese, 1897; Ponomareva, 1967).

***Anthophora dubia* Eversmann, 1852**

Material examined. Karachay-Cherkess Rep.: Teberda, 43°27′ N, 41°45′ E, 15.VII.1980, Onobrychis (O. Polivanova), 1 ♀; ibid., 2.VIII.1980, Lotus (O. Polivanova), 2 ♀.

Distribution. Russia: North Caucasus (*Karachay-Cherkess Rep.), S Ural (Orenburg Prov.). – Armenia, Azerbaijan, Turkey, Iran, Central Asia, Kazakhstan, Mongolia, north of China from Xinjiang to Heilongjiang (Eversmann, 1852; Friese, 1897; Ponomareva, 1966; Wu, 2000).

Note. The presence of this species in southern and eastern Europe is not clear. The species is noted for Greece at Discover life (http://www.discoverlife.org/mp/20q?search=Anthophora+dubia&flags=subgenus), but is not mentioned in literature for this area (Grace, 2010).

***Anthophora erschowi* Fedtschenko, 1875**

Material examined. Krasnodar Terr., Anapa, 44°53′ N, 37°19′ E, 3.V.1918 (A. Skorikov), 1 ♀; Dagestan Rep.: Derbent, 42°04′ N, 48°17′ E, 22.VI.1913 (collector unknown), 2 ♀; Astrakhan Prov.: Astrakhan, 46°20′ N, 48°02′ E, 18.IV.1903 (Wolman), 1 ♀; Orenburg Prov.: Orenburg, 51°46′ N, 55°06′ E, 28.V.1926 (P. Vorontsovskiy), 1 ♂; Ukraine: Kherson Prov., Askania Nova, 46°27′ N, 33°52′ E, 7.VI.1933 (M. Terminasyan), 1 ♀.

Distribution. Russia: south of the European part (Rostov, Volgograd and *Astrakhan Prov., Crimea Rep.), North Caucasus (*Krasnodar Terr., *Dagestan Rep.), S Ural (Bashkortostan). – east of Europe (the Northern Black Sea coastal region), North Africa (Libya), Georgia, Azerbaidjan, Turkey, Israel, Iran,

Turkmenistan, Uzbekistan, Tajikistan, Kazakhstan, China (Xinjiang, Inner Mongolia, Beijing, Hebei, Shandong) (Friese, 1897; Nikiforuk, 1957; Popov, 1967a, 1967b; Ponomareva, 1967; Pesenko, 1974; Skhirtladze, 1981; Wu, 2000; Filatov et al., 2006; Grace, 2010; Kilimnik, 2016).

Notes. In this paper *Anthophora erschowi* and *A. atroalba* Lepeletier, 1841 are considered as two valid species according to Brooks (1988). However, these two species are often synonymized and as a result *A. erschowi* is noted for Russia as *A. atroalba* (Gurvich, 1931; Pagliano, 1994 and etc.).

***Anthophora fulvipes* Eversmann, 1846**

Material examined. Voronezh Prov.: Voronezh, 51°40′ N, 39°12′ E, 27.VI.1926 (Finoedov), 1 ♂; Orenburg Prov.: Orenburg, 51°46′ N, 55°06′ E, 9.VII.1922 (P. Vorontsovskiy), 1 ♀.

Distribution. Russia: European part (*Voronezh and Volgograd Prov.), S Ural (Orenburg Prov.). – South and Eastern Europe (Italy, Croatia, Romania), Armenia, Turkey, China (Xinjiang, Gansu, Zinghai, Hebei) (Eversmann, 1852; Friese, 1897; Ponomareva, 1966; Wu, 2000; Grace, 2010).

***Anthophora orientalis* Morawitz, 1878**

Material examined. Volgograd Prov.: Krasnoarmeysk district of Volgograd (Sarepta), 48°30′ N, 44°33′ E (F. Morawitz), 5 ♂; Dagestan Rep.: Derbent, 42°04′ N, 48°17′ E (F. Morawitz), 1 ♂.

Distribution. Russia: south of the European part (*Volgograd Prov.), North Caucasus (*Dagestan Rep.). – South Europe (Italy, Croatia, Greece), North Africa (Egypt), Caucasus (Georgia, Armenia, Azerbaijan), Turkey, Syria, Israel (Friese, 1897; Gurvich, 1931; Prisner, 1957; Grace, 2010).

Note. The distribution of this species in Europe requires clarification. It is not as widespread (in Austria and Romania) as has been noted in Friese (1897). The presence of the species in Spain is also questionable (Ornosa, Martínez, 1998). The relevant "Atlas Hymenoptera" web page shows this species for Great Caucasus, Russia, without distinct locations. Examined material with precise Russian locations is published here for the first time.

***Anthophora plagiata* (Illiger, 1806)**

Material examined. Stavropol Terr.: Kislovodsk, 43°54′ N, 42°43′ E, 15.VII.1914 (Bertenev), 1 ♀; Belorussia: Vitebsk, 55°11′ N, 30°10′ E, 20.V.1913 (V. Popov), 1 ♀; Iran: Tabriz, 38°05′ N, 46°17′ E, 2.VI.1914 (Andrievskiy), 1 ♀.

Distribution. Russia: North Caucasus (*Stavropol Terr., Dagestan Rep.), W Siberia (Kurgan Prov.). – Europe up to 57° N in Denmark in the north and to the Baltic States in the east, North Africa, Georgia, Turkey, Iran, Tajikistan, Kirgizstan, Kazakhstan, Mongolia, China from Xinjang and Tibet to Jilin and Yunnan (Friese, 1897; Marikovskaya, 1979; Skhirtladze, 1981; Kuzmin, Molchanov, 1983; Banaszak, 1984; Monsevičeus, 1995; Wu, 2000; Grace, 2010; Madsen, Calabuig, 2012).

Note. It is highly probable this species could be found in western (Kaliningrad and Smolensk Prov.) and southern regions of Russia. Only record this species by Yu.V. Morozov, student of Nizhegorodskiy State University, from the forest area of Nizhegorodskaya Province (Anufriev, Bayanov, 2002) seems questionable and unlikely. A record of this species from Iran at Discover life (http://www.discoverlife.org/mp/20q?search=Anthophora+plagiata&flags=subgenus) is confirmed by a specimen from ZISP collection.

***Anthophora podagra* Lepeletier, 1841**

Material examined. Voronezh Prov.: Bobrov, 51°05′ N, 40°02′ E, 11.VIII.1925 (V. Belizin), 1 ♂; Orenburg Prov.: Orenburg, 51°46′ N, 55°06′ E, 18.VII.1923 (P. Vorontsovskiy), 1 ♀.

Distribution. Russia: European part from *Voronezh Prov. and Tatarstan to Crimea Rep. and Rostov Prov., S. Ural (Bashkortostan, Orenburg Prov.). – South of Europe up to France and Hungary, Armenia, Turkey, Iran, Turkmenistan, Tajikistan, Kazakhstan, China (Xinjiang, Gansu) (Friese, 1897; Gurvich, 1931; Nikiforuk, 1957; Popov, 1967b; Ponomareva, 1967; Pesenko, 1974; Wu, 2000; Sapaev, 2004; Ivanov et al., 2009; Grace, 2010).

***Melecta duodecimmaculata* (Rossi, 1790)**

Material examined. Crimea Rep.: Bel′bek, 44°41′ N, 33°34′ E, V–VI.1922 (W. Kizeritskiy), 1 ♀.

Distribution. Russia: south of the European part (Astrakhan Prov., *Crimea Rep.), S Ural (the headwaters of the Ural River), E Siberia (Krasnoyarsk Terr up to 56º N). – South of Europe up to France, Croatia

and Romania, North Africa from Algeria to Egypt, Turkey, Iraq, Iran, Central Asia, Kazakhstan, China (Xinjiang, Gansu, Liaoning) (Lieftinck, 1980).

***Melecta luctuosa* (Scopoli, 1770)**

Material examined. Crimea Rep.: Staryi Krym, 45°01′ N, 35°05′ E (V. Kuznetsov), 1 ♀.

Distribution. Russia: European part from Moscow Prov. and Tatarstan to *Crimea Rep. and Rostov Prov., North Caucasus (Stavropol Terr., Dagestan Rep.), S Ural (Bashkortostan, Orenburg Prov.), south of W and E Siberia from Kurgan Prov. to Zabaykalskiy Terr. and Yakutia, Far East (Amur Prov.). – Europe up to 58º N in Sweden, North Africa from Morocco to Egypt, Caucasus, Turkey, Cyprus, Lebanon, Israel, Jordan, Iraq, Iran, Turkmenistan, Uzbekistan, Tajikistan, Kazakhstan (Morawitz, 1874; Pesenko, 1974; Lieftinck, 1980; Kuzmin, Molchanov, 1983; Levchenko, 2011; Sapaev, 2004; Chenikalova, 2005; Proshchalykin, 2013).

***Bombus amurensis* Radozkowski, 1862**

Material examined. Buryatia: Dzhida, 50°39′ N, 106°10′ E, 28.VII.2007 (A. Lelej, M. Proshchalykin, V. Loktionov), 1 ♀ (FSCV).

Distribution. Russia: E Siberia (Khakassia Rep., Krasnoyarsk Terr., *Buryatia, Zabaykalskiy Terr.). – Kazakhstan, Mongolia, China (Williams et al., 2011; Byvaltsev et al., 2016).

***Bombus asiaticus* Morawitz, 1875**

Material examined. Tyva Rep.: 18 km E to Kyzyl, Malyi Yenisey River, 51°42′ N, 94°43′ E, 14.VII.2013 (M. Proshchalykin, V. Loktionov), 2 ♀ (FSCV); 25 km SE to Erzin, Tes River, 50°05′ N, 95°21′ E, 14–15.VII.2014 (A. Lelej, M. Proshchalykin, V. Loktionov), 1 ♀ (FSCV); 25–31 km NEE to Erzin, Mt. Ak-Khayrakan, 50°22′ N, 95°25′ E, 16.VII.2014 (A. Lelej, M. Proshchalykin, V. Loktionov), 6 ♀ (FSCV); 23 km E to Samagaltay, Shuurmak River, 50°35′ N, 95°19′ E, 19.VII.2014 (A. Lelej, M. Proshchalykin, V. Loktionov), 1 ♀ (FSCV); 27 km SSW to Erzin, Tore-Khol Lake, 50°04′ N, 95°08′ E, 11–12.VII.2014 (A. Lelej, M. Proshchalykin, V. Loktionov), 1 ♀ (FSCV).

Distribution. Russia: W Siberia (Altai Rep.), E Siberia (*Tyva Rep.). – Afghanistan, Pakistan, Central Asia, Mongolia, China, India, Nepal (Williams, 1991; An et al., 2014).

***Bombus branickii* (Radoszkovski, 1893)**

Material examined. Altai Rep.: steppe behind the Kuray Ridge, 50°11′ E 88°0′ E, 28.VI.1977, 1 ♀ (NSU); 15–20 km W to Beltir, canyon of the River Taltura (=Chagan-Uzun), 2000–2800 m, stony steppe, 49°57’ N 87°56’ E, 26–28.VI.1999 (D. Logunov), 1 ♀ (NSU).

Distribution. Russia: W Siberia (*Altai Rep.), E Siberia (Zabaykalskiy Terr.) (Popov, 1931). – Afghanistan, Pakistan, Central Asia, Mongolia, China, Korea, India (Williams, 1991; Williams et al., 2009).

***Bombus diversus* Smith, 1869**

Material examined. Primorskiy Terr.: Vladivostok, 43°7′ N, 131°54′ E, 3.IX.1910 (Cherskaya), 1 ♂; ibid., 14.IX.1910 (Chersky), 1 ♂; Sikhote-Alin, Mt. Verblud, 44°59′ N, 136°21′ E, 30.V.1913 (Krylov), 1 ♀; Terney Bay, 45°1′ N, 136°37′ E, 12, 15 & 17.VIII.1914 (Krylov), 3 ♂; Yakovlevka, 44°25′ N, 133°28′ E, 8.IX.1926 (Dyakonov, Philipiev), 1 ♂.

Distribution. Russia: Far East (*Primorskiy Terr., Sakhalin Island, Kuril Islands). – Japan, Korea (Ito, 1985; Proshchalykin, 2012).

***Bombus exil* (Skorikov, 1923)**

Material examined. Irkutsk Prov.: Bolshie Koty, 51°54′ N, 105°04′ E, 29.VI–2.VII.2012 (S. Romanov), 1 ♀ (NSU).

Distribution. Russia: E Siberia (Tyva Rep., *Irkutsk Prov., Zabaykalskiy Terr., Yakutia). – Afghanistan, Pakistan, Central Asia, Mongolia, China, India, Korea (Panfilov et al., 1961; Williams, 1991; Proshchalykin, Kupianskaya, 2009; An et al., 2014).

***Bombus keriensis* Morawitz, 1887**

Material examined. Tyva Rep.: 27 km SSW to Erzin, Tore-Khol Lake, 50°04′ N, 95°08′ E, 30.VI–3.VII.2013 (M. Proshchalykin, V. Loktionov), 1 ♀ (FSCV); ibid., 11–12.VII.2014 (A. Lelej, M. Proshchalykin, V. Loktionov), 6 ♀ (FSCV); 25 km SE to Erzin, Tes River, 50°05′ N, 95°21′ E, 14–15.VII.2014 (A. Lelej, M. Proshchalykin, V. Loktionov), 8 ♀ (FSCV); 31 km NEE to Erzin, Erzin River, 50°22′ N, 95°25′ E, 18.VII.2014 (A. Lelej, M. Proshchalykin, V. Loktionov), 10 ♀ (FSCV).

Distribution. Russia: North Caucasus, Altai Rep., *Tyva Rep. – Caucasus, Turkey, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, Mongolia, China, India (Williams, 1991; An et al., 2014).

***Bombus pseudobaicalensis* Vogt, 1911**

Material examined. Tyumen Prov.: Tobolsk, 58°11′ N, 68°15′ E, 17–19.VIII.2013 (O. Bokovaya), 3 ♀, 3 ♂ (NSU).

Distribution. Russia: W Siberia (*Tyumen Prov., Tomsk Prov, Novosibirsk Prov., Altai Terr., Altai Rep., Khakassia Rep.), E Siberia, Far East (Proshchalykin, 2012; Byvaltsev et al., 2016). – Mongolia, China, Korea, Japan (Ito, 1985; An et al., 2014).

***Bombus soroeensis* (Fabricius, 1777)**

Material examined. Tyva Rep.: Shuurmak, Shuurmak River, 50°38′ N, 95°19′ E, 11 & 12.VII.2013 (M.Yu. Proshchalykin, V.M. Loktionov), 1 ♀ (FSCV); 6 km SE to Bay-Haak, Sosnovka, 51°8′ N, 94°31′ E, 20 & 21.VII.2014 (A. Lelej, M. Proshchalykin, V. Loktionov), 1 ♀ (FSCV); Irkutsk Prov.: Irkutsk, 52°17′ N, 104°18′ E, 1912 (Yakovlev), 1 ♀; Irkutsk, Kaya River, 52°16′ N, 104°14′ E, 1912 (Maksimovich), 1 ♀; Irkutsk, Melnikovo, 52°15′ N, 104°14′ E, 1912 (Maksimovich), 1 ♀; Yurty, 56°2′ N, 97°38′ E, 27.V.1912 (Mishin, Verkhov), 9 ♀; Bunbui, 56°23′ N, 99°1′ E, 30.VII.1916 (Valdaev), 4 ♀; Buryatia: Kyakhta, 50°21′ N, 106°27′ E, 1925 (Mikhno), 2 ♂; Dureny, 50°19′ N, 106°53′ E, 1924 (Vinogradov), 1 ♀; Zabaykalskiy Terr.: Chita, 52°2′ N, 113°30′ E, 1913(Gavrilyuk), 2 ♂.

Distribution. Russia: European part up to 71° N, North Caucasus, Ural, south of W Siberia, E Siberia (Khakassia Rep., *Tuva Rep., Krasnoyarsk Terr., Irkutsk Prov., *Buryatia Rep., *Zabaykalskiy Terr.). – Europe, Caucasus, Turkey, Syria, Iraq, Iran, Central Asia, Kazakhstan, Mongolia (Reinig, 1939; Panfilov, 1957; Løken, 1973; Byvaltsev et al., 2016).

Note. The species is recorded for the Pre-Baikalia region by Panfilov (1957) without specific location, probably referring to specimens from Irkutsk Prov. listed as examined materials here.

***Bombus sylvarum* (Linnaeus, 1761)**

Material examined. Novosibirsk Prov.: Evsino, 54°32′ N, 83°22′ E, 10.VI.2014 (A. Byvaltsev), 1 ♀ (NSU); Altai Terr.: Klepechikha, 52°5′ N, 81°44′ E, 23.VII.2011 (A. Byvaltsev, Yu. Danilov), 2 ♀ (NSU); Kuchukskoe Lake, 52°40′ N, 79°57′ E, 26.VI.2016, 2 ♀, 27.VI.2016 (A.Byvaltsev), 2 ♀ (NSU).

Distribution. Russia: European part, North Caucasus, Ural, south of W Siberia (Kurgan, Omsk and *Novosobirsk Prov., *Altai Terr.). – Europe, Caucasus, Turkey, Syria, Iran, Kazakhstan (Løken, 1973; Byvaltsev, 2008; Levchenko, 2012; Byvaltsev et al., 2013, 2015).

***Bombus tricornis* Radoszkowski, 1888**

Material examined. Khabarovsk Terr.: Sovetskaya Gavan', 48°57′ N, 140°17′ E, 13.VI.1916 (Krylov), 1 ♀; Malmyzh, 49°51′ N, 136°45′ E, 26.VIII.1926 (Starokodomskiy), 1 ♀.

Distribution. Russia: Far East (Amur Prov., *Khabarovsk and Primorskiy Terr.). – China, Korea (Ito, 1985; Proshchalykin, 2012; An et al., 2014).

Species probably erroneously noted for Russia

***Ceratina loewi* Gerstaecker, 1869**

Distribution. East and south of Europe (Romania, Greece), North Africa (Egypt), Georgia, Azerbaijan, Turkey, Israel (Skhirtladze, 1981; Terzo, 1998).

Notes. Although reported from south of Russia (Rostov Prov.) (Aliev, Quamarli, 2010) no specimen data is given and these records are not referred to in other literature. The species should be looked for in North Caucasus.

***Nomada signata* Jurine, 1807**

Distribution. Europe up to 56º N and to Poland, Romania and Croatia in the east (Celary, 1995).

Note. Distribution range of this cleptoparasitic species should be limited by the distribution of *Andrena fulva* (Müller, 1766), the host species (Scheuchl, 2008), widespread in Europe to Kaliningrad Prov. and Romania in the east (Gusenleitner, Schwarz, 2002). Therefor the records of *N. signata* from Lithuania (Monsevičeus, 1995), Lipetsk Prov. in Russia (Kuznetsova, 1990) and Turkey (Grace, 2010) look dubious.

A. fulva from the territory of modern Russia is known by only a few records from Kaliningrad Prov. during the first part of the 20th century (Banaszak, 2006). However, in Poland during the 21st century *A. fulva* began to spread eastwards (Banaszak, 2006). If the host species spreads to the territory of Kaliningrad Prov. it could be possible to find *N. signata* there.

***Nomada similis* Morawitz, 1872**

Distribution. Europe up to 57º N and to Poland, Slovakia and Albania in the east (Celary, 1995).

Note. The distribution range of this cleptoparasitic species should be limited to the distribution of *Panurgus banksianus* (Kirby, 1802), the host species (Scheuchl, 2008). Widespread in Europe to Transcarpathia (Osytshnjuk, 1977) and Bulgaria (Warncke, 1972) in the east, North Africa (Morocco) (Osytshnjuk, 1977) and west of Turkey (Warncke, 1972). Therefor the records of *N. similis* from Perm Terr. (Lykov, 2000) and Bashkortostan (Nikiforuk, 1957) appear dubious. According to the personal comment by Dr. S.L. Esunin, Perm State University, V.A. Lykov was a great lecturer but bad collector. As a result, the Lykov material is lost or has no labels. For Bashkortostan *N. similis* is represented by a female specimen (Nikiforuk, 1957) and possible is *N. fuscicornis* Nylander, 1848, recorded by Nikiforuk only by males.

***Nomada symphyti* Stöckhert, 1930**

Distribution. Europe up to 52º N (Dathe, 2001) and to Hungary in the east (Celary, 1995).

Note. The distribution of this cleptoparasitic bee should be limited by the distribution of *Andrena symphyti* Schmiedeknecht, 1883, their host species (Scheuchl, 2008), widespread in Europe to Poland and Crimea to the east, Caucasus and Turkey (Gusenleitner, Schwarz, 2002). For this reason the record of *N. symphyti* for Tatarstan (Sapaev, 2004) is questionable.

***Eucera turcomannica* Morawitz, 1880**

Distribution. Turkmenistan, Iran (Popov, 1967b).

Note. Records of this species in Altai (Shumakova et al., 1982) appear very dubious.

***Anthophora agama* Radoszkowski, 1869**

Distribution. South of Europe up to Mediterranean France, North Africa (Algeria), Turkey, Syria, Israel, Iran, Uzbekistan, China (Gansu) (Friese, 1897; Popov, 1967b; Rasmont, 1995; Wu, 2000; Grace, 2010).

Note. Species is reported for south of Russia (Rasmont, 1995) and for the Lower Volga at Atlas Hymenoptera (http://www.atlashymenoptera.net/pagetaxon.asp?tx_id=6357). Confirmatory material from the south of the European Russia or neighbouring lands has not been found and studied.

***Melecta alcestis* Lieftinck, 1980**

Distribution. Armenia, Israel (Lieftinck, 1980).

Note. The species is noted for south of Russia (Lieftinck, 1980), for the Lower Volga or S Ural at Atlas Hymenoptera (http://www.atlashymenoptera.net/pagetaxon.asp?tx_id=6565). However, as mentioned in Lieftinck (1980), Radoszkowski‘s material is from Armenia, south of former Imperial Russia (Pesenko, Astafurova, 2003), not from modern Russia.

Species with unclear status

Some species are known only by description from Russia without specific location and (or) are *insertae sedis* species: *Nomada dives* Erichson, 1849 (from former Orenburg Gov. in modern Russia or Kazakhstan) (Pesenko, Astafurova, 2003), *N. dubia* Eversmann, 1852 (from former Orenburg Gov. in modern Russia or Kazakhstan), *N. nigella* Nylander, 1848 (from Siberia, type is possible lost) (Alexander, Schwarz, 1994), *N. ornata* Eversmann, 1852 (from former Orenburg Gov. in modern Russia or Kazakhstan), *N. planifrons* Łoziński, 1922 (from E Siberia), *N. quadrispinosa* Mocsáry, 1901 and *N. zichyana* Mocsáry, 1901 (both from Saratov, types are possibly lost), *Epeolus nudiventris* Bischoff, 1930 (from Buryatia), *E. sibiricus* Radoszkowski, 1887 (from Primorskiy Terr.) (Proshchalykin, Astafurova, 2017), *Eucera nigriventris* (Alfken, 1931) (from Armavir, Krasnodar Terr.) (Alfken, 1931), *Eucera viciniformis* Kerenskij, 1919 (from Rostov Prov.), *E. chrysura* Erichson, 1849 (from former Orenburg Gov. in modern Russia or Kazakhstan)

(Pesenko, Astafurova, 2003), *Anthophora repleta* Dours, 1869 (from former Orenburg Gov. in modern Russia or Kazakhstan) (Proshchalykin, Astafurova, 2017), *Anthophora trichopus* Hedicke, 1940 (Zabaykalskiy Terr. (Hedicke, 1940), both *Anthophora* types possible lost) (Brooks, 1988), *Thyreus biseriatus* (Morawitz, 1888) (Krasnoyarsk Terr.) (Lieftinck, 1968).

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