

**PROCEEDINGS OF THE ZOOLOGICAL INSTITUTE  
OF THE RUSSIAN ACADEMY OF SCIENCES**

**ANNOTATED CATALOGUE  
OF THE HYMENOPTERA OF RUSSIA**

**VOLUME I**

**SYMPHYTA AND APOCRITA: ACULEATA**



**SUPPLEMENT № 6, 2017**



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VOLUME I

SYMPHYTA AND APOCRITA: ACULEATA

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ТРУДЫ ЗООЛОГИЧЕСКОГО ИНСТИТУТА  
РОССИЙСКОЙ АКАДЕМИИ НАУК

ПРИЛОЖЕНИЕ № 6

**АННОТИРОВАННЫЙ КАТАЛОГ  
ПЕРЕПОНЧАТОКРЫЛЫХ НАСЕКОМЫХ РОССИИ**

**ТОМ I**

**СИДЯЧЕБРЮХИЕ (SYMPHYTA)  
И ЖАЛОНОСНЫЕ (АРОСРИТА: ACULEATA)**



САНКТ-ПЕТЕРБУРГ  
2017

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ТОМ I

СИДЯЧЕБРЮХИЕ (SYMPHYTA)  
И ЖАЛОНОСНЫЕ (ARCRITA: ACULEATA)

Под общей редакцией С.А. Белокобыльского и А.С. Лелея

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## ANNOTATED CATALOGUE OF THE HYMENOPTERA OF RUSSIA. VOLUME I. SYMPHYTA AND APOCRITA: ACULEATA

A.V. Antropov, Yu.V. Astafurova, S.A. Belokobylskij, A.M. Byvaltsev, Yu.N. Danilov, D.A. Dubovikoff, K.I. Fadeev, A.V. Fateryga, N.V. Kurzenko, A.S. Lelej, T.V. Levchenko, V.M. Loktionov, M.V. Mokrousov, P.G. Nemkov, M.Yu. Proshchalykin, P. Rosa, D.A. Sidorov, Yu.N. Sundukov, Z.M. Yusupov, L.A. Zaytseva

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### ABSTRACT

Hymenoptera is one of the largest insect orders, with a world fauna of 155.5 thousand species in 8423 genera from 94 extant families, a Palaearctic fauna of 50–60 thousand estimated species, and a Russian fauna of more than 15 thousand estimated species in more than 1500 genera from 78 families. The modern classification of Hymenoptera is given. The first volume treats the sawflies (13 families, 170 genera, 1546 species), wasps (15 families, 253 genera, 1695 species), ants (1 family, 44 genera, 264 species) and bees (6 families, 66 genera, 1216 species) which together, in Russia, comprise 4721 species in 533 genera. The sections for each of the 35 families include characteristics, number of taxa, references, and an annotated catalogue of the genera and species recorded from the fauna of Russia. For each valid genus the type species, synonymy, short characterization, and number of species are given. For each valid species the synonymy, known host plants, hosts or prey, and distribution (in Russia and general) are provided. The book is illustrated using geoschemes for Russia, Europe, and China. The large bibliography helps to assess the level of study of each family. The index of scientific names of Hymenoptera (more than 16000 names) will be useful for taxon searching.

**Key words:** sawflies, wasps, ants, bees, Xyeloidea, Tenthredinoidea, Pamphilioidea, Cephoidea, Siricoidea, Orussoidea, Chrysoidea, Scolioidea, Pompiloidea, Vespoidea, Formicoidea, Apoidea

## АННОТИРОВАННЫЙ КАТАЛОГ ПЕРЕПОНЧАТОКРЫЛЫХ НАСЕКОМЫХ РОССИИ. ТОМ I. СИДЯЧЕБРЮХИЕ (СИМФЫТА) И ЖАЛОНОСНЫЕ (АПОКРИТА: АКУЛЕАТА)

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### РЕЗЮМЕ

Перепончатокрылые – один из самых больших отрядов насекомых, который насчитывает в мире 155.5 тыс. видов, 8423 рода из 94 рецентных семейств, в Палеарктике ожидается 50–60 тыс. видов, в России – более 15 тыс. видов из более чем 1500 родов и 78 семейств. Приведена современная общая классификация отряда

Hymenoptera. Первый том охватывает пилильщиков и рогахвостов (13 семейств, 170 родов, 1546 видов), ос (15 семейств, 253 рода, 1695 видов), муравьев (1 семейство, 44 рода, 264 вида) и пчел (6 семейств, 66 родов, 1216 видов); в целом в России насчитываются 4721 вид из 533 родов. Каждый раздел (35 семейств) включает краткую характеристику, число таксонов, литературу и аннотированный каталог родов и видов, известных из России. Для каждого валидного рода приведены типовой вид, синонимия, краткая характеристика и число видов. Для каждого валидного вида приведены синонимия, известные кормовые растения, хозяева или добыча и распространение (в России и общее). Книга иллюстрирована схематическими картами России, Европы и Китая. Большая библиография даст представление о степени изученности каждого семейства. Указатель латинских названий перепончатокрылых (в целом свыше 16000 названий) облегчит поиск необходимых названий.

**Key words:** пилильщики, осы, муравьи, пчелы, Xyeloidea, Tenthredinoidea, Pamphilioidea, Cephoidea, Siricoidea, Orussoidea, Chrysidioidea, Scolioidea, Pompiloidea, Vespoidea, Formicoidea, Apoidea

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## CONTENTS

Preface ( <i>S.A. Belokobylskij</i> and <i>A.S. Lelej</i> ) .....	9
Authors .....	13
Order Hymenoptera .....	15
Introduction ( <i>A.S. Lelej</i> and <i>S.A. Belokobylskij</i> ) .....	15
Suborder Symphyta – Sawflies and wood wasps ( <i>Yu.N. Sundukov</i> ) .....	20
Superfamily Xyeloidea .....	20
1. Family Xyelidae .....	20
Superfamily Tenthredinoidea .....	22
2. Family Argidae .....	22
3. Family Blasticotomidae .....	27
4. Family Cimbicidae .....	28
5. Family Diprionidae .....	33
6. Family Heptamelidae .....	36
7. Family Tenthredinidae .....	37
Superfamily Pamphilioidea .....	101
8. Family Pamphiliidae .....	101
9. Family Megalodontesidae .....	107
Superfamily Cephoidea .....	108
10. Family Cephidae .....	108
Superfamily Siricoidea .....	112
11. Family Siricidae .....	112
12. Family Xiphydriidae .....	115
Superfamily Orussoidea .....	117
13. Family Orussidae .....	117
Suborder Apocrita .....	118
Superfamily Chrysoidea .....	118
57. Family Dryinidae ( <i>A.S. Lelej</i> and <i>V.M. Loktionov</i> ) .....	118
58. Family Embolemidae ( <i>S.A. Belokobylskij</i> ) .....	122
59. Family Bethyidae ( <i>A.S. Lelej</i> and <i>K.I. Fadeev</i> ) .....	123
60. Family Chrysididae – Cuckoo wasps ( <i>P. Rosa</i> , <i>A.S. Lelej</i> , <i>S.A. Belokobylskij</i> , <i>V.M. Loktionov</i> and <i>L.A. Zaytseva</i> ) .....	126
Superfamily Scolioidea .....	145
61. Family Sapygidae ( <i>A.S. Lelej</i> and <i>N.V. Kurzenko</i> ) .....	145
62. Family Scoliidae ( <i>M.V. Mokrousov</i> and <i>A.S. Lelej</i> ) .....	147
63. Family Tiphiidae ( <i>M.V. Mokrousov</i> and <i>A.S. Lelej</i> ) .....	149
64. Family Sierolomorphidae ( <i>A.S. Lelej</i> and <i>M.V. Mokrousov</i> ) .....	151
65. Family Mutillidae – Velvet ants ( <i>A.S. Lelej</i> ) .....	152
66. Family Bradynobaenidae ( <i>A.S. Lelej</i> and <i>M.V. Mokrousov</i> ) .....	159



Superfamily Pompiloidea .....	160
67. Family Pompilidae – Spider wasps ( <i>V.M. Loktionov</i> and <i>A.S. Lelej</i> ) .....	160
Superfamily Vespoidea .....	175
68. Family Vespidae ( <i>A.V. Antropov</i> ) .....	175
Subfamily Masarinae – Pollen wasps ( <i>A.V. Fateryga</i> ) .....	177
Subfamily Eumeninae – Potter wasps ( <i>A.V. Fateryga</i> ) .....	178
Subfamily Polistinae – Paper wasps ( <i>A.V. Antropov</i> ) .....	192
Subfamily Vespinae – Hornets and Jellow Jackets ( <i>A.V. Antropov</i> ) .....	193
Superfamily Formicoidea .....	197
69. Family Formicidae – Ants ( <i>D.A. Dubovikoff</i> and <i>Z.M. Yusupov</i> ) .....	197
Superfamily Apoidea .....	211
Section Spheciformes – Digger wasps .....	211
70. Family Ampulicidae – Ampulicid digger wasps ( <i>Yu.N. Danilov</i> ) .....	211
71. Family Sphecidae – Sphecid digger wasps ( <i>Yu.N. Danilov</i> ) .....	212
72. Family Crabronidae – Crabronid digger wasps .....	217
Subfamily Astatinae ( <i>P.G. Nemkov</i> ) .....	218
Subfamily Bembicinae ( <i>P.G. Nemkov</i> ) .....	219
Subfamily Crabroninae ( <i>A.V. Antropov</i> ) .....	225
Subfamily Dinetinae ( <i>P.G. Nemkov</i> ) .....	245
Subfamily Eremiasphecinae ( <i>M.V. Mokrousov</i> ) .....	245
Subfamily Mellininae ( <i>P.G. Nemkov</i> ) .....	246
Subfamily Pemphredoninae ( <i>M.V. Mokrousov</i> ) .....	246
Subfamily Philanthinae ( <i>Yu.N. Danilov</i> and <i>M.V. Mokrousov</i> ) .....	252
Section Apiformes – Bees .....	257
73. Family Colletidae ( <i>M.Yu. Proshchalykin</i> ) .....	257
74. Family Andrenidae ( <i>M.Yu. Proshchalykin</i> , <i>Yu.V. Astafurova</i> and <i>D.A. Sidorov</i> ) .....	263
75. Family Halictidae ( <i>Yu.V. Astafurova</i> and <i>M.Yu. Proshchalykin</i> ) .....	277
76. Family Melittidae ( <i>M.Yu. Proshchalykin</i> and <i>Yu.V. Astafurova</i> ) .....	293
77. Family Megachilidae ( <i>M.Yu. Proshchalykin</i> and <i>A.V. Fateryga</i> ) .....	295
78. Family Apidae ( <i>T.V. Levchenko</i> , <i>A.M. Byvaltsev</i> and <i>M.Yu. Proshchalykin</i> ) .....	309
References .....	333
Index of Latin names of Hymenoptera .....	389

## PREFACE

S.A. BELOKOBYLSKIY AND A.S. LELEJ

Hymenoptera is one of the largest insect orders, with a world fauna 155.5 thousand species in 8423 genera from 94 extant families (Aguilar et al., 2013). Probably Hymenoptera in total includes 250–300 thousand species (Rasnitsyn, 2002; Gauld et al., 1988). According to our estimation, the Palaearctic fauna has about 50–60 thousand species; in Russia there are more than 15 thousand species in more than 1500 genera from 78 families of Hymenoptera (Lelej et al., 2012).

The Annotated Catalogue of Hymenoptera of Russia is based on six Hymenoptera books of the series “Keys to the insects of the European part of USSR” (1978a, 1978b; 1981; 1986a, 1978b; 1988, which treat 10748 recorded and potentially occurring species in 1938 genera) and five Hymenoptera books of the series “Keys to the insects of the Russian Far East” (1995a, 1995b; 1998; 2000; 2007, which include 4948 recorded and potentially occurring species in 1389 genera) as well as original papers published in the last decades. The last catalogue of Hymenoptera of the Russian Far East (Lelej et al., 2012) includes 7503 recorded species in 1363 genera from 69 families. Among the 78 families of Hymenoptera so far recorded from Russia, Stephanidae, Evaniidae, Agaonidae, Signiphoridae, Bradynobaenidae and Ampulicidae are known to occur only in the European part of the country, while distribution of Roproniidae, Proctorenyxidae and Vanhorniidae is limited to south of the Russian Far East. The rare family Sierolomorphidae is known from south of the Russian Far East (Primorskiy Terr.), Western Siberia (Novosibirsk Prov.), and Ural (Orenburg Prov.).

Significance of such types of catalogues is in uniting comprehensive information about contents, biological peculiarity, distribution, and host specificity of the insect fauna of a country of interest. They are also extremely important for development of the Russian national insect collections.

The first volume of this Catalogue treats the sawflies (13 families, 170 genera, 1546 species), wasps (15 families, 253 genera, 1695 species), ants (1 family, 44 genera, 264 species), and bees (6 families, 66 genera, 1216 species); their total number in Russia is 4721 species in 533 genera. Sections for each of 35 families include brief data, number of taxa, references, and annotated catalogues of genera and species recorded from Russia. For each valid genus, the type species, synonymy, a brief characteristic, and number of species are

given. For each valid species, synonymy, known host plants, hosts or preys, and distribution (from Russia and general) are provided. The book is illustrated by geoschemes for Russia, Europe, and China (Figs 1–3).

The boundary of Russia and the adjacent countries is given in geoscheme (Fig. 1) using abbreviations. For better understanding of the species distribution, also provided are geoschemes of Europe (Fig. 2) and China (Fig. 3). For most families and genera, the current (as of October 2017) number of valid species in the World is given, followed by that in the Palaearctic region and Russia. For the species distribution, the Russian regions are listed first, followed by Europe and other countries (regions) in the following order: Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, KA, MG, CH). – Europe (WE, NE, SE, EE), N Africa, Georgia, Armenia, Azerbaijan (or Caucasus – for all three countries), Turkey, Syria, Jordan, Lebanon, Israel, Iraq, Iran, Afghanistan, Pakistan, Turkmenistan, Tajikistan, Uzbekistan, Kyrgyzstan (or Central Asia – for all four countries), Kazakhstan, Mongolia, China (NE, NC, NW, CC, SW, WP, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu), N America, SE Asia, India, Africa, S America, Australia. The names of countries and Russian regions are given according to the All-Russian classifier of the countries of the world (<http://klassifikators.ru/oksm>), and English names of the Russian regions follows Gorskaya (1994).

**Geoscheme for Europe** according to United Nations geoscheme for Europe ([https://en.wikipedia.org/wiki/United\\_Nations\\_geoscheme\\_for\\_Europe](https://en.wikipedia.org/wiki/United_Nations_geoscheme_for_Europe)), including of United Kingdom and Republic of Ireland in Western Europe and excluding of Turkey and Kazakhstan (Fig. 2). **Western Europe** (WE): Austria, Belgium, France, Germany, Republic of Ireland, Liechtenstein, Luxemburg, Monaco, Netherlands, Switzerland, United Kingdom; **Northern Europe** (NE): Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway, Sweden; **Southern Europe** (SE): Albania, Andorra, Bosnia and Herzegovina, Croatia, Greece, Italy, Republic of Macedonia, Malta, Montenegro, Portugal, San Marino, Serbia, Slovenia, Spain; **Eastern Europe** (EE): Belarus, Bulgaria, Czech Republic, Hungary, Republic of Moldova, Poland, Romania, Slovakia, Ukraine; European part of Russia (treated separated from other countries of EE in structure of whole Russian Federation).

**DZ** – Algeria; **MA** – Morocco; **TN** – Tunisia; **TR** – Turkey. Codes for the names of countries follow the standard of the International Organization for Standardization (ISO 3166-1 alpha-2).

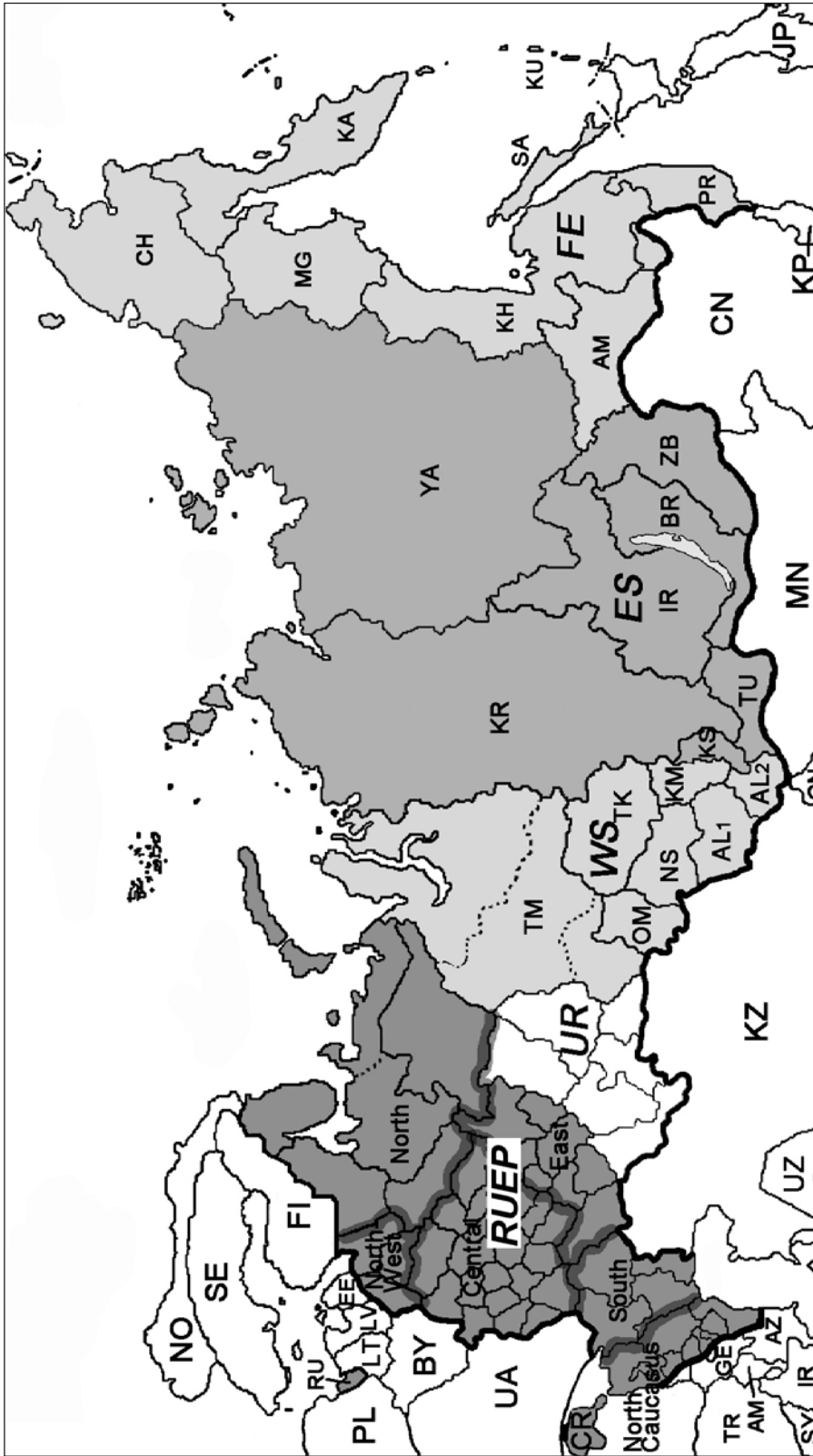
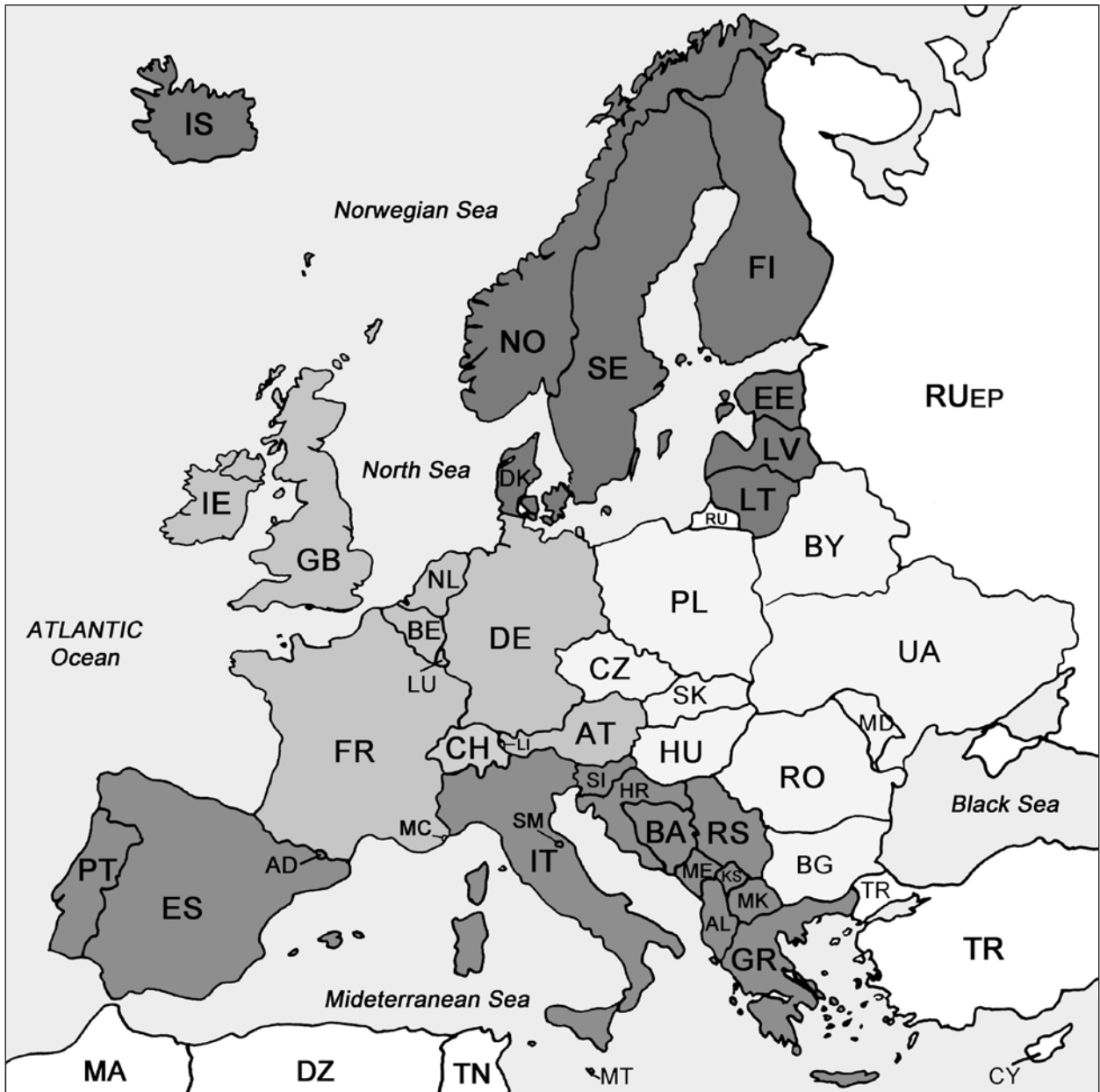
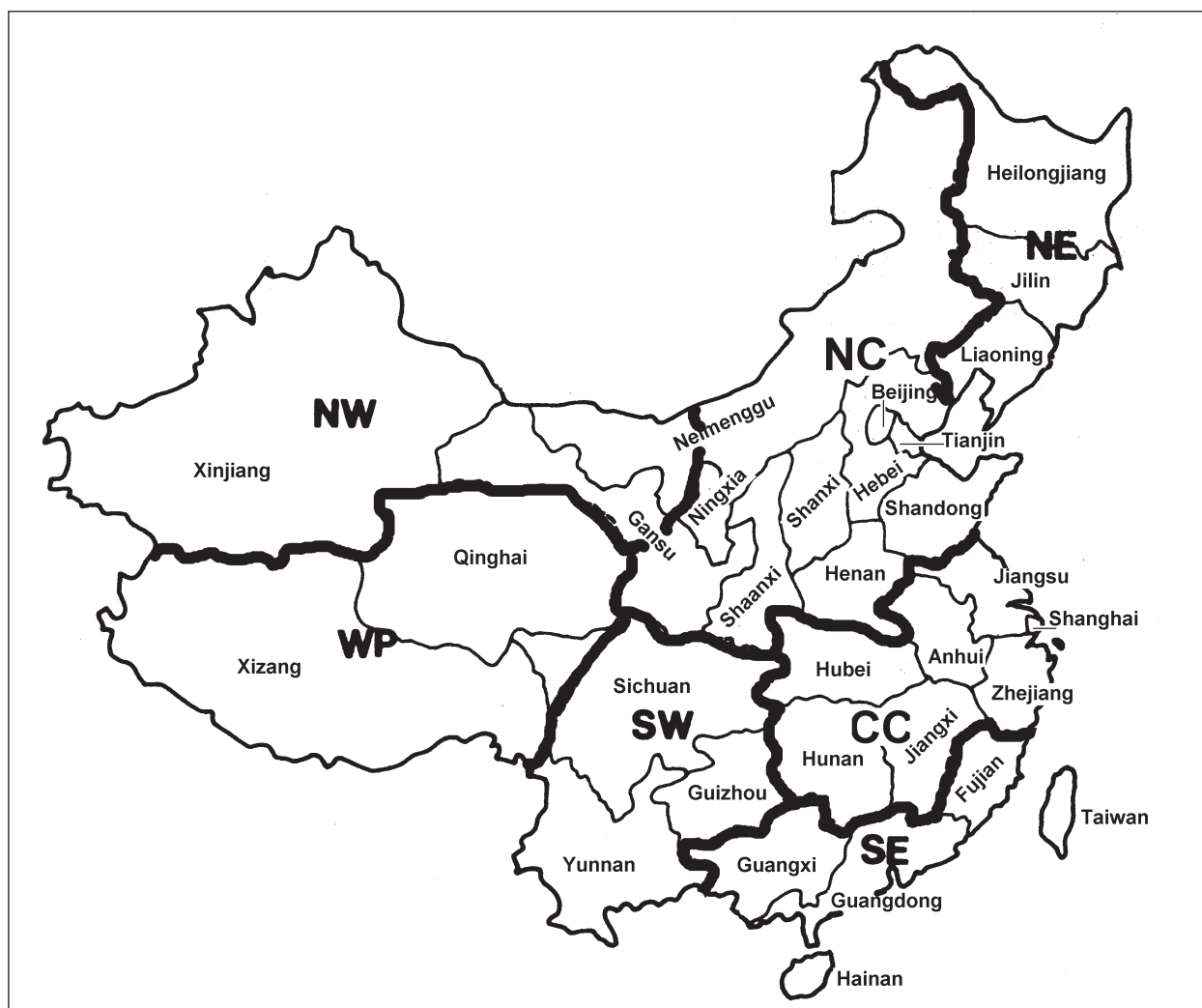


Fig. 1. Geoscheme for Russia. **EUROPEAN PART (RU EP) = EP**: North (N): Murmansk Prov., Arkhangelsk Prov., Karelian Rep., Vologda Prov., Komi Rep.; North-West (NW): Kaliningrad Prov., Leningrad Prov., Pskov Prov., Novgorod Prov.; Centre (C): Tver Prov., Yaroslavl Prov., Kostroma Prov., Smolensk Prov., Moscow Prov., Vladimir Prov., Ivanovo Prov., Nizhny Novgorod Prov., Kaluga Prov., Tula Prov., Ryazan Prov., Mordovian Rep., Bryansk Prov., Orel Prov., Lipetsk Prov., Tambov Prov., Penza Prov., Kursk Prov., Belgorod Prov., Voronezh Prov.; East (E): Kirov Prov., Udmurt Rep., Mari El Rep., Chuvash Rep., Tatar Rep., Ulyanovsk Prov., Samara Prov., Saratov Prov.; South (S): Rostov Prov., Volgograd Prov., Kalmyk Rep., Astrakhan Rep.; North Caucasus (NC): Krasnodar Terr., Stavropol Terr., Adygei Rep., Karachayo-Cherkess Rep., Ingush Rep., Kabardino-Balkarian Rep., North Ossetian Rep., Chechen Rep., Dagestan Rep.; Crimea (CR): Crimea Rep., Sebastopol. **URALS (UR)**: Perm Terr., Sverdlovsk Prov., Bashkir Rep., Chelyabinsk Prov., Orenburg Prov., Kurgan Prov. **WESTERN SIBERIA (WS)**: Tyumen Prov. (TM), Omsk Prov. (OM), Tomsk Prov. (TK), Novosibirsk Prov. (NS), Kemerovo Prov. (KM), Altai (AL) (including Altai Rep. and Altai Terr.). **EASTERN SIBERIA (ES)**: Khakass Rep. (KS), Tuva Rep. (TU), Krasnoyarsk Terr. (KR), Irkutsk Prov. (IR), Buryat Rep. (BR), Yakutsk Rep. (YA), Zabaykalskii Terr. (ZB); **FAREAST (FE)**: Amur Prov. (AM), Khabarovsk Terr. (including Jewish Autonomous Region) (KH), Primorski Terr. (PR), Sakhalin (SA), Kuril Islands (KU), Kamchatka Terr. (KA), Magadan Prov. (MG), Chukot Autonomous Area (CH). **Other countries**: AM – Armenia; AZ – Azerbaijan; BY – Belarus; CN – China; EE – Estonia; FI – Finland; GE – Georgia; IR – Iran; JP – Japan; KP – North Korea (Democratic People's Republic of Korea); KZ – Kazakhstan; LT – Lithuania; LV – Latvia; MN – Mongolia; NO – Norway; PL – Poland; RU – Russia; SE – Sweden; SY – Syria; TR – Turkey; UA – Ukraine; UZ – Uzbekistan.



**Fig. 2.** Geoscheme for Europe. *European countries:* AD – Andorra; AL – Albania; AT – Austria; BA – Bosnia and Herzegovina; BE – Belgium; BG – Bulgaria; BY – Belarus; CH – Switzerland; CZ – Czech Republic; DE – Germany; DK – Denmark; EE – Estonia; ES – Spain; FI – Finland; FR – France; GB – United Kingdom; GR – Greece; HR – Croatia; HU – Hungary; IE – Republic of Ireland; IS – Iceland; IT – Italy; KS – Kosovo; LI – Liechtenstein; LT – Lithuania; LU – Luxembourg; LV – Latvia; MC – Monaco; MD – Republic of Moldova; ME – Montenegro; MK – Republic of Macedonia; MT – Malta; NL – Netherlands; NO – Norway; PL – Poland; PT – Portugal; RO – Romania; RS – Serbia; RUEP – Russian Federation (European part); SE – Sweden; SI – Slovenia; SM – San-Marino; SK – Slovakia; UA – Ukraine. *Other countries:* CY – Cyprus; DZ – Algeria; MA – Morocco; TN – Tunisia; TR – Turkey. Codes for the names of countries follow the standard of the International Organization for Standardization (ISO 3166-1 alpha-2).



**Fig. 3.** Geoscheme for China. *Regions of China:* Northeastern Territory (NE), Northern Territory (NC), Northwestern Territory (NW), the Western Plateau (WP), Central Territory (CC), Southwestern Territory (SW), Southeastern Territory (SE).

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## ORDER HYMENOPTERA

### INTRODUCTION

A.S. LELEJ AND S.A. BELOKOBYSKIJ

The first volume of the Annotated Catalogue of the Hymenoptera of Russia (Table) treats the sawflies (13 families, 170 genera, 1546 species), wasps (15 families, 253 genera, 1695 species), ants (1 family, 44 genera, 264 species), and bees (6 families, 66 genera, 1216 species); their total number in Russia is 4721 species in 533 genera. The large bibliography helps to document the level of knowledge of each family. Index of Latin names of Hymenoptera (more than 16000 names total) can be useful for searching particular taxa.

### Classification

In this book we followed the classification of Hymenoptera as proposed by Sharkey (2007) and Sharkey et al. (2011) for higher-level groupings and the survey of taxonomic richness by Aguiar et al. (2013), complemented by the recent new descriptions (Yu, 2012; Li et al., 2013; Engel et al., 2013, 2016a, b; Engel, 2015; Rodriguez et al., 2016; Rasnitsyn et al., 2017; Wang et al., 2017; Zhang et al., 2017). Also used were classifications by Rasnitsyn (1988) and Rasnitsyn & Zhang (2010) regarding the infraorders but with some changes. Infraorder Orussomorpha is a transition between the suborders Symphyta and Apocrita, but is traditionally placed in Symphyta.

Recently, Pilgrim et al. (2008) undertook a molecular analysis based on four nuclear genes of 64 taxa across the entire Vespoidea, in which they concluded that this superfamily and some included families were paraphyletic, and proposed recognition of six “vespoid” superfamilies (Formicoidea, Pompiloidea, Scolioidea, Tiphioidea, Thynnoidea and Vespoidea) and transfer of Myrmosinae from Mutillidae to its own family (Myrmosidae), both within Pompiloidea (with Pompilidae and Sapygidae), but they lacked specimens of most of the mutillid subfamilies and had only one of Myrmosinae, so the basis for their results was limited.

The families recorded from Russia are numbered (under these numbers they are placed in the taxonomic part of this catalogue; these are marked by a point (•) if they are not registered in Russia, and by a special symbol (†) if they are fossil).

## Suborder SYMPHYTA

### Xyelomorpha

**Xyeloidea** Newman, 1834

1. Xyelidae Newman, 1834

† Sypastoxyelidae Engel et Huang, 2016

### Tenthredinomorpha

**Tenthredinoidea** Latreille, 1803

† Electrotomidae Rasnitsyn, 1977

† Xyelotomidae Rasnitsyn, 1968

2. Argidae Konow, 1890

• Pergidae Rohwer, 1911

3. Blasticotomidae Thomson, 1871

4. Cimbicidae W. Kirby, 1837

5. Diprionidae Rohwer, 1910

6. Heptamelidae Benson, 1938

7. Tenthredinidae Latreille, 1803

### Siricomorpha

**Pamphilioidea** Cameron, 1890

† Xyelydidae Rasnitsyn, 1986

† Mirolydidae Wang, Rasnitsyn et Ren, 2017

8. Pamphiliidae Cameron, 1890

9. Megalodontesidae Konow, 1897

**Cephoidea** Newman, 1834

† Sepulcidae Rasnitsyn, 1968

10. Cephidae Newman, 1834

**Siricoidea** Billberg, 1820

† Daohugoidae Rasnitsyn et Zhang, 2004

† Protosiricidae Rasnitsyn et Zhang, 2004

† Pseudosiricidae Handlirsch, 1908

11. Siricidae Billberg, 1820

12. Xiphydriidae Leach, 1819

**Anaxyeloidea** Martynov, 1925

• Anaxyelidae Martynov, 1925

### Orussomorpha

**Orussoidea** Newman, 1834

† Karatavitidae Rasnitsyn, 1963

† Paroryssidae Martynov, 1925

13. Orussidae Newman, 1834

## Suborder APOCRITA

### Parasitica<sup>1</sup>

### Stephanomorpha

**Stephanoidea** Leach, 1815

† Eostephanitidae Hong, 2002<sup>2</sup>

† Ephialtitidae Handlirsch, 1906

† Myanmarinidae Zhang et Rasnitsyn, 2017

<sup>1</sup> Group of non-fixed rank

<sup>2</sup> *Eostephanites* Hong, 2002 [type genus of Eostephanitidae] has been placed to Stephanoidea: Eostephanitidae (Yu, 2012) but A.P. Rasnitsyn considers (pers. comm.) that it belongs to the Braconidae



Table. Hymenoptera of Russia: number of taxa of Symphyta and Apocrita: Aculeata

Family	World		Palaeartic		Russia	
	Genera	Species	Genera	Species	Genera	Species
<b>Symphyta</b>						
1. Xyelidae	8	85	4	40	3	13
2. Argidae	60	920	17	310	7	88
3. Blasticotomidae	2	12	2	8	2	3
4. Cimbicidae	15	190	10	150	8	72
5. Diprionidae	11	140	9	70	8	28
6. Heptamelidae	6	50	2	13	2	5
7. Tenthredinidae	400	5600	220	3500	109	1124
8. Pamphiliidae	10	300	10	200	9	99
9. Megalodontesidae	1	37	1	37	1	12
10. Cephidae	24	165	16	120	10	57
11. Siricidae	11	130	7	75	5	20
12. Xiphydriidae	29	150	14	50	4	21
13. Orussidae	17	90	5	20	2	4
<b>Total</b>	<b>594</b>	<b>7879</b>	<b>317</b>	<b>4603</b>	<b>170</b>	<b>1546</b>
<b>Apocrita: Aculeata</b>						
57. Dryinidae	50	1827	24	257	8	63
58. Embolemidae	3	39	3	10	2	5
59. Bethyidae	84	2340	20	244	20	34
60. Chrysididae	95	2815	36	1557	23	330
61. Sapygidae	12	66	6	31	5	9
62. Scolidae	43	560	11	100	5	20
63. Tiphidae	120	2000	17	100	6	28
64. Sierolomorphidae	2	12	2	5	1	2
65. Mutillidae	216	4300	61	525	20	74
66. Bradynobaenidae	10	188	4	43	1	2
67. Pompilidae	254	4855	65	1000	37	246
68. Vespidae	256	5274	90	1181	38	197
69. Formicidae	485	13978	94	1350	44	264
70. Ampulicidae	6	202	3	38	2	4
71. Sphecidae	19	779	13	260	11	68
72. Crabronidae	250	8900	84	2000	74	613
73. Colletidae	86	2630	2	432	2	100
74. Andrenidae	77	2917	13	1100	5	244
75. Halictidae	79	4420	23	950	13	263
76. Melittidae	15	198	5	85	3	25
77. Megachilidae	76	4096	36	1100	18	198
78. Apidae	176	5614	33	1358	25	386
<b>Total</b>	<b>2414</b>	<b>68010</b>	<b>645</b>	<b>13726</b>	<b>363</b>	<b>3175</b>

*Note.* Data for the World are given from Aguiar et al. (2013), and for the Palaeartic region and Russia from this book.

14. Stephanidae Leach, 1815

### **Evaniomorpha**

#### **Evanioidea** Latreille, 1802

- † Andreneliidae Rasnitsyn et Martínez-Declòs, 2000
- † Anomopterellidae Rasnitsyn, 1975
- † Othniodellithidae Engel et Huang, 2016
- † Praeaulacidae Rasnitsyn, 1972
- 15. Aulacidae Shuckard, 1841
- 16. Gasteruptiidae Ashmead, 1900
- 17. Evaniidae Latreille, 1802

### **Ceraphronomorpha**

#### **Ceraphronoidea** Haliday, 1833

- † Radiophronidae Ortega-Blanco, Rasnitsyn et Declòs, 2010
- † Stigmaphronidae Kozlov, 1975
- † Aptenoperissidae Rasnitsyn & Poinar, 2017
- 18. Megaspilidae Ashmead, 1893
- 19. Ceraphronidae Haliday, 1833

#### **Megalyroidea** Schletterer, 1889

- † Maimetshidae Rasnitsyn, 1975
- Megalyridae Schletterer, 1889

#### **Trigonalynoidea** Cresson, 1887

- 20. Trigonalynidae Cresson, 1887

### **Proctotrupoomorpha**

#### **Proctotrupoidea** Latreille, 1802

- † Jurapriidae Rasnitsyn, 1983
- † Mesoserphidae Kozlov, 1970
- Austroniidae Kozlov, 1975
- Peleciniidae Haliday, 1839
- Peradeniidae Naumann et Masner, 1985
- 21. Heloridae Förster, 1856
- 22. Proctotrupidae Latreille, 1802
- 23. Roproniidae Bradley, 1905
- 24. Proctorenyxidae Lelej et Kozlov, 1999
- 25. Vanhorniidae Crawford, 1909

#### **Diaprioidea** Haliday, 1833

- 26. Diapriidae Haliday, 1833
- 27. Ismaridae Thomson, 1858
- Maamingidae Early, Masner, Naumann et Austin, 2001
- Monomachidae Ashmead, 1902
- † Spathiopterygidae Engel et Ortega-Blanco, 2013

#### **Platygastridae** Haliday, 1833

- 28. Platygastridae Haliday, 1833
- 29. Scelionidae Haliday, 1839

#### † **Serphitoidea** Brues, 1937

- † Serphitidae Brues, 1937
- † Archaeoserphitidae Engel, 2015

#### **Cynipoidea** Latreille, 1802

- † Gerocynipidae Liu et Engel, 2007
- † Protimaspidae Liu et Engel, 2007
- † Stolamissidae Liu et Engel, 2007
- Austrocynipidae Riek, 1971
- 30. Ibaliidae Thomson, 1862
- 31. Liopteridae Ashmead, 1895
- 32. Figitidae Hartig, 1840
- 33. Cynipidae Latreille, 1802

#### **Chalcidoidea** Latreille, 1817

- † Khutelchalcididae Rasnitsyn, Basibuyuk et Quicke, 2004
- 34. Chalcididae Latreille, 1817
- 35. Leucospidae Walker, 1834
- 36. Perilampidae Förster, 1856
- 37. Eucharitidae Walker, 1846
- 38. Pteromalidae Dalman, 1820
- 39. Eupelmidae Walker, 1833
- 40. Encyrtidae Walker, 1837
- 41. Eurytomidae Walker, 1832
- 42. Torymidae Walker, 1833
- 43. Ormyridae Förster, 1856
- 44. Agaonidae Walker, 1846
- 45. Tetracampidae Förster, 1856
- 46. Eulophidae Westwood, 1829
- 47. Aphelinidae Thomson, 1876
- 48. Azotidae Nikol'skaya et Yasnosh, 1966
- 49. Cynipencyrtidae Trjapitzin, 1973
- Eriaporidae Ghesquère, 1955
- 50. Trichogrammatidae Haliday, 1851
- 51. Signiphoridae Howard, 1894
- 52. Mymaridae Haliday, 1833
- Rotoitidae Bouček et Noyes, 1987
- Tanaostigmatidae Ashmead, 1904

#### **Mymarommatoidea** Debauche, 1948

- † Alavarommatidae Ortega-Blanco, Peñalver, Delclòs et Engel, 2011
- † Gallorommatidae Gibson, Read et Huber, 2007
- 53. Mymarommatidae Debauche, 1948

### **Ichneumonomorpha**

#### **Ichneumonoidea** Latreille, 1802

- † Praeichneumonidae Rasnitsyn, 1983
- 54. Ichneumonidae Latreille, 1802
- 55. Braconidae Nees, 1811
- 56. Aphidiidae Haliday, 1833

#### **Aculeata**<sup>3</sup>

### **Vespomorpha**

#### † **Bethylonymoidea** Rasnitsyn, 1975

- † Bethylonymidae Rasnitsyn, 1975

<sup>3</sup> Group of non-fixed rank

**Chrysoidea** Latreille, 1802

- † Falsiformicidae Rasnitsyn, 1975
- † Plumalexiidae Brothers, 2011
- Plumariidae Bischoff, 1914
- Sclerogibbidae Ashmead, 1902
- Scolebythidae Evans, 1963
- 57. Dryinidae Haliday, 1833
- 58. Embolemidae Förster, 1856
- 59. Bethyidae Haliday, 1839
- 60. Chrysididae Latreille, 1802

**Scolioidea** Latreille, 1802

- † Bryopompilidae Engel et Grimaldi, 2006
- 61. Sapygidae Latreille, 1810
- 62. Scoliidae Latreille, 1802
- 63. Tiphiidae Leach, 1815
- 64. Sierolomorphidae Krombein, 1951
- 65. Mutillidae Latreille, 1802
- 66. Bradynobaenidae de Saussure, 1892
- Rhopalosomatidae Ashmead, 1896

**Pompiloidea** Latreille, 1804

- 67. Pompilidae Latreille, 1804

**Vespoidea** Latreille, 1802

- 68. Vespidae Latreille, 1802

**Formicoidea** Latreille, 1802

- 69. Formicidae Latreille, 1802

**Apoidea** Latreille, 1802Section Spheciformes<sup>4</sup>

- † Angarosphecidae Rasnitsyn, 1975
- Heterogynaidae Nagy, 1969
- 70. Ampulicidae Shuckard, 1840
- 71. Sphecidae Latreille, 1802
- 72. Crabronidae Latreille, 1802

Section Apiformes<sup>5</sup>

- † Mellitosphecidae Poinar et Danforth, 2006
- † Paleomelittidae Engel, 2001
- 73. Colletidae Lapeletier de Saint Fargeau, 1841
- 74. Andrenidae Latreille, 1802
- 75. Halictidae Thomson, 1869
- 76. Melittidae Schenck, 1860
- 77. Megachilidae Latreille, 1802
- 78. Apidae Latreille, 1802
- Stenotritidae Cockerell, 1934

**Apocrita incertae sedis**

- † Archaeocynipidae Rasnitsyn et Kovalev, 1988
- † Kuafuidae Rasnitsyn et Zhang, 2010

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<sup>4, 5</sup> Group of non-fixed rank

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**SUBORDER SYMPHYTA –  
SAWFLIES AND WOOD WASPS**

YU.N. SUNDUKOV

Sawflies are distinguished from other Hymenoptera by the anterior margin of the tergum 1, which appears as part of abdomen rather than thorax, though it is fused to the postnotum of the metathorax. The suborder is distributed worldwide. Number of recent taxa: World – 15 families, 45 subfamilies, about 650 genera, about 8250 species; Palaearctic – 13/24/>310/about 4400; Russia – 13/22/170/1546.

The classification used here reflects classification, derived from the “World catalog of Symphyta” (Taeger et al., 2010), taking into account the latest taxonomic changes (see the list of references).

**INFRAORDER XYELOMORPHA**

**SUPERFAMILY XYELOIDEA**

One family: Xyelidae.

**1. FAMILY XYELIDAE**

Xyelidae is the earliest known family of Hymenoptera according to the fossil record, with the oldest members dating from the Early Triassic some 220 million years ago (Blank, 2002b). Xyelidae is a small family of herbivorous wasps. These are small (Xyelinae) or medium sized (Macroxyelinae) insects (3–17 mm). Characterized by very long 3th antennal segment (actually formed by fusion of at least 8 segments) surmounted by a slender filament of 9 or more tiny segments. The larvae of subfamily Xyelinae live in the male cones of pines (*Pinus* spp.), where they feed on the sporophylls, or bores in the shoots of conifers (*Abies*, *Picea*). Larvae of Macroxyelinae – in the inflorescences of deciduous trees.

The family is distributed in the Holarctic, Oriental and Neotropical regions, mainly in their temperate zone. Number of recent taxa: World – 2 subfamilies, 8 genera, about 85 species; Palaearctic – 2/4/> 40; Russia – 2/3/13.

**R e f e r e n c e s.** Gussakovskij, 1935; Rasnitsyn, 1965; Shinohara, 1992b, 1995; Blank et al., 2005, 2013, 2017; Taeger et al., 2006, 2010; Sundukov, Lelej, 2012; Vasilenko, Korshunov, 2012; Kostyunin, 2015; Sundukov, 2015.

Subfamily MACROXYELINAE

**MEGAXYELA** Ashmead, 1898 (*Odontophyes* Konow, 1899; *Megaloxyla* Schulz, 1906; *Paraxyela* MacGillivray, 1912). The larvae feed on the Juglandaceae. Type species *Xyela major* Cresson, 1880. The genus is distributed in East Palaearctic and Nearctic region. Number of species: World – 11; Palaearctic – 6; Russia – 2.

**Megaxyela gigantea** Mocsàry, 1909 (*M. mikado* Sato, 1930). Host plant: *Juglans mandshurica*, *J. ailanthifolia*, *J. regia* (Juglandaceae). Russia: **FE** (KH, PR). – Korean Peninsula.

**Megaxyela pulchra** Blank, Shinohara et Sundukov, 2017. Host plant: *Juglans mandshurica*, *?J. ailanthifolia*, *?J. regia*, *?Pterocarya* spp. (Juglandaceae). Russia: **FE** (PR). – China (NE, WP, SE), Korean Peninsula.

Subfamily XYELINAE

**PLERONEURA** Konow, 1897 (*Manoxyela* Ashmead, 1898). Type species *Xyela dahli* Hartig, 1837. The larvae of species bores in the shoot of *Abies* and *Picea* (Pinaceae). The genus is distributed in the Holarctic and Neotropical regions. Number of species: World – 12; Palaearctic – 7; Russia – 3.

**Pleroneura dahlii** (Hartig, 1837) [*Xyela*]. Host plant: *Abies* spp. (Pinaceae). Russia: **EP** (NC). – Europe (WE, EE).

**Pleroneura piceae** Shinohara et Hara, 1995. Host plant: *Picea glehnii* (Pinaceae). Russia: **FE** (KU). – Japan (Hok).

**Pleroneura subulata** Shinohara, 1995. Russia: **FE** (KH, PR). – Korean Peninsula, Japan (Hon, Shi).

**XYELA** Dalman, 1819 (*Pinicola* Brébisson, 1818; *Mastigocerus* Latreille, 1818; *Tritikreion* Schilling, 1826; *Mastigocera* Berthold, 1827; *Pinicolites* Meunier, 1920; *Neoxyela* Curran, 1923; *Xyelatana* Benson, 1938; *Mesoxyela* Rasnitsyn, 1965; *Magnixyela* Rasnitsyn, 1971; *Alpigenixyela* Rasnitsyn, 1971; *Desertixyela* Rasnitsyn, 1971; *Concavixyela* Rasnitsyn, 1971; *Linsleyixyela* Rasnitsyn, 1971; *Minorixyela* Rasnitsyn, 1971). Type species *Xyela pusilla* Dalman, 1819. The larvae of most species live in the male cones of pines (Pinaceae) where they feed on the sporophylls. The genus is distributed in the Holarctic, Oriental and

Neotropical regions. Number of species: World – near 50; Palaeartic – 29; Russia – 8.

**Xyela julii** (Brébisson, 1818) [Pinicola] (*X. pusilla* Dalman, 1819; *X. henschii* Mocsáry, 1912). Host plant: *Pinus nigra*, *P. rotundata*, *P. sylvestris* (Pinaceae). Russia: **EP** (N, NW, C), **WS** (KM, AL), **ES** (IR). – Europe (WE, NE, SE, EE), Georgia, Turkey, Mongolia.

**Xyela kamtshatica** Gussakovskij, 1935. Host plant: *Pinus pumila* (Pinaceae). Russia: **FE** (KA). – Japan (Hok, Hon).

**Xyela koraiensis** Blank et Shinohara, 2013. Host plant: *Pinus koraiensis* (Pinaceae). Russia: **FE** (PR). – Korean Peninsula.

**Xyela longula** Dalman, 1819 (*X. piliserra* C.G. Thomson, 1871). Host plant: *Pinus sylvestris* (Pinaceae). Russia: **EP** (NW, C). – Europe (WE, NE, EE).

**Xyela pumilae** Blank et Shinohara, 2013. Host plant: *Pinus pumila* (Pinaceae). Russia: **FE** (KU). – Japan (Hok).

**Xyela rasnitsyni** Blank et Shinohara, 2013. Host plant: *Pinus koraiensis* (Pinaceae). Russia: **FE** (PR). – China (NE), Korean Peninsula.

**Xyela sibirica** Blank, 2013. Host plant: *Pinus sibirica* (Pinaceae). Russia: **WS** (KM), **ES** (KR, IR). – Mongolia.

**Xyela ussuriensis** Rasnitsyn, 1965 (*X. suwonae* Ryu et Lee, 1992). Host plant: *Pinus koraiensis* (Pinaceae). Russia: **FE** (PR). – Korean Peninsula.

## INFRAORDER TENTHREDINOMORPHA

### SUPERFAMILY TENTHREDINOIDEA

Head usually open without hypostomal bridge. Pronotum very short medially and strongly emarginate behind; mesopleura with epimeron divided into upper convex and lower concave portion; mesosternum trapezoidal without presternal bridge and sutures often obsolete. Male genitalia strophandrious; female sawsheath usually abbreviated, but sometimes exerted. The larvae are polypodous or oligopodous.

The superfamily is distributed worldwide. Number of taxa: World – 7 families, 33 subfamilies, > 550 genera, > 7300 species; Palaearctic – 6/15/> 250/about 4000; Russia – 6/13/134/1318 (+ 34 ssp.).

### 2. FAMILY ARGIDAE

Slow, heavily built insects. Distinguished from all other families by the flagellum of its antenna being fused into a single long segment; this segment is subclavate in the female, but in the male is either uniform in thickness with a brush of short setae below (Arginae), or bifid like a tuning-fork (Sterictophorinae). Fore wing with vein *2r* absent. Cenchri very large. Tibiae with or without preapical spines; front tibia with two unmodified apical spurs. The larvae are free feeding, polypodous, with 6-8 pairs of abdominal legs; they feed predominantly on the leaves of various trees and shrubs.

The family is distributed worldwide. Number of taxa: World – 6 subfamilies, 60 genera, about 920 species; Palaearctic – 3/17/about 310; Russia – 2/7/88 (+ 2 ssp.).

References. Zaddach, 1859; André, 1881; Dalla Torre, 1894; Jakovlev, 1900; Konow, 1902b; Dovnar-Zapolskij, 1926, 1930; Kuznetsov-Ugamskij, 1927; Takeuchi, 1927, 1932; Gussakovskij, 1935; Zhelochovtsev, 1939, 1976, 1988; Stroganova, 1966, 1970, 1978a; Muche, 1972, 1977; Verzhutskii, 1973, 1974, 1981; Ermolenko, 1975, 1976, 1984; Zhelochovtsev, Prochorova, 1976; Koch, 1982, 1988a; Liston, 1992, 1995; Zhelochovtsev, Zinovjev, 1992, 1995; Pesarini et al., 1995; Blank, 1996; Blank, Taeger, 1998a,b; Wen et al., 1998; Wei, Wen, 2002; Vasilenko, 2004, 2009a, 2010b,c; Vikberg, 2004; Taeger, 2005; Vasilenko, Dolgov, 2005; Hara, Shinohara, 2006, 2008, 2012, 2014; Kajmuk, Popov, 2006; Liston et al., 2006, 2014a; Taeger et al., 2006, 2010; Wei et al., 2006, 2017; Hara et al., 2007, 2012; Popov, Kajmuk, 2007, 2009a; Shinohara, Hara, 2007; Sundukov, 2007,

2009, 2011b, 2013, 2015, 2017; Koch, Goergen, 2008; Roller, Haris, 2008; Humala, Polevoi, 2009; Schedl, 2009a; Shinohara et al., 2009, 2011; Sundukov, Lelej, 2009, 2012; Blank et al., 2011, 2014; Taeger, Blank, 2011; Artokhin et al., 2012; Macek, 2012; Vasilenko, Korshunov, 2012; Beneš, 2014b; Beneš, Holuša, 2015; Choi et al., 2015, 2016; Kostyunin, 2015; Noblecourt, 2016.

### Subfamily ARGINAE

**ARGE** Schrank, 1802 (*Cryptus* Jurine, 1801; *Hylotoma* Latreille, 1803; *Corynia* Labram et Imhoff, 1836; *Acanthoptenos* Ashmead, 1898; *Bathyblepta* Konow, 1906; *Didocha* Konow, 1907; *Miocephala* Konow, 1907; *Calarge* Enslin, 1911; *Alloscencia* Enderlein, 1919; *Rhopalospiria* Enderlein, 1919; *Friwaldszkyiformis* Ermolenko, 1975; *Ochropusiformis* Ermolenko, 1975; *Paganiformis* Ermolenko, 1975; *Melanochroiformis* Ermolenko, 1975; *Pleuriticiformis* Ermolenko, 1975; *Ustilatiformis* Ermolenko, 1975; *Rusticiformis* Ermolenko, 1975; *Berberidiformis* Ermolenko, 1975). Type species *Tenthredo enodis* Linnaeus, 1767. The larvae feed on the Rosaceae, Salicaceae, Betulaceae. The genus is distributed worldwide. Number of species: World – > 350; Palaearctic – about 170; Russia – 55.

**Arge altaica** Gussakovskij, 1935. Russia: **WS** (AL). – Korean Peninsula.

**Arge aurata** (Zaddach, 1864) [*Hylotoma*]. Russia: **EP** (NC). – Caucasus, Turkey, Syria.

**Arge auripennis** Konow, 1891 (*Hylotoma graeffei* Kriechbaumer, 1892). Russia: **EP** (NC). – Europe (EE), Caucasus, Turkey, Syria.

**Arge azhendarovensis** Vasilenko, 2010. Russia: **WS** (KM).

**Arge beckeri** Tournier, 1889 (*Hylotoma rufescens* Zaddach, 1864; *H. pallipes* Kriechbaumer, 1892; *H. pallidipes* Dalla Torre, 1894). Russia: **EP** (S, NC, CR). – Europe (EE, SE), Turkey.

**Arge berberidis** Schrank, 1802 (*Tenthredo xanthopyga* Vallot, 1836). Host plant: Berberis spp. (Berberidaceae). Russia: **EP** (C, S, NC, CR). – Europe (WE, EE, SE), Caucasus, Turkey, Japan (Hok).

**Arge captiva** (F. Smith, 1874) [*Hylotoma*] (*Hylotoma flavicollis* Cameron, 1876; *Arge sanguinolenta* Mocsáry, 1909; *A. kalthoffi* Forsius, 1927; *A. captiva rufoscutellata* Takeuchi, 1927; *A. captiva watana-bei* Takeuchi, 1932). Host plant: Ulmus spp. (Ulmaceae); flies into the light. Russia: **WS** (NS, KM, AL), **ES** (ZB), **FE** (KH, PR, KU). – Kazakhstan (N),

- Mongolia, China (NE, CC, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Tsushima), India (N), SE Asia.
- Arge carinifrons** Enslin, 1917. Russia: **EP** (NC). – Georgia, Armenia.
- Arge caucasica** Tournier, 1889 (*A. halinae* Kuznetzov-Ugamskij, 1927). Russia: **EP** (E, S, NC), **UR**, **WS** (OM, NS, AL). – Europe (EE, SE), Armenia, Kyrgyzstan, Kazakhstan.
- Arge ciliaris** (Linnaeus, 1767) [Tenthredo] (*Hylotoma coerulea* Klug, 1814; *H. corusca* Zaddach, 1859; *Arge fuscipes bleusei* Pic, 1917). Host plant: Filipendula spp., Spiraea spp. (Rosaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (TK, NS, KM, AL), **ES** (KR, IR, BR, YA), **FE** (AM, KH, PR, KA). – Europe (WE, EE, NE, SE), Turkey, Mongolia, China (NE, NC).
- Arge cinnabarina** Gussakovskij, 1935. Russia: **FE** (PR). – China (SW).
- Arge corallina** Gussakovskij, 1935. Russia: **FE** (AM, PR). – China (SW).
- Arge cyanocrocea** (Förster, 1771) [Tenthredo] (*Tenthredo coerulescens* Fabricius, 1775; *T. bicolor* Schrank, 1776; *Hylotoma syriaca* Mocsáry, 1880; *H. cyanocrocea messanensis* De-Stefani, 1885; *H. syriaca damascena* Magretti, 1890). Host plant: Rubus spp., Sanguisorba spp. (Rosaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (NS, KM). – Europe (WE, EE, NE, SE), Caucasus, Asia Minor, Iran, Turkmenistan.
- Arge dimidiata** (Fallén, 1808) [Hylotoma] (*Hylotoma rufescens* Drapiez, 1819; *H. fasciata* Lepeletier, 1823; *H. fasciata* Serville, 1823; *H. mediata* Fallén, 1829; *H. aenescens* Förster, 1854; *H. confusa* Dietrich, 1868; *Arge kongauensis* Rohwer, 1925; *A. dimidiata aeneoviridescens* Bischoff, 1925; *A. pravei* Dovnar-Zapolskij, 1926). Host plant: Alnus spp., Betula spp. (Betulaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (TK, NS, KM, AL), **ES** (KS, KR, IR, BR, YA), **FE** (AM, PR, SA). – Europe (WE, EE, NE, SE), Georgia, Kazakhstan, Mongolia, China (NE, CC, SE), Korean Peninsula.
- Arge disparilis** (W.F. Kirby, 1882) [Hylotoma] (*Hylotoma humeralis* F. Smith, 1874). Russia: **FE** (PR). – Japan (Hon).
- Arge enodis** (Linnaeus, 1767) [Tenthredo] (*Tenthredo violacea* Fabricius, 1779; *T. coeruleipennis* Retzius, 1783; *Hylotoma atrata* Klug, 1814; *H. amethystina* Klug, 1814; *H. vulgaris* Klug, 1834). Host plant: the smooth-leaved species of Salix (Salicaceae). Russia: **EP** (NW, C, E, S, NC), **UR**, **WS** (TK, NS, KM, AL), **ES** (KR, BR, YA), **FE** (PR). – Europe (WE, EE, NE, SE), Georgia, Armenia, Turkey, Iran, Kyrgyzstan, Kazakhstan, Korean Peninsula, Japan (Hon).
- Arge expansa** (Klug, 1834) [Hylotoma]. Host plant: Salix spp., Populus spp. (Salicaceae). Russia: **WS** (TM, KM, AL), **FE** (AM, KU, KA). – Mongolia, China (NC).
- Arge flavomixta** (André, 1881) [Hylotoma]. Russia: “Siberia or.” (André, 1881), **FE** (PR). – Korean Peninsula.
- Arge frivaldszkyi** (Tischbein, 1852) [Hylotoma] (*Hylotoma schmiedeknechtii* Costa, 1890). Russia: **EP** (NC, CR). – Europe (EE, SE), Caucasus, Turkey.
- Arge fuscipennis** (Herrich-Schäffer, 1835) [Hylotoma]. Host plant: Betula spp. (Betulaceae), ?Lythrum spp. (Lythraceae), ?Solidago spp. (Asteraceae). Russia: **EP** (C, E), **UR**. – Europe (WE, EE, SE).
- Arge fuscipes fuscipes** (Fallén, 1808) [Hylotoma] (*Hylotoma violacea* Klug, 1814; *H. atrocoerulea* Serville, 1823; *H. atrocoerulea* Lepeletier, 1823; *Arge fuscipennis* Lindqvist, 1974). Host plant: Betula spp. (Betulaceae), Salix spp., Populus spp. (Salicaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (TK, NS, KM, AL), **ES** (KR, ZB), **FE** (KH, PR, KU, KA, MG). – Europe (WE, EE, NE, SE), Kazakhstan, Mongolia, China (NE), Korean Peninsula.
- Arge gracilicornis** (Klug, 1814) [Hylotoma] (*Tenthredo coerulescens* Geoffroy, 1785; *T. incolorata* Christ, 1791; *Hylotoma pilicornis* Leach, 1817; *H. cyanella* Klug, 1834; *H. crassa* Konow, 1884). Host plant: Rosa spp., Rubus spp. (Rosaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, TK, NS, KM, AL), **ES** (TU, KR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, KA, MG, CH). – Europe (WE, EE, NE, SE), Caucasus, Turkey, Mongolia, China (Wei et al., 2006), Korean Peninsula, Japan (Hok, Hon, Shi).
- Arge hasegawae** Takeuchi, 1927. Russia: **FE** (PR). – Korean Peninsula.
- Arge jonasi** (W.F. Kirby, 1882) [Hylotoma] (*Hylotoma nigritarsis* F. Smith, 1874; *H. japonica* Marlatt, 1898). Host plant: Pourthiaea spp., Aria spp., Crataegus spp., Sorbus spp., Cotoneaster spp. (Rosaceae). Russia: **FE** (KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Arge kobayashii** Takeuchi, 1931. Host plant: Betula spp. (Betulaceae). Russia: **FE** (SA, KU). – Japan (Hok).
- Arge longicornis** Kuznetzov-Ugamskij, 1927 (*A. ciliaris pacifica* Malaise, 1931). Russia: **FE** (PR). – Korean Peninsula.



- Arge macrops** Shinohara, Hara et Kim, 2009. Host plant: *Ulmus* spp. (Ulmaceae). Russia: **WS** (AL), **FE** (PR). – China (NE, NC, CC), Korean Peninsula.
- Arge mali** (Uchiyama, 1906) [Hylotoma] (*A. xanthocera* Mocsáry, 1909; *Hylotoma mali* Matsumura, 1912). Host plant: *Malus* spp. (Rosaceae). Russia: **FE** (AM, KH, PR). – China (NE), Korean Peninsula, Japan (Hok, Hon).
- Arge melanochra** (Gmelin, 1790) [Tenthredo] (*Hylotoma femoralis* Klug, 1814; *H. dimidiata* Lepeletier, 1823; *H. dimidiata* Serville, 1823; *H. nigritarsis* Klug, 1834; *H. similis* Rudow, 1871; *Arge fuliginata* Konow, 1907). Host plant: *Crataegus* spp. (Rosaceae). Russia: **EP** (S, NC, CR), **UR** (S), **WS** (KM). – Europe (WE, EE, SE), Armenia, Asia Minor, Iran, Turkmenistan.
- Arge nigripes nigripes** (Retzius, 1783) [Tenthredo] (*Hylotoma anglica* Leach, 1817). Host plant: *Rosa* spp., *Fragaria* spp., *Rubus* spp. (Rosaceae); live in colonies. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, TK, NS, KM, AL), **ES** (TU, KR, IR, BR, YA), **FE** (AM, PR, SA, KA, MG). – Europe (WE, EE, NE, SE), Georgia, Turkey, Kyrgyzstan, Kazakhstan, Mongolia.
- Arge nigronodosa** (Motschulsky, 1860) [Hylotoma] (*Hylotoma flava* Snellen van Vollenhoven, 1860; *H. trinotata* F. Smith, 1874; *H. similis* F. Smith, 1874; *H. dubia* W.F. Kirby, 1882; *H. quadripunctata* W.F. Kirby, 1882). Host plant: *Rosa* spp. (Rosaceae). Russia: **FE** (AM, KH, PR, SA). – China (NE), Japan (Hok, Hon, Shi, Kyu), Nepal.
- Arge nigrovaginata** Malaise, 1931. Russia: **FE** (AM, PR). – China (NE, CC, SE), Korean Peninsula, Japan (Hon).
- Arge nipponensis** Rohwer, 1910. Host plant: *Rosa* spp. (Rosaceae); 3-4 generations per year. Russia: **FE** (SA, KU). – China (SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Sado).
- Arge obesa** Hara et Shinohara, 2012. Host plant: *Carpinus* spp., *Ostrya japonica* (Betulaceae). Russia: **FE** (KU). – Japan (Hok, Hon, Shi, Kyu).
- Arge ochropus** (Gmelin, 1790) [Tenthredo] (*A. rosicola* Schrank, 1802; *Hylotoma rosarum* Klug, 1814; *H. pyrenaica* André, 1879; *Arge soror* Konow, 1890; *A. pyrenaica nigripes* Konow, 1895; *A. modesta* Konow, 1905; *A. pyrenaica mauritanica* Schulz, 1906; *Hylotoma rosae diversicolor* Pic, 1917; *Arge pyrenaica luteola* Muche, 1977). Host plant: *Rosa* spp. (Rosaceae). Russia: **EP** (N, NE, C, E, S, NC, CR), **UR**, **WS** (OM, TK, NS, KM, AL), **ES** (TU, KR, IR, YA). – Europe (WE, EE, NE, SE), N Africa, Georgia, Armenia, Asia Minor, Iran, Turkmenistan, Kazakhstan; introduced into N America.
- Arge pagana pagana** (Panzer, 1797) [Tenthredo] (*Tenthredo tricolor* Gmelin, 1790; *T. nigripennis* Panzer, 1804; *Hylotoma flaviventris* Fallén, 1807; *H. assimilis* Radoszkowsky, 1889). Host plant: *Rosa* spp. (Rosaceae); live in colonies. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TK, NS, KM, AL), **ES** (TU, KR, IR, BR, YA), **FE** (AM, PR, KA). – Europe (WE, EE, NE, SE), N Africa, Mongolia, China (NE, NC, CC, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu), India (NE).
- Arge paganiformis** Rohwer, 1925. Host plant: *Rosa* spp. (Rosaceae). Russia: **FE** (KH, PR).
- Arge pallidinervis** Gussakovskij, 1935. Russia: **EP** (CR). – Europe (EE), Armenia.
- Arge pleuritica** (Klug, 1834) [Hylotoma] (*Hylotoma sanguinicornis* André, 1880). Russia: **EP** (E, S, NC, CR). – Europe (EE, SE), Caucasus, Asia Minor, Uzbekistan.
- Arge potanini** Jakovlev, 1891 (*Hylotoma zonalis* Matsumura, 1911). Host plant: *Acer mono*, *A. mayrii* (Sapindaceae). Russia: **ES** (IR, BR, ZB), **FE** (AM, KH, PR, SA). – Mongolia, China (NE, NC), Korean Peninsula.
- Arge pseudorejecta** Wei et Lee, 2016. Russia: **FE** (PR). – China (NE), Korean Peninsula.
- Arge pullata** (Zaddach, 1859) [Hylotoma] (*Hylotoma ventriosa* Zaddach, 1864; *Arge nyemitawa* Rohwer, 1925). Host plant: *Betula* spp. (Betulaceae). Russia: **EP** (NW, C, E, S, NC), **UR**, **WS** (TM, TK, NS, AL), **ES** (KS, KR, ZB), **FE** (PR, SA, KU). – Europe (WE, EE, NE, SE), Armenia, Turkey, China (NE, NC), Korean Peninsula, Japan (Hok, Hon).
- Arge rufocincta** Gussakovskij, 1935. Russia: **FE** (PR). – China (NE), Japan (Hok).
- Arge rustica** (Linnaeus, 1758) [Tenthredo] (*Tenthredo atrata* Forster, 1771; *Cryptus segmentarius* Panzer, 1803; *Hylotoma klugii* Leach, 1817; *H. albicruris* Brullé, 1832; *H. leachii* Stephens, 1835; *H. marginata* Boheman, 1852; *H. discus* Costa, 1858; *H. saliceti* Rudow, 1871; *H. thomsoni* Konow, 1884; *Arge segmentaria rufiventris* Konow, 1899). Host plant: *Quercus* spp. (Fagaceae). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, EE, NE, SE), Armenia, Turkey, Syria.
- Arge scita** (Mocsáry, 1880) [Hylotoma] (*Hylotoma proxima* André, 1881; *Arge debilis* Konow, 1887; *A. zarudnyi* Gussakovskij, 1935). Russia: **EP**

- (Taeger, Blank, 2011). – Europe (SE, EE), Armenia, Asia Minor, Iran, Turkmenistan.
- Arge semicoerulea** (Klug, 1814) [Tenthredo] (*Hylotoma dimidiata* Klug, 1814). Russia: **EP** (E), **ES** (KS, KR, ZB), **FE** (AM, PR). – Mongolia, China (NE).
- Arge similis** (Snellen van Vollenhoven, 1860) [Hylotoma] (*Hylotoma imperator* F. Smith, 1874). Host plant: Rhododendron spp. (Ericaceae); up to 3 generations per year. Russia: **FE** (PR, KU). – China (NE, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu), Nepal, India.
- Arge simillima** (F. Smith, 1874) [Hylotoma] (*A. forficula* Jakovlev, 1891; *A. coriacea* Jakovlev, 1891; *A. simillima asahi* Tskeuchi, 1932). Russia: **FE** (KH, PR, KU). – China (NE, SE, CC, SW), Korean Peninsula, Japan (Hon).
- Arge simulatrix** Konow, 1887. Russia: **EP** (NC). – Georgia, Asia Minor, Iran.
- Arge solowiyofka** (Matsumura, 1911) [Hylotoma]. Host plant: Betula spp. (Betulaceae). Russia: **FE** (PR, SA). – Mongolia, China (NE, CC, SE), Japan (Hok, Hon).
- Arge stroganovae** Sundukov, 2007 (*A. altaica* Stroganova, 1977). Russia: **WS** (AL).
- Arge suspicax** Konow, 1908 (*A. punctifrons* Kuznetsov-Ugamskij, 1927; *A. masudai* Takeuchi, 1932). Russia: **ES** (IR, BR, ZB), **FE** (AM, PR). – Mongolia, China (NE), Korean Peninsula, Japan (Hon, Shi).
- Arge ustulata** (Linnaeus, 1758) [Tenthredo] (*Tenthredo flavipes* Retzius, 1783; *T. ochroptera* Geoffroy, 1785; *T. crocipennis* Christ, 1791; *T. pilicornis* Preysslér, 1793; *Hylotoma claripennis* Rudow, 1871; *H. distinguenda* Konow, 1884; *Arge monostega* Konow, 1886; *Hylotoma anceps* Radoszkowsky, 1889; *Arge ustulata stigmatica* Pic, 1927). Host plant: Salix spp. (Salicaceae), Betula spp. (Betulaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (TK, NS, KM, AL), **ES** (KS, KR, IR, BR, YA, ZB), **FE** (AM, PR, SA, KU, KA). – Europe (WE, EE, NE, SE), Georgia, Turkey, Kyrgyzstan, Mongolia, Korean Peninsula.
- Arge verticosa** Konow, 1907. Russia: **WS** (AL). – Kazakhstan, China (NW).
- Arge zhelochovzevi** Stroganova, 1966. Russia: **ES** (KR, IR).
- KOKUJEWIA** Konow, 1902. Type species *Kokujewia ectrapela* Konow, 1902. The larvae feed on the Polygonaceae. The genus is distributed in West Palaearctic. Number of species: World and Palaearctic – 3; Russia – 1.
- Kokujewia ectrapela** Konow, 1902 (*K. ectrapela clarescens* Zirngiebl, 1949). Host plant: Rumex spp. (Polygonaceae). Russia: **EP** (NC). – Caucasus, Turkey, Iran.
- PSEUDARGE** Gussakovskij, 1935. Type species *Pseudarge rubicunda* Gussakovskij, 1935. The genus is distributed in the Palaearctic and Oriental regions. Number of species: World – 6; Palaearctic – 4; Russia – 1.
- Pseudarge eversmanni** Gussakovskij, 1935. Russia: **EP** (E, S). – Europe (EE).
- SPINARGE** Wei, 1998. Type species *Spinarge sichuanensis* Wei, 1998. The larvae feed on the Betulaceae. The genus is distributed in East Asia and Oriental region. Number of species: World – 11; Palaearctic – 9; Russia – 2.
- Spinarge fulvicornis** (Mocsáry, 1909) [Arge]. Host plant: Betula spp. (Betulaceae). Russia: **ES** (YA), **FE** (AM, KH, PR, SA, KU). – China (NE, CC), Korean Peninsula, Japan (Hok, Hon, Shi).
- Spinarge metallica** (Klug, 1834) [Hylotoma]. Host plant: Betula spp. (Betulaceae). Russia: **EP** (NW, C, E), **UR**, **WS** (NS, KM, AL), **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KA). – Europe (WE, EE, NE, SE), Mongolia, Korean Peninsula.

## Subfamily STERICTIPHORINAE

- APROCEROS** Malaise, 1931. Type species *Aproceros umbricola* Malaise, 1931. The larvae feed on the Ulmus spp. (Ulmaceae). The genus is distributed in East Asia; one species in the Oriental region, and one species was introduced into West Europe. Number of species: World – 10; Palaearctic – 9; Russia – 3.
- Aproceros hakusanus** Togashi, 1962. Host plant: Ulmus spp. (Ulmaceae). Russia: **FE** (PR, SA, KU). – Japan (Hon).
- Aproceros leucopoda** Takeuchi, 1939. Host plant: Ulmus spp. (Ulmaceae). Russia: **EP** (C, S, NC), **WS** (KM), **FE** (PR, SA). – Europe (WE, EE, SE), Kazakhstan, China (CC), Japan (Hok).
- Aproceros pallidicornis** (Mocsáry, 1909) [Aprosthemata] (*A. umbricola* Malaise, 1931). Host plant: Ulmus spp. (Ulmaceae). Russia: **FE** (AM, KH, PR). – Korean Peninsula, Japan (Hon).
- APROSTHEMA** Konow, 1899 (*Copidoceros* Forsius, 1921; *Lyrola* Ross, 1937). Type species

- Hylotoma brevicornis* Fallén, 1808. The larvae feed on the Fabaceae. The genus is distributed in the Holarctic and Oriental regions, mainly in the Palaearctic region. Number of species: World – about 55; Palaearctic – > 50; Russia – 22 (+ 2 ssp.).
- Aprosthem a austriacum** (Konow, 1892) [Schizocera]. Russia: **EP** (CR). – Europe (WE, EE, NE, SE), Kazakhstan.
- Aprosthem a axillare** (Zaddach, 1863) [Schizocera] (*Schizocera zaddachi* André, 1880). Russia: **EP** (NW, NC, CR). – Europe (WE, EE, SE).
- Aprosthem a bifidum** (Klug, 1834) [Hylotoma] (*Schizocera flavipes* Zaddach, 1864; *S. geniculata* Thomson, 1871). Russia: **EP** (NW, NC). – Europe (WE, EE, NE, SE).
- Aprosthem a bifurca** (Klug, 1834) [Hylotoma] (*Schizocera fusca* Zaddach, 1863). Russia: **EP** (NW, C). – Europe (WE, EE, NE, SE), Turkey.
- Aprosthem a brevicorne** (Fallén, 1808) [Hylotoma] (*Schizocera pallipes* Bremsi-Wolf, 1849). Russia: **EP** (C, E, S). – Europe (WE, EE, NE).
- Aprosthem a enslini** Dovnar-Zapolskij, 1930. Russia: **EP** (NC).
- Aprosthem a fulvum** Vasilenko, 2009. Russia: **WS** (NS).
- Aprosthem a fuscicorne** (Thomson, 1871) [Schizocera]. **EP** (NW). – Europe (WE, EE, NE, SE).
- Aprosthem a humeratum** (Konow, 1892) [Schizocera]. Russia: **EP** (Zhelochovtsev, Zinovjev, 1995). – Europe (EE, SE).
- Aprosthem a instratum instratum** (Zaddach, 1859) [Schizocera]. Russia: **EP** (NW, C). – Europe (WE, EE, SE).
- Aprosthem a intermedium** (Zaddach, 1864) [Schizocera] (*A. hyalinoptera* Conde, 1934; *A. volgensis* Gussakovskij, 1935). Host plant: Lathyrus vernus (Fabaceae). Russia: **EP** (NW, C, S). – Europe (WE, EE, NE).
- Aprosthem a maculatum maculatum** (Jurine, 1807) [Cryptus] (*Hylotoma scutellaris* Herrich-Schäffer, 1835; *Schizocera scutellaris dorsalis* Konow, 1892; *Aprosthem a maculata moravica* Gregor, 1940). Russia: **EP** (CR). – Europe (WE, EE, SE).
- Aprosthem a maculatum nigripenne** Muche, 1972. Russia: **EP** (NC). – Georgia.
- Aprosthem a melanurum** (Klug, 1814) [Hylotoma] (*Schizocera cylindricornis* Thomson, 1871; *S. alfkeni* Konow, 1895; *S. friesei* Konow, 1895). Host plant: Lathyrus spp., Vicia spp. (Fabaceae); in East Siberia 2 generations. Russia: **EP** (NW, C, E, S, NC), **UR**, **WS** (TK, NS, KM), **ES** (KR, IR). – Europe (WE, EE, NE, SE), Central Asia, China (NC).
- Aprosthem a peletieri peletieri** (Villaret, 1832) [Schizocerus] (*Schizocera bleusei* Pic, 1918). Russia: **EP** (C, S, NC). – Europe (WE, EE, SE).
- Aprosthem a peletieri melanoptera** Muche, 1972. Russia: **EP** (NC). – Georgia.
- Aprosthem a sibiricum** Gussakovskij, 1935. Russia: **ES** (ZB).
- Aprosthem a staudingeri georgiense** Muche, 1972. Russia: **EP** (NC). – Georgia.
- Aprosthem a stroganovae** Vasilenko, 2009. Russia: **WS** (KM).
- Aprosthem a syrmiese** (Mocsáry, 1897) [Schizocera]. Russia: **EP** (NC). – Europe (SE), Turkey.
- Aprosthem a tardum** (Klug, 1814) [Hylotoma] (*A. carpentieri* Konow, 1902). Host plant: Lathyrus spp., Vicia spp. (Fabaceae). Russia: **EP** (C, E, S, NC), **UR**, **WS** (KM, AL), **ES** (KS). – Europe (WE, EE, SE), Turkey, Kyrgyzstan, Kazakhstan.
- Aprosthem a tauricum** Gussakovskij, 1935. **EP** (S, CR). – Europe (EE).
- Aprosthem a vittatum** (Mocsáry, 1879) [Schizocera]. Russia: **EP** (CR). – Europe (EE, SE).
- Aprosthem a xanthurum** Gussakovskij, 1935. Russia: **WS** (TK), **FE** (AM).
- STRICTIPHORA** Billberg, 1820 (*Schizocerus* Berthold, 1827; *Schizocerus* Lepeletier et Serville, 1828; *Schizocera* Latreille, 1829; *Schizocera* Guérin, 1834; *Cyphona* Dahlbom, 1835; *Schizoceros* Konow, 1899). Type species *Tenthredo furcata* Villers, 1789. The larvae feed on the Rosaceae. The genus is distributed in the Holarctic; one species in Afrotropical, and two species in Oriental regions. Number of species: World – > 40; Palaearctic – about 35; Russia – 4.
- Strictiphora caspica** Koch, 1988. Russia: **EP** (NC). – Iran.
- Strictiphora furcata** (Villers, 1789) [Tenthredo] (*Tenthredo rubi idaei* Rossi, 1790; *Schizocera inaequalis* Bremsi-Wolf, 1849; *Aprosthem a terebralis flavipes* Enslin, 1917). Host plant: Rubus spp., Prunus spp. (Rosaceae). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, EE, SE), N Africa, Azerbaijan, Armenia, Turkey, Syria, Iran, Kazakhstan.
- Strictiphora geminata** (Gmelin, 1790) [Tenthredo]. Host plant: Rosa spp., ?Sorbus spp. (Rosaceae). Russia: **EP** (C, NC), **UR**, **WS** (NS, KM), **ES** (BR, ZB), **FE** (PR, KA). – Europe (WE, EE, NE, SE), Armenia, Turkey, Turkmenistan, Kyrgyzstan.
- Strictiphora orientalis** (Zhelochovtsev, 1939) [Schizocera]. Russia: **FE** (PR).

### 3. FAMILY BLASTICOTOMIDAE

Adult are characterized by their short 4-segmented antennae, of which an elongate 3rd segment forms almost the entire flagellum except for the minute (and sometimes obsolete) 4th segment. Scutellum without a post-tergite; the wing venation is unique in having the pear-shaped cell *IM* of the fore wing, rounded apically; the stigma is large and almost semi-circular in shape; vein *Sc* without a transverse branch joining *C*; and the anal cell has an oblique cross-vein; the wing membranes are corrugated at the apices. The legs are without preapical tibial spines and the front tibia has 2 apical spurs, the inner one of which is bifid apically. The abdomen is carinate laterally, and the ovipositor is of the exerted type, about half as long as the abdomen, though the apical projecting part, the sawsheath, is much shorter than the basal plate. The larvae are stem-borers in ferns and of a oligopodous type, with no abdominal legs.

The family is distributed in the Palaearctic and Oriental regions. Number of taxa: World – 2 genera, 12 species; Palaearctic – 2/8; Russia – 2/3 (+ 1 ssp.).

**R e f e r e n c e s.** Gussakovskij, 1935; Zhelochovtsev, 1935a, 1988; Ermolenko, 1972; Togashi, 1989; Zhelochovtsev, Zinovjev, 1995; Kim et al., 1997; Wei, Nie, 1999; Liston et al., 2006, 2014a; Shcherbakov, 2006; Taeger et al., 2006, 2010; Wei et al., 2006; Biryukova, Novgorodova, 2008; Schedl, 2009; Novgorodova, Biryukova, 2011; Taeger, Blank, 2011; Vasilenko, 2011b; Sundukov, Lelej, 2012; Kostyunin, 2015; Sundukov, 2015; Noblecourt, 2016.

**BLASTICOTOMA** Klug, 1834. **T y p e s p e c i e s** *Blasticotoma filiceti* Klug, 1834. The larvae in the petioles of ferns (Polypodiophyta). The genus is distributed in the Palaearctic region; 1 species in the Oriental region. Number of species: World – 5; Palaearctic – 4; Russia – 2 (+ 1 ssp.).

**Blasticotoma atra** Zhelochovtsev, 1935. Host plant: ferns of families of Dryopteridaceae, Onocleaceae, Osmundaceae, Dennstaedtiaceae. Russia: **FE** (KH, PR, KU). – Japan (Hok, Hon).

**Blasticotoma filiceti filiceti** Klug, 1834. Host plant: *Athyrium* spp., *Dryopteris* spp. (Dryopteridaceae), *Matteuccia* spp. (Onocleaceae), *Osmunda* spp. (Osmundaceae), *Pteridium* spp. (Dennstaedtiaceae). Russia: **EP** (N, C, E), **UR, WS** (NS, KM, AL), **ES** (KR, IR, BR). – Europe (WE, EE, NE).

**Blasticotoma filiceti pacifica** Malaise, 1931. Host plant: ferns of families of Dryopteridaceae, Onocleaceae, Osmundaceae, Dennstaedtiaceae. Russia: **FE** (KH, PR, SA, KU). – China (NE, CC), Korean Peninsula, Japan (Hok, Hon).

**RUNARIA** Malaise, 1931 (*Bohea* Maa, 1944). **T y p e s p e c i e s** *Runaria reducta* Malaise, 1931. The genus is distributed in East Asia and Oriental region. Number of species: World – 7; Palaearctic – 4; Russia – 1.

**Runaria reducta** Malaise, 1931. Host plant: ferns of families of Dryopteridaceae, Onocleaceae, Osmundaceae, Dennstaedtiaceae. Russia: **FE** (AM, PR, KU). – Japan (Hok, Hon).

#### 4. FAMILY CIMBICIDAE

Stout fast-flying insects with strongly clubbed antennae and broad, laterally carinate abdomens, arched above and flat beneath, so that they can be curled right down under the thorax at rest. Fore wing vein *2r* presents. Tibiae without preapical spines and front tibia with pair of unmodified apical spurs. The larvae are free-feeding, with 8 pairs of abdominal legs. The larvae feed on Salicaceae, Betulaceae, Caprifoliaceae and other plant families. Pupation usually occurs in a cocoon with a dense wall in the soil or on branches of trees and shrubs.

The family is distributed in the Northern Hemisphere and Neotropical region. Number of taxa: World – 4 subfamilies, 15 genera, about 190 species; Palaearctic – 3/10/about 150; Russia – 3/8/72 (+ 2 ssp.).

**R e f e r e n c e s.** Konow, 1906; Mocsáry, 1909; Kuznetsov-Ugamskij, 1927; Zhelochovtsev, 1935a, 1968, 1976, 1988; Malaise, 1939; Gussakovskij, 1947; Saari-  
nen, 1950b; Ermolenko, 1972, 1973, 1976, 1984, 1992; Verzhutskii, 1974, 1981; Zhelochovtsev, Prochorova, 1976; Stroganova, 1978a; Viitasaari, 1989; Shinohara, 1990; Vikberg, Viitasaari, 1991; Liston, 1995; Zhelochovtsev, Zinovjev, 1995; Kim, Shinohara, 1997; Togashi, 1998; Lee, Jung, 1999; Hara, Shinohara, 2000, 2017; Vasilenko, 2004, 2009b, 2010b,d, 2011c; Taeger, 2005; Vasilenko, Dolgov, 2005; Kajmuk, Popov, 2006; Liston et al., 2006, 2014a,b; Taeger et al., 2006, 2010; Wei et al., 2006; Roller, Haris, 2008; Humala, Polevoi, 2009; Schedl, 2009; Sundukov, Lelej, 2009, 2012; Popov, Kajmuk, 2010a; Blank, 2011; Sundukov, 2011b, 2013, 2015; Taeger, Blank, 2011; Vasilenko, Korshunov, 2012; Beneš, 2014b; Noblecourt, 2016.

##### Subfamily ABIINAE

**ABIA** Leach, 1817 (*Zaraea* Leach, 1817; *Parabia* Semenov, 1891; *Orientabia* Malaise, 1934; *Hemibia* Semenov, 1937; *Auroabia* Kangas, 1946; *Aenoabia* Kangas, 1946; *Procimbex* Hong, 1984). **T y p e s p e c i e s** *Tenthredo sericea* Linnaeus, 1767. The larvae on the Caprifoliaceae. The genus is distributed in the Holarctic and Oriental regions. Number of species: World – 52; Palaearctic – 43; Russia – 24.

**Abia aenea** (Klug, 1820) [Cimbex] (*A. bifida* Thomson, 1871; *A. bigens* Kangas, 1946). Host plant: Lonicera spp., Symphoricarpos spp. (Caprifoliaceae), Sambucus spp. (Adoxaceae). Russia: **EP** (NW, C, E, S,

NC), **WS** (TK, KM). – Europe (WE, EE, NE, SE), Georgia, Turkey.

**Abia aurata** (Takeuchi, 1931) [Zaraea]. Russia: **FE** (KU). – Korean Peninsula, Japan (Hok).

**Abia berezowskii** Semenov, 1896. Russia: **FE** (AM, PR). – Mongolia, China (SW), Korean Peninsula, Japan (Hon).

**Abia candens** Konow, 1887 (*A. symballophthalma* Semenov, 1892; *A. candens subopaca* Kangas, 1946). Host plant: Knautia arvensis (Caprifoliaceae). Russia: **EP** (NW, C, E, NC). – Europe (WE, EE, NE, SE).

**Abia coreana** Takeuchi, 1927 (*Orientabia pacifica* Semenov et Gussakovskij, 1937). Russia: **FE** (PR). – Korean Peninsula.

**Abia dubiosa** (Gussakovskij, 1947) [Orientabia]. Russia: **FE** (SA). – Japan (Hon).

**Abia egregia** Kuznetsov-Ugamskij, 1927. Russia: **FE** (PR).

**Abia fasciata** (Linnaeus, 1758) [Tenthredo]. Host plant: Lonicera spp., Symphoricarpos spp., Linnaea spp., Leycesteria spp. (Caprifoliaceae). Russia: **EP** (N, NW, C, E), **UR**, **WS** (TM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, SA, KA, MG). – Europe (WE, EE, NE, SE), Kazakhstan, China (NE, NW), Korean Peninsula, Japan (Hok, Hon).

**Abia fulgens** Zaddach, 1863 (*A. fulgens unicoloricornis* Pic, 1933; *A. plana* Benson, 1954). Host plant: Lonicera spp. (Caprifoliaceae). Russia: **EP** (NC). – Europe (WE, EE, SE).

**Abia gussakovskii** Semenov, 1935. Russia: **EP** (NC).

**Abia japonica** Cameron, 1887 (*A. pilosa* Konow, 1896; *A. bantaizana* Matsumura, 1912; *Orientabia finitima* Semenov et Gussakovskij, 1937). Host plant: Weigela spp. (Caprifoliaceae). Russia: **FE** (PR, KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Sado).

**Abia lewisii** Cameron, 1887 (*Zaraea lewisii matsumurai* Takeuchi, 1931). Host plant: Lonicera spp. (Caprifoliaceae). Russia: **FE** (KU). – Japan (Hon).

**Abia marginata** Mocsáry, 1909. Host plant: Lonicera spp. (Caprifoliaceae). Russia: **FE** (KH, PR). – Korean Peninsula.

**Abia metallica** Mocsáry, 1909. Host plant: Lonicera spp. (Caprifoliaceae). Russia: **FE** (KH, PR). – China (NE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

**Abia mutica** Thomson, 1871. Host plant: Lonicera spp., Knautia arvensis (Caprifoliaceae). Russia: **EP** (N, NW, C), **UR**, **WS** (NS, AL), **ES** (TU, KR, IR, BR, YA, ZB), **FE** (PR). – Europe (WE, EE, NE, SE), Kazakhstan, Mongolia.

**Abia ochotica** (Semenov et Gussakovskij, 1937) [Orientabia]. Russia: **FE** (KH).

**Abia sachalinensis** Takeuchi, 1931. Russia: **FE** (PR, SA). – Japan (Hok).

**Abia semenoviana** Gussakovskij, 1947. Host plant: Lonicera spp. (Caprifoliaceae). Russia: **ES** (BR, ZB), **FE** (PR). – Korean Peninsula.

**Abia sericata** Zhelochovtsev, 1935. Russia: **FE** (AM, KH, PR).

**Abia sericea** (Linnaeus, 1767) [Tenthredo] (*A. dorsalis* Costa, 1859). Host plant: Succica spp., Knautia spp., Dipsacus spp. (Caprifoliaceae), ?Fragaria spp. (Rosaceae). Russia: **EP** (NW, C, E, S, NC, CR). – Europe (WE, EE, NE, SE), Caucasus, Turkey, China (NW).

**Abia sibirica** Mocsáry, 1883. Host plant: Lonicera spp. (Caprifoliaceae). Russia: **WS** (OM, NS, AL), **ES** (KS, BR). – Kazakhstan.

**Abia skorikovi** Semenov, 1935. Russia: **EP** (NC).

**Abia tsherskii** Semenov, 1935. Russia: **FE** (KH).

**Abia zhelochovtzevi** (Gussakovskij, 1947) [Zaraea]. Host plant: Lonicera spp. (Caprifoliaceae). Russia: **FE** (KH, PR).

#### Subfamily CIMBICINAE

**AGENOCIMBEX** Rohwer, 1910. Type species *Cimbex maculata* Marlatt, 1898. The genus is distributed in East Asia; one species in the Oriental region. Number of species: World and Palaeartic – 6; Russia – 2.

**Agenocimbex eous** Semenov, 1935. Russia: **FE** (PR). – Korean Peninsula, Japan (Kyu).

**Agenocimbex malaisei** Gussakovskij, 1947. Russia: **FE** (PR).

**CIMBEX** Olivier, 1791 (*Crabro* Geoffroy, 1762; *Clavellarius* Olivier, 1789; *Clavellaria* Lamarck, 1801; *Palaeocimbex* Semenov, 1935; *Deuterocimbex* Semenov, 1935; *Neocimbex* Malaise, 1937; *Allocimbex* Zirngiebl, 1953). Type species *Tenthredo lutea* Linnaeus, 1758. The larvae mainly on the Salicaceae and Betulaceae. The genus is distributed in the Holarctic region; one species in the Oriental region. Number of species: World – 14; Palaeartic – 10; Russia – 6 (+ 2 ssp.).

**Cimbex amurensis** Forsius, 1930. Host plant: Salix spp. (Salicaceae), Betula spp. (Betulaceae). Russia: **FE** (AM, PR).

**Cimbex carinulatus** Konow, 1897 (*C. nomurae* Marlatt, 1898; *C. suzukii* Matsumura, 1912). Host

plant: Pyrus spp., Amelanchier asiatica, Prunus spp., Chaenomeles spp. (Rosaceae). Russia: **FE** (PR, KU). – Korean Peninsula, Japan (Hok, Hon).

**Cimbex connatus connatus** (Schrank, 1776) [Tenthredo] (*Crabro maculatus* Geoffroy, 1785; *Tenthredo montana* Panzer, 1801; *T. alnivaga* Bechstein et Scharfenberg, 1805; *Cimbex ornata* Serville, 1823; *C. luteola* Serville, 1823; *C. ornata* Lepeletier, 1823; *C. luteola* Lepeletier, 1823; *C. humboldtii* Ratzeburg, 1844; *C. variabilis nigroviolacea* Eversmann, 1847; *C. violascens* Thomson, 1871). Host plant: Salix spp., Populus spp. (Salicaceae), Alnus spp. (Betulaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (NS, KM), **ES** (IR). – Europe (WE, EE, NE, SE), Caucasus, Kazakhstan.

**Cimbex connatus japonicus** W.F. Kirby, 1882 (*C. saporensis* Matsumura, 1912). Host plant: Salix spp. (Salicaceae). Russia: **FE** (KH, PR, SA, KU). – China (NE, CC), Japan (Hok, Hon).

**Cimbex connatus taukushi** Marlatt, 1898 (*C. taukushiensis* Konow, 1905; *C. castanea* Matsumura et Ushida, 1927; *Neocimbex taukushi carbonaria* Malaise, 1939). Host plant: Alnus spp. (Betulaceae), Salix spp. (Salicaceae). Russia: **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR, KU). – Mongolia, China (NE), Korean Peninsula, Japan (Hon, Shi, Kyu).

**Cimbex femoratus** (Linnaeus, 1758) [Tenthredo] (*Tenthredo tristis* Fabricius, 1779; *Crabro lunulatus* Geoffroy, 1785; *C. annulatus* Geoffroy, 1785; *Tenthredo sylvarum* Fabricius, 1793; *Cimbex europaea* Leach, 1817; *C. varians* Leach, 1817; *C. variabilis* Klug, 1820; *Tenthredo russa* Klug, 1820; *Cimbex schaefferi* Lepeletier, 1823; *C. pallens* Lepeletier, 1823; *C. schaefferi* Serville, 1823; *C. pallens* Serville, 1823; *C. pallidus* Stephens, 1829; *C. venusta* Perty, 1833; *C. biguetina* Lepeletier, 1834; *C. pallida* Stephens, 1835; *C. betulae* Zaddach, 1863; *C. betulae pulla* Zaddach, 1863; *C. betulae lutescens* Zaddach, 1863; *C. betulae nigra* Zaddach, 1863; *C. tonnaitchana* Matsumura, 1911; *C. femorata unicolor* Enslin, 1917; *C. femorata abdominalis* Enslin, 1917; *C. femorata ornata* Uchida, 1927; *C. quadrimaculata sachalinensis* Uchida, 1927; *Crabro uchidai* Takeuchi, 1931). Host plant: Alnus spp. (Betulaceae), Salix spp. (Salicaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KA, MG). – Europe (WE, EE, NE, SE), Turkey, Kyrgyzstan, Uzbekistan, Kazakhstan, Mongolia, China (NE, NC), Korean Peninsula, Japan (Hok, Hon).

- Cimbex luteus** (Linnaeus, 1758) [Tenthredo] (*C. griffinii* Leach, 1817; *C. saliceti* Zaddach, 1863; *C. variabilis salicis* Zaddach, 1863; *C. brevispina* Thomson, 1871; *C. lutea testacea* Konow, 1890; *C. saliceti testacea* Dalla Torre, 1894; *C. capreae* Konow, 1897; *C. femorata coreana* Uchida, 1927). Host plant: *Salix* spp., *Populus* spp. (Salicaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR, WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, KR, IR, BR, YA), **FE** (KH, PR, SA, MG). – Europe (WE, EE, NE, SE), Kyrgyzstan, Uzbekistan, Kazakhstan, China (NC, NW), Korean Peninsula, Japan (Hok, Hon).
- Cimbex sibiricus** W.F. Kirby, 1882. Russia: **ES** (IR, BR).
- LEPTOCIMBEX** Semenov, 1896 (*Euclavellaria* Enslin, 1911; *Cimbicisoma* Rohwer, 1915; *Okamotoionius* Sato, 1928). Type species *Leptocimbex potanini* Semenov, 1896. The genus is distributed in East Asia and Oriental region. Number of species: World – 26; Palaeartic – 21; Russia – 4.
- Leptocimbex allantiformis** (Mocsáry, 1909) [Clavellaria] (*L. petrimagni* Malaise, 1931). Russia: **FE** (KH, PR). – China (NE), Korean Peninsula.
- Leptocimbex gracilentus** (Mocsáry, 1904) [Clavellaria] (*Okamotoionius kurisuei* Sato, 1928). Russia: **FE** (KH, PR). – China (SE), Korean Peninsula.
- Leptocimbex potanini** Semenov, 1896 (*Clavellaria marginata* R.E. Turner, 1920; *Leptocimbex potanini sinobirmanica* Malaise, 1939). Russia: **FE** (PR). – China (SW), India (NE), SE Asia.
- Leptocimbex terrificus** Malaise, 1931. Russia: **FE** (PR).
- PRAIA** Wankowicz, 1880. Type species *Praia taczanowskii* Wankowicz, 1880. The larvae feed on the Betulaceae and Rosaceae. The genus is distributed in the Palaeartic region. Number of species: World, Palaeartic and Russia – 2.
- Praia taczanowskii** Wankowicz, 1880. Host plant: *Betula* spp. (Betulaceae). Russia: **EP** (NW, C, E), **UR, WS** (TK, NS, KM), **ES** (IR, BR, YA), **FE** (AM, PR, KA). – Europe (WE, EE, NE), Mongolia.
- Praia ussuriensis** Malaise, 1939. Host plant: *Betula* spp. (Betulaceae), *Prunus* spp. (Rosaceae). Russia: **ES** (Zhelochovtsev, Zinovjev, 1995), **FE** (PR, SA, KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- PSEUDOCLAVELLARIA** Schulz, 1906. Type species *Tenthredo amerinae* Linnaeus, 1758. The larvae feed on the Salicaceae. The genus is distributed in Palaeartic. Number of species: World and Palaeartic – 3; Russia – 2.
- Pseudoclavellaria amerinae** (Linnaeus, 1758) [Tenthredo] (*Tenthredo marginata* Linnaeus, 1767; *T. 4-fasciata* Degeer, 1773; *T. rufa* Retzius, 1783; *Cimbex saliceti* Sasaki, 1902; *Clavellaria nitobei* Matsumura, 1912; *Trichosoma albopilosum* Matsumura, 1912; *Clavellaria amerinae delagrangei* Pic, 1920; *C. amerinae anatolica* Pic, 1920). Host plant: *Salix* spp., *Populus* spp. (Salicaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR, WS** (TM, OM, TK, NS, KM), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, MG). – Europe (WE, EE, NE, SE), Caucasus, Turkey, Mongolia, China (NE), Korean Peninsula.
- Pseudoclavellaria semenovi** (Gussakovskij, 1947) [Clavellaria]. Russia: **ES** (ZB), **FE** (PR).
- TRICHIOSOMA** Leach, 1817 (*Asitrichiosoma* Malaise, 1939; *Lucorumiformis* Ermolenko, 1972; *Vitelliniformis* Ermolenko, 1972; *Sericeiformis* Ermolenko, 1972; *Sorbiformis* Ermolenko, 1972). Type species *Tenthredo lucorum* Linnaeus, 1758. The larvae feed on the deciduous of trees and shrubs. The genus is distributed in Holarctic and Oriental region. Number of species: World – 38; Palaeartic – 33; Russia – 24.
- Trichiosoma aenescens** Gussakovskij, 1947. Host plant: *Prunus* spp., *Padus* spp. (Rosaceae). Russia: **EP** (N, NW, C, E), **UR, WS** (NS, KM, AL), **ES** (KS, IR, YA), **FE** (AM, PR). – Europe (EE, NE), Japan (Hok).
- Trichiosoma anthracinum** Forsius, 1930. Russia: **WS** (AL). – China (SW).
- Trichiosoma asachalinense** Verzhutskii, 1973. Host plant: *Spiraea* spp., *Dasiphora fruticosa* (Rosaceae). Russia: **ES** (IR), **FE** (KA).
- Trichiosoma bombiforme** Takeuchi, 1939. Russia: **FE** (PR). – China (SE), Japan (Hon).
- Trichiosoma crassum** W.F. Kirby, 1882 (*T. arcticum* W.F. Kirby, 1882; *T. arctica* Konow, 1903; *T. jakovleffi* Konow, 1905; *T. jakovlevi tinctipennis* Enslin, 1919; *T. jakovlevi* Gussakovskij, 1947). Host plant: *Betula* spp. (Betulaceae). Russia: **EP** (N), **WS** (TM, AL), **ES** (KR, YA), **FE** (KH, PR, SA, KA, MG, CH). – Europe (NE), Mongolia, Japan (Hok, Hon), N America.
- Trichiosoma hirtellum** Gussakovskij, 1947. Host plant: *Salix* spp. (Salicaceae), *Betula* spp. (Betulaceae). Russia: **ES** (KR, IR, YA, ZB), **FE** (AM, KH, MG).
- Trichiosoma latreillii** Leach, 1817. Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (N, NW, C, E), **UR, WS** (TK, NS, KM, AL), **ES** (KR, IR, BR, YA, ZB),

- FE** (AM, KH, PR, KA, MG). – Europe (WE, EE), Turkey, Mongolia, China (NE, NC), Japan (Hon).
- Trichiosoma lucorum** (Linnaeus, 1758) [Tenthredo] (*T. unidentatum* Leach, 1817; *Cimbex betuleti* Klug, 1834; *Trichiosoma salicis* Hartig, 1840). Host plant: Betula spp. (Betulaceae), Salix spp. (Salicaceae). Russia: **EP** (N, NW, C, E), **UR**, **WS** (TM, TK, NS, KM, AL), **ES** (KR, IR, YA), **FE** (SA). – Europe (WE, EE, NE, SE), Kazakhstan, Mongolia, China (NC), Japan (Hok, Hon).
- Trichiosoma malaisei** Saarinen, 1950. Host plant: Betula spp. (Betulaceae). Russia: **EP** (N), **FE** (MG). – Europe (NE).
- Trichiosoma melanopygum** Zhelochovtsev, 1968. Host plant: Betula spp. (Betulaceae). Russia: **ES** (IR, BR).
- Trichiosoma nanae** Vikberg et Viitasari, 1991. Host plant: Betula nana (Betulaceae). Russia: **ES** (KR). – Europe (NE).
- Trichiosoma nigricoma** Konow, 1906. Host plant: Salix spp. (Salicaceae), Betula spp. (Betulaceae). Russia: **EP** (N, NW), **WS** (AL), **ES** (TU, KR). – Europe (NE).
- Trichiosoma opacum** Konow, 1906 (*T. jozankeanum* Matsumura, 1912). Host plant: Salix spp. (Salicaceae), Betula spp. (Betulaceae). Russia: **ES** (KR, IR, YA, ZB), **FE** (KH, PR, SA, MG). – Korean Peninsula, Japan (Hok, Hon).
- Trichiosoma pusillum** Stephens, 1835 (*T. biverrucatum* Stephens, 1835; *T. nigripes* Gussakovskij, 1947; *T. groenblomi* Saarinen, 1947). Host plant: Populus spp., Salix spp. (Salicaceae). Russia: **EP** (N), **WS** (NS, AL), **ES** (KR, IR, BR, ZB), **FE** (AM). – Europe (WE, NE).
- Trichiosoma sachalinense** Matsumura, 1911 (*T. bilineata* Malaise, 1931). Host plant: Salix spp. (Salicaceae). Russia: **EP** (N, NW), **WS** (NS, KM, AL), **ES** (IR, BR, YA, ZB), **FE** (KH, SA, KA, MG, CH). – Mongolia, Korean Peninsula, Japan (Hok).
- Trichiosoma scalesii** Leach, 1817 (*T. fennicum* Saarinen, 1947). Russia: **ES** (YA). – Europe (WE, NE).
- Trichiosoma sericeum** Konow, 1903. Host plant: Betula spp. (Betulaceae), Populus spp., Salix spp. (Salicaceae). Russia: **EP** (N, NW, E), **UR**, **WS** (TK, NS, KM, AL), **ES** (KS, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR). – Europe (NE), Mongolia, China (NE), Korean Peninsula.
- Trichiosoma sibiricum** Gussakovskij, 1947. Russia: **WS** (AL), **ES** (KR, IR, YA), **FE** (AM, KH, KA). – Europe (NE), China (NE).
- Trichiosoma sorbi** Hartig, 1840. Host plant: Sorbus spp. (Rosaceae). Russia: **EP** (N, NW, C, E), **UR**, **WS** (KM, AL), **ES** (YA). – Europe (WE, EE, NE, SE).
- Trichiosoma sylvaticum** Leach, 1817. Host plant: Populus spp., Salix spp. (Salicaceae). Russia: **EP** (N, NW, C, E), **WS** (TK, NS, KM, AL), **ES** (KS, BR, YA). – Europe (EE, SE).
- Trichiosoma tibiale** Stephens, 1835 (*Cimbex crataegi* Zaddach, 1863; *Tenthredo crataegi* Newman, 1870; *Trichiosoma oxyacanthae* Morley, 1907; *T. tibiale decipiens* Enslin, 1917). Host plant: Salix spp. (Salicaceae), Sorbus spp., Crataegus spp. (Rosaceae). Russia: **EP** (N, NW, C), **WS** (AL), **ES** (IR, YA), **FE** (KU, KA, MG, CH). – Europe (WE, EE, NE, SE), Japan (Hok, Hon).
- Trichiosoma ushinskii** Ermolenko, 1973. Russia: **FE** (KU).
- Trichiosoma villosum** (Motschulsky, 1860) [Cimbex] (*T. pubescens* Jakovlev, 1891; *T. relictum* Saarinen, 1950). Host plant: Populus spp., Salix spp. (Salicaceae). Russia: **EP** (NW, C), **WS** (NS, KM, AL), **ES** (KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, KA). – Europe (NE), Kazakhstan, China (NE).
- Trichiosoma vitellina** (Linnaeus, 1760) [Tenthredo] (*Cynips betulae* Ström, 1762; *Trichiosoma marginale* Leach, 1817; *Cimbex trichiosoma* Lepeletier, 1823; *Trichiosoma boreale* Gussakovskij, 1947). Host plant: Alnus spp., Betula spp. (Betulaceae), Salix spp., Populus spp. (Salicaceae). Russia: **EP** (N, NW, C, E, S), **UR**, **WS** (TK, NS, KM, AL), **ES** (KS, KR, IR, BR, YA, ZB), **FE** (KH, PR). – Europe (WE, EE, NE, SE), Korean Peninsula.

## Subfamily CORYNIDINAE

- CORYNIS** Thunberg, 1789 (*Amasis* Leach, 1817; *Amoeniformis* Ermolenko, 1972; *Lateralisiformis* Ermolenko, 1972; *Obscuriformis* Ermolenko, 1972). Type species *Tenthredo obscura* Fabricius, 1775. The larvae feed on the herbaceous plants. The genus is distributed in the Palaearctic region. Number of species: World and Palaearctic – 28; Russia – 8.
- Corynis amoena** (Klug, 1834) [Cimbex]. Adults on the Ranunculus (Ranunculaceae). Russia: **EP** (N, NW, C, E, S, NC). – Europe (WE, EE, NE), Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia.
- Corynis caucasica** (Mocsáry, 1886) [Amasis] (*Amasis caspica* Konow, 1886). Russia: **EP** (NC). – Europe (EE), Armenia, Azerbaijan, Turkey, Iran.



**Corynis crassicornis** (Rossi, 1790) [Tenthredo] (*Cimbex sylvatica* Olivier, 1791; *Tenthredo laeta* Fabricius, 1798; *T. ranunculi* Panzer, 1804; *Cimbex jurinae* Serville, 1823; *C. jurinae* Lepeletier, 1823; *C. olivieri* Lepeletier, 1823; *Amasis crassicornis nigriventris* Soldanski, 1916; *A. crassicornis algerica* Pic, 1916; *A. crassicornis gallica* Pic, 1918). Host plant: *Sedum* spp. (Crassulaceae), *Ranunculus* spp. (Ranunculaceae). Russia: **EP** (CR). – Europe (WE, EE, SE), N Africa, Georgia, Azerbaijan.

**Corynis frontina** (Konow, 1905) [Amasis]. Russia: **EP** (NC). – Europe (SE), Azerbaijan, Turkey.

**Corynis lateralis** (Brullé, 1832) [Amasis] (*Amasis lateralis sibirica* Kuznetzov-Ugamskij, 1925; *Corynis dominiquei* Chevin, 1988). Russia: **EP** (C, E, S,

NC, CR), **UR**. – Europe (EE, SE), Caucasus, Turkey, Kazakhstan.

**Corynis mutabilis** (Tischbein, 1852) [Abia] (*Amasis concinna* J.P.E.F. Stein, 1876; *A. bleyli* Muehe, 1964). Adults on the *Ranunculus* (Ranunculaceae). Russia: **EP** (CR). – Europe (EE, SE), Armenia, Turkey.

**Corynis obscura** (Fabricius, 1775) [Tenthredo] (*Amasis helvetica* Konow, 1886; *A. obscura adusta* Zirn-giebl, 1953; *A. valkanovi* Vassilev, 1969). Host plant: *Geranium* spp. (Geraniaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TK, NS, KM), **ES** (IR). – Europe (WE, EE, NE, SE), Caucasus, Turkey, Iran.

**Corynis ovicula** Zhelochovtsev, 1968. Russia: **ES** (BR, ZB).

## 5. FAMILY DIPRIONIDAE

Stout, slow-flying insects associated with conifers. They are characterized by plumose male and serrate female antennae of more than 9 segments and by absence of vein *2r* on the fore wing; scutellum without a transverse furrow cutting off a post-tergite; hind wing with both middle closed cells *RS* and *M* present; tibiae without preapical spines and front tibiae with simple unmodified spurs.

The larvae are free-living, often gregariously on needles of conifers. They have 8 pairs of abdominal legs (segments 2-8 and 10). The cocoons are double, and upon emerging the adult severs a cap at one end of the cocoon and this cap is left hanging by a few threads.

The family is distributed in the Holarctic, Oriental and Neotropical regions. Number of taxa: World – 2 subfamilies, 11 genera, about 140 species; Palaearctic – 2/9/about 70; Russia – 2/7 (+ 1 unplaced)/26 (+ 2 unplaced).

References. Fischer von Waldheim, 1806; Gusakovskij, 1947; Verzhutskii, 1974, 1981; Ermolenko, 1975; Zhelochovtsev, Prochorova, 1976; Ermolenko, Zemkova, 1979; Viitasaari, Varama, 1987; Zhelochovtsev, 1988; Liston, 1995; Zhelochovtsev, Zinovjev, 1995; Liston et al., 2006, 2014a; Taeger et al., 2006, 2010; Wei et al., 2006; Roller, Haris, 2008; Blank et al., 2009; Gnienko, Seryi, 2009; Humala, Polevoi, 2009; Schedl, 2009; Taeger, Blank, 2011; Vasilenko, 2011b; Hara, Smith, 2012; Macek, 2012; Sundukov, Lelej, 2012; Vasilenko, Korshunov, 2012; Kostyunin, 2013, 2015; Popov, 2013; Beneš, 2014b; Borowski, Marczak, 2015; Hara, Shinohara, 2015; Sundukov, 2015, 2017; Noblecourt, 2016.

### Subfamily DIPRIONINAE

**DIPRION** Schrank, 1802 (*Pteronus* Jurine, 1801; *Lophyrus* Latreille, 1803; *Pteronus* Panzer, 1806; *Anachoreta* Gistel, 1848; *Cristiger* Gistel, 1848). Type species *Tenthredo pini* Linnaeus, 1758. The larvae feed on the conifers. The genus is distributed in the Palaearctic and Oriental regions; one species was introduced into the Nearctic region. Number of species: World – 13; Palaearctic – 9; Russia – 3.

**Diprion koreanus** Takagi, 1931. Host plant: *Larix* spp. (Pinaceae); live in groups. Russia: **UR, ES** (IR, YA, ZB), **FE** (AM, KH). – Korean Peninsula.

**Diprion pini** (Linnaeus, 1758) [*Tenthredo*] (*Tenthredo dorsata* Fabricius, 1781; *T. eques* Schrank, 1782;

*T. pineti* Bechstein et Scharfenberg, 1805; *Lophyrus pini nigripictus* Matsumura, 1912; *Diprion pini nigroscutellatum* Enslin, 1916; *D. pini nigristernis* Enslin, 1916; *D. pini klugi* Enslin, 1916; *D. butovitschi* Hedqvist, 1967). Host plant: *Pinus* spp. (Pinaceae); live in groups, 2 generation per year. Russia: **EP** (N, NW, C, E, S, NC), **UR, WS** (TK, NS, KM), **ES** (IR, YA). – Europe (WE, EE, NE, SE), N Africa, Georgia, Cyprus, Turkey.

**Diprion similis** (Hartig, 1836) [*Lophyrus*] (*Lophyrus eremita* Thomson, 1871; *Diprion simile claristernis* Enslin, 1916; *D. simile atroscutellatum* Enslin, 1916). Host plant: *Pinus* spp. (Pinaceae); live alone, 2 generation per year. Russia: **EP** (N, NW, C, E, S, NC), **UR, WS** (TM, AL), **ES** (IR, YA). – Europe (WE, EE, NE, SE); introduced into N America.

**GILPINIA** Benson, 1939. Type species *Lophyrus polytomus* Hartig, 1834. Larvae feed on conifers. The genus is distributed in the Palaearctic and Oriental regions; two species were introduced to the Nearctic region. Number of species: World – about 40; Palaearctic – > 30; Russia – 15.

**Gilpinia abieticola** (Dalla Torre, 1894) [*Lophyrus*] (*Lophyrus abietis* Stein, 1866). Host plant: *Picea* spp. (Pinaceae). Russia: **EP** (C), **WS** (TM), **ES** (IR, YA). – Europe (WE, EE, NE, SE).

**Gilpinia catocala** (Snellen van Vollenhoven, 1858) [*Lophyrus*] (*Gilpinia verticalis* Gussakovskij, 1947). Host plant: *Pinus* spp. (Pinaceae). Russia: **EP** (NW, C, E), **WS** (TK, NS, KM). – Europe (EE, NE).

**Gilpinia daisetusana** Takeuchi, 1940. Host plant: *Picea* spp. (Pinaceae). Russia: **FE** (KU). – Japan (Hok).

**Gilpinia fennica** (Forsius, 1911) [*Diprion*]. Host plant: *Picea* spp. (Pinaceae). Russia: **ES** (TU, YA). – Europe (EE, NE), China (NC).

**Gilpinia frutetorum** (Fabricius, 1793) [*Tenthredo*] (*Lophyrus anachoreta* Costa, 1894; *Diprion frutetorum lutescens* Enslin, 1916; *D. frutetorum luteolum* Enslin, 1916). Host plant: *Pinus* spp. (Pinaceae); live alone, 2 generation per year. Russia: **EP** (NW, C, E, S, NC), **UR, WS** (TK, NS, AL), **ES** (IR, YA). – Europe (WE, EE, NE, SE), Turkey; introduced into N America.

**Gilpinia hercyniae** (Hartig, 1837) [*Lophyrus*]. Host plant: *Picea* spp. (Pinaceae). Russia: **EP** (NW, C, NC), **UR, WS** (TM), **ES** (KR, IR, BR, YA), **FE** (PR). – Europe (WE, EE, NE, SE), Pakistan, Mongolia, Korean Peninsula, Japan (Hok, Hon); introduced into N America.

- Gilpinia hokkaidoensis** Hara et Shinohara, 2015. Host plant: *Picea* spp., *Abies* spp. (Pinaceae). Russia: **FE** (KU). – Japan (Hok).
- Gilpinia laricis** (Jurine, 1807) [Pteronous] (*Diprion laricis fenestratum* Enslin, 1916; *D. laricis flavo-marginatum* Enslin, 1916; *D. laricis lugens* Enslin, 1916). Host plant: *Pinus* spp. (Pinaceae); live alone, 1-2 generation per year. Russia: **EP** (NW, C, E), **WS** (TM, TK, KM, AL), **ES** (IR, YA). – Europe (WE, EE, NE, SE).
- Gilpinia pallida** (Klug, 1812) [Lophyrus] (*Lophyrus minor* Serville, 1823; *L. minor* Lepeletier, 1823). Host plant: *Pinus* spp. (Pinaceae); live in groups, 2 generation per year. Russia: **EP** (NW, C, S), **WS** (TK), **ES** (IR, YA). – Europe (WE, EE, NE, SE).
- Gilpinia polytoma** (Hartig, 1834) [Lophyrus] (*Diprion polytomum pseudopallidum* Enslin, 1916). Host plant: *Picea* spp., *Abies* spp., *Larix* spp. (Pinaceae); live alone, 1-2 generation per year. Russia: **EP** (NW, C), **UR**, **WS** (TM, TK, NS), **ES** (IR, BR, YA), **FE** (KH, PR, KU). – Europe (WE, EE, NE, SE), Korean Peninsula, Japan (Hok, Hon), Pakistan, India.
- Gilpinia sachalinensis** Takeuchi, 1940. Russia: **FE** (SA).
- Gilpinia socia** (Klug, 1812) [Lophyrus] (*Lophyrus pineti* Hartig, 1837). Host plant: *Pinus* spp. (Pinaceae); live in groups, 2 generation per year. Russia: **EP** (NW), **ES** (KR). – Europe (WE, EE, NE, SE).
- Gilpinia tohi** Takeuchi, 1940. Host plant: *Picea* spp., *Abies* spp. (Pinaceae). Russia: **FE** (PR, KU). – China (NE), Japan (Hok).
- Gilpinia variegata** (Hartig, 1834) [Lophyrus] (*Lophyrus thomsoni* Konow, 1884). Host plant: *Pinus* spp. (Pinaceae); live alone, 2 generation per year. Russia: **EP** (NW, C), **WS** (TK, NS, AL), **ES** (KR, IR). – Europe (WE, EE, NE, SE), Kazakhstan.
- Gilpinia virens** (Klug, 1812) [Lophyrus] (*Diprion virens atramentarium* Enslin, 1916). Host plant: *Pinus* spp. (Pinaceae); live alone, 1-2 generation per year. Russia: **EP** (NW, C), **WS** (TM, NS, AL), **ES** (IR, YA). – Europe (WE, EE, NE, SE), Mongolia.
- MACRODIPRION** Enslin, 1914. Type species *Lophyrus nemoralis* Enslin, 1917. The larvae feed on the *Pinus* spp. (Pinaceae). The genus is distributed in Palaearctic and Oriental region. Number of species: World – 2; Palaearctic – 1; Russia – 1.
- Macrodiplon nemoralis** (Enslin, 1917) [Lophyrus] (*Tenthredo nemorum* Fabricius, 1793). Host plant: *Pinus* spp. (Pinaceae); live alone, 1-2 generation per year. Russia: **EP** (N, NW, C), **WS** (NS), **ES** (KR, IR, BR). – Europe (WE, EE, NE, SE).
- MICRODIPRION** Enslin, 1914. Type species *Hylotoma pallipes* Fallén, 1808. The larvae on the *Pinus* spp. (Pinaceae). The genus is distributed in Palaearctic and Oriental region. Number of species: World – 5; Palaearctic – 3; Russia – 2.
- Microdiplon fuscipennis** (Forsius, 1911) [Diprion]. Host plant: *Picea* spp. (Pinaceae); live in groups in the younger ages, singly in the senior, 2 generation per year. Russia: **EP** (C, E), **ES** (KR). – Europe (EE, NE).
- Microdiplon pallipes** (Fallén, 1808) [Hylotoma] (*Lophyrus elongatulus* Klug, 1812; *L. politus* Klug, 1812; *L. pulchricornis* Bremi-Wolf, 1849; *L. pallidipes* Dalla Torre, 1894; *Diprion pallipes aterrimum* Enslin, 1916). Host plant: *Pinus* spp. (Pinaceae); live in groups, 1-2 generation per year. Russia: **EP** (N, NW, C, NC), **WS** (TK), **ES** (KR, IR, BR, YA), **FE** (AM, PR, KU). – Europe (WE, EE, NE, SE), Kazakhstan.
- NEODIPRION** Rohwer, 1918. Type species *Lophyrus lecontei* Fitch, 1858. The larvae feed on the *Pinus* spp. (Pinaceae). The genus is distributed in Holarctic, Oriental and Neotropical regions. Number of species: World – > 45; Palaearctic – 2; Russia – 1.
- Neodiprion sertifer** (Geoffroy, 1785) [Tenthredo] (*Tenthredo pectinata rufa* Retzius, 1783; *T. pinirufa* Villers, 1789; *Hylotoma rufa* Fallén, 1808; *Lophyrus piceae* Lepeletier, 1823; *L. piceae* Serville, 1823; *L. basalis* Matsumura, 1915). Host plant: *Pinus* spp. (Pinaceae); live in groups, often severely pest. Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (TK, NS, KM, AL), **ES** (IR), **FE** (AM). – Europe (WE, EE, NE, SE), Caucasus, Turkey, Kazakhstan, Korean Peninsula, Japan (Hok, Hon, Kyu), N America.
- NESODIPRION** Rohwer, 1910. Type species *Lophyrus japonicus* Marlatt, 1898. The larvae feed on the *Pinus* (Pinaceae). The genus is distributed in East Palaearctic and Oriental region. Number of species: World – 13; Palaearctic – 11; Russia – 1.
- Nesodiprion japonicus** (Marlatt, 1898) [Lophyrus]. Host plant: *Pinus* spp., *Larix* spp., *Cedrus* spp. (Pinaceae). Russia: **FE** (PR). – China (SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu), N America (California).

## Subfamily MONOCTENINAE

**MONOCTENUS** Dahlbom, 1835. Type species *Tenthredo juniperi* Linnaeus, 1758. Larvae feed on the Juniperus (Cupressaceae). The genus occurs in the Holarctic and Neotropical regions. Number of species: World – 12; Palaeartic – 8; Russia – 3.

**Monoctenus juniperi** (Linnaeus, 1758) [Tenthredo] (*Tenthredo pterophorus* Sulzer, 1761; *Monoctenus andrei* Mocsáry, 1880). Host plant: Juniperus spp. (Cupressaceae). Russia: **EP** (NW, C, E), **UR**. – Europe (WE, EE, NE, SE), Turkey, Syria.

**Monoctenus nipponicus** Takeuchi, 1940. Host plant: Juniperus spp. (Cupressaceae). Russia: **FE** (PR). – Japan (Hon).

**Monoctenus obscuratus** (Hartig, 1837) [Lophyrus] (*M. obscuratus intermedius* Zombori, 1975). Host

plant: Juniperus spp. (Cupressaceae). Russia: **WS** (AL), **ES** (YA). – Europe (WE, EE, NE, SE).

## Unplaced Diprionidae

**NYCTERIDIUM** Fischer von Waldheim, 1806. Type species *Nycteridium fischeri* Fischer von Waldheim, 1806. The genus with incomprehensible systematic status (see Blank et al., 2009). The genus distribution in Palaeartic. Number of species: World and Palaeartic – 2; Russia – 2.

**Nycteridium fischeri** Fischer von Waldheim, 1806. Russia: without region (Fischer von Waldheim, 1806).

**Nycteridium mosquense** Fischer von Waldheim, 1806. Russia: **EP** (C).

## 6. FAMILY HEPTAMELIDAE

Have previously been classified into the subfamily Selandriinae within Tenthredinidae. Now treated as a separate family, within the “higher” Tenthredinoidea (Tenthredinidae, Cimbicidae, and Diprionidae), thus not forcing the inclusion of the well defined families Diprionidae and Cimbicidae into Tenthredinidae (Liston et al., 2014a; Malm, Nyman, 2015; Schmidt et al., 2016; Schneider, 2016). All known larvae feed on ferns. No reports exist of economic damage caused by Heptamelidae.

The family is distributed in the Holarctic and Oriental regions. Number of taxa: World – 6 genera, about 50 species; Palaearctic – 2/13; Russia – 2/5.

R e f e r e n c e s. Verzhutskii, 1974; Zhelochovtsev, 1988; Zhelochovtsev, Zinovjev, 1992, 1996; Vikberg, Liston, 2009; Sundukov, Lelej, 2012; Liston et al., 2014a; Malm, Nyman, 2015; Schmidt et al., 2016; Schneider, 2016; Vikberg, 2017.

**HEPTAMELUS** Haliday, 1855 (*Melicerta* Stephens, 1835; *Caenoneura* Thomson, 1870). Type species *Melicerta ochroleuca* Stephens, 1835. The larvae feed on the ferns. The genus is distributed in Palaearctic and Oriental region; one species was

introduced into N America. Number of species: World – 37; Palaearctic – 11; Russia – 4.

**Heptamelus dahlbomi** (Thomson, 1870) [Caenoneura]. Host plant: *Athyrium filix-femina* (Dryopteridaceae). Russia: **EP** (N). – Europe (WE, NE); introduced into N America.

**Heptamelus magnocularis** Malaise, 1931. Russia: **FE** (SA, KA).

**Heptamelus ochroleucus** (Stephens, 1835) [Melicerta]. Host plant: Dryopteridaceae, Blechnaceae, Onocleaceae, Polypodiaceae. Russia: **EP** (NW, C). – Europe (WE, EE, NE), Japan (Hon).

**Heptamelus ussuriensis** Malaise, 1931. Russia: **FE** (AM, PR).

**PSEUDOHEPTAMELUS** Conde, 1932. Type species *Pseudoheptamelus runari* Conde, 1932. The larvae feed on the ferns. The genus is distributed in Palaearctic. Number of species: World and Palaearctic – 2; Russia – 1.

**Pseudoheptamelus runari** Conde, 1932. Host plant: *Athyrium* spp. (Dryopteridaceae); larva in the ferns stem. Russia: **EP** (N, NW, C), **ES** (IR), **FE** (PR). – Europe (NE).

## 7. FAMILY TENTHREDINIDAE

Adults of Tenthredinidae are distinguished from those of other families by the presence of 7-10 flagellomeres, by the metapleuron clearly separated from the tergum 1, and by the long and clearly outlined (at least laterally) mesoscutellar appendage. Adults are herbivorous or do not feed, few predators. The larvae of most species are external feeders on foliage, but those of some species are leaf miners, gall formers, or shoot borers; usually oligophages, less often monophages or polyphages. Host plants are horsetails, ferns, conifers or angiosperms (especially many species on willows, poplars, birches and rosaceous). It usually hibernates a prepupa, sometimes a pupa, less often eggs. Part of the species are pests of fruit and berry and forest plants.

The family is distributed worldwide. Number of taxa: World – 6 subfamilies, about 400 genera, > 5600 species; Palaearctic – 6/about 220/about 3500; Russia – 6/109/1124 (+ 29 spp.).

**R e f e r e n c e s.** Hartig, 1837; Eversmann, 1847; Erichson, 1851; Zaddach, 1859; Kawall, 1864; Kirby, 1882; Brischke, 1883, 1884; Holmgren, 1883; Konow, 1886, 1891, 1895, 1897, 1900, 1902a,c, 1904, 1907, 1908; Jakovlev, 1888, 1891, 1900; Dalla Torre, 1894; Mocsáry, 1909; Rohwer, 1910, 1925; Matsumura, 1911; Enslin, 1915, 1919, 1920, 1927; Dovnar-Zapolskij, 1925, 1929, 1930, 1931b; Kokujev, 1927; Kuznetsov-Ugamskij, 1927, 1929; Forsius, 1928, 1929; Zhelochovtsev, 1928, 1935b, 1939, 1941, 1951, 1952, 1968, 1976, 1988; Malaise, 1931a,b, 1945, 1947, 1963, 1964; Takeuchi, 1931, 1933, 1936, 1937, 1938, 1939, 1940, 1941, 1955, 1956; Conde, 1935; Hellén, 1948, 1956; Saarinen, 1950a; Ermolenko, 1955, 1959, 1968, 1971a, 1975, 1981, 1984, 1992; Stroganova, 1960, 1973, 1978b, 1980, 1988; Benson, 1962, 1965b; Muche, 1965a,b, 1968a,b, 1969, 1971a,b, 1973a,b,c,d, 1975a; Kuwayama, 1967; Lindqvist, 1968, 1970, 1971, 1972, 1975, 1977; Inomata, 1970; Naito, 1971a,b, 1980, 1990, 2004; Okutani, 1972; Verzhutskii, 1973, 1974, 1981; Zombori, 1973, 1974, 1978; Schtundjuk, Zelochovtsev, 1974; Tomilova, 1974; Smith, 1975, 1981; Zhelochovtsev, Prochorova, 1976; Bogacheva, 1977; Zinovjev, 1978, 1981, 1985, 1986, 1993a,b,c,d, 1994, 2000, 2010; Abe, 1981; Seiyama, 1981; Zhelochovtsev, Zinovjev, 1981, 1992, 1994, 1995, 1996; Koch, 1982, 1988b,c, 1989; Taeger, 1985, 1986, 1988, 1989, 1991, 1992, 2005, 2013; Goulet, 1986; Kajmuk, 1986, 1988; Altenhofer, Zombori, 1987; Zerova et al., 1988; Viitasaari, Zinovjev, 1991; Blank, 1993, 1996, 2002a; Liston, 1994, 1995, 2012; Shinohara, 1994a,b, 1997c, 2002a, 2005b, 2015; Zinovjev,

Schmidt, 1994; Pesarini et al., 1995; Haris, Blank, 1996; Lee, Ryu, 1996; Schmidt, 1997; Wei, 1997a,b, 1998a,b, 2006; Wei, Nie, 1997b, 2008; Andreeva, 1998; Blank, Ritzau, 1998; Blank, Taeger, 1998a, 2006; Lacourt, 1999; Zinovjev, Vikberg, 1999; Haris, 2000, 2001, 2002, 2003, 2006a,b, 2009; Lee et al., 2000; Shinohara et al., 2000, 2000, 2013, 2015; Togashi, 2000; Nie, Wei, 2001, 2004a,b; Altenhofer, Pschorn-Walcher, 2003; Kajmuk, Popov, 2003; Magis, 2003; Vikberg, 2003, 2009, 2010, 2013; Heidemaa et al., 2004, 2012; Heidemaa, Viitasaari, 2004; Heidemaa, Zinovjev, 2004; Vasilenko, 2004, 2006, 2008, 2009b, 2010a,b, 2011a; Astapenko et al., 2006; Averskiy et al., 2006; Heidemaa, Prous, 2006; Liston et al., 2006, 2014a, 2017; Saini et al., 2006; Shilenkov, Tolstonogova, 2006; Taeger et al., 2006, 2010, 2016, 2017; Vikberg, Zinovjev, 2006, 2014; Wei et al., 2006; Haris, Zsolnai, 2007; Kopelke, 2007a,b,c; Lelej, Taeger, 2007b; Stepanov et al., 2007; Zabroda, Sirenko, 2007, 2008; Popov, Kajmuk, 2008, 2009a,b, 2010b; Roller, Haris, 2008; Shcherbakov, 2008; Arutyunyan et al., 2009; Blank et al., 2009; Schedl, 2009; Sundukov, Lelej, 2009, 2012; Macek, 2010, 2012; Sundukov, 2010, 2011b, 2013, 2017; Wei, Niu, 2010; Yegorenkova et al., 2010; Astapenko, Pal'nikova, 2011; Belov, 2011; Li et al., 2011, 2014, 2016; Popov, 2011a,b, 2016; Prous et al., 2011, 2011, 2014, 2016, 2017; Smith, Altenhofer, 2011a,b; Taeger, Blank, 2011; Nie et al., 2012; Niu et al., 2012; Ahn et al., 2013; Niu, Wei, 2013; Petrov, Sautkin, 2013; Beneš, 2014a,b,c, 2015; Heibo et al., 2014; Setrakova, 2014; Beneš, Holuša, 2015; Liu et al., 2015; Qi et al., 2015; Shinohara, Hara, 2015; Shinohara, Yoshida, 2015; Smith, Wei, 2015; Taeger, Viitasaari, 2015; Noblecourt, 2016; Smith, Gourlay, 2016; Wu et al., 2016; Hara, Shinohara, 2017; Taeger, Kramp, 2017.

### Subfamily ALLANTINAE

**ALLANTUS** Panzer, 1801 (*Emphytus* Klug, 1815; *Anemphytus* Dovnar-Zapolskij, 1931; *Synemphytus* Malaise, 1945). **Type species** *Tenthredo togata* Panzer, 1801. The larvae feed on the deciduous trees and shrubs; when pupation is carried into dry branches and bark. The genus is distributed in Holarctic and Oriental region. Number of species: World – > 45; Palaearctic – about 35; Russia – 17 from 2 subgenera.

**Allantus (Allantus) calliblepharus** (Konow, 1900) [Emphytus] (*Emphytus karafutonis* Matsumura, 1911). Host plant: *Salix* spp. (Salicaceae). Russia: **WS**

- (KM, AL), **ES** (IR, YA), **FE** (KH, PR, SA, KU). – Europe (NE), Korean Peninsula, Japan (Hok, Hon).
- Allantus (Allantus) luctifer luctifer** (F. Smith, 1874) [Macrophyta]. Host plant: *Salix* spp. (Salicaceae), *Rumex* spp., *Polygonum* spp. (Polygonaceae). Russia: **FE** (PR, SA). – China (CC, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Allantus (Allantus) togatus** (Panzer, 1801) [Tenthredo] (*Tenthredo ferruginosa* Gmelin, 1790; *T. succincta* Klug, 1818; *Emphytus succinctus steini* Schmiedeknecht, 1881; *E. leucostomus* Costa, 1890; *E. succinctus ruficornis* Costa, 1890). Host plant: *Salix* spp. (Salicaceae), *Betula* spp. (Betulaceae), *Quercus* spp. (Fagaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (NS), **ES** (YA), **FE** (SA). – Europe (WE, EE, NE, SE), Turkey.
- Allantus (Allantus) viennensis** (Schrank, 1781) [Tenthredo] (*Emphytus viennensis nigricoxis* De-Stefani, 1883; *E. viennensis medinae* Konow, 1894; *Allantus viennensis uberior* Enslin, 1914; *Emphytus viennensis atricornis* Pic, 1948). Host plant: *Rosa* spp. (Rosaceae). Russia: **EP** (S, NC). – Europe (WE, EE, SE), Georgia, Armenia, Turkey, Central Asia, N America.
- Allantus (Emphytus) albicinctus** (Matsumura, 1912) [Dolerus]. Host plant: *Filipendula* spp., *Rubus* spp., *Rosa* spp. (Rosaceae). Russia: **FE** (SA, KU). – China (NC), Japan (Hok).
- Allantus (Emphytus) basalis basalis** (Klug, 1818) [Tenthredo] (*Emphytus basalis masculus* Zirngiebl, 1937). Host plant: *Rosa* spp., *Dasiphora* spp., *Potentilla* spp. (Rosaceae), *Betula* spp. (Betulaceae). Russia: **EP** (N, NW, C, E, S), **UR**, **WS** (NS), **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, KA, MG). – Europe (WE, EE, NE, SE), Turkey, Mongolia, China (NE, NC), Korean Peninsula, Japan (Hok, Hon), N America.
- Allantus (Emphytus) calceatus** (Klug, 1818) [Tenthredo] (*Dolerus vicinus* Lepeletier, 1823; *D. vicinus* Serville, 1823; *Tenthredo vitis* Vallot, 1845; *Emphytus dissimilis* Dietrich, 1868). Host plant: *Filipendula* spp., *Spiraeae* spp., *Rubus* spp. and others Rosaceae. Russia: **EP** (N, NW, C, S, E, NC), **UR**, **WS** (Zhelochovtsev, Zinovjev, 1996), **FE** (AM, PR, YA). – Europe (WE, EE, NE, SE), Georgia, Kazakhstan, Mongolia, China (Wei et al., 2006).
- Allantus (Emphytus) cinctus** (Linnaeus, 1758) [Tenthredo] (*Tenthredo cordigera* Geoffroy, 1785; *Dolerus cinctus* Jurine, 1807; *D. varipes* Lepeletier, 1823; *D. cingulatus* Serville, 1823; *D. varipes* Serville, 1823; *Emphytus neglectus* Zaddach, 1859; *E. cinctipes* Norton, 1867; *E. infasciatus* Pic, 1948). Host plant: *Fragaria* spp., *Rosa* spp., *Rubus* spp. (Rosaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **WS** (NS), **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR, KA, MG). – Europe (WE, EE, NE, SE), Armenia, Turkey, Iran, Kazakhstan, Mongolia, China (Wei et al., 2006), N America.
- Allantus (Emphytus) cingillipes** (Kontuniemi, 1947) [Emphytus]. Russia: **FE** (SA). – Europe (NE).
- Allantus (Emphytus) cingillum** (Klug, 1818) [Tenthredo]. Host plant: *Betula* spp. (Betulaceae), ?*Rosa* spp. (Rosaceae). Russia: **EP** (NW, C, E), **ES** (KR, IR, BR, YA). – Europe (WE, EE, NE).
- Allantus (Emphytus) cingulatus** (Scopoli, 1763) [Tenthredo] (*Dolerus cingulatus* Lepeletier, 1823; *Tenthredo tenius* Lepeletier, 1823; *Emphytus elegans* Costa, 1859; *Allantus cingulatus muliebris* Enslin, 1914). Host plant: *Fragaria* spp., *Rosa* spp. (Rosaceae). Russia: **EP** (NW, NC), **ES** (TU), **FE** (KA). – Europe (WE, EE, NE, SE), Georgia, Armenia, Turkey.
- Allantus (Emphytus) didymus didymus** (Klug, 1818) [Tenthredo]. Host plant: *Sanguisorba* spp., *Rosa* spp. (Rosaceae). Russia: **EP** (C, E, S, NC), **WS** (NS). – Europe (WE, EE, SE), N Africa, Caucasus, SW Asia, Iran, Kazakhstan.
- Allantus (Emphytus) melanarius** (Klug, 1818) [Tenthredo] (*Emphytus tricoloripes* Costa, 1859). Host plant: *Cornus sanguinea* (Cornaceae). Russia: **EP** (NC). – Europe (WE, EE, SE), Iran.
- Allantus (Emphytus) ruficeps** (Konow, 1899) [Emphytus]. **EP** (NC). – Georgia.
- Allantus (Emphytus) rufocinctus** (Retzius, 1783) [Tenthredo] (*Tenthredo zonata* Christ, 1791; *T. rufocincta* Klug, 1818; *T. cingulum* Klug, 1818; *T. agilis* Drapiez, 1820; *Dolerus fasciatus* Lepeletier, 1823; *D. fasciatus* Serville, 1823; *Tenthredo ruralis* Dahlbom, 1835; *Emphytus rufocinctus ruralis* Thomson, 1871). Host plant: *Rosa* spp., *Rubus* spp. (Rosaceae). Russia: **EP** (N, NW, C). – Europe (WE, EE, SE), Mongolia.
- Allantus (Emphytus) truncatoides** Koch, 1988. Russia: **ES** (IR).
- Allantus (Emphytus) truncatus** (Klug, 1818) [Tenthredo] (*Tenthredo fulvipes* Fallén, 1829; *T. schoenherri* Dahlbom, 1835; *T. angustata* Zetterstedt, 1838). Host plant: *Filipendula* spp., *Fragaria* spp., *Potentilla* spp. and others (Rosaceae). Russia: **EP** (NW, C, E, NC), **UR**, **WS** (NS), **ES** (YA), **FE** (KA). – Europe (WE, EE, NE), Kyrgyzstan, Kazakhstan, Mongolia, China (NC, NW).

**AMETASTEGIA** Costa, 1882 (*Aomodictium* Ashmead, 1898; *Protemphytus* Rohwer, 1909; *Emphytina* Rohwer, 1911; *Simplemphytus* MacGillivray, 1914; *Unitaxonus* MacGillivray, 1921; *Ocla* Malaise, 1957). Type species *Ametastegia fulvipes* Costa, 1882. The larvae before pupation borer branches, stems, bark or fruit. The genus distribution in Holarctic, Oriental and Neotropical regions. Number of species: World – about 60; Palaearctic – > 30; Russia – 13 from 2 subgenera.

**Ametastegia (Ametastegia) albipes** (Thomson, 1871) [Taxonus] (*Taxonus fletcheri* Cameron, 1878; *Eriocampa alabastripes* Costa, 1890). Russia: **EP** (N, NW, C, E, NC), **FE** (KA). – Europe (WE, EE, NE, SE).

**Ametastegia (Ametastegia) equiseti** (Fallén, 1808) [Tenthredo] (*Tenthredo bicolor* Klug, 1817; *T. gracilis* Serville, 1823; *T. gracilis* Lepeletier, 1823; *T. fuscitarsis* Hummel, 1827; *T. coxalis* Hartig, 1837; *T. bizonata* Zetterstedt, 1838; *Taxonus minutus* Costa, 1859; *Tenthredo angustula* Eversmann, 1864; *Taxonus innominatus* MacGillivray, 1901; *Unitaxonus repentinus* MacGillivray, 1921; *U. rumicis* MacGillivray, 1921; *Strongylogastroidea depressata* MacGillivray, 1921; *S. rufocinctella* MacGillivray, 1923; *Hemitaxonus dediticius* MacGillivray, 1923; *Ametastegia equiseti stitia* Zirngiebl, 1954). Host plant: Polygonum spp., Rumex spp. (Polygonaceae), Chenopodium (Amaranthaceae), etc. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **ES** (IR, BR, YA). – Europe (WE, EE, NE, SE), Georgia, Armenia, Turkey, Mongolia, China (Wei et al., 2006), N America.

**Ametastegia (Ametastegia) glabrata** (Fallén, 1808) [Tenthredo] (*Tenthredo violacea* Christ, 1791; *T. agilis* Klug, 1817; *T. rufipes* Lepeletier, 1823; *T. rufipes* Serville, 1823; *T. nigrisoma* Norton, 1862; *Ametastegia fulvipes* Costa, 1882; *Strongylogaster abnormis* Provancher, 1885; *Strongylogastroidea potulenta* MacGillivray, 1923). Host plant: Polygonum spp., Rumex spp. (Polygonaceae), Chenopodium (Amaranthaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **WS** (KM). – Europe (WE, EE, NE, SE), N Africa, SW Asia, Kazakhstan, Central Asia, Mongolia, China (NW), N America, S America, Australia.

**Ametastegia (Ametastegia) kirishimensis** Takeuchi, 1929. Russia: **FE** (PR, SA). – Japan (Kyu).

**Ametastegia (Ametastegia) wuorentausi** Forsius, 1928 (*A. montana* Malaise, 1931). Russia: **FE** (KA). – China (NE).

**Ametastegia (Protemphytus) albovaria** (Takeuchi, 1936) [Emphytina]. Russia: **FE** (SA, KU). – Japan (Hok, Hon).

**Ametastegia (Protemphytus) carpini** (Hartig, 1837) [Emphytus] (*Taxonus glottianus* Cameron, 1874; *Emphytus arcticus* Nerén, 1892; *Allantus carpini decipiens* Enslin, 1914; *Emphytus perla obscura* Zirngiebl, 1954). Host plant: Geranium spp. (Geraniaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (Zhelochovtsev, Zinovjev, 1996), **ES** (TU, BR), **FE** (AM, PR, KA). – Europe (WE, EE, NE, SE), Armenia, Turkey, Central Asia, Kazakhstan.

**Ametastegia (Protemphytus) pallipes** (Spinola, 1808) [Tenthredo] (*Tenthredo grossulariae* Klug, 1818; *Dolerus leucopodus* Lepeletier, 1823; *D. leucopodus* Serville, 1823; *Tenthredo lapponica* Zetterstedt, 1838; *Emphytus pallipes* Provancher, 1878; *E. canadensis* W.F. Kirby, 1882; *E. pallidipes* Dalla Torre, 1894; *Empria cavata* MacGillivray, 1911; *E. cetaria* MacGillivray, 1921; *Emphytus hyacinthus* MacGillivray, 1923; *E. hospitus* MacGillivray, 1923; *E. halesus* MacGillivray, 1923; *E. heroicus* MacGillivray, 1923; *E. hiatus* MacGillivray, 1923). Host plant: Viola spp. (Violaceae), Vicia spp. (Fabaceae). Russia: **EP** (NW, C, E, NC, CR), **UR**, **ES** (TU), **FE** (KU, KA). – Europe (WE, EE, NE, SE), Caucasus, Turkey, Iran, N America.

**Ametastegia (Protemphytus) perla** (Klug, 1818) [Tenthredo] (*Tenthredo bohemanii* Dahlbom, 1835). Host plant: Salix spp., Populus spp. (Salicaceae), Quercus spp. (Fagaceae), Polygonum spp. (Polygonaceae). Russia: **EP** (NW, C), **WS** (Zhelochovtsev, Zinovjev, 1996), **ES** (IR), **FE** (KA). – Europe (WE, EE, NE).

**Ametastegia (Protemphytus) tenera** (Fallén, 1808) [Tenthredo] (*Tenthredo patellata* Klug, 1818; *Dolerus luctuosus* Lepeletier, 1823; *D. nigritus* Lepeletier, 1823; *D. luctuosus* Serville, 1823; *D. nigritus* Serville, 1823; *Tenthredo trunculi* Vallot, 1845; *Simplemphytus pacificus* MacGillivray, 1914; *Emphytina vanduzeei* Rohwer, 1915; *Emphytus haustus* MacGillivray, 1923; *E. haliartus* MacGillivray, 1923; *Empria columna* MacGillivray, 1923). Host plant: Acetosa spp., Rumex spp. (Polygonaceae), Filipendula spp. (Rosaceae), Cirsium spp. (Asteraceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (Zhelochovtsev, Zinovjev, 1996), **ES** (IR, BR), **FE** (AM, KH, MG). – Europe (WE, EE, NE, SE), Armenia, Turkey, Iran, Kyrgyzstan, Kazakhstan, Mongolia, China (NW), N America.



- Ametastegia geranii** (Takeuchi, 1929) [Emphytina]. Host plant: Geranium spp. (Geraniaceae). Russia: **FE** (KU). – Japan (Hon, Shi).
- Ametastegia longicornis** (Takeuchi, 1929) [Emphytina]. Russia: **FE** (KU). – Japan (Hon, Shi).
- Ametastegia polygoni** Takeuchi, 1929. Host plant: Polygonum spp. (Polygonaceae). Russia: **FE** (SA, KU). – China (NE), Korean Peninsula, Japan (Hon, Kyu).
- APETHYMUS** Benson, 1939 (*Kjellia* Malaise, 1947). Type species *Dolerus abdominalis* Lepeletier, 1823. The larvae feed on deciduous trees and shrubs. The genus is distributed in Palaearctic and Oriental region. Number of species: World – about 25; Palaearctic – about 24; Russia – 7.
- Apethymus apicalis** (Klug, 1818) [Tenthredo] (*Emphytus klugii* Thomson, 1871). Host plant: Rosa spp. (Rosaceae). Russia: **EP** (Liston, 1995). – Europe (WE, EE, NE), Turkey.
- Apethymus filiformis** (Klug, 1818) [Tenthredo] (*Tenthredo serotina* Klug, 1818; *T. tarsata* Zetterstedt, 1819; *Dolerus abdominalis* Lepeletier, 1823; *D. abdominalis* Serville, 1823; *Emphytus temesiensis* Mocsáry, 1879; *E. serotinus melanopus* Ulbricht, 1913; *E. autumnalis* Forsius, 1933). Host plant: Quercus spp. (Fagaceae). Russia: **EP** (NW). – Europe (WE, EE, NE, SE).
- Apethymus kunugi** Togashi, 2005 (*A. proceratis*: Sundukov, Lelej, 2012). Host plant: Quercus acutissima, Q. mongolicus (Fagaceae). Russia: **FE** (PR). – Japan (Hon).
- Apethymus kuri** Takeuchi, 1952. Host plant: Castanea crenata, Quercus crispula (Fagaceae). Russia: **FE** (KU). – Japan (Hok, Hon, Shi, Kyu).
- Apethymus parallelus** (Eversmann, 1847) [Emphytus]. Russia: **UR**, **FE** (MG).
- Apethymus serotinus** (O.F. Müller, 1776) [Tenthredo] (*Tenthredo braccata* Gmelin, 1790; *T. varicornis* Gmelin, 1790; *T. tibialis* Panzer, 1799; *Emphytus caligatus* Eversmann, 1847; *E. panzeri* W.F. Kirby, 1882). Host plant: Quercus spp. (Fagaceae), Rosa spp. (Rosaceae). Russia: **EP** (NW, C, E, NC), **UR**, **WS** (NS). – Europe (WE, EE, NE, SE), Georgia.
- Apethymus sidorenkoi** Sundukov, 2010. Host plant: Quercus mongolicus (Fagaceae). Russia: **FE** (PR).
- ASIEMPHYTUS** Malaise, 1947. Type species *Macremphytus deutziae* Takeuchi, 1929. The larvae feed on the deciduous trees and shrubs; when pupation is carried into dry branches and bark. The genus is distributed in East Asia and Oriental region. Number of species: World – 10; Palaearctic – 8; Russia – 2.
- Asiemphytus dellei** (Conde, 1935) [Macremphytus]. Host plant: Deutzia crenata (Hydrangeaceae). Russia: **FE** (AM, PR, KU). – China (NE, SE).
- Asiemphytus fasciatus** (Takeuchi, 1929) [Macremphytus]. Host plant: Cornus controversa (Cornaceae). Russia: **FE** (SA). – Japan (Hok, Hon, Shi, Kyu).
- BELESES** Cameron, 1877 (*Anisoneura* Cameron, 1876; *Belesidea* Rohwer, 1916). Type species *Anisoneura stigmatalis* Cameron, 1876. The genus is distributed in East Asia and Oriental region. Number of species: World – 22; Palaearctic – 14; Russia – 1.
- Beleses satonis** (Takeuchi, 1929) [Abeleses]. Host plant: Actinidia arguta (Actinidiaceae). Russia: **FE** (KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- DINAX** Konow, 1897 (*Adamas* Malaise, 1945). Type species *Dinax jakowleffi* Konow, 1897. The larvae feed on the Rosaceae. The genus is distributed mainly in East Asia; one species in Oriental region, and one species up to the Urals. Number of species: World – 6; Palaearctic – 5; Russia – 2.
- Dinax ermak** (Zhelochovtsev, 1968) [Adamas]. Host plant: Spiraea spp. (Rosaceae). Russia: **EP** (E), **UR**, **ES** (ZB), **FE** (MG). – Europe (EE).
- Dinax jakowleffi** Konow, 1897. Host plant: Spiraea spp. (Rosaceae). Russia: **ES** (IR, YA), **FE** (AM, KH, PR). – China (NE).
- EMPRIA** Lepeletier et Serville, 1828 (*Poecilostoma* Dahlbom, 1835; *Prosecris* Gistel, 1848; *Poecilostoma* Thomson, 1870; *Poecilostomidea* Ashmead, 1898; *Tetratneura* Ashmead, 1898; *Parataxonus* MacGillivray, 1908; *Leucempria* Enslin, 1913; *Triempria* Enslin, 1914). Type species *Dolerus pallimacula* Lepeletier, 1823. The larvae mainly feed on Rosaceae, some on Betula (Betulaceae) and Salix (Salicaceae). The genus is distributed in Holarctic, Oriental and Neotropical regions. Number of species: World – about 50; Palaearctic – about 40; Russia – 28.
- Empria alector** Benson, 1938. Host plant: Filipendula spp. (Rosaceae). Russia: **EP** (N, NW, C, E), **WS** (Zelochovtsev, 1988). – Europe (WE, EE, NE).
- Empria alpina** Benson, 1938. Host plant: Dryas spp. (Rosaceae). Russia: **EP** (NW). – Europe (WE, NE).

- Empria archangelskii** Dovnar-Zapolskij, 1929. Russia: **EP** (NC). – Caucasus, SW Asia.
- Empria basalis** Lindqvist, 1968. Host plant: Geum spp. (Rosaceae). Russia: **EP** (N). – Europe (WE, EE, NE).
- Empria camtschatica** Forsius, 1928. Host plant: Salix spp. (Salicaceae). Russia: **FE** (KA). – Europe (NE).
- Empria candidata** (Fallén, 1808) [Tenthredo] (*Tenthredo repanda* Klug, 1816). Host plant: Betula spp. (Betulaceae). Russia: **EP** (NW, C, E), **WS** (NS), **ES** (IR, BR, YA), **FE** (AM, KH, PR, KA). – Europe (WE, EE, NE, SE), Kazakhstan, Mongolia, China (NE), Korean Peninsula, Japan (Hok), N America.
- Empria excisa** (Thomson, 1871) [Poecilosoma] (*E. africana* Forsius, 1918). Host plant: Filipendula spp. (Rosaceae). Russia: **EP** (N). – Europe (WE, EE, NE, SE), N Africa, Turkey.
- Empria fletcheri** (Cameron, 1878) [Poecilosoma]. Host plant: Betula spp. (Betulaceae). Russia: **EP** (N), **WS** (TM), **ES** (TU, BR). – Europe (WE, NE), Mongolia.
- Empria gelida** (Erichson, 1851) [Tenthredo]. Russia: **FE** (KH).
- Empria hungarica** (Konow, 1895) [Poecilosoma] (*E. zacharovi* Dovnar-Zapolskij, 1929). Host plant: Filipendula spp. (Rosaceae). Russia: **EP** (C, S, NC). – Europe (WE, EE, NE, SE), Kazakhstan.
- Empria immersa** (Klug, 1818) [Tenthredo] (*Selandria labialis* Brullé, 1832; *Tenthredo opacomaculata* Eversmann, 1847; *Emphytus majalis* Snellen van Vollenhoven, 1869; *Empria tirolensis* Enslin, 1914). Host plant: Salix spp. (Salicaceae). Russia: **EP** (NW, E), **UR**, **WS** (Zhelochovtsev, Zinovjev, 1996), **ES** (IR, BR, YA), **FE** (AM, KH, MG). – Europe (WE, EE, NE, SE), Mongolia.
- Empria liturata** (Gmelin, 1790) [Tenthredo] (*Tenthredo guttata* Fallén, 1808; *T. impressa* Klug, 1816; *Emphytus pallimaculatus* Stephens, 1835; *Tenthredo spuria* Zetterstedt, 1838; *Emphytus fenestratus* Eversmann, 1847; *E. vernalis* Dietrich, 1868; *Poecilosoma submutica* Thomson, 1871; *P. undulata* Konow, 1885; *Harpiphorus calderoni* Medina, 1888). Host plant: Filipendula spp., Fragaria spp., Geum spp., Rubus spp. (Rosaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (NS, KM), **ES** (KR, IR, YA), **FE** (MG). – Europe (WE, EE, NE, SE), Turkey, Mongolia, Japan (Hok).
- Empria loktini** Ermolenko, 1971. Host plant: Geum japonicum, G. calthifolium (Rosaceae). Russia: **FE** (SA). – Japan (Hok).
- Empria longicornis** (Thomson, 1871) [Poecilosoma] (*E. rubi* Kontuniemi, 1951). Host plant: Rubus spp. (Rosaceae). Russia: **EP** (NW, C, E), **WS** (Zhelochovtsev, Zinovjev, 1996), **ES** (Zhelochovtsev, Zinovjev, 1996). – Europe (WE, EE, NE, SE), Mongolia.
- Empria mongolica** (Konow, 1895) [Poecilosoma]. Russia: **ES** (TU). – Mongolia, China (NC).
- Empria pallimacula** (Serville, 1823) [Dolerus] (*Dolerus pallimacula* Lepeletier, 1823; *Empria baltica* Conde, 1937). Host plant: Filipendula spp. (Rosaceae). Russia: **EP** (NW, C, E, S, NC), **UR**, **WS** (NS, KM), **ES** (YA). – Europe (WE, EE, NE, SE), Armenia.
- Empria parvula** (Konow, 1892) [Poecilosoma] (*E. pseudoklugi* Dovnar-Zapolskij, 1929; *E. kuznetzovi* Dovnar-Zapolskij, 1929). Host plant: Geum spp. (Rosaceae). Russia: **EP** (N, NW, C, E, S), **FE** (AM, PR). – Europe (WE, EE, NE, SE), Mongolia.
- Empria plana** (Jakovlev, 1891) [Poecilosoma] (*Tenthredo hybrida* Erichson, 1851; *Empria itelmena* Malaise, 1931; *E. erichsoni* Liston, 1995). Host plant: Salix spp. (Salicaceae). Russia: **WS** (Lelej, Taeger, 2007), **ES** (IR), **FE** (AM, KH, PR, KA, MG). – Mongolia, Japan (Hok, Hon).
- Empria pravei** Dovnar-Zapolskij, 1925. Russia: **EP** (NC). – Armenia, Iran.
- Empria pumila** (Konow, 1896) [Poecilosoma]. Host plant: Filipendula spp. (Rosaceae). Russia: **EP** (NW, E), **WS** (KM). – Europe (WE, EE, NE, SE), Kazakhstan.
- Empria pumiloides** Lindqvist, 1968 (*E. tricornis* Lindqvist, 1968). Host plant: Filipendula spp. (Rosaceae). Russia: **EP** (Heidema, Prous, 2006). – Europe (WE, NE).
- Empria quadrimaculata** Takeuchi, 1952. Host plant: Rosa multiflora, Potentilla indica, ?Rubus parvifolius (Rosaceae). Russia: **FE** (KU). – Japan (Hon, Shi, Kyu).
- Empria rubicola** Ermolenko, 1971. Russia: **FE** (SA). – Japan (Hok).
- Empria sexpunctata** (Serville, 1823) [Tenthredo] (*Tenthredo sexpunctata* Lepeletier, 1823; *Selandria klugii* Stephens, 1835; *Poecilosoma guttata* Thomson, 1871; *P. carbonarium* Konow, 1884; *Empria waldstaetterense* Liston, 1980). Host plant: Geum spp. (Rosaceae). Russia: **EP** (NW, C, E, S, NC), **UR**. – Europe (WE, EE, NE, SE), Georgia, Armenia.
- Empria testaceipes** (Konow, 1896) [Poecilosoma]. Host plant: Sanguisorba officinalis (Rosaceae).

- Russia: **EP** (E), **ES** (IR), **FE** (AM). – Europe (WE, EE, NE), SW Asia, Mongolia.
- Empria tridens** (Konow, 1896) [Poecilosoma] (*E. caucasica* Dovnar-Zapolskij, 1929; *E. gussakovskii* Dovnar-Zapolskij, 1929; *E. konowi* Dovnar-Zapolskij, 1929). Host plant: *Geum japonicum*, *Filipendula camtschatica*, *Rubus* spp. (Rosaceae). Russia: **EP** (NW, C, E, S, NC), **UR**, **ES** (TU, IR), **FE** (AM, PR, SA, KA). – Europe (WE, EE, NE, SE), Turkey, Mongolia, Japan (Hok).
- Empria tridentis** Lee et Ryu, 1996. Host plant: *Geum japonicum*, *Filipendula camtschatica* (Rosaceae). Russia: **FE** (KH, PR, SA). – Korean Peninsula, Japan (Hok).
- Empria ushinskii** Dovnar-Zapolskij, 1929. **EP** (NC, CR). – Europe (EE).
- EOPSIS** Benson, 1959. Type species *Eopsis beaumonti* Benson, 1959. The genus is distributed in West Palaearctic. Number of species: one West Palaearctic species.
- Eopsis beaumonti** Benson, 1959 (*Monosoma mosquense* Zhelochovtsev, 1981). Host plant: *Rumex* spp., *Polygonum* spp. (Polygonaceae). Russia: **EP** (C). – Europe (WE, EE).
- ERIOCAMPA** Hartig, 1837 (*Brachyocampa* Zirngiebl, 1956). Type species *Tenthredo ovata* Linnaeus, 1760. The genus is distributed in Holarctic and Oriental region; one species was introduced into North America. Number of species: World – about 20; Palaearctic – 15; Russia – 6.
- Eriocampa albipes** Matsumura, 1912. Host plant: *Alnus* spp. (Betulaceae). Russia: **FE** (AM, KH, SA). – Korean Peninsula, Japan (Hok, Hon, Shi).
- Eriocampa dorpatica** Konow, 1887. Host plant: black currant – *Ribes nigrum* and others (Grossulariaceae). Russia: **EP** (NW, C, E), **UR**, **ES** (KR, IR). – Europe (NE).
- Eriocampa mitsukurii** Rohwer, 1910. Host plant: *Alnus* spp. (Betulaceae). Russia: **FE** (AM, KH, PR, SA, KU). – China (SE), Japan (Hok, Hon, Shi).
- Eriocampa ovata ovata** (Linnaeus, 1760) [Tenthredo] (*Tenthredo gossypina* Retzius, 1783; *T. vernalis* Geoffroy, 1785; *T. leucogona* Schrank, 1802; *Eriocampa ovata nigritibiis* Enslin, 1914). Host plant: *Alnus* spp. (Betulaceae), *Rhamnus* spp., *Frangula* spp. (Rhamnaceae), *Salix* spp. (Salicaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**. – Europe (WE, EE, NE, SE), Georgia, Turkey; introduced into N America.
- Eriocampa peineae** Zirngiebl, 1956. Russia: **EP** (Lacourt, 1999). – Iran.
- Eriocampa umbratica** (Klug, 1816) [Tenthredo]. Host plant: *Alnus* spp. (Betulaceae). Russia: **EP** (N, NW, C, E, S, NC). – Europe (WE, EE, NE, SE), Georgia, Turkey.
- ERIOCAMPOPSIS** Takeuchi, 1952. Type species *Eriocampopsis subtruncata* Takeuchi, 1952. The genus is distributed in East Asia. Number of species: World and Palaearctic – 2; Russia – 1.
- Eriocampopsis subtruncata** Takeuchi, 1952. Host plant: *Actaea* spp. (Ranunculaceae). Russia: **FE** (PR). – Japan (Hon).
- FILIXUNGULIA** Wei, 1997. Type species *Filixungulia alboclypea* Wei, 1997. East Palaearctic genus. Palaearctic – 3 species, Russia – 1.
- Filixungulia alboclypea** Wei, 1997. Russia: **FE** (PR). – China (NE).
- HARPIPHORUS** Hartig, 1837 (*Asticta* Newman, 1838; *Harpophorus* Agassiz, 1848). Type species *Tenthredo lepida* Klug, 1818. The larvae feed on the *Quercus* (Fagaceae). The genus is distributed in West Palaearctic. Number of species: one species.
- Harpiphorus lepidus** (Klug, 1818) [Tenthredo] (*Fenusa ianthe* Newman, 1837). Host plant: *Quercus robur* (Fagaceae). Russia: **EP** (NW, C). – Europe (WE, EE, NE, SE).
- HEMIBELESES** Takeuchi, 1929. Type species *Hemibeleseles nigriceps* Takeuchi, 1929. The genus is distributed in East Asia and Oriental region. Number of species: World – about 20; Palaearctic – 14; Russia – 1.
- Hemibeleseles ventralis** Takeuchi, 1952. Russia: **FE** (PR). – Korean Peninsula, Japan (Hon, Shi, Kyu).
- HEPTAPOTAMIUS** Malaise, 1935. Type species *Heptapotamius simini* Malaise, 1935. The genus is distributed in Central Eurasia. Number of species: one species.
- Heptapotamius simini** Malaise, 1935. Russia: **EP** (S). – Uzbekistan, Kyrgyzstan, Kazakhstan.
- MONOSTEGIA** Costa, 1859 (*Nematoceros* Konow, 1896). Type species *Tenthredo luteola* Klug, 1816. The larvae pupate in the soil. The genus is distributed in Palaearctic; one species was introduced

into N America. Number of species: World and Palaearctic – 5; Russia – 2.

**Monostegia abdominalis** (Fabricius, 1798) [Tenthredo] (*Tenthredo luteola* Klug, 1816; *Monostegia martini* MacGillivray, 1908; *M. nearctica* Rohwer, 1912; *Empria abdominalis rufinotis* Enslin, 1914). Host plant: *Lysimachia* spp., *Anagallis* spp. (Primulaceae), *Lactuca* spp. (Asteraceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (Zhelochovtsev, Zinovjev, 1996), **ES** (IR, YA), **FE** (AM, PR). – Europe (WE, EE, NE, SE), Azerbaijan, Armenia, SW Asia, Kyrgyzstan, Kazakhstan, China (Wei et al., 2006); introduced into N America.

**Monostegia cingulata** (Konow, 1891) [Poecilosoma]. Russia: **EP** (NC). – Georgia.

**MONSOMA** MacGillivray, 1908 (*Monosoma* Viereck, 1910). Type species *Poecilostoma inferentia* Norton, 1868. The larvae feed on Betulaceae. The genus is distributed in Holarctic. Number of species: World – 4; Palaearctic – 3; Russia – 2.

**Monsoma pallipes** (Matsumura, 1912) [Poecilosoma]. Host plant: ?*Alnus* spp. (Betulaceae). Russia: **WS** (Zhelochovtsev, Zinovjev, 1996), **ES** (Zhelochovtsev, Zinovjev, 1996), **FE** (PR). – Japan (Hok).

**Monsoma pulveratum** (Retzius, 1783) [Tenthredo] (*Tenthredo limbata* Gmelin, 1790; *T. pulverulenta* Christ, 1791; *T. obesa* Klug, 1817; *T. obtusa* Klug, 1817; *Selandria pulchella* Stephens, 1835; *Tenthredo leucozonias* Hartig, 1837; *T. segmentata* Zetterstedt, 1838; *Harpiphorus taeniatus* Costa, 1869; *Empria pulverata obtusalis* Enslin, 1914). Host plant: *Alnus* spp. (Betulaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **WS** (KM). – Europe (WE, EE, NE, SE), N Africa, Caucasus, SW Asia; introduced into N America.

**STENEMPHYTUS** Wei et Nie, 1999. Type species *Stenemphytus superbis* Wei et Nie, 1999. The genus is distributed in East Asia and Oriental region. Number of species: World – 4; Palaearctic – 2; Russia – 1.

**Stenemphytus nakabusensis** (Takeuchi, 1929) [Allantus]. Host plant: *Prunus* spp. (Rosaceae). Russia: **FE** (KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

**TAXOBLENUS** Wei et Nie, 1999. Type species *Taxoblenus longicornis* Wei et Nie, 1999. The genus is distributed in Palaearctic and Oriental region. Number of species: World – 11; Palaearctic – 8; Russia – 1.

**Taxoblenus latus** (Jakovlev, 1888) [Taxonus] (*Taxonus ballioni* Konow, 1891). Russia: **EP** (S), **ES** (IR, ZB).

**TAXONUS** Hartig, 1837 (*Ermilia* Costa, 1859; *Parasiobla* Ashmead, 1898; *Strongylogastroidea* Ashmead, 1898; *Hypotaxonus* Ashmead, 1898). Type species *Tenthredo nitida* Klug, 1817. The larvae pupate in the soil. The genus is distributed in Holarctic and Oriental region. Number of species: World – 60; Palaearctic – about 45; Russia – 7.

**Taxonus abdominis** Lee et Ryu, 1996. Russia: **FE** (PR). – Korean Peninsula.

**Taxonus agrorum** (Fallén, 1808) [Tenthredo] (*Tenthredo nitida* Klug, 1817; *Perineura dualis* Förster, 1844; *Tenthredo anomala* Eversmann, 1847; *T. subjecta* Eversmann, 1847; *Ermilia pulchella* Costa, 1859; *Strongylogaster rubrofasciatus* Palma, 1861; *Taxonus creperus* Konow, 1900). Host plant: *Rubus* spp. (Rosaceae). Russia: **EP** (NW, C, E), **UR**, **WS** (Zhelochovtsev, Zinovjev, 1996), **ES** (IR, BR, YA, ZB), **FE** (KH). – Europe (WE, EE, NE, SE), Turkey, Japan (Hok, Hon, Shi, Kyu).

**Taxonus carbonarius** Takeuchi, 1929. Russia: **FE** (PR). – China (SE).

**Taxonus delumbis** Konow, 1900 (*T. kamtchaticus* Malaise, 1931). Host plant: *Populus* spp. (Salicaceae). Russia: **ES** (KR, IR, BR, YA), **FE** (PR, SA, KA, MG). – China (Wei et al., 2006), Korean Peninsula, Japan (Togashi, 2000).

**Taxonus fluvicornis** Matsumura, 1912 (*Conaspidia bergrothi* Forsius, 1925). Host plant: *Polygonum cuspidatum* (Polygonaceae). Russia: **FE** (SA, KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

**Taxonus sticticus** (Klug, 1817) [Tenthredo]. Host plant: *Rosa* spp. (Rosaceae). Russia: **EP** (S, NC), **ES** (IR). – Europe (WE, EE, SE), Turkey.

**Taxonus zhelochovtsevi** Viitasaari et Zinovjev, 1991. Russia: **FE** (KH, PR). – China (NE).

#### Unplaced Allantinae

**Emphytus albisternus** André, 1882. Russia: “Amur” (?*Ametastegia* Costa, 1882; see Blank et al., 2009).

#### Subfamily ATHALIINAE

**ATHALIA** Leach, 1817 (*Dentathalia* Benson, 1931). Type species *Tenthredo spinarum* Fabricius, 1793. The larvae feed on the Brassicaceae and Lamiaceae. The genus is distributed in Palaearctic,

Oriental and Afrotropic regions. Number of species: World – about 95; Palaearctic - > 45; Russia – 18 (+ 3 spp.).

- Athalia ahngeri** Kokujev, 1910. Russia: **EP** (Lacourt, 1999). – Azerbaijan, Armenia, Uzbekistan, Kazakhstan.
- Athalia ancilla ancilla** Serville, 1823 (*A. ancilla* Lepeletier, 1823; *A. glabricollis* Thomson, 1870; *A. glabricollis bulgarica* Gregor, 1932). Host plant: *Daucus* spp. (Apiaceae). Russia: **EP** (C, NC, CR), **UR**, **WS** (NS). – Europe (WE, EE, NE, SE), N Africa, Georgia, Turkey.
- Athalia bicolor** Serville, 1823 (*Tenthredo annulata* Fabricius, 1787; *Athalia richardi* Serville, 1823; *A. richardi* Lepeletier, 1823; *A. bicolor* Lepeletier, 1823; *A. bicolor nigritegulis* Enslin, 1918). Host plant: ?*Ranunculus* spp. (Ranunculaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **WS** (NS). – Europe (WE, EE, NE, SE), N Africa, Caucasus, Turkey, Turkmenistan.
- Athalia circularis circularis** (Klug, 1815) [Tenthredo] (*Tenthredo annulata* Gmelin, 1790; *Athalia lineolata* Lepeletier, 1823; *A. lineolata* Serville, 1823; *A. rosae sternalis* Costa, 1894; *A. bolivari* Dusmet, 1896; ?*A. lineolata niezabitowskii* Szulczewski, 1938; ?*A. lineolata gorakaensis* Szulczewski, 1938; *A. cordatoides* Kontuniemi, 1951; *A. alpina* Chevin, 1969). Host plant: Plantaginaceae, Asteraceae, Lamiaceae, etc. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (NS, KM, AL), **ES** (KS, KR). – Europe (WE, EE, NE, SE), N Africa, Caucasus, Turkey, Pakistan, Uzbekistan, Tajikistan, Kazakhstan, India (NW).
- Athalia circularis melanoptera** Benson, 1962. Host plant: Plantaginaceae, Asteraceae, Lamiaceae, etc. Russia: **ES** (IR, ZB), **FE** (AM, SA, KU, KA). – Mongolia, China (NE), Korean Peninsula.
- Athalia cordata** Serville, 1823 (*A. suessionensis* Serville, 1823; *A. suessionensis* Lepeletier, 1823; *A. cordata* Lepeletier, 1823; *A. blanchardi* Brullé, 1846; *A. rosae obscura* Konow, 1884; *A. lineolata analis* Enslin, 1913). Host plant: Plantaginaceae and Lamiaceae. Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, EE, NE, SE), N Africa, Caucasus, SW Asia.
- Athalia cornubiae** Benson, 1931. Host plant: *Sedum* spp. (Crassulaceae). Russia: **EP** (CR). – Europe (WE, EE, SE), Georgia, Armenia, Turkey, Uzbekistan; introduced into N America.
- Athalia decorata** Konow, 1900. Russia: **ES** (KS, KR, IR, BR, ZB), **FE** (AM, PR). – China (SW).
- Athalia dimidiata** Konow, 1891. Russia: **EP** (Lacourt, 1999). – Georgia, Armenia, Turkey.
- Athalia infumata** (Marlatt, 1898) [Phyllotoma] (*A. nigrinotum* Matsumura, 1912). Host plant: *Cardamine* spp., *Nasturtium* spp., *Rorippa* spp., *Brassica* spp. (Brassicaceae). Russia: **FE** (PR, SA, KU). – China (SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu), India.
- Athalia japonica** (Klug, 1815) [Tenthredo] (*A. novitola* Kokujev, 1927). Host plant: Brassicaceae. Russia: **WS** (AL), **ES** (KS, KR, IR), **FE** (AM, KH, PR, SA, KU). – Kazakhstan, China (NE, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu), India.
- Athalia liberta** (Klug, 1815) [Tenthredo] (*A. rosae immaculata* Konow, 1884). Host plant: Brassicaceae. Russia: **EP** (NW, C, E, S, NC), **UR**, **ES** (KR). – Europe (WE, EE, NE, SE), Caucasus, Turkey, Iran, Tajikistan, Uzbekistan, Kyrgyzstan, China (NW, SW), India.
- Athalia longifoliae** Kontuniemi, 1951. Host plant: *Veronica longifolia* (Plantaginaceae). Russia: **EP** (NW, C, S, NC). – Europe (WE, NE), Central Asia, Kazakhstan.
- Athalia lugens** (Klug, 1815) [Tenthredo] (*A. lugens flavoscutellata* Enslin, 1918). Host plant: *Ajuga reptans* (Lamiaceae), ?Brassicaceae. Russia: **EP** (NW, C, NC, CR), **WS** (NS), **ES** (BR), **FE** (PR, KA). – Europe (WE, EE, NE, SE), Georgia, China (NE), Korean Peninsula, Japan (Hon), India, SE Asia.
- Athalia proxima** (Klug, 1815) [Tenthredo] (*A. tibialis* Cameron, 1876; *A. spinarum orientalis* Cameron, 1877; *A. proxima funebris* Forsius, 1925; *A. colibri kuroiwae* Matsumura et Uchida, 1926; *A. lugens camtschatica* Forsius, 1928; *A. lugens tristis* Forsius, 1934). Host plant: Brassicaceae. Russia: **FE** (KH, PR, SA, KU, KA). – China (SE), Korean Peninsula, Japan (Ryu), India, SE Asia.
- Athalia rosae rosae** (Linnaeus, 1758) [Tenthredo] (*Tenthredo colibri* Christ, 1791; *T. spinarum* Fabricius, 1793; *T. centifoliae* Panzer, 1797). Host plant: Brassicaceae. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (NS, KM, AL), **ES** (KS, KR). – Europe (WE, EE, NE, SE), N Africa, Caucasus, SW Asia, Kazakhstan.
- Athalia rosae ruficornis** Jakovlev, 1888 (*A. leucostoma* Cameron, 1904; *A. spinarum japonensis* Rohwer, 1910). Host plant: Brassicaceae. Russia: **ES** (IR, BR), **FE** (AM, KH, PR, SA, KU). – Mongolia, China (NE, NC, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu), India.

**Athalia rufoscutellata** Mocsáry, 1879 (*A. maculata* Mocsáry, 1879; *A. maritima* W.F. Kirby, 1884; *A. rufoscutellata mocsaryi* Konow, 1892; *A. rufoscutellata nigroscutellata* Konow, 1892; *A. rufoscutellata pleuralis* Konow, 1898; *A. rufoscutellata obscurata* Konow, 1904). Host plant: *Teucrium* spp. (Lamiaceae). Russia: **EP** (S, NC, CR). – Europe (WE, EE, SE), Georgia, Armenia, Turkey, China (Wei et al., 2006).

**Athalia scutellariae scutellariae** Cameron, 1880 (*Dentathalia galericulatae* Kontuniemi, 1951). Host plant: *Scutellaria* spp., *Lycopus* spp. (Lamiaceae). Russia: **EP** (NW, C, E). – Europe (WE, EE, NE, SE), Turkey, Kyrgyzstan.

**Athalia scutellariae flammula** Zhelochovtsev, 1927. Host plant: *Scutellaria* spp. (Lamiaceae). Russia: **ES** (IR, ZB), **FE** (AM, KH, PR). – Mongolia, China (NC).

**Athalia yanoi** Takeuchi, 1952. Russia: **FE** (KH, PR, SA, KU). – Japan (Hok, Hon).

#### Subfamily BLENNOCAMPINAE (HETERARTHRIINAE)

**ANAFENUSA** Benson, 1959. Type species *Entodecta impropria* Malaise, 1931. The genus is distributed in East Asia and Oriental region. Number of species: World – 4; Palaearctic – 3; Russia – 1.

**Anafenusia impropria** (Malaise, 1931) [Entodecta]. Russia: **FE** (PR).

**APAREOPHORA** Sato, 1928. Type species *Apareophora forsythiae* Sato, 1928. The genus is distributed in Holarctic and Oriental region. Number of species: World – 8; Palaearctic – 6; Russia – 1.

**Apareophora coreana** Sato, 1928. Russia: **FE** (PR). – China (NC), Korean Peninsula.

**ARDIS** Konow, 1886 (*Valco* Ross, 1937). Type species *Tenthredo bipunctata* Klug, 1817. The larvae without spines on the body; borer the branches of *Rosa* (Rosaceae); go down the branch. The genus is distributed in Holarctic. Number of species: World – 5; Palaearctic – 4; Russia – 1.

**Ardis pallipes** (Serville, 1823) [Dolerus] (*Tenthredo bipunctata* Klug, 1817; *Dolerus pallipes* Lepeletier, 1823; *Tenthredo bruniventris* Hartig, 1837; *Monophadnus dissimilis* Costa, 1859; *Selandria irrogata* Cresson, 1880; *Emphytus dubius* W.F. Kirby, 1882; *Aphanisus odoratus* MacGillivray, 1908;

*A. parallelus* MacGillivray, 1923). Host plant: *Rosa* spp. (Rosaceae). Russia: **EP** (N, NW, C, E, S, NC), **FE** (MG). – Europe (WE, EE, NE, SE), Central Asia, China (Wei et al., 2006), Japan (Hon); introduced into N America.

**BLENNOCAMPA** Hartig, 1837. Type species *Tenthredo pusilla* Klug, 1816. The larvae with branched spines on the body; feeding on Rosaceae. The genus is distributed in Palaearctic, Oriental and Neotropical regions. Number of species: World – 10; Palaearctic – 3; Russia – 2.

**Blennocampa phyllocolpa** Viitasaari et Vikberg, 1985 (*Tenthredo pusilla* Klug, 1816). Host plant: *Rosa* spp. (Rosaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **ES** (IR), **FE** (AM, SA, KA, MG). – Europe (WE, EE, NE, SE), Turkey, Central Asia, Kazakhstan, China (NW).

**Blennocampa sibirica** Jakovlev, 1891. Russia: **ES** (IR).

**CALIROA** Costa, 1859 (*Eriocampoides* Konow, 1890; *Perichistoptera* Ashmead, 1898). Type species *Caliroa sebetia* Costa, 1859. The larvae are covered with mucus; skeletonize of leaves of trees and shrubs, pupate in the soil. The genus is distributed in Holarctic and Oriental region; was introduced into the Neotropical, Ephiopian and Australasian regions. Number of species: World – about 60; Palaearctic – 30; Russia – 7.

**Caliroa angustata** Forsius, 1927. Russia: **FE** (AM). – China (CC, SE).

**Caliroa annulipes** (Klug, 1816) [Tenthredo] (*Selandria atra* Stephens, 1835; *Eriocampa myrtilli* Brischke, 1889). Host plant: Salicaceae, Betulaceae, Fagaceae, Cannabaceae, etc. Russia: **EP** (N, NW, C, E), **UR**, **ES** (IR, BR, YA), **FE** (KA, MG). – Europe (WE, EE, NE, SE), Turkey, China (Wei et al., 2006), Japan (Hon), N America.

**Caliroa cerasi** (Linnaeus, 1758) [Tenthredo] (*Tenthredo flavipes* Schrank, 1781; *T. limacina* Retzius, 1783; *T. adumbrata* Klug, 1816; *Monostegia antipoda* W.F. Kirby, 1881; *Caliroa laudata* MacGillivray, 1909; *C. lacinata* MacGillivray, 1909). Host plant: Rosaceae, Salicaceae, Fagaceae, etc. Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (NS), **FE** (AM, KH, PR). – Europe (WE, EE, NE, SE), N Africa, SW Asia, Uzbekistan, Kyrgyzstan, Kazakhstan, China (NE, CC, SW, SE); introduced into N America, S America, S Africa, Australia, New Zealand.

- Caliroa cinxia** (Klug, 1816) [Tenthredo]. Host plant: *Quercus* spp. (Fagaceae). Russia: **EP** (C, S, NC). – Europe (WE, EE, NE, SE).
- Caliroa oishii** (Takeuchi, 1933) [Eriocampoides]. Host plant: *Quercus* spp. (Fagaceae). Russia: **FE** (PR, SA). – China (NE), Korean Peninsula, Japan (Hon).
- Caliroa tremulae** Chevin, 1974. Host plant: *Populus tremula* (Salicaceae). Russia: **EP** (NW). – Europe (WE, EE, NE).
- Caliroa varipes** (Klug, 1816) [Tenthredo] (*Eriocampa crassicornis* Tischbein, 1846; *Eriocampoides variipes* Dalla Torre, 1894). Host plant: *Salix* spp. (Salicaceae), *Betula* spp. (Betulaceae), *Quercus robur* (Fagaceae). Russia: **EP** (NW, C, S, NC), **WS** (Zhelochovtsev, Zinovjev, 1996), **FE** (AM, PR). – Europe (WE, EE, NE), Turkey, Japan (Hok).
- CLADARDIS** Benson, 1952. Type species *Tenthredo elongatula* Klug, 1817. The larvae borer the branches of *Rosa* (Rosaceae); move from top to bottom along the branch. The genus is distributed in Palaearctic; one species in Oriental region. Number of species: World and Palaearctic – 4; Russia – 2.
- Cladardis elongatula** (Klug, 1817) [Tenthredo]. Host plant: *Rosa* spp. (Rosaceae). Russia: **EP** (NW, C, E), **FE** (PR). – Europe (WE, EE, NE, SE), Turkey, Mongolia.
- Cladardis hartigi** Liston, 1995 (*Tenthredo semicincta* Hartig, 1837). Host plant: *Rosa* spp. (Rosaceae). Russia: **EP** (NW). – Europe (WE, EE, NE).
- CLAREMONTIA** Rohwer, 1909 (*Pseudoblennocampa Malaise*, 1935). Type species *Claremontia typica* Rohwer, 1909. The larvae feed on herbaceous of Rosaceae. The genus is distributed in Holarctic; one species in Oriental region. Number of species: World – 16; Palaearctic – 9; Russia – 7.
- Claremontia alternipes** (Klug, 1816) [Tenthredo] (*Tenthredo maura* Schrank, 1802; *Blennocampa divisa* Konow, 1884; *B. intermedia* Kriechbaumer, 1885; *B. tergestina* Kriechbaumer, 1888; *B. finitima* Konow, 1900). Host plant: *Rubus* spp. (Rosaceae). Russia: **EP** (NW, C, S, NC, CR), **WS** (Lelej, Taeger, 2007), **ES** (IR), **FE** (MG). – Europe (WE, EE, NE, SE), Mongolia.
- Claremontia brevicornis** (Brischke, 1883) [Blennocampa] (*Blennocampa confusa* Konow, 1886; *B. mixta* Malaise, 1920). Host plant: *Fragaria* spp., *Potentilla* spp., *Sanguisorba* spp. (Rosaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (KM), **ES** (IR). – Europe (WE, EE, NE, SE), Mongolia.
- Claremontia puncticeps** (Konow, 1886) [Blennocampa]. Host plant: *Poterium sanguisorba* (Rosaceae). Russia: **EP** (C, E), **WS** (NS), **ES** (IR), **FE** (AM, PR). – Europe (WE, SE), Turkey, Kyrgyzstan, Kazakhstan.
- Claremontia springatei** Koch, 1988. Russia: **ES** (IR).
- Claremontia tenuicornis** (Klug, 1816) [Tenthredo] (*Phyllotoma conformis* Fallén, 1829; *Selandria tibialis* Stephens, 1835; *Blennocampa spiraeae* Brischke, 1883). The larvae feed on the *Spiraea* spp., *Filipendula* spp., *Alchemilla* spp. (Rosaceae). Russia: **EP** (N, NW, C, E, NC), **UR**, **ES** (IR), **FE** (PR, MG). – Europe (WE, EE, NE, SE), Armenia, Turkey, China (Wei et al., 2006).
- Claremontia uncta** (Klug, 1816) [Tenthredo] (*Selandria humeralis* Snellen van Vollenhoven, 1869; *Blennocampa lioparea* Konow, 1884). Russia: **EP** (Liston, 1995). – Europe (WE, EE, NE).
- Claremontia waldheimii** (Gimmerthal, 1847) [Tenthredo] (*Selandria subcana* Zaddach, 1859; *Blennocampa subserrata* Thomson, 1870; *B. subcana angularis* Konow, 1895). Host plant: *Geum* spp. (Rosaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (NS), **ES** (Zhelochovtsev, Zinovjev, 1996), **FE** (AM, PR). – Europe (WE, EE, NE, SE), Armenia, Turkey, Mongolia.
- ENDELOMYIA** Ashmead, 1898. Type species *Selandria rosae* T.W. Harris, 1841. The larvae skeletonize of leaves of trees and shrubs, pupate in the soil. The genus is distributed in Palaearctic and Oriental region; one wasv species introduced into N America. Number of species: World and Palaearctic – 3; Russia – 1.
- Endelomyia aethiops** (Gmelin, 1790) [Tenthredo] (*Tenthredo morio* Fabricius, 1781; *T. atratula* Dahlbom, 1835; *Selandria rosae* T.W. Harris, 1841; *Eriocampa livonensis* Gimmerthal, 1844; *E. nitida* Tischbein, 1846; *Tenthredo dolosa* Eversmann, 1847; *Emphytus radialis* Eversmann, 1847; *Selandria soror* Snellen van Vollenhoven, 1869; *Eriocampa atratula* Thomson, 1870; *E. testaceipes* Cameron, 1874; *E. caninae* Cameron, 1878; *Poecilosoma nigricolle* Cameron, 1882). Host plant: *Rosa* spp. (Rosaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (AL), **FE** (PR). – Europe (WE, EE, NE, SE), Georgia, Armenia, Kyrgyzstan; introduced into N America.
- ENDEMYOLIA** Wei, 1998. Type species *Endemyolia genata* Wei, 1998. The larvae skeletonize of leaves of trees and shrubs, pupate in the soil. The genus is distributed in East Asia and Oriental

region. Number of species: World – 6; Palaearctic – 1; Russia – 1.

**Endemyolia negativa** (Malaise, 1931) [Caliroa]. Russia: **FE** (PR). – China (Wei et al., 2006).

**EUPAREOPHORA** Enslin, 1914. Type species *Blennocampa exarmata* Thomson, 1871. The genus is distributed in West Palaearctic and Nearctic. Number of species: World – 2; Palaearctic – 1; Russia – 1.

**Eupareophora exarmata** (Thomson, 1871) [Blennocampa]. Host plant: Fraxinus spp. (Oleaceae). Russia: **EP** (NC). – Europe (WE, EE, NE), Georgia.

**EURHADINOCERAEA** Enslin, 1920 (*Pseudoblennocampa* Malaise, 1935). Type species *Rhadinoceraea roseni* Enslin, 1920. The larvae feed on the Ranunculaceae. The genus is distributed in Palaearctic and Oriental region. Number of species: World – 16; Palaearctic – 15; Russia – 4.

**Eurhadinoceraea athalioides** (Jakovlev, 1891) [Monophadnus] (*Rhadinoceraea singularis* Konow, 1897). Host plant: Clematis spp., Pulsatella spp. (Ranunculaceae). Russia: **EP** (NC), **FE** (PR). – Europe (WE), Armenia, China (NC).

**Eurhadinoceraea roseni** (Enslin, 1920) [Rhadinoceraea]. Host plant: Clematis spp. (Ranunculaceae). Russia: **FE** (KH). – China.

**Eurhadinoceraea sanguinicollis** (Mocsáry, 1880) [Blennocampa] (*Rhadinoceraea insignis* Konow, 1896). Host plant: Clematis spp. (Ranunculaceae). Russia: **ES** (IR). – Europe (EE).

**Eurhadinoceraea ventralis** (Panzer, 1799) [Tenthredo] (*Monophadnus rufoniger* Tischbein, 1852; *Blennocampa coronata* André, 1881). Host plant: Clematis recta, C. vitalba (Ranunculaceae). Russia: **EP** (C), **WS** (NS), **ES** (TU). – Europe (WE, SE), Kyrgyzstan, Kazakhstan.

**EUTOMOSTETHUS** Enslin, 1914 (*Atomostethus* Enslin, 1914; *Tomostethopsis* Sato, 1928; *Forsia* Malaise, 1931). Type species *Tenthredo luteiventris* Klug, 1816. The larvae feed on the Juncaceae, Poaceae, Cyperaceae. The genus is distributed in Palaearctic and Oriental region; two species were introduced into N America. Number of species: World – > 100; Palaearctic – > 60; Russia – 10 (+ 1 ssp.).

**Eutomostethus apicalis** (Matsumura, 1912) [Monophadnus] (*Tomostethus juncivorus* Rohwer, 1924). Host plant: Juncus spp. (Juncaceae). Russia: **FE** (SA, KU). – Japan (Hok, Hon, Shi).

**Eutomostethus ephippium ephippium** (Panzer, 1798) [Tenthredo] (*Tenthredo dubia* Gmelin, 1790; *Selandria inhabilis* Norton, 1861). Host plant: Poa spp. (Poaceae). Russia: **EP** (N, NW, C, E, S), **UR**, **FE** (PR). – Europe (WE, EE, NE, SE), N Africa, Caucasus, Turkey, India (NW); introduced into N America.

**Eutomostethus ephippium vopiscus** (Konow, 1899) [Tomostethus]. Host plant: Poa spp. (Poaceae). Russia: **EP** (NC, CR). – Europe (EE), Georgia, Armenia.

**Eutomostethus flavipes** (Matsumura, 1911) [Tomostethus]. Russia: **FE** (SA).

**Eutomostethus gagathinus** (Klug, 1816) [Tenthredo] (*E. gagathinus meridionalis* Benson, 1954). Host plant: Juncus spp. (Juncaceae), Carex spp. (Cyperaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (OM, NS, AL), **ES** (IR). – Europe (WE, EE, NE, SE), N Africa, SW Asia, Kazakhstan, Mongolia.

**Eutomostethus luteiventris** (Klug, 1816) [Tenthredo] (*Tenthredo fuscipennis* Serville, 1823; *T. fuscipennis* Lepeletier, 1823; *Phyllotoma fuscipennis* Fallén, 1829). Host plant: Juncus spp. (Juncaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**. – Europe (WE, EE, NE, SE), Caucasus; introduced into N America.

**Eutomostethus metallicus** (Sato, 1928) [Tomostethopsis]. Russia: **FE** (PR). – Korean Peninsula, China (NE, SE).

**Eutomostethus punctatus** (Konow, 1887) [Tomostethus] (*Tomostethus brachycera* Cameron, 1893). Host plant: Carex spp. (Cyperaceae). Russia: **EP** (E), **UR**, **WS** (Zhelochovtsev, Zinovjev, 1996), **ES** (TU, IR), **FE** (PR). – Europe (WE, EE, NE, SE), Mongolia, China (NC).

**Eutomostethus teberdicus** Muche, 1969. Russia: **EP** (NC).

**Eutomostethus tomostethi** (Malaise, 1931) [Forsia]. Russia: **FE** (PR, SA, KA).

**Eutomostethus tricolor** (Malaise, 1934) [Tomostethus] (*E. hyalinus* Takeuchi, 1936). Russia: **FE** (PR, SA). – China (SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

**FENELLA** Westwood, 1839 (*Melinia* Costa, 1859; *Paraphyllotoma* Forsius, 1930). Type species *Fenella nigrita* Westwood, 1839. The larvae in mines on leaves of herbaceous plants. The genus is distributed in Palaearctic; one species was introduced into N America. Number of species: World and Palaearctic – 11; Russia – 3.

**Fenella minuta** (Dahlbom, 1835) [Phyllotoma] (*F. voighti* Hering, 1932). Host plant: Geranium



- spp. (Geraniaceae). Russia: **EP** (NC), **ES** (IR), **FE** (AM). – Europe (WE, EE, NE, SE), Kyrgyzstan, Kazakhstan, Mongolia.
- Fenella monilicornis** (Dahlbom, 1835) [Phyllotoma] (*F. famosa* Benson, 1950). Host plant: Geranium spp. (Geraniaceae). Russia: **WS** (AL). – Europe (WE, EE, NE), Mongolia, China (NW).
- Fenella nigrita** Westwood, 1839 (*Melinia minutissima* Costa, 1859; *Phyllotoma tormentillae* Healy, 1868; *Fenella agrimoniae* Brischke, 1888). Host plant: Agrimonia spp., Potentilla spp. (Rosaceae). Russia: **EP** (NW), **WS** (Zhelochovtsev, Zinovjev, 1996), **ES** (YA). – Europe (WE, EE, NE, SE), Kyrgyzstan, Kazakhstan, Mongolia, Korean Peninsula, Japan (Hon); introduced into N America.
- FENUSA** Leach, 1817 (*Kaliosysphinga* Tischbein, 1846; *Aphadnurus* Costa, 1859; *Phaenusa* Cameron, 1875; *Phoenusa* André, 1880; *Caliosysphinga* Konow, 1905; *Lithoryssus* Brues, 1906; *Kaliofenusa* Viereck, 1910). Type species *Tenthredo pumila* Klug, 1818. The larvae in mines on leaves of trees. The genus is distributed in Holarctic and Oriental region; one species was introduced into the Afro-tropical region. Number of species: World – 10; Palaearctic – 8; Russia – 6 from 2 subgenera.
- Fenusa (Fenusa) dohrnii** (Tischbein, 1846) [Kaliosysphinga] (*F. curtus* Norton, 1862; *Phaenusa melanopoda* Cameron, 1876; *Fenella westwoodi* Cameron, 1882). Host plant: Alnus spp., Betula spp. (Betulaceae). Russia: **EP** (N, NW, C, E, S), **UR**, **WS** (Zhelochovtsev, Zinovjev, 1996), **ES** (TU, IR, BR), **FE** (KU). – Europe (WE, EE, NE, SE), Turkey, Kazakhstan, Japan (Hok, Hon, Shi); introduced into N America and Tropical Africa.
- Fenusa (Fenusa) pumila** Leach, 1817 (*Tenthredo pumila* Klug, 1818; *Aphadnurus tantillus* Costa, 1859; *Fenusa fuliginosa* Healy, 1869; *F. minima* Brischke, 1883). Host plant: Betula spp., Alnus spp. (Betulaceae), Ulmus spp. (Ulmaceae). Russia: **EP** (N, NW, C, E, NC), **WS** (Lelej, Taeger, 2007), **ES** (IR, YA), **FE** (KH, SA, KA). – Europe (WE, EE, NE, SE), Turkey, Kyrgyzstan, Kazakhstan, Mongolia, China (SW), Japan (Hok, Hon); introduced into N America.
- Fenusa (Kaliofenusa) ulmi** Sundevall, 1847 (*F. intermedia* Thomson, 1871; *Messa alsia* MacGillivray, 1923). Host plant: Ulmus spp. (Ulmaceae). Russia: **EP** (C, E, S, NC), **ES** (IR, BR), **FE** (KH, PR). – Europe (WE, EE, NE, SE), Georgia, Armenia, Turkey, Japan (Smith, 1981); introduced into N America.
- Fenusa (Kaliofenusa) zinojevi** (Liston, 1994) [Kaliofenusa]. Russia: **FE** (PR).
- Fenusa absens** D.R. Smith et Altenhofer, 2011. Host plant: Ulmus pumila (Ulmaceae). Russia: **WS** (NS).
- Fenusa ewaldi** D.R. Smith, 2011. Host plant: Rosa spp. (Rosaceae). Russia: **WS** (NS).
- FENUSELLA** Enslin, 1912 (*Melanobates* MacGillivray, 1916). Type species *Fenusa wuestneii* Konow, 1894. The larvae in mines on leaves of Betulaceae, Salicaceae, etc. The genus is distributed in Holarctic. Number of species: World – 11; Palaearctic – 8; Russia – 4.
- Fesunella glaucopis** (Konow, 1907) [Phoenusa] (*Phoenusa ticinensis* Magretti, 1886). Host plant: Populus spp. (Salicaceae). Russia: **EP** (C, E, S), **UR**, **ES** (IR). – Europe (WE, EE, NE, SE), Kazakhstan.
- Fesunella hortulana** (Klug, 1818) [Tenthredo] (*Phoenusa dodderleini* De-Stefani, 1883; *Fenusella soenderupi* Hering, 1935). Host plant: Populus spp. (Salicaceae). Russia: **EP** (NC). – Europe (WE, EE, SE), N Africa, Azerbaijan, Turkey, Central Asia; introduced into N America.
- Fenusella nana** (Klug, 1816) [Tenthredo] (*Phyllotoma mellita* Newman, 1870; *Fenusa quercus* Cameron, 1885; *Scolioneura laeta* Enslin, 1918). Host plant: Betula spp. (Betulaceae). Russia: **EP** (NW, C, E), **UR**, **WS** (NS), **ES** (IR, BR), **FE** (AM, PR). – Europe (WE, EE, NE), Kyrgyzstan, Kazakhstan, Mongolia, Japan (Hok); introduced into N America.
- Fenusella wuestneii** (Konow, 1894) [Fenusa]. Host plant: Salix spp. (Salicaceae). Russia: **ES** (IR, BR), **FE** (KH). – Europe (WE, EE, NE), Kyrgyzstan, Kazakhstan, Japan (Hon); introduced into N America.
- HALIDAMIA** Benson, 1939. Type species *Hylotoma affinis* Fallén, 1807. The genus is distributed in West Palaearctic, introduced into the Nearctic. Number of species: Russia – 1.
- Halidamia affinis** (Fallén, 1807) [Hylotoma] (*Tenthredo hyalina* Klug, 1816; *Blennocampa assimilis* Thomson, 1870; *B. formosella* Costa, 1882; *B. affinis pleuritica* Enslin, 1914). Host plant: Galium spp. (Rubiaceae). Russia: **EP** (NW, C, E, S, NC, CR), **UR**. – Europe (WE, EE, NE, SE), Georgia, Armenia, Turkey; introduced into N America.

- HETERARTHUS** Stephens, 1835 (*Phyllotoma* Fallén, 1829; *Decatria* Stephens, 1835; *Druida* Newman, 1838; *Phlebotrophia* MacGillivray, 1909). Type species *Tenthredo ochropoda* Klug, 1818. The larvae in mines on leaves of *Acer* (Sapindaceae), *Betula* spp. (Betulaceae), *Salix* spp. (Salicaceae). The genus is distributed in Palaearctic; one species in Oriental region; one species introduced to North America. Number of species: World – 22; Palaearctic – 21; Russia – 11.
- Heterarthrus aceris** (Kaltenbach, 1856) [Phyllotoma] (*Phyllotoma fumipennis* Cameron, 1888). Host plant: *Acer platanoides* (Sapindaceae). Russia: **EP** (C, S). – Europe (WE, EE, NE, SE), Armenia.
- Heterarthrus aceroides** (Malaise, 1931) [Phyllotoma]. Russia: **FE** (KA).
- Heterarthrus aihinoensis** Haris, 2006. Russia: **FE** (KU).
- Heterarthrus alnivorus** Togashi, 1992. Host plant: *Alnus* spp. (Betulaceae). Russia: **FE** (PR). – Japan (Hon).
- Heterarthrus fasciatus** (Malaise, 1931) [Phyllotoma]. Host plant: *Populus* spp. (Salicaceae). Russia: **ES** (BR), **FE** (KA).
- Heterarthrus flavicollis** (Gussakovskij, 1947) [Phyllotoma]. Host plant: *Acer platanoides* (Sapindaceae). Russia: **EP** (NC). – Europe (WE, EE, NE), Georgia.
- Heterarthrus microcephalus** (Klug, 1818) [Tenthredo]. Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (NW, C, NC), **WS** (NS), **ES** (IR), **FE** (KH). – Europe (WE, EE, NE, SE), Armenia, Kyrgyzstan, Kazakhstan.
- Heterarthrus nemoratus** (Fallén, 1808) [Hylotoma] (*Fenusa parviceps* Newman, 1837; *Phyllotoma tenella* Zaddach, 1859; *Phlebotrophia mathesoni* MacGillivray, 1909). Host plant: *Betula* spp., *Alnus* spp. (Betulaceae). Russia: **EP** (N, NW, C), **WS** (Zhelochovtsev, Zinovjev, 1996), **ES** (IR). – Europe (WE, EE, NE), Armenia; introduced into N America.
- Heterarthrus ochropoda** (Klug, 1818) [Tenthredo] (*Decatria fuscipennis* Stephens, 1835; *Phyllotoma pinguis* Snellen van Vollenhoven, 1869; *Ph. nigrescens* Gradl, 1881; *Ph. costae* Costa, 1894; *Ph. maxima* Strobl, 1896). Host plant: *Populus* spp. (Salicaceae), *Betula* spp. (Betulaceae). Russia: **EP** (NW, C, S, NC, CR), **UR**, **WS** (NS), **ES** (IR, BR), **FE** (AM, KH). – Europe (WE, EE, NE), Turkey, Kyrgyzstan.
- Heterarthrus vagans** (Fallén, 1808) [Hylotoma] (*Tenthredo melanopyga* Klug, 1818; *T. amaura* Klug, 1818; *Phyllotoma leucopoda* Dahlbom, 1835; *Ph. kamtchatica* Malaise, 1931; *Heterarthrus vagans anatolicus* Mucic, 1983). Host plant: *Alnus* spp., *Betula* spp. (Betulaceae). Russia: **EP** (N, NW, C, E, NC, CR), **UR**, **ES** (IR), **FE** (PR, KU, KA). – Europe (WE, EE, NE, SE), Azerbaijan, SW Asia, China (NE); introduced into N America.
- Heterarthrus wuestneii** (Konow, 1905) [Phyllotoma] (*Phyllotoma aceris* McLachlan, 1867; *Heterarthrus tauricus* Ermolenko, 1984; *H. healyi* Altenhofer et Zombori, 1987). Host plant: *Acer* spp. (Sapindaceae), *Alnus* spp. (Betulaceae). Russia: **EP** (CR). – Europe (WE, EE), N America.
- HINATARA** Benson, 1936. Type species *Fenusa excisa* Konow, 1885. The larvae in mines on leaves of trees. The genus is distributed in Palaearctic. Number of species: World and Palaearctic – 4; Russia – 3.
- Hinatara hakusana** Togashi, 2002. Russia: **FE** (PR). – Japan (Hon).
- Hinatara nigripes** (Konow, 1907) [Fenusa]. Host plant: *Acer campestre* (Sapindaceae). Russia: **EP** (S). – Europe (WE, EE, SE).
- Hinatara recta** (Thomson, 1871) [Blennocampa]. Host plant: *Acer platanoides* (Sapindaceae). Russia: **EP** (NW, C, S). – Europe (WE, EE, NE), Armenia.
- HOPLOCAMPOIDES** Enslin, 1914. Type species *Selandria xylostei* Giraud, 1863. The genus is distributed in Palaearctic. Number of species: World and Palaearctic – 2; Russia – 1.
- Hoplocampoides xylostei** (Vallot, 1836) [Tenthredo] (*Selandria xylostei* Giraud, 1863). Host plant: *Lonicera* spp. (Caprifoliaceae). Russia: **EP** (N, NW, C), **ES** (KR). – Europe (WE, EE, NE, SE).
- LAGONIS** Ross, 1937. Type species *Selandria nevadensis* Cresson, 1880. The genus is distributed in East Palaearctic and Nearctic. Number of species: World – 3; Palaearctic – 2; Russia – 1.
- Lagonis opacicollis** (Malaise, 1931) [Rhadinoceraea]. Host plant: *Sambucus sieboldiana* (Adoxaceae). Russia: **FE** (KU). – Japan (Hok, Hon, Shi).
- MASAARIA** Takeuchi, 1950. Type species *Masaakia longivaginata* Takeuchi, 1950. The genus is distributed in East Asia. Number of species: World and Palaearctic – 5; Russia – 2.
- Masaakia kichizoi** Haris, 2006. Russia: **FE** (KU).

- Masaakia longivaginata** Takeuchi, 1950. Russia: **FE** (KU). – Japan (Hon).
- METALLUS** Forbes, 1885 (*Entodecta* Konow, 1886; *Polybates* MacGillivray, 1909). Type species *Metallus rubi* Forbes, 1885. The larvae in mines on leaves of Rosaceae. The genus is distributed in Holarctic and Oriental region. Number of species: World – 21; Palaearctic – 7; Russia – 5.
- Metallus adamantis** Lee et Ryu, 1996. Russia: **FE** (PR). – Korean Peninsula.
- Metallus albipes** (Cameron, 1875) [Phaenusa] (*Entodecta tenuicornis* Hellén, 1935). Host plant: *Rubus* spp. (Rosaceae). Russia: **EP** (C), **FE** (SA, KA, MG). – Europe (WE, EE, NE), Japan (Hon).
- Metallus beckeri** (Konow, 1904) [Entodecta]. Russia: **EP** (NC). – Georgia, Turkey.
- Metallus lanceolatus** (Thomson, 1870) [Blennocampa] (*Fenusa gei* Brischke, 1883; *Entodecta decolor* Konow, 1886; *Metallus bensoni* D.R. Smith, 1971). Host plant: *Geum* spp. (Rosaceae). Russia: **EP** (NW, C, NC), **UR**, **FE** (AM). – Europe (WE, EE, NE), N America.
- Metallus pumilus** (Klug, 1816) [Tenthredo] (*Emphytus pumilio* Hartig, 1837; *Fenusa rubi* Boie, 1848). Host plant: *Rubus* spp. (Rosaceae). Russia: **EP** (NW, C, NC), **ES** (IR, BR), **FE** (KH, PR). – Europe (WE, EE, NE, SE), Japan (Hon).
- MONARDIS** Enslin, 1914. Type species *Tenthredo plana* Klug, 1817. The genus is distributed in Holarctic and Oriental region. Number of species: World – 8; Palaearctic – 4; Russia – 1.
- Monardis plana** (Klug, 1817) [Tenthredo] (*Tenthredo sericans* Hartig, 1837; *Blennocampa rosarum* Brischke, 1883). Host plant: *Rosa* spp. (Rosaceae); larvae in the buds and shoots. Russia: **EP** (NW, C, E, S, NC), **UR**, **WS** (KM). – Europe (WE, EE, NE, SE), Caucasus.
- MONOPHADNOIDES** Ashmead, 1898 (*Pseudomonophadnus* Malaise, 1935). Type species *Selandria rubi* T.W. Harris, 1845. The genus is distributed in Holarctic and Oriental region. Number of species: World and Palaearctic – 9; Russia – 4.
- Monophadnoides klausnitzeri** (Muche, 1973) [Monophadnus]. Russia: **EP** (NC).
- Monophadnoides rubi** (T.W. Harris, 1845) [Selandria] (*Tenthredo geniculata* Hartig, 1837; *T. longicornis* Hartig, 1837; *Selandria nigella* Cresson, 1880; *Monophadnus hudsonicus* W.F. Kirby, 1882; *M. atricornus* MacGillivray, 1893; *M. atricornis* Konow, 1905; *Blennocampa gillettei* Weldon, 1907; *Monophadnoides consobrinus* MacGillivray, 1908; *M. costalis* MacGillivray, 1908; *M. coracinus* MacGillivray, 1908; *M. collaris* MacGillivray, 1908; *M. conspicuus* MacGillivray, 1908; *M. conspersus* MacGillivray, 1908; *M. crassus* MacGillivray, 1908; *M. concessus* MacGillivray, 1908; *Aphanisus nigritus* MacGillivray, 1908; *Aphanisus lenis* Rohwer, 1909; *Monophadnoides costatus* MacGillivray, 1916; *M. kincaidi* MacGillivray, 1923; *M. shawi* MacGillivray, 1923; *M. consonus* MacGillivray, 1923; *M. constitutus* MacGillivray, 1923; *M. corytus* MacGillivray, 1923; *M. curiosus* MacGillivray, 1923; *Paracharactus obversus* MacGillivray, 1923). Host plant: *Geum* spp., *Filipendula* spp., *Rubus* spp. (Rosaceae). Russia: **EP** (NW, C, E), **WS** (Zhelochovtsev, Zinovjev, 1996), **ES** (KR, BR). – Europe (WE, EE, NE, SE), Mongolia, N America; introduced into S America.
- Monophadnoides ruficruris** (Brullé, 1832) [Selandria] (*Blennocampa flavicollis* Jacobs, 1884; *Monophadnus dispar* Konow, 1886; *M. ruficruris plagiatus* Enslin, 1914). Host plant: *Rubus idaeus* (Rosaceae). Russia: **EP** (NC). – Europe (WE, EE, SE).
- Monophadnoides tuberculatus** Smith et Wei, 2015. Host plant: Rosaceae. Russia: **FE** (PR). – China (NE), Korean Peninsula.
- MONOPHADNUS** Hartig, 1837 (*Corporaalinus* Forsius, 1925; *Doderia* Malaise, 1935). Type species *Tenthredo albipes* Gmelin, 1790. The larvae without branched spines; feed on Ranunculaceae. The genus is distributed in Holarctic, Oriental and Neotropical regions. Number of species: World – about 25; Palaearctic – about 10; Russia – 3.
- Monophadnus monticola** (Hartig, 1837) [Tenthredo] (*Selandria feriata* Zaddach, 1859; *Monophadnus fuliginipennis* Costa, 1859; *M. fulgidipennis* Dalla Torre, 1894). Russia: **EP** (NW, C, CR). – Europe (WE, EE, NE, SE).
- Monophadnus pallescens** (Gmelin, 1790) [Tenthredo] (*Tenthredo albipes* Gmelin, 1790; *Selandria tiliae* Norton, 1861; *Blennocampa emarginata* Thomson, 1871; *Hoplocampa calceolata* Costa, 1881; *Monophadnus bipunctatus* MacGillivray, 1908; *M. furvus* Benson, 1930). Host plant: *Ranunculus* spp., *Anemone* spp. (Ranunculaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (KM, AL), **ES** (IR), **FE** (PR). – Europe (WE, EE, NE, SE), Caucasus,

Turkey, Kyrgyzstan, Kazakhstan; introduced into N America.

**Monophadnus spinolae** (Klug, 1816) [Tenthredo] (*Hylotoma ventralis* Spinola, 1806; *Tenthredo croceiventris* Klug, 1816; *T. bipartita* Lepeletier, 1823; *T. bipartita* Serville, 1823; *Monophadnus pleuriticus* Costa, 1859; *M. gastricus* Costa, 1859; *Blennocampa scutellaris* André, 1881; *Monophadnus spinolae pectoralis* Konow, 1886; *Periclista nigricarpa* Costa, 1894; *Monophadnus spinolae ruberrima* Enslin, 1914; *M. spinolae rufipectus* Enslin, 1914). Host plant: Clematis spp. (Ranunculaceae). Russia: **EP** (CR). – Europe (WE, EE, SE), Georgia; introduced into New Zealand.

**OBTUSIA** Malaise, 1964. Type species *Obtusia ussuriensis* Malaise, 1964. The genus is distributed in East Palaearctic. Number of species: one East Asian species.

**Obtusia ussuriensis** Malaise, 1964. Russia: **FE** (PR).

**OKUTANIUS** D.R. Smith, 1981. Type species *Okutanius lobatus* D.R. Smith, 1981. The genus is distributed in East Palaearctic. Number of species: World – 2; Palaearctic – 2; Russia – 1.

**Okutanius lobatus** D.R. Smith, 1981. Russia: **FE** (PR). – Korean Peninsula.

**PARACHARACTUS** MacGillivray, 1908 (*Dicrostema* Benson, 1952). Type species *Paracharactus obscuratus* MacGillivray, 1908. The genus is distributed in Holarctic. Number of species: World – 7; Palaearctic – 4; Russia – 2.

**Paracharactus gracilicornis** (Zaddach, 1859) [Selandria]. Host plant: Adoxa spp. (Adoxaceae). Russia: **EP** (NW, C, E), **UR**, **WS** (AL). – Europe (WE, EE, NE, SE), Kyrgyzstan, Kazakhstan.

**Paracharactus japonicus** (Malaise, 1931) [Neotomostethus]. Russia: **FE** (SA, KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

**PARAMASAACKIA** Ermolenko, 1971. Type species *Paramasaackia ajnu* Ermolenko, 1971. The genus is distributed in East Asia. Number of species: one species.

**Paramasaackia ajnu** Ermolenko, 1971. Russia: **FE** (SA). – China (SE).

**PAREOPHORA** Konow, 1886. Type species *Tenthredo luridiventris* Klug, 1816. The genus is

distributed in Palaearctic. Number of species: World and Palaearctic – 4; Russia – 1.

**Pareophora pruni** (Linnaeus, 1758) [Tenthredo] (*Tenthredo luridiventris* Klug, 1816; *T. nigripes* Klug, 1816; *Blennocampa bicolor* Tischbein, 1852; *Monophadnus nigripes maculiventris* Costa, 1894). Host plant: Prunus spinosa, P. tenella (Rosaceae). Russia: **EP** (S, NC, CR). – Europe (WE, EE, NE, SE).

**PARNA** Benson, 1936. Type species *Tenthredo tenella* Klug, 1816. The larvae in mines on leaves of trees. The genus is distributed in Palaearctic. Number of species: World and Palaearctic – 7; Russia – 2.

**Parna apicalis** (Brischke, 1888) [Blennocampa] (*P. reperi* Liston, 1993). Host plant: Tilia spp. (Tiliaceae). Russia: **EP** (NW). – Europe (WE, EE, NE).

**Parna tenella** (Klug, 1816) [Tenthredo] (*Blennocampa tiliae* Kaltenbach, 1874). Host plant: Tilia spp. (Tiliaceae). Russia: **EP** (C, E, NC), **FE** (PR). – Europe (WE, EE, NE), Armenia, Japan (Hon).

**PERICLISTA** Konow, 1886 (*Mogerus* MacGillivray, 1895; *Isodyctium* Ashmead, 1898; *Aphanisus* MacGillivray, 1908; *Neocharactus* MacGillivray, 1908; *Apericlista* Enslin, 1914; *Neoclista* Malaise, 1964). Type species *Tenthredo lineolata* Klug, 1816. The genus is distributed in Holarctic, Oriental and Neotropical regions. Number of species: World – about 55; Palaearctic – about 30; Russia – 4 from 2 subgenera.

**Periclista (Periclista) albida** (Klug, 1816) [Tenthredo] (*Tenthredo melanocephala* Fabricius, 1798; *T. testacea* Serville, 1823; *T. testacea* Lepeletier, 1823; *Selandria fulvicollis* Stephens, 1835; *S. versicolor* Newman, 1837; *Monophadnus inquilinus* Förster, 1844; *Periclista albida orbitalis* Enslin, 1914). Host plant: Quercus robur, Q. mongolica (Fagaceae). Russia: **EP** (S, NC, CR), **FE** (KH). – Europe (WE, EE, NE, SE).

**Periclista (Periclista) lineolata** (Klug, 1816) [Tenthredo] (*Monophadnus tenuicingulatus* Costa, 1859). Host plant: Quercus robur (Fagaceae). Russia: **EP** (NW, NC). – Europe (WE, EE, NE, SE).

**Periclista (Periclista) pubescens** (Zaddach, 1859) [Selandria] (*Periclista pubescens analis* Konow, 1886). Host plant: Quercus spp. (Fagaceae). Russia: **EP** (NW, S, CR). – Europe (WE, EE, SE).

**Periclista (Neocharactus) albipennis** (Zaddach, 1859) [Selandria]. Russia: **EP** (NW). – Europe (WE, EE).

- PHYMATOCERA** Dahlbom, 1835 (*Pectinia* Brullé, 1846; *Phymatoceros* Konow, 1905; *Hypargyricus* MacGillivray, 1908; *Melanoselandria* MacGillivray, 1908). Type species *Tenthredo aterrима* Klug, 1816. The larvae feed on the monocotyledonous plants (Liliales). The genus is distributed in Holarctic and Oriental region. Number of species: World – 13; Palaeartic – 6; Russia – 2.
- Phymatocera aterrима** (Klug, 1816) [Tenthredo] (*Tenthredo trichocera* Serville, 1823; *T. trichocera* Lapeletier, 1823; *Selandria robinsoni* Curtis, 1850). Host plant: Polygonatum spp. (Asparagaceae), Convallaria spp., Smilacina spp. (Convallariaceae). Russia: **EP** (NW, C, E, S, NC, CR), **WS** (NS). – Europe (WE, EE, NE, SE), Armenia, Kazakhstan, China (NW), Korean Peninsula.
- Phymatocera nipponica** Togashi, 1958. Host plant: Liliaceae. Russia: **FE** (SA, KU). – Korean Peninsula, Japan (Hon, Shi, Kyu).
- PHYMATOCERIOLA** Sato, 1928. Type species *Phymatoceriola suigenensis* Sato, 1928. The genus is distributed in East Asia. Number of species: World and Palaeartic – 4; Russia – 2.
- Phymatoceriola suigenensis** Sato, 1928. Russia: **ES** (IR), **FE** (KH). – Korean Peninsula.
- Phymatoceriola ussuriensis** Malaise, 1964. Russia: **FE** (PR).
- PHYMATOCEROPSIS** Rohwer, 1916. Type species *Phymatoceropsis fulvocincta* Rohwer, 1916. The genus is distributed in East Asia and Oriental region. Number of species: World – 9; Palaeartic – 5; Russia – 2.
- Phymatoceropsis melanogaster** He, Wei et Zhang, 2005. Russia: **FE** (PR). – China (CC, SE).
- Phymatoceropsis peregrinator** (Malaise, 1931) [Neotomostethus]. Russia: **FE** (KA). – Japan (Hok, Hon).
- PROFENUSA** MacGillivray, 1914 (*Gunnea* Malaise, 1964). Type species *Profenusa collaris* MacGillivray, 1914. The larvae in mines on leaves of trees. The genus is distributed in Holarctic and Oriental region. Number of species: World – 14; Palaeartic – 8; Russia – 2.
- Profenusa pygmaea** (Klug, 1816) [Tenthredo]. Host plant: Quercus spp., Castanea sativa (Fagaceae). Russia: **EP** (NW, C, S, NC). – Europe (WE, EE, NE, SE), Turkey.
- Profenusa thomsoni** (Konow, 1886) [Fenusa]. Host plant: Betula spp. (Betulaceae). Russia: **EP** (NW, C, NC), **ES** (BR), **FE** (AM, KH). – Europe (WE, EE, NE), Armenia, Turkey, Kyrgyzstan, Kazakhstan, Japan (Hok, Hon); introduced into N America.
- RHADINOCERAEA** Konow, 1886 (*Veratra* D.R. Smith, 1969). Type species *Tenthredo micans* Klug, 1816. The larvae feed on the Liliaceae, Iridaceae, Adoxaceae. The genus is distributed in Holarctic and Oriental region. Number of species: World – about 20; Palaeartic – about 10; Russia – 8 from 2 subgenera.
- Rhadinoceraea (Rhadinoceraea) bensoni** Beneš, 1961. Host plant: Liliaceae. Russia: **EP** (Zhelochovtsev, Zinovjev, 1996), **ES** (IR). – Europe (WE, EE, SE).
- Rhadinoceraea (Rhadinoceraea) caucasica** Dognar-Zapolskij, 1930. Russia: **EP** (NC).
- Rhadinoceraea (Rhadinoceraea) micans** (Klug, 1816) [Tenthredo] (*Monophadnus iridis* Kaltenbach, 1862). Host plant: Iris spp. (Iridaceae). Russia: **EP** (NW, C, E), **UR**, **WS** (AL). – Europe (WE, EE, NE, SE).
- Rhadinoceraea (Rhadinoceraea) reitteri** Konow, 1890. Host plant: Iris spp. (Iridaceae). Russia: **EP** (C). – Europe (WE, EE, SE).
- Rhadinoceraea (Rhadinoceraea) sachalinensis** Ermolenko, 1971. Russia: **FE** (SA).
- Rhadinoceraea (Veratra) nodicornis** Konow, 1886 (*Rh. heydeni* Konow, 1887). Host plant: Veratrum spp. (Liliaceae). Russia: **EP** (C, S), **UR**, **WS** (KM, AL), **ES** (KS, KR, IR, BR). – Europe (WE, EE, SE), China (NW).
- Rhadinoceraea (Veratra) subarctica** Hellén, 1948. Russia: **EP** (N). – Europe (NE).
- Rhadinoceraea sibiricola** Zhelochovtsev, 1939. Russia: **ES** (KR).
- SCOLIONEURA** Konow, 1890. Type species *Tenthredo betuleti* Klug, 1816. The genus is distributed in Holarctic, mainly in West Palaeartic; one species was introduced into N America. Number of species: World and Palaeartic – 4; Russia – 1.
- Scolioneura betuleti** (Klug, 1816) [Tenthredo] (*Tenthredo nigricans* Klug, 1818; *Fenusa betulae* Zaddach, 1859). Host plant: Betula spp. (Betulaceae). Russia: **EP** (NW, C, E), **UR**, **WS** (AL), **ES** (TU, IR, BR). – Europe (WE, EE, NE, SE), Armenia,

Kyrgyzstan, Kazakhstan, Mongolia; introduced into N America.

**SENOCLIDEA** Rohwer, 1912. Type species *Senoclidea amala* Rohwer, 1912. The genus is distributed in East Palaearctic, Oriental and Australian regions. Number of species: World – 17; Palaearctic – 6; Russia – 1.

**Senoclidea koreana** (Konow, 1898) [Monophadnus]. Russia: **FE** (PR). – Korean Peninsula, China (Wei et al., 2006).

**STETHOMOSTUS** Benson, 1939. Type species *Tenthredo fuliginosa* Schrank, 1781. The larvae feed on Ranunculus (Ranunculaceae). The genus is distributed in Palaearctic and Oriental region; one species was introduced into North America. Number of species: World – 6; Palaearctic – 4; Russia – 3.

**Stethomostus flavicollaris** (Sato, 1928) [Atomostethus]. Host plant: Ranunculus spp. (Ranunculaceae). Russia: **ES** (BR), **FE** (AM, PR). – China (NE), Korean Peninsula.

**Stethomostus fuliginosus** (Schrank, 1781) [Tenthredo] (*Tenthredo fusca* Serville, 1823; *T. fusca* Lapeletier, 1823; *Selandria geniculata* Stephens, 1835; *Blennocampa croceipes* Costa, 1864; *Monophadnus fukaii* Rohwer, 1910). Host plant: Ranunculus spp. (Ranunculaceae), Kerria spp. (Rosaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (KM). – Europe (WE, EE, NE, SE), Turkey, Kazakhstan, Japan (Hon, Shi); introduced into N America.

**Stethomostus funereus** (Klug, 1816) [Tenthredo]. Host plant: Ranunculus spp. (Ranunculaceae). Russia: **EP** (N, NW, C, E), **UR**, **ES** (BR). – Europe (WE, EE, NE), Turkey, Kazakhstan.

**TOMOSTETHUS** Konow, 1886. Type species *Tenthredo nigrita* Fabricius, 1804. The larvae feed on the woody plants. The genus is distributed in Holarctic, Oriental and Neotropical regions. Number of species: World – 8; Palaearctic – 6; Russia – 3.

**Tomostethus juglans** Takeuchi, 1929. Host plant: Juglans spp. (Juglandaceae). Russia: **FE** (PR). – Korean Peninsula.

**Tomostethus nigritus** (Fabricius, 1804) [Tenthredo] (*Tenthredo nigerrima* Klug, 1816; *T. brevicornis* Klug, 1816; *T. fraxini* Serville, 1823; *T. fraxini* Lapeletier, 1823; *Monophadnus latus* Costa, 1894). Host

plant: Fraxinus spp. (Oleaceae). Russia: **EP** (NW, C, S, NC), **ES** (BR), **FE** (PR, SA). – Europe (WE, EE, NE, SE), N Africa, Caucasus, Turkey, China (NE, CC), Korean Peninsula, Japan (Hon).

**Tomostethus veles** Konow, 1900. Russia: **ES** (IR).

**ZAPHYMATOCERA** Sato, 1928. Type species *Zaphymatocera typica* Sato, 1928. The genus is distributed in East Asia. Number of species: World and Palaearctic – 2; Russia – 1.

**Zaphymatocera typica** Sato, 1928. Russia: **FE** (KU, KA). – Korean Peninsula.

#### Subfamily NEMATINAE

**ANOPLONYX** Marlatt, 1896 (*Marlattia* Ashmead, 1898). Type species *Nematus lariciphagus* Zaddach, 1883. The larvae feed on Larix (Pinaceae). The genus is distributed in Holarctic. Number of species: World – 12; Palaearctic – 8; Russia – 7.

**Anoplonyx apicalis** (Brischke, 1883) [Leptopus] (*Leptopus curinthicus* Zaddach, 1883; *Camponiscus braunsii* Konow, 1884; *C. tscheiki* Rogenhofer et Kohl, 1885; *C. carinthiacus* Dalla Torre, 1894). Host plant: Larix spp. (Pinaceae). Russia: **EP** (NW), **UR**, **ES** (KR, IR, BR, YA, ZB), **FE** (AM). – Europe (WE, EE, NE), Mongolia.

**Anoplonyx bilineatus** Verzhutskii, 1981. Host plant: Larix spp. (Pinaceae). Russia: **ES** (TU, IR, YA, ZB), **FE** (MG). – Mongolia.

**Anoplonyx destructor** Benson, 1952. Host plant: Larix spp. (Pinaceae). Russia: **EP** (NW). – Europe (WE, EE, NE), Korean Peninsula, Japan (Hon).

**Anoplonyx lariciphagus** (Zaddach, 1883) [Nematus] (*Camponiscus luridus* Konow, 1884; *Platycampus pectoralis obscurus* Enslin, 1915). Host plant: Larix spp. (Pinaceae). Russia: **ES** (KR, IR, BR, ZB). – Europe (WE, EE), Korean Peninsula.

**Anoplonyx orientis** D.R. Smith, 1988. Host plant: Larix leptolepis, L. kurilensis (Pinaceae). Russia: **FE** (KU). – Japan (Hok, Hon).

**Anoplonyx ovatus** (Zaddach, 1883) [Leptopus]. Host plant: Larix spp. (Pinaceae). Russia: **EP** (NW), **ES** (YA, ZB). – Europe (WE, EE, NE).

**Anoplonyx versicolor** Vikberg, 1975 (*A. ornatus* Verzhutskii, 1981). Host plant: Larix spp. (Pinaceae). Russia: **EP** (NW), **ES** (IR, BR, YA), **FE** (AM). – Europe (NE), Mongolia, Korean Peninsula.

**CLADIUS** Illiger, 1807 (*Priophorus* Dahlbom, 1835; *Trichiocampus* Hartig, 1837; *Stevenia* Brullé, 1846;

*Eudryas* Gistel, 1848; *Prionophorus* Agassiz, 1848). Type species *Tenthredo difformis* Panzer, 1799. The larvae feed on the woody plants. The genus is distributed in Holarctic and Oriental region; one species was introduced into Neotropical and Australasian regions. Number of species: World – about 45; Palearctic - > 35; Russia – 15 from 3 subgenera.

- Cladius (Cladius) pectinicornis** (Geoffroy, 1785) [Tenthredo] (*Tenthredo alces* Thunberg, 1789; *T. difformis* Panzer, 1799; *Cladius geoffroyi* Serville, 1823; *C. morio* Serville, 1823; *C. geoffroyi* Lepeletier, 1823; *C. morio* Lepeletier, 1823; *Nematus crassicornis* Stephens, 1835; *Cladius isomera* Norton, 1861; *C. ramicornis* André, 1880; *C. gracilicornis* Konow, 1884; *C. crassicornis* Konow, 1884; *C. comari* Stein, 1886; *C. hyalinopterus* Konow, 1886; *C. palmicornis* Konow, 1892; *C. ordubadensis* Konow, 1892; *C. major* Cobelli, 1892; *C. orientalis* Cameron, 1902; *C. tibialatus* Konow, 1906). Host plant: *Rosa* spp., *Fragaria* spp., *Potentilla* spp., *Filipendula* spp. (Rosaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR, WS** (TM, KM, AL), **ES** (IR, BR, YA, ZB), **FE** (AM, PR, SA, KA, MG). – Europe (WE, EE, NE, SE), Georgia, Azerbaijan, SW Asia, Afghanistan, Central Asia, Kazakhstan, China (NE, NC), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu), India (NW), N America.
- Cladius (Priophorus) brullei** (Dahlbom, 1835) [Priophorus] (*C. immunis* Stephens, 1835; *Nematus melanostigma* Stephens, 1835; *Cladius tener* Zaddach, 1859; *C. tristis* Zaddach, 1859; *C. parvus* Zaddach, 1883; *Priophorus rubivorus* Rohwer, 1922; *P. montanus* Rohwer, 1922; *P. rubi* Rohwer, 1922; *P. foveivaginatatus* Malaise, 1931). Host plant: *Rubus* spp. (Rosaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR, WS** (AL), **ES** (KR, IR, ZB), **FE** (PR, SA, KA). – Europe (WE, EE, NE, SE), Central Asia, China (NC), Korean Peninsula, Japan (Hok, Hon), India, SE Asia, N America; introduced into S America, Australia, New Zealand.
- Cladius (Priophorus) compressicornis** (Fabricius, 1804) [Tenthredo] (*Tenthredo albipes* Fallén, 1808; *Cladius pallipes* Lepeletier, 1823; *C. pallipes* Serville, 1823; *C. albipes* Hartig, 1837; *C. aequalis* Norton, 1872; *Priophorus discors* Konow, 1894; *Cladius solitaris* Dyar, 1895; *Priophorus padi collaris* Enslin, 1915; *P. modestius* MacGillivray, 1921; *P. munditus* MacGillivray, 1921; *P. crataegi* Rohwer, 1922; *P. pruni* Rohwer, 1922; *P. plesius* Rohwer, 1922; *P. virginianus* Rohwer, 1922). Host plant: *Salix* spp., *Populus* spp. (Salicaceae), *Rubus* spp., *Prunus* spp. (Rosaceae), and others. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR, ES** (KR, IR, YA, ZB), **FE** (KH, PR, SA, KA, MG). – Europe (WE, EE, NE, SE), Caucasus, Turkey, Iran, Kyrgyzstan, Kazakhstan, China (CC), Korean Peninsula, Japan (Hok, Hon), N America.
- Cladius (Priophorus) corniger** Zhelochovtsev, 1952. Russia: **ES** (ZB). – China (Wei et al., 2006).
- Cladius (Priophorus) hyalopterus** (Jakovlev, 1891) [Priophorus] (*Priophorus triangulifer* Konow, 1902). Russia: **EP** (E), **UR, WS** (KM), **ES** (IR, ZB), **FE** (AM). – Kyrgyzstan, Kazakhstan, Mongolia, China (NW, NC).
- Cladius (Priophorus) nubilus** (Konow, 1897) [Trichiocampus] (*Priophorus dellei* Conde, 1935). Russia: **EP** (E), **UR, WS** (AL), **ES** (IR), **FE** (AM, PR, KU). – China (NE).
- Cladius (Priophorus) rufipes** Serville, 1823 (*C. rufipes* Lepeletier, 1823; *C. uncinnata* Hartig, 1837; *C. discrepans* Costa, 1859; *Trichiocampus garbigliettii* Costa, 1864; *Priophorus phaeopterus* Costa, 1894). Host plant: *Ulmus* spp. (Ulmaceae). Russia: **EP** (C, S, NC). – Europe (WE, EE, NE), Turkey, Iran.
- Cladius (Trichiocampus) aeneus** Zaddach, 1859. Host plant: *Salix* spp., *Populus* spp. (Salicaceae). Russia: **EP** (N, NW), **ES** (KR, IR, YA). – Europe (EE, NE).
- Cladius (Trichiocampus) cannabis** (Xiao et Huang, 1986) [Trichiocampus]. Host plant: *Cannabis sativa* (Cannabaceae). Russia: **EP** (E), **ES** (IR), **FE** (AM). – China (NC, CC).
- Cladius (Trichiocampus) grandis** (Serville, 1823) [Nematus] (*Tenthredo viminalis* Fallén, 1808; *Nematus grandis* Lepeletier, 1823; *Cladius eucera* Bouché, 1834; *C. luteicornis* Stephens, 1835; *C. luteiventris* Dahlbom, 1836; *Aulacomeris lutescens* Lintner, 1888; *Platycampus victoria* MacGillivray, 1920). Host plant: *Populus* spp., *Salix* spp. (Salicaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR, WS** (Lelej, Taeger, 2007), **ES** (IR, BR, YA), **FE** (MG). – Europe (WE, EE, NE, SE), Georgia, Armenia, Turkey, Kazakhstan; introduced into N America.
- Cladius (Trichiocampus) pilicornis** Curtis, 1833. Host plant: *Crataegus* spp. (Rosaceae). Russia: **ES** (YA). – Europe (WE, EE, NE, SE).
- Cladius (Trichiocampus) populi** (Okamoto, 1912) [Trichiocampus]. Host plant: *Populus* spp. (Salicaceae). Russia: **FE** (SA). – Japan (Hok, Hon).
- Cladius (Trichiocampus) rufus** Verzhutskii, 1966 (*Trichiocampus pseudoviminalis* Huang et Wang,

- 1993). Host plant: *Populus* spp. (Salicaceae). Russia: **ES** (IR), **FE** (AM). – China (NE).
- Cladius (Trichiocampus) takeuchii** Liston, Taeger et Blank, 2009 (*Trichiocampus pruni* Takeuchi, 1956). Host plant: *Prunus* spp. (Rosaceae). Russia: **FE** (KU). – China (SE), Japan (Hok, Hon), SE Asia.
- Cladius (Trichiocampus) ulmi** (Linnaeus, 1758) [Tenthredo] (*C. eradiatus* Hartig, 1837; *C. drewseni* Thomson, 1871; *Priophorus distinguendus* Enslin, 1915; *P. laevifrons* Benson, 1936). Host plant: *Ulmus* spp. (Ulmaceae). Russia: **EP** (C, NC, CR), **WS** (AL). – Europe (WE, EE, NE, SE), Armenia.
- DINEURA** Dahlbom, 1835 (*Leachia* Brullé, 1846; *Dinevra* Agassiz, 1848; *Varna* Ross, 1937). Type species *Tenthredo degeeri* Klug, 1817. The larvae feed on the woody plants. The genus is distributed in Holarctic. Number of species: World and Palaearctic – 9; Russia – 5.
- Dineura parviclavus** (Konow, 1901) [Pontania]. Russia: **ES** (IR). – Europe (NE).
- Dineura pullior** Schmidt et Walter, 1995. Russia: **EP** (N). – Europe (NE).
- Dineura stilata** (Klug, 1816) [Tenthredo] (*Tenthredo mediocris* Lepeletier et Serville, 1828; *Nematus apicalis* Stephens, 1835; *Selandria scapularis* Stephens, 1835; *Nematus xanthocerus* Hartig, 1840; *Dineura flaveola* Eversmann, 1847; *Nematus posticus* Förster, 1854; *N. xanthopus* Zaddach, 1876; *N. v-flavum* Cameron, 1882; *Dineura melanoxantha* Zaddach, 1883; *D. sulcifrons* Konow, 1885; *D. nigroflava* Magretti, 1886; *Pristiphora oblita* Costa, 1894; *Pontania ancilla* Konow, 1901; *Dineura stilata virilis* Enslin, 1918). Host plant: *Sorbus* spp., *Crataegus* spp., *Cotoneaster* spp. (Rosaceae). Russia: **EP** (E). – Europe (WE, EE, NE, SE).
- Dineura testaceipes** (Klug, 1816) [Tenthredo] (*D. ventralis* Zaddach, 1859; *D. nigra* Zaddach, 1883; *D. testaceipes nigrioventris* Enslin, 1915). Host plant: *Sorbus* spp., *Crataegus* spp., *Cotoneaster* spp. (Rosaceae). Russia: **EP** (NW, C, E), **ES** (IR, BR, YA), **FE** (KH, PR, KA). – Europe (WE, EE, NE).
- Dineura virididorsata** (Retzius, 1783) [Tenthredo] (*Tenthredo nigricans* Christ, 1791; *T. degeeri* Klug, 1817; *Nematus varius* Lepeletier, 1823; *N. varius* Serville, 1823; *Dineura hartigii* Gimmerthal, 1844; *D. virididorsata dorsalis* Enslin, 1915). Host plant: *Betula* spp. (Betulaceae). Russia: **EP** (N, NW, C, E), **UR**, **ES** (IR, BR, YA), **FE** (AM, PR, SA, KA). – Europe (WE, EE, NE), China (Wei et al., 2006), Japan (Hok).
- ENDOPHYTUS** Hering, 1934 (*Neopelmatopus* Conde, 1934; *Verna* Kaisila, 1960; *Verna* Kontuniemi, 1960). Type species *Pelmatopus anemones* Hering, 1924. The larvae feed on *Anemone nemorosa* (Ranunculaceae). The genus is distributed in West Palaearctic. Number of species: one species.
- Endophytus anemones** (Hering, 1924) [Pelmatopus] (*Pelmatopus tenuiserra* Lindqvist, 1949). Host plant: *Anemone nemorosa* (Ranunculaceae). Russia: **EP** (NW). – Europe (WE, EE, NE).
- EUURA** Newman, 1837 (*Cryptocampus* Hartig, 1837; *Evura* Agassiz, 1848; *Pontania* Costa, 1852; *Epitactus* Förster, 1854; *Amauronematus* Konow, 1890; *Holcocneme* Konow, 1890; *Pachynematus* Konow, 1890; *Brachycolus* Konow, 1895; *Holcocnema* Schulz, 1906; *Holcocnemis* Konow, 1907; *Pteronidea* Rohwer, 1911; *Pontoprastia* Malaise, 1921; *Brachycoluma* Strand, 1929; *Decanematus* Malaise, 1931; *Pikonema* Ross, 1937; *Phyllocolpa* Benson, 1960; *Eitelius* Kontuniemi, 1966; *Gemmura* E.L. Smith, 1968; *Ribinematus* Kontuniemi, 1975; *Eupontania* Zinovjev, 1985; *Larinematus* Zhelochovtsev, 1988; *Polynematus* Zhelochovtsev, 1988; *Bacconematus* Zhelochovtsev, 1988; *Alpinematus* Lacourt, 1996; *Epicenematus* Lacourt, 1998; *Kontuniemiana* Lacourt, 1998; *Lindqvistia* Lacourt, 1998; *Luea* Wei et Nie, 1998; *Tubpontania* Vikberg, 2010). Type species *Euura gallae* Newman, 1837. The genus is distributed in Holarctic and Oriental region; introduced into the Neotropical, Ethiopian and Australasian regions. Number of species: World – about 450; Palaearctic – about 300; Russia – 258 (+ 1 spp.).
- Euura abnormis** (Holmgren, 1883) [Nematus] (*Amauronematus tolli* Konow, 1907; *A. aulatus* MacGillivray, 1919). Russia: **EP** (N), **WS** (TM), **ES** (KR, YA). – Europe (WE, NE), N America.
- Euura aborigensis** (Vikberg, 2003) [Eupontania]. Host plant: *Salix dshugdshurica* (Salicaceae). Russia: **FE** (MG).
- Euura acuta** (Lindqvist, 1970) [Amauronematus]. Host plant: *Dasiphora* spp. (Rosaceae). Russia: **ES** (IR, ZB), **FE** (MG).
- Euura acutifoliae** (Zinovjev, 1985) [Pontania] (*Pontania acutifoliae daphnoides* Zinovjev, 1993; *Eupontania acutifoliae baltica* Vikberg et Zinovjev, 2006). Host plant: *Salix acutifolia*, *S. daphnoides* (Salicaceae). Russia: **EP** (N, NW, C, E, S). – Europe (WE, EE, NE).



- Euura acutiserra*** (Lindqvist, 1949) [Pontania]. Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (N). – Europe (WE, NE).
- Euura aeger*** (Konow, 1895) [Amauronematus] (*Amauronematus dalecarlicus* Malaise, 1921). Russia: **ES** (Zhelochovtsev, Zinovjev, 1995). – Europe (WE, EE, NE).
- Euura albipennis*** (Hartig, 1837) [Nematus] (*Nematus vernalis* Hartig, 1840; *N. obscuratus* Zaddach, 1883; *Polynematus legirupus* Konow, 1903; *P. sannio* Konow, 1903). Host plant: *Polygonum* spp. (Polygonaceae). Russia: **EP** (NW, C, E, S), **WS** (TK), **ES** (IR), **FE** (AM). – Europe (WE, EE, NE), Kazakhstan, Korean Peninsula.
- Euura albopicta*** (Malaise, 1931) [Pontania]. Host plant: *Salix* spp. (Salicaceae). Russia: **FE** (KA).
- Euura alpicola*** (Konow, 1895) [Amauronematus]. Host plant: *Salix phylicifolia* (Salicaceae). Russia: **EP** (NW). – Europe (WE).
- Euura amentorum*** (Förster, 1854) [Nematus] (*Nematus suavis* Ruthe, 1859; *N. laevigatus* Zaddach, 1883; *Pontania atra* Marlatt, 1896; *P. maura* Rohwer, 1908; *P. amentivora* Rohwer, 1915; *Pristiphora amentorum nigripleuris* Enslin, 1916; *Pontoprastia kamtchatica* Malaise, 1931). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (Taeger et al., 2006), **FE** (KA, CH). – Europe (WE, EE, NE), Greenland, N America.
- Euura amerinae*** (Linnaeus, 1758) [Cynips] (*Tenthredo salicispentandrae* Retzius, 1783; *Tenthredo gallarum* Latreille, 1804; *T. saliceti* Fallén, 1808; *Nematus pentandrae* Dahlbom, 1835; *Nematus populi* Hartig, 1837; *N. medullarius* Hartig, 1837; *N. impunctatus* Herrich-Schäffer, 1840; *N. buccatus* Thomson, 1863; *Pontania joergenseni* Strand, 1908). The larvae form a nutlike gall on the branches of *Salix pentandra* (Salicaceae). Russia: **EP** (N, NW, C, E), **UR**, **WS** (Zhelochovtsev, Zinovjev, 1995), **ES** (YA), **FE** (KA, MG). – Europe (WE, EE, NE, SE).
- Euura ampla*** (Konow, 1895) [Amauronematus]. Host plant: *Betula* spp. (Betulaceae). Russia: **EP** (N, NW, C, E), **UR**, **WS** (Zhelochovtsev, Zinovjev, 1995), **ES** (IR, ZB). – Europe (WE, EE, NE).
- Euura amurensis*** (Zinovjev, 1985) [Pontania]. Host plant: *Salix miyabeana* (Salicaceae). Russia: **ES** (ZB), **FE** (AM, KH, PR).
- Euura annulata*** (Gimmerthal, 1834) [Nematus] (*Nematus xanthopterus* Dahlbom, 1835; *N. flavipennis* Cameron, 1876; *Pachynematus freyi* Lindqvist, 1949; *P. lacteipennis* Benson, 1963). Host plant: *Rumex* spp. (Polygonaceae). Russia: **EP** (E, NC), **ES** (IR, BR), **FE** (KH, SA). – Europe (WE, EE, NE), Central Asia.
- Euura anomaloptera*** (Förster, 1854) [Nematus] (*Pontania joergenseni* Enslin, 1916; *Amauronematus maidli* Zirngiebl, 1937; *Pontania cyrnea* Liston, 2005). Host plant: *Salix carpea* (Salicaceae). Russia: **EP** (N, NW). – Europe (WE, EE, NE, SE).
- Euura arbusculae*** (Benson, 1941) [Pontania]. Host plant: *Salix arbuscula* (Salicaceae). Russia: **EP** (N). – Europe (WE).
- Euura arctica*** MacGillivray, 1919 (*Pontania deminuta* MacGillivray, 1919; *P. delicatula* MacGillivray, 1919; *Euura abortiva* MacGillivray, 1919). Host plant: *Salix reticulata* (Salicaceae). Russia: **ES** (YA), **FE** (CH). – N America.
- Euura arcticornis*** (Konow, 1904) [Pontania] (*Pontania phylicifoliae* Forsius, 1919; *P. viminalis hepaticulae* Malaise, 1920). Host plant: *Salix phylicifolia*, *S. lapponicum* (Salicaceae). Russia: **EP** (N, NW, E), **UR**, **WS** (TM, AL), **ES** (KR, IR, ZB, BR, YA), **FE** (AM, PR, MG). – Europe (WE, EE, NE), Korean Peninsula.
- Euura atra*** (Jurine, 1807) [Pteronus] (*Nematus angustus* Hartig, 1837; *E. salicicola* E.A. Smith, 1879; *Cryptocampus helveticus* Zaddach, 1883; *C. robustus* Zaddach, 1883; *Euura nigra* Provancher, 1888). Host plant: *Salix* spp. (Salicaceae); larvae in galls on shoots. Russia: **EP** (NC), **ES** (IR, BR, YA, ZB), **FE** (MG). – Europe (WE, EE, NE, SE), Armenia, Cyprus, Kyrgyzstan, Kazakhstan; introduced into N America.
- Euura auritae*** Kopelke, 2000 (*E. cinereae* Kopelke, 1996; *E. lapponica* Kopelke, 1996; *E. salicislaponicae* Kopelke, 2014). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (N). – Europe (WE, EE, NE).
- Euura bergmani*** (Malaise, 1931) [Amauronematus] (*Pteronidea kamtchatica* Lindqvist, 1971). Russia: **FE** (KA).
- Euura bergmanni*** (Dahlbom, 1835) [Nematus] (*Nematus virescens* Hartig, 1837; *N. pallicarpus* Hartig, 1837; *N. curtispina* Thomson, 1871; *N. varipictus* Holmgren, 1883; *N. anthophilus* Zaddach, 1884; *N. pallidicarpus* Dalla Torre, 1894; *Amauronematus longicornis* Konow, 1897; *Pteronus curtispinis* Konow, 1903; *Amauronematus trigonicus* Konow, 1905; *Lygaeonematus pallens* Enslin, 1916; *Pteronidea curtispina luctuosa* Enslin, 1916; *P. vernalis* Lindqvist, 1937). Host plant: *Salix* spp. (Salicaceae); up to 5 generations per year. Russia: **EP** (N, NW,

- C, E, S, NC), **UR, ES** (IR, YA). – Europe (WE, EE, NE, SE), Kyrgyzstan.
- Euura bertiloppii** Heibo et Liston, 2014 (*Amauronematus poppii* Konow, 1904). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (N, NW), **ES** (KR), **FE** (KA). – Europe (NE).
- Euura betulae** (Schmidt, 1997) [Amauronematus]. Host plant: *Betula* spp. (Betulaceae). Russia: **FE** (MG). – Europe (NE).
- Euura bicolor** (Jakovlev, 1891) [Amauronematus]. Russia: **ES** (IR), **FE** (AM).
- Euura bigallae** (Vikberg et Zinovjev, 2014) [Pontania]. Host plant: *Salix* spp. (Salicaceae); larvae in galls on shoots. Russia: **EP** (N). – Europe (NE).
- Euura bipartita** (Serville, 1823) [Nematus] (*Nematus bipartitus* Lepeletier, 1823; *N. aurantiacus* Hartig, 1837; *N. confusus* Förster, 1854; *N. xanthogaster* Förster, 1854; *N. ochropus* Thomson, 1863; *Pachynematus albipennis salicicola* Enslin, 1916). Host plant: *Salix* spp., *Populus* spp. (Salicaceae). Russia: **EP** (N, NW, C, E, S), **UR, WS** (TM, OM). – Europe (WE, EE, NE, SE), Kazakhstan.
- Euura bohemani** (Thomson, 1871) [Nematus] (*Pteronidea pseudonotabilis* Enslin, 1916; *P. pseudonotabilis simplex* Forsius, 1921; *P. pseudonotabilis t-magnum* Malaise, 1931). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (N, C), **FE** (KA). – Europe (EE, NE).
- Euura boreophila** (Lindqvist, 1971) [Pteronidea]. Host plant: *Salix* spp. (Salicaceae). Russia: **ES** (IR, BR). – Europe (NE).
- Euura borisi** (Vikberg, 2003) [Eupontania]. Host plant: *Salix rhamnifolia* (Salicaceae). Russia: **ES** (BR).
- Euura brevicera** Taeger et Blank, 2014 (*Pteronidea brachycera* Lindqvist, 1975). Host plant: *Salix* spp. (Salicaceae). Russia: **ES** (IR).
- Euura breviseta** (Lindqvist, 1949) [Pteronidea]. Host plant: *Betula* spp. (Betulaceae). Russia: **EP** (N). – Europe (NE).
- Euura brevivalva** (Thomson, 1871) [Nematus] (*Pteronius kriegeri* Konow, 1903; *Amauronematus spurcus* Konow, 1904; *Pteronidea absimilis* Lindqvist, 1949). Host plant: *Betula* spp. (Betulaceae). Russia: **EP** (N, NW), **ES** (IR, ZB), **FE** (AM, MG). – Europe (WE, NE).
- Euura bridgmanii** (Cameron, 1883) [Nematus] (*Pontania kirchneri* Zirngiebl, 1959). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (Zhelochovtsev, Zinovjev, 1995), “Siberia” (Zhelochovtsev, Zinovjev, 1995). – Europe (WE, NE).
- Euura brunneipicta** (Lindqvist, 1975) [Amauronematus]. Russia: **ES** (IR).
- Euura cadderensis** (Cameron, 1875) [Nematus] (*Pteronidea macroserrata* Lindqvist, 1943). Host plant: *Betula* spp. (Betulaceae), *Salix* spp. (Salicaceae). Russia: **EP** (N, E), **UR**. – Europe (WE, EE, NE).
- Euura caeruleocarpa** Hartig, 1837 (*Nematus propinquus* Dahlbom, 1835; *N. sulcipes* Hartig, 1837; *N. brevispinis* Förster, 1854; *N. brachyacanthus* Thomson, 1863; *N. insubricus* Cobelli, 1892). Host plant: *Salix* spp., *Populus* spp. (Salicaceae), *Paeonia* spp., *Ranunculaceae*. Russia: **EP** (NW, C, NC), **ES** (IR, BR, YA, ZB), **FE** (KH, PR, MG). – Europe (WE, EE, NE), China (Wei et al., 2006), Japan (Hok, Hon).
- Euura camtschatcalis** (Enslin, 1927) [Amauronematus]. Russia: **FE** (KA).
- Euura camtschatica** (Forsius, 1928) [Pontania]. Host plant: *Salix* spp. (Salicaceae). Russia: **FE** (KA).
- Euura capito** (Konow, 1903) [Pteronus]. Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (N, C), **UR, FE** (KA). – Europe (WE, EE, NE, SE), Kazakhstan, China (NW).
- Euura carelica** (Hellén, 1948) [Nematus] (*Pteronidea winterti* Lindqvist, 1958). Russia: **EP** (N). – Europe (NE).
- Euura caucasica** (Liston, Taeger et Blank, 2009) [Pachynematus] (*Pachynematus alticola* Muche, 1973). Russia: **EP** (NC). – Georgia, Mongolia.
- Euura caudalis** (Eversmann, 1847) [Nematus]. Russia: **EP** (E).
- Euura clibrichella** (Cameron, 1878) [Nematus] (*Nematus thomsoni* Cameron, 1882; *Pachynematus pubescens* Marlatt, 1896; *P. gotarus* Kincaid, 1900; *P. venustus* MacGillivray, 1921; *P. vernus* MacGillivray, 1921). Host plant: *Carex* spp. (Cyperaceae). Russia: **EP** (N). – Europe (WE, NE), N America.
- Euura clitellata** (Serville, 1823) [Nematus] (*Nematus clitellatus* Lepeletier, 1823; *N. kirbyi* Dahlbom, 1835; *N. leucocarpus* Hartig, 1840; *N. einersbergensis* Hartig, 1840; *N. flaviventris* Hartig, 1840; *N. palliceps* Hartig, 1840; *N. diaphanus* Eversmann, 1847; *N. umbripennis* Eversmann, 1847; *N. griseus* Eversmann, 1847; *Epitactus praecox* Förster, 1854; *Nematus trisignatus* Förster, 1854; *N. microps* Förster, 1854; *N. pectoralis* Snellen van Vollenhoven, 1867; *N. turgidus* Zaddach, 1876; *N. leucocarpus* André, 1880; *N. valesiacus* W.F. Kirby, 1882; *N. tener* Zaddach, 1884; *N. pallidiceps* Dalla Torre, 1894; *Pachynematus infumatus* Marlatt, 1896; *P. zaddachi* Konow, 1901; *P. lentus* Konow, 1903; *P. glesipennis* Konow, 1903; *P. foveolatus* Konow, 1903; *P. clitellatus transigens* Enslin, 1916; *P. clitellatus*

- flavissimus* Enslin, 1916; *P. refractarius* MacGillivray, 1921; *P. truncatus* Benson, 1948). Host plant: Poaceae. Russia: **EP** (NW, C, E, S, NC), **UR**, **WS** (Zhelochovtsev, 1988), **ES** (IR, BR), **FE** (SA, MG). – Europe (WE, EE, NE), Kazakhstan, China (Wei et al., 2006), Korean Peninsula, Japan (Hok).
- Euura clypeata** (Lindqvist, 1975) [Amauronematus]. Russia: **ES** (IR).
- Euura collactanea** (Förster, 1854) [Nematus] (*Nematus deficiens* Förster, 1854; *N. crassipes vacciniellus* Cameron, 1876; *N. xanthostylos* Zaddach, 1884; *Pontania viminalis lugubris* Enslin, 1918; *P. collactanea relicta* Weiffenbach, 1962; *Eupontania collactanea rosmarinifolia* Vikberg et Zinovjev, 2006). Host plant: *Salix repens repens*, *S. repens rosmarinifolia* (Salicaceae). Russia: **EP** (NW). – Europe (WE, EE, NE).
- Euura compacta** (Bogacheva, 1977) [Amauronematus]. Russia: **WS** (TM).
- Euura cornuta** (Lindqvist, 1962) [Amauronematus]. Russia: **FE** (MG). – Europe (NE).
- Euura crassidens** (Lindqvist, 1975) [Amauronematus]. Russia: **ES** (IR).
- Euura crassipes** (Thomson, 1871) [Nematus] (*Pontania lapponica* Malaise, 1920; *P. enslini* Zirngiebl, 1937). Host plant: *Salix herbacea*, *S. lapponum*, *S. polaris* (Salicaceae); larvae in galls on the central vein of the leaf. Russia: **EP** (N, C), **WS** (TM), **ES** (IR, YA), **FE** (KU, MG). – Europe (WE, NE).
- Euura crassispina** (Thomson, 1871) [Nematus]. Host plant: *Salix glauca*, *S. arctica*, *S. sphenophylla* (Salicaceae). Russia: **ES** (YA), **FE** (KA, MG). – Europe (NE).
- Euura dentata** (Lindqvist, 1937) [Pachynematus]. Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (NW). – Europe (NE).
- Euura dispar** (Zaddach, 1876) [Nematus]. Host plant: *Betula* spp. (Betulaceae). Russia: **EP** (N, NW, C, E), **ES** (IR). – Europe (WE, EE, NE).
- Euura distinguenda** (Enslin, 1915) [Amauronematus]. Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (NW). – Europe (WE, EE, NE).
- Euura dolichura** (Thomson, 1871) [Nematus] (*Nematus femoralis* Cameron, 1876; *Pontania robbinsi* Benson, 1935; *P. lapponicola* Kopelke, 1994). Host plant: *Salix lapponum*, *S. phylicifolia*, *?S. iliensis* (Salicaceae); larvae form galls. Russia: **EP** (N, NC), **WS** (AL), **ES** (KR, IR, BR, YA), **FE** (PR, KA, MG). – Europe (WE, EE, NE, SE), Kyrgyzstan, N America.
- Euura duplex** (Serville, 1823) [Pristiphora] (*Pristiphora duplex* Lepeletier, 1823). Host plant: Poaceae. Russia: **EP** (NW), **UR**, **ES** (KR, IR, BR, YA, ZB), **FE** (AM). – Europe (WE, EE, NE), Mongolia.
- Euura edentata** (Lindqvist, 1975) [Pachynematus]. Russia: **ES** (IR).
- Euura edenticulata** (Lindqvist, 1970) [Amauronematus]. Russia: **ES** (IR).
- Euura eiteli** (Saarinen, 1948) [Amauronematus]. Russia: **EP** (N), **ES** (ZB). – Europe (NE).
- Euura elaeagnocola** (Kopelke, 1994) [Pontania] (*Nematus parallelus* Kriechbaumer, 1876). Host plant: *Salix elaeagnos*, *S. lapponicum*, *S. alaxensis* (Salicaceae). Russia: **FE** (MG). – Europe (WE).
- Euura elbrus** Sundukov, 2017 (*Nematus nivalis* Muche, 1973). Russia: **EP** (NC). – Georgia.
- Euura epilosa** (Lindqvist, 1970) [Pteronidea]. Host plant: *Spiraea* spp. (Rosaceae). Russia: **ES** (IR).
- Euura erecta** (Lindqvist, 1945) [Amauronematus]. Russia: **WS** (TM). – Europe (WE, NE).
- Euura ermolenkoi** (Haris, 2006) [Nematus]. Russia: **FE** (KU).
- Euura erythropus** (Lindqvist, 1975) [Amauronematus]. Russia: **ES** (IR).
- Euura evenensis** (Zhelochovtsev, 1981) [Nematus]. Host plant: *?Chosenia arbutifolia* (Salicaceae). Russia: **FE** (MG).
- Euura excavata** (Marlatt, 1896) [Pontania] (*Pontania megacephala* Rohwer, 1908; *P. dstricta* MacGillivray, 1923; *P. apicifrons* Malaise, 1931). Host plant: *Populus suaveolens*, *Salix pentandra*, *S. pseudopentandra* (Salicaceae). Russia: **EP** (Zhelochovtsev, Zinovjev, 1995), **ES** (Zhelochovtsev, Zinovjev, 1995), **FE** (KA). – Europe (WE, NE), N America.
- Euura excisa** (Thomson, 1863) [Nematus] (*Lygaeonematus strandi* Konow, 1901). Host plant: *Geranium* spp. (Geraniaceae). Russia: **ES** (IR). – Europe (NE), Mongolia, N America.
- Euura extensicornis** (Norton, 1861) [Nematus] (*Nematus marylandicus* Norton, 1864; *N. aureopectus* Norton, 1867; *N. suadus* Cresson, 1880; *Pachynematus affinis* Marlatt, 1896; *P. tritici* Marlatt, 1896). Host plant: Poaceae. Russia: **ES** (IR), **FE** (MG). – N America.
- Euura facialis** (Lindqvist, 1969) [Pteronidea]. Host plant: *Alnus* spp. (Betulaceae). Russia: **ES** (IR). – Europe (NE).
- Euura fahraei** (Thomson, 1863) [Nematus] (*Nematus melanodus* Zaddach, 1884). Host plant: *Populus* spp. (Salicaceae). Russia: **ES** (IR, YA). – Europe (WE, EE, NE).
- Euura fallax** (Serville, 1823) [Nematus] (*Nematus fallax* Lepeletier, 1823; *N. melanocerus* Hartig, 1840;

- N. xanthocarpus* Hartig, 1840; *N. eupodius* Hartig, 1840; *N. haemorrhoidalis* Hartig, 1840; *N. brachycercus* Hartig, 1840; *N. schmidtii* Gimmerthal, 1844; *N. eversmanni* Förster, 1854; *N. emarginatus* Förster, 1854; *N. circumscriptus* Förster, 1854; *N. declinatus* Förster, 1854; *N. incertus* W.F. Kirby, 1882; *N. erythropareus* Zaddach, 1884; *Pachynematus sulcatus* Benson, 1948; *P. chambersi* Benson, 1948; *P. virginalis* Liston, 1980). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (NW, NC), **FE** (PR, KA, MG). – Europe (WE, EE, NE, SE), Turkey, Kyrgyzstan, Kazakhstan, Mongolia, China (NW), Korean Peninsula, Japan (Hon).
- Euura fasciata** (Konow, 1897) [Amauronematus] (*Amauronematus perkinsi* Benson, 1933). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (NW), **ES** (IR). – Europe (WE, EE, NE).
- Euura ferruginea** (Förster, 1854) [Nematus] (*Nematus glottianus* Cameron, 1882; *Amauronematus moricei* Konow, 1902; *Pteronidea ferruginea plagiata* Enslin, 1916). Host plant: *Salix* spp., *Populus* spp. (Salicaceae). Russia: **EP** (N), **ES** (IR). – Europe (WE, EE, NE).
- Euura filiformis** (Lindqvist, 1975) [Pachynematus]. Russia: **ES** (IR).
- Euura flavescens** (Stephens, 1835) [Nematus] (*Nematus dilutus* Brischke, 1883). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (NW), **ES** (YA), **FE** (KA). – Europe (WE, EE, NE), Central Asia.
- Euura foetidae** (Kopelke, 1989) [Pontania]. Host plant: *Salix foetida*, *S. saposchnikovii* (Salicaceae); larvae form galls. Russia: **WS** (AL). – Europe (WE).
- Euura frenalalis** (Thomson, 1888) [Nematus] (*Pteronius fastosus* Konow, 1904). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (N), “Siberia” (Zhelochovtsev, Zinovjev, 1995). – Europe (WE, EE, NE), China (Wei et al., 2006).
- Euura freyja** Liston, Taeger et Blank, 2009 (*Pontoprastia analis* Lindqvist, 1961). Host plant: *Salix* spp. (Salicaceae). Russia: **ES** (IR). – Europe (NE).
- Euura fujiense** (Zinovjev, 1993) [Pikonema]. Host plant: ?*Abies* spp., ?*Picea* spp. (Pinaceae). Russia: **FE** (KU). – Japan (Hon).
- Euura fulvescens** (Lindqvist, 1949) [Pteronidea]. Russia: **EP** (N). – Europe (NE).
- Euura fuscomaculata** (Förster, 1854) [Nematus] (*Nematus strongylogaster* Cameron, 1878; *Pteronius dossuarius* Konow, 1904). Host plant: *Populus* spp. (Salicaceae). Russia: **EP** (NW, C), **ES** (YA). – Europe (WE, EE, NE).
- Euura gehrsi** (Konow, 1903) [Pachynematus]. Host plant: *Polygonum* spp. (Polygonaceae). Russia: **EP** (NC), **ES** (IR). – Europe (WE).
- Euura glabrifrons** (Benson, 1960) [Pontania]. Host plant: *Salix lanata* (Salicaceae); larvae form galls. Russia: **EP** (N), **WS** (TM), **ES** (YA), **FE** (MG). – Europe (NE).
- Euura glacialis** (Jakovlev, 1891) [Amauronematus]. Russia: **EP** (N).
- Euura glaucae** (Kopelke, 1994) [Pontania]. Host plant: *Salix glauca*, *S. alpina*, *S. saxatilis* (Salicaceae); larvae form galls. Russia: **ES** (YA), **FE** (MG). – Europe (WE, NE).
- Euura gracilidentata** (Viitasaari, 1980) [Pteronidea]. Host plant: *Ribes alpinum* (Grossulariaceae). Russia: **EP** (NW). – Europe (WE, NE, SE).
- Euura groenlandica** (Malaise, 1933) [Amauronematus]. Russia: **EP** (N). – Europe (NE), Greenland, N America.
- Euura harpicola** (Bogacheva, 1977) [Amauronematus]. Russia: **WS** (TM).
- Euura hartigi** (Saarinen, 1950) [Amauronematus]. Russia: **EP** (NW). – Europe (WE).
- Euura hastatae** Malaise, 1920. Host plant: *Salix hastata* (Salicaceae). Russia: **EP** (N). – Europe (WE, EE, NE).
- Euura hastatavora** Vikberg, 2014 (*Pontania hastatae* Vikberg, 1970). Host plant: *Salix hastata* (Salicaceae). Russia: **EP** (N), **WS** (TM), **ES** (YA), **FE** (MG, CH). – Europe (WE, NE).
- Euura hebes** (Konow, 1907) [Amauronematus] (*Amauronematus pristiphorinus* Malaise, 1921). Russia: **WS** (TM). – Europe (NE), N America.
- Euura hedstroemi** (Malaise, 1931) [Amauronematus] (*Amauronematus rex* Benson, 1948). Russia: **EP** (N), **FE** (KA, CH). – Europe (WE, NE), N America.
- Euura helleni** (Lindqvist, 1941) [Amauronematus]. Russia: **EP** (N), **FE** (MG). – Europe (NE), N America.
- Euura helveticae** (Kopelke, 1986) [Pontania]. Host plant: *Salix helvetica*, *S. lanata*, *S. brachypoda* (Salicaceae); larvae form galls. Russia: **EP** (NW), **WS** (AL), **ES** (YA). – Europe (WE).
- Euura herbaceae** (Cameron, 1876) [Nematus] (*Pontania polaris* Malaise, 1920). Host plant: *Salix herbacea*, *S. polaris*, *S. nummularia* (Salicaceae). Russia: **EP** (N), **WS** (TM), **ES** (KR, BR, YA), **FE** (MG, CH). – Europe (WE, NE).
- Euura hirowatarii** (Haris et Zsolnai, 2007) [Pachynematus]. Russia: **FE** (SA). – Korean Peninsula.

- Euura histrio** (Serville, 1823) [Nematus] (*Nematus histrio* Lepeletier, 1823; *N. rufescens* Hartig, 1837; *N. fur* Walsh, 1866; *N. glenelgensis* Cameron, 1882). Host plant: Salix spp. (Salicaceae). Russia: **EP** (NW, C, E, NC), **UR**, **ES** (IR, ZB). – Europe (WE, EE, NE, SE), N America.
- Euura hulteni** (Malaise, 1931) [Amauronematus]. Russia: **FE** (KA). – N America.
- Euura humeralis** (Serville, 1823) [Nematus] (*Nematus humeralis* Lepeletier, 1823; *N. squalidus* Eversmann, 1847; *N. incanus* Förster, 1854; *Amauronematus terminalis* Malaise, 1931). Host plant: Salix spp. (Salicaceae). Russia: **EP** (NW, C, E), **UR**, **WS** (Zhelochovtsev, Zinovjev, 1995), **ES** (IR), **FE** (KA, MG). – Europe (WE, EE, NE).
- Euura hypoxantha** (Förster, 1854) [Nematus] (*Nematus palliatus* Thomson, 1863; *N. orbitalis* Cameron, 1884; *Pteronidea nigronota* Lindqvist, 1958). Host plant: Salix spp., Populus spp. (Salicaceae). Russia: **EP** (NW, C, S), **ES** (IR). – Europe (WE, EE, NE, SE), Kazakhstan, Japan (Hon).
- Euura imperfecta** (Zaddach, 1876) [Nematus] (*Pachynematus imperfectus claristernis* Enslin, 1916). Host plant: Larix spp. (Pinaceae). Russia: **EP** (NW), **ES** (IR, BR, YA, ZB). – Europe (WE, EE, NE).
- Euura incompleta** (Förster, 1854) [Nematus] (*Nematus smaragdinus* Stein, 1881; *N. pulchellus* Cameron, 1882; *N. chlorogaster* Zaddach, 1884; *Pteronidea segmentaria signata* Enslin, 1916; *P. segmentaria tessinensis* Enslin, 1916). Host plant: Lathyrus vernus (Fabaceae). Russia: **EP** (N, NW, C, E, S, NC), **ES** (ZB). – Europe (WE, EE, NE, SE), Georgia, Kazakhstan.
- Euura insigne** (Hartig, 1840) [Nematus] (*Nematus superbus* Gradl, 1881; *N. nobilis* W.F. Kirby, 1882). Host plant: Abies spp., Picea spp. (Pinaceae). Russia: **EP** (NW), **ES** (YA), **FE** (PR). – Europe (WE, EE, NE).
- Euura integra** (Zinovjev, 1985) [Pontania]. Host plant: Salix integra (Salicaceae). Russia: **FE** (KH, PR). – Japan (Zinovjev, 2010).
- Euura itelmene** (Malaise, 1931) [Pontoprastia]. Host plant: ?Salix alaxensis (Salicaceae). Russia: **FE** (KA). – N America.
- Euura itoi** (Okutani, 1955) [Pachynematus]. Host plant: Larix spp. (Pinaceae). Russia: **UR**, **ES** (TU, IR, BR, YA, ZB), **FE** (AM, MG). – Europe (WE), China (NE), Korean Peninsula, Japan (Hon).
- Euura jugicola** (Thomson, 1871) [Nematus] (*Pteronidea karvoneni* Lindqvist, 1969). Host plant: Salix aurita (Salicaceae). Russia: **EP** (NW). – Europe (WE, NE).
- Euura krausi** (Taeger et Blank, 1998) [Amauronematus]. Host plant: Populus tremula (Salicaceae). Russia: **EP** (N, NW, C), **ES** (IR). – Europe (WE, EE, NE, SE).
- Euura kunasirensis** (Haris, 2006) [Nematus]. Russia: **FE** (KU).
- Euura laeta** (Brischke, 1883) [Cryptocampus] (*E. viminalis* Kopelke, 2001). Host plant: Salix viminalis (Salicaceae); larvae in the galls at the base of the leaf petiole. Russia: **EP** (N, NW, C, E), **FE** (KA). – Europe (WE, EE, NE).
- Euura lanatae** Malaise, 1920. Host plant: Salix lanata (Salicaceae); larvae in enlarged buds. Russia: **WS** (TM), **ES** (KR). – Europe (NE), N America.
- Euura lanceata** (Hellén, 1970) [Amauronematus]. Russia: **FE** (MG). – Europe (NE).
- Euura lappo** Malaise, 1920. Host plant: Salix lapponum (Salicaceae). Russia: **EP** (N). – Europe (EE, NE).
- Euura latiserra** (Malaise, 1921) [Pontoprastia]. Host plant: Salix spp. (Salicaceae). Russia: **WS** (TM), **ES** (KR), **FE** (CH). – Europe (NE).
- Euura latisulcata** (Malaise, 1931) [Amauronematus]. Russia: **FE** (KA).
- Euura leionota** (Benson, 1933) [Pteronidea]. Host plant: Betula spp. (Betulaceae). Russia: **EP** (N). – Europe (WE, EE, NE).
- Euura leptoccephala** (Thomson, 1863) [Nematus] (*Amauronematus morawitsi* Jakovlev, 1891). Host plant: Salix spp. (Salicaceae). Russia: **EP** (NW). – Europe (NE), N America.
- Euura lethe** Prous et Liston, 2014 (*Amauronematus atratus* Lindqvist, 1961). Russia: **ES** (IR). – Europe (NE).
- Euura leucapsis** (Tischbein, 1846) [Nematus] (*Nematus viminalis* Hartig, 1840; *N. alienatus* Förster, 1854; *N. coriaceus* Benson, 1953; *Phyllocolpa rolleri* Liston, 2005). Host plant: Salix cinerea, S. aurita, S. silesiaca (Salicaceae). Russia: **EP** (NW), **ES** (IR, BR, YA), **FE** (AM, KA, MG). – Europe (WE, EE, NE), Tajikistan, Kyrgyzstan, Canada.
- Euura leucolena** (Brischke, 1883) [Nematus] (*Pontania unga* Kincaid, 1900; *Pteronidea egeria* MacGillivray, 1923). Host plant: Salix spp. (Salicaceae). Russia: **EP** (N, NW), **UR**, **WS** (TM), **ES** (KR, IR, BR, ZB), **FE** (KA, MG). – Europe (WE, EE, NE), N America.
- Euura leucopyga** (Lindqvist, 1949) [Amauronematus] (*Pteronidea bipicta* Lindqvist, 1959). Host plant:

- Alnus* spp. (Betulaceae). Russia: **EP** (N), **ES** (IR). – Europe (NE).
- Euura leucosticta** (Hartig, 1837) [Nematus] (*Nematus klugii* Gimmerthal, 1844; *N. crassulus* Thomson, 1863; *N. sharpi* Cameron, 1876; *Pontania ischnoceros nigrifrons* Konow, 1897; *P. auberti* Zirngiebl, 1957). Host plant: *Salix carpea*, *S. aurita*, *S. atrocinnerea* (Salicaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (Zhelochovtsev, Zinovjev, 1995). – Europe (WE, EE, NE, SE), N Africa, Armenia, Turkey, Kazakhstan.
- Euura leucotrocha** (Hartig, 1837) [Nematus] (*Nematus cylindricus* Hartig, 1840; *N. maculiventris* Hartig, 1840; *N. approximatus* Förster, 1854; *N. consobrinus* Snellen van Vollenhoven, 1871; *N. umbrius* Zaddach, 1876; *N. sauterianus* Zaddach, 1883; *N. multiplex* Zaddach, 1883; *Pteronidea cognata* Lindqvist, 1958). Host plant: *Ribes* spp. (Grossulariaceae). Russia: **EP** (NW, C, E), **UR**, **WS** (Zhelochovtsev, Zinovjev, 1995). – Europe (WE, EE, NE), China (Wei et al., 2006).
- Euura lichtwardti** (Konow, 1903) [Pachynematus] (*Nematus apicalis* Hartig, 1837; *Pachynematus kubesi* Konow, 1905). Host plant: Poaceae. Russia: **EP** (N), **ES** (IR). – Europe (WE, EE, NE), Korean Peninsula.
- Euura lienterica** (Holmgren, 1883) [Nematus]. Host plant: *Vaccinium* spp. (Ericaceae). Russia: **EP** (N), **WS** (TM), **ES** (KR), **FE** (MG, CH). – Europe (NE).
- Euura lindqvisti** (Hellén, 1951) [Amauronematus]. Russia: **ES** (Zhelochovtsev, Zinovjev, 1995). – Europe (NE).
- Euura longicauda** (Hellén, 1948) [Nematus]. Russia: **EP** (N), **FE** (MG). – Europe (NE), N America.
- Euura longiserra** (Thomson, 1863) [Nematus] (*Nematus leucodous* Zaddach, 1884). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (N, C), **WS** (AL), **ES** (IR, YA), **FE** (KA). – Europe (WE, NE).
- Euura magadanensis** (Vikberg et Zinovjev, 2014) [Pontania]. Host plant: *Salix* spp. (Salicaceae); larvae form galls. Russia: **ES** (YA), **FE** (KA, MG, CH).
- Euura malaisei** (Hellén, 1970) [Amauronematus] (*Decanematus longiserra* Malaise, 1931). Russia: **FE** (KA). – Europe (WE, EE, NE).
- Euura mandshurica** (Zinovjev, 1981) [Pontania]. Host plant: *Salix pierotii*, *S. babylonica* (Salicaceae); larvae form galls. Russia: **FE** (AM, PR). – Japan (Zinovjev, 2010).
- Euura mcluckiei** (Benson, 1935) [Amauronematus] (*Amauronematus pustulatus* Lindqvist, 1962). Host plant: *Salix reticulata* (Salicaceae). Russia: **EP** (N), “Siberia” (Zhelochovtsev, Zinovjev, 1995). – Europe (WE, NE).
- Euura melanocephala** (Hartig, 1837) [Nematus] (*Tenthredo salicis* Retzius, 1783; *Nematus perspicillaris* Hartig, 1840; *N. brevisculus* Eversmann, 1847; *N. pyrrhonotus* Zaddach, 1883; *Pteronus xanthostomus* Rohwer, 1910; *Pteronidea melanocephala mesothoracica* Enslin, 1916). Host plant: *Salix* spp., *Populus* spp. (Salicaceae). Russia: **EP** (NW, C). – Europe (WE, EE, NE, SE), Armenia.
- Euura microphyes** (Förster, 1854) [Nematus] (*Pontoprístia romani* Malaise, 1921; *P. nana* Lindqvist, 1949; *P. fennicus* Lindqvist, 1949). Host plant: *Salix* spp. (Salicaceae); larvae in the inflorescence. Russia: **EP** (N), **FE** (PR). – Europe (WE, NE), N America.
- Euura miliaris** (Panzer, 1797) [Tenthredo] (*Nematus dorsalis* Serville, 1823; *N. dorsalis* Lepeletier, 1823; *N. testaceus* Stephens, 1835; *N. fulvus* Hartig, 1837; *N. purus* Förster, 1854; *N. validicornis* Förster, 1854; *N. fulvus basalis* Costa, 1859; *N. fulvus exoleta* Costa, 1859; *N. trimaculatus* Snellen van Vollenhoven, 1862; *N. solitarius* Zaddach, 1883; *Pteronidea miliaris nigronotata* Enslin, 1916). Host plant: *Salix* spp. (Salicaceae); larvae form a galls on the leaves. Russia: **EP** (N, NW, C, E, S, NC), **UR**, **ES** (KR, IR, BR, YA), **FE** (SA). – Europe (WE, EE, NE, SE), SW Asia, Central Asia, China (Wei et al., 2006), Korean Peninsula.
- Euura miltonota** (Zaddach, 1883) [Nematus] (*Amauronematus jaroslawnensis* Jakovlev, 1891; *A. hercyniae* Konow, 1896). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (N, NW, C), **FE** (KA). – Europe (WE, EE).
- Euura mimator** Schmidt, 2014 (*Amauronematus mimus* Schmidt, 1997). Russia: **EP** (NW). – Europe (WE, NE).
- Euura mimus** (Konow, 1903) [Pteronus]. Russia: **EP** (NW). – Europe (WE, EE, SE).
- Euura mirabilis** (Zinovjev, 1985) [Pontania]. Host plant: *Salix cardiophylla* (Salicaceae). Russia: **FE** (PR, SA).
- Euura montana** (Zaddach, 1883) [Nematus] (*Nematus jemilleri* Stein, 1894). Host plant: *Picea* spp., *Abies* spp. (Pinaceae). Russia: **EP** (C), **ES** (YA). – Europe (WE, EE, NE).
- Euura monticola** (Thomson, 1871) [Nematus] (*Pachynematus perkioemaekii* Lindqvist, 1960; *Nematus pschornwalcheri* Muche, 1972). Russia: **EP** (N). – Europe (WE, EE, NE, SE).

- Euura mucronata** (Hartig, 1837) [Nematus] (*Cryptocampus pictus* Zaddach, 1883; *C. gemmarum* Brischke, 1883; *Euura insularis* Kincaid, 1900). Host plant: *Salix caprea*, *S. aurita* (Salicaceae); larvae in bugs. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **ES** (IR, YA), **FE** (AM, KA). – Europe (WE, EE, NE, SE), Armenia, Japan (Hon), N America.
- Euura mundus** (Konow, 1895) [Amauronematus]. Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (NW), **ES** (IR). – Europe (WE, NE), Mongolia, China (Wei et al., 2006).
- Euura myosotidis** (Fabricius, 1804) [Tenthredo] (*Nematus interruptus* Serville, 1823; *N. interruptus* Lepeletier, 1823; *N. segmentarius* Förster, 1854; *N. ambiguus* Förster, 1854; *N. decipiens* W.F. Kirby, 1882; *Pteronus myosotidis fallaciosus* Konow, 1903; *Pteronidea myosotidis pseudopavida* Enslin, 1916). Host plant: Fabaceae, Rosaceae. Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (AL), **ES** (KR, IR). – Europe (WE, EE, NE, SE), Armenia, Turkey, Kyrgyzstan, Kazakhstan.
- Euura myrsiniticola** (Kopelke, 1991) [Pontania]. Host plant: *Salix myrsinites* (Salicaceae). Russia: **EP** (N). – Europe (NE).
- Euura myrtilloidea** (Kopelke, 1991) [Pontania]. Host plant: *Salix myrtilloides* (Salicaceae). Russia: **EP** (N, NW), **FE** (AM, MG). – Europe (WE, NE).
- Euura neglecta** (W.F. Kirby, 1882) [Nematus] (*Amauronematus spiniserra* Malaise, 1920; *A. intermedius* Malaise, 1931). Host plant: *Salix* spp. (Salicaceae). Russia: **UR**, **ES** (TU, YA), **FE** (KA). – Europe (NE), N America.
- Euura nigricornis** (Serville, 1823) [Nematus] (*Nematus nigricornis* Lepeletier, 1823; *N. zetterstedti* Dahlbom, 1835; *N. miniatus* Hartig, 1837; *N. sibiricus* Jakovlev, 1888; *N. biannulatus* Costa, 1890). Host plant: *Salix* spp., *Populus* spp. (Salicaceae). Russia: **EP** (NW, C, E), **ES** (IR). – Europe (WE, EE, NE, SE), Japan (Hon).
- Euura nigriventris** (Holmgren, 1883) [Nematus] (*Amauronematus varianus* MacGillivray, 1919; *Pteronidea melanostoma* Rohwer, 1920). Russia: **EP** (N). – N America.
- Euura nitidipleuris** (Malaise, 1931) [Amauronematus]. Russia: **FE** (KA). – Europe (NE), N America.
- Euura nivalis** (Vikberg, 1970) [Pontania]. Host plant: *Salix glauca* (Salicaceae). Russia: **EP** (N), **WS** (TM, AL). – Europe (WE, NE), Canada.
- Euura nudipectus** (Vikberg, 1965) [Pontania]. Host plant: *Salix phylicifolia* (Salicaceae). Russia: **EP** (N, NW), **FE** (MG). – Europe (NE).
- Euura nuortevai** (Lindqvist, 1958) [Pteronidea]. Russia: **ES** (IR). – Europe (NE).
- Euura obducta** (Hartig, 1837) [Nematus] (*Nematus conductus* Ruthe, 1859; *N. graminis* Cameron, 1874; *N. palliventris* Cresson, 1880; *N. pallidiventralis* Dalla Torre, 1894; *Pachynematus boulderensis* Rohwer, 1920). Host plant: Poaceae. Russia: **EP** (N, NW, C, NC), **ES** (TU, IR), **FE** (SA, KU, KA, MG). – Europe (WE, EE, NE, SE), Turkey, Kyrgyzstan, N America.
- Euura oblita** (Serville, 1823) [Nematus] (*Nematus oblitus* Lepeletier, 1823; *N. pineti* Hartig, 1837; *N. pleurostictus* Förster, 1854; *N. lepidus* Förster, 1854; *N. puella* Thomson, 1871; *N. elegans* Zaddach, 1884). Host plant: *Salix triandra*, *S. alba*, *S. fragilis* (Salicaceae). Russia: **EP** (NW, C, S), **ES** (ZB). – Europe (WE, EE, NE), Armenia, Turkey.
- Euura obscuripes** (Holmgren, 1883) [Nematus]. Russia: **EP** (N).
- Euura olfaciens olfaciens** (Benson, 1953) [Nematus]. Host plant: *Ribes* spp. (Grossulariaceae). Russia: **EP** (NW, C). – Europe (WE, EE, NE).
- Euura olfaciens kolymensis** (Zhelochovtsev, 1981) [Nematus]. Host plant: *Ribes* spp. (Grossulariaceae). Russia: **ES** (YA), **FE** (MG).
- Euura oligospila** (Förster, 1854) [Nematus] (*Nematus mendicus* Walsh, 1866; *N. trivittatus* Norton, 1867; *N. microcercus* Thomson, 1871; *N. dorsivittatus* Cresson, 1880; *N. salicivorus* Cameron, 1882; *Pteronus koebelei* Marlatt, 1896; *Pteronidea vanduzeei* Rohwer, 1913; *P. elelea* MacGillivray, 1923; *Nematus desantisi* D.R. Smith, 1983). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **ES** (TU, IR). – Europe (WE, EE, NE, SE), Caucasus, Central Asia, Pakistan, N America; introduced into Tropical Africa, S America, Australia, New Zealand.
- Euura pallens** (Konow, 1903) [Pteronus] (*Pteronidea straminea* Lindqvist, 1958). Russia: **ES** (IR). – Europe (NE).
- Euura pallescens** (Hartig, 1837) [Nematus] (*Nematus olivaceus* Thomson, 1871; *N. ruficeps* Zaddach, 1883; *N. pachycerus* Borries, 1896). Host plant: *Picea* spp. (Pinaceae). Russia: **EP** (C). – Europe (WE, EE, NE).
- Euura pallidior** (Hellén, 1970) [Amauronematus]. Russia: **WS** (TM). – Europe (NE).

- Euura papillosa** (Retzius, 1783) [Tenthredo] (*Tenthredo fuscata* Christ, 1791; *Nematus melanaspis* Hartig, 1840; *N. lacteus* Thomson, 1871; *N. sulphureus* Zaddach, 1876; *N. citreus* André, 1880; *N. maculiger* Cameron, 1882; *N. brunnicornis* Zaddach, 1883; *Pteronidea sveae* Lindqvist, 1958). Host plant: Salix spp., Populus spp. (Salicaceae), Betula spp. (Betulaceae). Russia: **EP** (N, NW, C), **WS** (Zhelochovtsev, 1988), **ES** (IR, BR, YA). – Europe (WE, EE, NE, SE), Pakistan, Kyrgyzstan, Kazakhstan, Japan (Takeuchi, 1952).
- Euura parvula** (Holmgren, 1883) [Nematus] (*Pontania poppii* Konow, 1904; *Pteronidea gracilicornis* Lindqvist, 1962). Host plant: Vaccinium spp. (Ericaceae). Russia: **EP** (N), **ES** (IR). – Europe (NE).
- Euura pavidata** (Serville, 1823) [Nematus] (*Nematus pavidus* Lepeletier, 1823; *N. ochraceus* Hartig, 1837; *N. semiorbitalis* Förster, 1854; *Cryptocampus quadrum* Costa, 1859; *Nematus wttewaalli* Snellen van Vollenhoven, 1862; *N. cameronii* Dalla Torre, 1894; *Pteronidea pavidata notanda* Enslin, 1916). Host plant: Salix spp., Populus spp. (Salicaceae). Russia: **EP** (NW, C), **WS** (Zhelochovtsev, Zinovjev, 1995). – Europe (WE, EE, NE, SE).
- Euura pedunculi** (Hartig, 1837) [Nematus] (*Nematus bellus* Zaddach, 1876; *N. baccarum* Cameron, 1876; *N. curticornis* Cameron, 1885; *Pontania bella nigrescens* Enslin, 1915; *P. pusilla* Lindqvist, 1964). Host plant: Salix spp. (Salicaceae); larvae form galls. Russia: **EP** (NW, C), **WS** (Zhelochovtsev, Zinovjev, 1995), **ES** (YA), **FE** (SA, KA, MG). – Europe (WE, EE, NE, SE), Korean Peninsula.
- Euura piliserra** (Thomson, 1863) [Nematus] (*Pontania piliserra mascula* Enslin, 1915; *P. piliserra tristis* Enslin, 1915; *Pteronidea weiffenbachi* Lindqvist, 1958). Host plant: Salix viminalis (Salicaceae). Russia: **EP** (Zhelochovtsev, Zinovjev, 1995), **WS** (Zhelochovtsev, Zinovjev, 1995). – Europe (WE, EE, NE).
- Euura platystigma** (Lindqvist, 1949) [Pteronidea]. Russia: **ES** (IR). – Europe (NE).
- Euura poecilonota** (Zaddach, 1876) [Nematus] (*Nematus viridescens* Cameron, 1885; *Pteronidea hyalinus* Marlatt, 1896; *Pteronidea subnitens* Lindqvist, 1958). Host plant: Betula spp. (Betulaceae). Russia: **EP** (NW, C, E, S), **WS** (AL), **ES** (TU, IR, BR), **FE** (MG). – Europe (WE, EE, NE, SE), Turkey, Kyrgyzstan, Korean Peninsula.
- Euura polaris** (Holmgren, 1883) [Nematus] (*Nematus morionellus* Holmgren, 1883; *Pteronidea shumagensis* Kincaid, 1900; *Pontania islandica* Kincaid, 1900; *P. birulae* Konow, 1907). Host plant: Salix spp. (Salicaceae). Russia: **EP** (N), **WS** (TM), **FE** (MG). – Europe (WE, NE), N America.
- Euura polita** (Zaddach, 1883) [Nematus] (*Nematus sieboldii* Zaddach, 1884; *Pontania leucapsis connata* Enslin, 1915). Russia: **EP** (NW). – Europe (WE, EE).
- Euura pravus** (Konow, 1895) [Amauronematus]. Host plant: Salix spp. (Salicaceae). Russia: **EP** (NW), **ES** (YA). – Europe (WE, NE), N America.
- Euura pribaiatica** (Lindqvist, 1970) [Amauronematus]. Host plant: Salix spp. (Salicaceae). Russia: **ES** (IR).
- Euura pristiphoroides** (Lindqvist, 1972) [Amauronematus]. Host plant: Salix spp. (Salicaceae). Russia: **ES** (IR), **FE** (KA).
- Euura proxima** (Serville, 1823) [Nematus] (*Nematus proximus* Lepeletier, 1823; *N. gallicola* Stephens, 1835; *N. vallisnerii* Hartig, 1837; *N. redii* Contarini, 1852; *Pontania gallicola* Costa, 1852; *Nematus albicarpus* Costa, 1859; *Messa hyalina* Norton, 1864; *Nematus festivus* Zaddach, 1884; *Euura flavipes* Cameron, 1885; *Pontania daedala* MacGillivray, 1921). Host plant: Salix spp. (Salicaceae); larvae form galls on lateral veins. Russia: **EP** (N, NW, C, E, S), **WS** (AL), **ES** (IR, BR), **FE** (KU, KA, MG). – Europe (WE, EE, NE, SE), Cyprus, Kazakhstan; introduced into N America, Australia, New Zealand.
- Euura pseudodispar** (Lindqvist, 1969) [Pteronidea]. Host plant: Betula spp. (Betulaceae). Russia: **ES** (YA). – Europe (NE).
- Euura pseudoleptocephala** (Haris, 2006) [Amauronematus]. Russia: **FE** (SA).
- Euura pseudotorneensis** (Conde, 1935) [Amauronematus]. Russia: **FE** (SA).
- Euura pumilio** (Konow, 1903) [Pachynematus]. Host plant: Ribes spp. (Grossulariaceae); larvae in black currant berries. Russia: **EP** (NW, C, E), **WS** (TM, TK, AL), **ES** (KR). – Europe (WE, EE, NE).
- Euura punctifrons** (Malaise, 1931) [Pontania]. Russia: **FE** (KA).
- Euura punicea** (Christ, 1791) [Tenthredo] (*Tenthredo nigrata* Retzius, 1783; *T. crocea* Fabricius, 1804; *Nematus melanosternus* Serville, 1823; *N. melanosternus* Lepeletier, 1823; *N. prototypus* Förster, 1854; *Amauronematus excellens* Forsius, 1921). Host plant: Populus spp. (Salicaceae). Russia: **EP** (N, NW, C), **ES** (IR, YA). – Europe (WE, EE, NE), Korean Peninsula.



- Euura purpureae** (Cameron, 1884) [Nematus] (*E. acuminata* Enslin, 1915). Host plant: *Salix purpurea*, *S. acutifolia* (Salicaceae). Russia: **EP** (C). – Europe (WE, EE, NE, SE).
- Euura pustulator** (Forsius, 1923) [Pontania]. Host plant: *Salix phylicifolia*, *S. pulchra* (Salicaceae); larvae form galls. Russia: **EP** (N). – Europe (WE, EE, NE).
- Euura pygmaea** Brischke, 1883 (Cryptocampus). Russia: **EP** (NW). – Europe (EE).
- Euura quieta** (Eversmann, 1847) [Nematus]. Russia: **EP** (E).
- Euura quinqueмонтana** (Jakovlev, 1891) [Pachynematus]. Russia: **EP** (NC).
- Euura ranini** (Lindqvist, 1960) [Amauronematus]. Host plant: *Populus* spp. (Salicaceae). Russia: **ES** (IR). – Europe (NE).
- Euura relictana** (Zinovjev, 1981) [Pontania]. Host plant: *Chosenia arbutifolia* (Salicaceae); larvae form galls. Russia: **FE** (KH, PR, KA, MG).
- Euura respondens** (Förster, 1854) [Nematus] (*Nematus nitens* Thomson, 1888; *Pteronus balassagloi* Jakovlev, 1891). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (E). – Europe (WE, EE, NE), Uzbekistan, Kazakhstan.
- Euura reticulata** (Holmgren, 1883) [Nematus] (*Nematus arcticus* Thomson, 1871; *N. mysticus* Holmgren, 1883; *N. anceps* Holmgren, 1883; *N. occipitalis* Holmgren, 1883; *N. picticollis* Holmgren, 1883; *N. arctica* Dalla Torre, 1894; *Pontania popofiana* Kincaid, 1900; *P. glinka* Kancaid, 1900; *P. forsiusi* Enslin, 1915; *Amauronematus arcticus* Enslin, 1915; *A. alsius* Benson, 1935). Host plant: *Vaccinium* spp. (Ericaceae). Russia: **EP** (N), **WS** (TM), **ES** (KR, YA), **FE** (MG). – Europe (WE, NE), N America.
- Euura ribesicola** (Lindqvist, 1949) [Pteronidea] (*Nematus beybienkoi* Skorikova, 1952). Host plant: *Ribes* spp. (Grossulariaceae). Russia: **EP** (N), **WS** (Zhelochovtsev, Zinovjev, 1995), **ES** (IR, YA), **FE** (KH). – Europe (NE).
- Euura ribesii** (Scopoli, 1763) [Tenthredo] (*Nematus dimidiatus* Lepeletier, 1823; *N. trimaculatus* Lepeletier, 1823; *N. dimidiatus* Serville, 1823; *N. trimaculatus* Serville, 1823; *N. ribesii* Stephens, 1829; *Tenthredo grossulariae* folii Moore, 1831; *T. ventricosa* Bouché, 1834; *Nematus grossulariae* Dahlbom, 1835; *N. ventricosus* Hartig, 1837; *N. flavipes* Hartig, 1840; *N. xanthophorus* Hartig, 1840; *N. macrocerus* Hartig, 1840; *N. ribis* Leduc, 1842; *Tenthredo grossulariae* Fischer von Waldheim, 1843; *Pteronus longicornis* Marlatt, 1896; *P. arapahonum* Cockerell, 1906; *Pteronidea aceris* Rohwer, 1915; *P. ribesii feminina* Enslin, 1916; *P. ribesii konowi* Enslin, 1916; *P. equatia* MacGillivray, 1923). Host plant: *Ribes* spp. (Grossulariaceae). Russia: **EP** (NW, C, E, S, NC), **WS** (Zhelochovtsev, Zinovjev, 1995), **ES** (IR, YA, ZB), **FE** (KH, PR). – Europe (WE, EE, NE, SE), Central Asia, Kazakhstan, Korean Peninsula, Japan (Hon); introduced into N America.
- Euura rubiginosa** (Hellén, 1951) [Amauronematus]. Russia: **ES** (KR).
- Euura rufomacula** (Malaise, 1931) [Amauronematus] (*Amauronematus obesus* Lindqvist, 1959). Russia: **FE** (KA). – Europe (NE).
- Euura rufus** (Konow, 1896) [Amauronematus]. Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (N), **ES** (IR, ZB), **FE** (AM, KA, MG). – Europe (NE).
- Euura sagmarius** (Konow, 1895) [Amauronematus]. Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (N, NW, C, S), **WS** (TM), **ES** (KR). – Europe (WE, NE), N America.
- Euura saliceti sibirica** Stroganova, 1985. Russia: **WS**.
- Euura salicis** (Linnaeus, 1758) [Tenthredo] (*Tenthredo capreae* Linnaeus, 1758; *T. notata* O.F. Müller, 1776; *Cynips salicis capreae* Christ, 1791; *Nematus klugi* Dahlbom, 1835; *N. immaculatus* Snellen van Vollenhoven, 1869; *N. inflatus* Thomson, 1871; *Pteronidea salicis obscurior* Enslin, 1916). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (N, NW, C, S, NC). – Europe (WE, EE, NE, SE), Caucasus.
- Euura saliciscinereae** (Retzius, 1783) [Tenthredo] (*Tenthredo salicis* Christ, 1791; *Nematus gallarum* Hartig, 1837; *N. acerosus* Hartig, 1840; *N. saliceti* Förster, 1854; *N. aestivus* Thomson, 1863; *N. cinereae* Thomson, 1871; *Pontania harrisoni* Benson, 1940; *P. varia* Kopelke, 1991; *P. norvegica* Kopelke, 1991). Host plant: *Salix myrsinifolia* (Salicaceae); larvae form galls. Russia: **EP** (C, E), **UR**. – Europe (WE, EE, NE).
- Euura samolad** (Malaise, 1920) [Pontania]. Host plant: *Salix lapponum* (Salicaceae); larvae form galls. Russia: **EP** (N, NW). – Europe (WE, NE).
- Euura schlueteri** (Enslin, 1915) [Amauronematus] (*Amauronematus lundbohmi* Malaise, 1920; *A. uliginosae* Malaise, 1920; *A. squamotus* Lindqvist, 1959). Host plant: *Vaccinium* spp. (Ericaceae). Russia: **EP** (N), **WS** (TM), **ES** (KR, IR, BR, YA, ZB), **FE** (AM, MG). – Europe (NE).
- Euura scotapsis** (Förster, 1854) [Nematus] (*Nematus westermanni* Thomson, 1863; *N. anglicus* Cameron, 1877; *N. nigrolineatus* Cameron, 1879). Host

- plant: *Salix viminalis*, *S. schwerinii* and others (Salicaceae). Russia: **EP** (N, NW, C), **ES** (KR, IR, YA), **FE** (KA). – Europe (WE, EE, NE), Armenia, Kyrgyzstan.
- Euura scutellata** (Hartig, 1837) [Nematus] (*Nematus immundus* Thomson, 1863). Host plant: *Abies* spp., *Picea* spp., *Larix* spp. (Pinaceae). Russia: **EP** (N, NW, C), **ES** (KR, IR, YA). – Europe (WE, EE, NE).
- Euura semilactea** (Zaddach, 1983) [Nematus]. Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (NW). – Europe (WE, EE, NE), N America.
- Euura semiopaca** (Lindqvist, 1958) [Pteronidea]. Russia: **EP** (N, NC), **WS** (TM). – Europe (NE).
- Euura sempersolis** (Kiær, 1898) [Amauronematus] (*Amauronematus tristis* Lindqvist, 1959). Russia: **EP** (N), **WS** (TM), **ES** (YA), **FE** (KA, MG). – Europe (NE).
- Euura septentrionalis** (Saarinen, 1950) [Amauronematus] (*Nematus taiganus* Zhelochovtsev, 1988). Russia: **FE** (MG). – Europe (NE).
- Euura seriepunctata** (Malaise, 1921) [Pteronidea]. Russia: **EP** (N), **FE** (MG). – Europe (NE).
- Euura sibirica** (Malaise, 1931) [Pontania]. Host plant: *Salix* spp. (Salicaceae). Russia: **FE** (KA).
- Euura sjoebloimi** (Malaise, 1931) [Amauronematus] (*Amauronematus tridentatus* Malaise, 1931). Russia: **FE** (KA).
- Euura smithae** (Ross, 1945) [Pachynematus] (*Pachynematus angustatus* Lindqvist, 1949). Russia: **EP** (Taeger et al., 2006). – Europe (WE, NE), N America.
- Euura speciosa** (Hellén, 1951) [Amauronematus]. Russia: **FE** (MG). – Europe (NE).
- Euura spiraeae** (Zaddach, 1883) [Nematus]. Host plant: *Spiraea* spp., ?*Aruncus* spp. (Rosaceae). Russia: **EP** (NW), **ES** (IR, BR). – Europe (WE, NE).
- Euura stenogaster** (Förster, 1854) [Nematus] (*Nematus trifurcatus* W.F. Kirby, 1882; *Amauronematus analis* Konow, 1897; *A. vescus* MacGillivray, 1921; *A. veneficus* MacGillivray, 1923; *A. festivus* Saarinen, 1950). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (Zhelochovtsev, Zinovjev, 1995), **ES** (IR, YA). – Europe (WE, EE, NE, SE), N America.
- Euura stichi** (Enslin, 1913) [Pteronidea] (*Nematus testaceus* Thomson, 1871; *Pteronidea fuscarima* Benson, 1933). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (N). – Europe (WE, EE, NE, SE).
- Euura styx** (Benson, 1958) [Pachynematus]. Host plant: *Picea* spp. (Pinaceae). Russia: **ES** (KR). – Europe (WE, EE, NE).
- Euura subgemma** Liston, 2006. Russia: **EP** (N). – Europe (WE, EE, NE).
- Euura sylvestris** (Cameron, 1884) [Nematus] (*Nematus silvester* Dalla Torre, 1894; *N. fastosus ponojense* Hellén, 1948; *N. fastosus punctiscuta* Hellén, 1948). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (C, NC), “Siberia” (Zhelochovtsev, Zinovjev, 1995), **FE** (SA). – Europe (WE, EE, NE).
- Euura temporalis** (Hellén, 1970) [Amauronematus]. Russia: **EP** (N, C), **FE** (KA). – Europe (NE).
- Euura tenuiserra** (Lindqvist, 1944) [Amauronematus]. Russia: **EP** (N, NW). – Europe (WE, NE).
- Euura testaceipes** (Brischke, 1883) [Cryptocampus] (*E. cynips* Newman, 1837). Host plant: *Salix* spp. (Salicaceae); larvae form spindle-shaped galls on the petiole or central vein of leaf. Russia: **EP** (NW, C, CR). – Europe (WE, EE, NE), Armenia.
- Euura tibialis** (Newman, 1837) [Nematus] (*Nematus hortensis* Hartig, 1837; *N. xanthobaptus* Förster, 1854; *N. trilineatus* Norton, 1867; *N. catachloris* Snellen van Vollenhoven, 1869; *N. similis* Norton, 1880; *N. robiniae* Forbes, 1885; *Pteronus solitarius* Rohwer, 1908). Host plant: *Robinia pseudoacacia* (Fabaceae). Russia: **EP** (C, S). – Europe (WE, EE, SE), N America.
- Euura tillbergi** (Malaise, 1920) [Amauronematus] (*Amauronematus tillbergi foveifrons* Malaise, 1920). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (N), **ES** (IR). – Europe (WE, NE), Kyrgyzstan, Korean Peninsula, N America.
- Euura toeniata** (Serville, 1823) [Nematus] (*Nematus taeniatus* Lepeletier, 1823; *Tenthredo humeralis* Zetterstedt, 1838; *Amauronematus aemulus* Konow, 1895; *A. zetterstedti* Malaise, 1920). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (NW), **ES** (IR, YA). – Europe (WE, EE, NE), Korean Peninsula.
- Euura tranquilla** Vårdal et Prous, 2014 (*Amauronematus pacificus* Malaise, 1931; *A. obscurus* Lindqvist, 1962). Russia: **ES** (Lindqvist, 1962), **FE** (KA). – Europe (NE).
- Euura transversalis** (Lindqvist, 1977) [Pteronidea]. Russia: **ES** (IR).
- Euura trautmanni** (Enslin, 1919) [Amauronematus] (*Amauronematus lateralis* Konow, 1895; *A. cameroni* Perkins, 1929; *A. piliserra* Lindqvist, 1943). Russia: **EP** (N, NW), **ES** (Zhelochovtsev, Zinovjev, 1995). – Europe (WE, EE, NE, SE).
- Euura triandrae** (Benson, 1941) [Pontania]. Host plant: *Salix triandra* (Salicaceae). Russia: **EP** (NW). – Europe (WE, EE, NE), Kazakhstan.

- Euura trochanterata** (Malaise, 1931) [Pteronidea] (*Nematus pيلي* Takeuchi, 1938). Russia: **FE** (PR). – China (NE).
- Euura tuberculata** (Benson, 1953) [Nematus]. Host plant: *Salix myrtilloides*, *S. saxatilis*, *S. bebbiana*, *S. integra* (Salicaceae). Russia: **EP** (N, NW), **ES** (YA), **FE** (PR, KU, MG, CH). – Europe (WE, NE).
- Euura tunicata** (Zaddach, 1883) [Nematus] (*Nematus laevis* Brischke, 1883). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (NW, C), **ES** (IR). – Europe (WE, EE, NE), Kyrgyzstan.
- Euura turgaiensis** (Safjanov, 1977) [Nematus]. Russia: **WS** (AL). – Kazakhstan.
- Euura udus** (Holmgren, 1883) [Nematus]. Russia: **EP** (N). – Europe (NE).
- Euura umbrata** (Thomson, 1871) [Nematus] (*Nematus collinus* Cameron, 1882; *Pteronus similis* Forsius, 1911; *Pteronidea verrucosae* Kontuniemi, 1966). Host plant: *Betula* spp. (Betulaceae). Russia: **EP** (NW, E), **ES** (IR). – Europe (WE, EE, NE).
- Euura unigallae** (Vikberg et Zinovjev, 2014) [Pontania]. Host plant: *Salix* spp. (Salicaceae); larvae form galls. Russia: **EP** (NW). – Europe (NE).
- Euura vaginosa** (Konow, 1903) [Pachynematus]. Russia: **ES** (IR). – Europe (NE).
- Euura vaga** (Fabricius, 1781) [Tenthredo] (*Tenthredo flaviventris* Gmelin, 1790; *Nematus leucogaster* Hartig, 1840; *N. hypoleucus* Förster, 1854; *N. micraulius* Förster, 1854; *N. punctipleuris* Thomson, 1863; *N. punctulatus* Thomson, 1863; *N. meridionalis* André, 1880; *N. inconspicuus* W.F. Kirby, 1882; *Pachynematus corticosus* MacGillivray, 1901; *Holcocneme ulbrichti* Enslin, 1910; *Pachynematus roscidus* MacGillivray, 1921). Host plant: *Carex* spp. (Poaceae), *Salix* spp. (Salicaceae). Russia: **EP** (N, NW, C, E, NC), **ES** (IR, YA), **FE** (AM, KA, MG). – Europe (WE, EE, NE), Turkey, Kyrgyzstan, Kazakhstan, Mongolia, China (NW).
- Euura variabilis** (Malaise, 1931) [Amauronematus]. Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (Taeger et al., 2006), **FE** (KA, MG).
- Euura varians** (Lindqvist, 1962) [Amauronematus]. Russia: **EP** (Zhelochovtsev, Zinovjev, 1995), **ES** (IR). – Europe (NE).
- Euura variator** (Ruthe, 1859) [Nematus] (*Amauronematus longidens* Lindqvist, 1962). Host plant: *Salix* spp. (Salicaceae). Russia: **FE** (MG). – Europe (WE, EE, NE), N America.
- Euura vastatrix** (Zhelochovtsev, 1935) [Pteronidea]. Host plant: *Ribes* spp. (Grossulariaceae). Russia: **WS** (TK), **ES** (KR, IR), **FE** (AM, KH).
- Euura vastidens** (Lindqvist, 1975) [Amauronematus]. Russia: **ES** (IR).
- Euura venusta** (Brischke, 1883) [Cryptocampus] (*Cryptocampus brevicornis* Zaddach, 1883). Host plant: *Salix* spp. (Salicaceae); larvae in galls on the base of a leaf petiole. Russia: **EP** (NW, C), “Siberia” (Zhelochovtsev, Zinovjev, 1995), **FE** (AM). – Europe (WE, EE, NE), Armenia.
- Euura vesicator** (Bremi-Wolf, 1849) [Nematus] (*Nematus helycinus* Brischke, 1850; *N. leptocerus* Förster, 1854; *N. lugdunensis* Snellen van Vollenhoven, 1871). Host plant: *Salix purpurea*, *S. superpurpurea* (Salicaceae); larvae form galls. Russia: **EP** (NW, C), **ES** (YA). – Europe (WE, EE, NE, SE), Caucasus.
- Euura vicina** (Serville, 1823) [Nematus] (*Nematus vicinus* Lepeletier, 1823; *N. longispinis* Kriechbaumer, 1885; *Holcocneme flavipes* Matsumura, 1912). Host plant: *Salix* spp., *Populus* spp. (Salicaceae), *Betula* spp. (Betulaceae), *Rumex* spp. (Polygonaceae). Russia: **EP** (NW, C, NC), **ES** (IR), **FE** (KH, PR, SA, KA). – Europe (WE, EE, NE, SE), Kyrgyzstan, Kazakhstan, Korean Peninsula, Japan (Hok, Hon), N America.
- Euura viduatinus** (Malaise, 1931) [Amauronematus] (*Amauronematus viduatinus apiciscerra* Malaise, 1931). Russia: **ES** (Zhelochovtsev, Zinovjev, 1995), **FE** (KA). – Europe (NE).
- Euura viduatoides** (Lindqvist, 1960) [Amauronematus]. Host plant: *Salix* spp. (Salicaceae). Russia: **ES** (IR). – Europe (WE, NE).
- Euura viduata** (Zetterstedt, 1838) [Tenthredo] (*Nematus lepidotus* Hartig, 1840; *N. brachyotus* Förster, 1854; *N. luctuosus* Förster, 1854; *N. notatus* Förster, 1854; *N. vagus* Zaddach, 1883; *Amauronematus viduatus lugens* Enslin, 1915; *A. viduatus laetus* Enslin, 1915). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (NW, C), **ES** (IR), **FE** (AM, MG). – Europe (WE, EE, NE, SE), Mongolia, China (NC), N America; introduced into Australia, New Zealand.
- Euura villosa** (Thomson, 1863) [Nematus] (*Nematus arcticus* Holmgren, 1869; *N. brachyacanthus palliditarsus* Cameron, 1876; *N. gelidus* W.F. Kirby, 1882). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (N), **ES** (KR, BR), **FE** (CH). – Europe (NE), N America.
- Euura viminalis** (Linnaeus, 1758) [Cynips] (*Nematus vollenhoveni* Cameron, 1874; *N. interstitialis* Cameron, 1876; *N. nigritarsis* André, 1880; *Pontania ciccum* Konow, 1901; *P. viminalis xanthaspis* Enslin,

- 1915; *P. hungarica* Enslin, 1918). Host plant: *Salix purpurea*, *S. babylonica* (Salicaceae); larvae form galls. Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (TU, YA), **FE** (AM, PR, SA, KU, KA, MG). – Europe (WE, EE, SE), Armenia, Turkey, Mongolia.
- Euura viridis** (Stephens, 1835) [Nematus] (*Nematus prasinus* Hartig, 1837; *N. polyaspilus* Förster, 1854; *N. hypoleucus* Costa, 1859; *N. costae* W.F. Kirby, 1882). Host plant: *Betula* spp. (Betulaceae). Russia: **EP** (N), **ES** (IR, BR), **FE** (SA, MG). – Europe (WE, EE, NE, SE), Kazakhstan.
- Euura virilis** (Zirngiebl, 1955) [Pontania] (*Pontania rifana* Lacourt, 1973). Host plant: *Salix purpurea* (Salicaceae); larvae form galls. Russia: **EP** (NW). – Europe (WE, EE, NE, SE).
- Euura viridissima** (Möller, 1882) [Nematus] (*Nematus glutinosae* Cameron, 1882). Host plant: *Alnus* spp. (Betulaceae). Russia: **EP** (N, NW, C, E, S, NC). – Europe (WE, EE, NE, SE).
- Euura vittata** (Serville, 1823) [Nematus] (*Nematus vittatus* Lepeletier, 1823; *N. melanoleucus* Hartig, 1840; *N. exoletus* Eversmann, 1847; *N. continuus* Eversmann, 1847; *N. scabrivalvis* Thomson, 1871; *Amauronematus konowi* Enslin, 1915; *A. vittatus sternalis* Enslin, 1915; *A. crispus* Benson, 1948). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (N, NW, C, E), **UR**, **ES** (IR, YA), **FE** (KA, MG). – Europe (WE, EE, NE), Kyrgyzstan.
- Euura weiffenbachiella** Liston et Vikberg, 2017 (*E. weiffenbachii* Ermolenko, 1988). Host plant: *Salix rosmarinifolia*, *S. repens* (Salicaceae). Russia: **ES** (YA). – Europe (WE, EE, NE).
- Euura zaitzevi** (Enslin, 1919) [Amauronematus]. – Russia: **EP** (N), **WS** (TM).
- HEMICHROA** Stephens, 1835 (*Leptocerca* Hartig, 1837; *Engages* Gistel, 1848; *Leptocercus* Thomson, 1871; *Varna* Ross, 1937). Type species *Tenthredo australis* Serville, 1823. The larvae live in colonies on the *Alnus*, *Betula* (Betulaceae). The genus is distributed in Holarctic and Oriental region. Number of species: World – 13; Palaearctic – 10; Russia – 4.
- Hemichroa australis** (Serville, 1823) [Tenthredo] (*Tenthredo alni* Linnaeus, 1767; *T. luctuosa* Hill, 1773; *T. australis* Lepeletier, 1823). Host plant: *Betula* spp., *Alnus* spp. (Betulaceae); larvae live alone. Russia: **EP** (N, NW, C, E), **UR**, **WS** (TK, AL), **ES** (YA). – Europe (WE, EE, NE), Kazakhstan.
- Hemichroa crocea** (Geoffroy, 1785) [Tenthredo] (*Tenthredo rufa* Panzer, 1799; *Hemichroa stigma* Stephens, 1835; *Leptocercus nigriceps* Thomson, 1871; *Dineura unicolor* Rudow, 1872; *D. americana* Provancher, 1882; *Nematus ardens* Zaddach, 1883; *Dineura pallida* Ashmead, 1890; *Hemichroa dyari* Rohwer, 1918; *H. orientalis* Rohwer, 1921; *H. washingtonia* Rohwer, 1932). Host plant: *Alnus* spp., *Betula* spp., *Corylus* spp. (Betulaceae), *Salix* spp. (Salicaceae); larvae live in groups. Russia: **EP** (N, NW, C, E, NC), **UR**, **ES** (BR, YA), **FE** (AM, KH, PR, SA). – Europe (WE, EE, NE), China (Wei et al., 2006), India, SE Asia, N America.
- Hemichroa haematopygia** Zhelochovtsev, 1935. Host plant: *Alnus* spp., *Betula* spp. (Betulaceae). Russia: **ES** (IR, BR, YA), **FE** (AM, PR, SA, MG). – Korean Peninsula.
- Hemichroa paramushirensis** Takeuchi, 1933. Host plant: *Alnus* spp. (Betulaceae). Russia: **FE** (SA, KU). – Japan (Hon).
- HOPLOCAMPA** Hartig, 1837 (*Macgillivraya* Ashmead, 1898; *Macgillivrayella* Ashmead, 1900). Type species *Tenthredo brevis* Klug, 1816. The larvae in fruits of Rosaceae. The genus is distributed in Holarctic; two species in Oriental region. Number of species: World – > 40; Palaearctic – > 20; Russia – 11.
- Hoplocampa alpina** (Zetterstedt, 1838) [Tenthredo] (*Selandria pallida* Newman, 1837). Host plant: *Sorbus* spp. (Rosaceae). Russia: **EP** (N, C), **WS** (TM), **ES** (KR). – Europe (WE, EE, NE), Japan (Hon).
- Hoplocampa brevis** (Klug, 1816) [Tenthredo] (*Tenthredo fallax* Serville, 1823; *T. fallax* Lepeletier, 1823; *T. pyri* Vallot, 1848). Host plant: *Pyrus* spp., *Malus* spp. (Rosaceae). Russia: **EP** (NC, CR). – Europe (WE, EE, SE), Caucasus, SW Asia; introduced into N America.
- Hoplocampa chrysorrhoea** (Klug, 1816) [Tenthredo] (*H. chrysorrhoea nigrita* Enslin, 1914). Host plant: *Prunus* spp. (Rosaceae). Russia: **EP** (NC, CR). – Europe (WE, EE), Cyprus.
- Hoplocampa crataegi** (Klug, 1816) [Tenthredo] (*Tenthredo pallida* Serville, 1823; *T. luteola* Serville, 1823; *T. verticata* Serville, 1823; *T. pallida* Lepeletier, 1823; *T. luteola* Lepeletier, 1823; *T. verticata* Lepeletier, 1823). Host plant: *Crataegus* spp. (Rosaceae). Russia: **EP** (NC). – Europe (WE, EE, NE, SE).
- Hoplocampa ephippiata** Konow, 1897. Host plant: *Malus* spp. (Rosaceae). Russia: **WS** (AL), **ES** (IR, BR), **FE** (AM, KH, PR).
- Hoplocampa flava** (Linnaeus, 1760) [Tenthredo] (*Tenthredo ruficapilla* Gmelin, 1790; *T. glaucopsis*

- Rossi, 1790; *Allantus ferrugineus* Panzer, 1803; *Hylotoma ferruginea* Fabricius, 1804; *H. simplex* Fallén, 1807; *Tenthredo brunnea* Klug, 1816; *Hoplocampa flava dimidiata* Costa, 1894; *Tomostethus testaceus* Niezabitowski, 1899). Host plant: Prunus spp. (Rosaceae). Russia: **EP** (S, NC). – Europe (WE, EE, NE, SE), Caucasus, SW Asia.
- Hoplocampa fulvicornis** (Panzer, 1801) [Tenthredo] (*Tenthredo rutilicornis* Klug, 1816; *T. haemorrhoidalis* Serville, 1823; *T. haemorrhoidalis* Lepeletier, 1823; *Hoplocampa rutilicornis pleuris* Zirngiebl, 1954; *H. prunicola* Benson, 1968). Host plant: Prunus spp. (Rosaceae). Russia: **EP** (CR). – Europe (WE, EE, NE, SE).
- Hoplocampa minuta** (Christ, 1791) [Tenthredo] (*Tenthredo hylotomoides* Serville, 1823; *T. parvula* Serville, 1823; *T. hylotomoides* Lepeletier, 1823; *T. parvula* Lepeletier, 1823; *T. turcarum* Vallot, 1848; *Hoplocampa fabricii* W.F. Kirby, 1882; *H. minuta dudai* Gregor, 1942). Host plant: Prunus spp. (Rosaceae). Russia: **EP** (NW, CR). – Europe (WE, EE, NE, SE), Armenia, Syria, Uzbekistan, China (NW).
- Hoplocampa phantoma** Zinovjev, 1993. Host plant: Sorbus spp. (Rosaceae). Russia: **UR**, **ES** (Zhelechovtsev, Zinovjev, 1995), **FE** (PR).
- Hoplocampa plagiata** (Klug, 1816) [Tenthredo]. Host plant: Amelanchier spp., Crataegus spp. (Rosaceae). Russia: **EP** (S). – Europe (WE, EE, SE), Caucasus.
- Hoplocampa testudinea** (Klug, 1816) [Tenthredo]. Host plant: Malus spp., Pyrus spp. (Rosaceae). Russia: **EP** (C, S, NC, CR). – Europe (WE, EE, NE, SE), SW Asia; introduced into N America.
- MEGADINEURA** Malaise, 1931 (*Stenomesomeura* Wei, 1998). Type species *Dineura grandis* André, 1882. The genus is distributed in East Asia; one species in Oriental region. Number of species: World and Palaearctic – 5; Russia – 1.
- Megadineura grandis** (André, 1882) [Dineura]. Russia: **ES** (IR), **FE** (PR). – China (NE), Korean Peninsula, Japan (Takeuchi, 1952).
- MESONEURA** Hartig, 1837 (*Pristis* Brullé, 1846; *Mesoneura* Agassiz, 1848; *Lisconeura* Rohwer, 1908). Type species *Tenthredo opaca* Fabricius, 1775. The larvae feed on Quercus (Fagaceae). The genus is distributed in Palaearctic. Number of species: World and Palaearctic – 9; Russia – 3.
- Mesoneura koreana** Ryu, Kim et Lee, 1991. Host plant: Quercus mongolica (Fagaceae). Russia: **FE** (PR). – Korean Peninsula.
- Mesoneura lanigera** Benson, 1954. Host plant: Quercus spp. (Fagaceae). Russia: **EP** (NC, CR). – Europe (EE), Cyprus.
- Mesoneura opaca** (Fabricius, 1775) [Tenthredo] (*Tenthredo verna* Klug, 1816; *T. punctigera* Lepeletier, 1823; *T. punctigera* Serville, 1823; *Selandria biloba* Stephens, 1835; *Dineura pallipes* Hartig, 1837; *D. dorsalis* Förster, 1844; *D. selandriiformis* Cameron, 1875; *Mesoneura opaca nigerrima* Enslin, 1914; *M. opaca lucida* Enslin, 1914; *M. opaca obscuriventris* Enslin, 1914). Host plant: Quercus spp. (Fagaceae). Russia: **EP** (C, S, NC, CR). – Europe (WE, EE, NE, SE), Caucasus.
- NEMATINUS** Rohwer, 1911. Type species *Nematus fuscipennis* Lepeletier, 1823. The larvae feed on Betulaceae. The genus is distributed in Holarctic. Number of species: World – 26; Palaearctic – 22; Russia – 9.
- Nematinus acuminatus** (Thomson, 1871) [Nematus] (*Nematus nebulosus* Stein, 1881). Host plant: Betula spp., Corylus spp., Alnus spp. (Betulaceae). Russia: **EP** (NW, C, E), **UR**, **WS** (AL), **ES** (IR, YA), **FE** (AM, SA, MG). – Europe (WE, EE, NE, SE), Korean Peninsula, Japan (Hok).
- Nematinus aterrimus** Vikberg, 1982 (*Pteronidea pontanioides* Malaise, 1931). Russia: **FE** (SA, KA). – Japan (Hok, Hon).
- Nematinus bilineatus** (Klug, 1819) [Tenthredo] (*Nematus flavus* Gimmerthal, 1844; *N. luteus trimaculatus* Cameron, 1876; *N. flavicans* W.F. Kirby, 1882; *Nematinus bilineatus virilis* Enslin, 1915; *N. bilineatus muliebris* Enslin, 1915; *N. bilineatus luteiformis* Enslin, 1915). Host plant: Betula spp. (Betulaceae). Russia: **EP** (NW). – Europe (WE, EE, NE, SE), Turkey.
- Nematinus caledonicus** (Cameron, 1882) [Nematus] (*N. nigrosternatus* Malaise, 1931). Host plant: Betula spp. (Betulaceae). Russia: **EP** (NW, C), **ES** (IR), **FE** (PR, KU, KA). – Europe (WE, NE).
- Nematinus fuscipennis** (Serville, 1823) [Nematus] (*Tenthredo rufa* Schrank, 1802; *T. alina* Bechstein et Scharfenberg, 1805; *Nematus fuscipennis* Lepeletier, 1823; *N. fumipennis* Stephens, 1835; *N. gravenhorstii* Gimmerthal, 1836). Host plant: Alnus spp., Carpinus spp. (Betulaceae). Russia: **EP** (N, NW, C, E, S). – Europe (WE, EE, NE, SE).
- Nematinus kamtchaticus** Malaise, 1931. Russia: **ES** (KR), **FE** (SA, KA, MG, CH).
- Nematinus luteus** (Panzer, 1803) [Nematus] (*Tenthredo lutea* Fabricius, 1804; *Nematinus willigkiae*

- Stein, 1926; *N. willigkiae pilosus* Benson, 1958). Host plant: *Alnus* spp., *Corylus* spp. (Betulaceae). Russia: **EP** (N, NW, C, E, NC). – Europe (WE, EE, NE), Japan (Hok, Hon).
- Nematinus rubrocaudatus** Takeuchi, 1956. Russia: **FE** (KU). – Japan (Hon).
- Nematinus steini** Blank, 1998 (*Tenthredo alneti* Bechstein et Scharfenberg, 1805). Host plant: *Alnus* spp. (Betulaceae). Russia: **EP** (NW, C). – Europe (WE, EE, NE).
- NEMATUS** Panzer, 1801 (*Nematus* Jurine, 1801; *Nematus* Jurine, 1807; *Craesus* Leach, 1817; *Hypolaeopus* W.F. Kirby, 1882; *Paranematus* Zinovjev, 1978). Type species *Tenthredo lucida* Panzer, 1801. The larvae feed on the deciduous trees and shrubs. The genus is distributed mainly in Holarctic, few species in Oriental region. Number species: World – about 40; Palaearctic – about 35; Russia – 20 (+ 1 ssp.).
- Nematus alniastri** (Scharfenberg, 1805) [Tenthredo] (*N. varus* Villaret, 1832; *Croesus varus ligeris* Pic, 1923). Host plant: *Alnus* spp. (Betulaceae). Russia: **EP** (N, NW, C, E, NC). – Europe (WE, EE, NE, SE), Caucasus, Turkey; introduced into N America.
- Nematus brischkei** Zaddach, 1876. Host plant: *Carpinus* spp., *Corylus* spp. (Betulaceae). Russia: **EP** (NW). – Europe (WE, EE).
- Nematus coeruleus** Zinovjev, 1978. Host plant: *Lonicera coerulea* (Caprifoliaceae). Russia: **EP** (NW).
- Nematus egregius** Kajmuk, 1986. Host plant: *Crataegus* spp. (Rosaceae). Russia: **ES** (YA).
- Nematus inornatus** (Takeuchi, 1936) [Holcocneme]. Host plant: *Salix* spp. (Salicaceae), *Vaccinium* spp. (Ericaceae). Russia: **FE** (KU). – Japan (Hon, Sado).
- Nematus jakowleffi** (Konow, 1902) [Holcocneme]. Host plant: *Salix* spp. (Salicaceae), ?*Betula* spp. (Betulaceae). Russia: **ES** (IR), **FE** (AM).
- Nematus japonicus** (Takeuchi, 1921) [Croesus] (*N. nigromaculatus* Malaise, 1931). Host plant: *Alnus* spp. (Betulaceae). Russia: **FE** (PR, SA, KU, KA). – Korean Peninsula, Japan (Hok, Hon).
- Nematus latipes** Villaret, 1832. Host plant: *Betula* spp. (Betulaceae). Russia: **EP** (C, E), **ES** (BR, YA). – Europe (WE, EE, NE, SE), Kazakhstan.
- Nematus lonicerae** (Weiffenbach, 1957) [Pachynematus]. Host plant: *Lonicera* spp., *Symphoricarpos* spp. (Caprifoliaceae). Russia: **EP** (Zhelochovtsev, Zinovjev, 1995). – Europe (WE, NE, SE).
- Nematus lucens** (Enslin, 1918) [Pteronidea] (*Meso-neura nigrostigmata* Haris, 2001). Russia: **EP** (C). – Europe (EE).
- Nematus lucidus** (Panzer, 1801) [Tenthredo] (*N. cinctus* Serville, 1823; *N. cinctus* Lepeletier, 1823; *Holcocneme lucidus rufa* Zirngiebl, 1937). Host plant: *Crataegus* spp., *Prunus* spp. (Rosaceae). Russia: **EP** (NC), **ES** (YA), **FE** (KU). – Europe (WE, EE, NE, SE), Cyprus, Japan (Hok, Hon).
- Nematus mandshuricus** Zhelochovtsev et Zinovjev, 1994. Host plant: *Lonicera* spp. (Caprifoliaceae). Russia: **ES** (ZB), **FE** (KH).
- Nematus nigrodorsatus** Malaise, 1931. Russia: **FE** (KA).
- Nematus princeps** Zaddach, 1876. Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (NW), **UR**, **WS** (AL), **ES** (IR, BR, YA), **FE** (AM, PR, SA, KU, MG). – Europe (WE, EE, NE), Mongolia, Japan (Hok, Hon, Shi).
- Nematus septentrionalis** (Linnaeus, 1758) [Tenthredo] (*Tenthredo alni* Linnaeus, 1758; *T. largipes* Retzius, 1783; *Nematus laticrus* Villaret, 1832; *Croesus stephensii* Newman, 1837). Host plant: Betulaceae, Oleaceae, Salicaceae. Russia: **WS** (AL), **ES** (KS). – Europe (WE, EE, NE, SE), Armenia, Turkey.
- Nematus shinoharai** (Beneš, 1990) [Croesus]. Host plant: *Juglans* spp. (Juglandaceae). Russia: **FE** (PR). – Japan (Hok, Hon).
- Nematus tataricus** Zinovjev, 1978. Host plant: *Lonicera tatarica*, *L. xylosteum*, *Symphoricarpos racemosus* (Caprifoliaceae). Russia: **EP** (NW, C), **UR**. – Europe (WE, NE), Kazakhstan.
- Nematus tulunensis** Vikberg, 1972. Host plant: *Lonicera* spp., *Symphoricarpos* sp. (Caprifoliaceae). Russia: **EP** (NW, C), **UR**, **ES** (IR, YA). – Europe (NE).
- Nematus wahlbergi tavastiensis** Vikberg, 1972. Host plant: *Lonicera* spp. (Caprifoliaceae). Russia: **EP** (N). – Europe (NE).
- Nematus wahlbergi wahlbergi** Thomson, 1871 (*N. sardiniensis* Costa, 1886). Host plant: *Lonicera* spp. (Caprifoliaceae). Russia: **EP** (NW, C). – Europe (WE, EE, NE, SE).
- Nematus yokohamensis** (Konow, 1895) [Holcocneme]. Host plant: *Lonicera* spp. (Caprifoliaceae). Russia: **ES** (IR, BR), **FE** (PR, SA). – China (NE), Korean Peninsula, Japan (Hon).
- PLATYCAMPOS** Schiodte, 1839 (*Leptopus* Hartig, 1837; *Erasmus* Gistel, 1848; *Camponiscus* Newman, 1869). Type species *Nematus hypogastricus* Hartig, 1837. The larvae with strongly flattened body; live on the lower surface of leaves of woody plants. The genus is distributed in East Palaearctic; one species in West Europe, and one species

in Oriental region. Number of species: World and Palaearctic – 8; Russia – 6.

**Platycampus amaculatus** Verzhutskii, 1966. Host plant: *Betula* spp. (Betulaceae). Russia: **ES** (IR), **FE** (KH, PR).

**Platycampus amurensis** Zinovjev, 1986. Host plant: *Corylus* spp. (Betulaceae). Russia: **FE** (AM, PR).

**Platycampus coryli** Zinovjev, 1986. Host plant: *Corylus* spp. (Betulaceae). Russia: **FE** (AM, PR).

**Platycampus luridiventris** (Fallén, 1808) [Tenthredo] (*Tenthredo alnicola* Bechstein et Scharfenberg, 1805; *Nematus hypogastricus* Hartig, 1837; *N. alnivorus* Hartig, 1840; *N. rufipes* Tischbein, 1846; *Leptopus rufipes* Förster, 1854; *Nematus protensus* Förster, 1854; *Camponiscus healaei* Newman, 1869; *Nematus fennicus* André, 1880; *N. tischbeini* André, 1880; *N. alnicola* Zaddach, 1883; *N. cellularis* Brischke, 1884; *Platycampus luridiventris pleuritica* Enslin, 1915). Host plant: *Alnus* spp., *Corylus* spp., *Betula* spp. (Betulaceae). Russia: **EP** (NW, C), **UR**. – Europe (WE, EE, NE), China (Wei et al., 2006), Japan (Hon).

**Platycampus speciosus** Zinovjev, 1986. Host plant: *Alnus* spp. (Betulaceae). Russia: **FE** (AM, KH, PR).

**Platycampus zhelochovtsevi** Zinovjev, 1986. Host plant: *Alnus* spp. (Betulaceae). Russia: **FE** (AM, KH, PR, SA).

**PRISTIPHORA** Latreille, 1810 (*Diphadnus* Hartig, 1837; *Lygaeonematus* Konow, 1890; *Micronematus* Konow, 1890; *Gymnonychus* Marlatt, 1896; *Neopareophora* MacGillivray, 1908; *Neotomostethus* MacGillivray, 1908; *Dineuridea* Rohwer, 1912; *Sala* Ross, 1937; *Pristola* Ross, 1945; *Lygaeotus* Lindqvist, 1952; *Lygaeophora* Lindqvist, 1952; *Nepionema* Benson, 1960; *Melastola* Wong, 1968; *Sharliphora* Wong, 1969; *Oligonematus* Zhelochovtsev, 1988; *Lygaeotus* Liston, 1993; *Lygaeophora* Liston, 1993; *Pristicampus* Zinovjev, 1993). Type species *Pteronus testaceus* Jurine, 1807. The larvae feed on various plants, mainly on deciduous, rarely on coniferous. The genus is distributed in Holarctic, Oriental and Neotropical regions. Number of species: World – about 220; Palaearctic – about 170; Russia – 89.

**Pristiphora abbreviata** (Hartig, 1837) [Nematus] (*Gymnonychus californicus* Marlatt, 1896). Host plant: *Pyrus* spp. (Rosaceae). Russia: **EP** (NW, C, S, NC), **FE** (AM, KH, PR). – Europe (WE, EE, NE,

SE), Caucasus, Turkey, Kyrgyzstan; introduced into N America.

**Pristiphora abietina** (Christ, 1791) [Tenthredo] (*Tenthredo pini* Retzius, 1783; *T. abietina* Christ, 1791; *T. abietum* Hartig, 1834; *Nematus abietinus* Dahlbom, 1835; *N. truncatus* Hartig, 1837). Host plant: *Picea* spp. (Pinaceae). Russia: **EP** (NW, C), **ES** (YA). – Europe (WE, EE, NE, SE), Kyrgyzstan.

**Pristiphora acutidens** Lindqvist, 1977. Russia: **ES** (IR).

**Pristiphora affinis** (Lindqvist, 1952) [Lygaeonematus]. Host plant: *Salix* spp. (Salicaceae). Russia: **ES** (KR). – Europe (NE).

**Pristiphora albilabris** (Boheman, 1852) [Nematus] (*Nematus albilabris* Thomson, 1863; *N. collaris* Stein, 1884). Host plant: *Betula* spp. (Betulaceae). Russia: **EP** (N, E), **ES** (IR). – Europe (WE, NE).

**Pristiphora albitibia** (Costa, 1859) [Nematus] (*Nematus puncticeps* Thomson, 1863; *N. agilis* Zaddach, 1884; *Pristiphora aterrima* Lindqvist, 1977; *P. nigropuncticeps* Haris, 2002). Host plant: *Vicia* spp. (Fabaceae). Russia: **EP** (NW, NC), **WS** (Zhelochovtsev, Zinovjev, 1995), **ES** (IR, BR, YA). – Europe (WE, EE, NE, SE), Mongolia.

**Pristiphora alpestris** (Konow, 1903) [Pachynematus] (*Lygaeonematus karvonenii* Lindqvist, 1952). Host plant: *Betula pendula*, *B. pubescens* (Betulaceae). Russia: **EP** (N), **ES** (IR). – Europe (WE, EE, NE).

**Pristiphora amphibola** (Förster, 1854) [Nematus] (*Nematus laetus* Cameron, 1883; *N. fraternus* Cameron, 1885). Host plant: *Picea* spp. (Pinaceae). Russia: **EP** (NW). – Europe (WE, EE, NE).

**Pristiphora angulata** Lindqvist, 1974. Host plant: *Spiraea chamaedryfolia*, *S. salicifolia* (Rosaceae). Russia: **EP** (NW). – Europe (NE), Mongolia.

**Pristiphora aphantoneura** (Förster, 1854) [Nematus] (*Tenthredo fulvipes* Fallén, 1808; *Cryptocampus distinctus* Costa, 1882; *Pristiphora pygmaea* Lindqvist, 1964). Host plant: *Lathyrus pratensis* (Fabaceae). Russia: **EP** (N, NW, C, E, NC), **UR**. – Europe (WE, EE, NE, SE), Caucasus, Turkey, Kyrgyzstan, Kazakhstan, Mongolia, China (NW), Korean Peninsula.

**Pristiphora appendiculata** (Hartig, 1837) [Nematus] (*P. pallipes* Lepeletier, 1823; *P. pallipes* Serville, 1823; *Nematus flavipes* Dahlbom, 1835; *N. fuscicornis* Hartig, 1837; *N. enervis* Herrich-Schäffer, 1840; *N. cathoraticus* Förster, 1854; *N. pallicornis* Norton, 1861; *N. pallicornis labratus* Norton, 1861; *Pristiphora grossulariae* Walsh, 1866; *Nematus peletieri* André, 1880; *N. hypobalius* Zaddach, 1884;

- N. pumilus* Zaddach, 1884; *N. ghiliani* Costa, 1894; *Pristiphora anivoskiensis* Haris, 2006). Host plant: Ribes spp. (Grossulariaceae). Russia: **EP** (N, NW, C, E, S, NC), **ES** (IR, BR), **FE** (KH, PR, SA, MG). – Europe (WE, EE, NE, SE), Turkey, Kazakhstan, Mongolia, China (NC), Korean Peninsula, Japan, N America.
- Pristiphora apricoti** Zinovjev, 1993. Russia: **FE** (PR). – Korean Peninsula.
- Pristiphora armata** (Thomson, 1863) [Nematus] (*Nematus crassicornis* Hartig, 1837; *N. crataegi* Brischke, 1883; *N. fletcheri* Cameron, 1884; *N. melanostomus* Zaddach, 1884; *N. ensicornis* Jacobs, 1884; *N. nigricollis* Cameron, 1885). Host plant: Crataegus spp. (Rosaceae). Russia: **EP** (NW, C, S, NC), **FE** (SA, KA). – Europe (WE, EE, NE, SE), Turkey, Kazakhstan.
- Pristiphora biscalis** (Förster, 1854) [Nematus] (*Nematus conspersus* Zaddach, 1883; *N. pruni* Brischke, 1883; *N. lateralis* Brischke, 1885; *N. postumus* Dalla Torre, 1894). Host plant: Prunus spinosa (Rosaceae). Russia: **EP** (NW, C, NC), **ES** (IR, BR), **FE** (SA). – Europe (WE, EE), Turkmenistan.
- Pristiphora borea** (Konow, 1904) [Lygaeonematus] (*Nematus astutus* Cameron, 1885; *Pachynematus lapponicus* Enslin, 1916). Host plant: Betula nana (Betulaceae). Russia: **EP** (N), **WS** (TM), **ES** (IR, YA, ZB), **FE** (MG). – Europe (WE, EE, NE), N America.
- Pristiphora breadalbanensis** (Cameron, 1882) [Nematus] (*Lygaeonematus tromsouensis* Kiær, 1898; *L. corpulentus* Konow, 1904; *L. arctica* Enslin, 1916). Russia: **EP** (N), **ES** (YA), **FE** (CH). – Europe (WE, NE), N America.
- Pristiphora bufo** (Brischke, 1883) [Nematus] (*Pristiphora pallidula* Konow, 1902; *Pachynematus crassicauda* Lindqvist, 1964; *Pristiphora laricicola* Verzhutskii, 1966). Host plant: Larix spp. (Pinaceae). Russia: **EP** (NW), **WS** (TM), **ES** (TU, IR, BR, YA), **FE** (MG). – Europe (WE, EE, NE), Mongolia.
- Pristiphora carinata** (Hartig, 1837) [Nematus] (*Tenthredo pallipes* Fallén, 1808; *Nematus canaliculatus* Hartig, 1840; *N. denudatus* Hartig, 1840; *Pachynematus alticola* Enslin, 1916). Host plant: Vaccinium mirtilus (Ericaceae). Russia: **EP** (N, NW, C, E), **UR**, **WS** (AL), **ES** (KR, IR, YA, ZB), **FE** (KA, MG). – Europe (WE, EE, NE), Kyrgyzstan, Mongolia, China (NC).
- Pristiphora chromata** Rohwer, 1925. Russia: **FE** (PR).
- Pristiphora cincta** Newman, 1837 (*Nematus quercus* Hartig, 1837; *Tenthredo borealis* Zetterstedt, 1838; *Pristiphora identidem* Norton, 1867; *P. idiota* Norton, 1867; *P. coloradensis* Marlatt, 1896; *P. hoodi* Marlatt, 1896; *P. seorsa* Konow, 1897; *P. idiotiformis* Rohwer, 1910). Host plant: Vaccinium spp. (Ericaceae), Betula spp. (Betulaceae), Salix spp. (Salicaceae). Russia: **EP** (N, C, NC), **ES** (IR, BR, YA), **FE** (AM, KH, PR, SA, KA, MG). – Europe (WE, EE, NE), Kazakhstan, Mongolia, Korean Peninsula, Japan (Hon), N America.
- Pristiphora coactula** (Ruthe, 1859) [Nematus] (*Nematus winnipeg* Norton, 1867; *N. alpinus* Thomson, 1871; *N. winnipegensis* W.F. Kirby, 1882; *Lygaeonematus pachyvalvis* Konow, 1904; *Pristiphora dawsoni* Rohwer, 1908). Host plant: Vaccinium uliginosum (Ericaceae). Russia: **EP** (N, NW, C), **WS** (TM, AL), **ES** (TU, KR, IR, BR, YA, ZB), **FE** (MG). – Europe (WE, NE), N America.
- Pristiphora compressa** (Hartig, 1837) [Nematus]. Host plant: Picea spp. (Pinaceae). Russia: **EP** (NW, C, E), **WS** (AL), **ES** (TU, KR, IR). – Europe (WE, EE, NE), Mongolia, China (NC).
- Pristiphora condei** Lindqvist, 1955. Host plant: Sorbus aucuparia, Amelanchier spicata (Rosaceae). Russia: **EP** (NW, C), **FE** (PR). – Europe (NE, EE).
- Pristiphora confusa** Lindqvist, 1955. Host plant: Salix spp. (Salicaceae). Russia: **EP** (N), **FE** (PR). – Europe (WE, EE, NE).
- Pristiphora conjugata** (Dahlbom, 1835) [Nematus] (*Nematus gonymelas* Stephens, 1835; *N. discipennis* Herrich-Schäffer, 1840; *N. discoidalis* Thomson, 1888; *Pristiphora conjugata ulbrichti* Enslin, 1916; *P. conjugata forsiusi* Enslin, 1916). Host plant: Populus spp., Salix spp. (Salicaceae). Russia: **EP** (N, NW, C, E, S, NC), **ES** (IR, YA), **FE** (AM, PR, KA). – Europe (WE, EE, NE, SE), Armenia, Turkey, Iran, Kyrgyzstan, China (NW), Japan.
- Pristiphora dasiphorae** (Zinovjev, 1993) [Pristicampus]. Host plant: Potentilla fruticosa (Rosaceae). Russia: **ES** (IR, ZB), **FE** (MG).
- Pristiphora decipiens** (Enslin, 1916) [Lygaeonematus]. Host plant: Picea spp. (Pinaceae). Russia: **EP** (C), **ES** (YA). – Europe (WE, EE, NE), Kyrgyzstan.
- Pristiphora dochmocera** (Thomson, 1871) [Nematus] (*Tenthredo flavipes* Zetterstedt, 1838; *Nematus congener* W.F. Kirby, 1882; *Pristiphora thomsoni* Lindqvist, 1953). Russia: **EP** (Taeger et al., 2006), **WS** (Zhelochovtsev, Zinovjev, 1995), **FE** (AM). – Europe (NE), Turkey.



- Pristiphora erichsonii** (Hartig, 1837) [Nematus] (*Nematus leachii* Dahlbom, 1835; *N. notabilis* Cresson, 1880). Host plant: Larix spp. (Pinaceae). Russia: **EP** (NW, C), **ES** (IR, BR, YA, ZB), **FE** (AM, KH, SA, KU). – Europe (WE, EE, NE, SE), China (NE), Japan (Hok, Hon); introduced into N America.
- Pristiphora friesei** (Konow, 1904) [Lygaeonematus] (*Pristiphora atrata* Lindqvist, 1975). Host plant: Larix decidua, L. eurolepis (Pinaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (TM), **ES** (IR). – Europe (WE, EE, NE, SE).
- Pristiphora frigida** (Boheman, 1865) [Nematus] (*P. adelungi* Konow, 1902; *P. gelida* Wong, 1968). Russia: **EP** (N). – Europe (NE), N America.
- Pristiphora geniculata** (Hartig, 1840) [Nematus] (*Nematus cheilon* Zaddach, 1876). Host plant: Sorbus spp. (Rosaceae). Russia: **EP** (NW, NC), **ES** (YA), **FE** (KA). – Europe (WE, EE, NE), Kyrgyzstan, Mongolia, China (NC); introduced into N America.
- Pristiphora gerula** (Konow, 1904) [Lygaeonematus]. Host plant: Picea spp. (Pinaceae). Russia: **EP** (Taeger et al., 2006). – Europe (WE, EE, NE).
- Pristiphora glauca** Benson, 1954 (*Pachynematus larivorus* Takagi, 1931; *Pristiphora takagii* Wong, 1975). Host plant: Larix spp. (Pinaceae). Russia: **EP** (N), **ES** (IR, BR), **FE** (PR, SA). – Europe (WE, NE), Mongolia, Korean Peninsula, Japan (Hon).
- Pristiphora groenblomi** (Lindqvist, 1952) [Lygaeonematus]. Host plant: Betula spp. (Betulaceae). Russia: **EP** (N, E), **ES** (IR). – Europe (WE, EE, NE), Mongolia, Korean Peninsula, N America.
- Pristiphora insularis** Rohwer, 1910 (*Amauronematus amelanchieris* Takeuchi, 1922; *Pristiphora kamtschatica* Malaise, 1931; *P. luteiventris* Koch, 1989). Host plant: Amelanchier asiatica, Chaenomeles japonica, Rosa spp. (Rosaceae). Russia: **EP** (N), **ES** (IR), **FE** (KA, MG). – Europe (WE, NE, SE), N Africa, Japan (Hon), N America.
- Pristiphora jacutica** Beneš, 2014. Host plant: Picea obovata (Pinaceae). Russia: **ES** (YA).
- Pristiphora jakowlewi** (Jakovlev, 1891) [Lygaeonematus]. Russia: **ES** (IR).
- Pristiphora kuznetzovorum** (Enslin, 1919) [Lygaeonematus]. Russia: **EP** (N), **WS** (TM).
- Pristiphora lanifica** (Zaddach, 1883) [Nematus]. Russia: **EP** (NW). – Europe (WE, NE).
- Pristiphora laricis** (Hartig, 1837) [Nematus] (*Nematus ruficollis* Hartig, 1840; *N. leucocnemis* Förster, 1854; *N. oblongus* Cameron, 1882; *N. larivorus* Brischke, 1883; *N. rusticanus* Brischke, 1884; *Pachynematus ravidus* Konow, 1903; *Lygaeonematus paedidus* Konow, 1904; *Pachynematus nigricorpus* Takagi, 1931). Host plant: Larix spp. (Pinaceae). Russia: **EP** (NW), **UR**, **WS** (NS), **ES** (KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, MG). – Europe (WE, EE, NE, SE), Mongolia, China (NE), Korean Peninsula, Japan.
- Pristiphora lativentris** (Thomson, 1871) [Nematus] (*Nematus scoticus* Cameron, 1881; *N. extremus* Holmgren, 1883; *Pristiphora bucoda* Kincaid, 1900; *Lygaeonematus alpicola* Konow, 1904; *L. pallipes femoralis* Zirngiebl, 1953). Russia: **EP** (N), **WS** (TM, AL), **ES** (TU, KR, IR), **FE** (MG). – Europe (WE, NE), Mongolia, N America.
- Pristiphora leucopodia** (Hartig, 1837) [Nematus] (*Nematus nitens* Borries, 1896; *Pachynematus sagulatus* Konow, 1903; *Nematus piceae* Zhelochovtsev, 1988; *Pristiphora hoverlaensis* Haris, 2001). Host plant: Picea spp. (Pinaceae). Russia: **EP** (NW, C), **UR**, **WS** (Zhelochovtsev, Zinovjev, 1995), **ES** (YA). – Europe (WE, EE, NE).
- Pristiphora leucopus** (Hellén, 1948) [Nematus] (*Nematus vitreipennis* Eversmann, 1864). Host plant: Tilia spp. (Tiliaceae). Russia: **EP** (NW, C, E), **UR**. – Europe (WE, EE, NE).
- Pristiphora longicornis** (Malaise, 1931) [Pachynematus]. Russia: **FE** (KA).
- Pristiphora luteipes** Linqvist, 1955. Host plant: Salix spp. (Salicaceae). Russia: **EP** (N, C). – Europe (WE, EE, NE, SE).
- Pristiphora maesta** (Zaddach, 1876) [Nematus] (*Nematus brevicornis* Thomson, 1863; *N. parvicornis* W.F. Kirby, 1882; *Pachynematus insularis* Malaise, 1921). Host plant: Malus spp. (Rosaceae). Russia: **EP** (NW, C, NC), **ES** (ZB), **FE** (PR, KA). – Europe (WE, EE, NE), Caucasus.
- Pristiphora malaisei** (Lindqvist, 1952) [Lygaeonematus] (*Mesoneura arctica* Lindqvist, 1959; *Pachynematus incisus* Lindqvist, 1970; *P. intermedius* Verzhutskii, 1974; *Pristiphora mongololaricis* Haris, 2003). Host plant: Potentilla fruticosa, ?Comarum palustre (Rosaceae). Russia: **ES** (IR), **FE** (MG). – Europe (WE, NE), Mongolia.
- Pristiphora melanocarpa** (Hartig, 1840) [Nematus] (*Nematus funerulus* Costa, 1859; *N. wuestneii* Stein, 1885; *Pristiphora ortinga* Kincaid, 1900). Host plant: Betula spp. (Betulaceae). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (Zhelochovtsev, Zinovjev, 1995), **ES** (Zhelochovtsev, Zinovjev, 1995), **FE** (KH,

- PR, SA). – Europe (WE, EE, NE, SE), Kyrgyzstan, China (NW), Korean Peninsula, N America.
- Pristiphora micronematica** Malaise, 1931 (*Lygaeonematus leucostoma* Lindqvist, 1952). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (NW), **ES** (Zhelochovtsev, 1988), **FE** (KA). – Europe (WE, NE), N America.
- Pristiphora mollis** (Hartig, 1837) [Nematus] (*Tenthredo bipunctata* Gmelin, 1790; *Nematus mollis* Hartig, 1837; *Tenthredo lapponica* Zetterstedt, 1838; *Nematus whitei* Cameron, 1878; *Pachynematus orarius* Kincaid, 1900; *P. kontkaneni* Lindqvist, 1960). Host plant: *Vaccinium myrtillus*, *V. uliginosum* (Ericaceae). Russia: **EP** (N, NW, C, E), **ES** (IR, BR, YA), **FE** (AM, MG, CH). – Europe (WE, EE, NE), Mongolia, Korean Peninsula, N America.
- Pristiphora monogyniae** (Hartig, 1840) [Nematus] (*Nematus pullus* Förster, 1854; *N. filicornis* Thomson, 1863; *N. hibernicus* Cameron, 1878; *N. nanus* Zaddach, 1884; *N. serotinus* Zaddach, 1884; *N. catulus* Zaddach, 1884; *N. ludens* Costa, 1894). Host plant: *Prunus spinosa*, *P. domestica* (Rosaceae). Russia: **EP** (NW, NC). – Europe (WE, EE, NE, SE), Caucasus.
- Pristiphora nestor** (Zhelochovtsev, 1981) [Nematus]. Russia: **ES** (IR), **FE** (MG).
- Pristiphora nigella** (Förster, 1854) [Nematus] (*Tenthredo ambigua* Fallén, 1808; *Nematus occultus* Förster, 1854; *N. furvescens* Cameron, 1876; *N. obscurus* Zaddach, 1884; *N. xanthomus* Zaddach, 1884; *N. obscurior* Dalla Torre, 1894). Host plant: *Picea abies* (Pinaceae). Russia: **EP** (NW, C, NC), **ES** (YA). – Europe (WE, EE, NE), Turkey.
- Pristiphora nigricans** (Eversmann, 1847) [Nematus] (*Nematus anderschi* Zaddach, 1876; *Pristiphora inocreata* Konow, 1902; *P. discolor* Lindqvist, 1975). Host plant: *Sanguisorba officinalis* (Rosaceae). Russia: **EP** (NW, C, E), **ES** (IR). – Europe (WE, EE), Kazakhstan.
- Pristiphora nigriceps** (Hartig, 1840) [Nematus] (*Nematus bistratus* Thomson, 1871). Host plant: *Picea abies* (Pinaceae). Russia: **EP** (Zhelochovtsev, Zinovjev, 1995), **ES** (YA), **FE** (PR). – Europe (WE, EE, NE).
- Pristiphora nigromongolica** Haris, 2002. Russia: **ES** (IR). – Mongolia.
- Pristiphora pallida** (Konow, 1904) [Lygaeonematus] (*Lygaeonematus stecki* Nägeli, 1936). Host plant: *Picea abies* (Pinaceae). Russia: "Siberia" (Zhelochovtsev, Zinovjev, 1995). – Europe (WE, EE, NE).
- Pristiphora pallidiventris** (Fallén, 1808) [Tenthredo] (*Nematus ephippiger* Hartig, 1840; *N. flavicomus* Tischbein, 1846; *N. gemellus* Förster, 1854; *N. marshalli* Cameron, 1875; *N. cirrhostomus* Zaddach, 1883; *Pristiphora pallidiventris denudata* Konow, 1902; *P. zella* Rohwer, 1909; *P. pallicoxa* Rohwer, 1910; *P. xanthotrachela* Rohwer, 1913; *P. pallidiventris haemorrhoidalis* Enslin, 1916; *P. pallidiventris stigmatica* Enslin, 1916; *P. ostiaria* MacGillivray, 1920; *P. pallidiventris megalpina* Lacourt, 1987). Host plant: *Filipendula* spp., *Geum* spp., *Rubus* spp. (Rosaceae). Russia: **EP** (NW, C, E, S, NC), **UR**, **ES** (YA), **FE** (AM, PR, SA, KU). – Europe (WE, EE, NE, SE), Georgia, Armenia, Turkey, Kazakhstan, Mongolia, China (NW), Korean Peninsula, Japan (Hok), N America.
- Pristiphora paralella** (Hartig, 1840) [Nematus] (*Lygaeonematus tenuicornis* Lindqvist, 1955). Host plant: *Picea* sp. (Pinaceae). Russia: **EP** (NW), **ES** (IR, YA), **FE** (PR). – Europe (WE, EE, NE), Korean Peninsula.
- Pristiphora parva** (Hartig, 1837) [Nematus] (*Nematus nigricornis* Zaddach, 1883; *N. germanicus* Dalla Torre, 1894; *Lygaeonematus ambiguus flavater* Enslin, 1916). Host plant: *Picea abies* (Pinaceae). Russia: **EP** (NW). – Europe (WE, EE, NE).
- Pristiphora pseudodecipiens** Beneš et Křístek, 1976. Host plant: *Picea* spp. (Pinaceae). Russia: **EP** (Zhelochovtsev, Zinovjev, 1995). – Europe (WE, EE, NE).
- Pristiphora pseudogeniculata** Lindqvist, 1969. Host plant: *Prunus padus* (Rosaceae). Russia: **FE** (KA). – Europe (NE).
- Pristiphora pseudomelanocarpa** Haris, 2006. Russia: **FE** (KU).
- Pristiphora punctifrons** (Thomson, 1871) [Nematus] (*Nematus platyceros* Zaddach, 1884; *Pristiphora viridana* Konow, 1902; *Micronematus camtschaticalis* Enslin, 1927; *Pristiphora aspericeps* Lindqvist, 1960; *P. flavipicta* Lindqvist, 1975; *P. mongoloexigua* Haris, 2002; *P. flavopleura* Haris, 2002; *P. mongolofausta* Haris, 2003). Host plant: *Rosa* spp. (Rosaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (IR, BR, YA), **FE** (SA, KA, MG). – Europe (WE, EE, NE, SE), Georgia, Central Asia, Kazakhstan, Mongolia, Japan (Hon), N America.
- Pristiphora retusa** (Thomson, 1871) [Nematus]. Host plant: *Prunus padus* (Rosaceae). Russia: **EP** (NW, C), **ES** (IR, YA), **FE** (KH, PR). – Europe (WE, EE, NE).

- Pristiphora reuteri** (Lindqvist, 1960) [Lygaeonematus]. Host plant: *Salix phylicifolia* (Salicaceae). Russia: **EP** (N), **UR**, **WS** (TM), **ES** (IR, BR), **FE** (KA, MG). – Europe (NE), N America.
- Pristiphora robusta** (Konow, 1895) [Lygaeonematus]. Host plant: *Picea* spp. (Pinaceae). Russia: **EP** (NW), **ES** (YA). – Europe (EE, NE).
- Pristiphora ruficornis** (Olivier, 1811) [Nematus] (*P. testaceicornis* Serville, 1823; *P. testaceicornis* Lepeletier, 1823; *Nematus fraxini* Hartig, 1837; *N. testaceicornis* Jacobs, 1884; *N. ruficornis integer* Hellén, 1948). Host plant: *Betula pubescens* (Betulaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (Zhelochovtsev, Zinovjev, 1995), **ES** (TU, IR, BR, ZB). – Europe (WE, EE, NE, SE), Armenia, Mongolia.
- Pristiphora rufipes** Serville, 1823 (*P. fusca* Serville, 1823; *Nematus suessionensis* Serville, 1823; *Pristiphora rufipes* Lepeletier, 1823; *P. fusca* Lepeletier, 1823; *Nematus suessionensis* Lepeletier, 1823; *N. selandrioides* Costa, 1859; *N. aquilegiae* Snellen van Vollenhoven, 1866). Host plant: *Aquilegia* spp. (Ranunculaceae). Russia: **EP** (C, S), **WS** (AL), **ES** (KS, KR, YA), **FE** (AM, PR). – Europe (WE, EE, NE, SE), Turkey, Kyrgyzstan; introduced into N America.
- Pristiphora salicivora** (Takeuchi, 1922) [Lygaeonematus]. Host plant: *Salix* spp. (Salicaceae). Russia: **FE** (SA). – Japan (Hon).
- Pristiphora sareptana** Kuznetzov-Ugamskij, 1924 (*P. moravica* Gregor, 1940). Russia: **EP** (C, E, S). – Europe (EE, NE), Kazakhstan.
- Pristiphora saxesenii** (Hartig, 1837) [Nematus] (*P. thalenhorsti* Wong, 1975). Host plant: *Picea* spp. (Pinaceae). Russia: **EP** (NW, C), **WS** (Zhelochovtsev, Zinovjev, 1995), **ES** (YA). – Europe (WE, EE, NE), Kyrgyzstan.
- Pristiphora sermola** Liston, 1993 (*Lygaeonematus variipes* Lindqvist, 1952). Host plant: *Salix* spp. (Salicaceae). Russia: **EP** (NW), **ES** (Zhelochovtsev, Zinovjev, 1995). – Europe (WE, NE).
- Pristiphora similis** Kuznetzov-Ugamskij, 1924. Russia: **EP** (S).
- Pristiphora simplicifrons** Malaise, 1931. Russia: **FE** (PR).
- Pristiphora staudingeri** (Ruthe, 1859) [Nematus] (*P. circularis* Kincaid, 1900; *P. hyperborea* Malaise, 1921; *P. asperlatus* Benson, 1935). Host plant: *Salix herbacea*, *S. phylicifolia* (Salicaceae). Russia: **EP** (N, NW, C), **ES** (KS, KR, IR, YA, ZB), **FE** (KH, KA, MG). – Europe (WE, EE, NE), Mongolia, China (NC), N America.
- Pristiphora subarctica** (Forsslund, 1936) [Lygaeonematus] (*P. pseudosaxesenii* Lindqvist, 1968). Host plant: *Picea abies* (Pinaceae). Russia: **EP** (C), **ES** (KR). – Europe (WE, EE, NE).
- Pristiphora subbifida** (Thomson, 1871) [Nematus] (*Nematus depressus* Hartig, 1840). Host plant: *Acer campestre* (Sapindaceae). Russia: **EP** (Taeger et al., 2006). – Europe (WE, EE, NE), Cyprus, N America.
- Pristiphora subopaca** Lindqvist, 1955 (*P. coniceps* Lindqvist, 1955; *P. brunniapex* Lindqvist, 1960). Host plant: *Salix caprea*, *S. phylicifolia* (Salicaceae). Russia: **EP** (NW), **ES** (IR). – Europe (WE, NE).
- Pristiphora tenuiserra** (Lindqvist, 1959) [Micronematus]. Russia: **EP** (Taeger et al., 2006). – Europe (WE, EE, NE).
- Pristiphora testacea** (Jurine, 1807) [Pteronus] (*Tenthredo betulae* Retzius, 1783; *T. betulae* Christ, 1791; *Nematus betulinus* Dahlbom, 1835; *N. betularius* Hartig, 1837; *N. betulae* Hartig, 1837; *N. melanurus* Hartig, 1840; *N. erythrogaster* Thomson, 1871; *N. crassiventris* Cameron, 1878; *N. hartigii* W.F. Kirby, 1882; *N. luteogaster* W.F. Kirby, 1882; *Pristiphora gaunitzi* Lindqvist, 1968). Host plant: *Betula* spp. (Betulaceae). Russia: **EP** (C). – Europe (WE, EE, NE), China (Wei et al., 2006).
- Pristiphora tetrica** (Zaddach, 1883) [Nematus] (*Nematus velatus* Zaddach, 1883; *Pristiphora nievesi* Haris, 2004). Host plant: *Acer* spp. (Sapindaceae). Russia: **EP** (NC). – Europe (WE, SE), N Africa.
- Pristiphora thalictri** (Kriechbaumer, 1884) [Nematus] (*P. henschi* Konow, 1902; *Diphadnus thalictri* Takeuchi, 1922). Host plant: *Thalictrum aquilegifolium*, *T. minus* (Ranunculaceae). Russia: **EP** (NW, C), **ES** (Zhelochovtsev, Zinovjev, 1995), **FE** (KU). – Europe (WE, EE, NE, SE), Kazakhstan, Mongolia, Korean Peninsula, Japan (Hon).
- Pristiphora thalictrivora** Lindqvist, 1962 (*P. thalicticola* Lindqvist, 1974; *P. rufiventris* Lindqvist, 1974). Host plant: *Thalictrum flavum*, *T. simplex* (Ranunculaceae). Russia: **EP** (Taeger et al., 2006), **ES** (IR). – Europe (NE).
- Pristiphora trochanterica** (Lindqvist, 1952) [Lygaeonematus]. Russia: **EP** (N), **WS** (TM), **ES** (KR). – Europe (NE).
- Pristiphora truncatiserra** Lindqvist, 1975. Russia: **ES** (IR, BR).

**Pristiphora werzhutskii** Lindqvist, 1970. Host plant: Spiraea spp. (Rosaceae). Russia: **ES** (IR).

**Pristiphora wesmaeli** (Tischbein, 1853) [Nematus] (*Nematus solea* Snellen van Vollenhoven, 1870). Host plant: Larix spp. (Pinaceae). Russia: **EP** (NW), **WS** (OM), **ES** (KR, IR, YA). – Europe (WE, EE, NE), China (NE), Korean Peninsula, Japan (Hon).

**PSEUDODINEURA** Konow, 1885 (*Pelmatopus* Hartig, 1837; *Phyllopais* Hering, 1934). Type species *Tenthredo parvula* Klug, 1816. The larvae live in minas on leaves of Ranunculaceae. The genus is distributed in Holarctic. Number of species: World – 12; Palaearctic – 9; Russia – 6.

**Pseudodineura clematidis** (Hering, 1932) [Pelmatopus]. Host plant: Clematis spp., ?Atragene spp. (Ranunculaceae). Russia: **UR** (Taeger et al., 2006). – Europe (WE, EE).

**Pseudodineura enslini** (Hering, 1923) [Pelmatopus]. Host plant: Trollius spp. (Ranunculaceae). Russia: **EP** (C), **ES** (KR, IR). – Europe (WE, EE, NE).

**Pseudodineura fuscula** (Klug, 1816) [Tenthredo] (*Dineura despecta* Hartig, 1837; *Dolerus minutus* Hartig, 1837; *Dineura simulans* Cameron, 1877). Host plant: Ranunculus spp. (Ranunculaceae). Russia: **EP** (N, NW, C, E, S, NC), **ES** (IR). – Europe (WE, EE, NE, SE), Armenia, Kazakhstan; introduced into N America.

**Pseudodineura heringi** (Enslin, 1921) [Permatopus]. Host plant: Anemone spp. (Ranunculaceae). Russia: **EP** (C), **ES** (IR). – Europe (WE, EE, NE).

**Pseudodineura mentiensi** (Thomson, 1871) [Blenno-campa] (*Dineura hepaticae* Brischke, 1883; *Pelmatopus mentiensi konowi* Enslin, 1921). Host plant: Hepatica nobilis (Ranunculaceae). Russia: **EP** (NW, C, E, NC), **UR**, **FE** (KH, PR). – Europe (WE, EE, NE).

**Pseudodineura parvula** (Klug, 1816) [Tenthredo] (*Tenthredo minuta* Lepeletier et Serville, 1828). Host plant: Pulsatilla spp. (Ranunculaceae). Russia: **EP** (C), **ES** (ZB). – Europe (WE, EE).

**STAURONEMATUS** Benson, 1953 (*Stauronema* Benson, 1948). Type species *Nematus platycerus* Hartig, 1840. The larvae live in minas on leaves. The genus is distributed in Palaearctic. Number of species: one species.

**Stauronematus platycerus** (Hartig, 1840) [Nematus] (*Nematus vallator* Snellen van Vollenhoven, 1858;

*N. cebrionicornis* Costa, 1859; *N. callicerus* Thomson, 1863). Host plant: Populus spp., Salix alopecuroa (Salicaceae). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **ES** (IR, YA), **FE** (KH). – Europe (WE, EE, NE, SE), Caucasus, Turkey, Iran, Kyrgyzstan, Kazakhstan, China (CC), Korean Peninsula, Japan (Hok, Hon).

#### Unplaced Nematinae

**Amauronematus nigridorsis** Jakovlev, 1891. Russia: **ES** (IR).

**Cryptocampus fuscus** Zaddach, 1883. Russia: **EP** (NW).

**Nematus cinereus** Eversmann, 1847. Russia: **EP** (E).

**Nematus konowi** (Jakovlev, 1891) [Pteronus]. Russia: **EP** (NC).

**Nematus contractus** Eversmann, 1847. Russia: **EP** (S).

**Nematus fruticum** Eversmann, 1847. Russia: **EP** (E).

**Nematus schewyrewi** (Jakovlev, 1891) [Pteronus]. Russia: **EP** (NC).

**Nematus (Pteronidea) pyramidalis** Hellén, 1948. Russia: **ES** (KR).

**Pteronus irkutensis** Jakovlev, 1891. Russia: **ES** (IR).

**Tenthredo (Selandria) umbrosa** Eversmann, 1847. Russia: **EP** (E).

#### Subfamily SELANDRIINAE

**ALPHASTROMBOCEROS** Kuznetsov-Ugamskij, 1928 (*Parastromboceros* Takeuchi, 1941). Type species *Strongylogaster konowi* Jakovlev, 1891. The larvae on herbaceous plants. The genus is distributed in Palaearctic and Oriental region. Number of species: World – 5; Palaearctic – 3; Russia – 1.

**Alphastromboceros konowi** (Jakovlev, 1891) [Strongylogaster] (*Stromboceros filicis* Malaise, 1931). Host plant: Urtica spp. (Urticaceae). Russia: **EP** (C), **FE** (KH, PR, SA). – Europe (WE, EE), China (NE, SE), Korean Peninsula, Japan (Hok, Hon, Kyu).

**ANEUGMENUS** Hartig, 1837 (*Colposelandria* Enslin, 1912; *Atoposelandria* Enslin, 1913; *Polyselandria* MacGillivray, 1914; *Selandropha* Zirngiebl, 1956). Type species *Tenthredo coronata* Klug, 1818. The larvae on ferns. The genus is distributed in Holarctic, Oriental and Neotropical regions. Number of species: World – 32; Palaearctic – 15; Russia – 8.

- Aneugmenus carinifrons** (Malaise, 1931) [Selandria] (*Selandria planiceps* Malaise, 1931). Host plant: ?*Lysimachia* spp. (Primulaceae). Russia: **FE** (AM, PR). – China (SE), Korean Peninsula, Japan (Hok, Hon, Kyu, Sado, Tsushima).
- Aneugmenus coronatus** (Klug, 1818) [Tenthredo] (*Selandria analis* Thomson, 1871; *S. cereipes* Snellen van Vollenhoven, 1873; *S. bimaculata* Cobelli, 1892; *S. ogloblini* Dovnar-Zapolskij, 1930). Host plant: *Athyrium* spp., *Dryopteris* spp. (Dryopteridaceae), *Pteridium aquilinum* (Dennstaedtiaceae). Russia: **EP** (NW, C, NC), **WS** (AL), **FE** (AM, KH, PR). – Europe (WE, EE, NE, SE), Georgia, China (NE), Korean Peninsula, Japan (Niu, Wei, 2013).
- Aneugmenus fuerstenbergensis** (Konow, 1885) [Selandria]. Host plant: *Pteridium aquilinum* (Dennstaedtiaceae). Russia: **EP** (N, C, E). – Europe (WE, SE, EE, NE).
- Aneugmenus japonicus** Rohwer, 1910 (*A. gratus* Zhelochovtsev, 1951). Host plant: *Pteridium aquelinum* (Dennstaedtiaceae). Russia: **FE** (SA, KU). – China (NC, CC, SE), Korean Peninsula, Japan (Hon, Shi, Kyu).
- Aneugmenus kiotonis** Takeuchi, 1929. Host plant: *Pteridium aquelinum* (Dennstaedtiaceae). Russia: **FE** (SA, KU). – Japan (Hon, Shi, Kyu, Sado).
- Aneugmenus oertzeni** (Konow, 1887) [Selandria]. Russia: **EP** (C). – Europe (SE), SW Asia.
- Aneugmenus padi** (Linnaeus, 1760) [Tenthredo] (*Tenthredo stramineipes* Klug, 1816; *T. albipes* Serville, 1823; *T. albipes* Lapeletier, 1823; *Selandria rufitarsis* Brullé, 1832; *Allantus laticinctus* Brullé, 1832; *Tenthredo cerasorum* Dahlbom, 1835; *Selandria vollenhoveni* Gribodo, 1881; *S. urbis* Ross, 1930). Host plant: *Pteridium aquilinum* (Dennstaedtiaceae). Russia: **EP** (NW, S, NC). – Europe (WE, EE, NE, SE), N Africa, Georgia, Turkey, Iran; introduced into the N America.
- Aneugmenus temporalis** (Thomson, 1871) [Selandria]. Host plant: *Pteridium aquilinum* (Dennstaedtiaceae). Russia: **EP** (NW, C, E), **UR**, **FE** (AM, KH, PR, SA). – Europe (WE, EE, NE, SE), China (NC, NE, CC), Korean Peninsula, Japan (Niu, Wei, 2013).
- BIRKA** Malaise, 1944 (*Lineobirka* Wei et Nie, 1997). Type species *Tenthredo cinereipes* Klug, 1816. The genus is distributed in Palaearctic and Oriental region. Number of species: World – 17; Palaearctic – 11; Russia – 4 from 2 subgenera.
- Birka (Birka) annularis** (Thomson, 1870) [Selandria]. Host plant: *Rubus* spp. (Rosaceae). Russia: **EP** (E), **UR**, **WS** (KM, AL), **ES** (YA). – Europe (WE, EE, NE).
- Birka (Birka) catellata** (Konow, 1900) [Selandria]. Russia: **WS** (KM), **ES** (KR, IR), **FE** (AM).
- Birka (Birka) cinereipes** (Klug, 1816) [Tenthredo] (*Tenthredo aperta* Hartig, 1837; *Selandria foveifrons* Thomson, 1870). Host plant: *Myosotis* spp. (Boraginaceae). Russia: **EP** (NW, C, E), **UR**, **WS** (TM, NS, AL), **FE** (KA). – Europe (WE, EE, NE, SE), Caucasus, Turkey.
- Birka (Lineobirka) koreana** (Takeuchi, 1941) [Nesoselandria] (*B. pallipes* Zhelochovtsev, 1951). Host plant: *Pyrus* spp. (Rosaceae). Russia: **FE** (AM, PR). – China (NE), Korean Peninsula.
- BRACHYTHOPS** Curtis, 1839 (*Coryna* Lapeletier et Serville, 1828; *Paraselandria* Ashmead, 1898; *Selandridea* Rohwer, 1911; *Pseudoselandria* MacGillivray, 1914). Type species *Brachythops seminigra* Curtis, 1839. The larvae free-living, on *Carex* (Cyperaceae). The genus is distributed in Holarctic. Number of species: World and Palaearctic – 4; Russia – 3.
- Brachythops flavens** (Klug, 1816) [Tenthredo] (*Tenthredo scapularis* Lapeletier et Serville, 1828; *Phyllotoma puella* Fallén, 1829; *Brachythops seminigra* Curtis, 1839; *Selandria flavescens* Thomson, 1870; *S. decolorata* Cresson, 1880; *Selandridea vanduzeei* Rohwer, 1911; *Selandria flavens flavior* Enslin, 1913; *Pseudoselandria oxalata* MacGillivray, 1914; *Selandria flavens antennalis* Zirngiebl, 1954). Host plant: *Carex* spp. (Cyperaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **ES** (IR, BR), **FE** (AM, KH). – Europe (WE, EE, NE), Armenia, Kazakhstan, China (Wei et al., 2006), N America.
- Brachythops nitens** (Zhelochovtsev, 1951) [Selandria]. Host plant: *Carex* spp. (Cyperaceae). Russia: **FE** (KH, PR).
- Brachythops wuestneii** (Konow, 1885) [Selandria] (*Selandria flavistigma* Grönblom, 1939). Host plant: *Carex* spp. (Cyperaceae). Russia: **EP** (N, NW), **WS** (AL), **ES** (IR, BR), **FE** (KH). – Europe (WE, EE, NE), N America.
- BUSARBIDEA** Rohwer, 1915 (*Canoniades* Forsius, 1929). Type species *Busarbidea himalaiensis* Rohwer, 1915. The genus is distributed in East Palaearctic and Oriental region. Number of species: World – 19; Palaearctic – 8; Russia – 1.
- Busarbidea ussuriensis** (Malaise, 1931) [Canoniades]. Russia: **FE** (PR).

- DOLERUS** Panzer, 1801 (*Dolerus* Jurine, 1801; *Dosytheus* Leach, 1817; *Dositheus* Agassiz, 1848; *Loderus* Konow, 1890; *Hamatodentiden* Zirngiebl, 1930; *Multidentiden* Zirngiebl, 1930; *Nodulodentiden* Zirngiebl, 1930; *Pratensisformis* Ermolenko, 1975; *Gonagerformis* Ermolenko, 1975; *Nigerformis* Ermolenko, 1975; *Achaetoprion* Goulet, 1986; *Dicrodolerus* Goulet, 1986; *Neodolerus* Goulet, 1986; *Oncodolerus* Goulet, 1986; *Cyperolerus* Zhelochovtsev, 1988; *Poodolerus* Zhelochovtsev, 1988; *Juncilerus* Zhelochovtsev, 1988; *Equidolerus* Taeger et Blank, 1996). Type species *Tenthredo pedestris* Panzer, 1801. The larvae feed mainly on Poaceae and Equisetaceae, less often on Juncaceae and Cyperaceae. The genus is distributed in Holarctic and Oriental region. Number of species: World – about 225; Palearctic – about 155; Russia – 75 (+ 8 ssp.) from 9 subgenera.
- Dolerus (Achaetoprion) ferrugatus** Serville, 1823 (*D. ferrugatus* Lepeletier, 1823; *D. brevicornis* Thomson, 1871; *D. thomsoni* Konow, 1884; *D. thomsoni miricolor* Konow, 1887). Host plant: *Juncus* spp. (Juncaceae). Russia: **EP** (C, E). – Europe (WE, EE, NE, SE), China (Wei et al., 2006).
- Dolerus (Achaetoprion) madidus** (Klug, 1818) [Tenthredo] (*Tenthredo lateritia* Klug, 1818; *Dolerus chappelli* Cameron, 1877; *D. lamprechti* Konow, 1884; *D. madidus monozonus* Enslin, 1913). Host plant: *Juncus* spp. (Juncaceae). Russia: **EP** (NW, C, E, CR), **WS** (NS). – Europe (WE, EE, NE, SE), Korean Peninsula.
- Dolerus (Achaetoprion) pachycerus** Hartig, 1837 (*D. taeniatu* Zaddach, 1859; *D. tinctipennis* Cameron, 1881; *D. mocsaryi* Konow, 1895). Host plant: *Juncus* spp. (Juncaceae). Russia: **EP** (N, NW, C, E), **WS** (Zhelochovtsev, 1988), **ES** (BR, YA). – Europe (WE, EE, NE, SE), Kazakhstan.
- Dolerus (Achaetoprion) triplicatus** (Klug, 1818) [Tenthredo] (*Tenthredo tremula* Klug, 1818; *Dolerus trimaculatus* Lepeletier, 1823; *D. dimidiatus* Lepeletier, 1823; *D. trimaculatus* Serville, 1823; *D. dimidiatus* Serville, 1823; *D. lugubris* Gimmerthal, 1834; *D. steini* Konow, 1885; *D. tremulus aemula* Konow, 1902). Host plant: *Juncus* spp. (Juncaceae). Russia: **EP** (C, S, NC, CR). – Europe (WE, EE, NE, SE), Georgia, Armenia, Turkey.
- Dolerus (Cyperolerus) anticus anticus** (Klug, 1818) [Tenthredo]. Host plant: *Carex* spp., *Eleocharis palustris* (Cyperaceae). Russia: **EP** (C, E), **UR**, **WS** (NS), **ES** (Zhelochovtsev, Zinovjev, 1996). – Europe (WE, EE, NE, SE), Caucasus, Turkey, Kazakhstan.
- Dolerus (Dicrodolerus) apricus** (Norton, 1861) [Dositheus] (*D. luctatus* MacGillivray, 1908; *D. femurru-brum* Rohwer, 1909; *Loderus acerbus* MacGillivray, 1923; *L. alticinctus* MacGillivray, 1923; *L. ancisus* MacGillivray, 1923). Russia: **FE** (MG). – China (Wei et al., 2006), N America.
- Dolerus (Dicrodolerus) genucinctus** Zaddach, 1859 (*D. annulipes* Thomson, 1871; *Loderus genucinctus tegularis*). Host plant: *Equisetum* spp. (Equisetaceae). Russia: **EP** (NW, C, E), **UR**, **WS** (Zhelochovtsev, Zinovjev, 1996), **ES** (IR), **FE** (AM, KH, SA, KU, KA, MG). – Europe (WE, EE, NE), Mongolia, China (NE), Japan (Hok, Hon).
- Dolerus (Dicrodolerus) mongolicus** (Muche, 1965) [Loderus]. Host plant: *Equisetum* spp. (Equisetaceae). Russia: **ES** (ZB). – Mongolia, China (NC).
- Dolerus (Dicrodolerus) vestigialis vestigialis** (Klug, 1818) [Tenthredo]. Host plant: *Equisetum* spp. (Equisetaceae). Russia: **EP** (NW, C, E, NC), **WS** (KM), **ES** (IR, BR). – Europe (WE, EE, NE, SE), Armenia, Turkey, Iran.
- Dolerus (Dolerus) aericeps** Thomson, 1871 (*D. bajulus* Serville, 1823; *D. bajulus* Lepeletier, 1823; *D. mandibularis* Konow, 1884; *D. aericeps rufipes* Konow, 1888; *D. aericeps erythropus* Enslin, 1913; *D. aericeps theresae* Pic, 1948; *D. aericeps guttatus* Zirngiebl, 1954). Host plant: *Equisetum* spp. (Equisetaceae). Russia: **EP** (N, NW, C, E), **UR**, **WS** (KM, AL), **ES** (TU, IR, BR, YA), **FE** (PR). – Europe (WE, EE, NE, SE), Caucasus, Turkey, Kazakhstan.
- Dolerus (Dolerus) armillatus** Konow, 1896 (*D. austerus* Muche, 1965). Host plant: Poaceae. Russia: **WS** (AL), **ES** (IR, BR), **FE** (AM, KH, PR). – Mongolia, China (SW, SE), Korean Peninsula, Japan (Hok).
- Dolerus (Dolerus) bimaculatus** (Geoffroy, 1785) [Tenthredo] (*Tenthredo tristis* Fabricius, 1804; *Dolerus saxatilis* Hartig, 1837). Host plant: *Equisetum* spp. (Equisetaceae). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (AL), **ES** (TU, IR, BR, YA), **FE** (AM, KH, KA, MG). – Europe (WE, EE, NE, SE), Mongolia.
- Dolerus (Dolerus) cothurnatus** Serville, 1823 (*Tenthredo palustris* Klug, 1818; *Dolerus cothurnatus* Lepeletier, 1823; *Dosytheus junci* Stephens, 1835; *Dolerus busaei* Snellen van Vollenhoven, 1858). Host plant: *Equisetum* spp. (Equisetaceae). Russia: **EP** (N, NW, C, E, S, NC), **ES** (IR), **FE** (MG). – Europe (WE, EE, NE, SE), Mongolia, Korean Peninsula.

- Dolerus (Dolerus) elderi elderi** Kincaid, 1900 (*D. pusillus* Jakovlev, 1891; *D. cohaesus* MacGillivray, 1908; *D. nutricius* MacGillivray, 1923; *Loderus acriculus* MacGillivray, 1923; *Dolerus nyctelius* MacGillivray, 1923; *D. negotiosus* MacGillivray, 1923; *D. nemorosus* MacGillivray, 1923; *D. pullulus* Zhelochovtsev, 1928; *D. elderi auraneus* Ross, 1931; *D. elderi rubicanus* Ross, 1931; *D. elderi melanus* Ross, 1931; *D. pullulus coloratus* Hellén, 1956; *D. orchonensis* Muche, 1965). Host plant: Equisetum spp. (Equisetaceae). Russia: **EP** (N), **WS** (TM, AL), **ES** (KS, KR, IR, BR, YA), **FE** (KA). – Europe (NE), Tadjikistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NW, NC), N America.
- Dolerus (Dolerus) germanicus aterrimus** Zhelochovtsev, 1935. Host plant: Equisetum spp. (Equisetaceae). Russia: **FE** (KU). – Japan (Hok).
- Dolerus (Dolerus) germanicus claripennis** Zhelochovtsev, 1935. Host plant: Equisetum spp. (Equisetaceae). Russia: **FE** (KA, MG).
- Dolerus (Dolerus) germanicus fuscipennis** (Stephens, 1835) [Dositheus] (*D. arcticus* Thomson, 1871). Host plant: Equisetum spp. (Equisetaceae). Russia: **FE** (KA). – Europe (NE).
- Dolerus (Dolerus) germanicus germanicus** (Fabricius, 1775) [Tenthredo] (*Tenthredo hortorum* O.F. Müller, 1776; *T. melanocephala* Fourcroy, 1785; *T. eglanteriae* Fabricius, 1793; *T. pedestris* Panzer, 1801; *T. subfusca* Lepeletier, 1823; *Dositheus xanthopus* Stephens, 1835; *Tenthredo quadricincta* Zetterstedt, 1838; *Dolerus fennicus* André, 1880; *D. rufipus* Gradl, 1881; *D. pratensis nigripes* Konow, 1884; *D. pratensis mediator* Enslin, 1913; *D. pratensis laterater* Enslin, 1913; *D. pratensis terminator* Enslin, 1913; *D. pratensis totus* Malaise, 1931; *D. germanicus berlandi* Pic, 1948; *D. germanicus buyssoni* Pic, 1948; *D. pratensis major* Zirngiebl, 1954). Host plant: Equisetum spp. (Equisetaceae). Russia: **EP** (NW, C), **WS** (NS, KM, AL), **ES** (IR), **FE** (PR, KA). – Europe (WE, EE, NE, SE).
- Dolerus (Dolerus) germanicus meridianus** Zhelochovtsev, 1928. Host plant: Equisetum spp. (Equisetaceae). Russia: **EP** (NC). – Georgia, Armenia.
- Dolerus (Dolerus) germanicus orientalis** Zhelochovtsev, 1935. Host plant: Equisetum spp. (Equisetaceae). Russia: **FE** (AM, KH, PR, MG). – China (NE), Korean Peninsula.
- Dolerus (Dolerus) germanicus sibiricus** Zhelochovtsev, 1935. Host plant: Equisetum spp. (Equisetaceae). Russia: **EP** (N), **WS** (TM), **ES** (KS, KR, IR, BR, ZB), **FE** (MG). – Mongolia.
- Dolerus (Dolerus) germanicus subsolanus** Zhelochovtsev, 1928. Host plant: Equisetum spp. (Equisetaceae). Russia: **UR**, **WS** (OM, AL). – Kazakhstan.
- Dolerus (Dolerus) klutchianus** Malaise, 1931. Russia: **FE** (KA).
- Dolerus (Dolerus) manticatus** Konow, 1907. Host plant: Equisetum spp. (Equisetaceae). Russia: **WS** (Zhelochovtsev, Zinovjev, 1996), **ES** (KR, IR), **FE** (AM). – Mongolia, China (NC, SW).
- Dolerus (Dolerus) nigriceps** Konow, 1891. Russia: **EP** (Lacourt, 1999). – Caucasus, Turkey, Iran.
- Dolerus (Dolerus) subarcticus** Hellén, 1956 (*D. willoughbyi* Benson, 1956). Host plant: Equisetum spp. (Equisetaceae). Russia: **EP** (N, C), **WS** (NS), **ES** (KR, YA). – Europe (NE), Mongolia.
- Dolerus (Dolerus) variegatus** Jakovlev, 1891 (*D. patricius* Muche, 1965). Host plant: Equisetum spp. (Equisetaceae). Russia: **WS** (NS, AL), **ES** (IR, BR, ZB), **FE** (AM, MG). – Europe (WE), Mongolia, China (NC).
- Dolerus (Dolerus) yukonensis** Norton, 1872 (*D. scoticus* Cameron, 1881; *D. lateralis* Konow, 1895; *D. arcticola* Kiær, 1898; *D. nuntius* MacGillivray, 1923; *D. nundius* MacGillivray, 1923; *D. scoticus lenensis* Hellén, 1956; *D. thargitai* Zombori, 1994). Host plant: Equisetum spp. (Equisetaceae). Russia: **EP** (N, NW, C, E), **UR**, **WS** (KM), **ES** (IR, BR, YA), **FE** (AM, SA, KU, KA, MG). – Europe (WE, EE, NE), Mongolia, China (NC), N America.
- Dolerus (Equidolerus) gessneri** André, 1880 (*D. labiosus* Konow, 1897; *D. kamtschaticus* Malaise, 1931; *D. gessneri rufomaculata* Hellén, 1956). Host plant: Equisetum spp. (Equisetaceae). Russia: **EP** (NW, C), **WS** (TM), **ES** (KS, KR, IR, BR, ZB), **FE** (AM, SA, KA, MG). – Europe (WE, EE, NE), China (Wei et al., 2006), Korean Peninsula, Japan (Hok, Hon), N America.
- Dolerus (Equidolerus) konowi glacialis** Goulet, 1986. Host plant: Equisetum spp. (Equisetaceae). Russia: **FE** (KU, KA, CH). – N America (Alaska).
- Dolerus (Equidolerus) pratensis** (Linnaeus, 1758) [Tenthredo] (*Tenthredo dubia* Klug, 1818; *T. timida* Klug, 1818; *T. deserta* Klug, 1818; *Dositheus hyalinialis* Stephens, 1835; *Dolerus dubius niger* Enslin, 1909; *D. dubius atratus* Enslin, 1913; *D. pratensis camtschatcalis* Enslin, 1918; *D. variator* Enslin, 1927; *D. variator mesonotalis* Enslin, 1927; *D. variator mesopleuralis* Enslin, 1927). Host plant: Equisetum

- spp. (Equisetaceae). Russia: **EP** (N, NW, C, E), **UR**, **WS** (NS), **ES** (IR, BR, YA), **FE** (AM, KA). – Europe (WE, EE, NE), Turkey, Mongolia, China (NC), N America; introduced into Tropical Africa.
- Dolerus (Equidolerus) pseudoantiscus** Malaise, 1931. Russia: **FE** (KA).
- Dolerus (Equidolerus) rhodogaster** Zhelochovtsev, 1935. Host plant: Equisetum spp. (Equisetaceae). Russia: **ES** (IR, BR), **FE** (AM, PR). – China (NE).
- Dolerus (Equidolerus) subfasciatus** F. Smith, 1874 (*D. picinus* Marlatt, 1898). Host plant: Equisetum spp. (Equisetaceae). Russia: **FE** (KU). – Japan (Hon, Shi).
- Dolerus (Loderus) gilvipes albifrons** (Norton, 1861) [Dositheus] (*D. minusculus* MacGillivray, 1908; *Loderus accuratus* MacGillivray, 1923). Russia: **FE** (CH). – China (NE), N America.
- Dolerus (Loderus) gilvipes gilvipes** (Klug, 1818) [Tenthredo] (*D. tenebrosus* Eversmann, 1847; *Loderus ornatulus* Konow, 1897; *L. ornatulus plagiatus* Konow, 1897; *L. gilvipes camtschatcalis* Enslin, 1927). Russia: **EP** (N, E), **UR**, **ES** (IR, YA), **FE** (AM, PR, KA, MG). – Europe (WE, NE), Mongolia, China (NE, NC), Korean Peninsula, Japan (Goulet, 1986).
- Dolerus (Loderus) pratorum** (Fallén, 1808) [Tenthredo] (*Tenthredo equiseti* Klug, 1818; *Loderus pratorum maculifrons* Hellén, 1956). Host plant: Equisetum spp. (Equisetaceae). Russia: **EP** (N, NW, C, E, NC), **WS** (NS, KM), **ES** (IR, BR, YA), **FE** (AM). – Europe (WE, EE, NE), Kazakhstan, China (NE).
- Dolerus (Neodolerus) anatolii** Heidema et Zinovjev, 2004. Russia: **FE** (PR). – Korean Peninsula.
- Dolerus (Oncodolerus) eversmanni eversmanni** W.F. Kirby, 1882 (*Tenthredo palmata* Klug, 1818; *Dolerus fumosus* Eversmann, 1847; *D. trigeminus* Konow, 1884). Host plant: Equisetum spp. (Equisetaceae). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (KM), **ES** (IR, BR, YA), **FE** (AM, KH, MG). – Europe (WE, EE, NE), Georgia, Armenia, Turkey, Mongolia, China (NE).
- Dolerus (Poodolerus) aeneus** Hartig, 1837 (*D. longicornis* Zaddach, 1859; *D. incertus* Zaddach, 1859; *D. elongatus* Thomson, 1871; *D. aeneus zaddachi* Konow, 1886). Host plant: Poa spp., Hordeum vulgare, Triticum spp. (Poaceae), Carex spp. (Cyperaceae). Russia: **EP** (N, NW, C, E, S, NC), **WS** (AL), **ES** (IR), **FE** (KU, KA, MG). – Europe (WE, EE, NE, SE), Armenia, Turkey, Mongolia.
- Dolerus (Poodolerus) albertii** Muehle, 1969. Russia: **EP** (NC).
- Dolerus (Poodolerus) anthracinus** (Klug, 1818) [Tenthredo] (*Tenthredo mutilata* Klug, 1818; *Dolerus atricapillus* Hartig, 1837; *D. violaceus* Pigeot, 1918; *D. violaceus obscura* Pigeot, 1918). Host plant: Hordeum vulgare, Poa spp. (Poaceae). Russia: **EP** (N, NW, C, E, S). – Europe (WE, EE, NE, SE).
- Dolerus (Poodolerus) asper** Zaddach, 1859 (*D. oblongus* Cameron, 1882; *D. asper megapteroides* Muehle, 1964). Host plant: Deschampsia spp. (Poaceae), Carex spp. (Cyperaceae). Russia: **EP** (N, NW, C, E, S, NC), **ES** (IR, BR, YA), **FE** (AM, MG). – Europe (EE, NE, SE), Armenia, Turkey, Mongolia, China (NC).
- Dolerus (Poodolerus) blanki** Liston, 1995 (*Tenthredo opaca thoracica* Fallén, 1808; *T. thoracica* Klug, 1818). Russia: **EP** (C). – Europe (WE, EE, NE, SE), China (Wei et al., 2006).
- Dolerus (Poodolerus) brevicornis** Zaddach, 1859 (*D. tectus* MacGillivray, 1914). Russia: **EP** (N, NW). – Europe (WE, EE, NE), N America.
- Dolerus (Poodolerus) ciliatus** Konow, 1891 (*D. quasi-ciliatus* Kerenskij, 1926). Russia: **EP** (S, CR). – Europe (EE), Armenia, Turkey, Kazakhstan.
- Dolerus (Poodolerus) coracinus** (Klug, 1818) [Tenthredo]. Russia: **EP** (C). – Europe (WE, EE, NE), Korean Peninsula.
- Dolerus (Poodolerus) dathei** Muehle, 1973. Russia: **EP** (NC).
- Dolerus (Poodolerus) derzavini** Malaise, 1931. Russia: **FE** (KA).
- Dolerus (Poodolerus) docilus** Benson, 1956. Russia: **EP** (C, E), **UR**, **WS** (AL). – Kyrgyzstan, Kazakhstan.
- Dolerus (Poodolerus) fumosus** Stephens, 1835 (*D. brachygaster* Hartig, 1837; *D. gracilis* Zaddach, 1859; *D. brevis* Zaddach, 1859; *D. rarus* Zaddach, 1859). Russia: **EP** (NW). – Europe (WE, EE, NE).
- Dolerus (Poodolerus) gibbosus** Hartig, 1837 (*D. planatus* Hartig, 1837). Russia: **EP** (NW, C), **WS** (Zhelochovtsev, Zinovjev, 1996), **FE** (KH, SA). – Europe (WE, EE, NE), Armenia.
- Dolerus (Poodolerus) gonager** (Fabricius, 1781) [Tenthredo] (*Tenthredo erythrogona* Schrank, 1781; *T. geniculata* Geoffroy, 1785; *Dolerus femoratus* Eversmann, 1847; *D. magnicornis* Eversmann, 1847; *D. lucidus* Zirngiebl, 1930; *D. gonager flavitibia* Hellén, 1956). Host plant: Agrostis spp., Festuca spp., Poa spp., Triticum spp., etc. (Poaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (KM, AL),



- ES** (KS). – Europe (WE, EE, NE, SE), Armenia, Azerbaijan, Turkmenistan.
- Dolerus (Poodolerus) haematodes** (Schrank, 1781) [Tenthredo] (*Tenthredo collaris* Donovan, 1808; *Dolerus coerulescens* Hartig, 1837; *D. micans* Zaddach, 1859; *D. haematodes muliebris* Enslin, 1909; *D. haematodes rufatus* Enslin, 1913). Host plant: Poaceae, Cyperaceae, Juncaceae. Russia: **EP** (N, NW, C, E), **UR**, **WS** (TM), **ES** (TU, YA, ZB). – Europe (WE, EE, NE, SE), Armenia, Turkey.
- Dolerus (Poodolerus) harwoodi** Benson, 1947. Russia: **EP** (N, NW, C, E, S), **UR**, **WS** (NS), **ES** (IR, BR), **FE** (AM, KH). – Europe (WE, EE, NE).
- Dolerus (Poodolerus) kokujewi** Konow, 1902. Russia: **EP** (C, NC). – Caucasus, SW Asia, Iran.
- Dolerus (Poodolerus) liogaster liogaster** Thomson, 1871 (*D. annulatus* Stein, 1894; *D. liogaster rufonotatus* Enslin, 1913; *D. liogaster modestus* Dubois, 1920). Host plant: Dactylis spp., Festuca spp., Poa spp. (Poaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**. – Europe (WE, EE, NE), Kazakhstan.
- Dolerus (Poodolerus) liogaster schneideri** Kjaer, 1898. Host plant: Poaceae. Russia: **EP** (N), **UR**, **WS** (TM, KM, AL), **ES** (IR, BR). – Europe (NE).
- Dolerus (Poodolerus) melanopterus tauricus** Zhelochovtsev, 1928. Russia: **EP** (CR). – Europe (EE).
- Dolerus (Poodolerus) niger** (Linnaeus, 1767) [Tenthredo] (*Tenthredo angusta* Gmelin, 1790). Host plant: Avena spp., Hordeum spp., Secale spp., Triticum spp., etc. (Poaceae). Russia: **EP** (NW, C, E), **WS** (NS, KM). – Europe (WE, EE, NE, SE).
- Dolerus (Poodolerus) nigratus** (O.F. Müller, 1776) [Tenthredo] (*Tenthredo canescens* Gmelin, 1790; *Dolerus cenchris* Hartig, 1837; *D. leucobasis* Hartig, 1837; *D. fissus* Hartig, 1837; *D. hartigii* Scholtz, 1848; *D. analis* Konow, 1890). Host plant: Triticum spp., Festuca spp., Holcus spp., Poa spp., etc. (Poaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **WS** (KM), **ES** (BR). – Europe (WE, EE, NE, SE), Turkey, China (Wei et al., 2006).
- Dolerus (Poodolerus) nitens** Zaddach, 1859 (*D. coruscans* Konow, 1890; *D. wanda* Ross, 1935). Host plant: Festuca spp., Poa spp., Deschampsia spp. (Poaceae). Russia: **EP** (NW, C, E, NC), **UR**, **WS** (NS, KM), **ES** (Zhelochovtsev, Zinovjev, 1996). – Europe (WE, EE, NE, SE); introduced into N America.
- Dolerus (Poodolerus) nonultimus** Zhelochovtsev, 1941. Russia: **EP** (NC). – Georgia, Armenia, Turkey.
- Dolerus (Poodolerus) picipes** (Klug, 1818) [Tenthredo] (*D. brevitarsus* Hartig, 1837; *D. leucopterus* Zaddach, 1859; *D. ochroneurus* Förster, 1860; *D. intermedius* Cameron, 1881; *D. raddatzi* Konow, 1884; *D. leucopterus sulcatus* Konow, 1884). Host plant: Agrostis spp., Festuca sp. (Poaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (NS). – Europe (WE, EE, NE, SE), Armenia, Kazakhstan.
- Dolerus (Poodolerus) puncticollis** Thomson, 1871 (*D. croaticus* Konow, 1890). Host plant: Poa spp., Dactylis spp. (Poaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**. – Europe (WE, EE, NE, SE), N Africa, Armenia, SW Asia, Iran, Turkmenistan.
- Dolerus (Poodolerus) sanguinicollis** (Klug, 1818) [Tenthredo] (*D. lucens* André, 1880; *D. sanguinicollis reicherti* Konow, 1894; *D. sanguinicollis confusus* Enslin, 1913). Host plant: Poaceae. Russia: **EP** (N, NW, C, E), **UR**, **WS** (KM). – Europe (WE, EE, NE, SE).
- Dolerus (Poodolerus) schmidti** Konow, 1884. Russia: **EP** (N). – Europe (WE, NE).
- Dolerus (Poodolerus) stygius** Förster, 1860 (*D. megapterus* Cameron, 1881; *D. carinatus* Konow, 1884; *D. crassus* Konow, 1884; *D. megalopterus* Schulz, 1906; *D. eutropis* Speiser, 1908). Host plant: Carex spp. (Cyperaceae). Russia: **EP** (N, C, E, S), **UR**, **WS** (Zhelochovtsev, Zinovjev, 1996), **ES** (YA). – Europe (WE, EE, NE, SE), Turkey.
- Dolerus (Poodolerus) subalatus** Kerenskij, 1926. Russia: **EP** (C, S, NC). – Europe (EE).
- Dolerus (Poodolerus) vernalis** Ermolenko, 1964. Russia: **EP** (CR). – Europe (WE, EE, SE).
- Dolerus (Poodolerus) vulneratus** Mocsáry, 1878. Russia: **EP** (NW), **WS** (Zhelochovtsev, Zinovjev, 1996), **ES** (Zhelochovtsev, Zinovjev, 1996), **FE** (AM). – Europe (NE), China (NE), Korean Peninsula.
- Dolerus (Poodolerus) zhelochovtsevi** Heidema et Viitasaari, 2009. Russia: **EP** (NW, C), **WS** (TM). – Europe (WE, EE, NE).
- Dolerus coreanus** Takeuchi, 1927 (*D. merops* Zhelochovtsev, 1928). Russia: **FE** (PR). – China (NE), Korean Peninsula, Japan (Haris, 2000).
- Dolerus ephippiatus** F. Smith, 1874. Host plant: Poaceae (including Hordeum, Triticum, Secale), Equisetum spp. (Equisetaceae). Russia: **FE** (SA, KU). – China (SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Dolerus harukawai** Waterston, 1926. Host plant: Juncus spp. (Juncaceae). Russia: **FE** (PR). – China (NE), Japan (Hon, Kyu).
- Dolerus hyrcanus** Benson, 1968. Russia: **EP** (NC).

- Dolerus jesoensis** Matsumura, 1912. Russia: **FE** (SA). – Japan (Hok).
- Dolerus lewisii** Cameron, 1887. Host plant: *Hordeum* spp., *Triticum* spp. (Poaceae). Russia: **FE** (PR). – Korean Peninsula, Japan (Hon).
- Dolerus novograblenovi** Malaise, 1931. Russia: **FE** (PR, KA, MG). – Korean Peninsula.
- Dolerus okeanskajensis** Rohwer, 1925. Russia: **FE** (PR). – Korean Peninsula.
- Dolerus sachalinensis** Takeuchi, 1936. Russia: **FE** (SA).
- Unplaced *Dolerus*
- Dolerus carbonarius** Zaddach, 1859. Russia: **EP** (NW).
- Dolerus zaddachi** W.F. Kirby, 1882 (*D. fumosus* Zaddach, 1859). Russia: **EP** (NW).
- NEOSTROMBOCEROS** Rohwer, 1912 (*Stypoza* Enderlein, 1920). Type species *Stromboceros metallica* Rohwer, 1912. The larvae feed on the ferns. The genus is distributed in East Palaearctic, Oriental and Australasian regions. Number of species: World – about 135; Palaearctic – about 70; Russia – 2.
- Neostromboceros gracilis** Takeuchi, 1941. Russia: **FE** (KU). – Japan (Hok, Hon, Shi).
- Neostromboceros nipponicus** Takeuchi, 1941. Russia: **FE** (KU). – China (SC), Japan (Hon, Shi, Kyu).
- NESOSELANDRIA** Rohwer, 1910 (*Neobusarbia* Takeuchi, 1928; *Melisandra* Benson, 1939). Type species *Paraselandria imitatrix* Ashmead, 1905. The larvae feed on the ferns and herbaceous plants. The genus is distributed in Palaearctic and Oriental region, two species in Neotropical region; one species introduced into N America. Number of species: World – about 85; Palaearctic – 25; Russia – 2.
- Nesoselandria morio** (Fabricius, 1781) [Tenthredo] (*Tenthredo ulmi* Schrank, 1802; *T. tristis* Serville, 1823; *T. tristis* Lapeletier, 1823; *Emphytus infuscatus* Eversmann, 1847; *Selandria fabricii* Konow, 1885; *Aneugmenus brunneus* Magretti, 1886). Host plant: Ditrachaceae, Dicranaceae, Rosaceae, Boraginaceae, etc. Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (KM, AL), **ES** (IR, BR), **FE** (AM, KH, PR, KU). – Europe (WE, EE, NE, SE), Georgia, Armenia, Turkey, Kazakhstan, China (SE), Korean Peninsula, Japan (Hon); introduced into N America.
- Nesoselandria nipponica** Takeuchi, 1929. Host plant: Polypodiophyta. Russia: **FE** (KU). – China (SE), Japan (Hon, Shi, Kyu).
- POPPIA** Konow, 1904. Type species *Poppia athalioides* Konow, 1904. The larvae feed on the ferns. The genus is distributed in East Asia. Number of species: World and Palaearctic – 2; Russia – 1.
- Poppia athalioides** Konow, 1904. Host plant: Polypodiophyta, ?*Tilia* sp. (Tiliaceae). Russia: **EP** (NC), **WS** (Zhelochovtsev, Zinovjev, 1996), **ES** (YA, ZB), **FE** (AM, KH). – China (NE), Japan (Sado).
- PSEUDOHEMITAXONUS** Conde, 1932. Type species *Pseudohemitaxonus exsectus* Conde, 1932. The genus is distributed in Palaearctic and Oriental region. Number of species: World – 4; Palaearctic – 3; Russia – 1.
- Pseudohemitaxonus parvus** Naito, 1969. Russia: **FE** (KU). – Japan (Hok, Hon).
- ROCALIA** Takeuchi, 1952. Type species *Rocalia longipennis* Takeuchi, 1952. The genus is distributed in Palaearctic and Oriental region. Number of species: World – 14; Palaearctic – 3; Russia – 1.
- Rocalia longipennis** Takeuchi, 1952. Host plant: *Dryopteris* spp. (Dryopteridaceae). Russia: **FE** (KU). – Europe (NE), Japan (Hok, Hon).
- SELANDRIA** Leach, 1817 (*Cubitella* Malaise, 1944). Type species *Tenthredo serva* Fabricius, 1793. The larvae feed on Poaceae, Juncaceae, Cyperaceae. The genus is distributed in Palaearctic, Oriental and Neotropical regions. Number of species: World – 8; Palaearctic – 4; Russia – 3.
- Selandria konoi** Takeuchi, 1936. Russia: **FE** (SA). – Japan (Hon).
- Selandria melanosterna** (Serville, 1823) [Tenthredo] (*Tenthredo melanosterna* Lapeletier, 1823; *Selandria sixii* Snellen van Vollenhoven, 1858; *S. grandis* Zaddach, 1859; *S. interstitialis* Thomson, 1871). Host plant: *Carex* spp., *Scirpus* spp. (Cyperaceae), *Juncus* spp. (Juncaceae). Russia: **EP** (NW, C, E), **ES** (IR). – Europe (WE, EE, NE).
- Selandria serva** (Fabricius, 1793) [Tenthredo] (*Hylotoma serva mascula* Fallén, 1807; *Tenthredo socia* Klug, 1816; *T. lepida* Serville, 1823; *T. lepida* Lapeletier, 1823; *Selandria dorsalis* Stephens, 1835; *S. excisa* Konow, 1885; *S. serva interstitialis* Konow, 1885; *S. serva fuscitarsis* Benson, 1954; *S. serva punctatus* Zirngiebl, 1956). Host plant: Poaceae, Cyperaceae, Juncaceae. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, TK, NS, AL), **ES** (KR,

IR), **FE** (KH, PR). – Europe (WE, EE, NE, SE), Georgia, Armenia, Turkey, Iran, Kazakhstan, Mongolia, China (NE), Korean Peninsula.

**STROMBOCEROS** Konow, 1885 (*Strombocerina* Malaise, 1942; *Arbusia* Malaise, 1944). Type species *Tenthredo delicatulus* Fallén, 1808. The larvae on the ferns; pupate inside stems and branches. The genus is distributed in Holarctic, Oriental and Neotropical regions. Number of species: World – 55; Palaearctic – 2; Russia – 2.

**Stromboceros delicatulus** (Fallén, 1808) [Tenthredo] (*Tenthredo eborina* Klug, 1817; *Synairema alpina* Bremi-Wolf, 1849; *Selandria phthisica* Snellen van Vollenhoven, 1869; *S. virescens* Rudow, 1871; *Tenthredo seesana* Rudow, 1871; *Strongylogaster viridis* Schmiedeknecht, 1881; *Stromboceros delicatulus albiceps* Takeuchi, 1941). Host plant: Dryopteridaceae, Dennstaedtiaceae, Onocleaceae, Polypodiaceae. Russia: **EP** (N, NW, C, E), **UR**, **WS** (NS, KM, AL), **ES** (KR, IR, BR), **FE** (PR, SA, KU, KA). – Europe (WE, EE, NE), China (CC), Korean Peninsula, Japan (Hok, Hon).

**Stromboceros koebeleii** Rohwer, 1910 (*Strongylogaster compressus* Matsumura, 1912; *Stromboceros japonicus* Malaise, 1931). Host plant: Polystichum spp. (Dryopteridaceae). Russia: **UR**, **FE** (PR, SA, KU). – Korean Peninsula, Japan (Hok, Hon).

**STRONGYLOGASTER** Dahlbom, 1835 (*Pseudotaxonus* Costa, 1894; *Polystichophagus* Ashmead, 1898; *Prototaxonus* Rohwer, 1910). Type species *Tenthredo multifasciata* Geoffroy, 1785. The larvae feed on the ferns. The genus is distributed in Holarctic, Oriental and Neotropical regions. Number of species: World – 55; Palaearctic – 25; Russia – 12.

**Strongylogaster baikalensis** Naito, 1990. Host plant: Dryopteris spp. (Dryopteridaceae), Matteuccia spp. (Onocleaceae). Russia: **ES** (IR), **FE** (KH). – Europe (EE).

**Strongylogaster empriaeformis** (Malaise, 1931) [Thrinax]. Host plant: Adiantaceae, Dryopteridaceae, Dennstaedtiaceae, Onocleaceae. Russia: **UR**, **WS** (KM), **FE** (PR, KA). – Japan (Hon).

**Strongylogaster filicis** (Klug, 1817) [Tenthredo] (*Tenthredo carinata* Klug, 1817; *T. atricornis* Stephens, 1835; *Sciopteryx apicalis* Matsumura, 1912). Host plant: Pteridium aquilinum (Dennstaedtiaceae). Russia: **EP** (NW, C, E), **UR**, **WS** (AL), **ES** (KR, IR), **FE** (AM, KH, SA). – Europe (WE, EE, NE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Sado).

**Strongylogaster macula** (Klug, 1817) [Tenthredo] (*Thrinax intermedia* Konow, 1885). Host plant: Dryopteridaceae, Pteridium aquilinum (Dennstaedtiaceae). Russia: **EP** (C, E, NC), **UR**, **ES** (IR, BR, ZB), **FE** (PR, KA). – Europe (WE, EE, NE), Armenia, China (NE, SE), Korean Peninsula, Japan (Hok, Hon); introduced into N America.

**Strongylogaster mixta** (Klug, 1817) [Tenthredo] (*S. femoralis* Cameron, 1875; *Selandria japonica* Matsumura, 1912; *Thrinax contigua orientalis* Malaise, 1931). Host plant: Adiantaceae, Dryopteridaceae, Dennstaedtiaceae. Russia: **EP** (NW, C, E), **UR**, **WS** (KM), **ES** (IR), **FE** (KU, KA). – Europe (WE, EE, NE), Japan (Hok, Hon).

**Strongylogaster moiwana** Matsumura, 1912. Host plant: Coniogramme spp. (Adiantaceae), Osmunda spp. (Osmundaceae). Russia: **FE** (KU). – Japan (Hok, Hon, Shi).

**Strongylogaster multifasciata** (Geoffroy, 1785) [Tenthredo] (*Tenthredo lineata* Christ, 1791; *T. linearis* Klug, 1817; *T. alternans* Serville, 1823; *T. alternans* Lepeletier, 1823; *Strongylogaster iridipennis* F. Smith, 1874; *S. caucasicus* Schaposchnikov, 1885; *S. cretensis* Konow, 1887; *S. annularis* Matsumura, 1912; *S. lineata cyprina* Benson, 1954). Host plant: Dennstaedtiaceae, Dryopteridaceae. Russia: **EP** (NW, C, E, NC), **UR**, **WS** (TM, NS, AL), **ES** (IR), **FE** (AM, PR, SA, KU). – Europe (WE, EE, NE, SE), Georgia, SW Asia, Iran, China (SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Sado).

**Strongylogaster rubra** Naito, 1980. Russia: **ES** (IR), **FE** (KU). – Korean Peninsula, Japan (Hok, Hon).

**Strongylogaster secunda** (Takeuchi, 1929) [Pseudotaxonus] (*Pseudotaxonus tertius* Conde, 1935; *P. secundus humeralis* Takeuchi, 1955). Host plant: Osmunda japonica (Osmundaceae). Russia: **FE** (PR, KU). – China (NE, SE), Japan (Hok, Hon, Shi, Kyu).

**Strongylogaster struthiopteridis** (Malaise, 1931) [Thrinax] (*Thrinax maura* Zhelochovtsev, 1988). Host plant: Athyrium spp., Dryopteris spp. (Dryopteridaceae), Pteridium aquilinum (Dennstaedtiaceae). Russia: **UR**, **WS** (KM, AL), **ES** (IR), **FE** (AM, PR, KA). – Europe (NE).

**Strongylogaster verzhutskii** Naito, 1990. Russia: **ES** (IR).

**Strongylogaster xanthocera** (Stephens, 1835) [Tenthredo] (*S. geniculata* Thomson, 1871; *S. desbrochersi* Konow, 1892; *S. desbrochersi lepticus* Konow, 1902). Host plant: Dryopteris spp., Polystichum spp., Athyrium spp. (Dryopteridaceae), Pteridium

aquilinum (Dennstaedtiaceae). Russia: **EP** (NW, C), **WS** (AL), **ES** (IR), **FE** (AM, KH, PR). – Europe (WE, EE, NE, SE), China (NE, SE), Japan (Hon).

**THRINAX** Konow, 1885 (*Hemitaxonus* Ashmead, 1898; *Epitaxonus* MacGillivray, 1908; *Sahlbergia* Forsius, 1910; *Trearea* Malaise, 1947; *Canonarea* Malaise, 1947). Type species *Thrinax contigua* Konow, 1885. The larvae feed on the ferns. The genus is distributed in Holarctic and Oriental region. Number of species: World – 27; Palaearctic – 20; Russia – 7.

**Thrinax angustata** (Zhelochovtsev, 1951) [*Hemitaxonus*]. Russia: **FE** (KH, PR). – Korean Peninsula.

**Thrinax athyrii** (Naito, 1971) [*Hemitaxonus*]. Host plant: *Athyrium otophorum* (Dryopteridaceae). Russia: **FE** (KU). – Japan (Hok, Hon, Shi, Kyu).

**Thrinax contigua** Konow, 1885 (*Sahlbergia struthiopteridis* Forsius, 1910). Host plant: *Matteuccia* spp. (Onocleaceae). Russia: **EP** (NW), **ES** (IR), **FE** (PR, KU, KA). – Europe (NE), Japan (Hok, Hon).

**Thrinax formosana** (Takeuchi, 1928) [*Hemitaxonus*]. Russia: **FE** (PR). – China (SE).

**Thrinax kamtchatica** (Malaise, 1931) [*Hemitaxonus*]. Russia: **FE** (AM, PR, KA).

**Thrinax paucipunctatus** (Malaise, 1931) [*Hemitaxonus*]. Host plant: *Dryopteris* spp. (Dryopteridaceae). Russia: **ES** (IR), **FE** (KH, PR, KA). – Korean Peninsula, Japan (Hok, Hon).

**Thrinax takeuchii** (Naito, 1971) [*Hemitaxonus*]. Russia: **FE** (KU). – Japan (Hok, Hon).

#### Subfamily TENTHREDININAE

**AGLAOSTIGMA** W.F. Kirby, 1882 (*Laurentia* Costa, 1890; *Bivena* MacGillivray, 1894; *Homoeoneura* Ashmead, 1898; *Neopus* Viereck, 1910; *Macrophypopsis* Enslin, 1912; *Kincaidia* MacGillivray, 1914; *Astochus* MacGillivray, 1914; *Paralloma* Malaise, 1933; *Neurosiobla* Conde, 1935; *Laurentina* Malaise, 1937; *Stigmatosona* Malaise, 1945). Type species *Aglaostigma eburneiguttatum* W.F. Kirby, 1882. The larvae on herbaceous plants. The genus is distributed in Holarctic and Oriental region. Number of species: World – about 55; Palaearctic – 43; Russia – 15 from 5 subgenera.

**Aglaostigma (Aglaostigma) amoorensis** (Cameron, 1876) [*Tenthredo*] (*Tenthredo amurensis* W.F. Kirby, 1882). Host plant: *Veratrum* spp. (Melanthiaceae).

Russia: **WS** (NS, KM, AL), **ES** (KR, IR, BR), **FE** (AM, KH, PR). – China (NC, NE), Korean Peninsula, Japan (Hon).

**Aglaostigma (Aglaostigma) gibbosum** (Fallén, 1808) [*Tenthredo*] (*Perineura alpina* Thomson, 1871; *Aglaostigma eburneiguttatum* W.F. Kirby, 1882; *Tenthredopsis novograbenovi* Malaise, 1931). Host plant: *Filipendula* spp. (Rosaceae). Russia: **EP** (N), **UR**, **ES** (IR), **FE** (PR, KA). – Europe (WE, EE, NE, SE).

**Aglaostigma (Astochus) aucupariae** (Klug, 1817) [*Tenthredo*] (*Tenthredo juvenilis* Serville, 1823; *T. juvenilis* Lepeletier, 1823; *Allantus collaris* Dietrich, 1868; *Laurentia craverii* Costa, 1890; *Macrophya laticarpus* Kriechbaumer, 1891; *Aglaostigma aucupariae lacteore* Benson, 1968). Host plant: *Galium* spp. (Rubiaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (NS, KM), **ES** (IR, BR), **FE** (PR, KU). – Europe (WE, EE, NE), Georgia, Armenia, Turkey, China (Wei et al., 2006).

**Aglaostigma (Astochus) fulvipes fulvipes** (Scopoli, 1763) [*Tenthredo*]. Host plant: *Galium* spp. (Rubiaceae). Russia: **EP** (N, NW, C, E, S, NC), **WS** (KM, AL), **ES** (IR). – Europe (WE, EE, NE, SE), Georgia, Turkey, Central Asia, Kazakhstan.

**Aglaostigma (Bivena) langei** (Konow, 1894) [*Rhogogastera*] (*A. langei eichleri* Muecke, 1975). Host plant: *Epilobium* spp. (Onagraceae). Russia: **EP** (NC). – Europe (WE, EE), Armenia.

**Aglaostigma (Macrophypopsis) carbo** (Malaise, 1931) [*Macrophypopsis*]. Russia: **FE** (PR).

**Aglaostigma (Macrophypopsis) grosseserratum** (Malaise, 1931) [*Macrophypopsis*]. Russia: **FE** (PR).

**Aglaostigma (Macrophypopsis) nebulosum** (André, 1881) [*Macrophya*] (*Tenthredopsis schmiedeknechti* Konow, 1892). Host plant: *Filipendula* spp. (Rosaceae), *Impatiens* spp. (Balsaminoceae). Russia: **EP** (C, NC), **ES** (IR), **FE** (AM, PR, SA, KU). – Europe (WE, NE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

**Aglaostigma (Macrophypopsis) occipitosum** (Malaise, 1931) [*Macrophypopsis*]. Host plant: *Angelica polymorpha* (Apiaceae), *Petasites japonicus* (Asteraceae). Russia: **FE** (PR). – China (SE), Korean Peninsula, Japan (Hon, Shi, Kyu, Sado).

**Aglaostigma (Macrophypopsis) ochraceum** (Malaise, 1931) [*Macrophypopsis*]. Russia: **FE** (PR).

**Aglaostigma (Macrophypopsis) tricolor** (Malaise, 1931) [*Macrophypopsis*]. Russia: **FE** (PR).

**Aglaostigma (Neurosiobla) malaisei** (Conde, 1935) [*Neurosiobla*]. Russia: **FE** (PR).

- Aglaostigma (Neurosiobla) sachalinense** (Conde, 1935) [Neurosiobla] (*A. togashii* Zombori, 1973). Russia: **ES** (Zhelochovtsev, Zinovjev, 1996), **FE** (PR, SA). – Japan (Zinovjev, 1994).
- Aglaostigma (Neurosiobla) tertium** Zinovjev, 1994. Russia: **FE** (KH, PR).
- Aglaostigma sapporonis** (Matsumura, 1912) [Macrophya] (*Dolerus biguttatus* Matsumura, 1912). Russia: **FE** (PR). – Japan (Hok, Hon).
- ARMITARSUS** Malaise, 1931. Type species *Armitarsus punctifemoratus* Malaise, 1931. The genus is distributed in East Asia. Number of species: World and Palaearctic – 7; Russia – 4.
- Armitarsus albipes** Malaise, 1931. Russia: **FE** (AM, PR).
- Armitarsus minutus** Zhelochovtsev, 1935. Russia: **FE** (AM, PR). – Korean Peninsula, Japan (Hok).
- Armitarsus punctifemoratus** Malaise, 1931. Host plant: *Alnus* spp. (Betulaceae). Russia: **FE** (PR, SA). – Korean Peninsula, Japan (Hok, Hon).
- Armitarsus semirufus** Takeuchi, 1936. Russia: **FE** (SA). – Japan (Hok, Hon).
- CONASPIDIA** Konow, 1898. Type species *Conaspidia sikkimensis* Konow, 1898. The genus is distributed in East Asia and Oriental region. Number of species: World – 23; Palaearctic – 13; Russia – 3.
- Conaspidia guttata** (Matsumura, 1912) [Eriocampa] (*C. trifasciata* Malaise, 1931; *C. murotai* Togashi, 1984; *C. ishikawai* Togashi, 2005). Host plant: *Kalopanax septemlobus* (Araliaceae). Russia: **FE** (SA, KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Conaspidia hyalina** Sato, 1933. Russia: **FE** (KU). – Japan (Hok, Hon, Shi, Kyu).
- Conaspidia singularis** (Malaise, 1931) [Eriocampa] (*Macrophya flavipes* F. Smith, 1874). Russia: **FE** (KH, PR). – Japan (Hok, Hon).
- CORYMBAS** Konow, 1903 (*Siobloides* Takeuchi, 1919). Type species *Corymbas koreana* Konow, 1903. The genus is distributed in East Asia and Oriental region. Number of species: World – 7; Palaearctic – 5; Russia – 2.
- Corymbas aperta** (Takeuchi, 1919) [Siobloides]. Host plant: *Rhododendron* spp. (Ericaceae). Russia: **FE** (KU). – Japan (Hok, Hon, Shi, Kyu).
- Corymbas koreana** Konow, 1903. Russia: **FE** (PR). – China (SE), Korean Peninsula.
- LAGIDINA** Malaise, 1945. Type species *Macrophya irritans* F. Smith, 1874. The genus is distributed in East Palaearctic and Oriental region. Number of species: World – 8; Palaearctic – 6; Russia – 1.
- Lagidina platycerus platycerus** (Marlatt, 1898) [Tenthredo] (*Tenthredo platyceros* Konow, 1899). Host plant: *Iris laevigata* (Iridaceae), *Viola* spp. (Violaceae). Russia: **FE** (KU). – Japan (Hon, Shi, Kyu, Tsushima).
- MACROPHYA** Dahlbom, 1835 (*Zalagium* Rohwer, 1912; *Pseudomacrophya* Enslin, 1913; *Paramacrophya* Forsius, 1918). Type species *Tenthredo montana* Scopoli, 1763. The genus is distributed in Holarctic and Oriental region. Number of species: World – about 260; Palaearctic – about 160; Russia – 46 (+ 1 ssp.) from 2 subgenera.
- Macrophya (Macrophya) albicincta** (Schrank, 1776) [Tenthredo] (*Tenthredo albipes* Geoffroy, 1785; *T. albipalpis* Schrank, 1802; *T. luctuosa* Lepeletier, 1823; *T. lugubris* Serville, 1823; *T. luctuosa* Serville, 1823; *Macrophya leucopoda* Palma, 1861; *Tenthredo magnicornis* Eversmann, 1864; *Macrophya melanosoma* Rudow, 1871; *M. albicincta decipiens* Konow, 1884; *Perineura crippae* De-Stefani, 1885; *Macrophya albicincta candidata* Enslin, 1918; *M. albicincta agnani* Pic, 1948; *M. albicincta berlandi* Pic, 1948). Host plant: *Valeriana* ssp. (Caprifoliaceae), *Sambucus* spp., *Viburnum* spp. (Adoxaceae). Russia: **EP** (C, S, NC). – Europe (WE, EE, NE, SE), N Africa, Georgia, Armenia, Turkey, Iran.
- Macrophya (Macrophya) albipuncta** (Fallén, 1808) [Tenthredo] (*Tenthredo arbustorum* Pollich, 1781; *T. liciata* Eversmann, 1847; *Macrophya nivosa* Costa, 1894). Host plant: *Geranium* spp. (Geraniaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (KM, AL), **ES** (KS). – Europe (WE, EE, NE, SE).
- Macrophya (Macrophya) annulata** (Geoffroy, 1785) [Tenthredo] (*Tenthredo dorsigera* Rossi, 1790; *T. similis* Spinola, 1808; *T. neglecta* Klug, 1817; *Allantus dejectus* Norton, 1860; *Macrophya neglecta nigra* Konow, 1894; *M. annulata theresae* Pic, 1918). Host plant: *Potentilla* spp., *Rosa* spp., *Rubus* sp. (Rosaceae), *Sambucus* spp. (Adoxaceae), *Origanum* spp. (Lamiaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (NS), **ES** (IR, BR, YA), **FE** (AM, PR). – Europe (WE, EE, NE, SE), Armenia, Turkey, Iran, Central Asia.

- Macrophya (Macrophya) annulicornis** Konow, 1904.  
Host plant: Sambucus spp. (Adoxaceae). Russia: **UR, WS** (AL), **ES** (IR, BR, ZB), **FE** (AM, SA). – Korean Peninsula.
- Macrophya (Macrophya) annulitibia** Takeuchi, 1933.  
Russia: **FE** (PR, SA, KU). – China (NE, NC, CC), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Macrophya (Macrophya) apicalis** F. Smith, 1874.  
Host plant: Sambucus racemosa, S. sieboldiana (Adoxaceae). Russia: **FE** (KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Macrophya (Macrophya) blanda** (Fabricius, 1775) [Tenthredo] (*Tenthredo ligustrina* Geoffroy, 1785; *T. cylindrica* Panzer, 1799; *T. albilabris* Klug, 1817; *T. lacrymosa* Lepeletier, 1823; *T. lacrymosa* Serville, 1823; *T. cognata* Fallén, 1829; *T. nyctea* Fischer von Waldheim, 1843; *Macrophya blanda brevicornis* Gradl, 1878; *M. albolapidaria* Kuznetzov-Ugamskij, 1927; *Tenthredo reductenotata* Pic, 1928). Host plant: Rubus spp., Fragaria spp. (Rosaceae). Russia: **EP** (C, E, S, NC, CR), **UR, WS** (Zhelochovtsev, Zinovjev, 1996). – Europe (WE, EE, NE, SE), Georgia, Armenia, Turkey, Kyrgyzstan, Kazakhstan.
- Macrophya (Macrophya) carbonaria** F. Smith, 1874.  
Host plant: Sambucus racemosa, S. sieboldiana (Adoxaceae). Russia: **FE** (SA, KU). – China (CC, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Awa-shima, Awaji-shima, Tsushima).
- Macrophya (Macrophya) carinthiaca** (Klug, 1817) [Tenthredo]. Host plant: Geranium spp. (Geraniaceae). Russia: **EP** (N, C), **UR, WS** (AL). – Europe (WE, EE, NE).
- Macrophya (Macrophya) caucasica** (Mocsáry, 1880) [Allantus] (*M. prasiniipes* Konow, 1891). Russia: **EP** (NC). – Armenia.
- Macrophya (Macrophya) chrysuria** (Klug, 1817) [Tenthredo] (*M. albimacula* Mocsáry, 1881; *M. pallidilabris* Costa, 1890). Host plant: Daucus carota (Apiaceae). Russia: **EP** (S). – Europe (WE, EE, SE).
- Macrophya (Macrophya) convexiscutellaris** Muche, 1969. Russia: **EP** (NC).
- Macrophya (Macrophya) crassula** (Klug, 1817) [Tenthredo] (*Tenthredo maculosa* Serville, 1823; *T. maculosa* Lepeletier, 1823; *Macrophya klugii* Snellen van Vollenhoven, 1869; *M. cora* W.F. Kirby, 1886). Host plant: Sambucus spp. (Adoxaceae). Russia: **EP** (NC). – Europe (WE, EE, SE), Georgia, Armenia, Turkey.
- Macrophya (Macrophya) diversipes** (Schrank, 1782) [Tenthredo] (*Tenthredo haematopus* Panzer, 1801; *T. ocreata* Panzer, 1804; *T. rubripes* Drapiez, 1820; *T. corallipes* Eversmann, 1847; *Macrophya flavipes* Tischbein, 1852; *Tenthredo halensis* Aichinger, 1870; *Macrophya haematopus immaculiventris* Costa, 1871; *M. eximia* Mocsáry, 1877; *M. caucasica* André, 1881; *M. rubripes* André, 1881; *M. saundersi* W.F. Kirby, 1886; *M. sanguinipes* Mocsáry, 1891; *M. dalmatina* Gasperini, 1891; *M. diversipes passerinii* Ghigi, 1905; *M. diversipes feminina* Enslin, 1913; *M. diversipes masculina* Enslin, 1913; *M. diversipes maculativentris* Enslin, 1913; *M. diversipes nigratarsis* Enslin, 1913). Host plant: Fragaria spp., Rubus spp. (Rosaceae). Russia: **EP** (C, E, S, NC), **UR, ES** (TU). – Europe (WE, EE, SE), Georgia, Armenia, Turkey, Iran, Kyrgyzstan, Kazakhstan.
- Macrophya (Macrophya) duodecimpunctata duodecimpunctata** (Linnaeus, 1758) [Tenthredo] (*Tenthredo signata* Scopoli, 1763; *T. labiata* Geoffroy, 1785; *T. fera* Scopoli, 1786; *T. melanoleuca* Gmelin, 1790; *T. lugubris* Drapiez, 1820; *T. idriensis* Lepeletier, 1823; *T. albamacula* Lepeletier, 1823; *T. albamacula* Serville, 1823; *T. dolens* Eversmann, 1847; *T. curvipes* Gimmerthal, 1847; *Macrophya novemguttata* Costa, 1859; *M. luridicarpa* Costa, 1894; *M. duodecimpunctata nigrina* Konow, 1898). Host plant: Poaceae, Carex spp. (Cyperaceae). Russia: **EP** (NW, C, E, S, NC), **UR, WS** (NS, AL). – Europe (WE, EE, NE, SE), N Africa, Georgia, Armenia, Turkey.
- Macrophya (Macrophya) duodecimpunctata sodalitia** Mocsáry, 1909. Host plant: Carex spp. (Cyperaceae). Russia: **FE** (AM, KH, PR, SA). – Korean Peninsula, Japan (Hok, Hon).
- Macrophya (Macrophya) erythrocnema** Costa, 1859 (*Tenthredo femoralis* Eversmann, 1864). Russia: **EP** (NW, C, E), **UR**. – Europe (WE, EE, NE, SE), Armenia, SW Asia.
- Macrophya (Macrophya) hamata caucasicola** Muche, 1969. Russia: **EP** (NC).
- Macrophya (Macrophya) imitator** Takeuchi, 1937.  
Host plant: Aster spp. (Asteraceae). Russia: **FE** (AM, PR, SA, KU). – Korean Peninsula, Japan (Hok, Hon).
- Macrophya (Macrophya) infumata** Rohwer, 1925 (*M. scutellata* Kuznetzov-Ugamskij, 1927). Host plant: Sambucus racemosa (Adoxaceae). Russia: **EP** (E), **UR, WS** (KM, AL), **ES** (TU, IR), **FE** (AM, PR, SA, KU). – China (NE), Korean Peninsula, Japan (Hok, Hon).
- Macrophya (Macrophya) kongosana** Takeuchi, 1937.  
Russia: **FE** (PR). – Korean Peninsula.

- Macrophya (Macrophya) koreana** Takeuchi, 1937. Host plant: *Isodon effusus* (Lamiaceae). Russia: **FE** (AM, PR). – China (NC, CC), Korean Peninsula, Japan (Hon).
- Macrophya (Macrophya) maculitibia** Takeuchi, 1933. Host plant: *Petasites japonicus*, *Parasenecio hastatus* (Asteraceae). Russia: **ES** (IR), **FE** (SA, KU). – Korean Peninsula, Japan (Hok, Hon, Shi).
- Macrophya (Macrophya) militaris** (Klug, 1817) [Tenthredo] (*Tenthredo schaefferi* Serville, 1823; *T. schaefferi* Lepeletier, 1823; *Macrophya lepeletieri* Costa, 1859; *M. militaris cabreræ* Konow, 1896; *M. militaris nigriscutis* Enslin, 1913; *M. militaris falsa* Pic, 1928). Host plant: *Rubus* spp. (Rosaceae), *Origanum* spp. (Lamiaceae). Russia: **EP** (S, NC). – Europe (WE, EE, SE), Turkey.
- Macrophya (Macrophya) montana montana** (Scopoli, 1763) [Tenthredo] (*Tenthredo trifasciata* Geoffroy, 1785; *T. sulphurata* Gmelin, 1790; *T. melanochra* Gmelin, 1790; *T. tricineta* Christ, 1791; *T. notata* Panzer, 1799; *T. albimana* Lepeletier, 1823; *T. albimana* Serville, 1823; *T. laserpitii* Lepeletier, 1823; *Macrophya rustica scutellaris* Enslin, 1913; *M. rustica pleuralis* Enslin, 1913; *M. rustica martialis* Pic, 1925; *M. rustica luteonotata* Pic, 1925; *M. rustica kabyliana* Pic, 1929). Host plant: *Rubus* spp. (Rosaceae), *Alnus* spp. (Betulaceae). Russia: **EP** (NW, C, E, S, NC, CR), **UR**. – Europe (WE, EE, NE, SE), N Africa, Georgia, Armenia, Turkey, Iran, Turkmenistan.
- Macrophya (Macrophya) nemesis** Muche, 1969. Russia: **EP** (NC).
- Macrophya (Macrophya) ottomana** Mocsáry, 1881. Russia: **EP** (NC). – Armenia, Turkey.
- Macrophya (Macrophya) postica** (Brullé, 1832) [Tenthredo] (*M. ratzeburgii* Tischbein, 1852; *M. histrionica* Snellen van Vollenhoven, 1878; *M. postica nigripleuris* Enslin, 1913; *M. postica luteomaculata* Pic, 1918). Host plant: *Fragaria* spp., *Rubus* spp. (Rosaceae). Russia: **EP** (NC, CR). – Europe (EE, SE), Georgia, Armenia, Turkey.
- Macrophya (Macrophya) potanini** Jakovlev, 1891. Russia: **FE** (AM). – China (NC).
- Macrophya (Macrophya) recognata** Zombori, 1979 (*M. cognata* Mocsáry, 1881). Russia: **EP** (NC, CR). – Europe (WE, EE, SE), Georgia, Armenia.
- Macrophya (Macrophya) ribis** (Schrank, 1781) [Tenthredo] (*Tenthredo leucopus* Gmelin, 1790; *T. exalbida* Gmelin, 1790; *Macrophya bertolinii* Cobelli, 1890; *M. ribis morvandica* Pic, 1948). Host plant: *Sambucus* spp. (Adoxaceae). Russia: **EP** (NC). – Europe (WE, EE, NE, SE).
- Macrophya (Macrophya) rufipes** (Linnaeus, 1758) [Tenthredo] (*Tenthredo pavida* Fabricius, 1775; *T. dumetorum* Geoffroy, 1785; *T. multicolor* Geoffroy, 1785; *T. flavifasciata* Christ, 1791; *T. rufipes* Christ, 1791; *T. strigosa* Fabricius, 1798; *T. citreipes* Lepeletier, 1823; *T. citreipes* Serville, 1823; *Allantus ione* Newman, 1837; *Macrophya rufipes orientalis* Mocsáry, 1891; *M. rufipes muliebris* Enslin, 1913; *M. rufipes castiliensis* Enslin, 1914; *M. rufipes reductenotata* Pic, 1929; *M. rufipes diversereducta* Pic, 1929). Host plant: *Vitis* spp. (Vitaceae), *Agri-monia* spp. (Rosaceae). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, EE, NE, SE), Armenia, Turkey, Turkmenistan.
- Macrophya (Macrophya) sanguinolenta** (Gmelin, 1790) [Tenthredo] (*Tenthredo quadrimaculata* Fabricius, 1787; *T. picea* Gmelin, 1790; *Allantus sambuci* Panzer, 1803; *Tenthredo comma* Fallén, 1808; *Macrophya trochanterica* Costa, 1858; *Tenthredo poecilopus* Aichinger, 1870; *Macrophya quadrimaculata nigrifrons* Jakovlev, 1886; *M. quadrimaculata nigra* Jakovlev, 1888; *M. sanguinolenta borealis* Forsius, 1918; *M. sanguinolenta albitarsis* Enslin, 1918). Host plant: *Veronica* spp. (Plantaginaceae), *Senecia* spp. (Asteraceae), *Galeopsis* spp. (Lamiaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **ES** (IR), **FE** (AM, PR, SA, KU). – Europe (WE, EE, NE, SE), Georgia, Armenia, Turkey, Kazakhstan, Mongolia, China (NE, NC), Korean Peninsula.
- Macrophya (Macrophya) sibirica** Forsius, 1918 (*M. sibiricola* Forsius, 1925). Host plant: *Sambucus* spp. (Adoxaceae). Russia: **WS** (AL), **ES** (IR), **FE** (KH, PR). – China (NE, CC), Korean Peninsula.
- Macrophya (Macrophya) superba** Tischbein, 1852 (*Tenthredo erythropus* Brullé, 1832; *Macrophya erythropus croatica* Korlević, 1890; *M. flavipennis* Kriechbaumer, 1891; *M. erythropus fluminensis* Strobl, 1901; *M. superba nigricans* Enslin, 1913). Host plant: *Rubus* spp., *Fragaria* spp. (Rosaceae), *Euphorbia* (Euphorbiaceae). Russia: **EP** (NC). – Europe (EE, SE), Armenia, SW Asia.
- Macrophya (Macrophya) teutona** (Panzer, 1799) [Tenthredo] (*Tenthredo aureatensis* Schrank, 1802; *Macrophya marginata* Mocsáry, 1881; *M. klugi* Konow, 1894). Host plant: *Euphorbia* spp. (Euphorbiaceae). Russia: **EP** (NC), **UR** (S). – Europe (WE, EE, SE), Turkey.

- Macrophya (Macrophya) vacillans** Malaise, 1931 (*M. vacillans punctifrons* Malaise, 1931). Host plant: Ligustrum spp., Syringa spp. (Oleaceae). Russia: **FE** (PR). – Korean Peninsula.
- Macrophya (Pseudomacrophya) albitarsis** Mocsáry, 1909. Russia: **FE** (KH). – Korean Peninsula.
- Macrophya (Pseudomacrophya) crassuliformis** Forsius, 1925 (*M. brevilabris* Malaise, 1931; *M. brevilabris nigroscutellata* Malaise, 1931). Host plant: ?Ligustrum obtusifolium (Oleaceae). Russia: **FE** (KH, PR). – China (Shinohara, 2015), Korean Peninsula, Japan (Hon, Shi).
- Macrophya (Pseudomacrophya) dibowskii** André, 1881. Russia: “Sibiria” (André, 1881), **FE** (AM).
- Macrophya (Pseudomacrophya) minutissima** Takeuchi, 1937. Russia: **FE** (PR). – Korean Peninsula.
- Macrophya (Pseudomacrophya) punctumalbum** (Linnaeus, 1767) [Tenthredo] (*Tenthredo erythropus* Schrank, 1776; *T. punctum* Fabricius, 1781; *T. stellata* Geoffroy, 1785). Host plant: Ligustrum spp., Fraxinus spp. (Oleaceae), Crataegus spp. (Rosaceae), Quercus spp. (Fagaceae). Russia: **EP** (NW, C, S, NC, CR). – Europe (WE, EE, NE, SE), Georgia, Armenia.
- Macrophya brunripes** André, 1881 (*M. bruneipes* Dalla Torre, 1894). Russia: “Sibiria” (André, 1881).
- Macrophya coxalis** (Motschulsky, 1866) [Dolerus] (*M. ignava* F. Smith, 1874; *Emphytus japonicus* W.F. Kirby, 1882; *Macrophya discreta* Forsius, 1925). Host plant: Rosa spp. (Rosaceae). Russia: **FE** (KU). – China (Wei et al., 2006), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Sado, Awajishima, Oki).
- Macrophya esakii** (Takeuchi, 1923) [Pachyprotasis] (*M. exilis* Takeuchi, 1933). Russia: **FE** (SA). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Macrophya timida** F. Smith, 1874 (*M. nigra* Marlatt, 1898; *M. femorata* Marlatt, 1898; *M. nigrita* Enslin, 1910; *M. mikagei* Togashi, 2005). Host plant: Ligustrum spp., Syringa vulgaris (Oleaceae). Russia: **FE** (PR). – China (Shinohara, 2015), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Sado, Awajishima, Tsushima).
- Macrophya tristis** André, 1881. Russia: “Sibiria” (André, 1881), **FE** (AM).
- PACHYPROTASIS** Hartig, 1837 (*Lithracia* Cameron, 1902). Type species *Tenthredo rapae* Linnaeus, 1767. The genus is distributed in Holarctic, Oriental and Neotropical regions. Number of species: World – about 200; Palaearctic – about 165; Russia – 17.
- Pachyprotasis antennata** (Klug, 1817) [Tenthredo] (*P. antennata exannulata* Malaise, 1931). Host plant: Senecio spp. (Asteraceae), Filipendula spp. (Rosaceae), Fraxinus spp. (Oleaceae), Atropa spp. (Solana-ceae), etc. Russia: **EP** (N, C, E), **UR**, **WS** (NS, KM, AL), **ES** (IR, BR), **FE** (AM, PR, SA). – Europe (WE, EE, NE, SE), Mongolia, China (NE, NC), Korean Peninsula, Japan (Hok, Hon, Kyu, Sado).
- Pachyprotasis elegans** Takeuchi, 1956. Russia: **FE** (KU). – Japan (Hok).
- Pachyprotasis erratica erratica** F. Smith, 1874 (*M. flavoventralis* Matsumura, 1912). Russia: **FE** (SA, KU). – China (SE), Japan (Hok, Hon, Shi).
- Pachyprotasis glabrata** Malaise, 1931. Russia: **FE** (PR). – Korean Peninsula.
- Pachyprotasis laeviceps** Malaise, 1931. Russia: **FE** (PR). – Korean Peninsula.
- Pachyprotasis limitaris** Malaise, 1931. Russia: **FE** (PR).
- Pachyprotasis lineicoxis** Malaise, 1931. Russia: **WS** (Zhelochovtsev, Zinovjev, 1996), **FE** (PR). – China (SE), Japan.
- Pachyprotasis longicornis** Jakovlev, 1891 (*Macrophya nigrolineata* Matsumura, 1912; *Pachyprotasis longicornis kurilarum* Malaise, 1931). Russia: **FE** (SA, KU). – China (NC), Korean Peninsula, Japan (Hok, Hon).
- Pachyprotasis nigra** Strogonova, 1978. Russia: **FE** (CH).
- Pachyprotasis nigronotata** Kriechbaumer, 1874 (*P. formosa* Schmiedeknecht, 1881; *P. viridis* Brischke, 1883). Host plant: Plantago spp. (Plantaginaceae), Mentha spp. (Lamiaceae), Geum spp., Alchemilla spp. (Rosaceae), etc. Russia: **EP** (NW, C), **ES** (IR), **FE** (AM, KH, PR). – Europe (WE, EE, NE), China (SE), Korean Peninsula.
- Pachyprotasis pedatoria** (Malaise, 1931) [Macrophya]. Russia: **FE** (PR).
- Pachyprotasis rapae** (Linnaeus, 1767) [Tenthredo] (*Tenthredo leucomelas* Ström, 1768; *T. scripta* Gmelin, 1790; *T. luctuosa* Schrank, 1802; *T. floricola* Gravenhorst, 1807; *T. nigrofasciata* Eschscholtz, 1822; *T. duplex* Serville, 1823; *T. duplex* Lepeletier, 1823; *Macrophya omega* Norton, 1867; *Synairema americana* Provancher, 1885; *Rhogogaster sayi* Rohwer, 1908; *Macrophya obnata* MacGillivray, 1923; *Pachyprotasis rapae nigrosternum* Koch,



- 1984). Host plant: *Solidago* spp. (Asteraceae), *Scrophularia* spp. (Scrophulariaceae), *Fraxinus* spp. (Oleaceae), etc. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (NS, KM, AL), **ES** (BR, YA, ZB), **FE** (AM, PR, SA, KU, KA, MG). – Europe (WE, EE, NE, SE), Armenia, Turkey, Mongolia, China (Wei et al., 2006), Korean Peninsula, Japan (Hok, Hon), India, N America, Mexico.
- Pachyprotasis sejensis sejensis** Inomata, 1984. Russia: **FE** (KU). – Japan (Hon).
- Pachyprotasis simulans** (Klug, 1817) [Tenthredo] (*P. laevicollis* Thomson, 1871; *P. tenuis* Rudow, 1871). Host plant: *Scrophularia* spp. (Scrophulariaceae), *Solidago* spp., *Senecio* spp. (Asteraceae). Russia: **EP** (NW, C), **FE** (PR). – Europe (WE, EE, NE), Mongolia, China (NC).
- Pachyprotasis variegata** (Fallén, 1808) [Tenthredo] (*P. variegata tenebrosa* Malaise, 1931). Host plant: *Solanum tuberosum* (Solanaceae), *Digitalis* spp. (Plantaginaceae), *Leontodon* spp., *Leucanthemum* spp. (Asteraceae), etc. Russia: **EP** (N, C, E), **UR**, **ES** (BR), **FE** (AM, PR, SA, MG). – Europe (WE, EE, NE), Central Asia, Mongolia, China (NE), Korean Peninsula, Japan.
- Pachyprotasis vicaria** Malaise, 1931. Russia: **FE** (PR). – Japan (Hok).
- Pachyprotasis zukaensis** Inomata, 1970. Russia: **FE** (KU). – Japan (Hon).
- PERINEURA** Hartig, 1837 (*Synaerema* Hartig, 1837; *Synaerema* Agassiz, 1848; *Perinevra* Agassiz, 1848; *Synaerema* Schulz, 1906). Type species *Allantus rubi* Panzer, 1803. The genus is distributed in East Asia; one species in the west of Palaearctic and one species in Oriental region. Number of species: World – 11; Palaearctic – 10; Russia – 2.
- Perineura japonica** Malaise, 1931. Russia: **FE** (PR, SA). – Japan (Hok, Hon).
- Perineura rubi** (Panzer, 1803) [Tenthredo] (*Tenthredo lividiventris* Fallén, 1808; *T. elegantula* Fallén, 1808; *T. delicatula* Klug, 1817). Host plant: *Rubus* spp. (Rosaceae). Russia: **EP** (NW, C, E). – Europe (WE, EE, NE).
- RHOOGASTER** Konow, 1884 (*Rhogogastera* Konow, 1885; *Cytisodaster* Lacourt, 1997). Type species *Tenthredo viridis* Linnaeus, 1758. The larvae on the flowering plants. The genus is distributed in Holarctic and Oriental region. Number of species: World – 38; Palaearctic – about 35; Russia – 13.
- Rhogogaster chlorosoma** (Benson, 1943) [Tenthredo]. Host plant: Dennstaedtiaceae, Salicaceae, Betulaceae, Rosaceae. Russia: **EP** (C, E), **UR**, **WS** (AL), **ES** (IR, YA), **FE** (SA, KU). – Europe (WE, EE, NE, SE), Turkey, Mongolia, Japan.
- Rhogogaster convergens** Malaise, 1931. Russia: **ES** (IR), **FE** (AM, KH, PR). – China (NE), Korean Peninsula, Japan (Hok).
- Rhogogaster coryli** Muehe, 1973. Host plant: *Corylus* spp. (Betulaceae). Russia: **EP** (NC).
- Rhogogaster genistae** Benson, 1947 (*Rh. genistae viridifrons* Muehe, 1973). Host plant: *Genista* spp., *Sarothamnus* spp. (Fabaceae). Russia: **EP** (NC). – Europe (WE, EE, NE, SE), N Africa, Turkey.
- Rhogogaster magniserrula** Viitasaari, 2015. Russia: **EP** (N). – Europe (NE).
- Rhogogaster nigriventris** Malaise, 1931 (*Tenthredo varipes* W.F. Kirby, 1882). Host plant: *Geranium* spp. (Geraniaceae), *Rosa* spp. (Rosaceae). Russia: **ES** (IR), **FE** (AM, KH, PR, SA). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Rhogogaster picta** (Klug, 1817) [Tenthredo] (*Tenthredo breviuscula* Costa, 1859). Host plant: *Sarothamnus* spp., *Genista* spp., *Cytisus* spp. (Fabaceae). Russia: **EP** (C, E, S, NC), **ES** (TU, ZB). – Europe (WE, EE, NE, SE), N Africa, Georgia, Syria, Kazakhstan, Mongolia.
- Rhogogaster polaris** Lindqvist, 1964. Russia: **EP** (N), **ES** (IR, BR), **FE** (MG). – Europe (WE, NE).
- Rhogogaster punctulata** (Klug, 1817) [Tenthredo]. Host plant: Salicaceae, Betulaceae, Rosaceae, Oleaceae. Russia: **EP** (N, NW, C), **UR**, **WS** (NS), **ES** (KR, IR, BR, ZB). – Europe (WE, EE, NE, SE), Turkey, Mongolia, China (NC).
- Rhogogaster scalaris** (Klug, 1817) [Tenthredo] (*Rh. viridis* auct., nec Linnaeus; *Tenthredo pictipes* Förster, 1850; *Rhogogaster viridis melanonota* Enslin, 1912; *Rh. viridis nigroscutellata* Forsius, 1918; *Rh. viridis lapponica* Enslin, 1918; *Rh. chlorosoma podkumokensis* Muehe, 1973; *Tenthredo carpatica* Zhelochovtsev et Zinovjev, 1988). Host plant: polyphage. Russia: **EP** (C, NC), **UR**, **WS** (KM, AL), **ES** (TU, BR), **FE** (KA). – Europe (WE, EE, NE).
- Rhogogaster sibirica** Enslin, 1912 (*Rh. kudianus* Rohwer, 1925). Russia: **ES** (IR), **FE** (PR).
- Rhogogaster tsherepanovi** Stroganova, 1988. Russia: **EP** (C), **WS** (NS), **ES** (KR).

- Rhogogaster viridis** (Linnaeus, 1758) [Tenthredo] (*Tenthredo dryas* Benson, 1943; *Rhogogaster similis* Lindqvist, 1959). Host plant: Salicaceae, Betulaceae, Onagraceae, Fagaceae, Rhamnaceae, Rosaceae, Fabaceae. Russia: **EP** (N, NW, C, E), **WS** (NS, AL), **ES** (IR, BR, YA, ZB), **FE** (PR, KU, KA, MG). – Europe (WE, EE, NE), Kazakhstan, Mongolia, China (NC), Korean Peninsula, SE Asia.
- SCIAPTERYX** Stephens, 1835 (*Eniscia* Thomson, 1870; *Sciopteryx* Cameron, 1882; *Sciapterina* Ushinskij, 1940). Type species *Tenthredo costalis* Fabricius, 1775. The genus is distributed in Palaearctic. Number of species: World and Palaearctic – 16; Russia – 9.
- Sciopteryx caucasica** Dovnar-Zapolskij, 1930. Russia: **EP** (NC). – Turkey.
- Sciopteryx circassica** Dovnar-Zapolskij, 1930. Russia: **EP** (NC). – Georgia, Armenia, Turkey.
- Sciopteryx consobrina** (Klug, 1816) [Tenthredo] (*Eriocampa marginata* Puls, 1870; *Allantus consobrinus zwickoviensis* Schlechtendal, 1873). Host plant: Adoxa spp. (Adoxaceae), Anemone spp., Ranunculus spp. (Ranunculaceae). Russia: **EP** (NW, C, S, NC). – Europe (WE, EE, NE, SE), Georgia.
- Sciopteryx costalis costalis** (Fabricius, 1775) [Tenthredo]. Host plant: Ranunculus spp. (Ranunculaceae). Russia: **EP** (C). – Europe (WE, EE, NE, SE).
- Sciopteryx dovnari** Ushinskij, 1940. Russia: **EP** (NC). – Georgia, Armenia.
- Sciopteryx laeta** Konow, 1891 (*S. laeta antennata* Muehe, 1973). Host plant: Ranunculus spp. (Ranunculaceae). Russia: **EP** (NC). – Georgia, Turkey.
- Sciopteryx montana** Dovnar-Zapolskij, 1930. Russia: **EP** (NC).
- Sciopteryx semenowi** Jakovlev, 1886. Host plant: Euclidium spp., Capsella spp. (Brassicaceae). Russia: **EP** (S, CR). – Europe (EE).
- Sciopteryx verticalis** Muehe, 1973. Russia: **EP** (NC).
- SIOBLA** Cameron, 1877 (*Encarsioneura* Konow, 1890; *Megasiobla* Dovnar-Zapolskij, 1930). Type species *Siobla mooreana* Cameron, 1877. The genus is distributed in Palaearctic and Oriental region. Number of species: World – about 75; Palaearctic – about 55; Russia – 12.
- Siobla ferox** (F. Smith, 1874) [Macrophya] (*S. grandis* Matsumura, 1912). Host plant: Balsaminaceae, Polygonaceae, Amaranthaceae. Russia: **FE** (PR). – China (SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Tsushima).
- Siobla frigida** (Mocsáry, 1909) [Encarsioneura]. Russia: **FE** (KH). – China (NE, SE).
- Siobla grossa** Malaise, 1931. Russia: **FE** (AM, PR).
- Siobla jucunda** (Mocsáry, 1909) [Encarsioneura]. Russia: **FE** (KH, PR, SA, KU). – Japan (Hok, Hon, Shi).
- Siobla malaisei** Mallach, 1933. Russia: **FE** (PR). – China (NE, CC).
- Siobla ruficornis** (Gimmerthal, 1834) [Allantus] (*Eriocampa ruficornis* Cameron, 1876; *Siobla sibirica* Malaise, 1931; *S. sibirica bergmani* Malaise, 1931; *S. ruficornis albicornis* Malaise, 1931). Host plant: Epilobium angustifolium (Onagraceae). Russia: **EP** (NW, C, E), **UR**, **WS** (NS, AL), **ES** (IR, BR, YA), **FE** (KH, PR, SA, KU, KA). – Europe (NE), China (NE), Korean Peninsula, Japan (Hon).
- Siobla similis** (Mocsáry, 1909) [Encarsioneura]. Russia: **FE** (KH, SA).
- Siobla sturmii sturmii** (Klug, 1817) [Tenthredo] (*Macrophya castanea* Jakovlev, 1888; *M. pacifica* F. Smith, 1874). Host plant: Impatiens spp. (Balsaminaceae), Rubus spp., Rosa spp., Prunus spp. (Rosaceae). Russia: **EP** (NW, C), **WS** (NS), **ES** (YA), **FE** (AM, PR, SA, KU). – Europe (WE, EE, NE), Korean Peninsula, Japan (Hok, Hon, Kyu).
- Siobla takeuchii** Shinohara, Wei et Niu, 2013. Russia: **FE** (KU). – Japan (Hok, Hon, Kyu).
- Siobla venusta venusta** (Konow, 1903) [Encarsioneura]. Russia: **FE** (PR). – China (CC), Korean Peninsula.
- Siobla villosa** Malaise, 1931. Russia: **FE** (PR). – China (CC).
- Siobla zenaida** Dovnar-Zapolskij, 1930. Russia: **FE** (KH). – China (NE, CC), Korean Peninsula.
- TENTHREDO** Linnaeus, 1758 (*Allantus* Jurine, 1801; *Parastatis* W.F. Kirby, 1881; *Dipteromorpha* W.F. Kirby, 1882; *Labidia* Provancher, 1886; *Jerமாகia* Jakovlev, 1891; *Ischyroceraea* Kiær, 1898; *Rethrax* Cameron, 1899; *Fethalia* Cameron, 1902; *Peus* Konow, 1903; *Clydostomus* Konow, 1908; *Tenthredella* Rohwer, 1910; *Tenthredina* Rohwer, 1910; *Zamacrophya* Rohwer, 1912; *Metallopeus* Malaise, 1934; *Jakovleviella* Malaise, 1937; *Adungia* Malaise, 1945; *Ebba* Malaise, 1945; *Propodea* Malaise, 1945; *Elinora* Benson, 1946; *Eurogaster* Zirngiebl, 1953; *Cuneala* Zirngiebl, 1956; *Elinopsis* Lacourt, 1986; *Cephalredo* Zhelochovtsev, 1988; *Maculedo* Zhelochovtsev, 1988; *Olivacedo* Zhelochovtsev,

- 1988; *Temuledo* Zhelochovtsev, 1988; *Zonuledo* Zhelochovtsev, 1988; *Murciana* Lacourt, 1988; *Absentia* Togashi, 1990; *Casipteryx* Taeger, 1991; *Paratenthredo* Taeger, 1991; *Dorhettenyx* Lacourt, 1997; *Endotethryx* Lacourt, 1997; *Sainiella* Lacourt, 1997; *Blankia* Lacourt, 1998). Type species *Tenthredo scrophulariae* Linnaeus, 1758. The larvae on various plants; often polyphages. Adults often found on the inflorescences of Apiaceae, Spiraea, and others; females of many species are predators. The genus is distributed in Holarctic, Oriental and Neotropical regions. Number of species: World – > 900; Palaearctic – about 655; Russia – 158 (+ 13 ssp.) from 14 subgenera.
- Tenthredo (Cephalo) bifasciata diversipennis** (Mocsáry, 1891) [Allantus]. Host plant: Asteraceae. Russia: **EP** (NC). – Georgia, Armenia, SW Asia.
- Tenthredo (Cephalo) bifasciata rossii** (Panzer, 1803) [Allantus] (*T. bifasciata* Klug, 1817; *T. scissa* Klug, 1819; *T. rossii pigeoti* Pic, 1948; *T. rossica laeviceps* Hellén, 1955). Host plant: Sonchus spp., Hieracium spp. (Asteraceae). Russia: **EP** (NW, C). – Europe (WE, EE, NE).
- Tenthredo (Cephalo) bifasciata violacea** (André, 1881) [Allantus] (*T. interjecta* Kuznetzov-Ugamskij, 1924). Host plant: Asteraceae. Russia: **EP** (C, E, S), **WS** (AL). – Europe (EE, SE), Kazakhstan.
- Tenthredo (Cephalo) caucasica caucasica** Eversmann, 1847 (*Allantus moestus* Mocsáry, 1883). Russia: **EP** (S, NC). – Georgia, Armenia, SW Asia.
- Tenthredo (Cephalo) costata** Klug, 1817 (*T. sareptana* Eversmann, 1847; *Allantus faustus* W.F. Kirby, 1882; *A. subcostatus* Jakovlev, 1888; *A. graecus* Konow, 1888; *A. parnasius* Konow, 1888; *A. violaceipennis* Costa, 1890; *A. kiefferi* Konow, 1899; *A. kietteri cilix* Enslin, 1910; *Tenthredo kiefferi lugubrata* Enslin, 1914; *Allantus costatus obscurus* Zirngiebl, 1937). Host plant: Chondrilla spp. (Asteraceae), Euphorbia spp. (Euphorbiaceae). Russia: **EP** (S, NC). – Europe (EE, SE), Georgia, Armenia, SW Asia, Iran.
- Tenthredo (Cephalo) excellens** (Konow, 1886) [Allantus] (*T. annulata* Klug, 1817; *Allantus persa* Konow, 1888; *A. persa mandibularis* Enslin, 1910; *Tenthredo persa caja* Enslin, 1912). Russia: **EP** (S, NC), **UR**. – Europe (EE), Georgia, Armenia, Turkey, Iran, Turkmenistan.
- Tenthredo (Cephalo) neobesa** Zombori, 1980 (*T. zonata* Fallén, 1808; *Allantus obesus* Mocsáry, 1880; *Tenthredo pseudorossii* Taeger, 1985). Host plant: Hieracium spp., Sonchus spp. (Asteraceae). Russia: **EP** (E), **UR**, **WS** (NS, AL), **ES** (IR). – Europe (WE, EE, NE), Georgia.
- Tenthredo (Cephalo) segmentaria** Fabricius, 1798 (*Allantus steckii* Konow, 1888; *A. stecki trimarginata* Pic, 1933; *A. stecki milliati* Pic, 1933). Russia: **ES** (TU, IR). – Europe (WE, EE).
- Tenthredo (Cephalo) violascens** (Konow, 1886) [Allantus]. **EP** (NC). – Georgia, Armenia, Turkey.
- Tenthredo (Dorhettenyx) jozana** (Matsumura, 1912) [Tenthredopsis] (*T. fuscata* Enslin, 1920). Russia: **WS** (AL), **FE** (PR, SA, KU). – China (SE), Korean Peninsula, Japan (Hok, Hon, Shi).
- Tenthredo (Elinora) aulica** Enslin, 1912 (*Allantus nigritarsis* Konow, 1886). Russia: **EP** (NC).
- Tenthredo (Elinora) caspia** (André, 1881) [Allantus]. Russia: **EP** (S). – Europe (EE).
- Tenthredo (Elinora) dahlii** Klug, 1817 (*T. villosa* Brullé, 1832; *T. uncinata* Brullé, 1832; *Allantus xanthorius* Kriechbaumer, 1869; *Macrophya hartigii* W.F. Kirby, 1882). Russia: **EP** (S, NC, CR), **ES** (BR, ZB). – Europe (EE, SE), Uzbekistan.
- Tenthredo (Elinora) flaveola** Gmelin, 1790 (*T. flavipes* Geoffroy, 1785; *T. rubiginosa* Gmelin, 1790; *T. dispar* Klug, 1817; *T. grata* Lepeletier, 1823; *T. grata* Serville, 1823; *Allantus rufocingulatus* Tischbein, 1852; *A. orientalis* Kriechbaumer, 1869; *A. galiciensis* Niezabitowski, 1899; *A. flaveola delagrangei* Pic, 1925). Host plant: Bupleurum spp. (Apiaceae), Raphanus spp., Brassica spp., Sinapis spp. (Brassicaceae). Russia: **EP** (S, NC, CR), **WS** (Zhelochovtsev, Zinovjev, 1996). – Europe (WE, EE, NE), Armenia.
- Tenthredo (Elinora) koehleri** Klug, 1817 (*Allantus funereus* Palma, 1861; *A. koehleri scutellaris* Gregor, 1941). Host plant: Cardamine spp. (Brassicaceae), Geranium sanguineum, Robertianum spp. (Geraniaceae). Russia: **EP** (NC). – Europe (WE, EE, SE), Turkey.
- Tenthredo (Elinora) longipes** (Konow, 1886) [Allantus] (*Allantus shestoperovi* Ushinskij, 1936; *Cuneala tricolor* Zirngiebl, 1956). Russia: **EP** (NC). – Georgia, Armenia, Iran, Turkmenistan.
- Tenthredo (Elinora) ornata** (André, 1881) [Allantus] (*Allantus caucasicus* Mocsáry, 1880; *A. discolor* Konow, 1890; *A. mocsaryi* Enslin, 1910; *Tenthredo baja* Enslin, 1912; *T. camilla* Enslin, 1912). Russia: **EP** (NC). – Armenia, Turkey.
- Tenthredo (Elinora) persica** (André, 1882) [Allantus] (*T. coniensis* Enslin, 1914; *Allantus kareli* Muche,

- 1962; *A. kareli maculatus* Muche, 1962). Russia: **EP** (Lacourt, 1999). – Caucasus, Turkey, Iran.
- Tenthredo (Elinora) pubescens** (André, 1881) [Allantus]. Russia: **EP** (NC).
- Tenthredo (Elinora) radoszkowskii** (André, 1881) [Allantus] (*Allantus atratus* André, 1883; *A. confinis* Konow, 1886; *A. parviceps* Konow, 1898). Host plant: Geranium spp. (Geraniaceae). Russia: **EP** (S, NC). – Caucasus, Turkey, Iran.
- Tenthredo (Elinora) sabariensis** (Mocsáry, 1880) [Allantus] (*Allantus breviventris* Cameron, 1887; *A. morawitzi* Jakovlev, 1888; *A. sabariensis moravica* Gregor, 1941). Russia: **EP** (C, E, NC), **UR**. – Europe (EE).
- Tenthredo (Endotethryx) adusta** Motschulsky, 1866 (*T. fulva* Klug, 1817; *T. eversmanni* Ballion, 1869; *T. erratica* F. Smith, 1874; *T. fulva pallidiventrifera* Jakovlev, 1886; *Allantus moiwasanus* Matsumura, 1912; *Tenthredo urgaensis* Muche, 1965). Imago on Heraclium spp. and others Apiaceae. Russia: **EP** (C, E), **UR**, **WS** (NS, AL), **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU). – Europe (EE, NE), Mongolia, China (NE), Korean Peninsula, Japan (Hok, Hon, Shi).
- Tenthredo (Endotethryx) campestris** Linnaeus, 1758 (*T. flava* Poda, 1761; *T. poecilechroa* Schrank, 1781; *T. flavicornis* Fabricius, 1781; *T. luteicornis* Fabricius, 1787; *T. mucronata* Gmelin, 1790; *T. flavida* Christ, 1791; *T. umbellatarum* Panzer, 1806; *Tenthredella flavicornis temporalis* Enslin, 1912; *T. flavicornis pallior* Forsius, 1918). Host plant: Aegopodium spp. (Apiaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (NS, AL). – Europe (WE, EE, NE), Turkey.
- Tenthredo (Endotethryx) crassa** Scopoli, 1763 (*T. impura* Scopoli, 1763; *T. albicornis* Fabricius, 1781; *T. dealbata* Gmelin, 1790; *T. albata* Turton, 1802; *T. nebulosa* Serville, 1823; *T. nebulosa* Lepeletier, 1823). Host plant: ?Archangelica spp. (Apiaceae). Russia: **EP** (NW, C, E), **UR**, **WS** (NS), **ES** (KR). – Europe (WE, EE, NE, SE), Georgia, Kazakhstan.
- Tenthredo (Eurogaster) aaliensis** (Strand, 1898) [Pachyprotasis] (*Rhogogaster arctica* Kiær, 1898; *Tenthredo microps* Konow, 1903; *Rhogogaster kaszabi* Zombori, 1973). Imago on Apiaceae. Russia: **UR**, **ES** (IR, BR, ZB), **FE** (AM, MG). – Europe (WE, NE), Kazakhstan, Mongolia.
- Tenthredo (Eurogaster) convergenata** (Takeuchi, 1955) [Tenthredella]. Russia: **FE** (KU). – Japan (Hok, Hon, Shi).
- Tenthredo (Eurogaster) dealbata** Mocsáry, 1909 (*Tenthredella deaurata* Enslin, 1912). Russia: **WS** (AL), **ES** (IR), **FE** (AM, KH, PR). – Korean Peninsula.
- Tenthredo (Eurogaster) maculiger dioctrioides** (Jakovlev, 1891) [Allantus] (*Allantus rupico* Konow, 1908). Imago on Apiaceae, Ranunculus spp. (Ranunculaceae). Russia: **FE** (PR). – China (NC, SC), Nepal, India (NE).
- Tenthredo (Eurogaster) maculiger maculiger** (Jakovlev, 1891) [Allantus] (*Allantus incinctus* Konow, 1908; *Tenthredo maculigera camtschatica* Forsius, 1928). Imago on Apiaceae, Ranunculus spp. (Ranunculaceae). Russia: **WS** (AL), **ES** (TU, IR, BR), **FE** (KA, MG). – Mongolia, China (SW).
- Tenthredo (Eurogaster) mesomela** Linnaeus, 1758 (*T. annularis* Villers, 1789; *T. marginata* Christ, 1791; *T. explanata* Rudow, 1871; *T. bernardi* Konow, 1888; *Tenthredella mesomelas mesopleuralis* Enslin, 1912; *T. mesomelas atramentaria* Enslin, 1912; *Tenthredo mesomelas gigas* Malaise, 1931; *Tenthredella mesomelas reductealba* Pic, 1940; *T. mesomelas flavoscutellaris* Pic, 1940; *T. mesomelas mediorufescens* Pic, 1940; *Tenthredo kaszabi* Muche, 1965). Host plant: Polygonum spp. (Polyfonaceae), Heraclium spp. (Apiaceae), Ranunculus spp. (Ranunculaceae), etc. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TK, NS, KM, AL), **ES** (KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, KA, MG). – Europe (WE, EE, NE, SE), Armenia, Turkey, Mongolia, China (NE), Korean Peninsula, Japan (Hok, Hon, Shi).
- Tenthredo (Eurogaster) mioceras** (Enslin, 1912) [Tenthredella] (*T. mioceras* Benson, 1943; *T. mesomelas montana* Pasteels, 1946). Host plant: Ranunculus spp. (Ranunculaceae), Heraclium spp. (Asteraceae), Dryopteris spp. (Dryopteridaceae), etc. Russia: **EP** (NW, C, E), **UR**, **WS** (NS, AL), **ES** (BR). – Europe (WE, EE, SE), Kazakhstan, China (Wei et al., 2006).
- Tenthredo (Eurogaster) nitidiceps** (Takeuchi, 1955) [Tenthredella]. Russia: **FE** (KU). – Japan (Hok, Hon).
- Tenthredo (Eurogaster) obsoleta** Klug, 1817 (*T. arctica* Thomson, 1871). Host plant: Plantago spp. (Plantaginaceae). Russia: **EP** (C, E), **UR**, **WS** (KM, AL), **ES** (KR, IR, BR), **FE** (AM, PR). – Europe (WE, EE, NE, SE), China (Wei et al., 2006).
- Tenthredo (Eurogaster) opaciceps** (Takeuchi, 1955) [Tenthredella]. Russia: **FE** (SA, KU). – Japan (Hok, Hon).

- Tenthredo (Eurogaster) sibiricola** (Forsius, 1918) [Tenthredella]. Russia: **FE** (KA).
- Tenthredo (Eurogaster) stulta** Jakovlev, 1891 (*Rhogogaster opacella* Mocsáry, 1909; *Tenthredella stulta bernardiformis* Enslin, 1927; *T. stulta temporalis* Enslin, 1927; *Tenthredo elisabethae* Muche, 1965). Host plant: probably polyphage. Russia: **WS** (AL), **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, KA, MG). – Mongolia, China (NC), Korean Peninsula, Japan (Hok, Hon, Kyu).
- Tenthredo (Eurogaster) tenuivaginata** (Takeuchi, 1955) [Tenthredella]. Russia: **FE** (SA, KU). – Japan (Hok).
- Tenthredo (Maculedo) cinctipleuris** (Enslin, 1910) [Allantus]. Russia: **EP** (NC). – Georgia, Armenia, Turkey, Iran.
- Tenthredo (Maculedo) maculata** Geoffroy, 1785 (*T. unifasciata* Geoffroy, 1785; *T. zonata* Panzer, 1799; *T. succincta* Donovan, 1808; *T. equestris* Panzer, 1809; *T. latizona* Lepeletier, 1823; *T. latizona* Serville, 1823; *T. semseyi* Mocsáry, 1883; *T. andrei* Mocsáry, 1883; *Tenthredella maculata atricollaris* Enslin, 1912; *Tenthredo maculata mediobinata* Pic, 1926; *T. maculata atroapicalis* Pic, 1926; *T. maculata quittardi* Pic, 1926; *T. maculata wagneri* Zirngiebl, 1940; *T. maculata collaris* Zirngiebl, 1940). Host plant: *Brachypodium* spp., *Dactylis* spp. (Poaceae). Russia: **EP** (C, S). – Europe (WE, EE, SE), Armenia, Turkey.
- Tenthredo (Maculedo) trabeata** Klug, 1817 (*T. palustris* Klug, 1817; *Perineura fulvitaris* André, 1881; *Tenthredo atra nigrifemur* Zilahi Kiss, 1927; *T. marinovi* Vassilev, 1978). Host plant: Asteraceae, *Impatiens* spp. (Balsaminaceae). Russia: **EP** (N, C). – Europe (WE, EE, NE, SE).
- Tenthredo (Maculedo) vestita** André, 1881 (*T. caspica* Mocsáry, 1883; *T. laeta* Konow, 1886; *Allantus limbiferus* Mocsáry, 1891; *Tenthredella celsia* Enslin, 1912; *Tenthredo vestita stria* Enslin, 1920; *T. vestita striata* Enslin, 1920; *T. vestita strigata* Enslin, 1920). Russia: **EP** (NC). – Azerbaijan.
- Tenthredo (Olivacedo) eduardi** (Forsius, 1919) [Tenthredella] (*Tenthredella enslini* Forsius, 1918; *T. viridans* Benson, 1930; *Tenthredo vivida* Malaise, 1931; *T. pappi* Zombori, 1978). Russia: **FE** (AM, PR). – China (Wei et al., 2006), Korean Peninsula, Japan (Hon, Kyu).
- Tenthredo (Olivacedo) fuscoterminata** Marlatt, 1898. Russia: **FE** (AM, KH, PR). – China (NE, SE), Korean Peninsula, Japan (Hon, Shi, Kyu).
- Tenthredo (Olivacedo) nigrolateralis** Malaise, 1931. Russia: **FE** (PR).
- Tenthredo (Olivacedo) olivacea olivacea** Klug, 1817 (*T. dissimulans* Kincaid, 1900; *Tenthredella olivacea nigrovittata* Enslin, 1912; *Rhogogastera reliqua* MacGillivray, 1919; *Rh. respersus* MacGillivray, 1923; *Rhogogaster viridis montana* Betrem, 1933; *Tenthredo olivacea sekerai* Gregor, 1941; *T. olivacea bohémica* Gregor, 1941). Host plant: *Ranunculus* spp. (Ranunculaceae), *Plantago* spp. (Plantaginaceae), *Rubus* spp. (Rosaceae), and others. Russia: **EP** (N, NW, C, E), **UR**, **WS** (NS, AL), **ES** (IR, BR, YA, ZB), **FE** (KA, MG). – Europe (WE, EE, NE), N Africa, Mongolia, China (NC), Korean Peninsula, N America.
- Tenthredo (Olivacedo) olivacea takedae** Matsumura, 1912. Host plant: *Ranunculus* spp. (Ranunculaceae), *Plantago* spp. (Plantaginaceae). Russia: **FE** (AM, PR, SA, KU, KA). – Korean Peninsula, Japan (Hok, Hon).
- Tenthredo (Olivacedo) sedankiana** Malaise, 1931. Russia: **FE** (PR). – China (NE).
- Tenthredo (Olivacedo) subolivacea** (Takeuchi, 1955) [Tenthredella]. Russia: **FE** (SA, KU). – Japan (Hok, Hon).
- Tenthredo (Olivacedo) tamanukii** (Takeuchi, 1936) [Tenthredella]. Russia: **FE** (SA, KU). – Japan (Hok, Hon).
- Tenthredo (Olivacedo) viridatrix nippon** Shinohara, 1994. Russia: **FE** (SA, KU). – Japan (Hok, Hon, Shi).
- Tenthredo (Olivacedo) viridatrix viridatrix** Malaise, 1931. Russia: **FE** (AM, KH, PR). – Korean Peninsula.
- Tenthredo (Paratenthredo) monozonus** (Kriechbaumer, 1869) [Allantus] (*Allantus dialeucus* Konow, 1898; *A. jugalis* Konow, 1898; *Tenthredo uncinata* Hellén, 1963). Russia: **EP** (NC, CR). – Europe (EE, SE), Caucasus, SW Asia.
- Tenthredo (Paratenthredo) shaposhnikovii** (Dovnar-Zapolskij, 1930) [Allantus]. Russia: **EP** (NC).
- Tenthredo (Paratenthredo) talyshensis** Zhelochovtsev, 1988. Russia: **EP** (NC). – Azerbaijan.
- Tenthredo (Propodea) fentoni** W.F. Kirby, 1882 (*Jermakia spinifera* Mocsáry, 1909; *Tenthredopsis hakiensis* Matsumura, 1912). Host plant: *Euptelea polyandra* (Eupteleaceae). Russia: **FE** (KH, KU). – China (NE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

- Tenthredo (Propodea) rufonotalis** Mallach, 1936 (*Dipteromorpha ussuriensis* Malaise, 1931). Russia: **FE** (PR). – China (NE, CC, SE), Japan (Hon).
- Tenthredo (Temuledo) brachycera** (Mocsáry, 1909) [Allantus] (*Allantus brachycerus guttator* Malaise, 1934; *Tenthredo daetekensis* Togashi, 1976). Russia: **FE** (AM, KH, PR). – China (NE, CC, SE), Korean Peninsula, Japan (Hon).
- Tenthredo (Temuledo) finschi finschi** W.F. Kirby, 1882 (*Allantus kohli* Konow, 1895; *Rhogogastera aenescens* Mocsáry, 1909). Imago on Apiaceae, Spiraea spp. (Rosaceae). Russia: **WS** (KM, AL), **ES** (IR, BR, YA), **FE** (AM, KH, PR, KA, MG). – China (NC, SW), Korean Peninsula, India, SE Asia.
- Tenthredo (Temuledo) finschi seguro** Takeuchi, 1956. Imago on Apiaceae, Spiraea spp. (Rosaceae). Russia: **FE** (SA, KU). – Japan (Hok, Hon, Shi, Sado).
- Tenthredo (Temuledo) flavipectus** (Matsumura, 1912) [Allantus] (*Allantus nigripectus* Matsumura, 1912; *Tenthredo xanthomelaena* Enslin, 1920). Russia: **FE** (KU). – Japan (Hok, Hon, Shi, Kyu).
- Tenthredo (Temuledo) hokkaidonis** (Malaise, 1931) [Allantus]. Russia: **FE** (KU). – Japan (Hok, Hon, Shi).
- Tenthredo (Temuledo) japonica** (Mocsáry, 1909) [Allantus] (*T. carpinata* Enslin, 1912). Russia: **FE** (KU). – China (Wei et al., 2006), Japan (Hon, Shi, Kyu).
- Tenthredo (Temuledo) kongauana** Rohwer, 1925 (*T. uchidae* Takeuchi, 1927). Russia: **FE** (PR). – China (Wei et al., 2006), Korean Peninsula, Japan (Hon).
- Tenthredo (Temuledo) kudiana** Rohwer, 1925. Russia: **FE** (AM, PR).
- Tenthredo (Temuledo) nigropicta** (F. Smith, 1874) [Macrophya] (*T. picta* Motschulsky, 1866; *Rhogogaster nipponica* Rohwer, 1910). Host plant: Pleioblastus spp. (Poaceae). Russia: **FE** (KU). – China (CC, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Tenthredo (Temuledo) notomelas** Enslin, 1920. Russia: **FE** (SA). – Japan (Hok, Hon).
- Tenthredo (Temuledo) uralensis** (André, 1881) [Allantus] (*Allantus uralensis* Dalla Torre, 1894; *A. glesicornis* Konow, 1899; *Tenthredo soyoensis* Togashi, 1973). Russia: **ES** (IR, BR), **FE** (AM, PR). – Turkey, Korean Peninsula.
- Tenthredo (Temuledo) sapporensis** (Matsumura, 1912) [Allantus] (*Allantus leucosternus* Malaise, 1934). Russia: **FE** (SA, KU). – China (NE, NC), Japan (Hok).
- Tenthredo (Temuledo) scutellata** (Mocsáry, 1909) [Allantus] (*Allantus temuloides* Zhelochovtsev, 1935). Russia: **WS** (NS), **FE** (AM, KH, PR).
- Tenthredo (Temuledo) temula** Scopoli, 1763 (*T. bincincta* Linnaeus, 1767; *T. semicincta* Schrank, 1781; *T. amoena* Marquet, 1879; *Allantus irkutensis* Jakovlev, 1888; *Tenthredella temula uberior* Enslin, 1912; *T. temula pauperior* Enslin, 1914; *Tenthredo temula xanthaspis* Enslin, 1920; *T. celtica* Benson, 1953). Host plant: Origanum spp. (Lamiaceae), Ligustrum spp. (Oleaceae). Russia: **EP** (NW, C, E, S, NC), **UR**, **WS** (NS, AL), **ES** (IR, BR), **FE** (AM, PR). – Europe (WE, EE, NE, SE), Georgia, Armenia, Kazakhstan.
- Tenthredo (Temuledo) ussuriensis ussuriensis** (Mocsáry, 1909) [Allantus] (*Allantus analis* André, 1881; *Tenthredo abjecta* Enslin, 1912). Host plant: Abelia spp. (Caprifoliaceae). Russia: **FE** (AM, KH, PR). – China (NE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Tenthredo (Tenthredella) alboannulata** (Takeuchi, 1933) [Tenthredella] (*Tenthredella alboannulata kanoi* Takeuchi, 1936). Russia: **FE** (KU). – Japan (Hon, Shi).
- Tenthredo (Tenthredella) albopicta** Puls, 1870 (*T. nigroclypeata* Mocsáry, 1909). Russia: **EP** (NC). – Georgia, Armenia, SW Asia.
- Tenthredo (Tenthredella) amurica** Dalla Torre, 1894 (*T. amurensis* Konow, 1891; *Tenthredella ussuriensis* Forsius, 1918; *T. fagi nigerrima* Forsius, 1918; *Tenthredo konowi* Enslin, 1920). Host plant: Petasites japonicus (Asteraceae). Russia: **EP** (NW), **ES** (BR), **FE** (AM, PR, SA). – Europe (WE, NE).
- Tenthredo (Tenthredella) atra** Linnaeus, 1758 (*T. rufipes* Poda, 1761; *T. fuscipes* Gmelin, 1790; *T. obscura* Gmelin, 1790; *T. plebeja* Klug, 1817; *T. dispar* Klug, 1817; *T. relictata* Lepeletier, 1823; *T. scopoli* Lepeletier, 1823; *T. rejecta* Dalla Torre, 1882; *T. scotica* Cameron, 1882; *Tenthredella atra pseudomandibularis* Enslin, 1918; *T. atra pseudoscotica* Enslin, 1918; *T. atra schirmeri* Enslin, 1918; *T. atra orbitalis* Forsius, 1918; *Tenthredo atra transigens* Enslin, 1920; *T. atra nigrifemur* Endre, 1927; *T. atra vagabundica* Malaise, 1931; *T. atra masculina* Gregor, 1941). Host plant: Mentha spp. (Lamiaceae), Plantago spp. (Plantaginaceae), Ranunculus spp. (Ranunculaceae), etc. Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (NS, AL), **ES** (IR, BR, YA), **FE** (KH, PR, KA, MG). – Europe (WE, EE, NE, SE), Kyrgyzstan, Kazakhstan, Mongolia.
- Tenthredo (Tenthredella) atrofasciata** Zhelochovtsev, 1939. Russia: **FE** (AM).

- Tenthredo (Tenthredella) balteata** Klug, 1817 (*T. soror* Zetterstedt, 1838; *Tenthredella balteata albimacula* Enslin, 1912; *Allantus surensis* Pic, 1939; *Tenthredo tschinggischanensis* Muche, 1965). Host plant: Hypericaceae, Rosaceae, Salicaceae, ferns and others. Russia: **EP** (N, NC), **UR**, **WS** (AL), **ES** (TU, KR, IR, BR), **FE** (KA, MG). – Europe (WE, EE, NE, SE), N Africa, Georgia, Armenia, SW Asia, Iran, Central Asia, Kazakhstan, Mongolia.
- Tenthredo (Tenthredella) basizonata** Malaise, 1938. Russia: **FE** (KU). – Japan (Hon, Shi, Kyu).
- Tenthredo (Tenthredella) bipunctula bipunctula** Klug, 1817. Host plant: Senecio spp. (Asteraceae). Russia: **EP** (NW), **WS** (NS). – Europe (WE, EE, NE, SE).
- Tenthredo (Tenthredella) bipunctula malaisei** (Takeuchi, 1933) [Tenthredella]. Host plant: Senecio spp. (Asteraceae). Russia: **FE** (SA, KU). – Japan (Hon).
- Tenthredo (Tenthredella) borea** Enslin, 1919 (*T. borea* Enslin, 1920; *T. stubbei* Koch, 1984). Russia: **EP** (N), **WS** (TM). – Mongolia.
- Tenthredo (Tenthredella) camtschatcalis** (Enslin, 1927) [Tenthredella]. Russia: **FE** (KA).
- Tenthredo (Tenthredella) cockerelli** (Rohwer, 1925) [Tenthredella] (*Tenthredella bituberculata* Takeuchi, 1940). Russia: **FE** (AM, PR). – China (NE, NC, CC), Korean Peninsula.
- Tenthredo (Tenthredella) colon** Klug, 1817 (*Allantus obscurus* Panzer, 1803; *Tenthredo rudowi* André, 1881; *T. nigricollis* W.F. Kirby, 1882; *T. punctulata* Konow, 1887; *T. semicornis* Harrington, 1889; *T. unifasciata* Mocsáry, 1909; *T. colon nigriventris* Enslin, 1912; *Tenthredella cucullata* Enslin, 1912). Host plant: Dennstaedtiaceae, Ranunculaceae, Geraniaceae, Onagraceae, Salicaceae, etc. Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (KM, AL), **ES** (IR, BR, YA), **FE** (AM, KH, PR, SA, KU, KA, MG). – Europe (WE, EE, NE, SE), Caucasus, SW Asia, Kyrgyzstan, Kazakhstan, Mongolia, Korean Peninsula, Japan (Hok, Hon, Sado), N America.
- Tenthredo (Tenthredella) contusa** (Enslin, 1912) [Tenthredella] (*T. lateralis* Mocsáry, 1909; *T. trialbata* Malaise, 1931). Russia: **FE** (AM, KH, PR). – Japan (Hon, Shi), SE Asia.
- Tenthredo (Tenthredella) crenata** (Enslin, 1912) [Tenthredella] (*T. fulvicornis* Mocsáry, 1909; *T. fulviventris* Mocsáry, 1909). Russia: **ES** (BR), **FE** (AM, KH, SA). – Mongolia.
- Tenthredo (Tenthredella) cunyi** Konow, 1886 (*T. chyzeri* Mocsáry, 1891; *Tenthredella cunyi pleuritica* Enslin, 1912; *T. cunyi alboplagiata* Enslin, 1912). Russia: **ES** (IR, BR). – Europe (WE, EE).
- Tenthredo (Tenthredella) decens** Zhelochovtsev, 1939. Russia: **EP** (NW), **ES** (IR, BR, ZB), **FE** (KA).
- Tenthredo (Tenthredella) duplicata** Enslin, 1920 (*T. bimaculata* Konow, 1886). Russia: **EP** (NC). – Georgia, Armenia.
- Tenthredo (Tenthredella) eburata** Konow, 1900 (*Tenthredella rubrocaudata* Takeuchi, 1936). Russia: **EP** (NW, C, E), **UR**, **WS** (NS), **ES** (IR, BR), **FE** (PR). – Europe (NE), China (NE, CC), Korean Peninsula.
- Tenthredo (Tenthredella) eburneifrons** W.F. Kirby, 1882 (*T. lichtwardti* Konow, 1899). Russia: **WS** (AL), **ES** (BR, ZB), **FE** (AM, PR). – Europe (WE, NE), Kazakhstan, Korean Peninsula.
- Tenthredo (Tenthredella) erudita** (Kuznetsov-Ugamskij, 1927) [Tenthredella]. Russia: **FE** (PR).
- Tenthredo (Tenthredella) fagi** Panzer, 1798 (*T. pellicuda* Klug, 1817; *T. facigera* Konow, 1899; *Tenthredella fagi melanaspis* Enslin, 1912). Host plant: Pteridium aquilinum (Dennstaedtiaceae), Corylus spp. (Betulaceae), Sorbus spp. (Rosaceae), Angelica spp. (Asteraceae). Russia: **EP** (NW, C, E), **UR**, **WS** (NS, AL), **ES** (IR, BR, YA), **FE** (AM, PR, SA, KU). – Europe (WE, EE, NE), Armenia, China (Wei et al., 2006), Korean Peninsula, Japan (Hok, Hon).
- Tenthredo (Tenthredella) ferruginea** Schrank, 1776 (*T. ferruginea* O.F. Müller, 1776; *T. rufipennis* Fabricius, 1793; *T. rufiventris* Panzer, 1799; *T. conspicua* Klug, 1817; *T. schranckii* Lepelletier, 1823; *Allantus laticinctus* Stephens, 1835; *Tenthredo rubecula* Eversmann, 1847; *T. prospera* Erichson, 1851; *T. gynecandromorpha* Rudow, 1871; *T. leucocera* Mocsáry, 1909; *T. minuta* Mocsáry, 1909; *Tenthredella dentina* Enslin, 1912; *T. ferruginea leucaspis* Enslin, 1912; *Tenthredo ferruginea rufisternis* Enslin, 1920; *Tenthredella ferruginea frontalis* Pic, 1940; *Perineura sawai* Togashi, 2007). Host plant: Salicaceae, Betulaceae, Rosaceae, ferns, etc. Russia: **EP** (NW, C, E, NC), **UR**, **WS** (AL), **ES** (BR, YA), **FE** (AM, KH, PR, SA, KU, KA, MG). – Europe (WE, EE, NE), Armenia, Turkey, China (NE, CC, SE), Korean Peninsula, Japan (Hok, Hon, Sado), SE Asia.
- Tenthredo (Tenthredella) gifui** Marlatt, 1898 (*T. gifuensis* Konow, 1905; *T. filamentosa* Enslin, 1920). Host plant: Stellaria spp. (Caryophyllaceae). Russia: **FE** (SA). – Japan (Hok, Hon, Shi, Kyu).
- Tenthredo (Tenthredella) kurilensis** (Takeuchi, 1931) [Tenthredella]. Russia: **WS** (AL), **FE** (KU). – Japan (Hok, Hon).

- Tenthredo (Tenthredella) leleji** Taeger, Wei et Shinohara, 2016. Russia: **FE** (SA). – Japan (Hok, Hon).
- Tenthredo (Tenthredella) livida** Linnaeus, 1758 (*T. dubia* Ström, 1768; *T. lurida* Ph.L. Müller, 1775; *T. pellucida* O.F. Müller, 1776; *T. bipunctata* O.F. Müller, 1776; *T. annularis* Schrank, 1776; *T. albicornis* Geoffroy, 1785; *T. maura* Fabricius, 1793; *T. carpini* Panzer, 1799; *Allantus aterrimus* Stephens, 1835; *Tenthredella livida clara* Enslin, 1912; *T. livida rubripes* Forsius, 1918; *T. livida rubeola* Forsius, 1918). Host plant: Oleaceae, Lamiaceae, Salicaceae, Caprifoliaceae, Onagraceae, Rosaceae, Betulaceae, Plantaginaceae, etc. Russia: **EP** (NW, C, E, S, NC), **UR**, **WS** (Zhelochovtsev, 1988), **ES** (KR), **FE** (AM, KA). – Europe (WE, EE, NE, SE), Georgia, Armenia, Turkey.
- Tenthredo (Tenthredella) luteipennis** Eversmann, 1847 (*T. fallax* Mocsáry, 1880; *T. mocsaryi* André, 1882; *T. menetriesii* W.F. Kirby, 1882; *Tenthredella luteipennis obscuraria* Enslin, 1913). Russia: **EP** (S, NC). – Georgia, Armenia, SW Asia, Tadjikistan.
- Tenthredo (Tenthredella) mandibularis** Fabricius, 1804 (*T. rufipes* Gmelin, 1790). Host plant: *Tussilago farfara*, *Petasites* spp. (Asteraceae). Russia: **EP** (C, S), **WS** (NS). – Europe (WE, EE, NE, SE), Caucasus.
- Tenthredo (Tenthredella) moniliata** Klug, 1817 (*T. fuscicornis* Eschscholtz, 1822; *Allantus bimaculatus* Gimmerthal, 1836; *Tenthredo poecila* Eversmann, 1847; *T. flavilabris* Gimmerthal, 1847; *T. scita* Erichson, 1851; *T. lachlaniana* Cameron, 1878; *T. poecilopus* Mocsáry, 1880; *T. lachlaniana rubripes* Jakovlev, 1888; *T. lachlaniana immaculata* Jakovlev, 1888; *T. ruthena* Jakovlev, 1891; *T. forsii* Konow, 1908; *T. ruficornis* Mocsáry, 1909; *Tentredella fuscicornis norvegica* Forsius, 1918; *T. moniliata flavoscutellata* Forsius, 1918; *Tenthredo moniliata immaculosa* Enslin, 1920; *T. moniliata paria* Enslin, 1920; *T. moniliata menyanthidis* Torka, 1929). Host plant: Menyanthaceae, Ranunculaceae, Asteraceae, Rosaceae, Betulaceae, etc. Russia: **EP** (NW, C, E), **UR**, **WS** (AL), **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, KA, MG). – Europe (WE, EE, NE), Armenia, Mongolia, China (NE, NC, NE, SE), Korean Peninsula.
- Tenthredo (Tenthredella) oryssoides** Jakovlev, 1888 (*T. discophora* Konow, 1896; *T. discophora pullata* Konow, 1898; *T. bigemmis* Konow, 1903; *T. discophora rosea* Enslin, 1913). Russia: **EP** (NC). – Georgia, Armenia, Turkey.
- Tenthredo (Tenthredella) peninsularis** Malaise, 1931. Russia: **ES** (YA), **FE** (AM, KA).
- Tenthredo (Tenthredella) procera** Klug, 1817 (*T. griboi* Costa, 1894). Host plant: *Symphytum* spp. (Boraginaceae), *Petasites* spp. (Asteraceae). Russia: **EP** (C). – Europe (WE, EE).
- Tenthredo (Tenthredella) purpurea** Puls, 1870 (*T. koenigi* Konow, 1896). Russia: **EP** (NC). – Georgia, Armenia, SW Asia.
- Tenthredo (Tenthredella) rubricoxis** (Enslin, 1912) [*Tenthredella*] (*T. rufipes* Klug, 1817). Host plant: *Senecio* spp. (Asteraceae). Russia: **EP** (N), **WS** (TM, NS, KM), **FE** (PR, MG). – Europe (WE, EE).
- Tenthredo (Tenthredella) serradifera** Conde, 1935. Russia: **FE** (SA).
- Tenthredo (Tenthredella) silensis** Costa, 1859 (*T. limbata* Klug, 1817; *T. quadridens* Strobl, 1896; *T. limbata nigrifemur* Conde, 1934; *T. oraria* Zombori, 1973). Host plant: Lamiaceae, Ranunculaceae, Rosaceae, Liliaceae, etc. Russia: **EP** (NW, C, E), **UR**, **WS** (AL), **ES** (TU, IR, BR, YA), **FE** (KH, AM, SA, KU, KA, MG). – Europe (WE, EE, NE), Mongolia, Korean Peninsula, Japan (Hok, Hon, Sado).
- Tenthredo (Tenthredella) sobrina** Eversmann, 1847 (*Allantus semenowi* Jakovlev, 1891; *Tenthredo semenovi pleuronotata* Forsius, 1934). Russia: **EP** (C, E, S, NC), **UR**. – Europe (EE), Kazakhstan.
- Tenthredo (Tenthredella) solitaria solitaria** Scopoli, 1763 (*T. coryli* Panzer, 1799; *T. intermedia* Klug, 1817; *T. coryli albicolon* Klug, 1817; *T. ictERICA* Costa, 1894; *T. solitaria seeboldi* Konow, 1897; *Tenthredella solitaria rufoterminata* Enslin, 1912; *T. solitaria rhennensis* Koorneef, 1935; *Tenthredo saxonica* Muche, 1968; *T. solitaria vitoshensis* Vassilev, 1973). Host plant: *Euphorbia* spp. (Euphorbiaceae). Russia: **EP** (NC, C). – Europe (WE, EE, SE), Armenia.
- Tenthredo (Tenthredella) solitaria xylota** (Jakovlev, 1891) [*Allantus*]. Host plant: *Euphorbia* spp. (Euphorbiaceae). Russia: **WS** (Zhelochovtsev, Zinovjev, 1996), **ES** (IR, YA), **FE** (PR). – Kyrgystan.
- Tenthredo (Tenthredella) stigma** (Forsius, 1918) [*Tenthredella*] (*T. amplicapitata* Zombori, 1974). Russia: **FE** (AM, SA). – Korean Peninsula.
- Tenthredo (Tenthredella) velox nigrofemorata** (Takeuchi, 1955) [*Tenthredella*]. Host plant: *Geranium* spp. (Geraniaceae). Russia: **FE** (SA, KU). – Korean Peninsula, Japan (Hok, Hon).
- Tenthredo (Tenthredella) velox velox** Fabricius, 1798 (*T. biguttata* Hartig, 1837; *T. leucostoma* Rudow, 1871; *T. gracilentata* Mocsáry, 1879; *T. sylvia*



- W.F. Kirby, 1882; *T. velox sibirica* Konow, 1903; *T. velox bisignata* Konow, 1908; *Tenthredella velox colonoides* Forsius, 1918; *Tenthredo velox alpina* Zirngiebl, 1937; *T. velox nigripleuris* Zirngiebl, 1937). Host plant: Polygonum spp. (Polygonaceae), Alnus spp. (Betulaceae), Salix spp. (Salicaceae). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (NS, KM, AL), **ES** (IR, BR, YA), **FE** (AM, KH, PR, MG). – Europe (WE, EE, NE, SE), Mongolia.
- Tenthredo (Tenthredella) versuta** Mocsáry, 1909 (*Tenthredella hakonensis* Rohwer, 1910). Russia: **FE** (SA). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Tsushima).
- Tenthredo (Tenthredina) cylindrica** (Rohwer, 1911) [Tenthredina] (*Conospidia umbrosa* Matsumura, 1912). Russia: **FE** (PR). – China (SE), Japan (Hok, Hon, Shi, Kyu).
- Tenthredo (Tenthredo) alaskana** (Enslin, 1910) [Allantus] (*Allantus heraclei* Kincaid, 1900). Russia: **ES** (YA). – N America.
- Tenthredo (Tenthredo) albiventris albiventris** (Mocsáry, 1880) [Allantus] (*Allantus trivittatus* André, 1881; *A. kussariensis* Konow, 1888; *A. lederi* Konow, 1890; *Tenthredo albiventris hostia* Enslin, 1912; *T. pallidula* Benson, 1930; *T. kerketa* Dohnar-Zapolskij, 1930). Imago on Conium spp. (Asteraceae). Russia: **EP** (NC). – Europe (WE, SE), Georgia, Armenia, Turkey.
- Tenthredo (Tenthredo) arctica** (Thomson, 1870) [Eniscia] (*Ischyroceraea hyperborea* Kiær, 1898). Host plant: Trifolium repens (Fabaceae); imago on Apiaceae and others. Russia: **EP** (N), **WS** (TM), **ES** (KR, BR, YA), **FE** (CH). – Europe (NE), N America.
- Tenthredo (Tenthredo) arcuata** Förster, 1771 (*Allantus arcuatus alpigena* Heller et Dalla Torre, 1883; *A. clypealis* Konow, 1888). Host plant: Trifolium spp. (Fabaceae). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (TK, NS), **ES** (KR, YA, ZB). – Europe (WE, EE, NE, SE), Armenia, Turkey, Iran, Mongolia, China (Wei et al., 2006).
- Tenthredo (Tenthredo) arcuatoides** Muche, 1965. Russia: **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR).
- Tenthredo (Tenthredo) brevicornis** (Konow, 1886) [Allantus] (*T. cingulata* Fabricius, 1793; *Allantus arcuatus nitidior* Konow, 1888; *Tenthredo aegra* Enslin, 1912; *Allantus arcuatus vitosaensis* Gregor, 1932; *Tenthredo acerrima* Benson, 1952). Host plant: Lotus corniculatus (Fabaceae). Russia: **EP** (C, NC), **ES** (IR, BR), **FE** (PR, KA). – Europe (WE, EE, SE), Georgia, Armenia, Turkey, Mongolia, China (NC).
- Tenthredo (Tenthredo) calvaria** Enslin, 1912 (*Allantus lateralis* Mocsáry, 1909). Russia: **WS** (NS), **ES** (BR, ZB), **FE** (AM, KH, PR). – Mongolia.
- Tenthredo (Tenthredo) devia** (Konow, 1900) [Allantus]. Host plant: polyphage. Russia: **EP** (N), **WS** (TM, AL), **ES** (TU, KR, BR, YA, ZB), **FE** (KU, KA, MG). – Europe (NE), Mongolia, Korean Peninsula, Japan (Hok, Hon), N America.
- Tenthredo (Tenthredo) erasina** Malaise, 1945 (*T. flavipleuris* Muche, 1986). Russia: **ES** (ZB), **FE** (AM, PR). – Mongolia, China (NE).
- Tenthredo (Tenthredo) fuscocostalis** Rohwer, 1925. Russia: **FE** (AM, KH, PR, SA). – Korean Peninsula.
- Tenthredo (Tenthredo) jacutensis** (Konow, 1897) [Allantus]. Imago on various flowers. Russia: **EP** (N), **WS** (TM), **ES** (KR, BR, YA, ZB), **FE** (AM, KH, PR, SA, MG). – Mongolia, Japan (Hok).
- Tenthredo (Tenthredo) korabica** Taeger, 1985. Host plant: polyphage. Russia: **EP** (NC), “Siberia” (Lacourt, 1999). – Europe (WE, EE), Turkey, Mongolia.
- Tenthredo (Tenthredo) liturata** (Mocsáry, 1886) [Allantus] (*Allantus reitteri* Konow, 1886; *Tenthredo reitteri egregia* Enslin, 1914). Russia: **EP** (NC). – Georgia, Armenia, Turkey.
- Tenthredo (Tenthredo) luteocincta** Eversmann, 1847 (*T. luteocincta virago* Enslin, 1913). Russia: **EP** (S). – Georgia, Armenia, Turkey.
- Tenthredo (Tenthredo) marginella fuscipennis** (Konow, 1886) [Allantus] (*T. marginella nigrior* Enslin, 1912). Russia: **EP** (NC). – Armenia.
- Tenthredo (Tenthredo) marginella marginella** Fabricius, 1793 (*T. sigma* Schrank, 1802; *T. succincta* Lepeletier, 1823; *T. succincta* Serville, 1823; *Allantus decipiens* Förster, 1844; *A. heraclei* Rudow, 1872; *A. omissoides* Jakovlev, 1891; *A. amaenus sabandus* Pic, 1925; *A. marginellus nigroscutellatus* Zirngiebl, 1942; *A. marginellus melanomerus* Zirngiebl, 1942). Host plant: Mentha spp. (Lamiaceae), Plantago spp. (Plantaginaceae), etc. Russia: **EP** (C, E), **UR**, **WS** (TK, NS), **ES** (KR). – Europe (WE, EE, NE, SE), Kyrgyzstan, Kazakhstan.
- Tenthredo (Tenthredo) mongolica** (Jakovlev, 1891) [Allantus] (*T. coreana* Takeuchi, 1927; *T. coreana nigripes* Takeuchi, 1927; *T. erasa* Malaise, 1945). Russia: **WS** (AL), **ES** (TU, BR, ZB), **FE** (AM, KH, PR). – Mongolia, China (NE, NC, CC), Korean Peninsula.
- Tenthredo (Tenthredo) nigripleuris** (Enslin, 1910) [Allantus] (*T. nivalis* Lacourt, 1985). Russia: **EP**

- (N), **WS** (TM), **ES** (YA), **FE** (KA). – Europe (WE, EE), Japan (Hok, Hon).
- Tenthredo (Tenthredo) notha notha** Klug, 1817 (*Allantus perkinsi* Morice, 1919; *A. arcuatus niger* Zirngiebl, 1937). Host plant: *Trifolium* spp., *Vicia* spp. (Fabaceae). Russia: **EP** (N, C, E), **UR**, **WS** (TK, NS, KM, AL), **ES** (KR, IR, ZB). – Europe (WE, EE, NE, SE), Kazakhstan, China (Wei et al., 2006).
- Tenthredo (Tenthredo) notha titania** Benson, 1959. Host plant: *Trifolium* spp., *Vicia* spp. (Fabaceae). Russia: **EP** (NC). – Caucasus, Turkey, Iran.
- Tenthredo (Tenthredo) omissa** (Förster, 1844) [Allantus] (*T. omissa melanoceraea* Enslin, 1912; *T. omissa melanomeros* Enslin, 1912; *T. omissa schirmeri* Enslin, 1918). Host plant: *Plantago* spp. (Plantaginaceae). Russia: **EP** (NW, C, E, S), **WS** (TM, OM, TK, NS, KM), **ES** (KR, IR), **FE** (AM, PR). – Europe (WE, EE, NE, SE), Turkey, Kazakhstan.
- Tenthredo (Tenthredo) pamyrensis** Jakovlev, 1888. Russia: **ES** (KS). – Tadjikistan, Kyrgyzstan, Kazakhstan.
- Tenthredo (Tenthredo) propinqua** Klug, 1817. Russia: **EP** (CR). – Europe (WE, EE, SE), Caucasus, Turkey.
- Tenthredo (Tenthredo) schaefferi** Klug, 1817 (*Allantus costalis* Costa, 1858). Host plant: *Trifolium* spp., ?*Vicia* spp. (Fabaceae). Russia: **EP** (E), **UR**, **WS** (TK, NS, AL), **ES** (BR, ZB), **FE** (MG). – Europe (WE, EE, NE, SE).
- Tenthredo (Tenthredo) scrophulariae** Linnaeus, 1758 (*Allantus scrophulariae joannis* Pic, 1926; *A. scrophulariae repartitus* Pic, 1926; *A. scrophulariae moroandicus* Pic, 1926; *A. scrophulariae brannensis* Pic, 1926). Host plant: *Scrophularia* spp., *Verbascum* spp. (Scrophulariaceae). Russia: **EP** (NW, C, E, NC). – Europe (WE, EE, NE, SE), Armenia, Turkey.
- Tenthredo (Tenthredo) sulphuripes muchei** Koch, 1986. Russia: **ES** (IR, BR). – Mongolia, China (SW).
- Tenthredo (Tenthredo) sulphuripes sulphuripes** (Kriechbaumer, 1869) [Allantus] (*T. beaumonti* Benson, 1950). Host plant: *Bupleurum* spp. (Asteraceae). Russia: **EP** (NC). – Europe (WE, EE, SE).
- Tenthredo (Tenthredo) vespa** Retzius, 1783 (*T. viminalis* Schrank, 1796; *T. sexannulata* Schrank, 1802; *T. vespiformis* Latreille, 1804; *T. 3 cincta* Fabricius, 1804; *T. 4-cincta* Fallén, 1808; *Allantus multifasciatus* Rudow, 1872; *A. multicinctus* Rudow, 1872; *A. nigrilabris* Frivaldszky, 1877; *Tenthredo vespa stigmatica* Enslin, 1912; *T. vespa omnincincta* Enslin, 1912; *T. vespa vittozi* Pic, 1933; *Allantus vespa mequignoni* Pic, 1940; *A. vespa monetierensis* Pic, 1940; *Tenthredo vespa inaffectata* Muche, 1965). Host plant: *Spiraea* spp. (Rosaceae), *Lonicera* spp. (Caprifoliaceae), *Viburnum* spp. (Adoxaceae), *Syringa* spp. (Oleaceae), etc. Russia: **EP** (NW, C, E, NC), **UR**, **WS** (NS), **ES** (IR, BR). – Europe (WE, EE, NE, SE), Georgia, Armenia, Turkey, Mongolia, China (Wei et al., 2006).
- Tenthredo (Zonuledo) amoena** Gravenhorst, 1807 (*T. 2 cincta* Fabricius, 1798; *T. bicincta* Panzer, 1804; *T. cingulum* Klug, 1817; *Allantus quinquecinctus* Gimmerthal, 1834; *A. inversus* Costa, 1894; *A. amaenus lateniger* Pic, 1925; *A. amaenus seminiger* Pic, 1925; *A. amaenus breviniger* Pic, 1925; *A. amaenus lateluteus* Pic, 1925; *A. amaenus digoniensis* Pic, 1927; *A. amaenus mediomaculatus* Pic, 1927; *A. amaenus multiluteus* Pic, 1927; *A. amaena robustior* Pic, 1940). Host plant: *Hypericum maculatum*, *H. perforatum* (Hypericaceae). Russia: **EP** (NW, C, E). – Europe (WE, EE, NE, SE).
- Tenthredo (Zonuledo) flavipennis** Brullé, 1832 (*Allantus frivaldszkyi* Mocsáry, 1879; *A. lautus* Konow, 1891; *A. luminosus* Konow, 1899). Russia: **EP** (S, NC). – Europe (EE, SE), Caucasus, SW Asia.
- Tenthredo (Zonuledo) zonula** Klug, 1817 (*T. fasciata* Scopoli, 1763; *T. bifasciata* Geoffroy, 1785; *T. bicincta flava* Christ, 1791; *Allantus similis* Mocsáry, 1880; *A. calcaratus* André, 1881; *A. scutellaris* Konow, 1898). Host plant: *Hypericum perforatum* (Hypericaceae). Russia: **EP** (NW, C, E, S, NC). – Europe (WE, EE, NE, SE), N Africa, Armenia, SW Asia, Iran, Central Asia.
- Tenthredo abdominalis** (Marsumura, 1912) [Tenthredopsis] (*T. sortitor* Malaise, 1938). Russia: **FE** (SA, KU). – China (SE), Korean Peninsula, Japan (Hok, Hon), India, Sikkim.
- Tenthredo atroclypeata** Enslin, 1920. Russia: **ES** (IR).
- Tenthredo atra obscurata** Jakovlev, 1888. Russia: **ES** (IR).
- Tenthredo caligator** Eversmann, 1847 (*T. nigratarsis* Puls, 1870; *T. morawitzi* Jakovlev, 1888). Russia: **EP** (S, NC). – Georgia, Armenia, SW Asia.
- Tenthredo cingulifer** (Konow, 1899) [Allantus] (*Allantus almasyanus* Mocsáry, 1909). Russia: **WS** (AL), **ES** (TU). – Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NW).
- Tenthredo emphytiformis** Malaise, 1931. Russia: **FE** (KH, PR, KU, KA). – China (Wei et al., 2006), Japan (Hok, Hon, Shi), SE Asia.
- Tenthredo erebia** (Kuznetzov-Ugamskij, 1927) [Tenthredella]. Russia: **FE** (PR).

- Tenthredo flavomandibulata** (Matsumura, 1912) [Tenthredopsis]. Russia: **FE** (SA, KU). – Korean Peninsula, Japan (Hok, Hon).
- Tenthredo gracilis** (Forsius, 1918) [Tenthredella]. Russia: **FE** (PR).
- Tenthredo intercincta** (Malaise, 1934) [Allantus]. Russia: **FE** (PR). – China (NC).
- Tenthredo kotenkoi** Ermolenko, 1992. Russia: **ES** (ZB).
- Tenthredo longipennis** (Matsumura, 1912) [Allantus] (*T. grandiceps* Malaise, 1938). Russia: **FE** (SA, KU). – Japan (Hok, Hon, Shi).
- Tenthredo mitsuhashii** (Matsumura, 1912) [Macrophya]. Russia: **FE** (SA, KU). – Japan (Hok, Hon).
- Tenthredo omega** (Takeuchi, 1936) [Tenthredella]. Russia: **FE** (SA, KU). – Japan (Hok, Hon, Shi).
- Tenthredo provida** (F. Smith, 1878) [Allantus] (*T. providus concolor* Malaise, 1945; *T. providus fletcheri* Malaise, 1945; *T. providus altaica* Stroganova, 1980). Russia: **WS** (AL). – China (NW), India (NW).
- Tenthredo providens** F. Smith, 1874 (*T. providentia* Enslin, 1920). Host plant: Oenanthe spp., Cryptotaenia spp., Peucedanum spp., Angelica spp. (Apiaceae). Russia: **FE** (KU). – Japan (Hok, Hon, Shi, Kyu, Sado, Awashima).
- Tenthredo pseudolivacea** Malaise, 1931. Russia: **FE** (PR).
- Tenthredo sibirica** (Kriechbaumer, 1869) [Allantus] (*T. spectabilis* Mocsáry, 1878; *Allantus cephalotes* Jakovlev, 1888; *Jermakia japonica* Rohwer, 1910; *Allantus bicinctus* Matsumura, 1912; *A. bistriatus* Mallach, 1936). Host plant: Dasiphora spp. (Rosaceae), Ranunculus spp. (Ranunculaceae). Russia: **WS** (AL), **ES** (IR, ZB), **FE** (AM, PR, SA, KU). – Mongolia, China (NC, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu), SE Asia.
- Tenthredo tenuipennis** Malaise, 1931. Russia: **FE** (KH, PR). – China (NE, CC), Korean Peninsula.
- Tenthredo tumida tumida** (Mocsáry, 1909) [Allantus] (*Tenthredella excellens* Kuznetsov-Ugamskij, 1927). Russia: **FE** (AM, KH, PR). – China (NE, SE), Korean Peninsula.
- Tenthredo variicolor** Malaise, 1945. Russia: **FE** (PR). – China (SW), India.
- Tenthredo xanthotarsus** Cameron, 1876. Russia: **WS** (AL), **FE** (AM, SA, KU). – Japan (Hok, Hon, Shi).
- Tenthredo yezoensis** Kumamoto, 1987. Russia: **FE** (SA). – Japan (Hok).
- TENTHREDOPSIS** Costa, 1859 (*Ebolia* Costa, 1859; *Thomsonia* Konow, 1884; *Eutenthredopsis* Enslin, 1913). Type species *Tenthredo tessellata* Klug, 1817. The larvae on Poaceae, less often on Cyperaceae, Juncaceae, Acoraceae. The genus is distributed in Palaearctic, mainly in west part; two species in Oriental region. Number of species: World and Palaearctic – about 60; Russia – 30 (+ 1 ssp.).
- Tenthredopsis annuligera** (Eversmann, 1847) [Tenthredo] (*Tenthredo albopunctata* Tischbein, 1852; *T. picticornis* Mocsáry, 1880; *T. basimacula* Mocsáry, 1880; *Tenthredopsis casia* Konow, 1898; *T. triforis* Konow, 1898; *T. quadrannulata* Konow, 1898). Host plant: Poaceae. Russia: **EP** (S, CR). – Europe (EE, SE).
- Tenthredopsis auriculata** (Thomson, 1870) [Perineura] (*Tenthredo sachalinensis* Matsumura, 1911; *Tenthredopsis camtschatcalis* Enslin, 1927; *T. camtschatcalis lucens* Enslin, 1927; *T. auriculata camtschatica* Forsius, 1928; *T. sachalinensis nigrolineatus* Takeuchi, 1936). Host plant: Calamagrostis spp. (Poaceae). Russia: **EP** (N, NW, E), **UR**, **WS** (TM), **ES** (IR, BR), **FE** (AM, KH, PR, SA, KA). – Europe (NE).
- Tenthredopsis carinata carinata** Malaise, 1931. Host plant: Poaceae. Russia: **WS** (Zhelochovtsev, Zinovjev, 1996), **ES** (TU, IR), **FE** (KA). – Europe (NE).
- Tenthredopsis carinata japonica** Takeuchi, 1956. Host plant: Poaceae. Russia: **FE** (SA, KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Tenthredopsis coquebertii** (Klug, 1817) [Tenthredo] (*Tenthredo labiata* Serville, 1823; *T. labiata* Lepeletier, 1823; *T. rufimana* Spinola, 1843; *Perineura lusitanica* André, 1881; *Tenthredopsis nigricollis* Cameron, 1881; *T. conjungens* Kriechbaumer, 1884; *T. limbilabris* Kriechbaumer, 1884; *Thomsonia braunsii* Konow, 1884; *Tenthredopsis opulenta* Konow, 1887; *T. coqueberti brunnescens* Enslin, 1918; *T. coqueberti nigrata* Gregor, 1941). Host plant: Poaceae. Russia: **ES** (BR). – Europe (WE, EE, SE), China (Wei et al., 2006).
- Tenthredopsis discrepans** Konow, 1890. Russia: **EP** (NC). – Georgia, Armenia.
- Tenthredopsis festiva** Konow, 1890. Russia: **EP** (NC). – Armenia, Azerbaijan, Turkey.
- Tenthredopsis friesei** (Konow, 1884) [Thomsonia] (*Thomsonia laticeps* Konow, 1884; *Tenthredopsis korlevici* Konow, 1887; *T. arrogans* Konow, 1890; *T. nigroscutellata* Konow, 1904; *T. arrogans erythrocoele* Enslin, 1913). Host plant: Calamagrostis spp., Holcus spp. (Poaceae), Juncus spp. (Juncaceae).

- Russia: **EP** (NW, C, E, S, NC), **UR**, **WS** (TM, KM), **ES** (IR). – Europe (WE, EE, NE, SE), Kazakhstan.
- Tenthredopsis gracilis** Jakovlev, 1891. Russia: **ES** (KR).
- Tenthredopsis hungarica** (Klug, 1817) [Tenthredo] (*T. sareptana* Konow, 1894; *T. hungarica atrilobis* Enslin, 1913). Host plant: Poaceae. Russia: **EP** (C, E, S, NC), **UR**, **WS** (KM). – Europe (EE), Kazakhstan, Mongolia.
- Tenthredopsis jakowleffi** Konow, 1896. Russia: **ES** (IR, BR).
- Tenthredopsis kokuewi** Jakovlev, 1891. Russia: **EP** (C).
- Tenthredopsis lactiflua** (Klug, 1817) [Tenthredo] (*T. lactiflua plaga* Enslin, 1913; *T. lactiflua liturata* Enslin, 1913). Host plant: Poaceae. Russia: **EP** (S), **WS** (Zhelochovtsev, Zinovjev, 1996), **ES** (TU, IR). – Europe (WE, EE), Georgia, Kazakhstan.
- Tenthredopsis languida** (Erichson, 1851) [Tenthredo]. Russia: **ES** (IR), **FE** (KH).
- Tenthredopsis ligata** Konow, 1903. Russia: **EP** (NC, CR). – Europe (EE).
- Tenthredopsis litterata** (Geoffroy, 1785) [Tenthredo] (*Tenthredo carbonaria* Linnaeus, 1767; *T. cordata* Geoffroy, 1785; *T. thoracica* Geoffroy, 1785; *T. varia* Gmelin, 1790; *T. flavipes* Christ, 1791; *T. cruciata* Christ, 1791; *T. dimidiata* Fabricius, 1804; *T. rubiginosa* Drapiez, 1819; *T. microcephala* Lepeletier, 1823; *T. microcephala* Serville, 1823; *T. caliginosa* Stephens, 1835; *T. femoralis* Stephens, 1835; *T. analis* Stephens, 1835; *T. orbitalis* Dietrich, 1868; *Tenthredopsis nigriceps* Cameron, 1881; *T. nigronotatus* Cameron, 1881; *Thomsonia thomsoni* Konow, 1884; *Tenthredopsis thomsoni concolor* Konow, 1887; *T. thomsoni nigripes* Konow, 1890; *T. pallida* Konow, 1896; *T. litterata bicolor* Enslin, 1913; *T. litterata melaena* Enslin, 1918; *T. litterata variana* Enslin, 1918; *T. litterata subcarpathica* Gregor, 1927; *T. carbonaria medionotata* Pic, 1948). Host plant: Dactylis spp., Agrostis spp., Calamagrostis spp. (Poaceae). Russia: **EP** (NW, C, E, S, NC), **UR**, **WS** (OM). – Europe (WE, EE, NE, SE), N Africa, Georgia, Turkey.
- Tenthredopsis moscovita** (André, 1881) [Perineura]. Russia: **EP** (C).
- Tenthredopsis nassata** (Linnaeus, 1767) [Tenthredo] (*Tenthredo alneti* Schrank, 1781; *T. perlata* Geoffroy, 1785; *T. apicalis* Geoffroy, 1785; *T. subulata* Gmelin, 1790; *T. melanorhoea* Gmelin, 1790; *T. napata* Turton, 1802; *Allantus tiliae* Panzer, 1803; *Tenthredo ambigua* Klug, 1817; *T. instabilis* Klug, 1817; *T. fulviceps* Stephens, 1835; *T. tristis* Stephens, 1835; *Perineura brevispina* Thomson, 1870; *Tenthredopsis lividiventris* Cameron, 1881; *T. saundersi* Cameron, 1881; *T. inornatus* Cameron, 1881; *T. albomaculatus* Cameron, 1881; *T. dorsivittatus* Cameron, 1881; *Perineura scutellaris flavoguttata* Magretti, 1882; *Thomsonia josephi* Konow, 1884; *Th. obscura* Konow, 1884; *Th. raddatzi* Konow, 1884; *Th. elegans* Konow, 1884; *Tenthredopsis gibberosa* Konow, 1887; *T. fenestrata* Konow, 1890; *T. dorsalis biguttata* Konow, 1890; *T. dorsalis diluta* Konow, 1890; *T. raddatzi indocilis* Konow, 1890; *T. raddatzi dorsata* Konow, 1890; *T. raddatzi vittata* Konow, 1890; *T. raddatzi maura* Konow, 1890; *T. raddatzi inornata* Konow, 1890; *T. raddatzi sagmaria* Konow, 1890; *T. nassata rufata* Konow, 1890; *T. austriaca obscurata* Konow, 1890; *T. elegans nigronotata* Konow, 1890; *T. dorsalis tirolensis* Konow, 1892; *T. konowi* Strobl, 1896; *T. nassata pleurosternalis* Enslin, 1913; *T. parvula atripleuris* Enslin, 1913; *T. parvula atrilobis* Enslin, 1913; *T. parvula atrifemoribus* Enslin, 1913; *T. parvula rubriventris* Enslin, 1913; *T. parvula atramentaria* Enslin, 1913; *T. austriaca rufofemorata* Enslin, 1913; *T. austriaca albata* Enslin, 1913; *T. austriaca candida* Enslin, 1913; *T. nassata metapleuris* Enslin, 1913; *T. nassata trichroma* Enslin, 1913; *T. tristior* Morice, 1914; *T. inornata melanaspis* Enslin, 1918; *T. nassata nigerrima* Endre, 1927; *T. parvula nigriblobis* Zirngiebl, 1937; *T. fenestrata quadripunctata* Gregor, 1941; *T. dubia scutellaris* Gregor, 1941; *T. nassata martialis* Pic, 1948; *T. nassata buyssoni* Pic, 1948; *T. virgineus* Muche, 1965; *T. coqueberti ulanbatorensis* Muche, 1965). Host plant: Poaceae, Cyperaceae. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (NS), **ES** (BR, ZB), **FE** (AM, PR, SA, KU, MG). – Europe (WE, EE, NE, SE), Georgia, Armenia, Turkey, Central Asia, Mongolia, China (CC), Japan.
- Tenthredopsis nigella** Konow, 1891. Russia: **EP** (NC). – Europe (SE), Caucasus, Turkey.
- Tenthredopsis nigrescens** Konow, 1897. Russia: **EP** (Lacourt, 1999). – Armenia.
- Tenthredopsis ornata** (Serville, 1823) [Tenthredo] (*Tenthredo neglecta* Serville, 1823; *T. ornata* Lepeletier, 1823; *T. neglecta* Lepeletier, 1823; *Perineura excisa* Thomson, 1870; *Thomsonia excisa binotata* Konow, 1884; *Tenthredopsis excisa atriscutis* Enslin, 1918). Host plant: Poaceae. Russia: **EP** (N, NW, C, E, S, NC), **UR**. – Europe (WE, EE, NE, SE), Armenia.
- Tenthredopsis ornatrix** Konow, 1890. Russia: **EP** (NC). – Europe (EE), Armenia.

- Tenthredopsis rufa** Konow, 1890. Russia: **EP** (NC). – Georgia, Azerbaijan.
- Tenthredopsis scutellaris** (Fabricius, 1804) [Tenthredo] (*Tenthredo sprete* Serville, 1823; *T. dorsalis* Serville, 1823; *T. sprete* Lepeletier, 1823; *T. dorsalis* Lepeletier, 1823; *Tenthredopsis flavomaculatus* Cameron, 1881; *T. picticeps* Cameron, 1881; *Perineura scutellaris baldensis* Heller et Dalla Torre, 1883; *Tenthredopsis albipleuris* Konow, 1886; *T. puncticollis* Konow, 1890; *T. austriaca* Konow, 1890; *T. dubia* Konow, 1890; *T. parvula* Konow, 1890; *T. franki* Konow, 1890; *T. thornleyi* Konow, 1899; *T. puncticollis mediatra* Enslin, 1913; *T. flavomaculata centronigrata* Enslin, 1913; *T. nassata intermedia* Hellén, 1943). Host plant: Poaceae. Russia: **EP** (NC). – Europe (WE, EE, NE, SE).
- Tenthredopsis sordida** (Klug, 1817) [Tenthredo] (*T. sordida atriventris* Enslin, 1913; *T. sordida pleuritica* Enslin, 1913). Host plant: Arrhenatherum spp., Lolium spp., Calamagrostis spp., Dactylis spp. (Poaceae), Carex spp. (Cyperaceae). Russia: **EP** (S). – Europe (WE, EE, NE, SE), Turkey.
- Tenthredopsis sororia** Konow, 1898. Russia: **EP** (NC). – Armenia, Azerbaijan.
- Tenthredopsis stigma** (Fabricius, 1798) [Tenthredo] (*Tenthredo dorsalis* Spinola, 1808; *T. histrio* Klug, 1817; *Tenthredopsis stigma genualis* Konow, 1890; *T. churchvillei* Konow, 1897; *T. stigma albonotata* Pigeot, 1917). Host plant: Elymus hispidus (Poaceae). Russia: **EP** (NW, C, E, S, NC), **UR**. – Europe (WE, EE, NE, SE).
- Tenthredopsis tarsata** (Fabricius, 1804) [Tenthredo] (*T. opacipleuris* Stein, 1884; *Thomsonia hilleckeii* Konow, 1884; *Tenthredopsis wuestneii* Stein, 1884). Host plant: Brachypodium sylvaticum (Poaceae). Russia: **EP** (C, S). – Europe (WE, EE, NE, SE).
- Tenthredopsis tessellata** (Klug, 1817) [Tenthredo] (*Tenthredo ischiadica* Eversmann, 1847; *T. ischiadica* Eversmann, 1864; *Perineura cylindrica* Rudow, 1871; *Tenthredopsis tessellata alboplagiata* Konow, 1890; *T. albata* Konow, 1904; *T. tessellata nigratileuris* Enslin, 1913; *T. tessellata nigratilobis* Enslin, 1913; *T. tessellata nigratiscutis* Enslin, 1913). Host plant: Deschampsia spp., Dactylis spp., Lolium spp. (Poaceae), Aira spp. (Acoraceae). Russia: **EP** (C, E, S), **UR**, **WS** (TK, NS). – Europe (WE, EE, SE), Armenia, Turkey, Iran, Kazakhstan, Mongolia.
- Tenthredopsis tischbeinii** (Frivaldszky, 1877) [Tenthredo] (*Tenthredo hungarica* Tischbein, 1852; *Perineura konowi* Lethierry, 1887; *Tenthredopsis fischbeini exannulata* Strobl, 1901; *T. pisinna* Konow, 1903; *T. andrei atronotata* Pic, 1948). Host plant: Poaceae. Russia: **EP** (C, S), **WS** (AL), **ES** (TU, IR, BR), **FE** (AM, MG). – Europe (WE, EE, SE), Kazakhstan, Mongolia.
- Tenthredopsis viridis** Zhelochovtsev, 1941. Russia: **EP** (NC). – Armenia.
- TIANMUTHREDO** Wei, 1997. Type species *Tianmuthredo nigrodorsata* Wei, 1997. The genus is distributed in Oriental and Palaearctic regions. Number of species: World – 2; Palaearctic and Russia – 1.
- Tianmuthredo davei** Taeger et Kramp, 2017. Russia: **FE** (PR).
- USSURINUS** Malaise, 1931. Type species *Ussurinus insignicornis* Malaise, 1931. The genus is distributed in Palaearctic. Only two species.
- Ussurinus insignicornis** Malaise, 1931. Russia: **FE** (PR).
- Ussurinus nobilis** Saarinen, 1945. Russia: **EP** (N). – Europe (NE).

**INFRAORDER SIRICOMORPHA**

**SUPERFAMILY PAMPHILIOIDEA**

Head closed ventrally, the clypeus being folded back underneath and joined by its lateral arms to the post-genae behind; the result of this is a capsule with 4 holes in it. Mesosternum triangular in shape, clearly defined by sutures and with a presternal bridge in front. Abdomen strongly flattened dorsiventrally.

Male genitalia orthandrious (not twisted). Female sawsheath not exerted strongly. Larva oligopodous.

The superfamily is distributed in North hemisphere, mainly in Temperate zone. Number of taxa: World – 2 families, 2 subfamilies, 11 genera, more than 330 species; Palaeartic – 2/2/11/about 240; Russia – 2/2/10/111 (+ 3 ssp.).

**8. FAMILY PAMPHILIIDAE**

Very flat and broad species, 7-17 mm long, sun-loving and very fast on the wing. Antennae long, thread-like and many-segmented (18-24 segments). Fore wings with vein *Sc* free and *2r* present. At least the middle and hind tibiae have preapical spines.

The larvae lives solitarly or socially. The larvae of the subfamily Cephalciinae feed on conifers, lives in a web; the larvae of the subfamily Pamphiliinae feed on angiosperms, lives in a web, or in a tube of a rolled leaf held by silk.

The family is distributed in Holarctic, Oriental and Neotropical regions, mainly in Temperate zone. Number of taxa: World – 2 subfamilies, 10 genera, about 300 species; Palaeartic – 2/10/>200; Russia – 2/9/99 (+ 3 ssp.).

**References.** Dalla Torre, 1894; Konow, 1903; Dovnar-Zapolskij, 1930; Gussakovskij, 1935; Malaise, 1943; Zhelochovtsev, 1968, 1976, 1988; Ermolenko, 1969, 1973, 1976, 1984; Beneš, 1972a,b, 1974, 1976a,b, 2014b; Verzhutskii, 1974, 1981; Zhelochovtsev, Prochorova, 1976; Stroganova, 1978b; Shinohara, 1979, 1980, 1987, 1988a,b, 1992a, 1993, 1995a, 1997a,b, 1998, 2000, 2001a,b, 2002b, 2003, 2005a; Koch, 1982; Achterberg, Aarsten, 1986; Shinohara, Byun, 1993, 1996; Zhelochovtsev, Zinovjev, 1995; Shinohara, Zinovjev, 1996; Shinohara, Lee, 1997; Shinohara, Hara, 2000; Xiao, 2000; Viitasaari, 2002; Shinohara, Zombori, 2003; Shinohara, Vasilenko, 2005; Vasilenko, Dolgov, 2005; Liston et al., 2006, 2014a; Piotrowski et al., 2006; Shinohara, Zhou, 2006; Taeger et al., 2006, 2010; Wei

et al., 2006; Shinohara, Lelej, 2007; Shinohara, Taeger, 2007; Roller, Haris, 2008; Gurov, Battisti, 2009; Schedl, 2009; Sundukov, 2009, 2011b, 2013, 2015; Sundukov, Lelej, 2009, 2012; Hara, 2010; Vasilenko, 2009b, 2010b; Taeger, Blank, 2011; Macek, 2012; Vasilenko, Korshunov, 2012; Ahn et al., 2013; Kulagin, Simonenkova, 2014; Sokolov, 2014; Beneš, Holuša, 2015; Kostyunin, 2015; Popov, 2015; Noblecourt, 2016; Hara, Shinohara, 2017; Shinohara, Kato, 2017.

Subfamily CEPHALCINAE

**ACANTHOLYDA** A. Costa, 1894 (*Acanthocnema* Costa, 1859; *Itycorsia* Konow, 1897). **Type species** *Tenthredo erythrocephala* Linnaeus, 1758. The larvae feed on the Pinus, Larix, Picea, Abies, Tsuga, Pseudotsuga (Pinaceae); singly or in groups weave nests from the web. The genus is distributed in Holarctic, Oriental and Neotropical regions; mainly in Holarctic. Number of species: World – > 70; Palaeartic – about 30; Russia – 8 (+ 1 ssp.) from 2 subgenera.

**Acantholyda (Acantholyda) erythrocephala** (Linnaeus, 1758) [*Tenthredo*] (*A. erythrocephala vittata* Enslin, 1918; *A. grangeoni* Riou, 1999). Host plant: Pinus spp. (Pinaceae); live in groups, often harm. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TK, NS, KM), **ES** (KR, IR, BR), **FE** (AM). – Europe (WE, EE, NE, SE), Kazakhstan, China (NE, NC), Korean Peninsula, N America.

**Acantholyda (Acantholyda) flaviceps** (Retzius, 1783) [*Tenthredo*] (*Lyda cyanea* Klug, 1808). Host plant: Pinus spp. (Pinaceae). Russia: **EP** (NW, C, E), **UR**, **WS** (KM, AL), **ES** (KR). – Europe (WE, EE, NE, SE).

**Acantholyda (Itycorsia) aglaia aglaia** Zhelochovtsev, 1968 (*A. angarica* Ermolenko, 1969). Host plant: Picea spp. (Pinaceae). Russia: **WS** (KM), **ES** (KR, IR), **FE** (KH, PR). – Japan (Hon).

**Acantholyda (Itycorsia) aglaia yezoensis** Shinohara et Hara, 2000. Host plant: Picea spp. (Pinaceae). Russia: **FE** (KU). – Japan (Hok).

**Acantholyda (Itycorsia) hieroglyphica** (Christ, 1791) [*Tenthredo*] (*Lyda bimaculata* Taschenberg, 1861). Host plant: Pinus spp. (Pinaceae); live alone. Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (NS, KM), **ES** (IR). – Europe (WE, EE, NE, SE), Caucasus, Kazakhstan.

**Acantholyda (Itycorsia) laricis** (Giraud, 1861) [*Lyda*] (*A. parvula* Zirngiebl, 1937). Host plant: Larix spp.

- (Pinaceae); often harm. Russia: **EP** (N, C), **UR**, **WS** (TK, AL), **ES** (IR, YA), **FE** (AM). – Europe (WE, EE, SE), China (NC), Japan (Hon).
- Acantholyda (Itycorsia) parki** Shinohara et Byun, 1996. Host plant: *Pinus koraiensis* (Pinaceae). Russia: **FE** (PR). – Korean Peninsula.
- Acantholyda (Itycorsia) pirica** Shinohara, 2000. Host plant: ?*Pinus pumila* (Pinaceae). Russia: **FE** (SA). – Japan (Hok).
- Acantholyda (Itycorsia) posticalis pinivora** Enslin, 1918 (*Tenthredo stellata* Christ, 1791; *T. pratensis* Fabricius, 1793; *Acantholida nemoralis magnini* Pic, 1944). Host plant: *Pinus* spp. (Pinaceae); often harm. Russia: **EP** (C), **UR**, **WS** (TK, NS, KM, AL), **ES** (YA, ZB). – Europe (WE, EE, NE, SE), Kazakhstan, Mongolia, China (NE, SE).
- CAENOLYDA** Konow, 1897 (*Dictyolyda* Semenov, 1934). Type species *Tenthredo reticulata* Linnaeus, 1758. The larvae feed on the *Pinus* spp. (Pinaceae). The genus is distributed in West Palaearctic. Number of species: World and Palaearctic – 2; Russia – 1.
- Caenolyda reticulata** (Linnaeus, 1758) [Tenthredo] (*Cephaleia clarkii* Jurine, 1807). Host plant: *Pinus* spp. (Pinaceae). Russia: **EP** (NW, C, E). – Europe (WE, EE, NE, SE).
- CEPHALCIA** Panzer, 1803 (*Cephaleia* Jurine, 1807; *Liolyda* Ashmead, 1898). Type species *Cephaleia arvensis* Panzer, 1803. The larvae feed on the *Pinus*, *Larix*, *Picea*, *Abies*, *Cedrus* (Pinaceae); singly or in groups weave nests from the web. The genus is distributed in Holarctic and Oriental region, mainly in Holarctic. Number of species: World – 43; Palaearctic – 30; Russia – 13 (+ 1 sp.).
- Cephaleia abietis** (Linnaeus, 1758) [Tenthredo] (*Lyda hypothrophica* Hartig, 1834; *Cephaleia testacea* Gimmerthal, 1836; *Lyda klugii* Hartig, 1837; *L. scutellaris* Thomson, 1871; *L. semiflava* Matsumura, 1912; *Cephaleia mimica* Pic, 1948). Host plant: *Picea* spp. (Pinaceae); live in groups, harm. Russia: **EP** (N, NW, C, E), **UR**, **WS** (KM), **ES** (KR, BR, YA), **FE** (KH, PR, SA). – Europe (WE, EE, NE, SE), Mongolia, China (NE, NC), Japan (Hok).
- Cephaleia alashanica** (Gussakovskij, 1935) [Cephaleia] (*C. alashanica europaea* Beneš, 1976). Russia: **EP** (C). – Europe (WE, EE, NE), Mongolia, China (NC).
- Cephaleia alpina** (Klug, 1808) [Lyda] (*Lyda fallenii* Dalman, 1823; *L. abietina* Hartig, 1837; *L. annulata* Hartig, 1837). Host plant: *Picea* spp., *Larix* spp. (Pinaceae); live alone. Russia: **EP** (N, C), **WS** (TM, AL), **ES** (KR, IR, YA), **FE** (SA). – Europe (WE, EE, NE, SE), N Africa, China (NE), Korean Peninsula, Japan (Hok, Hon).
- Cephaleia arvensis** Panzer, 1803 (*Tenthredo signata* Fabricius, 1781; *Lyda irrorata* Dahlbom, 1835; *L. saxicola* Hartig, 1837; *L. adusta* Dietrich, 1868; *L. irrorata* Thomson, 1871). Host plant: *Picea* spp. (Pinaceae); live alone or in small groups. Russia: **EP** (N, NW, C, E), **UR**, **WS** (NS), **ES** (KR, IR, YA), **FE** (PR, SA, KU). – Europe (WE, EE, NE, SE), Mongolia, China (NE, NC).
- Cephaleia erythrogaster** (Hartig, 1837) [Lyda]. Host plant: *Picea* spp. (Pinaceae); live alone. Russia: **EP** (NW, C). – Europe (WE, EE, NE), China (Wei et al., 2006).
- Cephaleia hartigii** (Bremi-Wolf, 1849) [Lyda]. Host plant: *Abies* spp., *Picea* spp. (Pinaceae). Russia: **EP** (NC). – Europe (WE, EE, SE), N Africa, Georgia.
- Cephaleia intermedia** Hellén, 1948. Russia: **EP** (N). – Europe (NE).
- Cephaleia koebelei** (Rohwer, 1910) [Cephaleia] (*C. baikalica* Verzhutskii, 1973). Host plant: *Larix leptolepis* (Pinaceae). Russia: **ES** (IR, YA). – Japan (Hok, Hon).
- Cephaleia lariciphila japonica** Shinohara, 1997. Host plant: *Larix leptolepis* (Pinaceae). Russia: **FE** (KU). – Japan (Hok, Hon).
- Cephaleia lariciphila lariciphila** (Wachtl, 1898) [Cephaleia]. Host plant: *Larix* spp. (Pinaceae). Russia: **EP** (N, C), **WS** (KM, AL), **ES** (TU, KR, IR, BR, YA), **FE** (PR). – Europe (WE, EE, NE, SE), China (NE, CC), Korean Peninsula.
- Cephaleia nigricoxae** (Matsumura, 1912) [Lyda]. Host plant: *Picea jezoensis* (Pinaceae); harmful to spruce forests in Hokkaido. Russia: **FE** (KU). – Japan (Hok).
- Cephaleia pallidula** (Gussakovskij, 1935) [Cephaleia] (*C. flavistigma* Lindqvist, 1962). Host plant: *Picea* spp. (Pinaceae). Russia: **EP** (N), **ES** (IR, YA), **FE** (PR, SA, KU). – Europe (NE), China (NE).
- Cephaleia sachalinensis** (Matsumura, 1911) [Lyda]. Host plant: *Picea* spp. (Pinaceae). Russia: **FE** (SA).
- Cephaleia variegata** (Takeuchi, 1930) [Cephaleia]. Host plant: *Pinus pumila* (Pinaceae). Russia: **FE** (SA, KU). – Japan (Hok, Hon).

## Subfamily PAMPHILIINAE

**CHRYSOLYDA** Shinohara, 2002. Type species *Pamphilus leucocephalus* Takeuchi, 1938.

The genus is distributed in East Asia. Number of species: one species.

**Chrysolyda leucocephala** (Takeuchi, 1938) [Pamphilius]. Russia: **FE** (PR). – Korean Peninsula, Japan (Hok, Hon, Kyu).

**KELIDOPTERA** Konow, 1897. Type species *Lyda maculipennis* J.P.E.F. Stein, 1876. The genus is distributed in West Palaearctic. Number of species: one species.

**Kelidoptera maculipennis** (J.P.E.F. Stein, 1876) [Lyda]. Russia: **EP** (E). – Turkey.

**NEUROTOMA** Konow, 1897 (*Gongylocorsia* Konow, 1897). Type species *Tenthredo flaviventris* Retzius, 1783. The larvae feed mainly on the tree and shrub Rosaceae and *Quercus* (Fagaceae); single or in groups of leaves feeding, weave a web. The genus is distributed in Holarctic and Oriental region, mainly in Holarctic. Number of species: World – 22; Palaearctic – 13; Russia – 7.

**Neurotoma atrata** Takeuchi, 1930. Host plant: *Quercus acutissima* Fagaceae). Russia: **FE** (PR). – China (SE), Korean Peninsula, Japan (Hon).

**Neurotoma fausta** (Klug, 1808) [Lyda]. Russia: **EP** (CR). – Europe (WE, EE, SE).

**Neurotoma iridescens** (André, 1882) [Lyda] (*Cephalia nigrocoerulea* Rohwer, 1910; *Neurotoma sorbi* Forsius, 1911; *Lyda nigricans* Matsumura, 1912; *Neurotoma nakayamai* Sugihara, 1933; *Pamphilius sajanicus* Stroganova, 1978). Host plant: *Prunus* spp., *Sorbus* spp., *Crataegus chlorosarca* (Rosaceae); live in groups. Russia: **EP** (N, NW), **ES** (KR, BR, YA), **FE** (PR, KU). – Europe (WE, NE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

**Neurotoma mandibularis** (Zaddach, 1866) [Lyda] (*Lyda parisiensis* Giraud, 1870). Host plant: *Quercus* spp. (Fagaceae). Russia: **EP** (CR). – Europe (WE, EE, SE).

**Neurotoma nemoralis** (Linnaeus, 1758) [Tenthredo] (*Tenthredo punctata* Fabricius, 1798; *Psen caprifolii* Schrank, 1802; *Lyda lucorum* Fallén, 1808; *L. drupacearum* Nördlinger, 1855; *L. maculifrons* Snellen van Vollenhoven, 1858). Host plant: *Prunus* spp. (Rosaceae); live in groups. Russia: **EP** (NW, C, E, S, NC), **UR**. – Europe (WE, EE, NE, SE), Kazakhstan.

**Neurotoma saltuum** (Linnaeus, 1758) [Tenthredo] (*Tenthredo flaviventris* Retzius, 1783; *Psen pyri*

Schrank, 1802; *Lyda albifrons* Fallén, 1808; *L. clypeata* Klug, 1808; *Tenthredo lutescens* Panzer, 1809; *Pamphilius dimidiatus* Latreille, 1812; *Lyda fasciata* Curtis, 1831; *L. fasciatipennis* Costa, 1864). Host plant: *Prunus* spp., *Malus* spp., *Crataegus* spp. and others Rosaceae; live in groups in a nest of cobwebs, sometimes harm. Russia: **EP** (C, S, NC, CR), **ES** (IR). – Europe (WE, EE, NE, SE), Armenia, Turkey, Korean Peninsula.

**Neurotoma sibirica** Gussakovskij, 1935 (*N. nemoralis obsoleta* Takeuchi, 1936). Host plant: *Sorbaria sorbifolia* (Rosaceae). Russia: **ES** (IR, YA, ZB), **FE** (AM, KH, PR, SA, KU). – China (NE), Korean Peninsula, Japan (Hok).

**ONYCHOLYDA** Takeuchi, 1938. Type species *Pamphilius viriditibialis* Takeuchi, 1930. The larvae feed on the *Rubus*, *Filipendula*, *Agrimonia* (Rosaceae), *Cornus* (Cornaceae); live alone and in groups, weave a web. The genus is distributed in Holarctic and Oriental region, mainly in Holarctic. Number of species: World – about 40; Palaearctic – 26; Russia – 11.

**Onycholyda armata** (Maa, 1949) [Pamphilius]. Russia: **WS** (TK), **FE** (KH, PR). – China (NE, SE), Korean Peninsula.

**Onycholyda kumamotonis** (Matsumura, 1912) [Lyda]. Host plant: *Filipendula kamtschatica* (Rosaceae). Russia: **FE** (SA, KU). – Japan (Hok, Hon, Kyu).

**Onycholyda lucida** (Rohwer, 1910) [Pamphilius]. Host plant: *Rubus* spp. (Rosaceae). Russia: **ES** (YA). – Japan (Hon, Shi, Kyu).

**Onycholyda minomalis** (Takeuchi, 1930) [Pamphilius]. Host plant: *Rubus parvifolius* (Rosaceae). Russia: without regions (Taeger, Blank, 2011). – Japan (Hok, Hon, Shi, Kyu).

**Onycholyda nigroclypeata** Shinohara, 1987. Russia: **FE** (KH, PR). – China (NE), Korean Peninsula.

**Onycholyda rufofasciata** (Norton, 1869) [Lyda] (*Lyda rufocincta* Cresson, 1880). Host plant: ?*Rosa* spp. (Rosaceae). Russia: **ES** (IR). – N America.

**Onycholyda sertata** (Konow, 1903) [Pamphilius] (*Pamphilius thomsoni* Malaise, 1921). Host plant: *Filipendula* spp. (Rosaceae). Russia: **EP** (NW, C, E), **UR**, **WS** (NS, AL), **ES** (YA), **FE** (AM, KH, PR). – Europe (NE), China (NE), Korean Peninsula.

**Onycholyda trigaria** (Konow, 1897) [Pamphilius]. Russia: **EP** (NC). – Armenia, Azerbaijan, Iran.

**Onycholyda viriditibialis** (Takeuchi, 1930) [Pamphilius] (*Pamphilius tsherskii* Gussakovskij, 1935).



- Host plant: *Rubus crataegifolius*, *R. microphyllus* (Rosaceae); live in groups. Russia: **FE** (PR). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Onycholyda yezoensis** Shinohara, 1987. Host plant: *Rubus parvifolius*, *R. idaeus* (Rosaceae). Russia: **FE** (SA, KU). – Japan (Hok).
- Onycholyda zinovjevi** Shinohara, 1987. Russia: **FE** (PR). – Korean Peninsula.
- PAMPHILIUS** Latreille, 1803 (*Lyda* Fabricius, 1804; *Anoplolyda* Costa, 1894; *Bactroceros* Konow, 1897). Type species *Tenthredo sylvatica* Linnaeus, 1758. The larvae feed mainly on Rosaceae and Betulaceae, others on Salicaceae, Sapindaceae, Caprifoliaceae, Fagaceae, Cornaceae and Juglandaceae; mostly monophages; live alone or in groups in rolled leaves. The genus is distributed in Holarctic and Oriental region, mainly in Holarctic. Number of species: World – about 115; Palearctic – about 95; Russia – 56 (+ 1 spp.).
- Pamphilius albopictus** (Thomson, 1871) [Lyda] (*Pamphilius altaicus* Gussakovskij, 1935; *P. viridipes* Achterberg et Aartsen, 1986). Host plant: *Prunus* spp. (Rosaceae). Russia: **EP** (N, C), **UR**, **WS** (KM, AL), **ES** (IR, YA), **FE** (KH, PR, KA). – Europe (WE, NE), Korean Peninsula.
- Pamphilius alnicola** Ermolenko, 1973. Host plant: *Alnus hirsuta* (Betulaceae). Russia: **FE** (PR, KU). – Japan (Hok, Hon).
- Pamphilius alnivorus** Shinohara, 2005. Host plant: *Alnus hirsuta* (Betulaceae). Russia: **ES** (YA), **FE** (KH, PR, SA, KU). – Japan (Hok, Hon).
- Pamphilius archiducalis** Konow, 1897. Host plant: *Alnus* spp. (Betulaceae). Russia: **FE** (SA, KU). – Japan (Hok, Hon).
- Pamphilius armeniacus** Shinohara, 1988. Russia: **EP** (NC). – Armenia.
- Pamphilius aucupariae** Vikberg, 1971. Host plant: *Sorbus* spp. (Rosaceae). Russia: **ES** (YA). – Europe (NE).
- Pamphilius balteatus** (Fallén, 1808) [Lyda] (*P. cingulatus* Latreille, 1812; *Lyda suffusa* Hartig, 1837). Host plant: *Rosa* spp., *Prunus* spp., *Spiraea* spp. (Rosaceae); live alone. Russia: **EP** (NW, C, E), **UR**, **WS** (NS), **ES** (IR, YA, ZB), **FE** (PR, SA, KU, KA, MG). – Europe (WE, NE, SE), Korean Peninsula, Japan (Hok).
- Pamphilius betulae** (Linnaeus, 1758) [Tenthredo] (*Tenthredo fulva* Retzius, 1783; *Lyda aurita* Klug, 1808). Host plant: *Populus* spp. (Salicaceae); live alone. Russia: **EP** (NW, C, E), **UR**, **WS** (NS), **ES** (KR, IR, YA). – Europe (WE, EE, NE, SE), Turkey.
- Pamphilius borisi** Beneš, 1972. Russia: **ES** (IR).
- Pamphilius brevicornis brevicornis** Hellén, 1948. Host plant: *Populus* spp. (Salicaceae). Russia: **EP** (N), **WS** (NS, KM), **ES** (IR), **FE** (PR, SA, KA). – Europe (WE, NE), Korean Peninsula.
- Pamphilius caucasicus** Gussakovskij, 1935. Russia: **EP** (NC). – Georgia.
- Pamphilius convexus** Shinohara, 1988. Russia: **FE** (KH, PR). – Korean Peninsula.
- Pamphilius coreanus** Takeuchi, 1938 (*Anoplolyda frontimacula* Malaise, 1943). Russia: **FE** (KH, PR). – Korean Peninsula.
- Pamphilius croceus** Shinohara, 1986. Russia: **FE** (PR). – Korean Peninsula.
- Pamphilius festivus** C. Pesarini et F. Pesarini, 1984. Host plant: *Populus* spp. (Salicaceae). Russia: **EP** (NW, C, S), **UR**, **WS** (NS, KM, AL), **ES** (KS, KR). – Europe (WE, EE, NE, SE).
- Pamphilius fumipennis** (Curtis, 1831) [Lyda] (*Lyda stigma* Stephens, 1835; *L. carpini* Brischke, 1892). Host plant: *Corylus* spp., *Alnus* spp. (Betulaceae). Russia: **EP** (N, NW, C, E). – Europe (WE, EE, NE, SE).
- Pamphilius gyllenhali** (Dahlbom, 1835) [Lyda]. Host plant: *Salix* spp. (Salicaceae); live alone. Russia: **EP** (N, NW, C, E), **UR**. – Europe (WE, NE, SE).
- Pamphilius heecheonparki** Shinohara, 1998. Russia: **ES** (IR, YA), **FE** (KH, PR). – Korean Peninsula.
- Pamphilius hilaris** (Eversmann, 1847) [Lyda]. Host plant: *Rosa* spp. (Rosaceae). Russia: **UR**, **WS** (TK), **FE** (PR, KA). – China (CC), Japan (Hon).
- Pamphilius histrio** Latreille, 1812. Host plant: *Populus* spp. (Salicaceae); live alone. Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (NS), **ES** (YA). – Europe (WE, EE, NE, SE), Kazakhstan, Korean Peninsula, Japan (Hok).
- Pamphilius hortorum** (Klug, 1808) [Lyda] (*P. hortorum bicinctus* Benson, 1945). Host plant: *Rubus* spp. (Rosaceae). Russia: **EP** (N, NW, C, E), **UR**, **WS** (NS, KM, AL), **ES** (IR, YA), **FE** (KH, PR, SA, KU, MG). – Europe (WE, EE, NE, SE), China (NE), Korean Peninsula, Japan (Hok, Hon).
- Pamphilius inanitus** (Villers, 1789) [Tenthredo] (*Tenthredo agrestis* Panzer, 1804; *Lyda fallax* Serville, 1823; *L. fallax* Lepeletier, 1823). Host plant: *Rosa* spp. (Rosaceae). Russia: **EP** (NW), **ES** (YA). – Europe (WE, EE, NE, SE).

- Pamphilus itoi** Shinohara, 1985. Host plant: *Alnus hirsuta* (Betulaceae). Russia: **FE** (PR, KU). – Japan (Hok, Hon).
- Pamphilus jucundus** (Eversmann, 1847) [Lyda] (*Lyda arbuti* Zaddach, 1866). Host plant: *Fragaria* spp. (Rosaceae). Russia: **EP** (NW, C, E), **UR**, **WS** (NS). – Europe (WE, EE, NE).
- Pamphilus kamikochensis** Takeuchi, 1930. Host plant: *Prunus ssiori* (Rosaceae). Russia: **FE** (KU). – Japan (Hok, Hon).
- Pamphilus kontuniemii** Shinohara, 2003. Russia: **EP** (N, NW, NC). – Europe (WE, EE, NE, SE), Georgia.
- Pamphilus kyutekparki** Shinohara, 1991. Russia: **FE** (PR). – Korean Peninsula.
- Pamphilus latifrons** (Fallén, 1808) [Lyda] (*Lyda maculosa* Zaddach, 1866). Host plant: *Populus* spp., *Salix* spp. (Salicaceae). Russia: **EP** (N, C), **WS** (KM), **ES** (IR, BR, ZB), **FE** (PR, MG). – Europe (WE, EE, NE, SE), Kazakhstan.
- Pamphilus leleji** Shinohara et Taeger, 2007. Russia: **FE** (PR).
- Pamphilus lethierryi** (Konow, 1887) [Lyda]. Russia: **EP** (NC). – Europe (WE, EE, SE), Georgia, Armenia.
- Pamphilus lobatus** Maa, 1950. Russia: **FE** (PR). – China (NE), Korean Peninsula, Japan (Hok, Hon).
- Pamphilus marginatus** (Serville, 1823) [Lyda] (*Lyda marginata* Lepeletier, 1823; *L. bicolor* Herrich-Schäffer, 1833; *Tenthredo ratzeburgii* Ratzeburg, 1844). Host plant: *Corylus* spp., *Carpinus* spp., *Ostrya* spp. (Betulaceae). Russia: **EP** (C). – Europe (WE, EE, NE, SE).
- Pamphilus masao** Shinohara, 2005. Host plant: *Betula ermanii*, *Alnus maximowiczii* (Betulaceae). Russia: **FE** (SA, KU). – Japan (Hok).
- Pamphilus maximus** Shinohara, 1995. Russia: **FE** (PR). – Korean Peninsula.
- Pamphilus montanus pulcher** Shinohara, 1988. Host plant: *Sorbus* spp. (Rosaceae). Russia: **ES** (YA). – Korean Peninsula, Japan (Hok).
- Pamphilus pallidus** Shinohara, 1988. Russia: **FE** (PR).
- Pamphilus pallipes** (Zetterstedt, 1838) [Lyda] (*Lyda flavipes* Zetterstedt, 1838; *L. variegata* Zaddach, 1866; *Pamphilus pallidipes* Dalla Torre, 1894). Host plant: *Betula* spp., *Alnus* spp. (Betulaceae). Russia: **EP** (N, NW, C, E), **WS** (TK, NS, KM, AL), **ES** (BR, YA), **FE** (AM, KH, PR, KU, KA, MG). – Europe (WE, EE, NE), Iran, Kazakhstan, Mongolia, China (NE, NC), Korean Peninsula.
- Pamphilus persicum** MacGillivray, 1907. Russia: **EP** (NC). – Armenia, N America.
- Pamphilus pictifrons** Gussakovskij, 1935. Host plant: ?*Rosa* spp. (Rosaceae). Russia: **ES** (YA), **FE** (MG).
- Pamphilus planifrons** Beneš, 1976. Russia: **FE** (PR). – Korean Peninsula.
- Pamphilus pugnax** Konow, 1897. Russia: **EP** (NC). – Azerbaijan.
- Pamphilus sapporensis** (Matsumura, 1912) [Lyda] (*P. rugosus* Beneš, 1976). Host plant: *Filipendula kamtschatica* (Rosaceae). Russia: **FE** (SA, KU). – Japan (Hok).
- Pamphilus stramineipes** (Hartig, 1837) [Lyda] (*P. facetus* Konow, 1898; *P. stramineipes medialis* Enslin, 1917). Host plant: *Rosa* spp. (Rosaceae). Russia: **EP** (N, C, E, NC), **UR**, **WS** (TM, OM, NS), **ES** (KR), **FE** (SA, KU). – Europe (WE, EE, NE), Armenia, Japan (Hok).
- Pamphilus sulphureipes sulphureipes** W.F. Kirby, 1882 (*Anoplolyda viriditibialis aino* Takeuchi, 1936). Host plant: *Rosa* spp. (Rosaceae). **FE** (AM, PR, SA). – Korean Peninsula.
- Pamphilus sylvaticus** (Linnaeus, 1758) [Tenthredo] (*Tenthredo fulvipes* Retzius, 1783; *Cephalcia nemorum* Panzer, 1803). Host plant: *Sorbus* spp., *Crataegus* spp., *Prunus* spp. (Rosaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (NS, KM), **ES** (YA). – Europe (WE, EE, NE, SE), Turkey.
- Pamphilus takeuchii** Beneš, 1972 (*P. jucundus* Takeuchi, 1930). Russia: **FE** (PR). – Japan (Hok, Hon, Shi, Kyu).
- Pamphilus tricolor** Beneš, 1974. Russia: **EP** (N), **WS** (TM), **ES** (TU, KR, ZB), **FE** (KH, PR, KA, MG). – Korean Peninsula, Japan (Hok, Hon).
- Pamphilus ussuriensis** Shinohara, 1988. Russia: **FE** (PR).
- Pamphilus vafer** (Linnaeus, 1767) [Tenthredo] (*Tenthredo depressa* Schrank, 1781; *Psen alni* Schrank, 1802). Host plant: *Alnus* spp., *Betula* spp. (Betulaceae). Russia: **EP** (N, NW, C, E), **UR**, **WS** (NS, AL), **ES** (TU, IR, YA). – Europe (WE, EE, NE, SE), Georgia, Kazakhstan.
- Pamphilus varius** (Serville, 1823) [Lyda] (*Lyda varia* Lepeletier, 1823; *L. infida* Zaddach, 1866; *Pamphilus flavifrons* W.F. Kirby, 1882; *Lyda konowi* Jakovlev, 1891; *Anoplolyda engelhardti* Dovnar-Zapolskij, 1930). Host plant: *Alnus* spp., *Betula* spp. (Betulaceae). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (NS, KM), **ES** (KR, BR, YA), **FE** (AM, PR, SA, KU, KA). – Europe (WE, EE, NE, SE), Georgia,

- Kazakhstan, Korean Peninsula, Japan (Hok, Hon, Kyu).
- Pamphilus venustus** (F. Smith, 1874) [Lyda]. Russia: **FE** (Shinohara, 1988b). – Japan (Hok, Hon, Shi).
- Pamphilus virescens** Malaise, 1931. Russia: **ES** (IR), **FE** (KA). – Korean Peninsula, Japan (Hok).
- Pamphilus viridulus** Shinohara, 2001. Host plant: Prunus spp., Crataegus chlorosarca (Rosaceae). Russia: **FE** (PR).
- Pamphilus volatilis** (F. Smith, 1874) [Lyda]. Host plant: Prunus spp., Crataegus chlorosarca (Rosaceae). Russia: **FE** (PR). – Korean Peninsula, Japan (Hok, Hon, Kyu).
- Pamphilus zhelochovtsevi zhelochovtsevi** Beneš, 1974. Host plant: Rosa spp. (Rosaceae). Russia: **FE** (KH, PR). – Korean Peninsula.
- Pamphilus zhelochovtsevi nipponicus** Shinohara, 1993. Host plant: Rosa spp. (Rosaceae). Russia: **FE** (KU). – Japan (Hon).
- Pamphilus zinovjevi** Shinohara, 1988. Russia: **FE** (AM, PR). – Korean Peninsula.
- PSEUDOCEPHALEIA** Zirngiebl, 1937. Type species *Pseudocephaleia brachycercus* Zirngiebl, 1937. The genus is distributed in Palaeartic. Number of species: World and Palaeartic – 2; Russia – 1.
- Pseudocephaleia praeteritorium** (Semenov, 1934) [Dictyolyda] (*P. brachycercus* Zirngiebl, 1937; *Cephalcia pseudoreticulata* Zombori, 1967). Russia: **WS** (AL). – Europe (EE, SE), Caucasus, Turkey, China (Wei et al., 2006).

### 9. FAMILY MEGALODONTESIDAE

Flat-bodied flower-haunting species, very fast on the wing. Characterized by their many-segmented flabellate antennae, with flattened prolongations from the apices of the flagellar segments. Body very broad and flat, pamphilioid in form, with wasp-like colouring and yellowish-brown marked wings. The larvae lives socially in webs on herbaceous plants – Apiaceae and Rutaceae.

The family is distributed in the Palaearctic and Oriental regions, but was rich and diverse group in the Mesozoic. Number of taxa: World and Palaearctic – 1 genus, 37 species; Russia – 1/12.

R e f e r e n c e s. Jakovlev, 1888; Gussakovskij, 1935; Maa, 1949b; Zombori, 1971; Togashi, 1973; Verzhutskii, 1973, 1974, 1981; Ermolenko, 1984; Zhelochovtsev, 1988; Zhelochovtsev, Zinovjev, 1995; Taeger, 1998, 2002; Vasilenko, Dolgov, 2005; Liston et al., 2006; Taeger et al., 2006, 2010; Wei et al., 2006; Roller, Haris, 2008; Schedl, 2009; Sundukov, Lelej, 2009, 2012; Taeger, Blank, 2011; Kostyunin, 2015; Noblecourt, 2016; Wang et al., 2016.

**MEGALODONTES** Latreille, 1803 (*Tarpa* Fabricius, 1804; *Megalodus* Rafinesque, 1815; *Melanopus* Konow, 1897; *Tristactus* Konow, 1897; *Rhipidioceros* Konow, 1897; *Forficulotarpa* Pic, 1918; *Tristactoides* Chevin, 1985). **Type species** *Tenthredo cephalotes* Fabricius, 1781. The larvae feed on the Apiaceae and Rutaceae; live in nests from cobwebs. The genus is distributed in Palaearctic and Oriental region. Number of species: World and Palaearctic – 37; Russia – 12.

**Megalodontes cephalotes** (Fabricius, 1781) [*Tenthredo*] (*Tarpa klugii* Leach, 1817; *T. spissicornis* Klug, 1824; *T. fuscipennis* Herrich-Schäffer, 1840). Host plant: *Laserpitium* spp., *Libanotis* spp., *Peucedanum* spp., *Seseli libanotis* (Apiaceae). Russia: **EP** (N, C, E), **UR**. – Europe (WE, EE, SE), Turkey.

**Megalodontes eversmanni** (Freymuth, 1870) [*Tarpa*] (*Tarpa loewii* J.P.E.F. Stein, 1876; *T. multicincta* Mocsáry, 1891). Russia: **EP** (NC). – Europe (SE), Caucasus, Turkey, Iran.

**Megalodontes fabricii** (Leach, 1817) [*Tarpa*] (*Tarpa megacephala* Klug, 1824; *T. redimita* Klug, 1824). Russia: **EP** (C, S, E, NC, CR), **UR**. – Europe (WE, EE, SE), Turkey.

**Megalodontes flabellicornis** (Germar, 1825) [*Tarpa*] (*Tarpa exornata* Zaddach, 1866; *T. coronata* Zaddach, 1866; *T. albicincta* J.P.E.F. Stein, 1876; *T. speciosa* Mocsáry, 1877). Russia: **EP** (C, NC). – Europe (EE, SE), Georgia, Turkey.

**Megalodontes flavicornis** (Klug, 1824) [*Tarpa*]. Russia: **EP** (C, S, NC, CR). – Europe (WE, EE, SE), Caucasus, Turkey, Iran, Turkmenistan.

**Megalodontes interruptus** Gussakovskij, 1935 (*M. antoniae* Zombori, 1971). Russia: **ES** (IR). – Mongolia, China (NE).

**Megalodontes medius** Konow, 1897. Russia: **EP** (S, NC, CR). – Europe (EE), Azerbaijan, Turkey.

**Megalodontes plagiocephalus** (Fabricius, 1804) [*Tarpa*] (*Tarpa flabellata* Eversmann, 1847; *T. plagiocephalata latialis* Manzone, 1893; *Megalodontes aquilus* Konow, 1902; *M. nigritegulis* Konow, 1904; *M. xanthocerus* Gussakovskij, 1935). Host plant: *Peucedanum alsaticum*, *Seseli libanotis* (Apiaceae). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (OM, NS, AL). – Europe (WE, EE, SE), Georgia, Armenia, Kazakhstan.

**Megalodontes quinquecinctus** (Klug, 1824) [*Tarpa*] (*M. nitidus* Maa, 1949; *M. tsunekii* Togashi, 1973; *M. apakensis* Togashi, 1973). Russia: **EP** (CR), **ES** (BR, ZB). – Mongolia, China (NE, NC).

**Megalodontes scythicus** Zhelochovtsev, 1988 (*M. eversmanni* Gussakovskij, 1935). Russia: **EP** (S, NC, CR), **UR**. – Europe (EE), Kazakhstan.

**Megalodontes spiraeae** (Klug, 1824) [*Tarpa*] (*Tarpa pectinicornis* Klug, 1824; *T. ruthena* Jakovlev, 1888; *T. borealis* Jakovlev, 1891; *Megalodontes siberiensis* Rohwer, 1925; *M. coreensis* Takeuchi, 1927). Host plant: *Sphallerocarpus gracilis* (Apiaceae), *Spiraea* spp. (Rosaceae). Russia: **UR**, **WS** (NS, AL), **ES** (KS, KR, IR, BR, ZB), **FE** (AM, KH, PR). – Mongolia, China (NE, NC, SW), Korean Peninsula.

**Megalodontes thor** Taeger, 2002. Host plant: *Peucedanum oreoselinum* (Apiaceae). Russia: **EP** (Taeger, 2002), **UR**, **WS** (AL). – Europe (WE, EE), Kazakhstan.

## SUPERFAMILY CEPHOIDEA

One recent family: Cephidae.

## 10. FAMILY CEPHIDAE

Slender insects, with a long cylindrical or laterally compressed body. Slow on the wing.

Head with hypostomal bridge separating oral cavity from occipital foramen. Antenna long and thread-like or slightly clavate, 16-30-segmented. Hind margin of pronotum almost straight, being nearly the shortest distance between the tegulae; mesonotum short, never extending in front of the tegulae; cenchri absent. Tibiae usually with preapical spines on the hind and middle legs; fore tibia with only one modified apical spur. Fore wings with the vein *M* joining *Rs* after *Rs* has left *Sc+R*. Abdomen constricted slightly at the apex of the 1st segment. Female ovipositor exerted and clearly visible from above. Male often with some of the apical sternites fringed or with patches of modified setae; male genitalia orthandrous, parameres continuous with parameral plates, devoid of muscles and apical cupping discs, and with aedeagus tubular.

The larvae internal borers in stems or twigs of herbaceous plants, shrubs and trees; lead a secretive way of life.

The family is distributed worldwide. Number of taxa: World – 2 subfamilies, 24 genera, about 165 species; Palaearctic – 1/16/>120; Russia – 1/10/57.

**R e f e r e n c e s.** Dalla Torre, 1894; Konow, 1897; Kokujev, 1910; Dovnar-Zapolskij, 1926a, 1928, 1931a; Enslin, 1927; Gussakovskij, 1935; Takeuchi, 1955; Ermolenko, 1971b, 1984; Mucbe, 1971a, 1975b; Stroganova, 1976, 1981, 1982, 1987; Zhelochovtsev, Prochorova, 1976; Verzhutskii, 1981; Zhelochovtsev, 1988; Liston, 1995; Yang, 1995; Zhelochovtsev, Zinovjev, 1995; Ivie, Zinovjev, 1996; Wei, Nie, 1997a; Naito et al., 1998; Shinohara, 1999; Ivie, 2001; Smith, Shinohara, 2002; Chen et al., 2004; Taeger, 2005; Liston et al., 2006, 2014a; Pavlusenko, 2006; Taeger et al., 2006, 2010; Wei et al., 2006; Vasilenko, 2007, 2010b, 2011b; Roller, Haris, 2008; Humala, Polevoi, 2009; Schedl, 2009; Wei, Smith, 2010; Wu, 2010; Blank, Taeger, 2011; Taeger, Blank, 2011; Macek, 2012; Sundukov, Lelej, 2012; Vasilenko, Korshunov, 2012; Beneš, 2014b; Kostyunin, Efimov, 2014; Liston, Prous, 2014; Beneš, Holuša, 2015; Kostyunin, 2015; Niu et al., 2015; Sundukov, 2015, 2017; Lesieur et al., 2016; Noblecourt, 2016.

## Subfamily CEPHINAE

**CAENOCEPHUS** Konow, 1896. Type species *Caenocephus jakowleffi* Konow, 1896. The genus is distributed in Holarctic and Oriental region. Number of species: World – 5; Palaearctic – 3; Russia – 2.

**Caenocephus lunulatus** (Strobl, 1895) [Cephus] (*C. jakowleffi* Konow, 1896). Russia: **ES** (IR). – Europe (WE, EE).

**Caenocephus xanthopus** Shinohara, 1999. Russia: **FE** (PR). – Korean Peninsula, Japan (Hon).

**CALAMEUTA** Konow, 1896 (*Monoplopus* Konow, 1896; *Haplocephus* Benson, 1935; *Ephemerocephus* Zhelochovtsev, 1968). Type species *Cephus filiformis* Eversmann, 1847. The larvae feed on the Poaceae. The genus is distributed in Holarctic and Oriental region. Number of species: World – 22; Palaearctic – 20; Russia – 10 from 2 subgenera.

**Calameuta (Calameuta) bicornes** Stroganova, 1976. Russia: **WS** (AL).

**Calameuta (Calameuta) filiformis** (Eversmann, 1847) [Cephus] (*Cephus elongatus* Snellen van Vollenhoven, 1858; *C. arundinis* Giraud, 1863; *C. marginatus* Kawall, 1864; *C. erberi* Damianitsch, 1866; *C. vagabundus* Mocsáry, 1886; *C. infernalis* Dovnar-Zapolskij, 1926; *Calameuta atrata* Dovnar-Zapolskij, 1931; *C. rugosa* Dovnar-Zapolskij, 1931; *C. amurensis* Gussakovskij, 1935). Host plant: Phragmites spp., Arrenatherum spp., Elytrigia spp., etc. (Poaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (NS, KM, AL), **ES** (IR), **FE** (KH, PR). – Europe (WE, EE, NE, SE), N Africa, Caucasus, Asia Minor, Iran, Kyrgyzstan, Kazakhstan, China (NW).

**Calameuta (Calameuta) filum** (Gussakovskij, 1935) [Cephus]. Host plant: Poaceae. Russia: **EP** (C, E, S, NC), **UR**, **WS** (NS, KM, AL), **ES** (KS, KR, IR). – Europe (WE, EE, NE, SE), Uzbekistan, Kazakhstan.

**Clameuta (Calameuta) gracilicornis** (Konow, 1896) [Cephus]. Russia: **EP** (NC). – Armenia, Azerbaijan.

**Calameuta (Calameuta) haemorrhoidalis** (Fabricius, 1781) [Tenthredo] (*Astutus analis* Klug, 1803; *A. floralis* Klug, 1803; *Trachelus haemorrhoidalis* Jurine, 1807; *Cephus atripes* Stephens, 1835; *C. quadriguttatus* Costa, 1882; *C. variabilis* Mocsáry, 1886; *C. quadriguttulatus* Dalla Torre, 1894; *C. quadrisignatus* Costa, 1894; *C. haemorrhoidalis signifer* Konow, 1896; *C. pseudotabidus* Kokujev, 1910; *C. diversipes* Ghigi, 1915; *Trachelus syriacus*

- Pic, 1917). Host plant: Poaceae. Russia: **EP** (S, NC, CR). – Europe (WE, EE, SE), Caucasus, Asia Minor, Turkmenistan.
- Calameuta (Calameuta) idolon** (Rossi, 1794) [Ichneumon] (*Cephus mittrei* Guérin, 1844; *C. bellieri* Sichel, 1860; *C. variegatus* J.P.E.F. Stein, 1876; *Monoplopus apicicornis* Pic, 1916). Host plant: species of Poaceae. Russia: **EP** (CR). – Europe (EE, SE), N Africa, Caucasus, Asia Minor.
- Calameuta (Calameuta) pallipes** (Klug, 1803) [Astatu] (*Cephus phthiscus* Fabricius, 1804; *C. pusillus* Stephens, 1835; *C. immaculatus* Stephens, 1835; *C. cultrarius* Hartig, 1837; *C. pallidipes* Dalla Torre, 1894). Host plant: Phleum spp. (Poaceae). Russia: **EP** (NW, C, S), **UR, ES** (KS). – Europe (WE, EE, NE), Asia Minor, Iran, Kazakhstan.
- Calameuta (Calameuta) punctata** (Klug, 1803) [Astatu] (*Cephus pravei* Dovnar-Zapolskij, 1926). Russia: **EP** (NC). – Europe (SE), Georgia, Turkmenistan.
- Calameuta (Calameuta) sachalinensis** (Takeuchi, 1938) [Cephus]. Russia: **FE** (SA). – China (SW).
- Calameuta (Ephemerocephus) kuzini** Zhelochovtsev, 1968. Russia: **WS** (AL). – Kazakhstan.
- CEPHUS** Latreille, 1803 (*Astutus* Jurine, 1801; *Peronistilus* Ghigi, 1905; *Pironistilomorphus* Pic, 1916; *Fossulocephus* Pic, 1917; *Pseudocephus* Dovnar-Zapolskij, 1931). Type species *Sirex pygmaeus* Linnaeus, 1767. The larvae feed on the Poaceae. The genus is distributed in Holarctic and Oriental region. Number of species: World – > 40; Palaeartic – about 40; Russia – 20.
- Cephus brachycercus** Thomson, 1871 (*C. punctulatus* Konow, 1896; *C. brachycercus tibialis* Dovnar-Zapolskij, 1926). Host plant: Poaceae. Russia: **EP** (NW, C, E, S, NC, CR), **UR, WS** (NS, KM, AL), **ES** (IR), **FE** (PR, SA, KU). – Europe (WE, EE, NE, SE), N Africa, Turkey, Uzbekistan, Kyrgyzstan, Kazakhstan, China (SW), Japan (Hon).
- Cephus camtschatcalis** Enslin, 1927. Russia: **FE** (KA).
- Cephus daghestanicus** (Dovnar-Zapolskij, 1931) [Pseudocephus]. Russia: **EP** (NC).
- Cephus excisus** (Dovnar-Zapolskij, 1931) [Pseudocephus]. Russia: **EP** (NC).
- Cephus filippovi** Zhelochovtsev, 1968. Russia: **ES** (ZB).
- Cephus fumipennis** Eversmann, 1847 (*C. carbonarius* Jakovlev, 1891). Host plant: Agropyron spp., ?Phalaris spp. (Poaceae). Russia: **EP** (NW, C, E, S, NC, CR), **UR, WS** (TK, NS, KM, AL). – Europe (WE, EE, NE, SE), N Africa, Caucasus, Turkey, Syria, Tadjikistan, Kazakhstan (SE), Mongolia, China (NW, CC, SW).
- Cephus gracilis** Costa, 1860 (*C. gracilis laterimaculatus* Strobl, 1901). Host plant: species of Poaceae. Russia: **EP** (S). – Europe (SE).
- Cephus hyalinatus** Konow, 1897. Host plant: species of Poaceae. Russia: **WS** (KM, AL), **ES** (KS, TU, KR, IR, BR), **FE** (AM, KH, PR, SA, KU, KA). – Mongolia, Korean Peninsula, Japan (Hok).
- Cephus infuscatus** Thomson, 1871 (*C. infuscatus* André, 1881; *C. andreae* W.F. Kirby, 1882). Host plant: Phalaris arundinacea (Poaceae). Russia: **EP** (NW, C). – Europe (WE, EE, NE), China (NE, CC).
- Cephus nigrinus** Thomson, 1871. Host plant: Milium spp., Poa spp. (Poaceae). Russia: **EP** (N, NW, C, E, NC), **UR, WS** (NS, KM, AL), **ES** (IR). – Europe (WE, EE, NE), Turkey, Syria, Iran, Kazakhstan.
- Cephus nigripennis** (Takeuchi, 1927) [Eumetabolus] (*Monoplopus japonicus* Forsius, 1928; *Cephus graminis* Maa, 1944). Host plant: Elytrigia spp., Agropyron spp. (Poaceae). Russia: **ES** (IR), **FE** (PR). – China (NE, CC, SE), Korean Peninsula, Japan (Hon, Shi, Tsushima).
- Cephus parvus** (Dovnar-Zapolskij, 1931) [Pseudocephus]. Russia: **EP** (NC).
- Cephus pseudopilosulus** Dovnar-Zapolskij, 1926. Russia: **EP** (NC), **WS** (AL).
- Cephus pulcher** Tischbein, 1852 (*C. luteomarginatus* Giraud, 1857). Host plant: Agropyron spp. and others (Poaceae). Russia: **EP** (S, NC, CR), **WS** (NS, KM, AL). – Europe (EE, SE), Turkey, Uzbekistan, Kazakhstan.
- Cephus pygmeus** (Linnaeus, 1767) [Sirex] (*Tenthredo polygona* Gmelin, 1790; *Banchus viridator* Fabricius, 1804; *Cephus subcylindricus* Gravenhorst, 1807; *C. leskii* Lepeletier, 1823; *C. flavisternum* Costa, 1882; *C. clypealis* Costa, 1894; *C. pygmaeus palaestinus* Pic, 1918; *C. tanaiticus* Dovnar-Zapolskij, 1926). Host plant: Agropyron spp., Avena spp., Phleum spp., Triticum spp., etc. (Poaceae). Russia: **EP** (C, NC, CR), **UR, WS** (NS, KM, AL). – Europe (WE, EE, NE, SE), N Africa, Caucasus, SW Asia, Iran, Central Asia, China (CC); introduced into N America.
- Cephus rjabovi** Dovnar-Zapolskij, 1926. Russia: **EP** (S, NC).
- Cephus sareptanus** Dovnar-Zapolskij, 1928. Russia: **EP** (S). – Kazakhstan.
- Cephus spinipes** (Panzer, 1800) [Banchus] (*C. cultratus* Eversmann, 1847; *C. pilosulus* Thomson, 1871;

- C. pumilus* André, 1881; *C. similis* Mocsáry, 1886; *C. affinis* Kokujev, 1910; *C. exilis* Kokujev, 1910; *C. pilosulus incompletus* Hellén, 1935). Host plant: Phleum spp., Dactylis spp. (Poaceae). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (NS, KM, AL). – Europe (WE, EE, NE, SE), N Africa, Armenia, Kyrgyzstan, Kazakhstan, China (NW).
- Cephus tshettui** Stroganova, 1981. Russia: **WS** (AL).
- Cephus zahaikevitchi** (Ermolenko, 1971) [Pseudocephus]. Russia: **EP** (CR).
- CHARACOPYGUS** Konow, 1899. Type species *Characopygus moricei* Konow, 1899. The larvae feed on the Asteraceae. The genus is distributed in West Palaeartic. Number of species: World and Palaeartic – 4; Russia – 2.
- Characopygus modestus** Dovnar-Zapolskij, 1931. Russia: **UR**, **WS** (KM), **ES** (IR).
- Characopygus scythicus** Dovnar-Zapolskij, 1931. Host plant: Centaurea spp. (Asteraceae). Russia: **EP** (S), **UR**. – Europe (EE), Armenia, Turkey.
- JANUS** Stephens, 1829 (*Phylloecus* Newman, 1838; *Ephippionotus* A. Costa, 1860). Type species *Janus connectens* Stephens, 1829. The larvae in the branches of trees and shrubs of Rosaceae, Salicaceae, Fagaceae, Adoxaceae. The genus is distributed in Holarctic and Oriental region. Number of species: World – 26; Palaeartic – 13; Russia – 4.
- Janus compressus** (Fabricius, 1793) [Sirex] (*Cephus flaviventris* Förster, 1844; *Ephippionotus luteiventris* Costa, 1860; *Phylloecus eburneus* André, 1881; *Cephus foersteri* André, 1881; *C. balearicus* Kriechbaumer, 1894; *Janus foersteri ulmi* Pic, 1918). Host plant: Pyrus spp., Crataegus spp., Malus spp. (Rosaceae). Russia: **EP** (NC). – Europe (WE, EE, SE), N Africa, Turkey.
- Janus cynosbati** (Linnaeus, 1758) [Tenthredo] (*Lyda geoffroyi* Lepeletier, 1823; *Cephus femoratus* Curtis, 1830; *Phylloecus faunus* Newman, 1838; *Ephippionotus cephalotes* Costa, 1860; *Cephus melanarius* Mocsáry, 1891; *C. niger* Brischke, 1892). Host plant: Quercus pubescens, Q. robur (Fagaceae). Russia: **EP** (NW, C). – Europe (WE, EE, NE, SE), Turkey.
- Janus formosus** (Zhelochovtsev, 1935) [Cephus] (*J. orientalis* Gussakovskij, 1935). Russia: **WS** (NS, AL), **FE** (PR). – China (NE).
- Janus luteipes** (Lepeletier, 1823) [Cephus] (*J. connectens* Stephens, 1829; *J. bifrons* Newman, 1838; *Cephus emichi* Mocsáry, 1886; *Janus luteipes diversipes* Pic, 1918). Host plant: Salix spp., Populus spp. (Salicaceae), ?Viburnum spp. (Adoxaceae). Russia: **EP** (NW, C), **FE** (PR). – Europe (WE, EE, NE, SE), N Africa, Georgia.
- PACHYCEPHUS** J.P.E.F. Stein, 1876. Type species *Pachycephus smyrnensis* J.P.E.F. Stein, 1876. The genus is distributed in West Palaeartic. Number of species: World and Palaeartic – 2; Russia – 2.
- Pachycephus cruentatus cruentatus** (Eversmann, 1847) [Cephus] (*P. caspicus* Dovnar-Zapolskij, 1931). Russia: **EP** (S, NC, CR). – Europe (EE), Caucasus, Turkey.
- Pachycephus smyrnensis smyrnensis** J.P.E.F. Stein, 1876 (*P. aeneovarius* Kohl, 1905; *P. brevis* Ghigi, 1915; *Spatulocephus sanctus* Pic, 1916). Russia: **EP** (NC). – Europe (WE, SE), N Africa, Armenia, Azerbaijan, SW Asia.
- PHYLLOECUS** Newman, 1838 (*Hartigia* Schiodte, 1839; *Cerobactrus* Costa, 1860; *Macrocephus* Schlechtendal, 1878; *Cephosoma* Gradl, 1881; *Adirus* Konow, 1899; *Paradirus* Dovnar-Zapolskij, 1931; *Hissarocephus* Gussakovskij, 1945). Type species *Phylloecus faunus* Newman, 1838. The larvae in the branches of Rosaceae. The genus is distributed in Holarctic, Oriental and Neotropical regions; mainly in Palaeartic. Number of species: World – about 30; Palaeartic – > 20; Russia – 9.
- Phylloecus agilis** (F. Smith, 1874) [Cephus] (*Hartigia draconis* Maa, 1944; *H. draconis bipunctata* Maa, 1944; *H. draconis collaris* Maa, 1944). Russia: **FE** (PR, SA). – China (CC, SE), Japan (Hon, Shi, Kyu).
- Phylloecus coreanus** (Takeuchi, 1938) [Hartigia]. Russia: **FE** (PR). – Korean Peninsula.
- Phylloecus etorofensis** (Takeuchi, 1955) [Hartigia]. Host plant: Rosa spp. (Rosaceae). Russia: **EP** (C, E), **WS** (NS, KM), **ES** (TU, YA), **FE** (KU). – Europe (NE).
- Phylloecus linearis** (Schrank, 1781) [Tenthredo] (*Cephus quinquefasciatus* Stephens, 1835; *C. major* Eversmann, 1847; *Macrocephus agrimoniae* Goury, 1912). Host plant: Agrimonia spp. (Rosaceae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (NS, KM, AL), **ES** (IR, ZB). – Europe (WE, EE, NE, SE), N Africa, Georgia, Turkey, Kyrgyzstan, Kazakhstan.
- Phylloecus niger** (M. Harris, 1779) [Sirex] (*Astatus satyrus* Panzer, 1801; *Cerobactrus major* Costa,

1860; *Cephus brachypterus* Damianitsch, 1866; *C. glabellifer* Thomson, 1871; *Cephosoma syringae* Gradl, 1881; *Phylloecus cruciatus* Costa, 1894). Host plant: *Rubus* spp. and others (Rosaceae). Russia: **EP** (S, NC, CR), **UR**, **WS** (NS, KM). – Europe (WE, EE, SE), N Africa, Armenia, Turkey, Syria, Iran, Kazakhstan, China (NC, CC).

**Phylloecus pyrrrha** (Zhelochovtsev, 1968) [Hartigia]. Russia: **ES** (ZB).

**Phylloecus sibiricola** Jakovlev, 1891 (*P. cylindricus* Jakovlev, 1891; *Hartigia affinis* Dovnar-Zapolskij, 1931). Host plant: *Rosa* spp. and others (Rosaceae). Russia: **WS** (TK, NS, KM, AL), **ES** (IR), **FE** (AM, PR). – Kazakhstan, Mongolia.

**Phylloecus viator** (F. Smith, 1874) [Cephus] (*Macrocephus japonicus* Ghigi, 1915). Host plant: *Rubus* spp., *Rosa* spp. (Rosaceae). Russia: **FE** (PR). – China (NE, NC, SE), Korean Peninsula, Japan (Hok, Hon).

**Phylloecus xanthostoma** (Eversmann, 1847) [Cephus] (*Cerobactrus facialis* Costa, 1864; *Macrocephus ulmariae* Schlechtendal, 1878; *Phyllaecus giraudi* Schlechtendal, 1880; *Hartigia semenovi* Dovnar-Zapolskij, 1931; *H. jakovlevi* Dovnar-Zapolskij, 1931). Host plant: *Filipendula* spp. (Rosaceae). Russia: **EP** (S, E), **UR**. – Europe (WE, EE, NE), N Africa, Turkey.

**STENOCEPHUS** Shinohara, 1999. Type species *Stenocephus oncogaster* Shinohara, 1999. The genus is distributed in Palaearctic and Oriental region. Number of species: World – 2; Palaearctic – 1; Russia – 1.

**Stenocephus oncogaster** Shinohara, 1999. Russia: **FE** (KU). – China (CC), Korean Peninsula, Japan (Hok, Hon).

**SYRISTA** Konow, 1896 (*Neosyrista* Benson, 1935). Type species *Cephus parreyssi* Spinola, 1843. The larvae in the branches of Rosaceae. The genus is distributed in Palaearctic and Oriental region. Number of species: World – 3; Palaearctic – 2; Russia – 2.

**Syrista parreyssii** (Spinola, 1843) [Cephus] (*Cephus orientalis* Tischbein, 1852; *C. spectabilis*

J.P.E.F. Stein, 1876; *Macrocephus robustus* Mocsáry, 1883; *Cephus parreyssi rufiventris* Jakovlev, 1888). Host plant: *Rosa* spp. (Rosaceae). Russia: **EP** (NC). – Europe (SE), Caucasus, SW Asia, Iran.

**Syrista similis** Mocsáry, 1904 (*Cephus subrufa* Matsu-mura, 1912; *Neosyrista japonica* Benson, 1935). Host plant: *Rosa* spp. (Rosaceae). Russia: **FE** (KU). – China (NC, CC), Japan (Hok, Hon, Shi, Kyu).

**TRACHELUS** Jurine, 1807 (*Astutus* Panzer, 1801; *Cepha* Billberg, 1820; *Ateuchopus* Konow, 1896; *Eumetabolus* Schulz, 1906; *Trachelastatus* Morice et Durrant, 1915; *Microcephus* Benson, 1935; *Neateuchopus* Benson, 1935). Type species *Sirex tabidus* Fabricius, 1775. The genus is distributed in Palaearctic; introduced into the Nearctic. Number of species: World and Palaearctic – 8; Russia – 5.

**Trachelus libanensis** (André, 1881) [Cephus] (*Cephus nigratarsis* André, 1881; *Ateuchopus armenius* Konow, 1896). Russia: **EP** (NC). – Georgia, Armenia, SW Asia.

**Trachelus pallipes** Stroganova, 1976. Russia: **UR**. – Kazakhstan (NW).

**Trachelus tabidus** (Fabricius, 1775) [Sirex] (*Sirex macilentus* Fabricius, 1793; *Cephus mandibularis* Serville, 1823; *C. nigratus* Serville, 1823; *C. mandibularis* Lepeletier, 1823; *C. nigratus* Lepeletier, 1823; *C. vittatus* Costa, 1875; *Calameuta johnsonii* Ashmead, 1903). Host plant: *Triticum* spp., *Secale cereale*, *Hordeum* spp., *Avena* spp. (Poaceae); dangerous pest. Russia: **EP** (S, NC, CR). – Europe (WE, EE, SE), N Africa, Caucasus, SW Asia; introduced into N America.

**Trachelus tigris** (Benson, 1935) [Neateuchopus]. Russia: **EP** (S).

**Trachelus troglodyta** (Fabricius, 1787) [Sirex] (*Cephus mocsaryi* W.F. Kirby, 1882; *Astutus tenuicornis* Konow, 1902). Host plant: *Secale cereale* (Poaceae); dangerous pest. Russia: **EP** (NW, C, E, S, NC). – Europe (WE, EE, NE, SE), N Africa, Georgia, SW Asia, Kazakhstan.



## SUPERFAMILY SIRICOIDEA

Head with hypostomal bridge separating oral cavity from occipital foramen behind; labrum spatulate. Pronotum short medially and emarginate behind; mesosternum triangular, usually with presternal bridge in front, though the sutures are usually obsolete. Male genitalia orthandrious; parameres articulating on the parameral plates and moved by special muscles, and with apical cupping discs. Female ovipositor strongly exerted. Larva of reduced oligopod type. The superfamily is distributed worldwide. Number of taxa: World – 2 recent families, 4 subfamilies, 40 genera, about 260 species; Palaearctic – 2/3/21/about 105; Russia – 2/3/9/41 (+ 1 spp.).

### 11. FAMILY SIRICIDAE

Large insects, generally over 14 mm, with exerted ovipositors, and differing from all other Hymenoptera in their minute tegulae. Mouthparts with maxillary palp 1-segmented; labial palp 2- to 3-segmented, the last segment enlarged and bearing a large apical sensory cup, and the 1st segment not enlarged. Antennae setaceous, 17–30-segmented (4–8-segmented in *Teredon* Norton), with a long curved 1st segment at least as long as the 3rd. Neck short. Pronotum strongly emarginate behind. Mesonotum not divided transversely, but with a lateral lobe divided off each side of the scutum. Fore wings with the membrane corrugated at the apex and with a large apical appendicular cell. Tibiae without preapical spines, and front tibia with only one apical spur. Abdomen cylindrical and contracted at base of 1st segment, which is medially divided; last segment with a horn-like projection, called the cornus. The larvae are white with only vestigial thoracic legs. They live in the wood of coniferous and deciduous trees; generation is usually biennial. Many species are technical pests of wood.

The family is distributed worldwide. Number of taxa: World – 2 subfamilies, 11 genera, > 130 species; Palaearctic – 2/7/>75; Russia – 2/5/20 (+ 1 spp.).

R e f e r e n c e s. Jakovlev, 1900; Semenov, 1921; Gussakovskij, 1935; Semenov, Gussakovskij, 1935; Maa, 1949a; Benson, 1965a; Stroganova, 1968; Verzhutskii, 1981; Khomentovskij, 1983; Zhelochovtsev, 1988; Zhelochovtsev, Zinovjev, 1992, 1996; Blank, 1996; Vasilenko, 2004, 2011b; Liston et al., 2006, 2014a; Taeger et al., 2006, 2010; Wei et al., 2006; Lelej, Taeger, 2007a; Roller, Haris, 2008; Schedl, 2009; Taeger, Blank, 2011;

Schiff et al., 2012; Sundukov, Lelej, 2012; Vasilenko, Korshunov, 2012; Ahn et al., 2013; Beneš, 2014b; Goulet et al., 2015; Kostyunin, 2015; Sundukov, 2015; Noble-court, 2016.

### Subfamily SIRICINAE

**SIREX** Linnaeus, 1760 (*Neuropachys* Heer, 1858; *Urocerites* Heer, 1867; *Paururus* Konow, 1896). Type species *Ichneumon juvencus* Linnaeus, 1758. The larvae feed on coniferous wood of Pinaceae. The genus is distributed in Holarctic and Oriental region; introduced into the Neotropical, Ethiopian and Australian regions. Number of species: World – 28; Palaearctic – 15; Russia – 6.

**Sirex atricornis** Kjellander, 1945. Russia: **WS** (NS). – Europe (NE).

**Sirex cyaneus dux** (Semenov, 1921) [*Paururus*]. Host plant: ?*Abies nordmanniana* (Pinaceae). Russia: **EP** (Benson, 1965a). – Europe (EE), Georgia, Armenia, Israel.

**Sirex ermak** (Semenov, 1921) [*Paururus*]. Host plant: *Pinus* spp., *Picea* spp., *Abies* spp., *Larix* spp. (Pinaceae). Russia: **EP** (C), **WS** (TK, NS, KM, AL), **ES** (KS, TU, IR, BR, YA, ZB), **FE** (AM, PR, SA, KU, KA). – Kazakhstan, Mongolia, China (NE).

**Sirex juvencus juvencus** (Linnaeus, 1758) [*Ichneumon*] (*Urocerus feisthamelei* Brullé, 1832; *Sirex dubia* W.F. Kirby, 1882; *S. australis* W.F. Kirby, 1882; *S. neglectus* W.F. Kirby, 1882; *S. hirsutus* W.F. Kirby, 1882; *S. leseleuci* Tournier, 1890; *Paururus juvencus virago* Enslin, 1918; *P. sucineiceps* Koorneef, 1935; *P. juvencus maculata* Hellén, 1935). Host plant: *Pinus* spp., *Picea* spp., *Abies* spp., *Larix* spp. (Pinaceae). Russia: **EP** (N, C, E, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (TU, KR, IR, BR), **FE** (KH, PR, SA, KA). – Europe (WE, EE, NE, SE), Georgia, Mongolia, China (NE, CC, SE), Japan (Hok, Hon), India; introduced into N America and Australia.

**Sirex mongolorum** (Semenov et Gussakovskij, 1935) [*Paururus*]. Host plant: *Abies* spp., *Pinus* spp., *Picea* spp. (Pinaceae). Russia: **ES** (BR, ZB). – Mongolia.

**Sirex noctilio** Fabricius, 1793 (*S. melanocerus* Thomson, 1871; *Paururus atlantidis* Ghigi, 1909). Host plant: *Pinus* spp., *Picea* spp., *Abies* spp., *Larix* spp. (Pinaceae). Russia: **EP** (N, NW, C, E, NC, CR), **UR**, **WS** (NS, KM, AL), **ES** (TU, KR, IR, BR, YA), **FE** (AM, KH, MG). – Europe (WE, EE, NE, SE), N

Africa, Turkey, Kazakhstan, Mongolia; introduced into N and S America, Australia, New Zealand, S Africa.

**UROCERUS** Geoffroy, 1762 (*Xanthosirex* Semenov, 1921; *Eosirex* Piton, 1940). Type species *Ichneumon gigas* Linnaeus, 1758. The larvae mainly feed on coniferous wood of Pinaceae. The genus is distributed in Holarctic and Oriental region; one species introduced into the Neotropical region. Number of species: World – 33; Palaeartic – 28; Russia – 6 (+ 1 ssp.).

**Urocerus antennatus** (Marlatt, 1898) [Sirex] (*Sirex ogumae* Matsumura, 1911; *S. antennatus immaculatus* Zirngiebl, 1937). Host plant: *Abies* spp., *Pinus* spp., *Picea* spp. (Pinaceae), *Cryptomeria* spp. (Cupressaceae). Russia: **ES** (ZB), **FE** (PR, SA, KU). – China (NE), Korean Peninsula, Japan (Hok, Hon, Shi).

**Urocerus argonautarum** (Semenov, 1921) [Sirex]. Host plant: *Abies nordmanniana*, *Picea* spp. (Pinaceae). Russia: **EP** (NC). – Georgia, Turkey.

**Urocerus fantoma** (Fabricius, 1781) [Sirex] (*Sirex tardigradus* Cederhjelm, 1798; *Xanthosirex phantasma* Semenov, 1921; *Sirex augur pallida* Ermolenko, 1957). Host plant: *Pinus* spp., *Picea* spp., *Abies* spp., *Larix* spp. (Pinaceae). Russia: **EP** (NW, C), **WS** (TM, KM), **ES** (KR, IR, ZB), **FE** (PR). – Europe (WE, EE, NE, SE), Kazakhstan, Mongolia.

**Urocerus gigas gigas** (Linnaeus, 1758) [Ichneumon] (*Sirex marisca* Linnaeus, 1760; *S. hungaricus* Christ, 1791; *S. psylluis* Fabricius, 1793; *Urocerus lefebvre* Guérin, 1833; *Sirex faustus* Costa, 1894; *Urocerus gigas taiganus* Benson, 1943; *U. gigas luteogaster* Berland, 1947; *Sirex gigas montana* Ermolenko, 1957). Host plant: *Pinus* spp., *Picea* spp., *Abies* spp. and others (Pinaceae), *Populus* spp., *Salix* spp. (Salicaceae), *Betula* spp. (Betulaceae), etc. Russia: **EP** (N, NW, C, S, NC, CR), **UR**, **WS** (TM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, SA, KA, MG, CH). – Europe (WE, EE, NE, SE), SW Asia, Kazakhstan, Mongolia, China (NC, NW), Korean Peninsula; introduced into S America.

**Urocerus gigas orientalis** Maa, 1949. Host plant: *Abies* spp., *Picea* spp. and others (Pinaceae). Russia: **ES** (ZB), **FE** (SA, KA). – China (CC), Korean Peninsula, Japan (Hok).

**Urocerus sah** (Mocsáry, 1881) [Sirex]. Host plant: *Juniperus* spp. (Cupressaceae). Russia: **EP** (NC,

CR). – Europe (EE, NE), Azerbaijan, Turkey, Afghanistan, Kazakhstan; introduced into N America.

**Urocerus yasushii** (Yano, 1917) [Sirex] (*Sirex umbra* Semenov, 1921; *Urocerus sachalinensis* Conde, 1935). Host plant: *Picea* spp. (Pinaceae). Russia: **ES** (ZB), **FE** (KH, PR, SA, KU). – China (NE), Korean Peninsula, Japan (Hon).

**XOANON** Semenov, 1921. Type species *Xoanon mysta* Semenov, 1921. The genus is distributed in East Asia and Oriental region. Number of species: World – 2; Palaeartic – 1; Russia – 1.

**Xoanon matsumurae** (Rohwer, 1910) [Sirex] (*X. mysta* Semenov, 1921). Host plant: *Pinus* spp., *Picea* spp., *Abies* spp. (Pinaceae). Russia: **ES** (BR, ZB), **FE** (PR, SA, KU). – China (NE, NC), Korean Peninsula, Japan (Hok, Hon, Shi).

#### Subfamily TREMICINAE

**TREMEX** Jurine, 1807 (*Xyloterus* Hartig, 1837; *Xyloecematium* Heyden, 1868). Type species *Sirex fuscicornis* Fabricius, 1787. The larvae feed the wood of deciduous trees. The genus is distributed in Holarctic and Oriental regions; one species was introduced into the Neotropical region. Number of species: World – 33; Palaeartic – 21; Russia – 5.

**Tremex alchymista** Mocsáry, 1886. Russia: **EP** (NC). – Europe (WE, EE).

**Tremex apicalis** Matsumura, 1912 (*T. propheta* Semenov, 1921). Host plant: *Acer* spp. (Sapindaceae), *Prunus* spp. (Rosaceae). Russia: **ES** (ZB), **FE** (SA). – China (NE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

**Tremex fuscicornis** (Fabricius, 1787) [Sirex] (*Sirex struthiocamelus* Villers, 1789; *S. camelogigas* Christ, 1791). Host plant: *Betula* spp. (Betulaceae), *Populus* spp. (Salicaceae), *Robinia* spp. (Fabaceae), *Acer* spp. (Sapindaceae), *Ulmus* spp. (Ulmaceae). Russia: **EP** (NW, C, E, S, NC, CR), **WS** (TM, TK, NS, KM, AL), **ES** (BR, ZB), **FE** (AM, PR, SA, KU). – Europe (WE, EE, NE, SE), Armenia, Kazakhstan, China (NE, NC, SW, SE), Korean Peninsula, Japan (Hok, Hon); introduced into S America.

**Tremex magus magus** (Fabricius, 1787) [Sirex] (*Sirex nigrita* Fabricius, 1787). Host plant: *Betula* spp. (Betulaceae), *Populus* spp. (Salicaceae). Russia: **EP** (C, E, S), **UR**, **WS** (KM, AL). – Europe (WE, EE, SE), Kazakhstan.

**Tremex satanas** Semenov, 1921. Russia: **ES** (BR), **FE** (PR).

**XERIS** Costa, 1894 (*Neoxeris* Saini et Singh, 1987).  
Type species *Ichneumon spectrum* Linnaeus, 1758. The larvae feed on coniferous wood (Pinaceae, Cupressaceae). The genus is distributed in Holarctic, Oriental and Neotropical regions. Number of species: World – 16; Palaeartic – 8; Russia – 2.

**Xeris malaisei** Maa, 1949. Host plant: *Abies* spp. (Pinaceae), *Cryptomeria* spp. (Cupressaceae). Russia:

**FE** (PR). – China (NE), Korean Peninsula, Japan (Hok, Hon).

**Xeris spectrum** (Linnaeus, 1758) [Ichneumon] (*Sirex nanus* O.F. Müller, 1776; *S. emarginatus* Fabricius, 1793). Host plant: *Pinus* spp., *Picea* spp., *Abies* spp., *Larix* spp. (Pinaceae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (TM, NS, KM, AL), **ES** (TU, KR, BR, ZB), **FE** (AM, PR, SA, KU). – Europe (WE, EE, NE, SE), Georgia, SW Asia, Kazakhstan, Japan (Hok, Hon, Shi, Kyu).

## 12. FAMILY XIPHYDRIIDAE

Large or medium insects 7-20 mm long. Antennae setaceous and 13-19 segmented, with a long curved 1st segment at least as long as 3rd. Neck long; cervical sclerites viewed from the side appear longer than broad. Mesonotum with a transverse furrow. Fore wings corrugated apically, and without an appendiculate cell; vein *2r* present, and base of *Rs* not angled sharply near its base, so that its basal portion is not in a line with *M*. Tibiae without preapical spines; front tibia with only one apical spur. Last abdominal segment without an apical horn-like projection.

The larvae white with only vestigial thoracic legs; and they bore in the wood of deciduous trees, mainly Betulaceae, Salicaceae and Ulmaceae.

The family is distributed worldwide, except of Afro-tropical region. Number of taxa: World – 2 subfamilies, 29 genera, about 150 species; Palaeartic – 1/14/50; Russia – 1/4/21.

**R e f e r e n c e s.** Jakovlev, 1900; Takeuchi, 1938; Gussakovskij, 1947; Maa, 1949a; Stroganova, 1968; Zhelochovtsev, 1968, 1988; Ermolenko, 1979; Verzhutskii, 1981; Zhelochovtsev, Zinovjev, 1996; Togashi, 1998; Liston et al., 2006, 2014a; Taeger et al., 2006, 2010; Wei et al., 2006; Shcherbakov, 2008; Smith, 2008; Humala, Polevoi, 2009; Schedl, 2009; Smith et al., 2011; Smith, Shinohara, 2011; Sundukov, 2011a, 2015; Taeger, Blank, 2011; Vasilenko, 2011b; Sundukov, Lelej, 2012; Vasilenko, Korshunov, 2012; Beneš, 2014b; Kostyunin, 2015; Noblecourt, 2016.

### Subfamily XIPHYDRIINAE

**EUXIPHYDRIA** Semenov et Gussakovskij, 1935.

Type species *Xiphydria potanini* Jakovlev, 1891. The larvae feed the wood of deciduous trees. The genus is distributed in East Asia and Oriental region. Number of species: World – 6; Palaeartic – 4; Russia – 2.

**Euxiphydria amphybolia** Sundukov, 2012. Host plant: Phellodendron amurense (Rutaceae), Betula mandshurica (Betulaceae), Acer ukurunduense (Sapindaceae). Russia: **FE** (PR, SA, KU).

**Euxiphydria potanini** (Jakovlev, 1891) [Xiphydria] (*Xiphydria ruficeps* Mocsáry, 1909; *X. ruficeps* Matsumura, 1912; *X. akazui* Matsumura, 1932; *X. maidli* Zirngiebl, 1937; *Euxiphydria subtrifida* Maa, 1944). Host plant: Acer mono, A. mayrii

(Sapindaceae), Betula ermanii (Betulaceae). Russia: **FE** (KH, PR, SA, KU). – China (NE, NC, SW, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Sado).

**PLATYXIPHYDRIA** Takeuchi, 1938. Type species *Platyxiphydria tiphiiiformis* Takeuchi, 1938. The larvae feed the wood of deciduous trees. The genus is distributed in East Asia; one species was introduced into the Oriental region. Number of species: World – 8; Palaeartic – 7; Russia – 1.

**Platyxiphydria sikhotealinensis** Sundukov, 2012. Host plant: Tilia amurensis (Tiliaceae). Russia: **FE** (PR).

**XIPHYDRIA** Latreille, 1803 (*Urocerus* Jurine, 1801; *Hybonotus* Klug, 1803; *Xiphydria* Panzer, 1806; *Xiphura* Fallén, 1813; *Xyphydria* Norton, 1869; *Xiphidion* Provancher, 1875; *Konowia* Brauns, 1884; *Pseudoxiphydria* Enslin, 1911; *Apoxyphia* Maa, 1949; *Nasoxiphia* Maa, 1949). Type species *Ichneumon camelus* Linnaeus, 1758. The larvae feed the wood of deciduous trees. The genus is distributed in Holarctic and Oriental regions. Number of species: World – 36; Palaeartic – 22; Russia – 17.

**Xiphydria alnivora** Matsumura, 1927. Host plant: Alnus hirsuta (Betulaceae). Russia: **FE** (PR, KU). – Japan (Hok, Hon).

**Xiphydria annulitibia** Takeuchi, 1936. Host plant: Alnus hirsuta (Betulaceae). Russia: **FE** (SA, KU). – Korean Peninsula, Japan (Hok, Hon, Shi).

**Xiphydria betulae** (Enslin, 1911) [*Pseudoxiphydria*] (*Pseudoxiphydria markewitschi* Ermolenko, 1960; *Konowia guntionensis* Zombori, 1960). Host plant: Betula spp. (Betulaceae). Russia: **EP** (C, E), **UR**, **WS** (NS, KM, AL), **ES** (KR), **FE** (AM, KH). – Europe (WE, EE, NE, SE).

**Xiphydria buyssoni** Konow, 1903. Host plant: Alnus hirsuta (Betulaceae). Russia: **ES** (ZB), **FE** (PR). – Japan (Hon, Shi, Kyu).

**Xiphydria camelus** (Linnaeus, 1758) [*Ichneumon*] (*X. eborata* Konow, 1899; *X. jozana* Matsumura, 1927; *X. kawakamii* Matsumura, 1927; *X. kuccharonis* Matsumura, 1927). Host plant: Alnus spp., Betula spp. (Betulaceae), Populus spp. (Salicaceae), Ulmus spp. (Ulmaceae) and others. Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, KR, IR), **FE** (AM, KH, PR, SA, KU, KA). – Europe (WE, EE, NE, SE), Turkey, Kazakhstan, China (NE, NC), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

- Xiphydria caucasica** Semenov et Gussakovskij, 1935. Russia: **EP** (NC). – Georgia.
- Xiphydria jakovlevi** Semenov et Gussakovskij, 1935. Host plant: *Alnus hirsuta* (Betulaceae). Russia: **FE** (PR, KU). – China (NE, CC, SE), Korean Peninsula.
- Xiphydria kastsheevi** Ermolenko, 1979. Russia: **FE** (PR).
- Xiphydria longicollis** (Geoffroy, 1785) [Tenthredo] (*Urocerus annulatus* Jurine, 1807). Host plant: *Quercus* spp. (Fagaceae), *Betula* spp. (Betulaceae), *Acer* spp. (Sapindaceae) and others. Russia: **EP** (C, CR). – Europe (WE, EE, SE).
- Xiphydria megapolitana** (Brauns, 1884) [Konowia]. Host plant: *Betula* spp. (Betulaceae). Russia: **EP** (NW, C), **ES** (BR), **FE** (PR). – Europe (WE, EE, NE, SE).
- Xiphydria ogasawarai** Matsumura, 1927. Host plant: *Acer mayrii*, *A. mono* (Sapindaceae). Russia: **FE** (PR, KU). – Japan (Hok, Hon).
- Xiphydria palaeanarctica** Semenov, 1921 (*X. jezoensis* Matsumura, 1927). Host plant: *Alnus* spp., *Betula* spp. (Betulaceae), *Acer* spp. (Sapindaceae), *Ulmus* spp. (Ulmaceae) and others. Russia: **ES** (IR), **FE** (PR, SA, KU). – China (NE), Korean Peninsula, Japan (Hok, Hon, Sado).
- Xiphydria picta** Konow, 1897 (*Konowia bifurcata* Maa, 1949). Host plant: *Alnus* spp. (Betulaceae). Russia: **EP** (NW, C, E, S, NC, CR). – Europe (WE, EE, NE, SE), Georgia, Kazakhstan.
- Xiphydria popovi** Semenov et Gussakovskij, 1935. Host plant: *Alnus* spp., *Betula* spp. (Betulaceae). Russia: **ES** (TU, ZB), **FE** (AM, KH, PR). – China (NE).
- Xiphydria prolongata** (Geoffroy, 1785) [Tenthredo] (*Sirex dromedarius* Fabricius, 1787; *Xyphidria fasciata* Lepeletier, 1823). Host plant: *Betula* spp. (Betulaceae), *Salix* spp., *Populus* spp. (Salicaceae), *Ulmus* spp. (Ulmaceae). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (TK, NS, KM, AL). – Europe (WE, EE, NE, SE), Azerbaijan, Turkmenistan, Kazakhstan, Mongolia.
- Xiphydria ribesii** (Zhelochovtsev, 1968) [Euxiphydria]. Host plant: *Ribes* spp. (Grossulariaceae). Russia: **WS** (TK).
- Xiphydria sulcata** Maa, 1949. Russia: **FE** (SA).
- XIPHYDRIOLA** Semenov, 1921. Type species *Xiphydriola amurensis* Semenov, 1921. The genus is distributed in East Asia. Number of species: World and Palearctic – 2; Russia – 1.
- Xiphydriola amurensis** Semenov, 1921. Russia: **FE** (PR). – China (NE), Korean Peninsula.

## INFRAORDER ORUSSOMORPHA

## SUPERFAMILY ORUSSOIDEA

One family: Orussidae.

## 13. FAMILY ORUSSIDAE

Very rare insects, characterized by the insetion of the antennae on the ventral aspect of the head, below the apparent clypeus and below the lower margins of the eyes; the antenna is 11-segmented and setiform in the male, but in the female is only 10-segmented, with the 9th segment unique in form, swollen and longer than any other segment; head behind with a hypostomal bridge separating the oral cavity from the occipital foramen; labrum spatulate. Pronotum strongly emarginate behind; mesosternum triangular without presternal bridge and with sutures obsolete. The wing-venation is reduced mostly to pigmented bands; there is no vein *2r* in the fore wing and no cross veins *r-m* or *m-cu* in the hind wings. Male genitalia orthandrious; parameres continuous with parameral plates, without muscles and without apical cupping discs; aedeagus trough-like. Female sawsheath leveled, not exerted.

The Orussidae is a small family of parasitic wasps. Their biology is incompletely known, but the majority of the evidence bearing on the lifestyle of Orussidae indicates that they are idiobiont ectoparasites of wood-boring beetle larvae, primarily Buprestidae and Siricidae and Xiphydriidae also (Vilhelmsen et al., 2013).

The family is distributed worldwide. Number of taxa: World – 2 subfamilies, 17 genera and about 90 species; Palaearctic – 2/5/about 20; Russia – 1/2/4.

References. Conde, 1935; Zhelochovtsev, 1988; Kraus, 1998; Blank et al., 2006; Taeger et al., 2006, 2010; Togashi, 2008; Schedl, 2009; Taeger, Blank, 2011; Zombori, 2013; Beneš, 2014b; Choi et al., 2014; Sundukov, 2014, 2017; Noblecourt, 2016.

## Subfamily ORUSSINAE

**ORUSSUS** Latreille, 1797. Type species *Oryssus coronatus* Fabricius, 1798. The genus is distributed worldwide, except Neotropical region. Number of species: World – 28; Palaearctic – 14; Russia – 3.

**Orussus abietinus** (Scopoli, 1763) [Sphex] (*Tenthredo degener* Christ, 1791; *Sirex vespertilio* Fabricius, 1793; *Oryssus coronatus* Fabricius, 1798; *O. albopunctatus* Gimmerthal, 1836; *O. hyalinipennis* Costa, 1860). Parasite of *Buprestis* spp. (Buprestidae). Russia: **EP** (C, S, NC, CR), **UR**, **ES** (IR, ZB). – Europe (WE, EE, NE, SE), Georgia, SW Asia, Iran, Kazakhstan.

**Orussus coreanus** Takeuchi, 1938. Russia: **FE** (AM, KH, PR, SA). – China (NE), Korean Peninsula.

**Orussus rufipes** Tsuneki, 1963. Parasite of ?*Xiphydria ogasawarai* Matsumura, 1927 (Xiphydriidae). Russia: **FE** (KU). – Japan (Hok, Hon).

**PSEUDORYSSUS** Guiglia, 1954. Type species *Oryssus henschi* Mocsáry, 1910. The genus is distributed in Palaearctic. Number of species: World – 2; Palaearctic – 2; Russia – 1.

**Pseudoryssus henschi** (Mocsáry, 1910) [*Oryssus*] (*P. emanuelis* Guiglia, 1956). Russia: **EP** (Taeger et al., 2006). – Europe (WE, EE, SE), N Africa, NW Asia.

**SUBORDER APOCRITA  
ACULEATA**

**INFRAORDER VESPOMORPHA**

**SUPERFAMILY CHRYSIDOIDEA**

**57. FAMILY DRYINIDAE**

**A.S. LELEJ AND V.M. LOKTIONOV**

Dryinids are relatively uncommon insects whose larvae are parasitoids of Hemiptera (Auchenorrhyncha): planthoppers (Fulgoroidea: Cixiidae, Delphacidae, Dictyopharidae, Issidae, Tropiduchidae), leafhoppers (Membracoidea: Cicadellidae), or treehoppers (Membracoidea: Membracidae). Small (most are 5–8 mm) black insects with a reduced wing venation. Antennae 10-segmented, rising low on face, and not distinctly elbowed. Hind wing with a jugal lobe. The two sexes are often quite different and can be associated only by rearing. Most females are remarkable in that the fore tarsi are developed into chelae used for grasping and holding the hoppers used as hosts. Female dryinids catch a host adult or nymph with their chelae, sting and temporarily paralyze it, and lay eggs between the two mesosomal and metasomal segments. The parasitoid larva feeds internally on the host, almost during most of its development being a part of the body of the larva protruding as a sac-like structure. The parasitoid when full grown, leaves the host and spins a silken cocoon nearby. Some species are polyembryonic, with 40 to 60 individuals developing from a single egg. They play important roles in the natural control of some insect pests, and have potential significance as biological control agents.

Cosmopolitan. Number of taxa: World – 15 subfamilies, 50 genera, 1827 species, Palaearctic – 9/24/257, Russia – 5/8/63.

**R e f e r e n c e s.** Kieffer, 1914; Haupt, 1941, 1944; Ponomarenko, 1965, 1966, 1970, 1972, 1975, 1978, 1979, 1992, 1995, 2000, 2007; Olmi, 1984, 2003, 2004; Lelej, Kurzenko, 2006; Ponomarenko, Olmi, 2007; Guglielmino et al., 2013; Xu et al., 2013; Olmi, Xu, 2015.

**Subfamily APHELOPINAE**

**APHELOPUS** Dalman, 1823 (*Antaphelopus* Benoit, 1951; *Gymnaphelopus* Benoit, 1951). Type species *Dryinus atratus* Dahlman, 1823. Parasitoids

of Cicadellidae (subfam. Typhlocybinae). The genus is distributed worldwide. Number of species: World – 78, Palaearctic – 18, Russia – 7.

**Aphelopus atratus** (Dalman, 1823) [Dryinus] (*A. holomelas* Richards, 1939). Parasitoid of Cicadellidae: Typhlocybinae. Russia: **EP** (Olmi, Xu, 2015), **FE** (PR). – Europe (WE, NE, SE, EE), Armenia, Kazakhstan, Japan (Hok, Hon).

**Aphelopus bennetti** Olmi, 2004. Russia: **FE** (SA). – Japan (Hok, Hon, Shi).

**Aphelopus camus** Richards, 1939 (*A. empoasca* Ponomarenko, 1970). Parasitoid of Cicadellidae: Typhlocybinae. Russia: **EP** (C), **ES** (IR), **FE** (PR). – Europe (WE, NE, SE, EE), Tunisia, Turkey, Japan (Hok).

**Aphelopus maetoi** Olmi, 1995. Russia: **FE** (PR, SA). – China (NE), Japan (Hok, Hon).

**Aphelopus melaleucus** (Dalman, 1818) [Gonatopus] (*Ceraphron albipes* Ratzeburg, 1848; *A. albipes* Kieffer, 1905; *A. trisulcatus* Kieffer, 1914). Parasitoid of Cicadellidae: Typhlocybinae. Russia: **EP** (N, NW, C), **ES** (IR), **FE** (SA, KU). – Europe (WE, NE, SE, EE), Turkey, Armenia, Lebanon, China (NC), Japan (Hok, Hon).

**Aphelopus serratus** Richards, 1939. Parasitoid of Cicadellidae: Typhlocybinae. Russia: **EP** (Olmi, Xu, 2015). – Europe (WE, NE, SE, EE), China (NC), Japan (Hok, Hon, Shi).

**Aphelopus urbaini** Olmi, 2003. Russia: **FE** (SA, KU). – China (NC), Japan (Hok, Hon).

**Subfamily ANTEONINAE**

**ANTEON** Jurine, 1807 (*Chelogyne* Haliday, 1838; *Neochelogyne* R. Perkins, 1905; *Paranteon* R. Perkins, 1905; *Prosanteon* R. Perkins, 1905; *Lasianteon* Kieffer, 1913; *Lasianteon* Kieffer, 1913; *Xenanteon* Kieffer, 1913; *Allanteon* Kieffer, 1914; *Hirtanteon* Benoit, 1951). Type species *Anteon jurineanum* Latreille, 1809. Parasitoid of Cicadellidae. The genus is distributed worldwide. Number of species: World – 423, Palaearctic – about 50, Russia – 16.

**Anteon arcuatum** Kieffer, 1905. Parasitoid of Cicadellidae: Idiocerinae. Russia: **EP** (C), **UR**. – Europe (WE, NE, SE, EE), Mongolia, China (NC).

**Anteon brachycerum** (Dalman, 1823) [Dryinus]. Parasitoid of Cicadellidae: Macropsinae. Russia: **EP** (C). – Europe (WE, NE, EE), Japan (Hon), Nepal.

**Anteon ephippiger** (Dalman, 1818) [Gonatopus] (*A. albidicollis* Kieffer, 1905; *Chelogyne albidicollis* (!):

- Ponomarenko, 1978; *A. pyonganensis* Móczár, 1983). Parasitoid of Cicadellidae: Deltocephalinae, Macropsinae. Russia: **EP** (NW, E, CR), **UR**, **ES** (YA), **FE** (PR, SA, KU). – Europe (WE, NE, SE, EE), Morocco, Turkey, Lebanon, Kyrgyzstan, Kazakhstan, Mongolia, China (NE, NC), Korean Peninsula, Japan (Hok, Hon, Kyu).
- Anteon esakii** Yasumatsu, 1960. Parasitoid of Cicadellidae: Ledrinae. Russia: **FE** (PR). – China (NC), Korean Peninsula, Japan (Kyu).
- Anteon exiguum** (Haupt, 1941) [Chelogynus]. Russia: **FE** (PR). – Europe (WE, NE, EE), Korean Peninsula.
- Anteon fasciale** (Thomson, 1860) [Chelogynus]. Russia: **EP** (C). – Europe (WE, NE).
- Anteon flavicorne** (Dalman, 1818) [Gonatopus] (*A. sericeus* Kieffer, 1905; *A. subflavicornis* Haupt, 1941). Parasitoid of Cicadellidae: Deltocephalinae, Idiocerinae, Macropsinae. Russia: **EP** (NW, C, CR), **UR**, **FE** (PR). – Europe (WE, NE, SE, EE), Algeria, Kazakhstan, Mongolia, Korean Peninsula.
- Anteon fulviventre** (Haliday, 1828) [Dryinus] (*Chelogynus fulviventris*: Ponomarenko, 1978). Russia: **FE** (SA). – Europe (WE, NE, SE, EE), Morocco, Algeria, Kazakhstan.
- Anteon gaullei** Kieffer, 1905 (*A. cameroni* Kieffer, 1905; *Antaeon rufulocolis* Chitty, 1908; *Chelogynus rufulocolis*: Ponomarenko, 1978; *Ch. cameroni*: Ponomarenko, 1978). Parasitoid of Cicadellidae. Russia: **EP** (C), **ES** (IR). – Europe (WE, NE, SE, EE), Kyrgyzstan, Kazakhstan, Korean Peninsula.
- Anteon hikense** Olmi, 1995. Russia: **FE** (PR). – Korean Peninsula, Japan (Kyu).
- Anteon infectum** (Haliday, 1837) [Dryinus]. Parasitoid of Cicadellidae: Iassinae. Russia: **EP** (C), **FE** (PR). – Europe (WE, NE, SE, EE), Azerbaijan, Turkey, Japan (Hon).
- Anteon jurineanum** Latreille, 1809 (*Gonatopus brevicornis* Dalman, 1818; *A. brevicorne*: Ponomarenko, 1978). Parasitoid of Cicadellidae: Deltocephalinae, Macropsinae. Russia: **EP** (NW, C), **UR**, **WS** (AL), **FE** (PR, SA, KU, KA). – Europe (WE, NE, SE, EE), Turkey, Jordan, Turkmenistan, Kazakhstan, Mongolia, China (NE, NC, SW), Korean Peninsula, Japan (Hok, Hon, Kyu), Nepal.
- Anteon pubicorne** (Dalman, 1818) [Gonatopus] (*Chelogynus lucidus*: Ponomarenko, 1978; *A. mongolicum* Móczár, 1983). Parasitoid of Cicadellidae: Deltocephalinae, Macropsinae. Russia: **EP** (NW, C, E, S, CR), **UR**, **WS** (AL), **ES** (KR, IR), **FE** (PR, SA, KA, MG). – Europe (WE, NE, SE, EE), Morocco, Turkey, Armenia, Kazakhstan, Mongolia, China (NE, NC, NW), Korean Peninsula, Japan (Hok, Hon).
- Anteon scapulare** (Haliday, 1837) [Dryinus] (*A. carinatus* Kieffer, 1905; *A. longiforceps* Kieffer, 1905; *Chelogynus lanionis* Haupt, 1941). Parasitoid of Cicadellidae: Iassinae. Russia: **FE** (PR). – Europe (WE, EE), Turkey, Japan (Kyu).
- Anteon takenoi** Olmi, 1995. Russia: **FE** (PR). – China (NE, NC, SW), Korean Peninsula, Japan (Kyu).
- Anteon tripartitum** Kieffer, 1905 (*Chelogynus silvaticus* Ponomarenko, 1970). Parasitoid of Cicadellidae. Russia: **EP** (C), **UR**. – Europe (WE, NE, SE, EE), Japan (Hon).
- LONCHODRYINUS** Kieffer, 1905 (*Prenanteon* Kieffer, 1913; *Psilanteon* Kieffer, 1913). Type species *Lonchodryinus tricolor* Kieffer, 1905. Parasitoids of Cicadellidae. The genus is distributed worldwide. Number of species: World – 16, Palearctic – 4, Russia – 1.
- Lonchodryinus ruficornis** (Dalman, 1818) [Gonatopus] (*Prenanteon semenovi* Ponomarenko, 1970; *P. pektusanense* Móczár, 1983; *P. ruficorne*: Ponomarenko, 1978; *L. kotenkoi* Ponomarenko, 1992). Parasitoid of Cicadellidae (excluding Typhlocybinae). Russia: **EP** (N, C, S), **UR**, **WS** (AL), **ES** (IR, BR, YA, ZB), **FE** (KH, SA, KU, KA, MG). – Europe (WE, NE, SE, EE), Kyrgyzstan, Kazakhstan, Mongolia, China (NE, NC, NW, WP), Korean Peninsula, Japan (Hok, Hon, Shi).

## Subfamily BOCCHINAE

**MYSTROPHORUS** Förster, 1856. Type species *Mystrophorus formicaeformis* Ruthe, 1859. Parasitoids of Cicadellidae: Deltocephalinae. Palearctic genus with 2 species.

**Mystrophorus formicaeformis** Ruthe, 1859. Parasitoid of Cicadellidae: Deltocephalinae. Russia: **EP** (C). – Europe (WE, NE, SE, EE).

**Mystrophorus apterus** Ponomarenko, 2000. Parasitoid of Cicadellidae: Deltocephalinae. Russia: **EP** (C).

## Subfamily DRYININAE

**DRYINUS** Latreille, 1804 (*Campylonyx* Westwood, 1835; *Chelothelius* Reinhard, 1863; *Chlorodryinus* R. Perkins, 1905; *Paradryinus* R. Perkins, 1905;



*Mesodryinus* Kieffer, 1906; *Plastodryinus* Kieffer, 1906; *Hesperodryinus* R. Perkins, 1907; *Pero-dryinus* R. Perkins, 1907; *Lestodryinus* Kieffer, 1911; *Tridryinus* Kieffer, 1913; *Bocchoides* Benoit, 1953; *Richardsidryinus* Móczár, 1965; *Avodryinus* Ponomarenko, 1981; *Alphadryinus* Olmi, 1984).

Type species *Dryinus formicarius* Latreille, 1804 = *Sphex collaris* Linnaeus, 1767. Parasitoids of Acanaloniidae, Cixiidae, Delphacidae, Dictyopharidae, Flatidae, Fulgoridae, Issidae, Lophopidae, Ricaniidae, Tropiduchidae. The genus is distributed worldwide. Number of species: World – 293, Palaearctic – 11, Russia – 2.

**Dryinus albrechti** (Olmi, 1984) [*Richardsidryinus*] (*Richardsidryinus albrechti*: Ponomarenko, 1992). Russia: **UR**. – Canary Islands.

**Dryinus tarraconensis** Marshall, 1868 (*D. szepligetii* Kieffer, 1905; *Lestodryinus gregori* Hoffer, 1936; *L. bidens* Haupt, 1937). Parasitoid of Dictyopharidae. Russia: **EP** (S), **FE** (PR). – Europe (WE, SE, EE), Morocco, Turkey, Iraq, Tajikistan.

#### Subfamily GONATOPODINAE

**ECHTHRODELPHAX** R. Perkins, 1903 (*Pterogonatopus* Abdul-Nour, 1976). Type species *Echthrodelpfax fairchildii* R. Perkins, 1903. Parasitoids of Delphacidae. The genus is distributed worldwide. Number of species: World – 12, Palaearctic – 2, Russia – 1.

**Echthrodelpfax tauricus** Ponomarenko, 1970. Russia: **EP** (CR).

**GONATOPUS** Ljungh, 1810 (*Dicondylus* Haliday, 1830; *Labeo* Haliday, 1833; *Labeola* Haldeman, 1842; *Chalcogonatopus* R. Perkins, 1905; *Eugonatopus* R. Perkins, 1905; *Neogonatopus* R. Perkins, 1905; *Pachygonatopus* R. Perkins, 1905; *Paragonatopus* R. Perkins, 1905; *Pseudogonatopus* R. Perkins, 1905; *Mercetia* Kieffer, 1906; *Platygonatopus* Kieffer, 1906; *Agonatopoides* R. Perkins, 1907; *Agonatopus* R. Perkins, 1907; *Apterodryinus* R. Perkins, 1907; *Cyrtogonatopus* Kieffer, 1907; *Pristogonatopus* Kieffer, 1907; *Digonatopus* Kieffer, 1913; *Trigonatopus* Kieffer, 1913; *Laberius* Kieffer, 1914; *Trichogonatopus* Hellen, 1930; *Laberinus* Ogloblin, 1932; *Metagonatopus* Ogloblin, 1932; *Allogonatopus* Haupt, 1938; *Donisthorpina* Richards, 1939; *Epigonatopoides* Richards, 1939; *Plectrogonatopus*

Richards, 1939; *Tetrodontocheilus* Richards, 1939; *Idologonatopus* Ogloblin, 1953; *Madecagonatopus* Benoit, 1953; *Rhynchogonatopus* Benoit, 1953; *Pseudogonatopoides* Williams, 1956; *Cyrtogonatopoides* Ponomarenko, 1966; *Plectrogonatopoides* Ponomarenko, 1975; *Acrodontocheilus* Currado, 1976; *Dolichocheilus* Olmi et Currado, 1976; *Megagonatopus* Olmi et Currado, 1976; *Neogonatopoides* Abdul-Nour, 1976; *Nogatopus* Ponomarenko, 1979; *Tetrodontocheilus* J. Perkins, 1976; *Paradicondylus* Olmi, 1986). Type species *Gonatopus formicarius* Ljungh, 1810. Parasitoids of Acanaloniidae, Cicadellidae (except for Typhlocybinae, Idiocerinae, Macropsinae), Delphacidae, Flatidae, Issidae, Lophopidae, Tropiduchidae. The genus is distributed worldwide. Number of species: World – 441, Palaearctic – more than 50, Russia – 20.

**Gonatopus baeticus** (Ceballos, 1927) [*Mercetia*] (*Dryinus victorovi* Ponomarenko, 1970). Parasitoid of Dictyopharidae. Russia: **EP** (E, CR). – Europe (WE, SE, EE), Morocco, Algeria, Turkey, Turkmenistan, Uzbekistan.

**Gonatopus bicolor** (Haliday, 1828) [*Dryinus*] (*Dicondylus bicolor*: Ponomarenko, 1978). Russia: **EP** (C), **FE** (KU). – Europe (WE, NE, SE, EE), Kazakhstan.

**Gonatopus camelinus** Kieffer, 1904 (*Pseudogonatopus camelinus*: Ponomarenko, 1992, 1995). Parasitoid of Delphacidae. Russia: **WS** (KM). – Europe (WE, SE), Morocco, Algeria, Egypt, Turkey, Iran, United Arab Emirates, Tajikistan, Turkmenistan, Uzbekistan, Japan (Kyu).

**Gonatopus chersonensis** Ponomarenko, 1970. Russia: **EP** (CR). – Kyrgyzstan, Kazakhstan, Mongolia.

**Gonatopus clavipes** (Thunberg, 1827) [*Gelis*] (*G. sepsoides* Westwood, 1833; *Labeo pusillus* Szépligeti, 1901; *G. borealis* Sahlberg, 1910; *G. campestris* Ponomarenko, 1965; *G. rhaensis* Ponomarenko, 1970; *G. sepsoides*: Ponomarenko, 1992, 1995). Parasitoid of Cicadellidae: Deltocephalinae. Russia: **EP** (N, C, E, S, NC, CR), **WS** (KM), **ES** (KR), **FE** (AM, PR, SA, KU). – Europe (WE, NE, SE, EE), Tunisia, Turkey, Azerbaijan, Iran, Uzbekistan, Kazakhstan, Mongolia, Korean Peninsula, Japan (Hok, Hon).

**Gonatopus distinctus** Kieffer, 1906 (*G. septemdentatus* J. Sahlberg, 1910; *Pseudogonatopus distinctus*: Ponomarenko, 1978). Parasitoid of Delphacidae. Russia: **EP** (N, S, CR), **FE** (KU). – Europe (WE, NE, SE, EE), Mongolia.

**Gonatopus distinguendus** Kieffer, 1905 (*G. excavatus* Sahlberg, 1910; *Allogonatopus procerus* Haupt,

- 1938; *G. thomsoni* Hellen, 1953; *G. rossicus* Ponomarenko, 1965). Parasitoid of Cicadellidae: Deltocephalinae. Russia: **EP** (NW, C, E, S, NC), **UR**, **ES** (IR), **FE** (PR). – Europe (WE, NE, SE, EE), Morocco, Tunisia, Turkey, Iran, Kyrgyzstan, Kazakhstan, Mongolia, China (NE).
- Gonatopus formicarius** Ljungh, 1810 (*G. formicinus* Krogerus, 1932). Parasitoid of Cicadellidae: Deltocephalinae. Russia: **EP** (C, E, S), **UR**, **FE** (PR). – Europe (WE, NE, SE, EE), Turkey, Uzbekistan, Kazakhstan.
- Gonatopus graecus** Olmi, 1984. Parasitoid of Cicadellidae: Deltocephalinae. Russia: **EP** (S). – Europe (SE).
- Gonatopus helleni** (Raatikainen, 1961) [*Dicondylus*] (*Dicondylus sibiricus* Ponomarenko, 1965; *Pseudogonatopus rufus* Ponomarenko, 1979; *Dicondylus helleni*: Móczár, 1983; *D. dichromus*: Ponomarenko, 1992, 1995). Parasitoid of Delphacidae. Russia: **EP** (S), **ES** (BR). – Europe (WE, NE, SE, EE), Mongolia.
- Gonatopus horvathi** Kieffer, 1906 (*Cyrtogonatopoides borealis* Ponomarenko, 1966). Parasitoid of Cicadellidae: Deltocephalinae. Russia: **UR**, **WS** (KM), **ES** (YA), **FE** (KH, SA). – Europe (WE, NE, SE, EE), Kazakhstan, Mongolia, Chian (NE).
- Gonatopus lunatus** Klug, 1810 (*Neogonatopus lunatus*: Ponomarenko, 1978). Parasitoid of Cicadellidae: Deltocephalinae. Russia: **EP** (C, E, S, NC), **UR**, **WS** (KM, AL), **ES** (IR, ZB). – Europe (WE, NE, SE, EE), Morocco, Turkey, Israel, Jordan, Lebanon, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, Korean Peninsula.
- Gonatopus nepalensis** (Olmi, 1984) [*Pseudogonatopus*] (*Pseudogonatopus nepalensis*: Ponomarenko, 1992, 1995). Russia: **ES** (ZB), **FE** (PR). – Nepal.
- Gonatopus pallidus** (Ceballos, 1927) [*Dicondylus*] (*Domistorpina pallida*: Ponomarenko, 1992, 1995). Russia: **FE** (PR). – Europe (NE, SE), Algeria.
- Gonatopus pedestris** Dalman, 1818 (*G. leucostomus* Sahlberg, 1910; *Pachygonatopus arnoldii* Ponomarenko, 1966; *Tetrodontocheilus pedestris*: Ponomarenko, 1992, 1995). Parasitoid of Cicadellidae: Deltocephalinae. Russia: **EP** (N, C, E, S, CR), **ES** (KR), **FE** (SA). – Europe (WE, NE, SE, EE), China (NE, CC), Japan (Hon, Kyu, Shi).
- Gonatopus planiceps** Kieffer, 1904. Parasitoid of Cicadellidae: Agalliinae. Russia: **EP** (S). – Europe (WE, SE, EE), Morocco, Algeria, Egypt, Turkey, United Arab Emirates, Turkmenistan, Kazakhstan.
- Gonatopus popovi** Ponomarenko, 1965. Parasitoid of Cicadellidae: Deltocephalinae. Russia: **EP** (E).
- Gonatopus solidus** (Haupt, 1938) [*Allogonatopus*] (*Agonatopoides johanna*e Currado et Olmi, 1975; *A. solidus*: Ponomarenko, 1992, 1995). Parasitoid of Delphacidae. Russia: **ES** (ZB), **FE** (PR). – Europe (WE, NE, SE, EE).
- Gonatopus spectrum** (Van Vollenhoven, 1874) [*Dryinus*] (*Neogonatopus albidus* auct.). Parasitoid of Cicadellidae. Russia: **EP** (Olmi, Xu, 2015). – Europe (WE, NE, SE, EE), Kyrgyzstan, Kazakhstan.
- Gonatopus striatus** Kieffer, 1905 (*Agonatopoides tauricus* Ponomarenko, 1965). Parasitoid of Cicadellidae. Russia: **EP** (CR). – Europe (WE, NE, SE, EE), Turkey, Mongolia.
- HAPLOGONATOPUS** R. Perkins, 1905 (*Monogonatopus* Richards, 1939; *Congodryinus* Benoit, 1950). Type species *Haplogonatopus apicalis* R. Perkins, 1905. Parasitoids of Delphacidae. The genus is distributed worldwide. Number of species: World – 7, Palaearctic – 2, Russia – 1.
- Haplogonatopus oratorius** (Westwood, 1833) [*Gonatopus*] (*H. atratus* Esaki et Hashimoto, 1932; *H. suchovi* Ponomarenko, 1970; *Monogonatopus oratorius*: Ponomarenko, 1978). Parasitoid of Cicadellidae, Delphacidae. Russia: **EP** (E), **WS** (OM), **ES** (KR). – Europe (WE, NE, SE, EE), Turkey, Lebanon, China (NE, NC, NW, SE), Korean Peninsula, Japan (Hon, Kyu, Shi, Ryukyu, Ogasawara), Northern Mariana Islands (Guam).

## 58. FAMILY EMBOLEMIDAE

S.A. BELOKOBYSKIJ

Small wasps parasitizing nymphs of plant hoppers (Hemiptera: Auchenorrhyncha) (Olm et al., 2014a, 2014b). Females of Embolemidae are micropterous, brachypterous or macropterous, but males are always macropterous; third segment of maxillary palp much larger than other palpal segments; antenna 10-segmented, with long (female) or short (male) scape, articulated on two prominent contiguous frontal processes far above the clypeus; in macropterous forms, fore wing with long tubular developed radial and distal abscissa of medial vein, second radiomedial vein usually present; tibial spurs 1, 1, 2. Three extant genera are known in this family: *Embolemus* Westwood, parasitoids of nymphs of Cixiidae, *Ampulicomorpha* Ashmead, parasitoids of nymphs of Achilidae, and *Trogloembolemus* Olmi, Mita et Guglielmino, 2014 with unknown biology. Also three fossil genera were described in Embolemidae: *Baissobius* Rasnitsyn, 1975, *Embolemopsis* Olmi, Rasnitsyn et Guglielmino, 2010 and *Cretembolemus* Olmi, Rasnitsyn, Brothers et Guglielmino, 2014.

Number of taxa: World – 3 genera, 39 species, Palearctic – 3/10, Russia – 2/5.

R e f e r e n c e s. Trjapitzin, 1978; Rasnitsyn, Matveev, 1989; Belokobylskij, 1990, 1995; Olmi, 1996; Belokobylskij, Lelej, 2012; Varrone, Olmi, 2012; Guglielmino, Buckle, 2013; Olmi et al., 2014a,b.

**AMPULICOMORPHA** Ashmead, 1893. Type species *Ampulicomorpha confusa* Ashmead, 1893. Small genus with worldwide distribution. parasitoids of the nymphs of Achilidae living in rotten logs

and feeding on hyphal sheets of shelf fungi (Olm et al., 2014a, 2014b). Number of species: World – 25 (including 1 fossil), Palearctic – 2, Russia – 1.

**Ampulicomorpha thaua** Rasnitsyn et Matveev, 1989. Russia: **EP** (S), **FE** (KU). – Korean Peninsula, ?Japan.

**EMBOLEMUS** Westwood, 1833 (*Myrmecomorphus* Westwood, 1833; *Polyplanus* Nees, 1834; *Formila* de Romand, 1846; *Pedinomma* Forster, 1856). Type species *Embolemus ruddii* Westwood, 1833. Largest and worldwide distributed embolemid genus, which are most abundant in the tropical areas. The members of this genus are known as parasitoids of nymphs of Cixiidae living in the soil and feeding on roots (Varrone, Olmi, 2012; Olmi et al., 2014a,b). Number of species: World – 34 (including 1 fossil), Palearctic – 7, Russia – 4.

**Embolemus pecki** Olmi, 1997. Russia: **FE** (PR). – Europe (SE), China (NO, NE, SE), Korean Peninsula, Vietnam, Indonesia.

**Embolemus sensitivus** Xu, Olmi et Guglielmino, 2012 (*E. ruddii* auct.). Russia: **FE** (AM, PR). – China (NO, SW, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu), Vietnam.

**Embolemus ruddii** Westwood, 1833 (*Myrmecomorphus rufescens* Westwood, 1833; *Pedinomma rufescens* var. *antennalis* Kieffer, 1906; *Pedinomma rufescens* var. *holochlora* Marshall, 1906; *Pedinomma rufescens* var. *hypochlora* Marshall, 1906; *Polyplanus sickershusanus* Nees, 1834; *Formila chevrolatii* de Romand, 1846). Russia: **EP** (NW, S), **ES** (IR). – Europe (WE, SE, NE, EE).

**Embolemus tauricus** Olmi, Belokobylskij et Guglielmino, 2014. Russia: **EP** (CR).

## 59. FAMILY BETHYLIDAE

A.S. LELEJ AND K.I. FADEEV

Small to medium sized, usually dark-colored wasps. Females of many species are wingless and antlike in appearance. In a few species, both winged and wingless forms occur in each sex. These wasps are parasitoids of the larvae of Lepidoptera and Coleoptera. Several species attack moths or beetles that infest grain or flour. A few species will sting people. Widely distributed in tropical and subtropical areas. Number of extant taxa: World – 84 genera, 2340 species, Palaeartic – 20 /244, Russia – 20/34.

**R e f e r e n c e s.** Kieffer, 1906, 1914; Evans, 1964; Nagy, 1968; Perkins, 1976; Trjapitsin, 1978; Móczár, 1984; Gordh, Móczár, 1990; Gorbatovsky, 1995, 1998; Argaman, 2003; Terayama, 2003a,b; Vargas-Rojas, Terayama, 2006; Macek et al., 2007; Polaszek, 2011; Lelej, 2012a; Humala, Polevoi, 2011, 2015; Kostjukov et al., 2014; Nakonechnaya et al., 2014; Zamprogno, Azevedo, 2014; Paukkunen, Kozlov, 2015; Terayama, 2016; Fadeev, 2017.

## Subfamily PRISTOCERINAE

**ACREPYRIS** Kieffer, 1905 (*Neopristocera* Yasumatsu, 1955). Type species *Epyris reticulatus* Kieffer, 1904 (= *Pristocera armifera* Say, 1828). The genus is distributed in New World, Oriental region and Palaeartic. Number of species: World – 38, Palaeartic – 7, Russia – 1.

**Acrepyris masii** (Giordani Soika, 1933) [Pristocera]. Russia: **EP** (NC, CR). – Europe (SE).

**PRISTOCERA** Klug, 1808 (*Dicrogenium* Stadelmann, 1894, *Neurepyris* Kieffer, 1905; *Kathepyris* Kieffer, 1907; *Mangesia* Kieffer, 1911; *Nomineia* Kieffer, 1911; *Trichelobrachium* Kieffer, 1914; *Neodicrogenium* Benoit, 1957; *Diepyris* Benoit, 1957). Type species *Bethylus depressa* Fabricius, 1805. The genus is distributed in Afrotropical, Palaeartic and Oriental regions. Number of species: World – 124, Palaeartic – 2, Russia – 1.

**Pristocera depressa** (Fabricius, 1805) [Bethylus] (*Pseudisobrachium roubali* Menozzi, 1925). The parasite of larva of *Agriotes obscurus* L. (Elateridae). Russia: **EP** (S, CR). – Europe (SE, EE).

**PSEUDISOBRACHIUM** Kieffer, 1904 (*Monepyris* Kieffer, 1905; *Xestobethylus* Cameron, 1909;

*Plutobethylus* Kieffer, 1910; *Lyssepyris* Kieffer, 1913; *Xantepyrus* Kieffer, 1913; *Parisobrachium* Kieffer, 1914; *Afrisobrachium* Benoit, 1957; *Edapholigon* Ogloblin, 1963). Type species *Pseudisobrachium laticeps* Kieffer, 1904. The females are often found in ant nests, it is suggested that they are parasitoids of beetle larvae. The genus is distributed in worldwide except Australia. Number of species: World – 140, Palaeartic – 9, Russia – 2.

**Pseudisobrachium belokobylskyi** Gorbatovsky, 1995. Russia: **FE** (PR).

**Pseudisobrachium subcyaneum** (Haliday, 1838) [Epyris] (*P. carpentieri* Kieffer, 1906). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, EE).

## Subfamily EPYRINAE

## Tribe EPYRINI

**EPYRIS** Westwood, 1832 (*Calyoza* Westwood in Hope, 1837; *Dolus* Motschulsky, 1863; *Muellerella* de Saussure, 1892; *Homoglenus* Kieffer, 1904; *Paracalyoza* Cameron, 1909; *Artiepyris* Kieffer, 1913; *Psilepyris* Kieffer, 1913; *Parepyris* Kieffer, 1913; *Pseudocalyoza* Turner, 1915; *Calyozella* Enderlein, 1920). Type species *Epyris niger* Westwood, 1832. The parasitoids of larvae of Tenebrionidae. The genus is distributed worldwide. Number of species: World – 219, Palaeartic – 40, Russia – 6.

**Epyris alius** Gorbatovsky, 1995. Russia: **FE** (PR).

**Epyris chasanicus** Gorbatovsky, 1995. Russia: **FE** (PR).

**Epyris erythrocerus** Kieffer, 1906. Russia: **EP** (S). – Europe (EE), N Africa.

**Epyris kurzenkoi** Gorbatovsky, 1995. Russia: **FE** (PR).

**Epyris leleji** Gorbatovsky, 1995. Russia: **FE** (PR).

**Epyris tardus** Kieffer, 1906. Russia: **EP** (S). – Europe (EE).

**HOLEPYRIS** Kieffer, 1904 (*Rysepyris* Kieffer, 1906; *Misepyris* Kieffer, 1913; *Parepyris* Brèthes, 1913). Type species *Holepyris africanus* Kieffer, 1904. The parasitoids of larvae of beetles Cucujidae, Curculionidae, Tenebrionidae and moth Pyralidae. The genus is distributed worldwide. Number of species: World – 102, Palaeartic – 36, Russia – 1.

**Holepyris kasparyani** Gorbatovsky, 1995. Russia: **FE** (PR).

**LAELIUS** Ashmead, 1893 (*Paralaelius* Kieffer, 1905; *Allepyris* Kieffer, 1905). Type species *Laelius*

*trogodermatis* Ashmead, 1893. The parasitoids of larvae beetle Dermestidae, Bostrichidae, Anobiidae. The genus is distributed in Holarctic. Number of species: World – 23, Palaearctic – 15, Russia – 3.

**Laelius antropovi** Gorbatovsky, 1995. Russia: **FE** (PR).

**Laelius femoralis** (Förster, 1860) [Bethylus]. Russia: **EP** (C). – Europe (WE, NE).

**Laelius foersteri** Kieffer, 1914 (*Bethylus rufipes* Förster, 1860, nom. praecoc., nec Say, 1836). Russia: **EP** (N). – Europe (WE, EE).

#### Tribe SCLERODERMINI

**SCLERODERMUS** Latreille, 1809 (*Sclerochroa* Förster, 1850; *Scleroderma* Costa, 1864; *Neoscleroderma* Kieffer, 1905). Type species *Sclerodermus domesticus* Latreille, 1809. Number of species: World – 70, Palaearctic – 26, Russia – 1.

**Sclerodermus domesticus** Klug, 1809 (*Scleroderma fonscolombeii* Westwood, 1881). Russia: **EP** (C, S, NC, CR). – Europe (WE, EE).

#### Tribe CEPHALONOMIINI

**CEPHALONOMIA** Westwood, 1833 (*Holopedina* Förster, 1850; *Cephaloderma* Hoffer, 1936). Type species *Cephalonomia formiciformis* Westwood, 1833. Number of species: World – 33, Palaearctic – 19, Russia – 2.

**Cephalonomia formiciformis** Westwood, 1833 (*Holopedina polypori* Förster, 1850). The parasite of the beetles *Cis* Latr. and *Ennearthron* Mellié (Ciidae). Russia: **EP** (CR). – Europe (WE, EE).

**Cephalonomia hammi** Richards, 1939. Russia: **EP** (N). – Europe (WE, NE).

**PARARHABDEPYRIS** Gorbatovsky, 1995. Type species *Pararhabdepyris paradoxus* Gorbatovsky, 1995. The genus is distributed in Eastern Palaearctic, Oriental region (Thailand) and Australia. Number of species: World – 3, Palaearctic – 1, Russia – 1.

**Pararhabdepyris paradoxus** Gorbatovsky, 1995. Russia: **FE** (PR).

**PLASTANOXUS** Kieffer, 1905 (*Snappania* Hedqvist, 1975). Type species *Anoxus chittendenii* Ashmead, 1893. The parasitoids of larvae beetle Cucujidae. The genus is distributed worldwide. Number of species: World – 10, Palaearctic – 6, Russia – 1.

**Plastanoxus evansi** Gorbatovsky, 1995. Russia: **FE** (PR).

#### Subfamily MESITIINAE

**CLYTROVORUS** Nagy, 1972. Type species *Sclerodermus mutilloides* Costa, 1864. Monotypic Palaearctic genus.

**Clytrovorus mutilloides** Costa, 1864 [Sclerodermus] (*Mesitius fuscicornis* Kieffer, 1906; *M. horvathi* Kieffer, 1906; *M. zavadili* Hoffer, 1936; *M. viator* Nagy, 1968). Russia: **EP** (S), **UR**. – Europe (SE, EE).

**GERBEKAS** Argaman, 2003. Type species *Mesitius carcelii* Westwood, 1874. Monotypic Palaearctic genus.

**Gerbekas carcelii** (Westwood, 1874) [Mesitius] (*M. halidayellus* Westwood, 1874; *M. hungaricus* Kieffer, 1906; *M. gracilis* Kieffer, 1906; *M. nagy* Móczár, 1969). Russia: **EP** (S). – Europe (WE, SE, EE), Tunisia, Israel, North Kazakhstan.

**METRIONOTUS** Móczár, 1970. Type species *Metrionous pappi* Móczár, 1970 (= *Mesitius minimus* Kieffer, 1906). Monotypic genus is distributed in Palaearctic and Afrotropical regions.

**Metrionotus minimus** (Kieffer, 1906) [Mesitius] (*Mesitius minor* Benoit, 1968; *Metrionotus pappi* Móczár, 1970). Russia (Argaman, 2003). – Europe (WE, SE), Egypt, Cyprus, Turkey, Syria, Lebanon, Israel, Saudi Arabia, Yemen, Iraq, Afghanistan, South Africa, Namibia.

**PARVOCULUS** Móczár, 1970. Type species *Parvoculus myrmecophilus* Móczár, 1970 (= *Mesitius indicus* Kieffer, 1905). Number of species: World – 3, Palaearctic – 2, Russia – 1.

**Parvoculus indicus** Kieffer, 1905 [Mesitius] (*Mesitius pyrenaicus* Kieffer, 1906; *M. caspicus* Nagy, 1969, *M. brevispinosus* Benoit, 1968, *Incertosulcus krombeini* Móczár, 1970, *Metrionotus africanus* Móczár, 1970, *M. szelenyi* Móczár, 1970; *M. mocsaryi* Móczár, 1970; *M. yarrowi* Móczár, 1970; *Parvoculus myrmecophilus* Móczár, 1970). Russia: **EP** (S). – Europe (WE), Egypt, Jordan, Israel, Yemen, Iraq, India, Democratic Republic of Congo, South Africa, Botswana, Namibia.

**SULCOMESITIUS** Móczár, 1970 (*Topcobius* Nagy, 1972). Type species *Sulcomesitius longispinus*

Móczár, 1970. The genus is distributed in Europe, Asia, and Africa. Number of species: World – 54, Palaeartic – 2, Russia – 1.

**Sulcomesitius moczari** Gorbatovsky, 1995. Russia: **FE** (PR).

**UKAYAKOS** Argaman, 2003. Type species *Mesitius obscurus* Kieffer, 1906. Monotypic Palaeartic genus.

**Ukayakos obscurus** (Kieffer, 1906) [Mesitius] (*Metrionotus bekkeri* Móczár, 1984; *Heterocoelia nikolskajae* Móczár, 1984). Russia: **EP** (S). – Europe (WE), Tajikistan.

#### Subfamily BETHYLINAE

**BETHYLUS** Latreille, 1802 (*Perisemus* Förster, 1856; *Episemus* Thomson, 1862; *Anoxus* Thomson, 1862; *Digoniozus* Kieffer, 1905). Type species *Omalus fuscicornis* Jurine, 1807. The parasitoids of Lepidoptera larvae Tortricidae, Gelechiidae, Noctuidae. The genus is distributed in Holarctic. Number of species: World – 34, Palaeartic – 29, Russia – 2.

**Bethylus fuscicornis** (Jurine, 1807) [Omalus] (*B. syngenesiae* Haliday, 1834; *Perisemus triareolatus* Förster, 1851; *Episemus variabilis* Thomson, 1862, *B. berlandi* Arlé, 1929). The parasitoid of the larvae *Helicoverpa armigera* (Hübner) (Noctuidae). Russia: **EP** (N, NC), **ES** (YA), **FE** (AM, KH, PR, SA, KU, KA, MG). – Europe (WE, NE, EE), N Africa, Japan (Hok, Hon).

**Bethylus cephalotes** (Förster, 1860) [Perisemus]. The parasitoid of the larvae *Helicoverpa armigera* (Hübner) (Noctuidae). Russia: **EP** (NC). – Europe (WE).

**GONIOZUS** Förster, 1856 (*Parasierola* Cameron, 1883; *Progoniozus* Kieffer, 1905; *Perisierola* Kieffer, 1914). Type species *Bethylus claripennis* Förster, 1851. The parasitoids of Lepidoptera larvae Tortricidae, Gelechiidae, Pyralidae. The genus is distributed worldwide. Number of species: World – 142, Palaeartic – 12, Russia – 4.

**Goniozus claripennis** (Förster, 1851) [Bethylus] (*B. fuscipennis* Förster, 1851; *G. distigmus* Thomson,

1861; *Goniozus* (!) *flavipennis* (!): Nakonechnaya et al., 2014). The parasitoid of the larvae of *Sparganothis pilleriana* Den. et Schiff., *Eupoecilia ambiguella* Hb. (Tortricidae) and *Helicoverpa armigera* (Hübner) (Noctuidae). Russia: **EP** (N, NC), Siberia (Kieffer, 1914). – Europe (WE, NE, EE), Caucasus, Iran.

**Goniozus gallicola** (Kieffer, 1905) [Parasierola]. The parasitoid of the larvae *Lobesia botrana* (Den. et Schiff.) (Tortricidae), *Apomyelois ceratoniae* (Zeller), *Ephestia elutella* (Hübner), *Cryptoblabes gnidiella* Mill. (Pyralidae), *Borkhausenia* sp. (Oecophoridae) and *Helicoverpa armigera* (Hübner) (Noctuidae). Russia: **EP** (S, NC). – Europe (WE, SE, EE).

**Goniozus japonicus** Ashmead, 1904. The parasitoids of Lepidoptera larvae Gelechiidae, Gracillariidae, Pyralidae, Tortricidae, Glyphipterigidae. Russia: **ES** (YA), **FE** (KH, PR). – China (NC, CC, SE), Korean Peninsula, Japan (Hon, Shi, Kyu, Ryu).

**Goniozus ussuricus** (Gorbatovsky, 1995) [Parasierola] (*Parasierola ussurica*: Gorbatovsky, 1995). Russia: **FE** (PR).

**ODONTEPYRIS** Kieffer, 1904 (*Trissomalus* Kieffer, 1905; *Prosierola*: Gorbatovsky, 1995). Type species *Odontepyrus flavinervus* Kieffer, 1904. The genus is distributed in Old World and Australia. Number of species: World – 26, Palaeartic – 3, Russia – 2.

**Odontepyrus orientalis** (Gorbatovsky, 1995) [Prosierola]. Russia: **FE** (PR).

**Odontepyrus erucarum** (Szelényi, 1958) [Parasierola]. The parasitoid of the larvae *Helicoverpa armigera* (Hübner) (Noctuidae). Russia: **EP** (E, S, NC, CR). – Europe (EE).

**SIEROLA** Cameron, 1881 (*Lelejola* Gorbatovsky, 1998). Type species *Sierola testaceipes* Cameron, 1881. The genus is distributed in Eastern Palaeartic, Oriental region, Australia, and Hawaii. Number of species: World – 198, Palaeartic – 3, Russia – 1.

**Sierola ashmeadi** Gorbatovsky, 1995. Russia: **FE** (PR). – Japan (Hon).

## 60. FAMILY CHRYSIDIDAE – CUCKOO WASPS

P. ROSA, A.S. LELEJ, S.A. BELOKOBYSKIJ,  
V.M. LOKTIONOV AND L.A. ZAYTSEVA

The Chrysididae, commonly known as cuckoo wasps, jewel wasps or ruby tail wasps (*осы-блестянки* or *золотые осы*) are a cosmopolitan family which include about 2.500 species in the world (Aguilar et al., 2013), subdivided into 92 genera. The Russian species belong to two subfamilies, Cleptinae and Chrysidinae, parasitoids or cleptoparasites of other Hymenoptera (sawflies, solitary wasps and bees) and Lepidoptera (Kimsey, Bohart, 1991). Another subfamily (Amiseginae), not yet recorded in the Palaearctic region with the exception of Japan, is likely to occur in Russian Far East (Kurzenko, Lelej, 2007) and members of this subfamily are known as egg parasitoids of walking sticks (Phasmatidae).

Like in Europe, the highest diversity of cuckoo wasps is found in the southern part of Russia and relatively few species have been observed in its northern part (Nikol'skaya, 1978). In fact, chrysidids are usually thermophilous and search for sandy sites, clay brick and stone walls, rocky steppes, deserts and semideserts; but they can be found also in forest margins, clearings with sun-exposed dead tree trunks and stumps and gardens with sun-exposed dead wood, on wooden walls, wood poles and fence posts and all places where their hosts live (Rosa, 2006; Paukkunen et al., 2015). In the highest latitude and on mountains they fly on rocky outcrops and alpine meadows (Rosa, 2006; Paukkunen et al., 2015). Adults can be often observed feeding on flowers as Apiaceae and Euphorbiaceae, but many other flowers are occasionally visited by chrysidids (Rosa, 2004).

Despite Russia being the largest country in the world, extending across the entirety of northern Asia and much of eastern Europe and incorporating a wide range of environments and landforms, studies on Chrysididae there are unexpectedly scarce. In fact, the only comprehensive catalogue dates back to Radoszkowski (1866) and the only key, restricted to the European part of the USSR, was compiled by Nikol'skaya (1978); it was mainly based on Linsenmaier (1959) and Móczár (1967) monographs, without adding new data or records. Nikol'skaya (1978) listed 99 species in the European part of USSR, which represent a small percentage compared with the European fauna, numbering about 600 species and subspecies (Linsenmaier, 1959; Soon, Rosa, 2015).

Even though the chrysidid fauna of few regions (the Caucasus, Crimea and Lower Volga) is well known, the species composition in large parts of Russia is almost unknown. Some administrative regions (Provinces and Territories) or Republics are too poorly studied. For example, no chrysidids have been recorded yet in the Provinces of Smolensk, Orel and Kaliningrad, even when the faunas of the adjacent countries (Poland, Lithuania and Belarus) are well studied. The Siberian fauna has been recently studied by Rosa et al. (2017b, c), while Rosa et al. (2017d) gave other Russian records from its Far East and the European part.

Number of taxa: World – 95 genera, about 2815 species, Palaearctic – 36/1557, Russia – 23/330.

R e f e r e n c e s. Pallas, 1771; Assmuss, 1862; Radoszkowski, 1866; Dalla Torre, 1892; Uchida, 1927; Kuznetsov-Ugamskij, 1927; Hammer, 1950; Tsuneki, 1947, 1948; 1950, 1953a,b, 1955, 1959, 1963, 1979; Linsenmaier, 1959, 1968, 1987; Móczár, 1967; Semenov, 1967; Nikol'skaya, 1978; Kimsey, Bohart, 1991; Terayama et al., 2005; Rosa, 2004, 2006; Kurzenko, Lelej, 2007; Paukkunen et al., 2014, 2015; Terayama et al., 2016; Rosa et al., 2015; 2017a, b, c, d.

### Subfamily CLEPTINAE

Number of taxa: World – 3 genera, 163 species, Palaearctic – 1/92, Russia – 1/15.

**CLEPTES** Latreille, 1802 (*Holcocleptes* Móczár, 1962; *Leiocleptes* Móczár, 1962; *Zimmermannia* Móczár, 1962; *Melanocleptes* Móczár, 1962; *Chrysocleptes* Móczár, 1962; *Oxycleptes* Móczár, 1962; *Neocleptes* Kimsey, 1981; *Maculosicleptes* Móczár, 1988). Type species *Sphex semiaurata* Linnaeus, 1761. Parasitoids of sawflies *Neodiprion* sp. (Diprionidae), *Hoplocampa brevis* (Klug), *Nematulus hispidae* Smith, *N. ribesii* Scopoli, *Pristiphora* sp. (Tenthredinidae). Holarctic genus. Number of species: World – 92, Palaearctic – 71, Russia – 15.

**Cleptes aerosus aerosus** Förster, 1853. Russia: **EP** (CR). – Europe (SE, WE, EE), Georgia, Armenia, Turkey.

**Cleptes dauriensis** Móczár, 1997. Russia: **ES** (ZB).

**Cleptes femoralis** Mocsáry, 1890. Russia: **EP** (E). – Europe (SE), Caucasus, Turkey.

**Cleptes halinae** Kuznetsov-Ugamskii, 1927 (*C. hyalinae*: Kurzenko, Lelej, 2007; Lelej, Kurzenko, 2012). Russia: **FE** (PR).

- Cleptes ignitus** (Fabricius, 1787) [Ichneumon] (*C. ignita*: Radoszkowski, 1866; *C. igneta* (!): Radoszkowski, 1880; *C. ignites* (!): Shibaev, 2006). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, W Asia.
- Cleptes insidiosus** du Buysson, 1891. Russia: **EP** (NC).
- Cleptes nitidulus** (Fabricius, 1793) [Ichneumon] (*C. fallax* Mocsáry, 1889). Parasitoid of *Nematus* spp. and *Euura* spp. (Tenthredinidae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (AL). – Europe (WE, NE, SE, EE), Turkey.
- Cleptes obsoletus** Semenov, 1891. Russia: **EP** (S).
- Cleptes primorensis** Móczár, 2000. Russia: **FE** (PR).
- Cleptes putoni** du Buysson, 1886 (*C. saussurei* Mocsáry, 1889; *C. putonii* (!): Dalla Torre, 1892). Russia: **EP** (S). – Europe (WE, SE, EE), Turkey, Jordan.
- Cleptes radoszkowskii** Mocsáry, 1889. Russia: **EP** (E, NC). – Georgia, Azerbaijan, Uzbekistan.
- Cleptes semiauratus** (Linnaeus, 1761) [Spheg] (*C. pallipes* Lepeletier, 1806). Parasitoid of *Endelomyia aethiops* (Gmelin), *Euura ribesii* (Scopoli) and *Pristiphora incisa* (Lindqvist) (Tenthredinidae). Russia: **EP** (NW, C, E, CR), **UR**. – Europe (WE, NE, SE, EE), Caucasus, Turkey.
- Cleptes semicyaneus** Tournier, 1879 (*C. elegans* Mocsáry in Mocsáry et Szepligeti, 1901). Russia: **EP** (C, E, S, CR), **ES** (IR). – Europe (WE, EE).
- Cleptes splendidus** (Fabricius, 1794) [Ichneumon] (*C. consimilis* du Buysson, 1887; *C. caucasicus* Semenov, 1920). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Georgia, Turkey, Iran.
- Cleptes striatipleuris** Rosa, Forshage, Paukkunen et Soon, 2015 (*C. semiauratus* auct.). Russia: **EP** (C, E, NC, CR), **?WS**, **?ES**, **?FE**. – Europe (SE, EE), ?N America.

#### Subfamily CHRYSIDINAE

Number of taxa: World – 56 genera, 2,488 species, Palaeartic – 31/1,461, Russia – 22/315.

#### Tribe ELAMPINI

Number of taxa: World – 25 genera, 1706 species, Palaeartic – 14/518, Russia – 11/123.

- CHRYSSELLAMPUS** Semenov, 1932. Type species *Ellampus heros* Semenov, 1892 (*Parellampus* Semenov, 1932). Number of species: World – 11, Palaeartic – 10, Russia – 2.

- Chrysellampus duplipunctatus** Tsuneki, 1948 (*Philoctetes duplipunctatus*: Kurzenko, Lelej, 2007). Russia: **ES** (ZB), **FE** (KH, PR). – China (NE, NC), Korean Peninsula.

- Chrysellampus sculpticollis** (Abeille de Perrin, 1878) [Omalus]. Parasitoid of *Pemphredon rugifer* (Dahlbom) (Crabronidae). Russia: **EP** (CR). – Europe (WE, SE, EE), Caucasus, Turkmenistan.

- COLPOPYGA** Semenov, 1954. Type species *Hedychrum flavipes* Eversmann, 1858. Holarctic genus. Number of species: World – 7, Palaeartic – 4, Russia – 1.

- Colpopyga flavipes** (Eversmann, 1858) [Hedychrum] (*Spintharis pallipes*: Mocsáry, 1889; *Spintharina pallipes*: Zimmermann, 1950). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Middle East.

- ELAMPUS** Spinola, 1806 (*Ellampus* Agassiz, 1846; *Notozus* Förster, 1853). Type species *Chrysis panzeri* Fabricius, 1804. Nest parasites of Crabronidae. Distributed worldwide except Australian and Oriental regions. Number of species: World – 63, Palaeartic – 41, Russia – 21.

- Elampus agnolii** Rosa, 2017. Russia: **ES** (TU).

- Elampus albipennis** (Mocsáry, 1889) [Ellampus] (*E. ambiguus* (!): Radoszkowski, 1877; *Notozus viridis* Tournier, 1890, nom. praeocc., nec Cresson, 1865; *E. tournieri* Dalla Torre, 1892). Russia: **EP** (C, E, S, CR), **UR**, **ES** (IR, BR), **FE** (PR). – Europe (EE), Saudi Arabia, UAE, W Asia, Iran, Turkmenistan.

- Elampus assamensis** (Mocsáry, 1911) [Ellampus]. Russia: **FE** (PR). – India (Assam).

- Elampus bidens** (Förster, 1853) [Notozus] (*E. femoralis* Eversmann, 1858; *Omalus superbus* Abeille de Perrin, 1878; *Notozus superbus* var. *rufescens* du Buysson, 1896; *E. bidens tristis* Tsuneki, 1970). Russia: **EP** (C, E), **WS** (OM), **ES** (IR, BR), **FE** (AM). – Europe (WE, SE, EE), Caucasus, W Asia, Japan (Hok, Hon, Shi, Kyu).

- Elampus caeruleus** Dahlbom, 1854 (*Omalus viridiventris* Abeille de Perrin, 1878; *E. caeruleus* (!): Becker, 1880). Russia: **EP** (E, S, CR), **UR**, **ES** (KR), **FE** (PR). – Europe (WE, SE, EE), Caucasus, China (NE).

- Elampus coloratus** Rosa, 2017. Russia: **ES** (TU). – Mongolia.

- Elampus constrictus** (Förster, 1853) [Notozus] (*E. panzeri*: Eversmann, 1858, Trautmann, 1927; *E. productus*: Becker, 1869; *N. productus* var. *vulgatus*



- du Buysson, 1892; *N. angustatus*: du Buysson, 1896; *E. spina*: Sahlberg, 1910; *N. spina* ab. *prasina* Helén, 1920; *N. panzeri*: Trautmann, 1927; *N. ambiguus*: Nikol'skaya, 1978; *Ellampus ambiguus*: Shibaev, 2006; *Ellampus constrictus*: Shibaev, 2006). Parasitoid of *Mimesa* spp. (Crabronidae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (BR, ZB), **FE** (AM, PR). – Europe (WE, NE, SE, EE), N Africa, China (NE, NC).
- Elampus eversmanni** (Mocsáry, 1889) [Ellampus] (*Elampus ambiguus* Eversmann, 1858, nom. praec., nec Dahlbom, 1854; *Notozus eversmanni*: du Buysson, 1892; *Ellampus eversmannii* (!): Dalla Torre, 1892). Russia: **EP** (E, S, NC, CR). – Caucasus, Iran, Central Asia, Kazakhstan.
- Elampus foveatus** (Mocsáry, 1914) [Ellampus] (*Elampus konowi*: Vinokurov, 2013). Russia: **EP** (NC), **ES** (IR). – Europe (WE, NE, SE, NE).
- Elampus pallasii** (Semenov, 1967) [Notozus]. Russia: **ES** (IR). – Kazakhstan.
- Elampus panzeri** (Fabricius, 1804) [Chrysis] (*Ch. scutellaris* Panzer, 1798, nom. praec., nec Fabricius, 1794; *Notozus panzeri*: Woldstedt, 1875; *Ellampus olgae* Semenov, 1891; *Notozus scutellaris*: Biscohoff, 1913; *Notozus constrictus*: Trautmann, 1927; *E. scutellaris*: Kurzenko, Lelej, 2007). Parasitoid of *Mimesa bicolor* (Jurine) *M. equestris* (Fabricius) and *M. lutaria* (Fabricius) (Crabronidae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (OM, AL), **ES** (IR, BR, YA, ZB), **FE** (PR). – Europe (WE, NE, SE, EE), Caucasus, W Asia, China (NE).
- Elampus petri** (Semenov, 1967) [Notozus]. Russia: **EP** (C), **ES** (TU, ZB).
- Elampus pliginskii** (Semenov, 1967) [Notozus]. Russia: **EP** (CR). – Georgia.
- Elampus pyrosomus** (Förster, 1853) [Notozus] (*E. chrysonotus*: Eversmann, 1858). Russia: **EP** (C, E, S, NC), **UR**. – Europe (SE, EE), Caucasus, Turkey.
- Elampus retusus** (Semenov, 1967) [Notozus]. Russia: **ES** (ZB), **FE** (AM).
- Elampus rufitarsis** (Tournier, 1879) [Notozus]. Russia: **EP** (S).
- Elampus sanzii** Gogorza, 1887. Russia: **EP** (C, E, S), **ES** (IR, BR). – Europe (SE), Turkey, Middle East.
- Elampus spina** (Lepeletier, 1806) [Hedychrum] (*E. productus*: Eversmann, 1858; *Ellampus frivalszkyi*: Mocsáry, 1882). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), North Africa, Georgia, W Asia.
- Elampus tauricus** (Semenov, 1967) [Notozus]. Russia: **EP** (CR).
- Elampus turcmenicus** (Linsenmaier, 1968) [Omalus]. Russia: **EP** (S). – Turkmenistan.
- Elampus ussuriensis** (Semenov, 1967) [Notozus]. Russia: **ES** (YA, ZB), **FE** (PR).
- HABA** Semenov, 1954. Type species *Holopyga almasyana* Mocsáry, 1911. Palaeartic genus. Number of species: World – 5, Palaeartic – 4, Russia – 1.
- Haba almasyana** (Mocsáry, 1911) [Holopyga]. Russia: **EP** (S). – Kyrgyzstan.
- HEDYCHRIDIUM** Abeille de Perrin, 1878 (*Euchrum* Semenov, 1954; *Euchridium* Semenov, 1954; *Zarudnium* Semenov, 1954; *Zarudnidium* Semenov, 1954; *Cyrteuchridium* Semenov, 1954). Type species *Hedychrum minutum* Lepeletier, 1806 [= *Hedychridium ardens* (Coquebert, 1801)]. Nest parasites of Crabronidae. Distributed worldwide except Australian region. Number of species: World – 290, Palaeartic – 200, Russia – 39.
- Hedychridium adventicium** Zimmermann, 1962. Russia: **EP** (C), **UR**. – Europe (WE, SE), Turkey.
- Hedychridium aheneum** (Dahlbom, 1854) [Hedychrum] (*Hedychrum callosum* Radoszkowski, 1877; *H. incrassatum*: De Stefani, 1888; *Holopyga ahe-nea*: Dalla Torre, 1892; *Z. icrassatum* (!): Vinokurov, 2006; *Hedychridium incrassatum*: Vinokurov, 2009). Russia: **EP** (S, NC, CR), **UR**. – Europe (SE, EE), Caucasus, Turkey, Middle East.
- Hedychridium ardens ardens** (Coquebert, 1801) [Chrysis] (*Hedychrum minutum*: Eversmann, 1858; *H. integrum*: Assmuss, 1862). Parasitoid of *Diodontus tristis* (Vander Linden), *Oxybelus bipunctatus* Olivier, *Tachysphex nitidus* (Spinola), *T. obscuripennis* (Schenck) and *T. pompiliiformis* (Panzer) (Crabronidae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (OM, TK, AL), **ES** (KS, TU, KR, IR, BR, ZB). – Europe (WE, NE, SE, EE), Caucasus.
- Hedychridium arensi** Rosa, 2017. Russia: **ES** (TU).
- Hedychridium asianum** Linsenmaier, 1997 (*H. integrum asianum* Linsenmaier, 1997). Russia: **WS** (AL), **ES** (TU, KR, IR, BR). – Mongolia, China (NW).
- Hedychridium belokobylskiji** Rosa, 2017. Russia: **ES** (KS, TU, KR).
- Hedychridium caputaureum** G. Trautmann et W. Trautmann, 1919 (*H. roseum* var. *caputaureum* G. Trautmann et W. Trautmann, 1919). Parasitoid of *Astata minor* Kohl (Crabronidae). Russia: **EP** (NW, NC), **UR**. – Europe (WE, NE, EE), W Asia.

- Hedychridium caucasicum** Trautmann, 1926 (*H. sculpturatum* var. *caucasicum* Trautmann, 1926). Russia: **EP** (NC). – Caucasus, Turkey.
- Hedychridium chloropygum chloropygum** du Buysson, 1888. Russia: **EP** (NC). – Europe (WE, SE).
- Hedychridium coriaceum coriaceum** (Dahlbom, 1854) [Hedychrum] (*Hedychrum coriaceum* (!): Eversmann, 1858; *Holopyga* (*Hedychridium*) *coriacea*: Mocsáry, 1889). Parasitoid of *Lindenius albilabris* (Fabricius) (Crabronidae). Russia: **EP** (N, NW, C, E, NC), **UR**. – Europe (WE, NE, SE, EE), Turkey.
- Hedychridium cupreum** (Dahlbom, 1845) [Hedychrum] (*Chrysis integra*: Nylander, 1859; *Holopyga integra*: Mocsáry, 1889, *Hedychridium integrum*: Hellén, 1920, Vorontsovskij, 1930, Nikol'skaya, 1978, Zvantsov, 1988, Vinokurov, 2006, 2009). Parasitoid of *Dryudella pinguis* (Dahlbom), *D. stigma* (Panzer), *Harpactus lunatus* (Dahlbom) and *H. tumidus* (Panzer) (Crabronidae). Russia: **EP** (N, NW, C, NC), **UR**, **ES** (KS, TU, IR). – Europe (WE, NE, EE), Mongolia, China (NC).
- Hedychridium elegantulum** du Buysson, 1887. Possible parasitoid of *Miscophus bicolor* (Jurine) (Crabronidae). Russia: **EP** (C, NC). – Europe (WE, SE, EE).
- Hedychridium erschovi** (Radoszkowski, 1877) [Hedychrum] (*Euchrum turanum* Semenov, 1954). Russia: **EP** (NC). – Iran, Central Asia, Kazakhstan.
- Hedychridium femoratum** (Dahlbom, 1854) [Hedychrum]. Parasitoid of *Dryudella stigma* (Panzer) (Crabronidae). Russia: **EP** (NC), **UR**, **ES** (KS, TU, KR). – Europe (WE, SE), Turkey.
- Hedychridium gabriellae** Rosa, 2017. Russia: **ES** (TU).
- Hedychridium jucundum** (Mocsáry, 1889) [Holopyga] (*Holopyga iucunda* Mocsáry, 1889). Russia: **EP** (C, S, NC), **UR**. – Europe (WE, SE, EE), Caucasus, Turkey.
- Hedychridium krajniki krajniki** Balthasar, 1946. Russia: **EP** (C), **UR**. – Europe (WE, SE, EE), Caucasus.
- Hedychridium leleji** Rosa, 2017. Russia: **ES** (TU).
- Hedychridium loktionovi** Rosa, 2017. Russia: **WS** (AL).
- Hedychridium longigena** Rosa, 2017. Russia: **ES** (IR).
- Hedychridium lucidiventre** Semenov, 1967. Russia: **EP** (NC). – Kazakhstan.
- Hedychridium mediocre** Linsenmaier, 1987 (*H. scutellare*: Linsenmaier, 1959; *H. mediocrate* Kimsey in Kimsey et Bohart, 1991). Russia: **UR**. – Europe (WE, SE, EE).
- Hedychridium monochroum** du Buysson, 1888 (*Cyrtuchridium breviceps* Semenov, 1954; *C. pusio* Semenov et Nikol'skaya, 1954). Russia: **EP** (S), **UR**. – Europe (WE, SE, EE), Caucasus, Turkmenistan, Tajikistan, Uzbekistan. From Europe to India.
- Hedychridium moricei** du Buysson, 1904 (*H. flavipes* var. *moricei*: Trautmann, 1927; *Zarudnidium clarum* Semenov, 1967). Russia: **EP** (S). – Europe (SE), Azerbaijan, Turkey, Middle East.
- Hedychridium parkanense** Balthasar, 1946. Russia: **EP** (S). – Europe (SE, EE).
- Hedychridium propodeale** Rosa, 2017. Russia: **ES** (KS, TU, KR).
- Hedychridium proshchalykini** Rosa, 2017. Russia: **ES** (TU).
- Hedychridium purpurascens** (Dahlbom, 1854) [Hedychrum] (*H. purpurescens* (!): Vinokurov, 2007; *H. purpuressens* (!): Vinokurov, 2006). Russia: **EP** (NC), **WS** (TK). – Europe (WE, NE, EE).
- Hedychridium roseum** (Rossi, 1790) [Chrysis] (*Chrysis carnea* var. *rosea* Rossi, 1790; *Euchrum roseum*: Nikol'skaya, 1978; (!)*Chrysura simplex*: Leontiev, 2015; *Euchrum roseum nanum*: Vinokurov, 2013). Parasitoid of *Astata boops* (Schrank), *Tachysphex pompiliformis* (Panzer) and possibly *Dryudella stigma* (Panzer), *Tachysphex pectinipes* (Linnaeus), *T. pompiliformis* (Panzer), and *Harpactus tumidus* (Panzer) (Crabronidae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), Abkhazia, Georgia, Azerbaijan, China (NE).
- Hedychridium rossicum** Gussakovskij, 1948 (*H. valesiense* Linsenmaier, 1959). Parasitoid of *Astata boops* (Schrank) (Crabronidae). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), Azerbaijan.
- Hedychridium satunini** Semenov, 1967 (*H. catunini* (!): Vinokurov, 2004). Russia: **EP** (NC). – Georgia, Azerbaijan.
- Hedychridium sculpturatum** (Abeille de Perrin, 1877) [Hedychrum] (*Euchrum sculpturatum*: Nikol'skaya, 1978; Vinokurov, 2006). Russia: **EP** (S, NC), **UR**, **WS** (TK). – Europe (WE, SE, EE), Caucasus.
- Hedychridium scutellare** (Tournier, 1878) [Hedychrum] (*H. mediocre* Linsenmaier, 1959). Russia: **EP** (NC). – Europe (WE, SE).
- Hedychridium sibiricum** Rosa, 2017. Russia: **ES** (TU).
- Hedychridium trossolus** (Semenov, 1954) [Euchridium]. Russia: **EP** (NC). – Tajikistan.
- Hedychridium tsunekii** Linsenmaier, 1959. Russia: **FE** (KH). – Korean Peninsula.
- Hedychridium turcicum** Arens, 2010 (*H. valesiense turcicum* Arens, 2010). Russia: **ES** (KR). – Turkey.

- Hedychridium uvarovi** Semenov, 1967. Russia: **EP** (NC).
- Hedychridium zelleri** (Dahlbom, 1845) [Hedychrum]. Parasitoid of *Miscophus niger* Dahlbom and *M. concolor* Dahlbom (Crabronidae). Russia: **EP** (C, E, NC). – Europe (WE, NE, EE).
- HEDYCHRUM** Latreille, 1802 (*Cymura* Dahlbom, 1845; *Wollmania* Mocsáry, 1902). Type species *Chrysis lucidula* Fabricius, 1775 [= *Hedychrum nobile* (Scopoli, 1763)]. Nest parasites of *Cerceris* spp. and *Philanthus* spp. (Crabronidae). Number of species: World – 129, Palaearctic – 59, Russia – 14.
- Hedychrum alexii** Semenov, 1967. Russia: **EP** (NC). – Kazakhstan.
- Hedychrum aureicolle** Mocsáry, 1889 (*H. aureicolle* (!): Vinokurov, 2006; *H. aureicollis* (!): Vinokurov, 2009). Russia: **EP** (NC). – Europe (SE), Abkhazia, Turkey, Cyprus, Palestine, Iran.
- Hedychrum chalybaeum** Dahlbom, 1854 (*H. coeruleascens*: Mocsáry, 1889; *H. szaboi* Mocsáry, 1889; *H. chalybeatum* (!): Kuznetsova, 1990; *H. cormescens* (!): Blagoveschenskaya, 1994). Parasitoid of *Cerceris interrupta* (Panzer) (Crabronidae). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (AL), **ES** (TU, KR, IR, BR, ZB), **FE** (AM, PR). – Europe (WE, NE, SE), Mongolia, China (NC, NE).
- Hedychrum cholodkovskii** Semenov, 1967. Russia: **EP** (NC), **UR**. – Kazakhstan.
- Hedychrum gerstaeckeri gerstaeckeri** Chevrier, 1869 (*H. marianum* Mocsáry, 1911; *H. gerstaeckeri japonicum*: Linsenmaier, 1959). Parasitoid of *Cerceris rybyensis* (Linnaeus) and *C. ruficornis* (Fabricius) (Crabronidae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (AL, TK), **ES** (KR, YA), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), Georgia, China (SE), Japan.
- Hedychrum gerstaeckeri plicatus** Kilimnik, 1993 (*H. gerstaeckeri plisatus* (!): Shibaev, 2006). Russia: **EP** (C, NC), **UR**. – Europe (EE).
- Hedychrum kozhantshikovi** Semenov, 1967. Russia: **EP** (NC). – Kazakhstan.
- Hedychrum longicolle** Abeille de Perrin, 1877 (*H. col-lare* Semenov, 1892; *H. nobiliforme* Semenov, 1967; *H. trapezicolle* Semenov, 1967). Parasitoid of Crabronidae. Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (TK), **FE** (PR). – Europe (WE, SE), N Africa, Georgia, W Asia, Turkmenistan, Kazakhstan, China.
- Hedychrum niemelai** Linsenmaier, 1959 (?*H. semiviolaceum*: Vorontsovskij, 1930; *H. aureicolle*: Kurzenko, Lelej, 2007). Parasitoid of *Cerceris arenaria* (Linnaeus), *C. ruficornis* (Fabricius), *C. rybyensis* (Linnaeus), *C. quadrifasciata* (Panzer), and *C. quinquefasciata* (Rossi) (Crabronidae). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (NS), **ES** (KS, TU, KR, IR, BR, YA), **FE** (AM, PR). – Europe (WE, NE, SE, EE), China (NE).
- Hedychrum nobile** (Scopoli, 1763) [Sphex] (*H. lucidulum*: Eversmann, 1858, Assmuss, 1862; *H. lucidulum* var. *regium*: Eversmann, 1858; *Chrysis lucidula*: Nylander, 1859; *Ch. regia*: Nylander, 1859; *H. hediculum* (!): Radoszkowski, 1880; (!) *Ch. dichroa*: Leontiev, 2015). Parasitoid of *Cerceris arenaria* (Linnaeus), *C. rybyensis* (Linnaeus), *C. quadrifasciata* (Panzer), *C. quadricinta* (Panzer) (Crabronidae). Larvae of *H. nobile* can also feed on prey (Coleoptera, Curculionidae) stored in the nest. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TK, NS, AL), **ES** (KS, TU, KR, IR, BR, ZB). – Europe (WE, NE, SE, EE), Abkhazia, Caucasus.
- Hedychrum rutilans rutilans** Dahlbom, 1854 (*H. intermedium*: Nikol'skaya, 1978; (!) *Chrysura austriaca*: Leontiev, 2015). Parasitoid of *Philanthus triangulum* Fabricius and *P. coronatus* (Thunberg) (Crabronidae). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **ES** (KR, ZB). – Europe (WE, NE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey.
- Hedychrum rutilans ermak** Semenov, 1967. Russia: **WS** (AL), **ES** (KS, TU, KR, IR, BR, ZB), **FE** (AM, PR).
- Hedychrum simile** Mocsáry, 1889 (*H. cyaneum* Radoszkowski, 1889, nom. praeocc., nec Brullé, 1846; *H. simili* (!): Uchida, 1927; *H. simile* f. *pullatum* Tsuneki, 1953; *H. simile aereum* Tsuneki, 1970). Parasitoid of *Cerceris arenaria* (Linnaeus) (Crabronidae). Russia: **FE** (AM, PR). – Mongolia, China (NE, NC), Korean Peninsula, Japan (Hon).
- Hedychrum tobiasi** Kilimnik, 1993. Russia: **EP** (NC). – Europe (EE).
- Hedychrum virens virens** Dahlbom, 1854 (*H. grandis* Tournier, 1890; *H. grande*: Dalla Torre, 1892). Parasitoid of *Cerceris tuberculata* de Villers (Crabronidae). Russia: **EP** (C, S, NC, CR), **UR**, **WS** (TK). – Europe (WE, SE), Georgia, Azerbaijan, Turkey, Middle East.
- Hedychrum viridilineolatum** Kilimnik, 1993. Russia: **FE** (PR). – Europe (EE).
- HOLOPYGA** Dahlbom, 1854 (*Pseudbedychrum* Abeille de Perrin, 1879; *Oar* Semenov, 1954; *Psacas* Semenov, 1954). Type species *Holopyga amoenula*

Dahlbom, 1845. Parasitoids of Crabronidae. Distributed worldwide, mostly in the Palaearctic. Number of species: World – 110, Palaearctic – 88, Russia – 17.

**Holopyga austrialis** Linsenmaier, 1959. Russia: **EP** (S). – Europe (WE, SE, EE).

**Holopyga amoenula amoenula** Dahlbom, 1845 (*H. amoenella* (!): Vorontsovskij, 1930). Russia: **EP** (NC). – Europe (SE), Turkey.

**Holopyga amoenula occidenta** Linsenmaier, 1959. Russia: **ES** (KR). – Europe (WE, SE), Turkey.

**Holopyga chrysonota chrysonota** (Förster, 1853) [Ellampus]. Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (OM, AL), **ES** (KS, TU, KR, IR, YA). – Europe (WE, SE, EE), Caucasus, China (NC).

**Holopyga fervida fervida** (Fabricius, 1781) [Chrysis] (*H. chloroidea*: du Buysson, 1892, *H. curvata*: Bischoff, 1910; Blagoveschenskaya, 1994). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Turkey, Middle East, Iran.

**Holopyga generosa asiatica** Trautmann, 1926 (*H. amoenula*: Mocsáry, 1889; *H. gloriosa* var. *asiatica* Trautmann, 1926; *H. ovata proviridis* Linsenmaier, 1959; *H. gloriosa* var. *viridis*: du Buysson, 1892). Russia: **WS** (AL), **ES** (KS, TU, KR) – Caucasus.

**Holopyga generosa generosa** (Förster, 1853) [Ellampus] (*H. ovata* var. *b*: Eversmann, 1858; *H. ovata*: Assmuss, 1862; *H. gloriosa* var. *ovata*: du Buysson, 1892; *H. amoenula*: Zvantsov, 1988; (!) *Pseudospinolia neglecta*: Leontiev, 2015). Parasitoid of *Astata boops* (Schranck) (Crabronidae). The females lay their eggs in nymphs of Heteroptera before they have been captured and brought to the nest by the host. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TK, NS, AL), **ES** (KS, TU, KR, IR). – Europe (WE, NE, SE, EE), China, Korean Peninsula.

**Holopyga ignicollis** Dahlbom, 1854 (*H. ovata* var. *ignicollis* Dahlbom, 1854; *H. cingulata* Semenov, 1967; *H. aereomaculata* (!): Vinokurov, 2006; *H. cingulata* Semenov, 1967). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (KS, KR, IR). – Europe (WE, SE, EE), Caucasus, Middle East, Kyrgyzstan, Kazakhstan.

**Holopyga inflammata inflammata** (Förster, 1853) [Ellampus]. Russia: **EP** (C). – Europe (WE, NE, SE, EE), N Africa, W Asia.

**Holopyga jurinei** Chevriér, 1862. Russia: **EP** (S, NC). – Europe (WE, SE, EE), N Africa, Turkey, W Asia.

**Holopyga lucida** (Lepeletier, 1806) [Hedychrum]. Russia: **EP** (C, S), **UR**, **ES** (IR) – Europe (WE, SE), Turkey.

**Holopyga medvedevi** Semenov, 1967. Russia: **EP** (NC). – Kazakhstan.

**Holopyga metallica** (Dahlbom, 1854) [Hedychrum] (*H. sibirica* Semenov, 1967). Parasitoid of *Dryudella stigma* (Panzer) (Crabronidae). Russia: **EP** (N, NW), **ES** (IR). – Europe (NE).

**Holopyga minuma** Linsenmaier, 1959. Russia: **EP** (E), **ES** (KS, TU, KR). – Europe (SE, EE), Turkey, Middle East, Iran.

**Holopyga mlokosiewitzi** (Radoszkowski, 1877) [Hedychrum]. Russia: **EP** (NC). – Europe (SE), Caucasus, Turkey, Palestine.

**Holopyga pavlovskii** Semenov et Nikol'skaya, 1954. Russia: **EP** (NC). – Tajikistan.

**Holopyga punctatissima punctatissima** Dahlbom, 1854. Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE), Caucasus, Turkey, Iran.

**Holopyga turkestanica** Mocsáry, 1909 (*H. punctatissima* var. *turkestanica* Mocsáry, 1909; *H. crassepuncta* Semenov, 1954; *H. ovata crassepuncta*: Linsenmaier, 1968). Russia: **EP** (NC). – Caucasus, Turkey, Iran, Turkmenistan, Kazakhstan.

**Holopyga vigora** Linsenmaier, 1959. Russia: **EP** (NC). – Europe (SE), Turkey.

**OMALUS** Panzer, 1801. Type species *Chrysis aenea* Fabricius, 1787. Nest parasites of *Passaloecus* spp., *Pemphredon* spp., *Psenulus* spp. (Crabronidae). Number of species: World – 34, Palaearctic – 26, Russia – 5.

**Omalus aeneus** (Fabricius, 1787) [Chrysis] (*O. aeneus* var. *pygialis* du Buysson, 1887; *Ellampus zarudnyi* Semenov, 1932; *Ellampus aeneus* var. *chevrieri*: Bischoff, 1910). Parasitoids of *Passaloecus corniger* Shuckard, *P. eremita* Kohl, *P. gracilis* (Curtis), *P. singularis* Dahlbom, *P. turionum* Dahlbom, *Pemphredon lethifer* (Shuckard), *P. lugubris* (Fabricius), and *Psenulus pallipes* (Panzer) (Crabronidae). The females lay their eggs in live aphids and do not enter the host nest as in the case of *O. biaccinctus*. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TK, AL), **ES** (KS, TU, KR, IR, YA, ZB), **FE** (AM, KH, PR, SA, KU). – Europe (WE, NE, SE, EE), N Africa, Georgia, Uzbekistan, China (NC, SE), Japan (Hok, Hon, Kyu). Probably accidentally was introduced into N America.

**Omalus berezovskii** (Semenov, 1932) [Ellampus]. Russia: **ES** (KS, TU), **FE** (PR). – China (NC, SW).

**Omalus biaccinctus** (du Buysson, 1892) [Ellampus]. Parasitoids of *Passaloecus turionum* Dahlbom,

- P. gracilis* (Curtis), and *P. eremita* Kohl (Crabronidae). The females lay their eggs in living aphids at the hunting site of their host, and the egg is brought into the host's nest concealed in the aphid prey. Russia: **EP** (NW, C, NC, CR). – Europe (WE, NE, SE, EE), W Asia.
- Omalus hohlbecki** (Semenov, 1932) [Ellampus]. Russia: **EP** (NC). – Kazakhstan.
- Omalus stella** (Semenov et Nikol'skaya, 1954) [Ellampus]. Russia: **EP** (S, NC). – Tajikistan, Kazakhstan.
- PHILOCTETES** Abeille de Perrin, 1879 (*Diplorrhous* Aaron, 1885; *Dictenulus* Semenov, 1932). Type species *Holopyga cicatrix* Abeille de Perrin, 1879 [= *Philoctetes micans* (Klug, 1835)]. Nest parasites of Crabronidae. Number of species: World – 54, Palaeartic – 48, Russia – 12.
- Philoctetes bidentulus** (Lepelletier, 1806) [Hedychrum] (*Ellampus bidentatus* (!) Eversmann, 1858; *Ellampus wesmaeli*: De Stefani, 1888; *Ellampus appendicinus*: Dalla Torre, 1892). Parasitoid of *Pseun caliginosus* Westwood (Crabronidae). Russia: **EP** (C, E, S, NC), **UR**, **ES** (KS, IR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, W Asia.
- Philoctetes bogdanovii** (Radoszkowski, 1877) [Holopyga] (*Ellampus rudowi*: Mocsáry, 1889; *E. bogdanovi* (!): du Buysson, 1892; *E. bogdanovii* (!): Biscohoff, 1913; *Ph. bogdanovi* (!): Rosa, 2006). Russia: **EP** (C, S, CR), **UR**. – Europe (SE, EE), Azerbaijan, Turkey, W Asia, Iran.
- Philoctetes conifer** (Semenov, 1932) [Ellampus]. Russia: **EP** (NC).
- Philoctetes cynthiae** Rosa, 2017. Russia: **ES** (TU). – Mongolia.
- Philoctetes horvathi** (Mocsáry, 1889) [Ellampus] (*Ellampus wesmaeli* Mocsáry, 1882, nom. praecoc., nec Chevrier, 1862; *E. horváthii* (!): Dalla Torre, 1892). Russia: **EP** (S), **ES** (TU, KR). – Europe (WE, SE, EE), China (NC), Korean Peninsula.
- Philoctetes kuznetsovi** (Semenov, 1932) [Ellampus]. Russia: **EP** (E, NC), **ES** (IR). – Georgia.
- Philoctetes lyubae** Rosa, 2017. Russia: **ES** (TU).
- Philoctetes mongolicus** (du Buysson, 1901) [Ellampus] (*E. horvathi* var. *mongolicus* du Buysson, 1901). Russia: **EP** (S), **ES** (KS, TU, YA, ZB). – Central Asia, Mongolia, China (NC).
- Philoctetes pylnovi** (Semenov, 1932) [Ellampus]. Russia: **UR**. – Uzbekistan.
- Philoctetes sareptanus** (Mocsáry, 1889) [Ellampus] (*E. schulthessi* Mocsáry, 1890; *E. schulthessi* var. *subauratus* Mocsáry, 1890; *Omalus sareptanus* var. *inflammatus*: Trautmann, 1927). Russia: **EP** (C, E, S, NC), **UR**, **ES** (IR), **FE** (KH). – Iran.
- Philoctetes stackelbergi** (Semenov, 1932) [Ellampus]. Russia: **WS** (AL).
- Philoctetes truncatus** (Dahlbom, 1831) [Chrysis]. Parasitoid of *Diodontus tristis* (Vander Linden) (Crabronidae). Russia: **EP** (C, E), **UR**, **WS** (TK), **ES** (TU, KR, IR). – Europe (WE, NE, SE, EE), N Africa.
- PROCHRIDUM** Linsenmaier, 1968. Type species *Holopyga hirtipes* Mocsáry, 1902. Number of species: World – 5, Palaeartic – 4, Russia – 1.
- Prochridium** sp. Russia: **EP** (S). Specimens of this genus have been recently collected in the south of European part and their description is in preparation.
- PSEUDOMALUS** Ashmead, 1902. Type species *Omalus semicircularis* Aaron, 1885 [= *Pseudomalus janus* (Haldeman, 1844)]. Nest parasites of Crabronidae that prey on aphids: *Passaloecus* spp., *Pemphredon* spp. and *Diodontus*. Number of species: World – 33, Palaeartic – 29, Russia – 10.
- Pseudomalus agnolii** Rosa, 2017. Russia: **EP** (C).
- Pseudomalus auratus auratus** (Linnaeus, 1758) [Sphex] (*Omalus curtiventris* Tournier, 1879; *Ellampus testaceicornis* du Buysson, 1892; *E. bergiellus* Semenov, 1932). Parasitoid of *Passaloecus corniger* Shuckard, *P. eremita* Kohl, *P. insignis* (Vander Linden), *P. gracilis* (Curtis), *P. monilicornis* Dahlbom, *P. singularis* Dahlbom, *P. turionum* Dahlbom, *Pemphredon inornata* Say, *P. lethifer* (Shuckard), *P. lugens* Dahlbom, *P. lugubris* (Fabricius), *P. rugifer* (Dahlbom), and *Diodontus tristis* (Vander Linden) (Crabronidae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TK, AL), **ES** (KS, TU, KR, IR, BR), **FE** (PR, KA). – Europe (WE, SE, NE, EE), N Africa, Caucasus, China (NE, NC), Korean Peninsula, Japan (Hok, Hon). Accidentally was introduced into N America.
- Pseudomalus auratus viridiventris** (Mocsáry, 1890) [Ellampus]. Russia: **EP** (NC). – Caucasus.
- Pseudomalus bergi** (Semenov, 1932) [Ellampus]. Russia: **EP** (NC). – Iran, Kazakhstan.
- Pseudomalus cupratus** (Mocsáry, 1889) [Ellampus] (*E. auratus* var. *cupratus* Mocsáry, 1889). Russia: **EP** (C, CR). – Europe (WE, SE, EE).
- Pseudomalus grandis** (Tsuneki, 1950) [Ellampus]. Russia: **FE** (PR). – Japan (Hon, Hon, Kyu).

- Pseudomalus nipponicus** (Tsuneki, 1970) [Omalus].  
Russia: **ES** (KR), **FE** (PR). – Japan (Hok, Hon).
- Pseudomalus punctatus** (Uchida, 1927) [Philoctetes].  
Russia: **ES** (KS, KR, YA), **FE** (AM, PR, SA, KA). – Korean Peninsula, Japan (Hok, Hon, Kyu).
- Pseudomalus pusillus pusillus** (Fabricius, 1804) [Chrysis] (*Elampus minutus* Dahlbom, 1854: Becker, 1865; *Omalus pusillum* (!): Becker, 1880; *Ellampus auratus* var. *virescens* Mocsáry, 1889; *E. borodini* Semenov, 1932; *E. ruthenus* Semenov, 1932; *E. pusillus* var. *schmiedeknechti*: du Buysson, 1896). Parasitoid of *Passaloecus eremita* Kohl, *P. insignis* (Vander Linden), and *Pemphredon lethifer* (Shuckard) (Crabronidae). Russia: **EP** (N, C, E, S, NC, CR), **UR**, **WS** (OM, AL), **ES** (KS, TU, KR, IR, YA, ZB). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Kazakhstan.
- Pseudomalus pusillus semicupreus** (Linsenmaier, 1959) [Omalus] (*P. pusillus* (!) *semicupreus*: Vinokurov, 2013). Russia: **EP** (NC). – Europe (SE).
- Pseudomalus triangulifer** (Abeille de Perrin, 1877) [Omalus] (*Ellampus auratus* var. *triangulifer*: du Buysson, 1892). Parasitoid of *Passaloecus insignis* (Vander Linden), *Pemphredon lugubris* (Fabricius), *P. lethifer* (Shuckard), *P. lugens* Dahlbom, *P. montana* Dahlbom, and *P. rugifer* (Dahlbom) (Crabronidae). Russia: **EP** (N, NW, C, NC), **UR**, **WS** (AL), **ES** (KS, TU, IR, YA, ZB), **FE** (KH, PR, KA, MG). – Europe (WE, NE, SE, EE), Caucasus, Turkey, China (NW).
- Pseudomalus violaceus** (Scopoli, 1763) [Sphex] (*Omalus coeruleus*: Eversmann, 1858; *Ellampus coeruleus*: Mocsáry, 1882; *E. violaceus*: De Stefani, 1888; *O. violaceus*: Trautmann, 1927 et auct.). Parasitoid of *Pemphredon lugubris* (Fabricius), *Passaloecus corniger* Shuckard and *P. eremita* Kohl (Crabronidae). Russia: **EP** (NW, C, E, NC), **UR**, **WS** (TK, AL), **ES** (IR, ZB), **FE** (PR). – Europe (WE, NE, SE, EE), Georgia, Middle East, China (NC).

#### Tribe CHRYSIDINI

Number of taxa: World – 28 genera, about 1700 species, Palaeartic – 15/934, Russia – 10/189.

- CHRYSIDEA** Bischoff, 1913. Type species *Chrysis pumila* Klug, 1845. Number of species: World – 22, Palaeartic – 4, Russia – 2.
- Chrysidea disclusa disclusa** (Linsenmaier, 1959) [Chrysis] (*Chrysis pumila disclusa* Linsenmaier, 1959). Russia: **EP** (NC). – Europe (WE, SE, EE).

**Chrysidea pumila** (Klug, 1845) [Chrysis] (*Chrysis assimilis* Abeille de Perrin, 1879; *Chrysidea pumilla* (!): Vinokurov, 2004; *Chrysidea persica* Radoszkowski, 1881). Russia: **EP** (C, S, NC), **UR**. – Europe (WE, SE, EE), N Africa.

**CHRYSIS** Linnaeus, 1761 (*Chrysozona* Förster, 1853; *Dichrysis* Lichtenstein, 1876; *Tetrachrysis* Lichtenstein, 1876; *Hexachrysis* Lichtenstein, 1876; *Cornuchrysis* Baltasar, 1953; *Gonodontochoyris* Semenov, 1954). Type species *Sphex ignita* Linnaeus, 1758. More than 80 species groups are known within *Chrysis* (Kimsey, Bohart, 1991; Linsenmaier, 1999; Tarbinsky, 2002; Rosa, 2005). Palaeartic species are parasitoids of solitary bees (Megachilidae) and solitary wasps (Sphecidae, Crabronidae, Vespidae (Eumeninae, Masarinae)). It is the largest genus in the Chrysididae, worldwide distributed. Number of species: World – about 1100, Palaeartic – 708, Russia – 140.

- Chrysis aello** Semenov et Nikol'skaya, 1954. Russia: **EP** (NC). – Tajikistan.
- Chrysis aestiva** Dahlbom, 1854 (*Ch. moczari*: Vinokurov, 2006). Russia: **EP** (NC). – Europe (SE), Caucasus, Turkey, Palestine, Iran.
- Chrysis albanica** Trautmann, 1927 (*Ch. succincta* var. *albanica* Trautmann, 1927). Russia: **EP** (S, NC, CR), **UR**. – Europe (SE, EE), Georgia.
- Chrysis ambigua** Radoszkowski, 1891 (*Ch. taczanovskiyi* (!) var. *ambigua*: Trautmann, 1927). Russia (Trautmann, 1927). – Europe (SE), Turkey, Palestine, Iran, Turkmenistan.
- Chrysis amneris** Balthasar, 1953 (*Ch. arnoldii* Semenov, 1967). Russia: **Southern Russia** (Strumia, 2008). – Sudan, Saudi Arabia, United Arab Emirates, Palestine, Turkmenistan.
- Chrysis amurensis** Semenov, 1967. Russia: **WS** (NS, AL), **ES** (KS), **FE** (AM, PR).
- Chrysis analis analis** Spinola, 1807 (*Ch. analis* var. *rubescens* Radoszkowski, 1880; *Ch. sybarita* (!) var. *rubescens*: Bischoff, 1910). Parasitoid of *Osmia andrenoides* Spinola (Megachilidae). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), Caucasus.
- Chrysis angolensis** Radoszkowski, 1881 (*Ch. fuscipennis*: Mocsáry, 1889; *Ch. fuscipennis murasaki*: Tsuneki, 1953). Parasitoid of *Sceliphron* (Sphecidae) and *Eumenes* (Vespidae: Eumeninae). Russia: **ES** (ZB), **FE** (AM, KH, PR). – China (NE, NC, CC, SW, SE), Korean Peninsula, Japan (Hon, Shi, Kyu, Tsushima, Ryu). Worldwide except Europe (with exception of Cyprus).

- Chrysis angustifrons angustifrons** Abeille de Perrin, 1878 (*Ch. lagodechii* Radoszkowski, 1889; *Ch. pyrrrha* Semenov, 1967). Russia: **EP** (NC). – Europe (WE, SE, EE), Georgia.
- Chrysis angustula angustula** Schenck, 1856 (*Ch. ignita* var. *brevidens*: du Buysson, 1895). Parasitoid of *Ancistrocerus trifasciatus* (Müller), *Symmorphus bifasciatus* (Linnaeus), *S. allobrogus* (de Saussure), *S. connexus* (Curtis), and *S. debilitatus* (de Saussure) (Vespididae: Eumeninae). Russia: **EP** (N, NW, NC), **UR**, **ES** (IR). – Europe (WE, NE, SE, EE), Caucasus, W Asia, China (NE, NC).
- Chrysis auriceps** Linsenmaier, 1959. Russia: **UR**. – Europe (SE, EE), Turkey, Middle East.
- Chrysis bergi** Semenov, 1967. Russia: **EP** (NC). – Europe (EE).
- Chrysis bianchii** Semenov, 1892. Russia: **EP** (NC). – Caucasus, Turkmenistan.
- Chrysis bicolor** Lepeletier, 1806 (*Ch. succincta* var. *bicolor*: Mocsáry, 1889; *Ch. succincta* ab. *virideocincta* Hellén, 1920). Parasitoid of *Tachysphex obscuripennis* (Schenck), *T. pompiliformis* (Panzer), and *Dinetus pictus* (Fabricius) (Crabronidae). Russia: **ER** (N, NW, C, E, S, NC, CR), **UR**, **WS** (OM), **ES** (IR, YA), **FE** (AM, KH, PR, SA). – Europe (WE, NE, SE, EE), N Africa, Caucasus.
- Chrysis bilobata** Balthasar, 1953. Russia: **EP** (NC). – Turkey, Middle East.
- Chrysis borealis** Paukkunen, Ødegaard et Soon, 2015. Possible parasitoid of *Ancistrocerus parietum* (Linnaeus) and *A. scoticus* (Curtis) (Vespididae: Eumeninae). Russia: **EP** (N, NW). – Europe (NE).
- Chrysis brevitarsis** Thomson, 1870. Parasitoid of *Discoelius zonalis* Panzer and *D. priesneri* Mader (Vespididae: Zethinae). Russia: **EP** (NC, CR), **ES** (TU). – Europe (WE, NE, SE, EE).
- Chrysis buda** Bohart, 1991. Russia: **ES** (BR). – China (NC, CC).
- Chrysis calimorpha calimorpha** Mocsáry, 1882. Russia: **EP** (C, S, NC). – Europe (WE, SE, EE).
- Chrysis carnifex** Mocsáry, 1889. Russia: **FE** (PR).
- Chrysis caspiensis** Linsenmaier, 1959. Russia: **EP** (S, NC). – Europe (EE).
- Chrysis castigata** Linsenmaier, 1951. Russia: **ES** (TU, BR). – Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan.
- Chrysis caucasicola** Balthasar, 1953 (*Ch. analis* var. *caucasica* Mocsáry, 1912, nom. praeocc., nec Radoszkowski, 1877; *Ch. analis caucasicola* Semenov, 1967, nom. praeocc., nec Balthasar, 1953; *Ch. analis caucasiensis* Linsenmaier, 1959). Russia: **EP** (NC). – Georgia, Azerbaijan.
- Chrysis cerastes** Abeille de Perrin, 1877 (!) *Ch. immaculata*: Leontiev, 2015). Parasitoid of *Syneuodynerus egregius* (Herrich-Schaeffer) (Vespididae: Eumeninae). Russia: **EP** (E, NC, CR), **WS** (AL). – Europe (WE, SE, EE), Azerbaijan, Caucasus.
- Chrysis chinensis** Mocsáry, 1912. Russia: **WS** (AL), **ES** (KS, ZB). – Europe (WE), Mongolia, China (NE, CC).
- Chrysis chosenensis** Tsuneki, 1950 (*Ch. nitidula chosenensis* Tsuneki, 1950; *Ch. chosenensis* f. *clariventris* Tsuneki, 1953; *Ch. chosenensis* (!): Kurzenko, Lelej, 2007). Russia: **FE** (PR). – Korean Peninsula.
- Chrysis chrysoprasina** Förster, 1853. Russia: **EP** (C), **UR**. – Europe (WE, SE, EE), Armenia, W Asia.
- Chrysis chrysostigma** Mocsáry, 1889 (*Ch. ramburi*: Balthasar, 1953 et auct.). Russia: **EP** (C, NC). – Europe (WE, SE, EE), Caucasus, Turkey.
- Chrysis cingulicornis cingulicornis** Förster, 1853. Russia: **EP** (S, CR), **UR**, **ES** (KR). – Europe (WE, SE, EE), Georgia, Caucasus, Central Asia.
- Chrysis cingulicornis pseudopyrrha** Linsenmaier, 1959. Russia: **EP** (S).
- Chrysis circe** Mocsáry, 1889. Russia: **EP** (NC). – Europe (SE, EE), Caucasus, Turkey.
- Chrysis clarinicornis** Linsenmaier, 1951 (*Ch. ignita* var. *clarinicornis* Linsenmaier, 1951). Russia: **EP** (S), **UR**. – Europe (NE, WE, SE, EE), N Africa.
- Chrysis comparata** Lepeletier, 1806 (*Ch. distinguenda*: Radoszkowski, 1866; *Ch. chevrieri*: Mocsáry, 1882 et auct.; *Ch. chevrieri* var. *orientalis* Mocsáry, 1889). Russia: **EP** (C, S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Caucasus.
- Chrysis comta** Förster, 1853. Russia: **EP** (S, NC, CR), **UR**. – Europe (WE, SE, EE), Caucasus, Turkey, Iran, China (NE, NC).
- Chrysis consanguinea consanguinea** Mocsáry, 1889. Russia: **WS** (AL), **ES** (KS, TU, IR). – Europe (WE, SE, EE), N Africa.
- Chrysis cyaneata** Mocsáry, 1909 (*Ch. uvarovi* Semenov, 1967). Russia: **EP** (NC). – Kazakhstan.
- Chrysis cylindrica** Eversmann, 1858 (*Ch. viridula* var. *integra*: De Stefani, 1888 et auct.; *Ch. viridula* var. *erythromelas* du Buysson, 1895). Parasitoid of *Tropidodynerus interruptus* (Brullé) (Vespididae: Eumenidae). Russia: **EP** (E, S, CR), **UR**, **ES** (YA). – Europe (WE, SE, EE), Caucasus.
- Chrysis daphne** Smith, 1874. Russia: **FE** (PR). – Japan (Hon).

- Chrysis daphnis daphnis** Mocsáry, 1889. Russia: **EP** (CR). – Europe (WE, SE, EE), N Africa.
- Chrysis daphnis syriensis** Linsenmaier, 1959. Russia: **EP** (NC). – Turkey, Syria, Palestine, Iran.
- Chrysis dauriana** Linsenmaier, 1959 (*Ch. mongolica* Semenov, 1967, nom. praeocc., nec Mocsáry, 1914; *Ch. mongoliana* Bohart, 1991). Russia: **WS** (AL), **ES** (TU, KR, BR, ZB), **FE** (PR). – Mongolia.
- Chrysis diacantha diacantha** Mocsáry, 1889 (*Ch. calypso* Semenov et Nikol'skaya, 1954). Russia: **EP** (NC). – Europe (SE), Caucasus, Middle East, Central Asia.
- Chrysis decora** Mocsáry, 1887 (*Ch. superba* Radoszkowski, 1877, nom. praeocc., nec Cresson, 1865; *Ch. rutilans* var. *asiatica* Mocsáry, 1889; *Ch. rutilans* var. *mesasiatica* Semenov, 1912). Russia: **EP** (E, S, NC, CR), **UR**, **WS** (TK), **ES** (ZB). – Turkey, Palestine, Iran, Turkmenistan, Kyrgyzstan, Kazakhstan.
- Chrysis distincta distincta** Mocsáry, 1887 (*Ch. analis* var. *incerta* Radoszkowski, 1880, nom. praeocc., nec Dahlbom, 1854). Russia: **EP** (S, NC, CR). – Georgia, Azerbaijan, Turkey, Cyprus, Palestine, Iran.
- Chrysis distincta thalhammeri** Mocsáry, 1889 (*Ch. distincta thalhammeri* (!): Vinokurov, 2013). Russia: **EP** (NC). – Europe (SE, EE), Caucasus, Middle East, Central Asia.
- Chrysis elegans** Lepeletier, 1806. Russia: **ER** (CR), **UR**. – Europe (WE, SE, EE), Caucasus.
- Chrysis equestris** Dahlbom, 1854. Parasitoid of *Discoelius dufourii* Lepeletier de Saint Fargeau and *D. zonalis* (Panzer) (Vespidae: Zethinae). Russia: **EP** (C, E), **UR**, **FE** (PR). – Europe (WE, NE, SE, EE).
- Chrysis fasciata** Olivier, 1791. Russia: **EP** (C, E, CR), **UR**, **WS** (TK), **ES** (IR), **FE** (AM, PR). – Europe (WE, NE, SE, EE), N Africa.
- Chrysis fouqueti csikiana** Mocsáry, 1912 (*Ch. nitidularia*: Vinokurov, 2006). Russia: **EP** (NC), **WS** (AL). – Kazakhstan.
- Chrysis frankenbergeri** Balthasar, 1953 (*Ch. frankenbergeri* (!): Vinokurov, 2006). Russia: **EP** (NC). – Europe (SE, EE), Armenia, Azerbaijan, Palestine.
- Chrysis frivaldszkyi frivaldszkyi** Mocsáry, 1882 (*Ch. frivaldszkyi* (!): Nikol'skaya, 1978; *Ch. frivaldszkyi* (!): Vinokurov, 2006). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (KS, TU, KR, IR). – Europe (WE, SE, EE), Caucasus, Turkey.
- Chrysis fulgida** Linnaeus, 1761 (*Ch. cruenta* Mocsáry, 1883; *Ch. fulgida* var. *concolor* Mocsáry, 1912). Parasitoid of *Symmorphus allobrogus* (de Saussure), *S. bifasciatus* (Linnaeus), *S. crassicornis* (Panzer) and *S. murarius* (Linnaeus), and possibly *Ancistrocerus parietum* (Linnaeus) (Vespidae: Eumeninae). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (TM, TK, AL), **ES** (KS, TU, KR, IR, ZB), **FE** (AM, PR, KA). – Europe (WE, NE, SE, EE), Caucasus, China (NE).
- Chrysis galloisi** (du Buysson, 1908) [Tetrachrysis] (*Ch. rubrifasciata* Tsuneki, 1950; *Ch. galboisi* (!): Vinokurov, 2006). Russia: **ES** (BR), **FE** (PR). – China, Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Chrysis germari germari** Wesmael, 1839 (*Ch. nitidula* Germar, 1817, nom. praeocc., nec Fabricius, 1775; *Ch. succinctula*: Radoszkowski, 1866). Russia: **ER** (C, E), **UR**. – Europe (WE, SE, EE), Caucasus.
- Chrysis gertabi** Radoszkowski, 1891 (*Ch. taczanovskyi* (!) var. *germabi* (!): Trautmann, 1927). Russia (Trautmann, 1927). – Turkmenistan, Central Asia.
- Chrysis glasunovi** Semenov, 1967. Russia: **EP** (S, NC, CR). – Georgia, Caucasus.
- Chrysis gracillima gracillima** Förster, 1853 (*Ch. gracillima* (!): Vinokurov, 2006). Parasitoid of *Microdynerus exilis* (Herrich-Schäffer), *M. parvulus* (Herrich-Schäffer), *M. mugdunensis* (de Saussure) (Vespidae: Eumeninae). Russia: **EP** (C, S, NC), **UR**, **WS** (AL). – Europe (WE, NE, SE, EE), N Africa, Middle East, Iran.
- Chrysis graelsii graelsii** Guérin-Méneville, 1842 (*Ch. analis*: Eversmann, 1858; *Ch. sybarita*: Radoszkowski, 1889; *Ch. chevrieri*: du Buysson, 1895; *C. chevrieri* var. *pusilla* du Buysson, 1895; *Ch. sybarita pekinensis*: Vinokurov, 2006; *Ch. sybarita opaca*: Vinokurov, 2006). Parasitoid of *Euodynerus disconotatus* (Lichtenstein), *E. notatus* (Jurine), and *E. quadrifasciatus* (Fabricius) (Vespidae: Eumeninae). Russia: **EP** (N, C, NC, CR), **UR**, **WS** (NS), **ES** (KS, TU, KR, BR). – Europe (WE, NE, SE, EE), Caucasus, Asia Minor, China (NC).
- Chrysis grohmanni rkiana** Linsenmaier, 1959. Russia: **EP** (S, NC). – Europe (SE, EE).
- Chrysis grumorum** Semenov, 1892. Russia: **EP** (NC). – China (WP).
- Chrysis ignita ignita** (Linnaeus, 1758) [Sphex]. Parasitoid of *Ancistrocerus auctus* (Fabricius), *A. gazella* (Panzer), *A. nigricornis* (Curtis), *A. parietum* (Linnaeus), *A. parietinus* (Linnaeus), *A. scoticus* (Curtis), *A. trifasciatus* (Müller) and possibly *Gymnomerus laevipes* (Shuckard), *Euodynerus posticus* (Herrich-Schäffer), *Allodynerus delphinalis* (Giraud), *Symmorphus bifasciatus* (Linnaeus) (Vespidae: Eumeninae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TK, AL), **ES** (IR, BR, ZB), **FE** (AM, KH,



- PR, SA, KA). – Europe (WE, NE, SE, EE), N Africa, China (NE, NC), Korean Peninsula, India.
- Chrysis illigeri** Wesmael, 1839 (*Ch. succincta* ab. *chrysoprasina*: Hellén, 1920). Parasitoid of *Tachysphex pompiliformis* (Panzer) (Crabronidae). Russia: **EP** (NW, C, S, NC), **UR, WS** (AL), **ES** (TU, KR, IR, BR, YA), **FE** (PR). – Europe (WE, NE, SE, EE).
- Chrysis immaculata** du Buysson, 1898. Russia: **EP** (C, NC). – Europe (WE, SE, EE).
- Chrysis impressa** Schenck, 1856 (*Ch. valida*: Humala, Polevoi, 2009). Parasitoid of *Ancistrocerus parietinus* (Linnaeus), *A. claripennis* Thomson, *A. trifasciatus* (Müller) (Vespidae: Eumeninae). Russia: **EP** (N, NW, S, NC, CR). – Europe (WE, NE, SE, EE), Central Asia.
- Chrysis inaequalis inaequalis** Dahlbom, 1845 (*Ch. inaequalis* (!): Vorontsovskij, 1930). Parasitoid of *Eumenes coarctatus* (Linnaeus) (Vespidae: Eumeninae). Russia: **EP** (E, S, NC, CR), **UR, Siberia**. – Europe (WE, SE, EE), Central Asia, China (NE, NC).
- Chrysis inaequalis sapphirina** Semenov, 1912. Russia: **EP** (S). – Europe (SE), Cyprus, Palestine, Iran, Kyrgyzstan.
- Chrysis inaequipunctata** Bischoff, 1910. Russia: **EP** (E). – Uzbekistan.
- Chrysis inconsueta** Rosa, 2017. Russia: **WS** (AL). – Tajikistan.
- Chrysis indigotea** Dufour et Perris, 1840 (*Ch. zaitzevi* Semenov, 1967; *Ch. indogotea* (!): Bischoff, 1913; *Ch. indigotea* var. *Dagestanica* Mocsáry, 1889; *Ch. ignite* (!) *dagestanica* (!): Vinokurov, 2006). Parasitoid of Eumeninae (Vespidae), possibly *Gymnomeris laevipes* (Shuckard). Russia: **EP** (S, NC, CR), **Siberia, FE** (AM). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Central Asia.
- Chrysis insperata** Chevrier, 1870. Russia: **EP** (C, S, NC), **UR**. – Europe (WE, SE, EE), Azerbaijan, Caucasus.
- Chrysis interjecta interjecta** du Buysson, 1894 (*Ch. interjecta hemichlora*: Vinokurov, 2013). Russia: **EP** (NC), **UR**. – Europe (WE, SE, EE), Middle East.
- Chrysis io** Semenov, 1967. Russia: **EP** (CR).
- Chrysis iris** Christ, 1791 (*Ch. nitidula*: Assmuss, 1862 et auct.; *Ch. soluta*: Radoszkowski, 1866). Parasitoid of *Symmorphus allobrogus* (de Saussure), *S. crassicornis* (Panzer), and *S. murarius* (Linnaeus) (Vespidae: Eumeninae). Russia: **EP** (NW, C, E, NC), **UR, ES** (KS, TU). – Europe (WE, NE, SE, EE), Caucasus.
- Chrysis japonica** Cameron, 1887 (*Ch. daurica* Mocsáry, 1914; *Ch. japonica* var. *cyanea* Uchida, 1927). Russia: **ES** (ZB), **FE** (AM). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Tsushima, Ryu).
- Chrysis jaxartis** Semenov, 1910 (*Ch. sybarita* var. *jaxartis* Semenov, 1910; *Ch. valesiana perezi*: Vinokurov, 2006). Russia: **EP** (NC). – Europe (SE), Turkey, Iran, Kazakhstan.
- Chrysis karafutonis** Tosawa, 1932. Russia: **FE** (SA).
- Chrysis kolazyi** Mocsáry, 1889 (*Tetrachrysis grohmanni* var. *sareptana* Trautmann, 1926; *Ch. kolazyi*: Kimsey, Bohart, 1991). Russia: **EP** (S). – Europe (WE, SE).
- Chrysis lanata** Mocsáry, 1912 (*Ch. sapphirus* Semenov, 1967). Russia: **FE** (PR). – Uzbekistan.
- Chrysis lanceolata** Linsenmaier, 1959 (*Ch. lanciolata* (!): Vinokurov, 2013). Possibly Parasitoid of *Diodontus minutus* (Fabricius) and *Miscophus bicolor* Jurine (Crabronidae). Russia: **EP** (S, NC, CR), **UR**. – Europe (SE, EE).
- Chrysis leachii** Shuckard, 1837 (*Ch. leachi* (!): Nikol'skaya, 1978). Russia: **EP** (C, E, S, NC, CR), **WS** (AL). – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Caucasus, Middle East, Iran.
- Chrysis leptomandibularis** Niehuis, 2000. Possibly parasitoid of *Symmorphus debilitatus* (de Saussure) (Vespidae: Eumeninae). Russia: **EP** (N, NW), **UR**. – Europe (WE, NE, SE, EE), Turkey.
- Chrysis longula longula** Abeille de Perrin, 1879 (*Ch. ignita* var. *longula* Abeille de Perrin, 1879; *Ch. longula aeneopaca* Linsenmaier, 1959). Parasitoid of *Ancistrocerus antilope* (Panzer), *Euodynerus posticus* (Herrich-Schäffer), *A. parietinus* (Linnaeus), *Symmorphus crassicornis* (Panzer), and *S. murarius* (Linnaeus) (Vespidae: Eumeninae). Russia: **EP** (N, NW, C, E, NC, CR), **UR, WS** (AL), **ES** (IR, BR). – Europe (WE, NE, SE, EE), Central Asia.
- Chrysis longula sublongula** Linsenmaier, 1951. Russia: **EP** (NC). – Europe (WE, NE, SE, EE).
- Chrysis lyda** Rosa, 2017. Russia: **EP** (NC). – Abkhazia.
- Chrysis maderi** Linsenmaier, 1959. Russia: **EP** (NC). – Europe (SE).
- Chrysis marginata marginata** Mocsáry, 1889. Russia: **EP** (NC), **UR**. – Europe (WE, SE, EE), Caucasus, Turkey, Middle East, Iran, Central Asia.
- Chrysis martinella martinella** du Buysson, 1900 (*Ch. satunini*: Vinokurov, 2006). Russia: **EP** (NC). – Europe (SE), Azerbaijan, Turkey.
- Chrysis mediadentata** Linsenmaier, 1951 (*Ch. ignita* var. *mediadentata* Linsenmaier, 1951; (!) *Ch. longula*: Leontiev, 2015). Parasitoid of *Odynerus spinipes* (Linnaeus) and *O. reniformis* (Gmelin) (Vespidae:

- Eumeninae). Russia: **EP** (E, NC), **ES** (IR). – Europe (WE, NE, SE, EE).
- Chrysis mediata mediata** Linsenmaier, 1951 (*Ch. ignita* var. *mediata* Linsenmaier, 1951). Parasitoid of *Odynerus spinipes* Linnaeus, *Ancistrocerus trifasciatus* (Müller) (Vespidae: Eumeninae). Russia: **EP** (NC), **WS** (TK), **ES** (YA), **FE** (PR). – Europe (WE, NE, SE, EE).
- Chrysis mirabilis** Radoszkowski, 1877 (*Ch. sinuosa*: Radoszkowski, 1866; *Ch. verae* Semenov, 1967). Russia: **EP** (CR). – Europe (SE), Georgia, Caucasus, Turkey.
- Chrysis mokrousovi** Rosa, 2017. Russia: **EP** (NC). – Abkhazia.
- Chrysis mutabilis mutabilis** du Buysson, 1887 (*Ch. mutabilis* var. *araxana*: du Buysson, 1895). Russia: **EP** (NC, CR). – Europe (SE), Georgia, Azerbaijan, Cyprus, Turkey, Middle East, Iran, Central Asia.
- Chrysis mysta** du Buysson, 1900. Russia: **Southern Russia** (Linsenmaier, 1969). – Turkey, Middle East, Syria, W Asia, Iran, Kazakhstan.
- Chrysis mysticalis** Linsenmaier, 1959 (*Ch. inaequalis*: Radoszkowski, 1889). Russia: **EP** (S, CR), **WS** (AL), **ES** (TU, KR, ZB). – Europe (WE, SE), Caucasus.
- Chrysis neobule** Semenov, 1954. Russia: **EP** (NC). – Caucasus, Tajikistan, Uzbekistan, Kazakhstan.
- Chrysis nevelskiana** Semenov, 1967. Russia: **FE** (PR).
- Chrysis nox** Semenov, 1954. Russia: **WS** (AL). – Tajikistan, Mongolia.
- Chrysis obtusidens** Dufour et Perris, 1840. Russia: **EP** (C, E, NC, CR), **WS** (TK). – Europe (WE, SE, EE), Caucasus.
- Chrysis pavesii** Rosa, 2017. Russia: **WS** (AL).
- Chrysis perrini** Radoszkowski, 1880 (*Ch. analis* var.  $\beta$ : Eversmann, 1858; *Ch. analis* var. *perrisi* Radoszkowski, 1880; *Ch. analis*: Mocsáry, 1889; *Ch. sybarita* (!) var. *perrini*: Bischoff, 1910). Russia: **EP** (NC), **UR**. – Caucasus.
- Chrysis phryne phryne** Abeille de Perrin, 1878. Russia: **EP** (NC). – Europe (WE, SE, EE).
- Chrysis placida** Mocsáry, 1879. Russia: **EP** (S, NC, CR), **UR**. – Europe (SE, EE), Caucasus, Turkey.
- Chrysis popovi** Semenov, 1954. Russia: **WS** (AL). – Tajikistan.
- Chrysis proauriceps** Rosa, 2017. Russia: **ES** (KR).
- Chrysis pseudobrevitarsis** Linsenmaier, 1951 (*Ch. ignita* var. *pseudobrevitarsis* Linsenmaier, 1951). Parasitoid of *Ancistrocerus antilope* (Panzer), *Euodynerus notatus* (Jurine), *E. quadrfasciatus* (Fabricius) (Vespidae: Eumeninae). Russia: **EP** (N, NW, NC, CR), **WS** (AL), **ES** (KS, TU, KR). – Europe (WE, NE, SE, EE), Mongolia.
- Chrysis pulchella pulchella** Spinola, 1807 (!) *Ch. pyrrhina*: Leontiev, 2015). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), Iraq, Iran, Central Asia.
- Chrysis pushkiniana** Semenov, 1967 (*Ch. graeca* Arens, 2004). Russia: **EP** (CR). – Europe (SE).
- Chrysis ragusae** De Stefani, 1888 (*Ch. taurica* Mocsáry, 1889; *Ch. ragusai* (!): Linsenmaier, 1959). Russia: **EP** (CR). – Europe (WE, SE, EE), Asia Minor.
- Chrysis remota remota** Mocsáry, 1889 (*Ch. margiana*: Vinokurov, 2006). Russia: **EP** (NC). – Caucasus, Turkmenistan, Kyrgyzstan, Central Asia.
- Chrysis rubripyga** Tsuneki, 1950. Russia: **FE** (PR). – Japan (Hok, Hon, Shi, Kyu).
- Chrysis ruddii ruddii** Shuckard, 1837 (*Ch. auripes*: Radoszkowski, 1880; *Ch. ruhdi* (!): Levi et al., 1974). Parasitoid of *Eumenes coronatus* (Panzer), *Ancistrocerus oiventris* (Wesmael), *A. parietum* (Linnaeus), *A. scoticus* (Curtis), *Eumenes* spp., *Odynerus spinipes* (Linnaeus), and *O. reniformis* (Gmelin) (Vespidae: Eumeninae). Russia: **EP** (N, NW, C, NC, CR), **UR**. – Europe (WE, NE, SE, EE), Caucasus, Asia Minor.
- Chrysis rufitarsis** Brullé, 1833. Russia: **EP** (S). – Europe (WE, SE, EE), N Africa, Caucasus, Central Asia.
- Chrysis russica** Linsenmaier, 1959. Russia: **Southern Russia** (Linsenmaier, 1959).
- Chrysis rutilans extranea** Linsenmaier, 1959. Russia: **ES** (KS), **FE** (PR). – China (NE, SW), Japan.
- Chrysis rutilans rutilans** Olivier, 1791 ((?) *Ch. splendidula* var. *aurotecta*: Bischoff, 1910; *Ch. splendidula*: Humala, 1997). Parasitoid of *Gymnomerus laevipes* (Shuckard), *Jucancistrocerus caspicus* (Giordani Soika), *Katamenes flavigularis* (Blüthgen) (Vespidae: Eumeninae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (KS, TU, IR), **FE** (PR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, China, Japan.
- Chrysis rutiliventris rutiliventris** Abeille de Perrin, 1879. Russia: **EP** (NC), **Siberia**. – Europe (WE, SE, EE).
- Chrysis sardarica** Radoszkowski, 1890 (*Ch. sardarica lepidula* Linsenmaier, 1959; *Ch. sardarica perrecta*: Vinokurov, 2006; *Ch. cardarica* (!) *lepidula*: Vinokurov, 2006). Russia: **EP** (NC). – N Africa, Caucasus, Turkey, Middle East, Central Asia.

- Chrysis schencki** Linsenmaier, 1968 (*Ch. ignita schenckiana* Linsenmaier, 1959, nom. praeocc., nec Mocsáry, 1912; *Ch. ignita*: Humala, Polevoi, 2009). Parasitoid of *Ancistrocerus trifasciatus* (Müller), *A. gazella* (Panzer), and *A. nigricornis* (Curtis) (Vespidae: Eumeninae). Russia: **EP** (N, NW, NC), **WS** (TK). – Europe (WE, NE, SE), Central Asia, Japan.
- Chrysis sculpturata** Mocsáry, 1912 (*Ch. ignita* var. *sculpturata* Mocsáry, 1912). Russia: **EP** (NC). – Europe (WE, SE), Caucasus.
- Chrysis scutellaris** Fabricius, 1794. Possibly parasitoid of *Megachile leachella* Curtis and *Pseudanthidium lituratum* (Panzer) (Megachilidae). Russia: **EP** (C, E, S, NC). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey.
- Chrysis serena serena** Radoszkowski, 1891 (*Ch. pyrrhina* Dahlbom, 1845: Eversmann, 1858; *Ch. pyrrhina siciliaca* Linsenmaier, 1959: Vinokurov, 2006; *Ch. pyrrhina rhodesiaca*: Vinokurov, 2006). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), Azerbaijan, Caucasus, Middle East, Syria, Iran, Chia (NE).
- Chrysis sexdentata** Christ, 1791 (*Ch. caucasica* Radoszkowski, 1877; *Ch. micans*: du Buysson, 1896). Parasitoid of *Ancistrocerus parietum* (Linnaeus), *Euodynerus dantici* (Rossi) (Vespidae: Eumeninae). Russia: **EP** (C, S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Caucasus, Iran, Central Asia.
- Chrysis sibirica** Rosa, 2017. Russia: **ES** (TU, BR).
- Chrysis singula** Radoszkowski, 1891. Russia: **EP** (S). – Caucasus, Turkmenistan.
- Chrysis solida** Haupt, 1957 (*Ch. mediata fenniensis* Linsenmaier, 1959; *Ch. scintillans* Valkeila, 1971). Parasitoid of *Ancistrocerus trifasciatus* (Müller), *Euodynerus notatus* (Jurine) and possibly *Symmorphus debilitatus* (de Saussure) (Vespidae: Eumeninae). Russia: **EP** (N, NW, NC), **ES** (KR), **FE** (KA). – Europe (WE, NE, EE), Caucasus, Japan.
- Chrysis sooni** Rosa, 2017. Russia: **FE** (PR).
- Chrysis soror** Dahlbom, 1854 (*Ch. ariadne* Mocsáry, 1889; *Ch. scutellaris* var. *ariadne*: Balthasar, 1954; *Ch. soror calandra* Semenov, 1967). Russia: **EP** (C, E, S, NC), **UR**, **ES** (KR, IR). – Europe (SE, EE), Caucasus, Middle East, Central Asia.
- Chrysis speciosa** Radoszkowski, 1877. Russia: **Western Siberia** (Bischoff, 1913). – Cyprus, Iran, Uzbekistan.
- Chrysis splendidula** Rossi, 1790 (*Ch. tamara* Semenov, 1967; *Ch. cyanopyga*: Eversmann, 1858; *Ch. splendidula abdominalata*: Vinokurov, 2006; *Ch. splendidula chlorisans*: Vinokurov, 2006). Parasitoid of *Eumenes coarctatus* (Linnaeus), *Eumenes mediterraneus* Kriechbaumer and *E. pomiformis* (Fabricius), *Gymnomerus laevipes* (Shuckard), *Symmorphus allobrogus* (de Saussure), *S. laevipes* (Shuckard) (Vespidae: Eumeninae). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), Caucasus, Central Asia, China (NE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Tsushima, Ryu).
- Chrysis subcoriacea** Linsenmaier, 1959. Possibly Parasitoid of *Ancistrocerus trifasciatus* (Müller) (Vespidae: Eumeninae). Russia: **EP** (N, NW, NC). – Europe (WE, NE, SE, EE), Central Asia, Japan.
- Chrysis subsinuata fallax** Marquet, 1882 (*Ch. mediocris*: Dalla Torre, 1892; *Ch. subsinuata unfauciata*: Vinokurov, 2006; *Ch. mochii*: Vinokurov, 2006; *Ch. subsinuata nochii* (!): Vinokurov, 2006; *Ch. subsinuata fallax* (!): Vinokurov, 2006). Russia: **EP** (NC, CR). – Europe (SE, EE), Armenia, Turkey.
- Chrysis succincta** Linnaeus, 1767 (*Ch. siccincta* (!): Buganin et al., 2000). Russia: **EP** (N, C, E, S), **UR**, **ES** (BR, ZB). – Europe (WE, NE, ?SE, EE), Caucasus.
- Chrysis taczanovskii** Radoszkowski, 1877 (*Ch. taczanowskyi* (!): Bischoff, 1910; *Ch. taczanowskyi* (!): Trautmann, 1927; *Ch. znojkoii* Semenov, 1967; *Ch. znojkoii* (!): Vinokurov, 2006). Parasitoid of *Euodynerus disconotatus* (Lichtenstein) (Vespidae: Eumeninae). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Azerbaijan, Caucasus, Palestine, Syria, Iran.
- Chrysis tenella** Mocsáry, 1889 (*Ch. tenella* var. *chalcophana*: du Buysson, 1894; *Ch. tenella* var. *mlokosiewitzii*: du Buysson, 1894). Russia: **EP** (NC). – Caucasus.
- Chrysis terminata** Dahlbom, 1854. Parasitoid of *Ancistrocerus nigricornis* (Curtis) (Vespidae: Eumeninae). Russia: **EP** (S), **UR**. – Europe (WE, NE, SE, EE), Central Asia.
- Chrysis tianshanica** Semenov, 1967. Russia: **EP** (NC). – Central Asia.
- Chrysis tragica** Semenov, 1967. Russia: **EP** (NC).
- Chrysis uljanini sickmanni** Mocsáry, 1892 (*Ch. uljaninini*: Bischoff, 1913; *Ch. sarafschana sickmanni*: Tsuneki, 1953; *Ch. uljanini*: Kurzenko, Lelej, 2007 et auct.). Russia: **FE** (AM, KH, PR).
- Chrysis valesiana** Frey-Gessner, 1887 (*Ch. sybarita* var. *valesiana* Frey-Gessner, 1887). Parasitoid of *Tropidodynerus interruptus* (Brullé), *Paravespa rex* (von Schulthess), *Paragymnomerus spiricornis*

- (Spinola) (Vespidae: Eumeninae). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE).
- Chrysis valida** Mocsáry, 1912 (*Ch. ignita* var. *valida* Mocsáry, 1912). Russia: **EP** (C, NC), **UR**, **WS** (TK, AL), **FE** (AM, PR). – Europe (WE, NE, EE), Turkey.
- Chrysis verna** Dahlbom, 1854. Russia: **EP** (CR). – Europe (SE, EE), Caucasus, Palestine.
- Chrysis vicana** Vinokurov, 2010. Russia: **EP** (NC).
- Chrysis vinokurovi** Rosa, 2017. Russia: **EP** (NC).
- Chrysis viridula** Linnaeus, 1761 (*Ch. bidentata* var. *gemma* du Buysson, 1895). Parasitoid of *Odynerus spinipes* (Linnaeus), *O. reniformis* (Gmelin) and *O. melanocephalus* (Gmelin) (Vespidae: Eumeninae). Russia: **EP** (N, C, NC, CR), **UR**, **WS** (AL), **ES** (TU, KR, IR), **FE** (KH, PR). – Europe (WE, NE, SE, EE), China (NE), Korean Peninsula, Japan.
- Chrysis westerlundi** Trautmann, 1927. Russia: **EP** (N). – Europe (NE).
- Chrysis zetterstedti** Dahlbom, 1845 (*C. fasciata*: Banaszak, 1980 et auct.). Possibly parasitoid of *Euodynerus notatus* (Jurine) (Vespidae: Eumeninae). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (IR), **FE** (PR). – Europe (NE, EE).
- CHRYSURA** Dahlbom, 1845 (*Olochrysis* Lichtenstein, 1876; *Monochrysis* Lichtenstein, 1876; *Holochrysis* Rye, 1878; *Arctochrysis* Haupt, 1956). Type species *Chrysis austriaca* Fabricius, 1804. Parasitoids of solitary bees (Megachilidae). Mostly Holarctic genus. Number of species: World – 124, Palaeartic – 113, Russia – 20.
- Chrysura alticola** (Semenov, 1912) [Chrysis]. Russia: **WS** (AL). – Tajikistan.
- Chrysura austriaca** (Fabricius, 1804) [Chrysis]. Parasitoid of bees *Hoplitis adunca* (Panzer), *H. anthocopoides* (Schenck), *Osmia parietina* Smith (Megachilidae). Russia: **EP** (C, E), **Siberia** (Radoszkowski, 1889). – Europe (WE, NE, SE, EE), N Africa.
- Chrysura cuprea** (Rossi, 1790) [Chrysis] (*Chrysis coeruleipes*: Radoszkowski, 1866). Parasitoid of *Osmia bicolor* Schranck, *O. versicolor* Latreille, *O. rufohirta* Latreille, *O. spinulosa* Trautmann, *O. andrenoides* Spinola (Megachilidae). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Caucasus, Abkhazia.
- Chrysura desertorum** (du Buysson, 1887) [Chrysis] (*Chrysis cyanocoelia*: Mocsáry, 1889). Russia: **Southern Russia** (Linsenmaier, 1969). – Georgia, Turkey, Israel.
- Chrysura dichroa** (Dahlbom, 1854) [Chrysis] (*Chrysis baeri* Radoszkowski, 1866). Parasitoid of *Osmia* (Megachilidae), which build nests in empty snail shells: *O. rufohirta* Lepeletier de Saint Fargeau, *O. andrenoides* Spinola, *O. aurulenta* Panzer, *O. caerulescens* (Linnaeus), *O. ferruginea* Latreille, *O. spinulosa* (Kirby), *O. versicolor* Latreille. Russia: **EP** (C, E, NC), **UR**, **WS** (TK). – Europe (WE, NE, SE, EE), Caucasus, Central Asia.
- Chrysura filiformis** (Mocsáry, 1889) [Chrysis]. Russia: **EP** (NC). – Europe (WE, SE, EE), Caucasus, Turkey.
- Chrysura hirsuta** (Gerstaecker, 1869) [Chrysis] (*Chrysis bicolor*: Assmuss, 1862; *Ch. osmia*: Westerlund, 1892). Parasitoid of solitary bees: *Osmia inermis* (Zetterstedt), *O. nigriventris* (Zetterstedt), *O. parietina* Curtis, *O. uncinata* Gerstaecker, and *Hoplitis tuberculata* (Nylander) (Megachilidae). Russia: **EP** (N, NW, C), **UR**, **ES** (IR, BR, YA). – Europe (WE, NE, SE, EE), Caucasus, China (NE, NC, SW), Korean Peninsula, Japan (Hon, Shi).
- Chrysura ignifrons** (Brullé, 1833) [Chrysis] (*Chrysis aurifrons*: du Buysson, 1894; *Ch. gnifrons* (!): Vinokurov, 2006). Russia: **EP** (NC). – Europe (WE, SE), N Africa, Middle East, Central Asia.
- Chrysura koma** (Tsuneki, 1950) [Chrysis]. Russia: **FE** (PR). – China, Korean Peninsula.
- Chrysura laevigata** (Abeille de Perrin, 1879) [Chrysis] (*Chrysis dichroa* var. *laevigata* (!): Trautmann, 1927). Russia: **EP** (NC), **UR**. – Europe (WE, SE, EE), N Africa, Azerbaijan, Middle East, Iran.
- Chrysura lydiae lydiae** (Mocsáry, 1889) [Chrysis]. Russia: **EP** (NC). – Europe (SE), Turkey, Middle East.
- Chrysura nikolaji** Rosa, 2017 (*Chrysis medea* Semenov, 1967, nom. praeocc., nec Balthasar, 1953). Russia: **EP** (NC). – Abkhazia.
- Chrysura oraniensis porphyrea** (Mocsáry, 1889) [Chrysis] (*Chrysis oraniensis*: du Buysson, 1894). Parasitoid of *Anthidium sticticum* (Fabricius) (Megachilidae). Russia: **EP** (NC). – Europe (SE), Turkey.
- Chrysura pseudodichroa** (Linsenmaier, 1959) [Chrysis]. Russia: **EP** (NC, CR). – Europe (WE, SE, EE), Turkey, Middle East, Iran.
- Chrysura purpureifrons** (Abeille de Perrin, 1878) [Chrysis] (*Chrysis purpureifrons helleniensis* Linsenmaier, 1968). Russia: **EP** (C, S, NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Iran, Central Asia.

- Chrysura radians** (Harris, 1776) [Chrysis] (*Chrysis bicolor*: Radoszkowski, 1880; *Ch. pustulosa*: Mocsáry, 1889). Parasitoid of solitary bees (Megachilidae), which usually nest in cavities in dead wood: *Hoplitis adunca* (Panzer), *H. anthocopoides* (Schenck), *Osmia caerulescens* (Linnaeus), *O. leaiana* (Kirby). Russia: **EP** (N, C, E, S, NC), **UR**, **ES** (IR, BR). – Europe (WE, NE, SE, EE), N Africa, Abkhazia, W Asia.
- Chrysura refulgens** (Spinola, 1806) [Chrysis]. Russia: **EP** (NC). – Europe (WE, SE, EE), N Africa, Caucasus, China (SE).
- Chrysura simplex simplex** (Dahlbom, 1854) [Chrysis]. Parasitoid of the solitary bee *Osmia caementaria* Gerstaecker (Megachilidae). Russia: **EP** (NC). – Europe (WE, SE, EE), N Africa, Caucasus.
- Chrysura trimaculata** (Förster, 1853) [Chrysis]. Parasitoid of solitary bees in the genus *Osmia* (Megachilidae). Russia: **ES** (TU). – Europe (WE, SE, EE), Caucasus, Turkey.
- Chrysura varicornis** (Spinola, 1838) [Chrysis] (*Chrysis sodalis* Mocsáry, 1892). Russia: **Southern Russia** (du Buysson, 1894). – Europe (WE, SE), N Africa, Turkey, Middle East, Central Asia.
- EUCHROEUS** Latreille, 1809 (*Brugmoia* Radoszkowski, 1877). Type species *Chrysis purpurata* Fabricius, 1775. The generic name *Euchroeus* Latreille, 1809 and the specific name *Chrysis purpurata* Fabricius, 1775 were conserved by ICZN (1998). As a result, the generic name *Brugmoia* Radoszkowski, 1877 (used by Kimsey and Bohart (1991)) is a junior synonym of *Euchroeus* Latreille, 1809, and the name *quadrata* is a junior synonym of *purpurata* Fabricius. Number of species: World – 26, Palaeartic – 22, Russia – 6.
- Euchroeus limbatus limbatus** Dahlbom, 1854. Russia: **EP** (S, NC), **UR**. – Caucasus, Turkey, Central Asia.
- Euchroeus mongolicus** Tsuneki, 1947. Russia: **ES** (BR). – China (NC).
- Euchroeus purpuratus purpuratus** (Fabricius, 1787) [Chrysis] (*Euchraeus* (!) *quadratus*: Assmuss, 1862; *E. purpuratus* var. *smaragdinus* Trautmann, 1926; *Brugmoia quadrata*: Kurzenko, Lelej, 2007). Recorded as a possible parasitoid of *Ammophila* Kirby and *Podalonia* Fernald (Sphecidae). Russia: **EP** (C, E, S), **UR**, **WS** (OM, AL), **ES** (KS, KR, BR). – Europe (WE, SE, EE), Central Asia.
- Euchroeus purpuratus irradians** (Semenov, 1910) [Pseudochrysis]. Russia: **UR**, **ES** (KR). – Kyrgyzstan.
- Euchroeus par** (Semenov, 1967) [Spinolia]. Russia: **ES** (BR).
- Euchroeus rugulosus** (Mocsáry, 1909) [Chrysis] (*E. doursi*: Trautmann, 1927; *Brugmoia rugulae* Kimsey, 1991). Russia: **ER** (S, CR), **UR**, **ES** (KR). – Uzbekistan, Kyrgyzstan, Kazakhstan.
- Euchroeus victorius** Rosa, 2017. Russia: **ES** (KS).
- PENTACHRYSIS** Lichtenstein, 1876. Type species *Chrysis amoena* Eversmann, 1857. Number of species: World – 6, Palaeartic – 5, Russia – 1.
- Pentachrysis amoena** (Eversmann, 1858) [Chrysis] (*Chrysis amöna* (!): Dalla Torre, 1892). Russia: **EP** (S), **WS** (OM). – Central Asia, Mongolia.
- PSEUDOCHRYSIS** Semenov, 1891 (*Pseudospinolia* Linsenmaier, 1951; *Neospinolia* Linsenmaier, 1968). Type species *Chrysura humboldti* Dahlbom, 1845. Nest parasitoids of potter wasps (Vespidae: Eumeninae). Number of species: World – 18, Palaeartic – 17, Russia – 7.
- Pseudochrysis aureicollis** (Abeille de Perrin, 1879) [Chrysis]. Russia: **EP** (NC). – Europe (SE), N Africa, Caucasus, Iran.
- Pseudochrysis fahringeri** Trautmann, 1926. Russia: **WS** (AL), **ES** (KS, KR). – Europe (WE).
- Pseudochrysis gengiskhan** Rosa, 2017. Russia: **ES** (TU).
- Pseudochrysis humboldti** (Dahlbom, 1845) [Chrysura] (*Chrysis cyanura* Dahlbom, 1854; *Ch. fedtchenkoi*: Radoszkowski, 1880). Parasitoid of *Paravespa grandis albida* Blütghen (Vespidae: Eumeninae). Russia: **EP** (E, S, NC, CR), **UR**, **ES** (IR). – Europe (WE, SE, EE), Caucasus, Azerbaijan, Iran, Central Asia, China (NC).
- Pseudochrysis incrassata** (Spinola, 1838) [Chrysis] (*Euchroeus graciosus minutus*: Linsenmaier, 1968). Russia: **EP** (S, NC). – Europe (WE, SE), Caucasus, Turkey.
- Pseudochrysis neglecta** (Shuckard, 1836) [Chrysis] (*Ch. austriaca* Dahlbom, 1829, nom. praeocc., nec Fabricius, 1804; *Ch. integrella* Dahlbom, 1854; *Ch. tadjhika* Semenov et Nikol'skaya, 1954). Nest parasite of *Odynerus spinipes* (Linnaeus) and *O. reniformis* (Gmelin) and possibly occasionally of *Ancistrocerus parietum* (Linnaeus) and *Gymnomerus laevipes* (Shuckard) (Vespidae: Eumeninae). Russia: **EP** (N, C, E, S, NC, CR), **UR**, **WS** (TK, AL), **ES** (KS, TU, KR, IR), **FE** (KH). – Europe (WE, NE, SE, EE), Turkey, Tajikistan, China (NW), N America.

- Pseudochrysis uniformis** (Dahlbom, 1854) [Chrysis] (*Chrysis fasciata* Spinola, 1805, nom. praeocc., nec Olivier, 1791). Russia: **EP** (E). – Europe (SE, EE), N Africa, Caucasus, Turkey, Asia, Iran.
- SPINOLIA** Dahlbom, 1854 (*Polyodontus* Radoszkowski, 1877; *Achrysis* Semenov, 1892). Type species *Spinolia magnifica* Dahlbom, 1854 [= *Spinolia lamprosoma* (Förster, 1853)]. Parasitoids of potter wasps (Vespidae: Eumeninae) and digger wasps (Crabronidae). Number of species: World – 19, Palaeartic – 19, Russia – 6.
- Spinolia chalcites** (Mocsáry, 1890) [Chrysis]. Russia: **EP** (E, S, NC). – Turkey, Iran.
- Spinolia dournovii** (Radoszkowski, 1866) [Chrysis] (*Ch. dournovoi* (!): Radoszkowski, 1880). Russia: **EP** (NC). – Europe (SE), N Africa, Turkey, Middle East, Iran.
- Spinolia lamprosoma** (Förster, 1853) [Chrysis] (*Spinolia* (!) *lamprosoma*: Vorontsovskij, 1930). Russia: **UR**. – Europe (WE, SE), Caucasus, Turkey.
- Spinolia morawitzii** (Mocsáry, 1889) [Chrysis] (*Ch. morawitzi* (!): Dalla Torre, 1892). Russia: **EP** (S). – Caucasus, Turkey, Turkmenistan.
- Spinolia stchurovskiyi** (Radoszkowski, 1877) [Polyodontus] (*P. stchurovsky* Radoszkowski, 1877). Russia: **EP** (S), **UR**. – Central Asia.
- Spinolia unicolor** (Dahlbom, 1831) [Chrysis]. Parasitoid of *Pterocheilus phaleratus* (Panzer) (Vespidae: Eumeninae) and possibly *Bembecinus hungaricus* (Fivaldszky) (Crabronidae). Russia: **EP** (C). – Europe (WE, NE, SE, EE), Mongolia.
- SPINTHARINA** Semenow, 1892. Type species *Chrysis vagans* Radoszkowski, 1877. Parasitoids of solitary wasps (Masarinae). Number of species: World – 26, Palaeartic – 21, Russia – 2.
- Spintharina mocsaryi** (Radoszkowski, 1890) [Spintharis] (*Chrysis cuprata*: Radoszkowski, 1880). Russia: **Southern Russia** (Linsenmaier, 1968). – Caucasus, Turkey, Middle East.
- Spintharina versicolor** (Spinola, 1808) [Chrysis] (*Ch. patriarchalis* Radoszkowski, 1880; *Ch. kuznetzovi* Semenov, 1967). Parasitoid of *Celonites abbreviatus* (Villers) (Vespidae: Masarinae). Russia: **EP** (CR). – Europe (WE, SE), Armenia, Iran.
- STILBUM** Spinola, 1806. Type species *Chrysis calens* Fabricius, 1781. Nest parasite of solitary wasps (Vespidae: Eumeninae; Sphecidae) and bees (Megachilidae). Number of species: World – 5, Palaeartic – 3, Russia – 2.
- Stilbum calens** (Fabricius, 1781) [Chrysis] (*Stilbum nobile*: Mocsáry, 1882). Parasitoid of *Katamenes flavigularis* Blüthgen, *K. arbustorum* (Panzer), *Delta uncuiculatum* (Villers) (Vespidae: Eumeninae), *Sceliphron madraspatanum tubifex* (Latreille) (Sphecidae) and possibly *Chalicodoma parietina* (Geoffroy) (Megachilidae). Russia: **EP** (S, NC, CR), **UR**, **ES** (BR, ZB). – Europe (WE, SE, EE), N Africa, Central Asia, China (NE, NC), Japan (Hon, Shi, Kyu).
- Stilbum cyanurum** (Forster, 1771) [Chrysis] (*S. splendidum*: Radoszkowski, 1866; *S. amethystinum*: Mocsáry, 1882; *S. pici*: Linsenmaier, 1959). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), Caucasus, China (NE, NC, CC, SE). Worldwide except N and S America.
- TRICHRYSIS** Lichtenstein, 1876 (*Alocochrysis* Haupt, 1956). Type species *Sphex cyanea* Linnaeus, 1758. Nest parasites of solitary wasps (Crabronidae and Pompilidae). Number of species: World – 36, Palaeartic – 11, Russia – 3.
- Trichrysis cyanea** (Linnaeus, 1758) [Sphex]. Parasitoid of *Trypoxylon figulus* Linnaeus, *Pemphredon rugifer* (Dahlbom) (Crabronidae) and *Auplopus carbonarius* (Scopoli) and *Dipogon* sp. (Pompilidae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TK, AL), **ES** (KS, TU, KR, IR, BR, ZB), **FE** (AM, KH, PR, SA, KA). – Europe (WE, SE, NE, EE), N Africa, Central Asia, China (NE, NC), Korean Peninsula, Japan (Hok, Hon).
- Trichrysis lusca** (Fabricius, 1804) [Chrysis] (*Praestochrysis lusca*: Kurzenko, Lelej, 2007). Russia: **FE** (PR). – China (NC, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu), SE Asia, India, Papua-New Guinea, Australia. Accidentally was introduced into Europe.
- Trichrysis pellucida** (du Buysson, 1887) [Chrysis] (*Chrysis buyssoni* Mocsáry, 1899, replacement name for secondary homonym *Ch. pellucida* du Buysson, 1887, nec *Brugmoia pellucida* Radoszkowski, 1877, currently *Euchroeus pellucidus* (Radoszkowski, 1877); *T. buyssoni*: Kurzenko, Lelej, 2007). Russia: **FE** (KH, PR, SA). – Turkey, China (NC, CC), Korean Peninsula.

## Tribe PARNOPINI

Number of taxa: World – 3 genera, 22 species, Palaearctic – 3/9, Russia – 1/3.

**PARNOPES** Latreille, 1797. Type species *Chrysis carnea* Fabricius, 1775 [= *Parnopes grandior* (Pallas, 1771)]. Holarctic genus. Parasitoids of digger wasps in the tribe Bembicini (Crabronidae). Number of species: World – 17, Palaearctic – 6, Russia – 3.

**Parnopes glasunowi** Semenov, 1901. Russia: **EP** (S). – Central Asia.

**Parnopes grandior** (Pallas, 1771) [*Chrysis*] (*Parnopes carnea*: Eversmann, 1858). Parasitoid of *Bembix rostrata* (Linnaeus) (Crabronidae). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (NS), **ES**. – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Caucasus, Central Asia.

**Parnopes popovii** Eversmann, 1857 (*Parnopes popovi* (!): Bischoff, 1913). Russia: **EP** (C), **UR**, **ES** (KS, TU, KR, IR, BR, ZB), **FE** (AM, PR). – Mongolia, China (NE, NC), Korean Peninsula.

Species erroneously reported for Russia and to be excluded from Russian fauna

The following records were originally described in ex Soviet countries (Kazakhstan, Uzbekistan, etc.), and later reported as “southern Russia” and “Russia” and to be excluded from the Russian fauna, till precise records and identifications are available. We also include species considered erroneously or doubtfully identified.

**Cleptes afer** Lucas, 1849. Northern African species (Linsenmaier, 1999). Distributional data from Crimea are datable and should be related to *Cl. ignitus* other species subsequently described in the *nitidulus* group.

**Cleptes mocsaryi** Semenov, 1891. Currently the species is known only on specimens from Montenegro (type locality) and Greece (Arens, 2014).

**Hedychridium cupratum** (Dahlbom, 1854). Endemic species which is living only on the Alps (Austria, France, Germany, Italy, Switzerland) (Rosa et al., 2017d).

**Hedychridium ibericum** Linsenmaier, 1959. Endemic of the Iberian peninsula (Mingo, 1994). The record is related to another species in the *H. ardens* species-group.

**Hedychridium lampadum** Linsenmaier, 1959. It is an unnecessary replacement name for *H. lampas*

(Christ, 1790) (Kimsey, Bohart, 1991). *H. lampadum* Linsenmaier includes females of different species (Rosa, 2006; Arens, 2010).

**Hedychridium maculiventre** Linsenmaier, 1959. It could be referable to *H. palestinense* Balthasar, 1953 (Arens, 2010) or other species in the *H. roseum* species-group with metallic reflections on the second sternite.

**Hedychrum coelestinum** Spinola, 1838. African species, also known from Saudi Arabia in the Palaearctic (Linsenmaier, 1999). The record from Russia is very likely a misidentification by Kirchner (1867).

**Hedychrum sinicum** Semenov, 1967. Described from Sichuan (China) and misidentified by Vinokurov (2006).

**Hedychrum gerstaeckeriformes** (nom. nudum). Kilimnik (1993) labeled the holotype in ZIN as *Hedychrum gerstaeckeriformes*, but later described this species as *H. tobiasi*. Vinokurov (2006, 2007, 2009, 2013) reported both *H. gerstaeckeriformes* and *H. tobiasi*, therefore one of the two identification is related to an unknown species.

**Holopyga gloriosa** (Fabricius, 1793) This name has been used for a long time, although mistakenly, till today; in particular many European and Russian species have been considered as varieties of *H. gloriosa*. Previous identifications of Russian chrysidids and identified as *H. gloriosa* must be referred to different species, in particular *H. inflammata*, *H. lucida*, *H. chrysonota* and females of *H. jurinei* and *H. ignicollis*. The name *Chrysis gloriosa* Fabricius, 1793 was suppressed by ICZN (1998, Opinion 1906).

**Holopyga pulawskii** Linsenmaier, 1968. This species described from Turkmenistan: Aşgabat, locality given as southern Russia by Kimsey and Bohart (1991).

**Omalus imbecillus** (Mocsáry, 1889). Citations of this species from Russia are related to specimens collected in Turkmenistan (Strumia, 2008).

**Pseudomalus auratus virescens** (Mocsáry, 1889). Móczár (1964) designated the lectotype and synonymised *P. auratus virescens* with *P. auratus* (Linnaeus). The type series includes specimens belonging to different species: *Pseudomalus auratus* (Linnaeus, 1758), *Omalus biaccinctus* du Buysson, 1893 and *Pseudomalus pusillus* (Fabricius, 1804).

**Chrysis abeillei** Gribodo, 1879. Balthasar's (1953) record of this species from Sarepta is based on Trautmann's (1927) wrong interpretation of *Chrysis abeillei*. The species is known only for Syria, so far.

- Chrysis altaica** Mocsáry, 1912. The holotype of this species originates from Kazakhstan: Semipalatinsk.
- Chrysis angustula gracilis** Schenck, 1856. Niehuis (2000), after type examination, synonymised *Chrysis gracilis* Schenck with *C. angustula* Schenck. Vinokurov (2010) listed both *C. angustula* and *C. angustula gracilis* for the same localities and his identification is possibly referable to *C. leptomandibularis* Niehuis, 2000 or *C. corusca* Valkeila, 1971.
- Chrysis aurotecta** Abeille de Perrin, 1878. It is an endemic species of Corsica and Sardinia which was misidentified by Vinokurov (2006).
- Chrysis bidentata** Linnaeus, 1767. It is a synonym of *Ch. viridula* Linnaeus, 1761. *Ch. bidentata* sensu Linsenmaier is a misidentification of *C. consanguinea* Mocsáry, 1889 (Linsenmaier, 1997). Specimens erroneously identified as *C. bidentata* usually belong to different species within the *Ch. viridula* species-group.
- Chrysis bihamata** Spinola, 1838. The record from Russia (Linsenmaier, 1969) is in error and referable to other species in the *C. bihamata* group.
- Chrysis distincta exigua** Mocsáry, 1889. The record from southern Russia (Linsenmaier, 1959) is related to Western Asian countries.
- Chrysis distinguenda** Spinola, 1838. It is a *nomen dubium* cited by Eversmann (1858).
- Chrysis gribodoi** Abeille de Perrin, 1877. The identification by Bischoff (1910) is doubtful and related to other species later described in the *Ch. succincta* species-group.
- Chrysis grohmanni grohmanni** Dahlbom, 1854. The distribution of this species is limited to western Mediterranean countries. Citations from Southern Russia, Middle East and central Asia are referable to other species or subspecies within the *Ch. succincta* species-group.
- Chrysis imperatrix** du Buysson, 1887. Dalla Torre (1892) reported "Russia" as type locality for *Chrysis imperatrix*, but the species was described from Turkmenistan and the species is not yet recorded for Russia.
- Chrysis ignita bischoffi** Linsenmaier, 1959. We examined some specimens identified by Vinokurov (2006) as *C. ignita bischoffi* who belong to different species and different subgroups within the *C. ignita* species-group, all with darkened colouration of metasoma.
- Chrysis ignita melaensis** Linsenmaier, 1968. It is an endemic subspecies restricted to the Corsica and Sardinia (Linsenmaier, 1987). The specimens examined (Vinokurov, 2010) belong to different taxa with darkened colouration of the metasoma.
- Chrysis mauritanica** Tratumann, 1927. This species is known only for NW Africa: Tunisia and Morocco (Linsenmaier, 1959, 1999; Kimsey, Bohart, 1991). Vinokurov's (2006, 2009) records are referable to other species in the *Ch. leachii* species-group.
- Chrysis mediata berberiana** Linsenmaier, 1959. This is a NW African species known from Algeria, Morocco and Tunisia (Linsenmaier, 1959, 1999). The identification (Vinokurov, 2010) is referable to other species in the *Ch. ignita* species-group.
- Chrysis pseudoignita** Linsenmaier, 1987. Species endemic of the Canary islands (Palma, Tenerife) and possibly conspecific with *C. magnidens* Pérez, 1895 also endemic of the Canary Islands. Vinokurov's identifications (2010) are referable to different species.
- Chrysis rutilans rigiana** Linsenmaier, 1951. It was found only in a small Swiss Valley (Wallis, Mt. Rigi) so far, and specimens from North Caucasus (Vinokurov, 2006) are related to other species in the *Ch. splendidula* species-group.
- Chrysis splendidula decora** Mocsáry, 1887. It is the replacement name for *Ch. superba* Radoszkowski, also named *Ch. rutilans mesasiatica* or *Ch. insperata mesasiatica*. It is a small and slender species, not related to *Ch. splendidula*. Vinokurov's (2004) identification is possibly related to a colour variation of *Ch. splendidula*.
- Chrysuria dichropsis** (du Buysson, 1894). Species known from Palestine and Syria. The record of this species from North Caucasus (Vinokurov, 2012) is referable to other species in the *Chrysuria dichroa* species-group.
- Chrysuria fulminatrix** (du Buysson, 1888). This species is known only on the holotype, collected in Algeria. The record from North Caucasus (Vinokurov, 2012) is referable to other species in the *Chrysuria dichroa* species-group.
- Chrysuria interdichroa** (Linsenmaier, 1959). This species is known only from specimens collected in Palestina, so far. The record of this species from North Caucasus (Vinokurov, 2012) is referable to other species in the *Chrysuria dichroa* species-group.
- Chrysuria prodichroa** (Linsenmaier, 1959). This is a synonym of *Chrysuria isabellae* (Trautmann, 1926) (*C. radians* species-group). Vinokurov's (2012) record is related to a species in the *C. dichroa* species-group.



**Euchroeus orientis** Semenov, 1910. The species described from Xinjiang (West China) and its record from East Russia (Linsenmaier, 1968) is erroneous.

**Euchroeus purpuratus consularis** du Buysson, 1896. This subspecies is known only for NW Africa:

Algeria, Morocco and Tunisia (Linsenmaier, 1999). Records from southern Russia (Trautmann, 1927) are doubtful and related to other species later described by Semenov-Tian-Shanskij.

## SUPERFAMILY SCOLIOIDEA

## 61. FAMILY SAPYGIDAE

A.S. LELEJ AND N.V. KURZENKO

Small and medial size wasps. Their larvae are cleptoparasites in the cells of megachilid bees (Megachilidae: *Ashmeadiella* Cockerell, *Osmia* Panzer, *Heriades* Spinola, *Hoplitis* Klug, *Chelostoma* Latreille, *Dianthidium* Cockerell), apid bees (Apidae: *Anthophora* Latreille, *Xylocopa* Latreille), or colletid bees (Colletidae: *Hylaeus* Fabricius). Nearctic *Fedtschenkia anthracina* (Ashmead) is the parasitoid of *Pterocheilus trichogaster* Bohart (Vespidae: Eumeninae). On eclosion from its egg the first instar sapygid larva destroys and consumes the egg of the host; later instars consume the food supplied in the cells, some Nearctic species are ectoparasitoids on host larvae. Includes two recent subfamilies: Fedtschenkiinae (1 genus, 5 species from arid area of Central Asia and North America) and Sapyginae (11 genera, 66 species, distributed worldwide, except Australia).

Number of taxa: World – 12 genera, 66 species, Palaearctic – 6/31, Russia – 5/9.

R e f e r e n c e s. Dalla Torre, 1897; Gussakovskij, 1932; Sugihara, Kim, 1936; Yasumatsu, Sugihara, 1938; Yasumatsu, 1939; Pate, 1947a,b; Tobias, 1965b, 1978; Guiglia, 1969, 1971; Krombein, 1979; Kurzenko, 1986, 1995, 1996, 2004, 2009; Kurzenko, Gusenleitner, 1994; Kurzenko et al., 1995; Matsumoto et al., 2007; Kurzenko, 2012.

## Subfamily SAPYGINAE

**MONOSAPYGA** Pic, 1920. Type species *Sapyga* (*Monosapyga*) *theresae* Pic, 1920. Number of species: World – 2, Palaearctic – 2, Russia – 1.

**Monosapyga clavicornis** (Linnaeus, 1758) [Apis] (*Scolia prisma* Fabricius, 1787; *Masaris crabroniformis* Panzer, 1797; *Sapyga theresae* Pic, 1920; *S. triinterrupta* Pic, 1920; *S. ininterrupta* Pic, 1920). Cleptoparasite of bees *Chelostoma florissomme* (Linnaeus) and *Osmia* Panzer (Megachilidae). Russia: **EP** (C, CR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Armenia, Azerbaijan, Turkey.

**POLOCHRIDIUM** Gussakovskij, 1932. Type species *Polochridium eoum* Gussakovskij, 1932. Monotypic genus.

**Polochridium eoum** Gussakovskij, 1932 (*P. koreanum* Sugihara et Kim, 1936). Russia: **FE** (PR). – China (NC), Korean Peninsula.

**POLOCHRUM** Spinola, 1805 (*Dimorpha* Panzer, 1806; *Aclastocera* Foerster, 1855). Type species *Polochrum repandum* Spinola, 1805. Number of species: World – 3, Palaearctic – 2, Russia – 1.

**Polochrum repandum** Spinola, 1805 (*Aclastocera friwaldskii* Förster, 1855). Cleptoparasite of *Xylocopa violacea* Linnaeus (Apidae). Russia: **EP** (CR). – Europe (WE, SE, EE), Caucasus, Azerbaijan, Turkey.

**SAPYGA** Latreille, 1796 (*Hellus* Fabricius, 1804). Type species *Scolia quinquepunctata* Fabricius, 1781. The genus includes four subgenera: *Arthrosapyga* Pic, 1920; *Polosapyga* Kurzenko, 1994; *Rectosapyga* Kurzenko, 1986, and *Sapyga* Latreille, 1796. Number of species: World – 28, Palaearctic – 17, Russia – 5.

**Sapyga (Sapyga) caucasica schevyrevi** Morawitz, 1889. Russia: **EP** (NC). – Caucasus, Turkey, Iran.

**Sapyga (Sapyga) coma** Yasumatsu et Sugihara, 1938. Cleptoparasite of *Osmia pedicornis* Cockerell and *O. cornifrons* Radoszkowski (Megachilidae). Russia: **FE** (PR). – China (CC), Korean Peninsula, Japan (Hon).

**Sapyga (Sapyga) morawitzi** Turner, 1911 (*S. gussakovskii* Kurzenko, 1986). Russia: **South Russia** (Gusenleitner, 2013c). – Europe (SE), Caucasus, Turkey, Iran.

**Sapyga (Sapyga) quinquepunctata** (Fabricius, 1781) [Scolia] (*Scolia quadriguttata* Fabricius, 1781; *Sphex tricolor* Schrank, 1781; *Sirex pacca* Fabricius, 1787; *Scolia sexguttata* Fabricius, 1793; *S. octoguttata* Fabricius, 1793; *Sapyga punctata* Klug, 1803; *Hellus sexpunctatus* Fabricius, 1804; *H. quadriguttatus* Fabricius, 1804; *Sapyga punctum* Lamarck, 1817; *S. varia* Lepeletier et Audinet-Serville, 1825; *S. decipiens* Lepeletier et Audinet-Serville, 1825; *S. quinquepunctata* var. *arvenica* Pic, 1925). Cleptoparasite of *Chalicodoma* Latreille, *Osmia* Panzer, *Heriades* Spinola, *Megachile* Latreille (Megachilidae). Russia: **EP** (C, S, CR). – Europe (WE, SE, NE, EE), N Africa, Caucasus, Turkey.

**Sapyga (Sapyga) similis** (Fabricius, 1793) [Sirex] (*Sapyga variegata* Dahlbom, 1844; *S. exornata* Gerstäcker, 1861; *S. pedestris* Gerstäcker, 1861; *S. rufipes* A. Costa, 1864). Cleptoparasite of *Osmia* Panzer, *Chelostoma* Latreille (Megachilidae). Russia:

**EP** (N, NW, C), **WS** (TK), **ES** (IR, BR, YA), **FE** (AM, KH, PR, SA, MG). – Europe (WE, NE, SE, EE). Kazakhstan, Mongolia, China (NC).

**SAPYGINA** A.Costa, 1887. Type species *Sapyga decemguttata* Jurine, 1807. The genus includes two subgenera: *Sapygina* Costa, 1887 and *Sapygella* Benoit, 1950. Number of species: World – 13, Palaeartic – 4, Russia – 1.

**Sapygina decemguttata** (Jurine, 1807) [Sapyga] (*Meria millefolii* Lepeleter et Audinet-Serville, 1825; *Sapyga chelostomae* Robineau-Desvoidy, 1836; *Myzine panzeri* Guérin-Méneville, 1837; *Polochrum cylindricum* Schenk, 1857; *Sapyga nigra* Tournier, 1889). Russia: **EP** (CR). – Europe (WE, SE, EE), Turkey, Israel.

## 62. FAMILY SCOLIIDAE

M.V. MOKROUSOV AND A.S. LELEJ

Large, robust, hairy wasps, mostly 20–30 mm, usually black with a yellow band on the metasoma. Larvae of these wasps are ectoparasitoids of the larvae of scarabaeid beetles (Scarabaeoidea). The adults are commonly found on flowers. The females burrow into the ground to locate a host and when they find the a grub, they sting it and paralyze it, then burrow deeper into the soil and construct a cell around the grub. Number of taxa: World – 43(143) genera, 560 species, Palaearctic – 11/100, Russia – 5/20.

**R e f e r e n c e s.** Pallas, 1771; Eversmann, 1846, 1849; Erichson, 1849; Bischoff, Bradley, 1929; Steinberg, 1962; Bradley, 1972; Hamon, 1993; Argaman, 1996; Osten, 1999, 2005; Terayama, Nagase, 2016; Lelej, Mokrousov, 2017.

## Subfamily SCOLIINAE

## Tribe CAMPSOMERINI

**COLPA** Dufour, 1841 (*Trielis* de Saussure, 1863; *Campsoscolia* Betrem, 1933). Type species *Scolia interrupta* Fabricius, 1781 (= *Vespa galbula* Pallas, 1771). The genus includes four subgenera: *Colpa* Dufour, 1841; *Carbonelis* Betrem, 1972; *Crioscolia* Bradley, 1951; *Heterelis* Costa, 1887. Number of species: World – 31, Palaearctic – 12, Russia – 4.

**Colpa (Colpa) galbula** (Pallas, 1771) [Vespa] (*Scolia sexmaculata* Fabricius, 1781; *S. interrupta* Fabricius, 1781; *Sphex insubrica* Scopoli, 1786; *Scolia sareptana* Eversmann, 1849). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), Algeria, Georgia, Azerbaijan, Cyprus, Turkey, W Kazakhstan.

**Colpa (Colpa) klugii** (Vander Linden, 1827) [Scolia]. Russia: **EP** (CR). – Europe (SE, EE), Turkey, Iran.

**Colpa (Crioscolia) tartara** (de Saussure, 1880) [Elis] (*Scolia mongolica* F. Morawitz, 1889). Russia: **EP** (NC). – Armenia, Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, China (NW).

**Colpa (Heterelis) quinqueincta** (Fabricius, 1793) [Scolia] (*Scolia rufiventris* Fischer von Waldheim, 1843, nom. praecoc., nec Fabricius, 1804; *S. grisea* Eversmann, 1849; *S. vetula* Eversmann, 1849). Russia: **EP** (C, S, NC, CR), **UR**, **WS** (AL). – Europe (WE, SE, EE), N Africa, Georgia, Azerbaijan,

Turkey, Israel, Iraq, Iran, W Pakistan, Central Asia, Kazakhstan.

**MEGACAMPSOMERIS** Betrem, 1928 (*Fiharbuxa* Argaman, 1996). Type species *Tiphia grossa* Fabricius, 1804. Number of species: World – 40, Palaearctic – 6, Russia – 2.

**Megacampsomeris grossa matsumurai** (Betrem, 1941) [Campsomeris]. Russia: **FE** (PR). – Japan (Hon).

**Megacampsomeris prismatica** (Smith, 1855) [Scolia] (*Elis iris* Magretti, 1892; *Scolia simillima* Tullgren, 1904; *M. uchidai* Betrem, 1941). Russia: **FE** (PR). – China (NE, NC, CC, SW, SE), Korean Peninsula, Japan (Hon), SE Asia, India.

## Tribe SCOLIINI

**CARINOSCOLIA** Betrem, 1927 (*Nokbibula* Argaman, 1996). Type species *Scolia opalina* Smith, 1857. Number of species: World – 8, Palaearctic – 2, Russia – 1.

**Carinoscolia vittifrons** (Sichel in de Saussure et Sichel, 1864) [Scolia] (*S. fascinata* Smith, 1873; *Discolia signatifrons* Pérez, 1905; *D. fasciata* Matsamura, 1917). Russia: **FE** (AM, KH, PR). – China (NE, SW, SE), Korean Peninsula, Japan (Hon, Kyu, Yakushima, Ryu).

**MEGASCOLIA** Betrem, 1928. Type species *Scolia procer* Illiger, 1802. The genus includes two subgenera: *Megascolia* Betrem, 1928 and *Regiscolia* Betrem et Bradley, 1964. Number of species: World – 15, Palaearctic – 3, Russia – 1.

**Megascolia (Regiscolia) maculata** (Drury, 1773) [Sphex] (*Scolia flavifrons* Fabricius, 1775; *S. haemorrhoidalis* Fabricius, 1787). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Abkhazia, Caucasus, Cyprus, Turkey, Syria, Israel, Iran, Turkmenistan, W Kazakhstan.

**SCOLIA** Fabricius, 1775 (*Lisoca* A. Costa, 1858; *Scolioides* Guiglia et Capra, 1934; *Kokarevta* Argaman, 1996; *Buzatlana* Argaman, 1996; *Orlovinga* Argaman, 1996; *Lisoca* Argaman, 1996; *Pardesiya* Argaman, 1996). Type species *Scolia quadripunctata* Fabricius, 1775 (= *Vespa sexmaculata* O.F. Müller, 1766). The genus includes two subgenera: *Discolia* de Saussure, 1863 and *Scolia* Fabricius, 1775. Number of species: World – more than 200, Palaearctic – 50, Russia – 12.

- Scolia (Discolia) hirta** (Schrank, 1781) [Apis] (*Discolia alutus* Nagy, 1967; *D. mongolina* Nagy, 1970). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (TM, AL), **ES** (KS, TU, KR, IR, BR, ZB). – Europe (WE, NE, SE, EE), Abkhazia, Caucasus, Cyprus, Turkey, Israel, Iran, Turkmenistan, Uzbekistan, Kazakhstan, Mongolia.
- Scolia (Discolia) histrionica** (Fabricius, 1787) [Tiphia] (*S. loebischii* Dalla Torre, 1897; *S. palaeanarctica* Gussakovskij, 1932; *S. decorata* auct.). Russia: **FE** (AM, KH, PR, KU). – Mongolia, China (NE, NC, CC, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Yakushima), SE Asia.
- Scolia (Discolia) oculata** (Matsumura, 1911) [Discolia] (*S. pseudounifasciata* Betrem, 1928). Russia: **FE** (KH, PR). – China (NC, CC, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Tsushima, Yakushima).
- Scolia (Discolia) schrenckii** Eversmann, 1846. Russia: **WS** (TM, AL), **ES** (IR). – Kazakhstan, Uzbekistan, Kyrgyzstan, Mongolia, China (NW).
- Scolia (Discolia) sinensis** de Saussure in de Saussure et Sichel, 1864 (*S. indica* Uchida, 1925). Russia: **FE** (KH, PR). – Pakistan, Central Asia, SE Kazakhstan, China (NE, NC, CC, SW, WP, SE), Korean Peninsula, Japan (Hon), India (Jammu and Kashmir).
- Scolia (Scolia) fallax fallax** Eversmann, 1849, nom. protectum (*Vespa tricolor* Pallas, 1771, nom. oblitum; *S. moreana* Muche, 1962; *S. galbula* auct.). Russia: **EP** (E, S, CR). – Europe (SE, EE), Azerbaijan, Kazakhstan.
- Scolia (Scolia) fallax syriacola** Betrem, 1935. Russia: **EP** (NC). – Georgia, Azerbaijan, Turkey, Syria, Lebanon, Israel, Iran, Turkmenistan.
- Scolia (Scolia) fuciformis** (Scopoli, 1786) [Sphex] (*Scolia insubrica* Rossi, 1790, nom. praeocc., nec *Sphex insubrica* Scopoli, 1786; *Scolia amabilis* Eversmann, 1849). Russia: **EP** (C, E, S, NC, CR), **ES** (IR). – Europe (WE, SE, EE), Azerbaijan, Cyprus, Turkey, Israel, Iran, Kazakhstan.
- Scolia (Scolia) garrula** Erichson in Ménétrés, 1849 (*S. laeta* Eversmann, 1849; *S. menetriesi* de Saussure, 1859). Russia: **EP** (S). – Central Asia, Kazakhstan.
- Scolia (Scolia) gussakovskii** Steinberg, 1953. Russia: **EP** (S). – Europe (EE), Turkmenistan, Uzbekistan, Kazakhstan.
- Scolia (Scolia) potanini** F. Morawitz, 1889. Russia: **ES** (BR), **FE** (AM). – Mongolia, China (NE, NC).
- Scolia (Scolia) quadricincta quadricincta** (Scopoli, 1787) [Sphex] (*Scolia dejeani* Vander Linden, 1829; *S. flaviceps* Eversmann, 1846; *S. galbula* auct.). Russia: **EP** (C, S, NC, CR). – Europe (WE, SE, EE), Georgia, Azerbaijan, Kyrgyzstan, Kazakhstan, W Mongolia.
- Scolia (Scolia) quadricincta mangichlakensis** Radoszkowski, 1879 (*S. flaviceps flaviceps*: Steinberg, 1962; *S. flaviceps mangichlakensis*: Steinberg, 1962). Russia: **EP** (NC). – Caucasus, Cyprus, Turkey, Israel, Iran, Turkmenistan, Tajikistan, Uzbekistan, S Kazakhstan.
- Scolia (Scolia) sexmaculata** (O.F. Müller, 1766) [Vespa] (*S. quadripunctata* Fabricius, 1775). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (TK), **ES** (KS, IR). – Europe (WE, SE, EE), N Africa, Abkhazia, Caucasus, Cyprus, Turkey, Syria, Lebanon, Israel, Iran, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan.

## 63. FAMILY TIPHIIDAE

M.V. MOKROUSOV AND A.S. LELEJ

Ectoparasitoids of beetles larva (Coleoptera). Distributed worldwide, mainly in arid, tropical and subtropical regions. Number of taxa: Word – 7 subfamilies, 120 genera, 2000 species; Palaeartic – 4/17/100; Russia – 3/6/28.

References. Tobias, 1978; Kimsey, 1991; Argaman, 1992, 1994; Agnoli, 2005; Boni Bartalucci, 2010, 2016; Terayama, 2016; Mokrousov, 2018.

## Subfamily METHOCHINAE

Ectoparasitoids of subterranean tiger beetles larvae (Cicindelidae). The subfamily is distributed worldwide except Australian region. Number of taxa: Word – 2 genera, 75 species; Palaeartic – 1/10, Russia – 1/2.

**METHOCHA** Latreille, 1804 (*Methoca* Latreille, 1805; *Metocha* auct.; *Metoca* auct.). Type species *Mutilla articulata* Latreille, 1792. The genus includes three subgenera: *Methocha* Latreille, 1804, *Dryinopsis* Brues, 1910, and *Andreus* Ashmead, 1903. Number of species: World – 66, Palaeartic – 5, Russia – 2.

**Methocha (Dryinopsis) picipes** (F. Morawitz, 1890) [Methoca]. Russia: **EP** (C, NC), **ES** (IR, BR, ZB), **FE** (AM, KH, PR). – Europe (EE), Turkmenistan, Tajikistan, Uzbekistan.

**Methocha (Methocha) articulata** (Latreille, 1792) [Mutilla] (*Mutilla formicaria* Latreille, 1792; *Methoca ichneumonides* Latreille, 1805; *Methoca mutillaria* Latreille, 1806; *Tengyra sanvitali* Latreille, 1809; *Gonatopus mutillarius* Nees, 1834; *Spinolia italica* Costa, 1858; *Methoca ichneumonoides* auct.). Russia: **EP** (NW, C, E, S, NC), **ES** (IR, BR, ZB), **FE** (AM, PR, SA). – Europe (WE, NE, SE, EE), N Africa, Turkey, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.

## Subfamily MYZININAE

Ectoparasitoids of subterranean beetle larvae of Scarabaeidae, Cerambycidae and Tenebrionidae. The subfamily is distributed worldwide. Number of taxa: Word – 24 genera; Palaeartic – 10; Russia – 3 genera, 12 species.

**MERIA** Illiger, 1807 (*Arapatka* Argaman, 1994; *Fukpokta* Argaman, 1994; *Tilkuya* Argaman, 1994; *Upaterka* Argaman, 1994). Type species *Tiphia tripunctata* Rossi, 1790. Parasitoids of tenebrionid larvae (Tenebrionidae). Widespread in the Palaeartic and Afrotropical regions. Number of species: World – 72, Palaeartic – 35, Russia – 6.

**Meria askhabadensis** Radoszkowski, 1886 (*Plesia baluchistanensis* Cameron, 1907). Russia: **EP** (S). – Armenia, Azerbaijan, Turkey, Pakistan, Central Asia, Kazakhstan, Mongolia, China (NW).

**Meria aurantiaca** (Guérin-Méneville, 1837) [Myzine] (*Meria soikai* Guiglia, 1966; *M. thoracica*: Tobias, 1978). Russia: **EP** (S, NC). UR. – Europe (SE), Armenia, Azerbaijan, Turkey, Jordan, Iran, Turkmenistan, Kazakhstan.

**Meria dorsalis** (Fabricius, 1804) [Bethylus] (*Myzine polita* Tournier, 1889; *Meria cylindrica* auct.; *M. lineata* auct.). Russia: **EP** (E, S, NC, CR), **UR**, **ES** (TU, IR, BR, ZB). – Europe (WE, SE, EE), Armenia, Turkey, Kazakhstan, Mongolia.

**Meria geniculata** (Brullé, 1832) [Myzine] (*Pseudomeria graeca* S. Saunders, 1850; *P. swanetiae* Radoszkowski, 1861; *Myzine nigriceps* Mocsáry, 1883; *M. graeca* Mocsáry, 1883; *Tiphia picta* Schulthess, 1893; *Meria nigrigena* Guiglia, 1966). Russia: **EP** (S). – Europe (SE), Armenia, Azerbaijan, Turkey, Kazakhstan.

**Meria nitidula** Klug, 1810. Russia: **EP** (C, S, NC), **UR**, **ES** (BR). – Europe (WE, SE, EE), Turkey, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan.

**Meria quadrimaculata** Cameron, 1902 (*M. discussa* Guiglia, 1966; *M. investiganda* Guiglia, 1973; *M. perfecta* Guiglia, 1975; *M. similis* Guiglia, 1975). Russia: **EP** (S). – Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NW).

**MYZINELLA** Guiglia, 1959 (*Illoswia* Argaman, 1994). Type species *Myzinella patrizii* Guiglia, 1959. Hosts unknown. Palaeartic and Afrotropical regions. Number of species: World – 10; Palaeartic – 7; Russia – 1.

**Myzinella flavicollis** (F. Morawitz, 1896) [Meria]. Russia: **EP** (S). – Afghanistan, Turkmenistan, Uzbekistan, Kazakhstan, Mongolia.

**POECILOTIPHIA** Cameron, 1902 (*Dermasothos* Menozzi, 1940; *Fongiba* Argaman, 1994; *Hahiya* Argaman, 1994; *Ivazuga* Argaman, 1994; *Jurja* Argaman, 1994; *Nurmiya* Argaman, 1994). Type species

*Poecilotiphia albomaculata* Cameron, 1902. Palaearctic and Noth of Afrotropical region. Number of species: World – 48, Palaearctic – 39, Russia – 4.

**Poecilotiphia brevicauda brevicauda** (F. Morawitz, 1890) [Meria]. Russia: **EP** (S). – Kazakhstan.

**Poecilotiphia brevicauda kaszabi** (Guiglia, 1965) [Meria]. Russia: **WS** (AL), **ES** (TU, ZB). – Mongolia, China (NC).

**Poecilotiphia caucasica** Boni Bartalucci, 2016. Russia: **EP** (S, NC). – Azerbaijan, Turkey.

**Poecilotiphia ciliata** (F. Morawitz, 1894) [Meria]. Russia: **EP** (S). – Iran, Uzbekistan, Kazakhstan.

**Poecilotiphia rugosopunctata** (Tournier, 1889) [Myzine]. Russia: **EP** (S). – Kazakhstan.

#### Subfamily TIPHIINAE

Ectoparasitoids of subterranean scarab beetle larvae (Scarabaeidae). Distributed worldwide. Number of taxa: Word – 10 genera; Palaearctic – 5; Russia – 2 genera, 11 species.

**PSEUDOTIPHIA** Ashmead, 1903 (*Icronatha* Nagy, 1967; *Ludita* Nagy, 1967). Type species *Tiphia brevipennis* Lucas, 1846. Palaearctic and Afrotropical regions. Number of species: World – 20, Palaearctic – 16, Russia – 4.

**Pseudotiphia beckeri** (Tournier, 1889) [Tiphia]. Russia: **EP** (S).

**Pseudotiphia caucasica** (Mocsáry, 1883) [Tiphia]. Russia: **EP** (NC). – Europe (SE, EE), N Africa, Georgia, Armenia, Azerbaijan, Turkey, Syria, Jordan, Lebanon, Iran.

**Pseudotiphia fulvipennis** (F. Smith, 1879) [Tiphia]. Russia: **EP** (E, S, NC, CR). – Europe (SE, EE), Azerbaijan, Turkey.

**Pseudotiphia villosa** (Fabricius, 1793) [Tiphia] (*Tiphia major* Mocsáry, 1883; *T. olcese* Tournier, 1889; *T. rudepunctata* Tournier, 1901; *T. morio* auct.). Russia: **EP** (C, E, S, NC, CR). – Europe (WE, SE, EE), N Africa, Turkey, Iran, Kazakhstan.

**TIPHIA** Fabricius, 1775 (*Serpapinta* Argaman, 1992; *Sasmarila* Argaman, 1992). Type species *Tiphia femorata* Fabricius, 1775. Distributed worldwide. The genus includes four subgenera: *Tiphia* Fabricius, 1775, *Sierocolpa* Nagy, 1967, *Jaynesia* Allen, 1969, *Punctotiphia* Tsuneki, 1986. Number of species: World – more than 700 species, Russia – 11.

**Tiphia (Sierocolpa) minuta** Vander Linden, 1827. Russia: **EP** (N, NW, C, E, S, NC), **WS** (AL), **ES** (IR), **FE** (PR). – Europe (SE, EE), Armenia, Azerbaijan, Turkey, Iran, Tajikistan, Uzbekistan, Kyrgyzstan, Mongolia.

**Tiphia (Tiphia) agilis** Smith, 1873 (*T. asericcae* Allen et Jaynes, 1930). Russia: **FE** (AM, KH, PR). – China (NE, NC, CC, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu), N America (introduced).

**Tiphia (Tiphia) femorata** Fabricius, 1775 (*Sphex palmipes* Schrank, 1781; *Bethylus pilipennis* Klug, 1808; *B. ater* Klug, 1810; *S. nigripes* Costa, 1858; *S. rufipes* Costa, 1858; *Tiphia infima* Tournier, 1889; *T. lativentris* Tournier, 1889; *T. rugosa* Tournier, 1889; *T. tournieri* Dalla Torre, 1891). Russia: **EP**, **UR**, **ES** (BR, ZB), **FE** (AM). – Europe (WE, NE, SE, EE), N Africa, Turkey, Iran, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, N America (introduced).

**Tiphia (Tiphia) ordinaria** Smith, 1873 (*T. bicarinata* Cameron, 1902; *T. chosensis* Allen, 1969). Russia: **FE** (PR). – China (SE), Korean Peninsula, Japan (Hok, Hon, Kyu), India.

**Tiphia (Tiphia) ovidorsalis** Allen et Jaynes, 1930. Russia: **FE** (AM, PR). – China (NC), Korean Peninsula.

**Tiphia (Tiphia) ovinigris** Allen et Jaynes, 1930. Russia: **FE** (AM, KH, PR). – Korean Peninsula.

**Tiphia (Tiphia) popilliavora** Rohwer, 1924. Russia: **FE** (AM, PR). – China (NE, NC, CC, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu), N America (introduced).

**Tiphia (Tiphia) sareptana** Tournier, 1889. Russia: **EP** (C, E, S, NC, CR).

**Tiphia (Tiphia) singularis** Allen et Jaynes, 1930. Russia: **FE** (PR). – China (CC, SE).

**Tiphia (Tiphia) unicolor** Lepeletier de Saint Fargeau, 1845 (*Bethylus ruficornis* Klug, 1810; *Tiphia polita* Costa, 1858). Russia: **EP** (C, S, NC), **WS** (AL). – Europe (WE, SE, EE), Turkey.

**Tiphia (Tiphia) vernalis** Rohwer, 1924. Russia: **FE** (AM, PR). – China (CC, SE), Korean Peninsula, Japan (Hon, Kyu), N America (introduced).

#### Doubtful species

**Meria sexpunctata** Eversmann, 1849 “Cepi in promontoriis Uralensibus”.

**64. FAMILY SIEROLOMORPHIDAE****A.S. LELEJ AND M.V. MOKROUSOV**

A small family which is known from three genera: *Sierolomorpha* Ashmead, 1903, *Proscleroderma* Kieffer, 1905 and fossil *Loreisomorpha* Rasnitsyn, 2000. *Sierolomorpha* comprises seven described species in North America, one in Hawaii and three in the Old World (Uzbekistan, Mongolia and Russian Far East). *Proscleroderma* comprises one subapterous species from Syria. The fossil *Loreisomorpha nascimbenei* Rasnitsyn, 2000 was described from Upper Cretaceous amber of New Jersey. Brothers considered Sierolomorphidae to be the sister-group of other vespoidea (Brothers, Carpenter, 1993, Brothers, 1999), while Rasnitsyn (2002) considered Sierolomorphidae to be the sister-group of the fossil Falsiformicidae within the superfamily Scolioidea. The larvae of sierolomorphids are probably ectoparasitoids of other insects, but nothing is known about their biology (Brothers, Finnermore, 1993). Three species of *Sierolomorpha* were recorded from the Old

World (Nagy, 1971; Lelej, Mokrousov, 2015). Sexual dimorphism slight to marked: both sexes usually macropterous but females sometimes brachypterous or apterous; brachypterous and apterous forms with mesosoma similar to that of in macropterous form with pronotum freely articulating, and with mesonotum, metanotum, and propodeum distinct.

Number of taxa: World – 2 genera, 13 species, Palearctic – 2/5, Russia – 1/2.

R e f e r e n c e s. Eversmann, 1849; Nagy, 1971; Argaman, 1990; Brothers, Carpenter, 1993; Brothers, Finnermore, 1993; Gorbatovskij, Lelej, 1998; Brothers, 1999; Rasnitsyn, 2002; Lelej, Mokrousov, 2015.

**SIEROLOMORPHA** Ashmead, 1903. Type species *Sierola ambigua* Ashmead, 1893. Number of species: World – 12, Palearctic – 4, Russia – 2.

**Sierolomorpha abnormis** (Eversmann, 1849) [Tiphia]. Russia: **UR, WS** (NS).

**Sierolomorpha atropos** Nagy, 1971. Russia: **FE** (PR). – Mongolia.



## 65. FAMILY MUTILLIDAE – VELVET ANTS

A.S. LELEJ

Mutillidae currently include 216 genera and about 4300 described species (Lelej, 2007; Lelej, Brothers, 2008; Aguiar et al., 2013, updated). In the Palaearctic region 525 species in 61 genera and in the Oriental region 640 species in 64 genera are reported (Lelej, 2002, updated; Lelej, 2005a), but the hosts information are known for only about 150 species and are mainly bees and wasps (Brothers, 1989). Because of extreme sexual dimorphism (female apterous, male macropterous, rare apterous), sex associations cannot be made on morphology alone; most species and even many genera are known from one sex only. This has resulted in many taxonomic challenges in trying to make associations, and resulted in many synonyms recognized through matching of males and females. The males is very much larger than the females in some species and may then carry the females before mating, or true phoretic copulation may occur. Most velvet ants are solitary ectoparasitoids of the enclosed immatures (usually larvae or pupae) of other insects: Hymenoptera, mainly aculeate (Brothers et al., 2000), Diptera (Amini et al., 2014), Lepidoptera, Coleoptera (Sergeev, Lelej, 2011), and Blattodea.

Number of taxa: World – 216 genera, about 4300 species, Palaearctic – 61/525, Russia – 20/74.

R e f e r e n c e s. Pallas, 1771, 1773; Nylander, 1847; Baer, 1848; Morawitz A., 1865; Radoszkowski, 1865, 1866; Sichel, Radoszkowski, 1869–1870; Morawitz F., 1891, 1893; André, 1902; Skorikov, 1927, 1935; Chen, 1957; Pulawski, 1963; Invrea, 1964; Tsuneki, 1972; Brorhens, 1975, Lelej, 1978, 1985, 2002, 2005, 2007, 2012b; Petersen, 1988; Suárez, 1988; Brothers, 1989; Lelej, Nemkov, 1997; Brothers et al., 2000; Lelej, Schmid-Egger, 2005; Bogusch, 2006; Pagliano, Strumia, 2007; Lelej, Brothers, 2008; Muskovitz, György, 2011; Sergeev, Lelej, 2011; Aguiar et al., 2013; Amini et al., 2014; Lelej et al., 2014, 2016, 2017; Lelej, Shlyakhtenok, 2015; Humala, Polevoi, 2015.

## Subfamily MYRMOSINAE

## Tribe KUDAKRUMIINI

Number of taxa: World – 5 genera, 16 species, Palaearctic – 1/4, Russia – 1/2.

**PSEUDOMYRMOSA** Suárez, 1980. Type species *Myrmosa minuta* Morawitz, 1894. Number of species: World – 5, Palaearctic – 5, Russia – 2.

**Pseudomyrmosa gobicola** Lelej, 1981. Collected in the nest aggregations of *Hylaeus* spp. (Colletidae) and small species of Crabronidae. Russia: **ES** (TU). – Mongolia.

**Pseudomyrmosa minuta** (Morawitz, 1894) [*Myrmosa*] (*Mutilla myrmosina* Dalla Torre, 1897). Russia: **EP** (S, NC). – Armenia, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan.

## Tribe MYRMOSINI

Number of taxa: World – 7 genera, 40 species, Palaearctic – 6/32, Russia – 4/7.

**KROMBEINELLA** Pate, 1947 (*Paramyrmosa* Suárez, 1963, nom. praeocc., nec Saussure, 1880). Type species *Hylaeus thoracicus* Fabricius, 1793. Number of species: World – 17, Palaearctic – 17, Russia – 2.

**Krombeinella longicollis** (Tournier, 1889) [*Myrmosa*]. Russia: **EP** (S, NC, CR). – Europe (SE, EE), Turkey.

**Krombeinella wolff** (Invrea, 1963) [*Myrmosa*]. Russia: **EP** (CR). – Europe (SE, EE), Georgia, Azerbaijan, Turkey, Kazakhstan.

**MYRMOSA** Latreille, 1797 (*Ischioceras* Provancher, 1882). Type species *Myrmosa atra* Panzer, 1801. Number of species: World – 6, Palaearctic – 2, Russia – 1.

**Myrmosa atra atra** Panzer, 1801 (*Mutilla melanocephala* Fabricius, 1793, nom. praeocc., nec Schrank, 1781; *Myrmosa nigra* Latreille, 1809; *M. atra* Lepeletier, 1845, nom. preocc., nec Panzer, 1801; *M. nigra* Lepeletier, 1845, nom. praeocc., nec Latreille, 1809; *M. bicolor* Baer, 1848; *Mutilla melanaria* Blanchard, 1849; *Myrmosa melanocephala* f. *rufomaculata* Hoffer, 1938). Parasitoid of *Crabro peltarius* (Schreber), *Crossocerus palmipes* (L.), *C. wesmaeli* (Vander Linden), *Diodontus tristis* (Vander Linden), *Oxybelus unghumis* (L.), *Lindenius panzeri* (Vander Linden), and *L. albilabris* (F.) (Crabronidae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (KS, TU, KR, YA). – Europe (WE, NE, SE, EE), Turkey, ?Iran, Kyrgyzstan, Kazakhstan.

**PARAMYRMOSA** Saussure, 1880 (*Morysmula* Suárez, 1963). Type species *Myrmosa (Paramyrmosa)*

*radoszkowskyi* Saussure, 1880. Number of species: World – 8, Palaearctic – 8, Russia – 2.

**Paramyrmosa brunripes** (Lepeletier, 1845) [Myrmosa] (*Myrmosa cognata* Costa, 1858). Parasitoid of *Lasioglossum majus* Nylander, *L. pauxillum* Schenck, *L. morio* (F.) (Halictidae), *Crabro peltarius* (Schreber), *Cerceris rybyensis* (L.) (Crabronidae). Russia: **EP** (C, S, NC, CR). – Europe (WE, SE, EE), Armenia, Turkey.

**Paramyrmosa pulla** (Nylander, 1847) [Myrmosa] (*Myrmosa czerskii* Skorikov, 1929). Russia: **ES** (TU, BR, ZB), **FE** (AM, KH, PR). – Mongolia, China (NE).

**TAIMYRMOSA** Lelej, 2005. Type species *Myrmosa eos* Lelej, 1981. Number of species: World – 4, Palaearctic – 3, Russia – 2.

**Taimyrmosa eos** (Lelej, 1981) [Myrmosa]. Russia: **FE** (PR). – Korean Peninsula.

**Taimyrmosa mongolica** (Suárez, 1974) [Myrmosa] (*M. tsunekii* Haneda, 1979). Russia: **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR, SA). – Mongolia, China (NE), Korean Peninsula, Japan (Hon, Shi).

#### Subfamily SPHAEROPHTHALMINAE

Number of taxa: World – 63 genera, 1417 species, Palaearctic – 2/4, Russia – 1/1.

#### Tribe SPHAEROPHTHALMINI

**CYSTOMUTILLA** André, 1896. Type species *Mutilla ruficeps* Smith, 1855. Number of species: World – 2, Palaearctic – 2, Russia – 1.

**Cystomutilla ruficeps** (Smith, 1855) [Mutilla] (*M. erythrocephala* Lucas, 1849, nom. praeocc., nec Latreille, 1792; *M. parvula* Kriechbaumer, 1896). Parasitoid of *Ectemnius rubicola* (Dufour et Perris) and *Pemphredon rugifer* (Dahlbom) (Crabronidae). Russia: **EP** (S, CR). – Europe (WE, SE, EE), Algeria, Georgia.

#### Subfamily DASYLABRINAE

#### Tribe DASYLABRINI

Number of taxa: World – 8 genera, 324 species, Palaearctic – 4/110, Russia – 1/13.

**DASYLABRIS** Radoszkowski, 1885 (*Allomutilla* Ashmead, 1899). Type species *Mutilla arenaria* Fabricius, 1787. The genus includes four

subgenera: *Baltilla* Lelej, 1976, *Craspedopyga* Lelej, 1976, *Dasylabris* Radoszkowski, 1885, and *Inbaltilla* Lelej, 1976. Number of species: World – 151, Palaearctic – 63, Russia – 13.

**Dasylabris (Baltilla) adversa** Skorikov, 1935 (*D. italica* var. *adversa* Skorikov, 1935; *D. kaszabi* Suárez, 1974). Collected in the nest aggregations of *Colletes* spp. and *Hylaeus* spp. (Colletidae). Russia: **EP** (C, E, S, NC), **ES** (TU, BR, ZB). – Europe (EE), Mongolia, China (NO).

**Dasylabris (Baltilla) bicolor** (Pallas, 1771) [Mutilla] (*M. albeola* Pallas, 1773; *M. caspica* Kolenati, 1846; *M. funeraria* Erichson, 1849; *D. bergi* Skorikov, 1935). Russia: **EP** (S, NC). – Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NW).

**Dasylabris (Baltilla) gobicola** Skorikov, 1935 (*D. kaszabi funerula* Suárez, 1974). Collected in the nest aggregations of *Colletes* spp. and *Hylaeus* spp. (Colletidae). Russia: **WS** (AL), **ES** (TU). – Mongolia, China (NW, NO).

**Dasylabris (Baltilla) kozlovi** Skorikov, 1935. Collected in the nest aggregations of *Anthophora* spp. (Apidae). Russia: **ES** (TU). – Mongolia, China (NW, NO, WP).

**Dasylabris (Craspedopyga) manderstiernii manderstiernii** (Radoszkowski, 1865) [Mutilla] (*D. mauropsis* Skorikov, 1935; *D. mauropsis* var. *canonota* Skorikov, 1935). Russia: **EP** (NC, CR). – Caucasus, Turkey, Syria, Lebanon, Iran, Turkmenistan.

**Dasylabris (Dasylabris) intermedia** Skorikov, 1935 (*D. rubrosignata ypsilon* Chen, 1957). Russia: **ES** (BR, ZB). – Afghanistan, Mongolia, China (NO, CE, SE), Korean Peninsula.

**Dasylabris (Dasylabris) maura maura** (Linnaeus, 1758) [Mutilla] (*M. austriaca* Panzer, 1799; *M. rubricans* Lepeletier, 1845; *M. argenteofasciata* Costa, 1859; *M. trisinuosa* Costa, 1886; *D. maura* f. *nigrociliata* Hoffer, 1938). Parasitoid of *Katamenes arbustorum* (Panzer) (Vespidae), *Sphex occitanicus* (Lepeletier et Serville), *Ammophila heydeni* Dahlbom (Sphecidae). Russia: **EP** (CR). – Europe (WE, SE, EE), Caucasus.

**Dasylabris (Dasylabris) maura sungora** (Pallas, 1773) [Mutilla] (*M. quadrimaculata* Radoszkowski, 1865, nom. praeocc., nec Lucas, 1849; *D. maura nostras* Skorikov, 1935; *D. maura nostras* var. *argentata* Skorikov, 1935; *D. maura nostras* var. *argyrauxa* Skorikov, 1935; *D. maura nostras* var. *consueta* Skorikov, 1935; *D. maura nostras* var. *iberica*

Skorikov, 1935; *D. maura nostras* var. *infuscata* Skorikov, 1935; *D. maura nostras* var. *quinquemaculata* Skorikov, 1935; *D. maura nostras* var. *tricincta* Skorikov, 1935). Russia: **EP** (C, E, S, NC), **UR**, **WS** (AL). – Kyrgyzstan, Kazakhstan, China (NW).

**Dasylabris (Dasylabris) maura armeniaca** (Kolenati, 1846) [Mutilla] (*D. mlokosewiczii* Radoszkowski, 1885; *D. duplicolor* Skorikov, 1935). Russia: **EP** (NC). – Armenia, Azerbaijan, Turkey, ?Palestine, Iran, Turkmenistan.

**Dasylabris (Dasylabris) mongolica** (Radoszkowski, 1861) [Mutilla] (*D. exarenaria* Skorikov, 1935; *D. turana* Skorikov, 1935). Russia: **ES** (TU). – Iran, Afghanistan, Central Asia, Kazakhstan, Mongolia, China (NW).

**Dasylabris (Dasylabris) siberica** (Christ, 1791) [Mutilla] (*M. rubrosignata* Radoszkowski, 1865; *M. maura* var. *quadrimaculata* Sichel et Radoszkowski, 1870, nom. praeocc., nec Lucas, 1848; *M. maura* var. *quadripunctata* Sichel et Radoszkowski, 1870, nom. praeocc., nec Olivier, 1811; *D. siberica* var. *insignata* Skorikov, 1935; *D. siberica* var. *incompleta* Skorikov, 1935). Collected in the nest aggregations of *Colletes* spp. (Colletidae) and *Anthophora* spp. (Apidae). Russia: **WS** (AL), **ES** (KS, TU, KR, BR, ZB), **FE** (AM, PR). – Mongolia, China (NO, CE), Korean Peninsula.

**Dasylabris (Inbaltilla) petiolata** (Baer, 1848) [Mutilla] (*D. italica* var. *miogramma* Skorikov, 1935). Russia: **EP** (NC, CR). – Europe (EE).

**Dasylabris (Inbaltilla) regalis** (Fabricius, 1793) [Mutilla] (*M. petiolaris* Radoszkowski, 1865; *M. concolora* Radoszkowski, 1865; *M. unipetiolaris* Radoszkowski, 1866; *D. italica* var. *triangulomaculata* Skorikov, 1935; *D. italica* f. *slovaca* Hoffer, 1938; *D. italica* f. *batai* Hoffer, 1938; *M. lugubris*: Sichel, Radoszkowski, 1870) Russia: **EP** (E, S, NC, CR), **UR**, **WS** (AL). – Europe (WE, SE, EE), Kazakhstan, China (NW).

#### Subfamily MYRMILLINAE

Number of taxa: World – 23 genera, 238 species, Palaearctic – 10/65, Russia – 1/8.

**MYRMILLA** Wesmael, 1851 (*Rudia* Costa, 1856). Type species *Mutilla distincta* Lepeletier, 1845 (= *M. calva* Villers, 1789). The genus includes three subgenera: *Eurygnathilla* Skorikov, 1927, *Myrmilla* Wesmael, 1851, and *Pseudomutilla* Costa, 1885.

Parasitoids of *Halictus* spp. (Halictidae). Number of species: World – 55, Palaearctic – 48, Russia – 8.

**Myrmilla (Myrmilla) caucasica** (Kolenati, 1846) [Mutilla] (*Mutilla corniculata* Sichel et Radoszkowski, 1869, part.; *Myrmilla jasonia* Skorikov, 1927; *M. kiritschenkoi* Skorikov, 1927; *Mutilla erythrocephala*: Radoszkowski, 1865; *M. cornuta*: Sichel, Radoszkowski, 1869). Russia: **EP** (S, NC, CR). – Europe (SE, EE), Caucasus, Turkey, Iran.

**Myrmilla (Myrmilla) etzchmiadzini** (Radoszkowski, 1885) [Mutilla] (*Myrmilla calva armeniaca* Skorikov, 1927). Russia: **EP** (NC). – Armenia, Azerbaijan, Iran.

**Myrmilla (Myrmilla) lezginica** (Radoszkowski, 1885) [Mutilla] (*Mutilla subcornuta* Morawitz, 1893; *Myrmilla kokujevi* Skorikov, 1927; *M. susiana* Skorikov, 1927). Russia: **EP** (NC, CR). – Europe (SE, EE), Georgia, Azerbaijan, Turkey, Syria, Palestine, Iran, Turkmenistan, Uzbekistan.

**Myrmilla (Myrmilla) mutica** (André, 1903) [Mutilla] (*Mutilla erythrocephala* var. *mutica* André, 1903). Russia: **EP** (CR). – Europe (SE, EE), Egypt.

**Myrmilla (Pseudomutilla) glabrata** (Fabricius, 1775) [Mutilla] (*Mutilla ciliata* Fabricius, 1793; *M. fraterna* Baer, 1848; *M. cephalica* Sichel et Radoszkowski, 1869; *Myrmilla sarmatica* Skorikov, 1927; *M. sarmatica* var. *beljgovskii* Skorikov, 1927). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), Turkey, Syria, Uzbekistan, Kazakhstan.

**Myrmilla (Pseudomutilla) meda** Skorikov, 1927 (*M. appropinqua* Skorikov, 1927). Russia: **EP** (NC). – Azerbaijan, Iran, Turkmenistan.

**Myrmilla (Pseudomutilla) skorikovi** Lelej, 1985 (*M. meda caucasica* Skorikov, 1927, nom. praeocc., nec Kolenati, 1846). Russia: **EP** (S, NC). – Georgia, Azerbaijan, Iran.

**Myrmilla (Pseudomutilla) vutshetitshi** Skorikov, 1927 (*M. capitata kusdasi* Invrea, 1965). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Turkey, Syria.

#### Subfamily MUTILLINAE

Number of taxa: World – 98 genera, 2045 species, Palaearctic – 30/254, Russia – 12/42.

#### Tribe CTENOTILLINI

Number of taxa: World – 10 genera, 181 species, Palaearctic – 1/3, Russia – 1/1.

**CTENOTILLA** Bischoff, 1920 Type species *Mutilla pectinifera* André, 1893 (= *M. caeca* Radoszkowski, 1879). Number of species: World – 3, Palaeartic – 1, Russia – 1.

**Ctenotilla caeca** (Radoszkowski, 1879) [Mutilla] (*Mutilla pectinifera* André, 1893; *C. pectinifera* var. *obscura* Nonveiller, 1959. Russia: **EP** (CR). – Europe (SE, EE), Turkey, Armenia, Azerbaijan, Syria.

#### Tribe SMICROMYRMINI

Number of taxa: World – 27 genera, 449 species, Palaeartic – 13/190, Russia – 5/29.

**EPHUTOMMA** Ashmead, 1899 (*Eremomyrme* Suárez, 1965). Type species *Mutilla incerta* Radoszkowski, 1877 (= *M. turcestanica* Dalla Torre, 1897). Number of species: World – 16, Palaeartic – 15, Russia – 2.

**Ephutomma angustata** (Skorikov, 1935) [Smicromyrme] (*S. sogdiana* Lelej, 1971). Russia: **EP** (S). – Iran, Central Asia, Kazakhstan.

**Ephutomma coronata** (Lelej, 1976) [Eremomyrme]. Russia: **UR**. – Turkmenistan, Kazakhstan.

**Ephutomma mongolensis** (Suárez, 1974) [Smicromyrme]. Russia: **ES** (ZB). – Mongolia.

**NEMKA** Lelej, 1985 (*Horaia* Tsuneki, 1993). Type species *Mutilla viduata* Pallas, 1773. Number of species: World – 22, Palaeartic – 7, Russia – 1.

**Nemka viduata viduata** (Pallas, 1773) [Mutilla] (*Tiphia stridula* Rossi, 1790; *M. coronata* Rossi, 1792; *M. coronata* Fabricius, 1793, nom. praeocc., nec Rossi, 1792; *M. paedemontana* Fabricius, 1794; *M. togata* Ahrens, 1812; *M. simplicia* Radoszkowski, 1865; *M. pauperata* Sichel et Radoszkowski, 1869). Parasitoid of *Larra anathema* (Rossi), *Bembix* spp., *Bembecinus tridens* (Fabricius), *Gorytes* spp. (Crabronidae), *Dasypoda hirtipes* (Fabricius) (Melittidae). Russia: **EP** (E, S, NC, CR); **UR**, **WS** (AL). – Europe (WE, SE, EE), Caucasus, Turkey, Syria, Kazakhstan, Mongolia, China (NW).

**PHYSETOPODA** Schuster, 1949 (*Paramyrme* Lelej, 1977). Type species *Physetopoda insularis* Schuster, 1949. Number of species: World – 48, Palaeartic – 44, Russia – 8.

**Physetopoda cingulata** (Costa, 1858) [Mutilla] (*Smicromyrme rudolfae* Lelej, 1984). Russia: **EP** (S). – Europe (SE, EE), Kazakhstan.

**Physetopoda daghestanica** (Radoszkowski, 1885) [Mutilla] (*Smicromyrme montata* f. *moravica* Hoffer, 1936; *S. variabilis* Hoffer, 1938; *S. variabilis* f. *maculata* Hoffer, 1938; *S. variabilis* f. *lineata* Hoffer, 1938; *S. variabilis* f. *obenbergeri* Hoffer, 1938; *S. variabilis* f. *conversa* Hoffer, 1938). Russia: **EP** (S, CR), **WS** (AL). – Europe (WE, SE, EE), Turkey, Kazakhstan.

**Physetopoda halensis** (Fabricius, 1787) [Mutilla] (*M. ephippium* Fabricius, 1793, nom. praeocc., nec Rossi, 1792; *M. montana* Panzer, 1805; *M. schencki* Schmiedeknecht, 1907; *Smicromyrme punctata pseudomontana* Hoffer, 1936; *S. montana* f. *susterae* Hoffer, 1936; *S. compacta* f. *melaclena* Invrea, 1958; *S. subalpina* Ressler, 1960). Parasitoid of chrysomelid beetles *Labidostomis hummeralis* (Schneider), *Clytra quadripunctata* Linnaeus (Chrysomelidae). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (KS). – Europe (WE, SE, EE), Kazakhstan.

**Physetopoda oratoria** (Chen, 1957) [Smicromyrme] (*S. oratoria vaticinia* Chen, 1957; *S. oratoria miscisis* Chen, 1957; *Glossotilla rectangulata* Chen, 1957; *S. eoa* Lelej, 1977). Russia: **ES** (KS, TU, IR, YA, ZB), **FE** (AM, KH, PR). – Mongolia, China (NE, NO).

**Physetopoda portschinskii** (Radoszkowski, 1888) [Mutilla]. Russia: **EP** (S, NC). – Armenia, Azerbaijan, Turkmenistan, Kazakhstan.

**Physetopoda scutellaris** (Latreille, 1792) [Mutilla] (*M. bimaculata* Jurine, 1807; *M. subcomata* Wesmael, 1851). Russia: **EP** (CR), **ES** (KS, TU). – Europe (WE, SE, EE), ?N Africa, Armenia, Turkey.

**Physetopoda similis** (Lelej, 1984) [Paramyrme]. Russia: **EP** (CR). – Europe (EE), Armenia, Azerbaijan, Turkey.

**Physetopoda turgajensis** (Lelej, 1984) [Paramyrme]. Russia: **EP** (S), **UR**. – Kazakhstan, Mongolia.

**SKORIKOVIA** Ovtchinnikov, 2002. Type species *Mutilla elongata* Radoszkowski, 1885. Number of species: World – 5, Palaeartic – 5, Russia – 3.

**Skorikovia elongata** (Radoszkowski, 1885) [Mutilla] (*M. elongata* var. *pura* André, 1901; *Smicromyrme ambigua* Skorikov, 1935; *S. baigacuma* Skorikov, 1935; *S. gracilis* Skorikov, 1935; *S. kuznetzovi* Skorikov, 1935). Russia: **EP** (S, NC). – Azerbaijan, Turkey, Iran, Afghanistan, Central Asia, Kazakhstan.

**Skorikovia pliginskiji** (Lelej, 1984) [Smicromyrme]. Russia: **EP** (E, S, CR), **UR**. – Europe (SE, EE).

**Skorikovia radoszkovskii** (Skorikov, 1935) [Smicromyrme]. Russia: **EP** (NC). – Georgia, Azerbaijan, Turkey.

- SMICROMYRME** Thomson, 1870. Type species *Mutilla rufipes* Fabricius, 1787. The genus includes five subgenera: *Astomyrme* Schwartz, 1984, *Eremotilla* Lelej, 1985, *Erimyrme* Lelej, 1985, *Rhombotilla* Nagy, 1966, and *Smicromyrme* Thomson, 1870. Number of species: World – 232, Palaearctic – 110, Russia – 15.
- Smicromyrme (Astomyrme) ausonius** Invrea, 1950 (*S. sabatia* Invrea, 1953; *S. ausonia* var. *etrusca* Invrea, 1950). Parasitoid of flies *Zeuxia cinerea* Meigen (Tachinidae), *Eumerus strigatus* (Fallén) (Syrphidae). Russia: **EP** (S, NC, CR), **UR**. – Europe (SE, EE), Cyprus, Turkmenistan, Kazakhstan.
- Smicromyrme (Eremotilla) coracinus** Lelej, 1985. Russia: **UR**, **WS** (AL). – Kyrgyzstan, Kazakhstan, Mongolia.
- Smicromyrme (Eremotilla) nigriceps** Nonveiller, 1959 (*S. orientalis* Nonveiller, 1959, nom. praec., nec Mickel, 1933; *S. orientalis* var. *maculata* Nonveiller, 1959, nom. praec., nec Hoffer, 1938; *S. orientalis* f. *afasciata* Nonveiller, 1972; *S. pseudo-orientalis* Nonveiller, 1979). Parasitoid of *Bembecinus tridens* (F.) (Crabronidae). Russia: **EP** (S, NC, CR). – Europe (SE), Caucasus, Iran, Turkmenistan.
- Smicromyrme (Eremotilla) novaki** Invrea, 1954 (*S. nonveilleri* Invrea, 1954; *S. curtiventris* var. *dalmatina* Invrea, 1954). Russia: **EP** (S, CR). – Europe (SE, EE). Azerbaijan.
- Smicromyrme (Eremotilla) schwarzi** Suárez, 1975. Russia: **EP** (NC, CR). – Europe (SE, EE), Georgia, Armenia, Azerbaijan, Turkey.
- Smicromyrme (Eremotilla) triangularis** (Radoszkowski, 1865) [Mutilla] (*S. pouzdranensis* Hoffer, 1936). Russia: **EP** (E, NC, CR), **UR**. – Europe (SE, EE).
- Smicromyrme (Erimyrme) bidenticulatus** Chen, 1957 (*S. hasanensis* Lelej, 1977; *S. hasanensis* f. *monopunctata* Lelej, 1977; *S. hasanensis* f. *apunctata* Lelej, 1977). Russia: **FE** (PR). – Mongolia, China (NO, CE), Korean Peninsula.
- Smicromyrme (Erimyrme) sicanus** (De Stefani, 1887) [Mutilla] (*S. pusilla septentrionalis* Hoffer, 1936; *S. pusilla septentrionalis* f. *gregory* Hoffer, 1936; *S. rufipes* var. *lutescens* Invrea, 1954). Parasitoid of *Cerceris arenaria* (L.), *Nitela spinolae* Latr., *Miscophus bicolor* Jutine, *Tachysphex pompiliformis* (Panzer), *Diodontus minutus* (F.) (Crabronidae). Russia: **EP** (S, CR), **UR**, **WS** (AL). – Europe (WE, SE, EE), Turkey, Syria, Kazakhstan.
- Smicromyrme (Erimyrme) stepposus** Lelej, 1984. Russia: **EP** (S, CR). Kazakhstan.
- Smicromyrme (Smicromyrme) lewisi** Mickel, 1935 (*Mutilla japonica* Cameron, 1900, nom. praec., nec Dalla Torre, 1897; *M. cameroni* Yano, 1932, nom. praec., nec Schulz, 1906; *S. lewisi yanoi* Mickel, 1935; *S. lewisi nigricula* Mickel, 1935; *S. momidziyama* Tsuneki, 1972). Collected in the nest aggregations of *Oxybelus bipunctatus* Olivier (Crabronidae), *Hylaeus* spp., *Colletes* spp. (Colletidae). Russia: **ES** (KS, KR, TU, IR, BR, ZB), **FE** (AM, KH, PR, SA, KU). – Mongolia, China (NO, CE, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Tsushima, Tanegashima).
- Smicromyrme (Smicromyrme) ruficollis ruficollis** (Fabricius, 1793) [Mutilla] (*S. kiritshenkoae* Skorikov, 1935). Russia: **EP** (S, CR), **WS** (AL). – Europe (WE, SE, EE), Turkey, Kazakhstan.
- Smicromyrme (Smicromyrme) rufipes** (Fabricius, 1787) [Mutilla] (*M. nigra* Rossi, 1792; *M. ephippium* Rossi, 1792; *M. sellata* Panzer, 1797; *M. nigrita* Panzer, 1801; *M. petiolaris* Fabricius, 1804; *M. gibba* Baer, 1848; *M. nemoralis* Baer, 1848; *M. rufipes* var. *fulvogastra* André, 1901; *Smicromyrme rufipes* var. *nigricollaris* Skorikov, 1935; *S. rufipes* f. *zavadili* Hoffer, 1938; *S. rufipes* f. *lidmilae* Hoffer, 1938; *S. kuehlhorni* Invrea, 1963; *S. globosa* Franz, 1982). Parasitoid of *Tachysphex* spp., *Oxybelus uniglumis* (L.), *O. bipunctatus* Olivier, *Miscophus spurius* (Dahlbom) (Crabronidae), *Halictus* spp. (Halictidae), *Andrena* spp. (Andrenidae). Russia: **EP** (N, NW, C, E, S, CR), **UR**, **WS** (AL), **ES** (YA). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan.
- Smicromyrme (Smicromyrme) sertus** (Radoszkowski, 1885) [Mutilla]. Russia: **UR**.
- Smicromyrme (Smicromyrme) tristis** Lelej, 1984. Russia: **EP** (CR), **UR**. – Europe (WE, EE), Kazakhstan.
- Smicromyrme (Smicromyrme) viktorovi** Lelej, 1984. Russia: **EP** (S). – Georgia, Azerbaijan.

#### Tribe MUTILLINI

Number of taxa: World – 23 genera, 592 species, Palaearctic – 6/28, Russia – 3/9.

**MUTILLA** Linnaeus, 1758. Type species *Mutilla europaea* Linnaeus, 1758. Parasitoids of the *Bombus* spp. (Apidae). Number of species: World – 157, Palaearctic – 11, Russia – 5.

**Mutilla europaea** Linnaeus, 1758 (*Apis aptera* Uddman, 1753; *M. similis* Harris, 1782; *M. schaefferi* Schrank, 1802; *M. coeruleans* Lepeletier, 1845; *M. cyanea* Lepeletier, 1845; *M. panzeri* Lepeletier, 1845; *M. obscura* Nylander, 1847; *M. kaschiriensis* Baer, 1848; *M. notomelas* André, 1902; *M. europaea* f. *rufula* Hoffer, 1938, nom. praeocc., nec André, 1901; *M. europaea* f. *nigrescens* Hoffer, 1938, nom. praeocc., nec André, 1901; *M. europaea* f. *ruficeps* Hoffer, 1938, nom. praeocc., nec Smith, 1855). Parasitoid of *Bombus* spp. (Apidae). Russia: **EP** (N, NW, C, E, NC, CR), **UR**, **WS** (AL, NS). – Europe (WE, NE, SE, EE), N Africa, Turkey, Kazakhstan.

**Mutilla marginata** Baer, 1848 (*M. trifasciata* Radoszkowski, 1865; *M. marginata* f. *insueta* Invrea, 1964). Parasitoid of *Bombus* spp. (Apidae). Russia: **EP** (N, NW, C, E, CR), **UR**. – Europe (WE, SE, EE), Georgia, Syria.

**Mutilla mikado** Cameron, 1900 (*M. maesta* Chen, 1957). Parasitoid of *Bombus ardens* Smith, *B. diversus* Smith (Apidae). Russia: **ES** (KS, IR, ZB), **FE** (AM, KH, PR, SA). – China (NO, NE, CE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

**Mutilla quinque maculata** Cyrillo, 1787 (*M. quinquepunctata* Olivier, 1811; *M. quadrinotata* Klug, 1829). Parasitoid of *Anthidium florentinum* (F.), *Osmia tricornis* Latreille (Megachilidae). Russia: **EP** (CR). – Europe (WE, SE), N Africa, Cyprus, Turkey, Palestine, Syria.

**Mutilla saltensis** Radoszkowski, 1885. Russia: **EP** (NC). – Caucasus, Iraq, Iran.

**RONISIA** Costa, 1858 (*Pycnotilla* Bischoff, 1920). Type species *Ronisia torosa* Costa, 1858 (= *Mutilla brutia* Petagna, 1787). Number of species: World – 29, Palaearctic – 8, Russia – 1.

**Ronisia brutia brutia** (Petagna, 1787) [Mutilla] (*M. sexmaculata* Cyrillo, 1787; *M. hungarica* Fabricius, 1793; *M. confusa* Lepeletier, 1845; *M. monspeliensis* Lepeletier, 1845; *M. sexmaculata* Baer, 1848, nom. praeocc., nec Cyrillo, 1787; *M. robusta* Smith, 1855; *Ronisia torosa* Costa, 1858; *Mutilla sericeiventris* Costa, 1864; *M. taurica* Radoszkowski, 1865, nom. praeocc., nec Gistel, 1857; *M. discoidalis* Radoszkowski, 1865; *M. morawitzii* Dalla Torre, 1897; *M. crimeae* Strand, 1917; *R. barbara minoensis* Nonveiller, 1972; *M. ghiliani*: Sichel, Radoszkowski, 1870). Parasitoid of *Polistes* Latreille (Vespidae), *Creightonella sericans* (Fonscolombe), *Chalicodoma parietinum* (Fourcroy), *Megachile albisecta*

(Klug) (Megachilidae). Russia: **EP** (E, S, NC, CR). – Europe (WE, SE, EE), Turkey, Kazakhstan.

**TROPIDOTILLA** Bischoff, 1920. Type species *Mutilla litoralis* Petagna, 1787. Number of species: World – 13, Palaearctic – 7, Russia – 3.

**Tropidotilla grisescens** (Lepeletier, 1845) [Mutilla] (*M. vulnericeps* Costa, 1860; *M. sribligata* Sichel et Radoszkowski, 1870). Russia: **EP** (CR). – Europe (WE, SE, EE), Algeria, Turkey.

**Tropidotilla litoralis** (Petagna, 1787) [Mutilla] (*M. italica* Fabricius, 1793; *M. indigena* Illiger, 1807; *M. graeca* Lepeletier, 1845; *M. iberica* Kolenati, 1846; *M. salentina* Costa, 1858; *M. quinquefasciata*: Radoszkowski, 1865). Parasitoid of *Polistes* spp., especially *P. gallicus* (Linnaeus) (Vespidae). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Palestine, Syria, Iran, Turkmenistan.

**Tropidotilla sareptana** (André, 1901) [Mutilla]. Russia: **EP** (S, NC). – Armenia, Azerbaijan, Turkey.

#### Tribe TROGASPIDIINI

Number of taxa: World – 38 genera, 823 species, Palaearctic – 10/33, Russia – 3/3.

**ARTIOTILLA** Invrea, 1950 (*Glossomyrme* Suárez, 1979). Type species *Mutilla biguttata* Costa, 1859. Number of species: World – 3, Palaearctic – 3, Russia – 1.

**Artiotilla biguttata** (Costa, 1859) [Mutilla] (*Mutilla dalmatica* André, 1893; *M. mervensis* Radoszkowski, 1893; *Smicromyrme fertoni* Invrea, 1953; *A. biguttata* f. *palestinensis* Invrea, 1965). Russia: **EP** (NC). – Europe (SE), Azerbaijan, Cyprus, Turkey, Palestine, Iran, Turkmenistan.

**NEOTROGASPIDIA** Lelej, 1996. Type species *Mutilla pustulata* Smith, 1873. Number of species: World – 6, Palaearctic – 2, Russia – 1.

**Neotrogaspidia hammeri** (Suárez, 1959) [Trogaspidia]. Russia: **EP** (NC). – Europe (SE), Armenia, Azerbaijan, Turkey, Cyprus, Palestine, Iran, Turkmenistan.

**TROGASPIDIA** Ashmead, 1899. Type species *Mutilla medon* Smith, 1855. Number of species: World – 262, Palaearctic – 19, Russia – 1.

**Trogaspidia catanensis** (Rossi, 1794) [Mutilla] (*M. ballioni* Radoszkowski, 1866; *M. paripunctata*

Sichel et Radoszkowski, 1869; *M. interrupta*: Radoszkowski, 1865). Russia: **EP** (S, NC, CR). – Europe (SE, EE), Algeria, Armenia, Turkey, Kazakhstan.

Species *incertae sedis*

**Mutilla taurica** Gistel, 1857. Russia: **EP** (CR).

Species wrongly described from Russia

**Mutilla aureomaculata** Sichel et Radoszkowski, 1869.  
Russia: **EP** (CR) [actually Africa].

**66. FAMILY BRADYNOBAENIDAE****A.S. LELEJ AND M.V. MOKROUSOV**

A small family which is widespread (absent from the Australasian region) and includes four subfamilies: Typhoctinae Schuster, 1949 (=Eotillinae Schuster, 1949) (four genera, 10 species), which is distributed in Nearctic and Neotropical regions; Chyphotinae Bradley et Bequaert, 1928 (one genus, 55 species) – Nearctic region; Apterogyninae André, 1899 (four genera, 116 species) – Afrotropical, Palaearctic and Oriental regions; Bradynobaninae de Saussure, 1892 (one genus, seven species) – Neotropical region (Lelej, 2003). Sexual dimorphism is extreme: female apterous with pronotum freely articulated, male macropterous with reduced wing venation. All species are apparently solitary. Information on a single species indicates that the larvae are ectoparasitoids of Solifuga (Arachnida), pupation occurring within the shelter of the host.

Number of taxa: World – 10 genera, 188 species, Palaearctic – 4/43, Russia – 1/2.

R e f e r e n c e s. Radoszkowski, 1879; Morawitz, 1890; Brothers, Finnamore, 1993; Argaman, 1994a; Pagliano, 2002; Lelej, 2003; Lelej, Mokrousov, 2015.

**APTEROGYNA** Latreille, 1809 (*Icalantica* Argaman, 1994; *Utapitoca* Argaman, 1994; *Zarabayca* Argaman, 1994). Type species *Apterogyna olivieri* Latreille, 1809. Number of species: World – 31, Palaearctic – 15, Russia – 2.

**Apterogyna lateritia** Morawitz, 1890 (*A. judaica* Invrea, 1950; *A. taurica* Panfilov, 1954; *A. nonveileri* Invrea, 1957; *A. stancici* Invrea, 1959; *A. wahrmani* Invrea, 1965; *A. palestinensis* Invrea, 1965). Russia: **EP** (CR). – Europe (SE), Turkey, Israel, Turkmenistan, Tajikistan.

**Apterogyna mlokosevitzii** Radoszkowski, 1879 (*A. nigra* Dover, 1924; *A. volgensis* Panfilov, 1954; *A. mlokosevitzii* (!): Morawitz, 1894; *A. dorsostrata*: Skorikov, 1935; *Icalantica mlokosevitzii* (!): Argaman, 1994a). Russia: **EP** (S, NC). – Europe (SE), N Africa, Caucasus, Turkey, Syria, Jordan, Lebanon, Israel, Iran, Turkmenistan, Uzbekistan, Tajikistan, ?Pakistan.



## SUPERFAMILY POMPILOIDEA

## 67. FAMILY POMPILIDAE – SPIDER WASPS

V.M. LOKTIONOV AND A.S. LELEJ

The family Pompilidae (spider wasps) is one of the largest families among the aculeate wasps. These wasps are distributed worldwide, but mostly in the tropical regions (Pitts et al., 2006). Five subfamilies (Ctenocerinae, Notocyphinae, Ceropalinae, Pepsinae, and Pompilinae) are now recognized for Pompilidae (Waichert et al., 2015), three latter are recorded from Russia. Spider wasps are parasitoids that use spiders as host provisioning each cell with a single paralyzed spider on which they lay an egg (Iwata, 1976). There are several genera (subfam. Ceropalinae entirely, genera *Poecilagenia* Haupt and *Nipponodipogon* Ishikawa from subfam. Pepsinae, and genus *Evagetes* Lepeletier de Sant Fargeau from subfam. Pompilinae), which have evolved a cleptoparasitic existence, with the modes of cleptoparasitism differing among them (Wasbauer, 1995; Shimizu, 2000; O'Neill, 2001; Shimizu et al., 2012). Number of the taxa: World – 254 genera, 4855 species, Palearctic – about 65/ about 1000, Russia – 37/246.

**R e f e r e n c e s.** Pallas, 1771; Assmuss, 1859; Eversmann, 1846, 1849; Radoszkowski, 1887a,b, 1888; Morawitz, 1890, 1891, 1892, 1893; Westerlund, 1892; Haupt, 1927, 1959; Nordström, Forsius, 1928; Gussakovskij, 1930, 1932; Pate, 1946; Wolf, 1967, 1972; Day, 1981, 1988; Wahis, 1986, 2013; Tobias, 1978; Krombein, 1979; Dathe, 1980b; Shimizu, 1994; Lelej, 1995, 2000; Engel, Grimaldi, 2006; Pitts et al., 2006; Elliot, 2007; Wiśniowski, 2009; Lelej, Loktionov, 2012; Aguiar et al., 2013; Baghirov, 2014; Loktionov, Lelej, 2014, 2015; Waichert et al., 2015; Kochetkov, 2017; Loktionov, Lelej, 2017; Lelej et al., 2017.

## Subfamily CEROPALINAE

**CEROPALES** Latreille, 1797 (*Agemioxenus* Ashmead, 1902; *Ceratopales* Schulz, 1906; *Hypsiceraeus* Morice, Durrant, 1914; *Aceropales* Priesner, 1969; *Priesnerius* Móczár, 1978). Type species *Evania maculata* Fabricius, 1775). Cleptoparasites of spider wasps (Pompilidae) and digger wasps (Crabronidae). The genus includes three subgenera: *Ceropales* Latreille, 1797, *Bifidoceropales* Wolf, 1965 and *Hemiceropales* Wolf, 1965. Distributed worldwide.

Number of species: World – 135, Palearctic – about 35, Russia – 11.

**Ceropales (Bifidoceropales) pygmaea appendiculata** Yasumatsu, 1939 (*Bifidoceropales lehri* Lelej, 1985). Russia: **FE** (KH, PR). – China (NE).

**Ceropales (Bifidoceropales) pygmaea tsunekii** (Lelej, 1994) [Bifidoceropales]. Russia: **FE** (PR). – Korean Peninsula.

**Ceropales (Ceropales) albicincta albicincta** (Rossi, 1790) [Evania]. Russia: **EP** (C, S, NC, CR), **UR**, **ES** (ZB). – Europe (WE, SE, EE), Georgia, Armenia, Azerbaijan, Turkey, Cyprus, Israel, Lebanon, Jordan, Iran, Kyrgyzstan, Kazakhstan, Mongolia, ?Japan.

**Ceropales (Ceropales) bicoloripes bicoloripes** Móczár, 1967. Russia: **FE** (AM). – Europe (SE), Turkey, Israel, Turkmenistan, Mongolia.

**Ceropales (Ceropales) bicoloripes dorni** Móczár, 1987. Russia: **ES** (ZB). – Mongolia.

**Ceropales (Ceropales) bogdanovii bogdanovii** Radoszkowski, 1877. Russia: **EP** (S, NC). – Uzbekistan.

**Ceropales (Ceropales) bogdanovii sabulosa** F. Morawitz, 1891. Russia: **EP** (S). – Uzbekistan, Kazakhstan.

**Ceropales (Ceropales) erythropoda** Gussakovskij, 1926. Russia: **WS** (AL), **ES** (KR, IR, BR, ZB). – Tajikistan, Kazakhstan, Mongolia, China (NE).

**Ceropales (Ceropales) helvetica helvetica** Tournier, 1889. Russia: **EP** (S, NC, CR), **WS** (AL). – Europe (WE, SE, EE), Morocco, Algeria, Tunisia, Georgia, Azerbaijan, Turkey, Cyprus, Israel, Jordan, Syria, Iraq, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia.

**Ceropales (Ceropales) maculata maculata** (Fabricius, 1775) [Evania]. Russia: **EP** (N, NW, C, S, NC, CR), **UR**, **WS** (OM, AL), **ES** (KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, MG, CH). – Europe (WE, SE, NE, EE), Northern Africa, Turkey, Cyprus, Georgia, Armenia, Azerbaijan, Lebanon, Syria, Israel, Jordan, Iran, Iraq, Turkmenistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NC, NE, CC, SW), Korean Peninsula, Japan (Hon).

**Ceropales (Ceropales) magnifica** Gussakovskij, 1926. Russia: **FE** (KH, PR). – China (NE).

**Ceropales (Ceropales) sibirica** Radoszkowski, 1888. Russia: **WS** (AL), **ES** (KR, IR, BR, ZB), **FE** (KH). – Mongolia.

**Ceropales (Ceropales) variegata** (Fabricius, 1798) [Evania] (*C. implicatus* Yasumatsu, 1939). Russia:

**EP** (C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (IR, BR, ZB), **FE** (KH). – Europe (WE, NE, SE, EE), Morocco, Algeria, Tunisia, Turkey, Georgia, Israel, Kyrgyzstan, Kazakhstan, China (NE).

**Ceropales (Hemiceropales) cribrata cribrata** Costa, 1881 (*C. versicolor* Gussakovskij, 1926). Russia: **EP** (S, CR), **ES** (ZB). – Europe (WE, SE, EE), North Africa, Turkey, Cyprus, Georgia, Azerbaijan, Israel, Saudi Arabia, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Africa.

#### Subfamily PEPSINAE

##### Tribe PEPSINI

**CRYPTOCHEILUS** Panzer, 1806 (*Cryptochilus* Rafinesque, 1815; *Calicurgus* Brullé, 1833; *Homonotus* Dahlbom, 1845, nom. praeocc., nec Dahlbom, 1843; *Stenoclavelia* Arnold, 1932; *Chilochares* Banks, 1941; *Adirostes* Banks, 1946; *Chlorocheilus* Wolf, 1965, nom. nudum; *Trachyocheilus* Wolf, 1965, nom. nudum; *Chyphonocheilus* Wolf, 1965, nom. nudum; *Ichneumocheilus* Wolf, 1965, nom. nudum; *Priocnemiocheilus* Wolf, 1970). Type species *Sphex annulata* Fabricius, 1798. Parasitoids of the spiders from the families Araneidae, Lycosidae, Pisauridae, Agelenidae, Amaurobiidae, Clubionidae, Gnaphosidae, Sparassidae and Thomisidae. The genus includes four subgenera: *Adonta* Billberg, 1820 (= *Salius* Fabricius, 1804, nom. praeocc., nec Schrank, 1798); *Chyphonocheilus* Wolf, 1970; *Cryptocheilus* Panzer, 1806, and *Ichneumocheilus* Wolf, 1970. Widely distributed in Palaearctic, Nearctic and Neotropical (Panama, Costa Rica) regions. Number of species: Palaearctic – more than 60, Russia – 23.

**Cryptocheilus (Adonta) costae** (Radoszkowski, 1888) [*Salius*]. Russia: **EP** (E, CR), **UR**. – Europe (SE, EE), Iran, Kazakhstan.

**Cryptocheilus (Adonta) egregius** (Lepelletier de Saint Fargeau, 1845) [*Calicurgus*]. Russia: **EP** (NC). – Europe (WE, SE, EE), Algeria, Caucasus, Turkey, Syria, Turkmenistan.

**Cryptocheilus (Adonta) elegans** (Spinola, 1806) [*Pompilus*] (*Pompilus tripunctatus* Spinola, 1807). Russia: **EP** (?Caucasus), **UR**. – Europe (WE, SE, EE), Turkey.

**Cryptocheilus (Adonta) fabricii** (Vander Linden, 1827) [*Pompilus*]. Russia: **EP** (NW, C, S, NC, CR), **UR**, **WS** (AL), **ES** (IR). – Europe (WE, NE, SE,

EE), Turkey, Caucasus, Jordan, Iran, Kyrgyzstan, Kazakhstan.

**Cryptocheilus (Adonta) fischeri** (Spinola, 1839) [*Pompilus*] (*C. confinis* Haupt, 1927; *C. fallax* Priesner, 1965). Russia: **EP** (S, CR). – Europe (WE, SE, EE), Morocco, Algeria, Egypt, Turkey, Cyprus, Syria, Israel, Iran, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan.

**Cryptocheilus (Adonta) flavus** (Eversmann, 1849) [*Priocnemis*] (*Salius desertorum* F. Morawitz, 1891). Russia: **EP** (S), **UR**. – Central Asia, Kazakhstan, Mongolia.

**Cryptocheilus (Adonta) freygessneri** (Kohl, 1883) [*Priocnemis*]. Russia: **EP** (S, NC, CR), **WS** (AL). – Europe (SE, EE), Turkey, Turkmenistan.

**Cryptocheilus (Adonta) guttulatus** (Costa, 1887) [*Priocnemis*]. Russia: **EP** (C), **UR**. – Europe (SE, EE), Turkey, Iran, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan.

**Cryptocheilus (Adonta) gyrifrons** (F. Morawitz, 1889) [*Salius*]. Russia: **ES** (KR, IR, BR), **FE** (AM, KH, PR). – Korean Peninsula, China (NC, CC).

**Cryptocheilus (Adonta) manchurianus** Yasumatsu, 1935. Russia: **ES** (IR, YA, ZB), **FE** (AM, PR). – Mongolia, China (NE), Korean Peninsula.

**Cryptocheilus (Adonta) maruyamai** Ishikawa, 1962. Russia: **FE** (AM, PR). – Japan (Hon, Shi, Kyu).

**Cryptocheilus (Adonta) notatus** (Rossi, 1792) [*Sphex*] (*Pompilus affinis* Vander Linden, 1827). Russia: **EP** (NC). – Europe (WE, NE, SE, EE), Morocco, Algeria, Turkey, Cyprus, Iran, Turkmenistan, Kyrgyzstan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia.

**Cryptocheilus (Adonta) richardsi** Móczár, 1953. Russia: **EP** (S, NC), **UR**. – Europe (WE, SE, EE), Turkey, Israel, Syria, Iran, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan.

**Cryptocheilus (Adonta) strigosus** (Eversmann, 1849) [*Pompilus*]. Russia: **UR**. – Eastern Kazakhstan.

**Cryptocheilus (Adonta) transcausicus** Šusterá, 1924. Russia: **EP** (NC). – Azerbaijan.

**Cryptocheilus (Adonta) variabilis** (Rossi, 1790) [*Sphex*] (*Pompilus decemguttatus* Jurine, 1807). Russia: **EP** (S, NC, CR), **UR**. – Europe (WE, SE, EE), Algeria, Cyprus, Turkey, Iran, Uzbekistan, Kyrgyzstan, Kazakhstan.

**Cryptocheilus (Adonta) variipennis** Šusterá, 1924. Russia: **EP** (?S, NC). – Europe (WE, SE), Turkey, Jordan, Syria.

- Cryptocheilus (Adonta) versicolor** (Scopoli, 1763) [Sphex] (*Priocnemis variegatus*: Eversmann, 1849). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), Cyprus, Turkey, Kyrgyzstan.
- Cryptocheilus (Chyphonocheilus) rubellus** (Eversmann, 1846) [Pompilius (!)]. Russia: **EP** (S, NC, CR), **UR**. – Europe (WE, SE, EE), Morocco, Algeria, Tunisia, Turkey, Cyprus, Iran, Syria, Pakistan, Afghanistan, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan.
- Cryptocheilus (Cryptocheilus) annulatus** (Fabricius, 1798) [Sphex] (*Pompilus alternatus* Lepeletier de Saint Fargeau, 1845). Russia: **EP** (CR). – Europe (WE, SE, EE), Morocco, Algeria, Tunisia, Turkey, Cyprus, Lebanon, Israel, Saudi Arabia, Iran, Tajikistan, Kyrgyzstan.
- Cryptocheilus (Cryptocheilus) discolor** (Fabricius, 1793) [Sphex]. Russia: **EP** (NC). – Europe (SE, EE), North Africa, Turkey, Cyprus, Syria, Iran, Afghanistan, Uzbekistan, Turkmenistan, Tajikistan, Kyrgyzstan, Kazakhstan.
- Cryptocheilus (Cryptocheilus) octomaculatus** (Rossi, 1790) [Sphex]. Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Morocco, Algeria, Tunisia, Turkey, Cyprus, Syria, Israel, Iran, Kyrgyzstan, Turkmenistan, Tajikistan.
- Cryptocheilus (Ichneumocheilus) ichneumonoides** (Costa, 1874) [Priocnemis]. Russia: **EP** (Wahis, 2013). – Europe (WE, SE, EE), Turkey, Syria.

#### Tribe PRIOCNEMINI

- CALIADURGUS** Pate, 1946 (*Calicurgus* Lepeletier de Saint Fargeau, 1845, nom. praeocc., nec Brullé, 1833). Type species *Pompilus fasciatellus* Spinola, 1807. Parasitoids of the spiders from the families Tetragnathidae and Araneidae. Worldwide distributed genus. Number of species: Palaearctic – 2, Russia – 2.
- Caliadurgus fasciatellus** (Spinola, 1807) [Pompilus] (*Priocnemis fasciatellus*: Eversmann, 1849; *Calicurgus hyalinatus*: Tobias, 1978). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (AL), **ES** (IR, BR, YA), **FE** (AM, KH, PR, SA, KA). – Europe (WE, NE, SE, EE), Turkey, Cyprus, Kyrgyzstan, Kazakhstan, Mongolia, N America.
- Caliadurgus ussuriensis** (Gussakovskij, 1932) [Calicurgus] (*Calicurgus shirakii* Yasumatsu, 1943). Russia: **FE** (AM, KH, PR, SA, KU). – China (NC, CC, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Tsushima).

**CTENOPRIOCNEMIS** Ishikawa, 1962. Type species *Ctenopriocnemis filicornis* Ishikawa, 1962. Distributed in Eastern Palaearctic (south of the Russian Far East, Korean Peninsula and Japan). Number of species: World – 1.

**Ctenopriocnemis filicornis** Ishikawa, 1962. Russia: **FE** (PR, KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

**EOPOMPILUS** Gussakovskij, 1932 (*Sialus* Matsumura, 1911). Type species *Eopompilus orientalis* Gussakovskij, 1932 (= *Sialus* (!) *internalis* Matsumura, 1911). Parasitoids of the spiders from the family Theridiidae. Distributed in Eastern Palaearctic (south of the Russian Far East, China, Korean Peninsula and Japan) and Oriental region (China: Taiwan and Yunnan). Number of species: World – 5, Palaearctic – 4, Russia – 3.

**Eopompilus internalis** (Matsumura, 1911) [*Sialus* (!)] (*Sialus* (!) *bizonatus* Matsumura, 1912; *E. orientalis* Gussakovskij, 1932). Russia: **FE** (AM, KH, PR, SA, KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Tsushima, Tanegashima, Mishima).

**Eopompilus luteus** Lelej, 1986. Russia: **FE** (PR). – China (NC, NE).

**Eopompilus minor** Gussakovskij, 1932. Russia: **FE** (AM, PR, SA, KU). – China (NC, NE, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Tsushima, Yakushima).

**PRIOCNEMIS** Schiødte, 1837 (*Priocnecnemis* Burmeister, 1872; *Priocnecnemis* Kirby, 1884; *Hemipogonius* Saussure, 1892; *Myrmecosalius* Ashmead, 1903; *Priocnemis* Banks, 1917; *Maculipennis* del Junco y Reyes, 1947; *Ceratocnemis* Wolf, 1963). Type species *Sphex exaltata* Fabricius, 1775. Parasitoids of the spiders from the families Atypidae, Segestriidae, Linyphiidae, Tetragnathidae, Araneidae, Lycosidae, Pisauridae, Oxyopidae, Zoridae, Agelenidae, Dictynidae, Amaurobiidae, Anaphaenidae, Lio-cranidae, Clubionidae, Gnaphosidae, Thomisidae and Salticidae. The genus includes four subgenera: *Leptopriocnemis* Ishikawa, 1962; *Moczarellus* Wolf, 1963; *Priocnemis* Schiødte, 1837; *Umbripennis* del Junco y Reyes, 1947 (= *Priocnemissus* Haupt, 1949). Worldwide distributed genus. Number of species: Palaearctic – about 100, Russia – 39.

**Priocnemis (Leptopriocnemis) cyphonota** Pérez, 1905. Russia: **FE** (PR, KU). – Japan (Hok, Hon, Shi, Kyu).

- Priocnemis (Moczarellus) occipitalis** Gussakovskij, 1930 (*P. crassicapitis* Móczár, 1944). Russia: **EP** (S, NC). – Europe (EE).
- Priocnemis (Priocnemis) agenia** (Gussakovskij, 1926) [Salius]. Russia: **UR**.
- Priocnemis (Priocnemis) agilis** (Shuckard, 1837) [Pompilus] (*P. obtusiventris* Schiødte, 1837). Russia: **EP** (N, NW, C, S, NC, CR), **WS** (AL), **ES** (IR). – Europe (WE, NE, SE, EE), Turkey, Cyprus, Uzbekistan, Kyrgyzstan, Kazakhstan.
- Priocnemis (Priocnemis) amurensis** Lelej, 1988. Russia: **ES** (IR, BR), **FE** (AM, PR).
- Priocnemis (Priocnemis) belokobylskii** Lelej, 1988. Russia: **FE** (AM, KH, PR).
- Priocnemis (Priocnemis) cordivalvata** Haupt, 1927. Russia: **EP** (NW, C, NC), **ES** (KR, IR). – Europe (WE, NE, SE, EE), Mongolia.
- Priocnemis (Priocnemis) exaltata** (Fabricius, 1775) [Sphex] (*Priocnemis nudipes* Dahlbom, 1845; *P. gibbus*: Gussakovskij, 1930). Russia: **EP** (N, NW, C, E, CR), **UR**, **WS** (AL), **ES** (IR, ZB). – Europe (WE, NE, SE, EE), Turkey, Iran, Kyrgyzstan, Kazakhstan.
- Priocnemis (Priocnemis) fastigiata** Haupt, 1935. Russia: **EP** (S). – Europe (WE, SE, EE), Turkey.
- Priocnemis (Priocnemis) fenestrata** (Gussakovskij, 1926) [Salius]. Russia: **WS** (AL), **ES** (IR, YA), **FE** (AM, KH, PR). – Korean Peninsula.
- Priocnemis (Priocnemis) fennica** Haupt, 1927. Russia: **EP** (N, NW), **ES** (KS). – Europe (WE, NE, SE, EE), Turkey.
- Priocnemis (Priocnemis) ghilarovi** Lelej, 1988. Russia: **FE** (AM, PR).
- Priocnemis (Priocnemis) gracilis** (Gussakovskij, 1926) [Salius] (*P. festivus* Gussakovskij, 1930). Russia: **EP** (N, S).
- Priocnemis (Priocnemis) gussakovskiji** Wolf, 2004 (*P. confusor* Wahis, 2006). Russia: **EP** (C, ?S). – Europe (WE, NE, SE, EE), Turkey, Jordan, Kazakhstan.
- Priocnemis (Priocnemis) hyalinata** (Fabricius, 1793) [Sphex] (*Pompilus femoralis* Dahlbom, 1829). Russia: **EP** (NW, C, E, NC, CR), **UR**, **WS** (AL), **ES** (KR). – Europe (WE, NE, SE, EE), Turkey, Uzbekistan.
- Priocnemis (Priocnemis) kunashirensis** Lelej, 1988. Russia: **FE** (KU). – Japan (Hok, Hon).
- Priocnemis (Priocnemis) minuta** (Vander Linden, 1827) [Pompilus]. Russia: **EP** (C, E, NC, CR), **ES** (BR), **FE** (AM, PR). – Europe (WE, NE, SE, EE), Turkey, Cyprus, Turkmenistan, Kyrgyzstan, Kazakhstan.
- Priocnemis (Priocnemis) mitakensis** Ishikawa, 1954. Russia: **FE** (AM, PR). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Priocnemis (Priocnemis) nigricans** Gussakovskij, 1930 (*P. diversus*: Wolf, 1963; *P. parvulus parvulus*: Wolf, 1963). Russia: **EP** (NC, CR).
- Priocnemis (Priocnemis) parvula** Dahlbom, 1845 (*P. mocsaryi*: Gussakovskij, 1930; *P. minor*: Gussakovskij, 1930; Tobias, 1978). Russia: **EP** (N, NW, C, E, S, NC, CR), **WS** (OM, TK), **ES** (IR), **FE** (AM, KH, PR, SA, MG). – Europe (WE, NE, SE, EE), Turkey, Tunisia, Jordan, Uzbekistan, Kyrgyzstan.
- Priocnemis (Priocnemis) pseudopogonia** Gussakovskij, 1930. Russia: **ES** (BR), **FE** (KH, PR). – Korean Peninsula.
- Priocnemis (Priocnemis) punctatissimus** (F. Morawitz, 1891) [Salius]. Russia: **EP** (S).
- Priocnemis (Priocnemis) pusilla** (Schiødte, 1837) [Pompilus]. Russia: **EP** (N, NW, C, NC, CR), **WS** (OM), **ES** (KR). – Europe (WE, NE, SE, EE), Georgia, Turkey, Iran, Kyrgyzstan, Turkmenistan, Mongolia.
- Priocnemis (Priocnemis) schiødtei** Haupt, 1927. Russia: **EP** (N, NW, C, S, NC, CR). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan, Mongolia.
- Priocnemis (Priocnemis) shidai** Ishikawa, 1962. Russia: **FE** (KU). – Japan (Hon).
- Priocnemis (Priocnemis) sugonjaevi** Lelej et Loktionov, 2015. Russia: **FE** (AM).
- Priocnemis (Priocnemis) unicolor** (Gussakovskij, 1926) [Salius]. Russia: **ES** (KS, KR, IR), **FE** (AM, PR, KU). – Japan (Hok, Hon).
- Priocnemis (Priocnemis) yasumatsui** Ishikawa, 1954 (*P. yezoensis* Ishikawa, 1959). Russia: **FE** (KH, PR, SA). – Japan (Hok, Hon).
- Priocnemis (Umbripennis) coriacea** Dahlbom, 1843. Russia: **EP** (C, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), Turkey.
- Priocnemis (Umbripennis) enslini** Haupt, 1927. Russia: **EP** (CR). – Europe (WE, NE, SE, EE).
- Priocnemis (Umbripennis) fallax** Verhoeff, 1892 (*P. vulgaris*: Gussakovskij, 1930; Tobias, 1978). Russia: **EP** (C, E, S). – Europe (WE, SE, EE), Tunisia, Turkey, Kyrgyzstan, Uzbekistan, Kazakhstan.
- Priocnemis (Umbripennis) gussakovskii** Lelej, 1988. Russia: **FE** (AM, KH, PR). – Korean Peninsula.
- Priocnemis (Umbripennis) hankoi** Móczár, 1944 (*P. mimulus*: Gussakovskij, 1930). Russia: **EP** (?S, ?South-East). – Europe (WE, NE, SE, EE), Turkey, Uzbekistan, Turkmenistan, Kyrgyzstan, Tajikistan, Kazakhstan.

- Priocnemis (Umbripennis) japonica** Gussakovskij, 1930 (*P. fuscus orientalis* Gussakovskij, 1930). Russia: **FE** (AM, KH, PR, SA, KU, MG). – Korean Peninsula, Japan (Hok, Hon).
- Priocnemis (Umbripennis) perturbator** (Harris, 1780) [Sphex] (*P. fuscus*: Eversmann, 1849; Assmuss, 1859; Gussakovskij, 1930). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (IR). – Europe (WE, NE, SE, EE), Cyprus, Turkey, Georgia, Iran, Uzbekistan, Kyrgyzstan.
- Priocnemis (Umbripennis) pillichi** Priesner, 1960. Russia: **EP** (NC). – Europe (WE, EE), Turkey.
- Priocnemis (Umbripennis) pseudojaponica** Lelej, 1988. Russia: **FE** (PR).
- Priocnemis (Umbripennis) susterai** Haupt, 1927 (*P. clémenti* Haupt, 1927). Russia: **EP** (S, NC, CR). – Europe (WE, NE, SE, EE), Azerbaijan, Kazakhstan, Kyrgyzstan.
- Priocnemis (Umbripennis) ussuriensis** Lelej, 1988. Russia: **FE** (AM, PR, SA). – China (CC), Korean Peninsula.
- Priocnemis (Umbripennis) vulgaris** (Dufour, 1841) [Pompilus] (*P. mimulus*: Gussakovskij, 1930; *P. mimula*: Tobias, 1978). Russia: **EP** (NW, C, S, NC). – Europe (WE, SE, EE), Turkey, Iran, Uzbekistan, Kyrgyzstan, Tajikistan, Kazakhstan.

#### Tribe DEUTERAGENIINI

- DEUTERAGENIA** Šustera, 1912 (*Agenia* Schiødte, 1837, nom. praeocc., nec Descourtilz, 1825; *Pogonius* Dahlbom, 1845, nom. praeocc., nec Leach, 1815; *Anoplius* Lepeletier de Saint Fargeau, 1845, nom. praeocc., nec Dufour, 1834; *Adipogon* Banks, 1944; *Mesagenia* Haupt, 1959). Type species *Sphex variegata* Linnaeus, 1758. Parasitoids of the spiders from the families Segestriidae, Dysderidae, Oxyopidae, Agelenidae, Amaurobiidae, Clubionidae, Gnaphosidae, Thomisidae and Salticidae. Worldwide (except Australia) distributed genus. Number of species: World – 54, Palaeartic – about 25, Russia – 10.
- Deuteragenia albiclypeata** (Lelej, 1986) [Dipogon]. Russia: **FE** (PR, SA). – Korean Peninsula.
- Deuteragenia bifasciata** (Geoffroy, 1785) [Ichneumon] (*Pompilus hircanus* Fabricius, 1798; *Agenia intermedia* Dahlbom, 1843). Russia: **EP** (N, NW, C, E, NC, CR), **UR**, **WS** (AL), **ES** (IR, BR, ZB), **FE** (AM, KH, PR, SA, MG). – Europe (WE, SE, NE, EE), Georgia, Kyrgyzstan, Kazakhstan, Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Deuteragenia bokhaica** (Lelej, 1986) [Dipogon] (*Dipogon antropovi* Lelej, 1995). Russia: **FE** (PR).
- Deuteragenia immarginata** Gussakovskij, 1932. Russia: **FE** (PR, SA, KU). – Japan (Hok, Hon, Shi, Kyu).
- Deuteragenia lehri** Loktionov et Lelej, 2014. Russia: **FE** (PR).
- Deuteragenia nipponica** Yasumatsu, 1939. Russia: **FE** (AM, KH, PR). – Japan (Hok, Hon, Shi).
- Deuteragenia romankovae** (Lelej, 1986) [Dipogon]. Russia: **FE** (AM, PR). – Japan (Hok, Hon).
- Deuteragenia subintermedia** (Magretti, 1886) [Pogonius] (*D. nitida* Haupt, 1927). Russia: **EP** (C, E, NC). – Europe (WE, NE, SE, EE).
- Deuteragenia variegata** (Linnaeus, 1758) [Sphex] (*Agenia variegata*: Assmuss, 1859). Russia: **EP** (C, NC). – Europe (WE, NE, SE, EE), North Africa, Caucasus, Turkey, Cyprus, Iran, Turkmenistan.
- Deuteragenia vechti** (Day, 1979) [Dipogon] (*Dipogon bifasciatum*: Tobias, 1978). Russia: **EP** (N, NW, C, E, S), **UR**, **WS** (TK, KM, AL), **ES** (IR, BR, ZB), **FE** (AM, KH, PR, SA, KU, MG, CH). – Europe (WE, NE, EE), Kyrgyzstan, Kazakhstan, Japan (Hok, Hon).
- KURILOAGENIA** Loktionov et Lelej, 2014. Type species *Kurilogenia ermolenkoi* Loktionov et Lelej, 2014. Distributed in Eastern Palaeartic (Russia: Kuril Islands). Number of species: World – 1.
- Kurilogenia ermolenkoi** Loktionov et Lelej, 2014. Russia: **FE** (KU).
- NIPPONODIPOGON** Ishikawa, 1965. Type species *Dipogon iwatai* Ishikawa, 1965. The cleptoparasites of the spider wasps (Pompilidae) from the genera *Auplopus* Spinola and *Deuteragenia* Šustera. Distributed in Eastern Palaeartic (south of the Russia Far East, Japan) and Oriental region (China: Guangdong, Yunnan, Hainan and Taiwan). Number of species: World – 9, Palaeartic – 7, Oriental – 2, Russia – 2.
- Nipponodipogon kurilensis** (Lelej, 1986) [Dipogon]. Russia: **FE** (KU).
- Nipponodipogon rossicus** (Lelej, 1986) [Dipogon]. Russia: **FE** (AM, PR).
- STIGMATODIPOGON** Ishikawa, 1965. Type species *Dipogon macrostigmatus* Ishikawa, 1959.

Distributed in Eastern Palaearctic (south of the Russian Far East and Japan). Number of species: World – 4, Palaearctic – 4, Russia – 2.

- Stigmatodipogon budrisi** Loktionov et Lelej, 2014. Russia: **FE** (KU).  
**Stigmatodipogon petiolatus** (Lelej, 1986) [Dipogon]. Russia: **ES** (IR), **FE** (AM, PR).

#### Tribe AGENIELLINI

##### Subtribe AGENIELLINA

- POECILAGENIA** Haupt, 1927 (*Meragenia* Banks, 1934; *Poecilageniella* Ishikawa, 1965; *Taiwagenia* Tsuneki, 1989; *Trachyglyptus*: Arnold, 1959). Type species *Calicurgus rubricans* Lepeletier de Saint Fargeau, 1845. The cleptoparasites of the spider wasps (Pompilidae) from the genus *Auplopus* Spinola. Distributed in Palaearctic, Afrotropical and Oriental regions. Number of species: World – 22, Palaearctic – 6, Russia – 4.
- Poecilagenia hirashimai** (Ishikawa, 1965) [Poecilageniella]. Russia: **FE** (AM, PR). – Japan (Hok, Hon).
- Poecilagenia rubricans** (Lepeletier de Saint Fargeau, 1845) [Calicurgus]. Russia: **EP** (NC), **FE** (AM, PR). – Europe (WE, SE, EE), Turkey.
- Poecilagenia sculpturata** (Kohl, 1898) [Pseudagenia]. Russia: **EP** (NC), **FE** (KH, PR). – Europe (WE, SE), Turkey, China (NE, CC), Japan (Hon, Shi, Kyu).
- Poecilagenia shimizui** Lelej, 2000. Russia: **FE** (PR).

##### Subtribe AUPLOPODINA

- AUPLOPUS** Spinola, 1842 (*Aoplopus* Agassiz, 1846; *Pilpomus* Costa, 1859; *Pseudagenia* Kohl, 1884; *Stenagenia* Saussure, 1892; *Schizagenia* Cameron, 1908; *Tumagenia* Banks, 1934; *Calagenia* Banks, 1934; *Lophagenia* Banks, 1934). Type species *Pompilus femoratus* Fabricius, 1804. Parasitoids of the spiders from the families Segestriidae, Dysderidae, Tetragnathidae, Araneidae, Lycosidae, Pisauridae, Oxyopidae, Agelenidae, Anyphaenidae, Clubionidae, Sparassidae, Gnaphosidae, Thomisidae and Salticidae. The genus includes two subgenera: *Auplopus* Spinola, 1842 and *Conagenia* Banks, 1934 Worldwide distributed genus. Number of species: Palaearctic – about 30, Russia – 10.

**Auplopus (Auplopus) albifrons** (Dalman, 1823) [Pompilus] (*Agenia fallax* Eversmann, 1849). Russia: **EP** (S, NC), **UR**. – Europe (WE, NE, SE, EE), Turkey, Iran.

**Auplopus (Auplopus) carbonarius carbonarius** (Scopoli, 1763) [Sphex] (*Agenia carbonaria*: Assmuss, 1859). Russia: **EP** (N, NW, C, E, S, NC, CR), **WS** (AL), **ES** (IR, BR), **FE** (AM, KH, PR, MG). – Europe (WE, SE, NE, EE), Morocco, Algeria, Turkey, Cyprus, Jordan, Israel, Lebanon, Iran, Tajikistan, Kazakhstan, Mongolia, China (NC), Korean Peninsula, Japan (Hok, Non, Shi, Kyu, Tsushima).

**Auplopus (Auplopus) mama** Loktionov et Lelej, 2014. Russia: **FE** (PR).

**Auplopus (Auplopus) mandshuricus** Lelej, 1990. Russia: **FE** (AM, PR). – Mongolia, China (NC).

**Auplopus (Auplopus) pacificus** Lelej, 1990. Russia: **FE** (AM, KH, PR). – Korean Peninsula.

**Auplopus (Auplopus) pygialis** (Pérez, 1905) [Pseudagenia]. Russia: **ES** (IR, BR), **FE** (AM, KH, PR, SA, KU). – Eastern Kazakhstan, Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Tsushima, Yakushima).

**Auplopus (Auplopus) rectus** (Haupt, 1927) [Pseudagenia]. Russia: **EP** (S, NC). – Europe (WE, SE, EE), Turkey, Cyprus, Lebanon, Jordan, Iran, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia.

**Auplopus (Auplopus) takachihoi** (Yasumatsu, 1943) [Pseudagenia]. Russia: **FE** (PR, SA). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

**Auplopus (Auplopus) yasumatsui** Lelej, 1995. Russia: **FE** (PR).

**Auplopus (Conagenia) constructor** (Smith, 1873) [Agenia]. Russia: **FE** (AM, KH, PR). – China (CC, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Tsushima).

**MACHAEROTHRIX** Haupt, 1938. Type species *Machaerothrix coactifrons* Haupt, 1938. Distributed in Eastern Palaearctic (south of the Russian Far East, Japan, China) and Oriental region (Sri Lanka; China: Guangdong; Philippines: Mindanao). Number of species: World – 6, Palaearctic – 3, Russia – 1.

**Machaerothrix ussuriensis** Lelej, 1986. Russia: **FE** (PR, KU).

## Subfamily POMPILINAE

## Tribe APORINI

## Subtribe APORINA

**APORUS** Spinola, 1807 (*Actenopoda* Ashmead, 1902; *Melanaporus* Ashmead, 1902; *Odontaporus* Bradley, 1944). Type species *Aporus bicolor* Spinola, 1807. Parasitoids of the spiders from the family Atypidae. The genus includes two subgenera: *Aporus* Spinola, 1807 and *Cosmiaporus* Bradley, 1944. Worldwide (except Australia) distributed genus. Number of species: Palaeartic – 7, Russia – 3.

**Aporus (Aporus) bicolor** Spinola, 1807 (*Planiceps fulviventris* Costa, 1882). Russia: **EP** (NC). – Europe (WE, SE, EE), Cyprus, Turkey, Iran, Kazakhstan, Mongolia.

**Aporus (Aporus) pollux** (Kohl, 1888) [Pompilus]. Russia: **EP** (C). – Europe (WE, SE, EE), Tunisia, Turkey, Iran, Kyrgyzstan.

**Aporus (Aporus) unicolor** Spinola, 1807 (*A. femoralis* Vander Linden, 1827). Russia: **UR**, **ES** (?), **FE** (AM, PR, KU). – Europe (WE, SE, EE), Korean Peninsula, Japan (Hon).

## Subtribe HOMONOTINA

**HOMONOTUS** Dahlbom, 1843 (*Isonotus* Dahlbom, 1842, nom. praeocc., nec Lepeletier de Saint Fargeau, Audinet-Serville, 1828; *Homotus* Smith, 1855; *Wesmaelinus* Costa, 1886; *Hemisalius* Saussure, 1892; *Wesmaelinus* de Dalla Torre, 1897; *Gilbertella* Turner, 1917, nom. praeocc., nec Waite, 1902; *Gilbertellana* Pate, 1946). Type species *Sphex sanguinolenta* Fabricius, 1793. Parasitoids of the spiders from the family Miturgidae. Widely distributed in the Palaeartic, Oriental and Afrotropical regions. Number of species: Palaeartic – 5, Russia – 2.

**Homonotus iwatai** Yasumatsu, 1932. Russia: **FE** (AM, PR, SA, KU). – Japan (Hon).

**Homonotus sanguinolentus** (Fabricius, 1793) [Sphex] (*Homonotus nasutus* F. Morawitz, 1888; *Salius sanguinolentus*: Assmuss, 1859). Russia: **EP** (NW, C, E, S, CR), **ES** (IR), **FE** (MG). – Europe (WE, NE, SE, EE), Cyprus, Turkey, Syria, Iran, Turkmenistan, Kyrgyzstan, Kazakhstan.

## Subtribe FERREOLINA

**FERREOLA** Lepeletier de Saint Fargeau, 1845 (*Platyderes* Guérin-Méneville, 1844, nom. praeocc., nec Stephens, 1828; *Pseudoferreola* Radoszkowski, 1888; *Aporinus* Ashmead, 1902; *Prosalius* Aurivillius, 1907). Type species *Ferreola algira* Lepeletier de Saint Fargeau, 1845. Parasitoids of the spiders from the families Eresidae and Clubionidae. Distributed in the Palaeartic (North Africa, Europe, Russia, Central Asia), Afrotropical (Eritrea, Yemen) and Australian regions. Number of species: Palaeartic – about 10, Russia – 1.

**Ferreola diffinis** (Lepeletier de Saint Fargeau, 1845) [Anoplius] (*Homonotus rectangulatus* F. Morawitz, 1888). Russia: **EP** (N, NC), **ES** (IR). – Europe (WE, NE, SE, EE), Turkey, Afghanistan, Turkmenistan, Kyrgyzstan.

## Tribe EPISYRONINI

**BATOZONELLUS** Arnold, 1937. Type species *Pompilus fuliginosus* Klug, 1834. Parasitoids of the spiders from the family Araneidae. Distributed in the Palaeartic (from European part of Russia in the west to Japan in the east), Afrotropical and Oriental regions. Number of species: Palaeartic – 2, Russia – 1.

**Batozonellus truchmenus** (F. Morawitz, 1888) [Pompilus]. Russia: **EP** (S). – Azerbaijan, Turkmenistan, Kyrgyzstan, Kazakhstan.

**EPISYRON** Schiødte, 1837 (*Epizuron* Ashmead, 1902; *Spilopompilus* Ashmead, 1902). Type species *Sphex rufipes* Linnaeus, 1758. Parasitoids of the spiders from the families Tetragnathidae, Lycosidae and Amaurobiidae. Worldwide distributed genus. Number of species: Palaeartic – about 40, Russia – 6.

**Episyron albonotatum** (Vander Linden, 1827) [Pompilus]. Russia: **EP** (N, NW, C, S, NC), **WS** (AL), **ES** (KR, IR, BR, ZB), **FE** (AM, KH, SA). – Europe (WE, NE, SE, EE), Morocco, Turkey, Syria, Iran, Turkmenistan, Uzbekistan, Kyrgyzstan, Tajikistan, Kazakhstan, Mongolia.

**Episyron arrogans** (Smith, 1873) [Pompilus] (*Pompilus funereipes* Costa, 1874; *P. sapporensis* Matsu-mura, 1912; *E. tripunctatus*: Gussakovskij, 1932). Russia: **EP** (C, NC), **ES** (IR), **FE** (AM, KH, PR,

KU). – Europe (WE, SE, EE), Turkey, China (NE, CC, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Tsushima, Izu, Ryukyu), Philippines.

**Episyron candiotum** Wahis, 1966. Russia: **EP** (S), **WS** (AL), **ES** (IR), **FE** (AM, PR). – Europe (SE, EE), Turkey, Syria, Transcaucasia, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NE), Korean Peninsula.

**Episyron gallicum** (Tournier, 1889) [Pompilus]. Russia: **EP** (NC). – Europe (WE, NE, SE, EE), Turkey, Jordan, Syria, Iran, Uzbekistan, Kyrgyzstan, Kazakhstan.

**Episyron kurilense** Lelej, 1990. Russia: **FE** (KU). – Japan (Hok, Hon, Kyu, Tanegashima).

**Episyron rufipes** (Linnaeus, 1758) [Sphex] (*Pompilus karafutonis* Matsumura, 1911). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **ES** (IR, BR, ZB), **FE** (AM, KH, PR, SA, KA, MG). – Europe (WE, SE, NE, EE), Morocco, Turkey, Cyprus, Jordan, Syria, Saudi Arabia, Iran, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Yemen, Sudan, Ethiopia.

**PARABATOZONUS** Yasumatsu, 1936. Type species *Pompilus hakodadi* de Dalla Torre, 1897 (= *Pompilus jankowskii* Radoszkowski, 1887). Parasitoids of the spiders from the family Araneidae. Widely distributed in Palaearctic (from Europe and North Africa in the west to Japan in the east). Number of species: Palaearctic – 3, Russia – 2.

**Parabatozonus jankowskii** (Radoszkowski, 1887) [Pompilus] (*Pompilus bilunatus* Smith, 1873, nom. praeocc., nec Haliday, 1836; *P. hakodadi* de Dalla Torre, 1897; *P. fallaciosus* Matsumura, 1911). Russia: **FE** (PR). – China (NC), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Tsushima, Yakushima).

**Parabatozonus lacerticida** (Pallas, 1771) [Sphex]. Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR). – Europe (WE, SE, NE, EE), Morocco, Turkey, Cyprus, Georgia, Syria, Iran, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NE), Korean Peninsula, Japan (Hok, Hon).

#### Tribe POMPILINI

**AGENIOIDEUS** Ashmead, 1902 (*Aporoideus* Ashmead, 1902; *Agenioideus* Banks, 1917; *Gymnochares* Banks, 1917; *Pseudevagetes* Wolf, 1970; *Rufopompilus* Wolf, 1970; *Alloridestus* Wolf, 1979; *Alloridestus* Wolf, 1985; *Sericopompilus*: Gussakovskij,

1932). Type species *Pompilus humilis* Cresson, 1867. Parasitoids of the spiders from the families Segestriidae, Dysderidae, Linyphiidae, Araneidae, Pisauridae, Agelenidae, Thomisidae and Salticidae. The genus includes two subgenera: *Agenioideus* Ashmead, 1902 and *Schizanoplius* Cameron, 1904 (= *Ridestus* Banks, 1912, = *Galactopterus* Arnold, 1937; = *Eggyssomma* Haupt, 1962). Worldwide distributed genus. Number of species: Palaearctic – more than 100, Russia – 12.

**Agenioideus (Agenioideus) amurensis** (Gussakovskij, 1932) [Psammochares]. Russia: **FE** (AM, KH, PR).

**Agenioideus (Agenioideus) cinctellus** (Spinola, 1807) [Pompilus]. Russia: **EP** (N, NW, C, E, S, NC, CR). – Europe (WE, NE, SE, EE), Turkey, Cyprus, Kyrgyzstan, Mongolia, Japan (Hon).

**Agenioideus (Agenioideus) haupti** Loktionov et Lelej, 2014 (*Psammochares cinctellus* f. *rufa* Haupt, 1938, nom. praeocc., nec *Psammochares rufus* Haupt, 1927; *A. cinctellus*: Lelej, 1990, part.; Shimizu, Wahis, 2009, part.; Lelej, Loktionov, 2012, part.). Russia: **FE** (AM). – China (CC, SE), Korean Peninsula, Japan (Hon).

**Agenioideus (Agenioideus) nubecula** (Costa, 1874) [Pompilus]. Russia: **EP** (S, NC). – Europe (WE, NE, SE, EE), Tunisia, Turkey, Cyprus, Jordan, Iran, Kyrgyzstan, Tajikistan, Kazakhstan.

**Agenioideus (Agenioideus) pacificus** Lelej, 1994 (*A. cinctellus*: Lelej, 1990, part.; Shimizu, Wahis, 2009, part.). Russia: **FE** (AM, PR, SA).

**Agenioideus (Agenioideus) sericeus** (Vander Linden, 1827) [Pompilus]. Russia: **EP** (C, S, NC), **UR**. – Europe (WE, SE, EE), Turkey, Jordan, Iran, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, China (?).

**Agenioideus (Schizanoplius) ciliatus** (Lepelletier de Saint Fargeau, 1845) [Pompilus] (*Psammochares rubigidorsum* Haupt, 1929). Russia: **EP** (S, CR). – Europe (WE, SE, EE), Turkey, Cyprus, Jordan, Syria, Uzbekistan, Turkmenistan, Kyrgyzstan, Kazakhstan.

**Agenioideus (Schizanoplius) excisus** (F. Morawitz, 1890) [Pompilus]. Russia: **EP** (S, NC). – Europe (SE, EE), Morocco, Algeria, Tunisia, Egypt, Turkey, Cyprus, Israel, Jordan, Iraq, Iran, Syria, Afghanistan, Turkmenistan, Kyrgyzstan, Kazakhstan.

**Agenioideus (Schizanoplius) kohlii** (Radoszkowski, 1888) [Pompilus] (*Pompilus ruficornis* F. Morawitz, 1890). Russia: **EP** (NC). – Iran, Turkmenistan, Kazakhstan.



- Agenioideus (Schizanoilius) puniceus** (Haupt, 1927) [Psammochares]. Russia: **EP** (S).
- Agenioideus (Schizanoilius) ruficeps** (Eversmann, 1849) [Pompilus]. Russia: **EP** (S). – Europe (WE, SE, EE), Morocco, Algeria, Azerbaijan, Turkey, Cyprus, Libya, Israel, Syria, Iran, Western Kazakhstan.
- Agenioideus (Schizanoilius) udegeicus** Lelej, 1990. Russia: **FE** (PR).
- AMBLYELLUS** Day, 1981. Type species *Pompilus hasdrubal* Kohl, 1894. Distributed in the Palaearctic (Western, Eastern and South Europe, North Africa, Russia, Near East, Central Asia) and Afrotropical (Yemen, South Africa) regions. Number of species: Palaearctic – 4, Russia – 2.
- Amblyellus hasdrubal** (Kohl, 1894) [Pompilus] (*Pompiloides obtusus* Gussakovskij, 1935; *Aporinellus hanibal*: Tobias, 1978). Russia: **EP** (S, CR), **UR**. – Europe (WE, SE, EE), North Africa, Turkey, Armenia, Iran, Kyrgyzstan, Turkmenistan.
- Amblyellus kiritschenkoi** (Gussakovskij, 1930) [Sophropompilus]. Russia: **EP** (NC). – Turkmenistan.
- ANOSPILUS** Haupt, 1929. Type species *Pompilus orbitalis* Costa, 1863. Parasitoids of the spiders from the family Nemesiidae. Widely distributed in the Palaearctic region. Number of species: Palaearctic – about 20, Russia – 1.
- Anospilus (Anospilus) carbonicolor** (Gussakovskij, 1932) [Psammochares] (*Anoplius yamamotoi* Ishikawa, 1958; *Dicyrtomellus atratinus* Wolf et Móczár, 1972). Russia: **FE** (AM, PR). – Europe (SE), Mongolia, Korean Peninsula, Japan (Hok, Hon, Kyu, Tsushima).
- APORINELLUS** Banks, 1912 (*Ferreoloides* Haupt, 1929; *Eupompiloides* Gussakovskij, 1935; *Ceratopompilus* Bradley, 1944). Type species *Aporus fasciatus* Smith, 1855. Parasitoids of the spiders from the families Oxyopidae, Philodromidae, Salticidae and Thomisidae. Worldwide (except Australia) distributed genus. Number of species: World – about 17, Palaearctic – about 5, Russia – 2.
- Aporinellus (Aporinellus) moestus** (Klug, 1834) [Pompilus] (*Pompilus sericeomaculata* Kohl, 1888). Russia: **EP** (NC, S, CR). – Europe (WE, SE, EE), Tunisia, Azerbaijan, Turkey, Cyprus, Georgia, Turkmenistan, Syria, Jordan, Uzbekistan, Kyrgyzstan, Tajikistan, Kazakhstan.
- Aporinellus (Aporinellus) sexmaculatus** (Spinola, 1805) [Pompilus] (*Pompiloides sexmaculatus asiaticus* Gussakovskij, 1935; *Pompilus sexnotatus*: Radoszkowski, 1888). Russia: **EP** (E, S, NC, CR), **WS** (AL). – Europe (WE, SE, NE, EE), Egypt, Turkey, Armenia, Azerbaijan, Israel, Jordan, Lebanon, Syria, Iran, Iraq, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan.
- ARACHNOSPILA** Kincaid, 1900 (*Pycnopompilus* Ashmead, 1902). Type species *Arachnospila septentrionalis* Kincaid, 1900. Parasitoids of the spiders from the families Segestriidae, Lycosidae, Pisauridae, Agelenidae, Amaurobiidae, Anyphaenidae, Clubionidae, Gnaphosidae, Thomisidae, Salticidae and Philodromidae. The genus includes three subgenera: *Ammosphex* Wilcke, 1942 (= *Anopompilinus* Dreisbach, 1949; = *Aridopompilus* Wolf, 1965; = *Boreopompilus* Wolf, 1965; = *Holarctopompilus* Wolf, 1965; = *Saxatilipompilus* Wolf, 1965); *Anoplochaes* Banks, 1939; *Arachnospila* Kincaid, 1900. Worldwide (except Australia) distributed genus. Number of species: Palaearctic – about 90, Russia – 47.
- Arachnospila (Ammosphex) abnormis** (Dahlbom, 1842) [Pompilus]. Russia: **EP** (NW, C, S), **WS** (AL), **ES** (KS, TU, IR, BR), **FE** (AM, KH, PR, SA, KA, MG, CH). – Europe (WE, NE, SE, EE), Kyrgyzstan, Kazakhstan, Mongolia, China (NE).
- Arachnospila (Ammosphex) alvarabnormis** (Wolf, 1965) [Pompilus]. Russia: **EP** (?). – Europe (WE, EE), Cyprus.
- Arachnospila (Ammosphex) anceps** (Wesmael, 1851) [Pompilus] (*Sphex vagus* Harris, 1780, nom. praecoc., non *Sphex vaga* Linnaeus, 1758; *Pompilus unguicularis* Thomson, 1870; *A. anceps serica* Wolf et Móczár, 1972). Russia: **EP** (N, NW, C, E, S, NC, CR), **WS** (AL), **ES** (KS, TU, KR, ZB), **FE** (AM, KA, MG, CH). – Europe (WE, NE, SE, EE), Turkey, Syria, Iran, Kyrgyzstan, Kazakhstan, Mongolia.
- Arachnospila (Ammosphex) ausa** (Tournier, 1890) [Pompilus]. Russia: **EP** (?). – Europe (WE, SE, EE), Tunisia, Turkey, Kyrgyzstan.
- Arachnospila (Ammosphex) belokobylskii** Loktionov et Lelej, 2011. Russia: **FE** (PR).
- Arachnospila (Ammosphex) colpostoma** (Kohl, 1886) [Pompilus]. Russia: **EP** (?). – Europe (WE, SE), Turkey, Kazakhstan.
- Arachnospila (Ammosphex) consobrina** (Dahlbom, 1843) [Pompilus]. Russia: **EP** (NW, C, E,

- NC). – Europe (WE, NE, SE, EE), Turkey, Israel, Syria, Iran, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, China (?).
- Arachnospila (Ammosphex) dschingis** Wolf et Móczár, 1972. Russia: **ES** (KS, TU, IR, BR). – Kyrgyzstan, Mongolia, China (NC).
- Arachnospila (Ammosphex) eoabnormis** Lelej, 1995. Russia: **ES** (TU, KR), **FE** (AM, PR).
- Arachnospila (Ammosphex) gibbomima** (Haupt, 1929) [Psammochares]. Russia: **EP** (S). – Europe (EE), Turkey, Kyrgyzstan, Tajikistan, Kazakhstan, Mongolia.
- Arachnospila (Ammosphex) hedickei** (Haupt, 1929) [Psammochares] (*Pompilus pseudabnormis* Wolf, 1965; *Arachnospila pseudabnormis*: Dathe, 1980b). Russia: **EP** (N, NW, NC). – Europe (WE, NE, SE, EE), Turkey, Tajikistan, Kyrgyzstan.
- Arachnospila (Ammosphex) kasparyani** Loktionov et Lelej, 2015. Russia: **ES** (TU).
- Arachnospila (Ammosphex) kaszabi** Wolf, Móczár et 1972. Russia: **ES** (TU, KR, BR). – Mongolia.
- Arachnospila (Ammosphex) kurentzovi** Lelej, 1995. Russia: **ES** (BR), **FE** (AM, KH, PR, MG, CH).
- Arachnospila (Ammosphex) kurzenkoi** Lelej, 1995. Russia: **WS** (AL), **ES** (KS, TU, KR, IR, BR).
- Arachnospila (Ammosphex) kuwayamai** (Ishikawa, 1966) [Pompilus] (*Pompilus hirsutifrons* Ishikawa, 1966). Russia: **FE** (SA, KU). – Japan (Hok, Hon).
- Arachnospila (Ammosphex) maxim** Loktionov et Lelej, 2015. Russia: **ES** (KS, TU).
- Arachnospila (Ammosphex) moczari** Loktionov et Lelej, 2015. Russia: **WS** (AL), **ES** (TU).
- Arachnospila (Ammosphex) mongolica** Móczár, 1968. Russia: **ES** (KS, TU, KR, IR, BR, ZB), **FE** (AM, PR, SA). – Kyrgyzstan, Kazakhstan, Mongolia.
- Arachnospila (Ammosphex) mongolopinata** Wolf, 1981. Russia: **WS** (AL), **ES** (KS, TU), **FE** (AM, PR, SA). – Mongolia.
- Arachnospila (Ammosphex) nivalabnormis** (Wolf, 1965) [Pompilus]. Russia: **EP** (?). – Europe (WE, NE, SE, EE).
- Arachnospila (Ammosphex) opinata** (Tournier, 1890) [Pompilus] (*Pompilus carinatus* F. Morawitz, 1893). Russia: **EP** (N, NW). – Europe (WE, NE, SE, EE), Tunisia, Kyrgyzstan, Kazakhstan.
- Arachnospila (Ammosphex) orientausa** Loktionov et Lelej, 2011. Russia: **ES** (KR), **FE** (AM, PR).
- Arachnospila (Ammosphex) rasnitsyni** Loktionov et Lelej, 2011. Russia: **ES** (TU, BR).
- Arachnospila (Ammosphex) scythia** Loktionov et Lelej, 2015. Russia: **ES** (TU).
- Arachnospila (Ammosphex) sibirica** Loktionov et Lelej, 2015. Russia: **WS** (AL), **ES** (TU).
- Arachnospila (Ammosphex) subvittata** (F. Morawitz, 1889) [Pompilus] (*Pompilus nagasei* Ishikawa, 1966). Russia: **ES** (KS, TU, KR, IR, ZB), **FE** (AM, KH, PR, KU). – China (NC), Korean Peninsula, Japan (Hon, Kyu).
- Arachnospila (Ammosphex) tobiasi** Loktionov et Lelej, 2011. Russia: **ES** (BR).
- Arachnospila (Ammosphex) trivialis** (Dahlbom, 1843) [Pompilus] (*Psammochares gibbus*: Gussakovskij, 1932). Russia: **EP** (N, NW, C, S, NC), **WS** (AL), **FE** (AM, KA, MG, CH). – Europe (WE, NE, SE, EE), Turkey, Near East, Kyrgyzstan, Tajikistan, Kazakhstan, Mongolia.
- Arachnospila (Ammosphex) wesmaeli** (Thomson, 1870) [Pompilus]. Russia: **EP** (N, NW, C, ?S), **ES** (KR). – Europe (WE, NE, SE, EE), Kyrgyzstan, Mongolia.
- Arachnospila (Ammosphex) westerlundii** (F. Morawitz, 1893) [Pompilus] (*Pompilus guentheri* F. Morawitz, 1893). Russia: **EP** (N, NW). – Europe (WE, NE, SE, EE), Cyprus.
- Arachnospila (Ammosphex) wolffi** Lelej, 1995. Russia: **FE** (PR).
- Arachnospila (Ammosphex) yasumatsui** Wolf et Móczár, 1972. Russia: **ES** (KS, TU, KR, IR, BR). – Mongolia, China (NC).
- Arachnospila (Ammosphex) zonsteini** Loktionov et Lelej, 2011. Russia: **ES** (BR).
- Arachnospila (Anoplochaes) ainu** Lelej, 1995. Russia: **FE** (AM, PR, SA, KU). – Japan (Hok).
- Arachnospila (Anoplochaes) fuscomarginata** (Thomson, 1870) [Pompilus] (*Pompilus signaticeps* F. Morawitz, 1893). Russia: **EP** (N, NW, C, S, NC, CR), **UR**, **WS** (AL), **ES** (BR, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), Turkey, Iran, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia.
- Arachnospila (Anoplochaes) minutula** (Dahlbom, 1842) [Pompilus] (*Pompilus minutus* Dahlbom, 1829, nom. praeocc., nec Vander Linden, 1827; *A. minutula mongolominutula* Wolf et Móczár, 1972). Russia: **EP** (N, NW, C, S, NC, CR), **UR**, **WS** (AL), **ES** (BR, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), Turkey, Near East, Kyrgyzstan, Kazakhstan, Mongolia.
- Arachnospila (Anoplochaes) mongolospissa** Wolf et Móczár, 1972. Russia: **WS** (AL), **ES** (IR, ZB), **FE** (AM, PR). – Mongolia, China (NC).

- Arachnospila (Anoplochares) spissa** (Schiodte, 1837) [Pompilus]. Russia: **EP** (N, NW, C, S, NC), **WS** (AL), **ES** (IR, YA, ZB), **FE** (AM, SA, MG). – Europe (WE, NE, SE, EE), Turkey, Near East, Turkmenistan, Uzbekistan, Kyrgyzstan, Tajikistan, Kazakhstan, Mongolia, China (NC).
- Arachnospila (Anoplochares) ussuriensis** (Gussakovskij, 1932) [Psammochares] (*Pompilus hokkaidensis* Ishikawa, 1966). Russia: **FE** (AM, KH, PR, SA, KU). – Japan (Hok).
- Arachnospila (Anoplochares) usurata** (Blüthgen, 1957) [Pompilus] (*A. asiatica*: Lelej, 1995; Wolf, Sorg, 2007; Wiśniowski, 2009; Wahis, 2013). Russia: **EP** (S), **ES** (IR), **FE** (AM, KH, PR); Europe (WE, SE, EE), Kazakhstan, Mongolia.
- Arachnospila (Arachnospila) amurensis** (Motschulsky, 1860) [Pompilus]. Russia: **ES** (BR, ZB), **FE** (AM, KH, PR).
- Arachnospila (Arachnospila) clericalis** (F. Morawitz, 1889) [Pompilus] (*A. mongolorufa* Wolf et Móczár, 1972). Russia: **WS** (AL), **ES** (TU, IR, BR, ZB). – Turkey, Kazakhstan, Mongolia, China (NC).
- Arachnospila (Arachnospila) eisukei** (Ishikawa, 1969) [Pompilus] (*Psammochares herbignadus* (!): Kobayashi, 1931). Russia: **FE** (SA, KU). – Japan (Hok, Hon).
- Arachnospila (Arachnospila) fumipennis** (Zetterstedt, 1838) [Pompilus] (*Psammochares malaisei* Nordström, Forsius, 1930). Russia: **EP** (N, C, NC, CR), **UR**, **WS** (AL), **ES** (KS, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KA, MG, CH). – Europe (WE, SE, NE, EE), North Africa, Turkey, Israel, Iran, Kyrgyzstan, Tajikistan, Kazakhstan, Mongolia, Japan (Hok, Hon), N America.
- Arachnospila (Arachnospila) rufa** (Haupt, 1927) [Psammochares]. Russia: **EP** (N, NW, C, S), **UR**, **WS** (OM, AL), **ES** (TU). – Europe (WE, NE, SE, EE), Turkey, Near East, Kyrgyzstan, Kazakhstan, Mongolia.
- Arachnospila (Arachnospila) sogdianoides** (Wolf, 1964) [Pompilus] (*A. malaisei*: Lelej, 2000, 2005b; Loktionov, Lelej, 2010; Loktionov, 2011; *A. sogdiana*: Tobias, 1978; Dathe, 1980b; Wahis, 1986). Russia: **EP** (N, C, NC), **ES** (KS, TU, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KA, MG). – Europe (WE, NE, SE, EE), Turkey, Near East, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia.
- DICYRTOMELLUS** Gussakovskij, 1935. Type species *Spheg cingulata* Rossi, 1790 (nom. praeocc., nec Fabricius, 1775, replaced by *Pompilus luctuosus* Mocsáry, 1879, nom. praeocc., nec Cresson, 1865; replaced by *Dicyrtomellus argenteus* Wahis, 1983 = *Arachnospila tingitana* Wolf, 1966). Distributed in the Palaearctic region (Western, Eastern and South Europe, North Africa, Near East, European part of Russia, Central Asia, Kazakhstan, Mongolia). Number of species: Palaearctic – about 20, Russia – 3.
- Dicyrtomellus kizilkumii** (Radoszkowski, 1877) [Pompilus]. Russia: **EP** (NC). – Turkey, Iran, Afghanistan, Turkmenistan, Kazakhstan.
- Dicyrtomellus litatus** (Tournier, 1889) [Pompilus] (*Pompilus brevigena* F. Morawitz, 1891; *D. wolffi* Móczár, 1968). Russia: **EP** (S). – Kazakhstan, Mongolia.
- Dicyrtomellus tingitanus** (Wolf, 1966) [Arachnospila] (*Pompilus luctuosus* Mocsáry, 1879, nom. praeocc., nec Cresson, 1865; *Dicyrtomellus argenteus* Wahis, 1983). Russia: **EP** (NC). – Europe (WE, SE, EE), Morocco, Turkey, Israel, Jordan, Syria, Iran, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan.
- EVAGETES** Lepeletier de Saint Fargeau, 1845 (*Eyagates* Lucas, 1852; *Evagethes* Smith, 1858; *Sophropompilus* Howard, 1901; *Sophropompilus* Ashmead, 1902, nom. praeocc., nec Howard, 1901; *Nannopompilus* Ashmead, 1902; *Nanopompilus* Banks, 1914; *Trichosyron* Haupt, 1930; *Leuchimon* Haupt, 1930; *Asthenoctenus* Arnold, 1937, nom. praeocc., nec Simon, 1897; *Asthenoctenidia* Pate, 1946; *Psammocharoides* Móczár, 1946; *Streptosella* Dreisbach, 1950; *Streptosella* Evans, 1951; *Carinevagetes* Wolf, 1970; *Contemptevagetes* Wolf, 1970). Type species *Evagetes bicolor* Lepeletier de Saint Fargeau, 1845 (= *Aporus dubius* Vander Linden, 1827). The cleptoparasites of spider wasps (*Anoplius* Dufour, *Arachnospila* Kincaid, *Pompilus* Fabricius, *Aporinellus* Banks, *Parabatozonus* Yasumatsu, *Episyron* Schiodte, *Aporus* Spinola). Distributed mainly in Palaearctic (from Europe and North Africa in the west to Japan in the east), but also occur in Nearctic, Neotropical and Oriental regions. Number of species: World – 64, Palaearctic – 51, Russia – 20.
- Evagetes alamannicus** (Blüthgen, 1944) [Pompilus]. Russia: **EP** (N, NC, CR). – Europe (WE, NE, SE, EE).
- Evagetes crassicornis crassicornis** (Shuckard, 1837) [Pompilus]. Russia: **EP** (N, NW, C, E), **WS** (AL), **ES** (IR, BR, YA, ZB), **FE** (AM, SA, MG, CH). – Europe

- (WE, SE, NE, EE), Morocco, Turkey, Georgia, Kyrgyzstan, Kazakhstan, Mongolia, Canada, N America.
- Evagetes deirambo** Ishikawa, 1960 (*E. yezoensis* Ishikawa, 1960). Russia: **ES** (IR, BR), **FE** (AM, KH, PR, SA, MG). – Korean Peninsula, Japan (Hok, Hon).
- Evagetes dubius** (Vander Linden, 1827) [Aporus]. Russia: **EP** (NW, C, E, S, NC, CR), **ES** (IR, BR), **FE** (AM, PR). – Europe (WE, NE, SE, EE), Turkey, Cyprus, Turkmenistan, Kyrgyzstan, Tajikistan, Kazakhstan, Mongolia.
- Evagetes elongatus** (Lepelletier de Saint Fargeau, 1845) [Anoplius] (*Pompilus magrettii* Kohl, 1886). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Morocco, Algeria, Turkey, Georgia, Syria, Kyrgyzstan, Kazakhstan.
- Evagetes gibbulus** (Lepelletier de Saint Fargeau, 1845) [Pompilus] (*Pompilus pectinipes* var. *pilosellus* Wesmael, 1851; *Evagetes pilosellus*: Dathe, 1980b). Russia: **EP** (NW, C, S, NC), **WS** (AL). – Europe (WE, NE, SE, EE), Turkey, Kyrgyzstan, Kazakhstan, Mongolia.
- Evagetes iconionus** Wolf, 1970. Russia: **EP** (C, CR). – Europe (WE, SE, EE), Morocco, Turkey, Georgia, Kyrgyzstan, Kazakhstan, China (?).
- Evagetes ishikawai** Lelej, 1995. Russia: **ES** (IR, BR, ZB), **FE** (AM, PR).
- Evagetes littoralis** (Wesmael, 1851) [Pompilus]. Russia: **EP** (NW, C, E, S, NC), **ES** (IR, BR, ZB), **FE** (AM, KH, PR). – Europe (WE, SE, EE), Kyrgyzstan.
- Evagetes orientalis** Lelej et Loktionov, 2009 (*Evagetes sahlbergi*: Lelej, 1992, part.; 1995: 248, part.; 2005b, part.). Russia: **FE** (AM, KH, PR, SA, KU).
- Evagetes pectinipes** (Linnaeus, 1758) [Sphex]. Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (TK), **ES** (IR, BR, ZB), **FE** (AM, PR, SA). – Europe (WE, NE, SE, EE), North Africa, Turkey, Uzbekistan, Kyrgyzstan, Kazakhstan.
- Evagetes pontomoravicus** (Šustera, 1938) [Psammochares] (*Evagetes atratulus* Tobias, 1978, part.). Russia: **EP** (S, NC, CR), **ES** (BR, ZB). – Europe (SE, EE), North Africa, Turkey, Cyprus, Turkmenistan, Kyrgyzstan, Kazakhstan, Mongolia.
- Evagetes proximus** (Dahlbom, 1845) [Pompilus] (*E. daisetsuzanus* Ishikawa, 1960; *E. proximus mongoloproximus* Wolf et Móczár, 1972). Russia: **EP** (NW, C, NC, CR), **WS** (AL), **ES** (IR, BR, ZB), **FE** (AM, KH, PR, MG). – Europe (WE, NE, SE, EE), Turkey, Iran, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NC), Japan (Hok).
- Evagetes sahlbergi** (F. Morawitz, 1893) [Pompilus]. Russia: **EP** (N, NW, C, NC), **FE** (PR, KA, MG, CH). – Europe (WE, NE, SE, EE), Kyrgyzstan, Tajikistan, Mongolia.
- Evagetes siculus** (Lepelletier de Saint Fargeau, 1845) [Pompilus] (*Pompilus contemptus* Tournier, 1889). Russia: **EP** (S, NC, CR). – Europe (WE, NE, SE, EE), North Africa, Turkey, Cyprus, Syria, Kyrgyzstan, Turkmenistan, Uzbekistan.
- Evagetes sikhotealinensis** (Lelej, 1990) [Anospilus] (*Evagetes proximus* part.). Russia: **ES** (IR, ZB), **FE** (AM, KH, PR, SA, KA). – Kazakhstan, Mongolia, China (NC).
- Evagetes subglaber** (Haupt, 1941) [Psammochares] (*Psammochares subnudus* Haupt, 1941). Russia: **EP** (C, NC, CR), **WS** (AL). – Europe (WE, NE, SE, EE), Turkmenistan, Kyrgyzstan, Western Mongolia.
- Evagetes transbaicalicus** Lelej, 1995. Russia: **ES** (BR, ZB).
- Evagetes trispinosus** (Kohl, 1886) [Pompilus]. Russia: **WS** (AL). – Europe (WE, SE, EE), Tunisia, Armenia, Azerbaijan, Georgia, Turkey, Cyprus, Israel, Jordan, Lebanon, Syria, Iraq, Iran, Kyrgyzstan, Kazakhstan, Mongolia.
- Evagetes tumidosus** (Tournier, 1890) [Pompilus] (*Pompilus pedicellaris* F. Morawitz, 1891). Russia: **EP** (S, CR), **ES** (IR, ZB), **FE** (PR). – Europe (WE, SE, EE), Turkey, Kyrgyzstan, Turkmenistan, Tajikistan, Kazakhstan.
- POMPILUS** Fabricius, 1798 (*Chionopompilus* Priesner, 1955). Type species *Pompilus pulcher* Fabricius, 1798. Parasitoids of the spiders from the families Atypidae, Araneidae, Lycosidae, Pisauridae, Zoropsidae, Zoridae, Ctenidae, Clubionidae, Gnaphosidae, Thomisidae and Salticidae. Widely distributed in Palaearctic, Afrotropical, Oriental and Australian regions. Number of species: World – 7, Palaearctic – 1.
- Pompilus cinereus** (Fabricius, 1775) [Sphex] (*Sphex plumbea* Fabricius, 1787; *Pompilus pulcher* Fabricius, 1798). Russia: **EP** (N, NW, C, E, S, NC, CR), **FE** (AM, PR). – Europe (WE, SE, NE, EE), Cyprus, Algeria, Tunisia, Egypt, Turkey, Israel, Pakistan, China (NC, SE), Korean Peninsula, Japan (Hon, Kyu, Ryukyu). Widely distributed in Afrotropical, Oriental and Australian regions.
- SCHISTONYX** Saussure, 1887. Type species *Cyphononyx velutinus* Saussure, 1887. Distributed in Palaearctic (South Europe, North Africa, Central

Asia) and Afrotropical regions. Number of species: Palaearctic – about 10, Russia – 1.

**Schistonyx umbrosus** (Klug, 1834) [Pompilus]. Russia: **EP** (NC). – Europe (WE), Morocco, Tunisia, Egypt, Syria, Israel, Jordan, Iran, Central Asia, Mauritania.

#### Tribe ANOPLIINI

**ANOPLIUS** Dufour, 1834 (*Pompilioides* Radoszkowski, 1887; *Pompiliodes* Ashmead, 1902; *Aphiloc-tenus* Ashmead, 1902; *Paranoplius* Haupt, 1929). Type species *Sphex nigerrima* Scopoli, 1763. Parasitoids of the spiders from the families Lycosidae, Pisauridae, Oxyopidae, Ctenidae, Agelenidae, Amaurobiidae, Liocranidae, Gnaphosidae, Thomisidae, Salticidae and Philodromidae. The genus includes two subgenera: *Anoplius* Dufour, 1834 and *Arachnoproctonus* Howard, 1901 (= *Psammochares* Latreille, 1797; = *Arachnophila* Ashmead, 1902, nom. praeocc., nec Salvadori, 1874; = *Pompi-linus* Ashmead, 1902; = *Anoplinellus* Banks, 1934; = *Arachnodaicter* Pate, 1946). Worldwide distributed genus. Number of species: Palaearctic – about 30, Russia – 15.

**Anoplius (Anoplius) aberrans** Gussakovskij, 1932 (*Paranoplius separatus* Haupt, 1929, nom. praeocc. nec *Pompilus separatus* Taschenberg, 1869; *A. luzo-nicus* Tsuneki, 1988). Russia: **WS** (AL), **ES** (IR, BR), **FE** (AM, KH, PR, SA, KU, KA, MG). – Uzbekistan, Korean Peninsula, China (SE), Japan (Hok, Hon, Shi, Kyu), Philippines (Luzon), Indonesia (Celebes).

**Anoplius (Anoplius) alpinobalticus** Wolf, 1965. Russia: **EP** (C, E), **FE** (PR). – Europe (WE, NE, SE, EE), ?Mongolia.

**Anoplius (Anoplius) caviventris** (Aurivillius, 1907) [Pompilus]. Russia: **EP** (C, E). – Europe (WE, NE, SE, EE), Turkey.

**Anoplius (Anoplius) concinnus** (Dahlbom, 1843) [Pompilus] (*Pompilus bifidus* F. Morawitz, 1891; *P. distinguendus* F. Morawitz, 1891). Russia: **EP** (N, NW, C, E, S, NC), **WS** (AL), **ES** (KS, IR, BR), **FE** (AM, KH, PR). – Europe (WE, SE, NE, EE), Turkey, Cyprus, Israel, Iran, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia.

**Anoplius (Anoplius) fratellus** (Pérez, 1905) [Pompilus] (*A. aberrans* Gussakovskij, 1932, part.; *Anoplius (Anoplius) saigusai* Lelej in Lelej, Yamane, 1994). Russia: **FE** (AM, KH, PR). – Korean Peninsula, Japan (Hon, Kyu).

**Anoplius (Anoplius) iwatai** Yasumatsu, 1939. Russia: **FE** (AM, KH, PR, SA, KU). – Mongolia, Japan (Hon, Kyu).

**Anoplius (Anoplius) nigerrimus** (Scopoli, 1763) [Sphex] (*Pompilus niger*: Eversmann, 1849, Ass-muss, 1859). Russia: **EP** (N, NW, C, E, NC, CR), **UR**, **WS** (AL), **ES** (IR, BR, YA), **FE** (AM, KH, PR, SA, KU, KA). – Europe (WE, SE, NE, EE), Turkey, Iran, Uzbekistan, Tajikistan, N America.

**Anoplius (Anoplius) petiolaris** Gussakovskij, 1932. Russia: **FE** (KH, PR, SA, KU). – Mongolia, Japan (Hok, Hon, Kyu).

**Anoplius (Anoplius) ryukyuensis** Tsuneki, 1990. Russia: **FE** (AM, KH, PR, KU). – China (SE), Japan (Hok, Kyu, Tsushima, Ryukyu).

**Anoplius (Anoplius) sachalinensis** Lelej, 1994. Russia: **FE** (AM, KH, PR, SA, KU). – Japan (Hok).

**Anoplius (Anoplius) sundukovi** Loktionov et Lelej, 2014 (*A. eous*: Loktionov, 2010, part.; Loktionov, 2011, part.; Lelej, Loktionov, 2012, part.; Shlyakhtenok et al., 2012, part.). Russia: **FE** (PR).

**Anoplius (Anoplius) tenuicornis** (Tournier, 1889) [Pompilus]. Russia: **EP** (N, NW, NC), **WS** (AL), **ES** (KR, IR), **FE** (AM, KH, PR, SA, KA, MG). – Europe (WE, NE, SE, EE), Central Asia, Mongolia, North America.

**Anoplius (Arachnoproctonus) aeruginosus** (Tournier, 1890) [Pompilus] (*Pompilus dispar* Dahlbom, 1843, nom. praeocc., nec Latreille, 1809). Russia: **EP** (NW, C, NC), **ES** (KR). – Europe (WE, NE, SE, EE), Morocco, Turkey, Central Asia.

**Anoplius (Arachnoproctonus) infuscatus** (Vander Linden, 1827) [Pompilus] (*Pompilus reflexus* Smith, 1873; *A. infuscatus mongolinfuscatus* Wolf, 1981; *A. esakii* Ishikawa, 1958). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **ES** (IR), **FE** (AM, KH, PR, SA, KU). – Europe (WE, SE, NE, EE), Algeria, Egypt, Cyprus, Jordan, Iran, Turkmenistan, Uzbekistan, Kyrgyzstan, Mongolia, China (NC), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryukyu).

**Anoplius (Arachnoproctonus) viaticus** (Linnaeus, 1758) [Sphex] (*Pompilus ogumae* Matsumura, 1911). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, AL), **ES** (KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA). – Europe (WE, SE, NE, EE), Egypt, Georgia, Turkey, Cyprus, Jordan, Iran, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NC), ?Korean Peninsula, Japan (Hok, Hon, Kyu).

**LOPHOPOMPILUS** Radoszkowski, 1887 (*Pompilogaster* Howard, 1901; *Pompilogastra* Ashmead, 1902). Type species *Pompilus grandis* Eversmann, 1846. Parasitoids of the spiders from the families Araneidae, Lycosidae, Pisauridae, Gnaphosidae and Sparassidae. Distributed in Palaearctic and Nearctic regions. Number of species: World – 9, Palaearctic – 4, Russia – 2.

**Lophopompilus grandis** (Eversmann, 1846) [*Pompilus* (!)]. Russia: **EP** (S, CR), **UR**, **WS** (AL), **ES** (TU), **FE** (AM, PR). – Kazakhstan, Mongolia, China (NW).

**Lophopompilus samariensis** (Pallas, 1771) [Sphex] (*Pompilus zelleri* Dahlbom, 1843). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (OM, AL), **ES** (TU, IR, BR, ZB), **FE** (AM, KH, PR, SA). – Europe (WE, SE, EE), Turkey, Iran, Kyrgyzstan, Kazakhstan, Japan (Hok, Hon, Shi, Kyu, Tsushima, Yakushima).

#### Tribe PSAMMODERINI

**ARACHNOTHEUTES** Haupt, 1927 (*Microdrapetes* Arnold, 1937; *Phauloclavelia* Haupt, 1962; *Chionopterus* Priesner, 1965). Type species *Pompilus rufithorax* Costa, 1881. Distributed in Palaearctic (from Europe in the west to Mongolia in the east). Number of species: Palaearctic – 12, Russia – 1.

**Arachnotheutes rufithorax** (Costa, 1881) [*Pompilus*] (*Pompilus affinis* Eversmann, 1849, nom. praeocc., nec Vander Linden, 1827; *P. galactopterus* Kohl, 1888; *P. breviscapus* F. Morawitz, 1891; *P. cardinalis* F. Morawitz, 1891; *P. leucurus* Morawitz, 1891; *Agenioideus europaeus* Priesner, 1965; *Phauloclavelia rufipes* Priesner, 1966). Russia: **EP** (S). – Europe (WE, SE, EE), Turkey, Kyrgyzstan, Kazakhstan, Mongolia.

**EOFERREOLA** Arnold, 1935 (*Paraferreola* auct., nec Šusterka, 1912; *Tea* Pate, 1946). Type species *Anoplius soleanus* Cameron, 1905. Parasitoids of the spiders from the family Eresidae. Distributed in Palaearctic (from Europe and North Africa in the west to the Russian Far East in the east), Nearctic and Afrotropical regions. Number of species: Palaearctic – 8, Russia – 4.

**Eoferreola erythraea** (Pallas, 1773) [Sphex]. Russia: **EP** (E, S, NC), **UR**, **ES** (KR). – Turkey, Kyrgyzstan, Turkmenistan, Kazakhstan.

**Eoferreola manticata** (Pallas, 1771) [Sphex] (*Salus hellmanni* Eversmann, 1849; *Ferreola caucasica* Radoszkowski, 1888; *F. rossica* Radoszkowski, 1888). Russia: **EP** (E, S, NC, CR), **UR**, **WS** (AL), **FE** (PR). – Europe (WE, SE, EE), Morocco, Algeria, Tunisia, Egypt, Azerbaijan, Turkey, Israel, Jordan, Lebanon, Syria, Iran, Uzbekistan, Turkmenistan, Tajikistan, Kyrgyzstan, Kazakhstan.

**Eoferreola rhombica** (Christ, 1791) [Sphex] (*Pompilus fasciatus* Eversmann, 1849). Russia: **EP** (S, NC, CR), **UR**, **WS** (AL), **ES** (KR, IR, BR), **FE** (AM). – Europe (WE, SE, EE), Azerbaijan, Turkey, Uzbekistan, Kyrgyzstan, Tajikistan, Kazakhstan, Mongolia.

**Eoferreola variabilis** (Eversmann, 1849) [*Pompilus*] (*Ferreola distincta* Smith, 1855; *Salus grandis* Radoszkowski, 1887). Russia: **EP** (S, NC, CR), **UR**. – Europe (SE), Algeria, Egypt, Turkey, Syria, Iran, Uzbekistan, Kyrgyzstan, Kazakhstan.

#### Tribe EIDOPOMPILINI

**MICROPHADNUS** Cameron, 1905 (*Plagioceps* Haupt, 1930). Type species *Microphadnus bicolor* Cameron, 1905. Distributed in Palaearctic (from Europe and North Africa in the west to Mongolia in the east), Afrotropical (South Africa, Madagascar) and Australian regions. Number of species: Palaearctic – 4, Russia – 1.

**Microphadnus pumilus** (Costa, 1886) [*Aporus*]. Russia: **EP** (NC). – Europe (WE, SE), Morocco, Tunisia, Egypt, Turkey, Lebanon, Israel, Syria, Afghanistan, Uzbekistan, Kyrgyzstan, Tajikistan, Kazakhstan, Mongolia.

**STIGMAPORUS** Zonstein, 2001. Type species *Gonaporus wolfi* Zonstein, 2001. Distributed in Palaearctic (European part of Russia, Central Asia, Kazakhstan, Mongolia and China: Xinjiang). Number of species: World – 4, Palaearctic – 4, Russia – 1.

**Stigmaporus volgadon** Loktionov et Lelej, 2016. Russia: **EP** (S).

**TACHYAGETES** Haupt, 1930 (*Pareiaxenus* Haupt, 1962; *Dasyagetes* Priesner, 1955; *Exagetes* Priesner, 1955; *Epagetes* Priesner, 1955). Type species *Evagetes filicornis* Tournier, 1889. Parasitoids of the spiders from the families Lycosidae, Clubionidae, Gnaphosidae and Salticidae. Distributed in Palaearctic region (from Europe and North Africa

in the west to Mongolia in the east). Number of species: Palaearctic – about 90, Russia – 6.

**Tachyagetes (Tachyagetes) argentatus** Haupt, 1930. Russia: **UR**. – Turkmenistan, Uzbekistan.

**Tachyagetes (Tachyagetes) consimilis** Tobias, 1978. Russia: **EP (S)**.

**Tachyagetes (Tachyagetes) dudichi** Móczár, 1944. Russia: **EP (NC)**. – Europe (EE).

**Tachyagetes (Tachyagetes) filicornis** (Tournier, 1889) [Evagetes]. Russia: **EP (S, NC)**. – Europe (WE, SE, EE), Morocco, Turkey, Cyprus, Iran, Uzbekistan, Tajikistan, Kyrgyzstan, Turkmenistan, Kazakhstan, Mongolia.

**Tachyagetes (Tachyagetes) grandis** (Tournier, 1889) [Evagetes]. Russia: **EP (S, NC, CR)**. – Kyrgyzstan, Turkmenistan, Kazakhstan.

**Tachyagetes (Tachyagetes) graciosus** (Radoszkowski, 1893) [Aporus]. Russia: **EP (NC)**. – Turkey, Iran, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan.

**TELOSTEGUS** Costa, 1887 (*Elaphrosyron* Haupt, 1929; *Protelostegus* Priesner, 1955). Type species *Aporus major* Costa, 1886 (= *Aporus inermis* Brullé, 1833). Distributed in Palaearctic (from Europe and North Africa in the west to Mongolia in the east), Afrotropical and Australian regions. Number of species: Palaearctic – about 20, Russia – 1.

**Telostegus inermis** (Brullé, 1833) [Aporus] (*Aporus major* Costa, 1886). Russia: **EP (S, NC)**. – Europe (WE, SE, EE), Morocco, Algeria, Turkey, Cyprus, Iran, Kyrgyzstan, Tajikistan, Kazakhstan.

**XENAPORUS** Ashmead, 1902 (*Taeniaporus* Haupt, 1930). Type species *Pompilus amoenus* Klug, 1834. The genus includes two subgenera: *Baguenaia* Giner Mari, 1942 (= *Nannaporus* Priesner, 1966; = *Melanaporus* Priesner, 1967; = *Ciliaporus* Wahis, 1972) and *Xenaporus* Ashmead, 1902. Distributed in Palaearctic (from Europe and North Africa in the west to Mongolia in the east) and Nearctic regions. Number of species: Palaearctic – about 35, Russia – 1.

**Xenaporus (Baguenaia) eremocanus** Wolf, 1990. Russia: **ES (TU)**. – Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia.

Doubtful or wrongly recorded taxa

**Ceropales pygmaea pygmaea** Kohl, 1880. Russia: “Eastern Siberia”.

**Ceropales ruficornis** Gussakovskij, 1931. Russia: “Russian (Asia)”, “Russian SSR”.

**Eoferreola anatolica** Priesner, 1973. Russia: “Russia: Kulp”; “Russia”.

**Hemipepsis sinensis** (Smith, 1855). Russia: “Russia”.

**Pompilus trivialis** var. **maris** Eversmann, 1849. Doubtful taxon, probably belongs to the *Arachnospila (Ammosphex)* spp.

**Telostegus nigrutilus** (Klug, 1834). Russia: “in provinciis Orenburg., Saratov. et Astrachanensi” [actually North Africa].

## SUPERFAMILY VESPOIDEA

## 68. FAMILY VESPIDAE

A.V. ANTROPOV AND A.V. FATERYGA

Vespidae are the wasps of predominantly medium size, though rarely relatively small (2.5 mm) to very large (up to 50 mm). Their most distinct differences are the inner eye orbits with more or less pronounced notches, the pronotum laterally extending back to the tegulae and with deep oval or triangular dorsal emargination, and the forewings folding longitudinally at rest (except Stenogastrinae, Euparagiinae, and part of Masarinae), with discoidal cell 1 longer than half the wing length. The body of vespids has usually typical “wasp” coloration, consisting of more or less regular yellow or white spots and bands on black background, but it may be black with reddish markings, or completely black-brown or yellow, while some species of *Ropalidia* Guérin-Méneville, 1831 may be even green.

The family includes six extant subfamilies: Euparagiinae, Masarinae, Eumeninae, Stenogastrinae, Polistinae, and Vespinae. The first three groups include only solitary insects, while the last three demonstrate the gradual development of sociality. Russian fauna is represented only by the subfamilies Eumeninae (potter wasps), Masarinae (pollen wasps), Polistinae (paper wasps), and Vespinae (yellowjackets and hornets). There are also two subfamilies known only by fossil records: Priorvespinae and Protovespinae.

The subfamily Euparagiinae is a small group of relic vespids containing the single extant genus *Euparagia* Cresson, 1879 with 10 species, which are known only from the southwest of North America. These wasps have habits similar to the eumenine genus *Odynerus*. Their females excavate vertical burrows in ground and surmount them by mud turrets (or “chimneys”); the nest contains several cells provisioned with larvae of Curculionidae.

The members of the subfamily Masarinae are most diverse and abundant in arid regions of the World. They are present in all zoogeographical regions, however only one species of the genus *Quartinia* André, 1884 is known from the Oriental region. This subfamily includes two tribes: Gayellini, with two Neotropical genera, and Masarini, which is additionally divided on three subtribes: Priscomasarina, with one monotypic Afrotropical genus, Paragiina, with two Australian genera, and Masarina, with nine genera distributed

in the Nearctic (1), the Neotropical (2), the Palaearctic (1), the Afrotropical (1), and both Palaearctic and Afrotropical (4) region. Masarines are unique among solitary vespids in feeding their larvae exclusively with pollen and nectar. They nest in ground and excavate burrows surmounted by mud entrance turrets or build aerial nests consisted of several ovoid (*Gayella* Spinola, 1851) or cylindrical (*Celonites* and *Pseudomasaris* Ashmead, 1902) cells usually covered with additional mud layer. Nectar is used by females as bonding agent in nests of *Celonites* and *Pseudomasaris*, while ground nesting masarines usually use water during the nest construction. Species of the genus *Quartinia*, nesting in friable soil, use silk to confirm the inner walls of the nest burrow and the cells as well as to construct the turret. All masarines lay an egg into empty cell prior to its provisioning; an egg is usually not suspended by a filament (except *Gayella*). **Number of taxa** of Masarinae: World – 14 genera, 371 species, Palaearctic – 5/115, Russia – 1/2.

The members of the subfamily Eumeninae are also solitary wasps, except just several species that demonstrate a primitively social behavior (nest-sharing, reuse of brood cells, progressive provisioning, and strong aggressive competition among resident females for empty cells). This is the most divers subfamily distributed worldwide. It contains three tribes: Zethini (18 genera, 354 species), Eumenini (20/365), and Odynerini (167/3039). The nesting habits of the eumenines are extremely diverse. Species of the tribe Zethini usually build nests in preexisting cavities and use pressed pith or leaf cuts as building material for partitions between nest cells. However some species in the genera *Zethus* Fabricius, 1804 and *Calligaster* de Saussure, 1852 build aerial nests of leaf cuts. Species of the tribe Eumenini build nest cells in the shape of juglike pots with narrow collar, these cells are made usually of mud (mix of dry ground and water) or rarely (*Katamenes*) of pebbles confirmed with mud. Each nest can contain one or several cells and is usually covered with additional layer of mud (or pebbles with mud in *Katamenes*). Tribe Odynerini has the most diverse nesting habits. Some genera nest in ground and excavate vertical or horizontal burrows surmounted by nest turrets, others nest in preexisting cavities (hollow stems, galls, beetle burrows in wood, snail shells and abandoned nests of other wasps and bees), and the rest build aerial nests consisting of several cells, usually with additional cover. Building material in Odynerini is generally mud made of dry ground mixing with water. However, species



in the genera *Pterocheilus* and *Onychopterocheilus* nest in friable soil and do not use water to construct their nests; species of the genus *Leptocheilus* and some species of *Odynerus* nesting in preexisting cavities use dry pressed pith, ground particles or gravel. One species of Odynerini, *Pseudabispa paragioides* Meade-Waldo, 1910 is known as the cleptoparasite of *Abispa ephippium* Fabricius, 1775. In most cases the females of Eumeninae lay an egg into empty cell prior to its provisioning; an egg is usually suspended to cell wall or sealing by a filament. However, some species of *Synagris* Latreille, 1802, *Calligaster*, *Paraleptomenes* Girdani Soika, 1970, *Paravespa*, and *Tropidodynerus* do not attach their eggs. The cells of eumenine wasps are provisioned with paralyzed caterpillars or larvae of beetles (usually Curculionidae or Chrysomelidae) or sawflies. Most species are mass provisioning, while about two tens species are progressively provisioning. **Number of taxa** of Eumeninae: World – 205 genera, 3758 species, Palaearctic – 78/963, Russia – 33/158.

Social vespids form more or less numerous families, including one to several fertile “queens” laying eggs, and “workers”, which are their offspring, performing the auxiliary duties of guarding and building the nest and feeding the larvae. The “workers” are sterile females, as a rule not laying eggs.

The subfamily Stenogastrinae (hover wasps), containing 7 genera and 63 medium-sized (11–21 mm long) slender species with a very long and narrow metasomal segment 1, is known only from the Oriental region and the island of New Guinea. Unlike other social vespids their nests has no primary petiole, and the ventrally open cells are attached directly to the substratum – thin branches of trees, vine tendrils, loose strands of thatch under the roofs of houses, or rarely under stones. The cells are made of chewed plants in composition with the material of the previous cells and sometimes with more or less amount of wet clay. The wasps increase the length of each cell as far as the larvae grow. Individual families of stenogastrine species are very small, but sometimes they form nesting clusters, where the “workers” may move between multiple nests.

The subfamilies Polistinae and Vespinae are distributed worldwide, though the first is most variable in the New World (21 genus among 25 of the World fauna), while the second is mostly represented in the Old World, mainly in the Oriental region. The combs and walls of the cells are made of chewed wooden fibers, sometimes mixed with wet soil and sand.

Subfamily Polistinae includes four tribes. The members of Epiponini (19 genera, 242 species) and Mischoctytarini (1/249) exclusively inhabit subtropical and tropical regions of the New World, those of Ropalidiini (4/288, including 3/34 in Palaearctic) inhabit the same regions of the Old World, and only the species of Polistini, including the single genus *Polistes*, are distributed worldwide (World – 224 species, Palaearctic – 33, Russia – 14). Typically Polistinae form eusocial families consisting of a “queen” and more or less numerous “workers”, which are not distinctly differ in size. The vast majority of polistines build the nests consisting of the single comb fasten to substratum with a firm petiole and lacking in outer envelope. They usually feed larvae with masticated caterpillars. At the same time, some representatives of Epiponini demonstrate high diversity in behavior and construction of nests. The species of *Apoica* Lepeletier de Saint Fargeau, 1836 are truly nocturnal wasps. Some species of *Agelaia* Lepeletier de Saint Fargeau, 1836 build giant nests, containing several combs without envelope, and their colonies may number more than a million stinging wasps. Finally, some species of Epiponini cover their combs with an outer envelope, which may be soft in *Polybia* Lepeletier de Saint Fargeau, 1836 or *Synoeca* de Saussure, 1852, but hard cartoon-like in *Chartergus* Lepeletier de Saint Fargeau, 1836 and *Brachygastra* Perty, 1833. The last genus is also known as a honey producer. The Old World members of Polistinae build nests with the cells disposed in one flat comb or sometimes in vertical rows along the pendent shoots of plants, but always without envelopes. **Number of taxa** of Polistinae: World – 25 genera, 1003 species, Palaearctic – 4/67, Russia – 1/14.

The nests of Vespinae built of masticated wooden fibers, usually consist of several combs, connected by columns and covered with outer envelope with the entrance in the lower part. Such nests may be free and attached to the tree branches or placed in various shelters from the hollows of the tree-trunks and underground cavities to human buildings. Vespinae feed their larvae with various masticated insects and spiders, though some species use all accessible sources of proteins, including dead invertebrates and vertebrates. Vespinae are usually active during day-light hours, and only three species of the genus *Provespa* Ashmead, 1903 and the East Asian hornet *Vespa binghami* are truly nocturnal wasps. **Number of taxa** of Vespinae: World – 4 genera, 69 species, Palaearctic – 3/36, Russia – 3/23.

The life cycle of the families of social wasps in the moderate climate (though often also in tropics) is annual. After wintering the females inseminated in the end of the previous season build new nests and feed the first generation of “workers”. After that, all the care to bring the materials for the construction of new cells, and food for the larvae becomes the responsibility of “workers”. The “queens” of Vespinae, with the rare exceptions (for example, in *Vespa ducalis*), differ by distinctly larger size, and they completely dominate “workers”. New generation of females and males appears in the end of active season. After copulation young females look for the places for wintering, while the rest members of the family die.

Among social vespids there are several obligate nesting parasites (in Russia these are *Vespula austriaca*, *Dolichovespula adulterina*, *D. omissa*, *Polistes atrimandibularis*, and *P. sulcifer*), who do not build their own nests, but usurp the nests of the allied species. Obligate parasites have not “workers”, and their first generation consists of capable to copulate males and females. Other species (*Vespa dybowskii* and *Polistes nimpha*) may be facultative nesting parasites, which can usurp the nests of the allied species, though are able to form their own families and build the nests.

Many species of Vespidae are important regulators of quantity of various harmful insects, such as Lepidoptera, Orthoptera, and Diptera, and may be effective pollinators. *Brachygastra mellifica* (Say, 1837) is a traditional source of honey in Central America, while some species of *Belonogaster* de Saussure, 1854 are used in traditional medicine in Africa, and the larvae and pupae of *Vespa* are the parts of nourishing diet of the local inhabitants in the South Eastern Asia. At the same time, some species of *Vespa* which hunt honey bees may cause serious damage to apiculture, and species of *Vespa* and *Vespula* sometimes cause severe damage to the harvests of sweet fruit, particularly to grapes and pears, in the period of their ripening. Finally, some species of Polistinae and Vespinae represent certain medical problem, because their attacks, which are usually caused by the carelessness of people, annually lead to hundreds of lethal outcomes in different countries.

**Number of taxa** of Vespidae: World – 256 genera, 5274 species; Palaearctic – 90/1181; Russia – 38/197.

**References.** Morawitz, 1867, 1895; Horne, Smith, 1872; André, 1881–1886; Mocsáry, Szépligeti, 1901; Alfken, 1915; Birula, 1925, 1927, 1930a,b; Białynicki-Birula, 1926; Kostylev, 1928, 1929, 1940a,b; Bequaert,

1930; Zimmermann, 1930; Gussakovskij, 1932; de Beaumont, 1944; Guiglia, 1948; Cavro, 1950; Richards O., Richards M., 1951; Giordani Soika, 1958, 1976; Blüthgen, 1961; Richards O., 1962, 1973; Løken, 1964; Gusenleitner, 1966a,b, 1972a,b, 1977, 1981, 1991, 2004, 2007a,b, 2013a,b; Kemper, Döhring, 1967; van der Vecht, Fischer, 1972; Spradbery, 1973; Yamane Sk., 1975; Kurzenko, 1977a,b, 1978a,b, 1981, 1995, 2004, 2012; Tobias, Kurzenko, 1978; Day, 1979; Archer, 1980, 1981a,b, 1982, 1989a,b, 1992, 1995, 1997, 1998a,b, 1999a,b, 2006, 2008; Dathe, 1980b; Yamane Sk. et al., 1980; Akre, 1982; Carpenter, 1986, 1996, 2001; Lee, 1986; Cumming, 1989; Scobiola-Palade, 1989; van der Vecht, Carpenter, 1990; Turillazzi, 1991; Kim et al., 1994; Gess, 1996; Carpenter, Kojima, 1996, 1997, 2002; Ono, 1997; Dubatolov, 1998, 1999, 2011; Dubatolov et al., 2002; Castro, 2003; Carpenter, Nguyen, 2003; Dubatolov, Novomodnyi, 2005; Cervo, 2006; Dvořák, Roberts, 2006; Dvořák, Castro, 2007; Castro et al., 2008; Ebrahimi, Carpenter, 2008; Gereys, 2008; Amolin, 2009; Castro, Dvořák, 2009, 2010; Dubatolov, Dolgikh, 2009; Aliyeva, 2010; Carpenter, Glare, 2010; Carpenter et al., 2011; Rudoiskatel et al., 2011; Abasheev, 2012; Archer, Penney, 2012; Hoa et al., 2012; Kim, 2012, 2013; Mahmood et al., 2012; Malikova, 2012; Shibaev, Polumordvinov, 2012; Yildirim, Gusenleitner, 2012; Zhou et al., 2012; Abasheev, Dabaev, 2014; Amolin, Artokhin, 2014; Antropov, Proshchalykin, 2014; Hermes et al., 2014; Li, Chen, 2014; Abasheev, Buyanjargal, 2015; Knyazev et al., 2015; Neumeyer, Praz, 2015; Yamane, Terayama, 2016; Abasheev, 2016; Buyanjargal et al., 2016; Ma et al., 2016; Mauss et al., 2016; Pham, Kumar, 2016; Ruchin, Antropov, 2016; Fateryga, 2017, 2018; Fateryga et al., 2017; Fateryga, Popov, 2017; Kumar et al., 2017; Perrard et al., 2017.

#### Subfamily MASARINAE – POLLEN WASPS

##### A.V. FATERYGA

**CELONITES** Latreille, 1802 (*Chelonites* (!): Leach, 1815; *Coelonites* (!): Blanchard, 1840; *Eucelonites* Richards, 1962). Type species *Masaris apiformis* Fabricius, 1793. Females build aerial mud nests consisted of cylindrical cells usually covered with additional mud layer; nests are usually attached to stones or twigs (some Afrotropical species place their nest cells within excavated or preexisting holes in ground). The genus is distributed in the Palaearctic and Afrotropical regions. Number of species: World – 61; Palaearctic – 39; Russia – 2.

**Celonites sibiricus** Gusenleitner, 2007. Russia: **WS** (AL).

**Celonites tauricus** Kostylev, 1935 (*C. abbreviatus*: Kostylev, 1928, 1929; *C. abbreviatus tauricus* Kostylev, 1935; *C. spinosus* Gusenleitner, 1966; *C. abbreviatus invitus* Gusenleitner, 1973; *C. abbreviatus invitus* (!): Schmidt, 1984). On flowers of *Teucrium*, *Thymus*, and *Ziziphora* (Lamiaceae). Russia: **EP** (CR). – Europe (SE: Greece), Armenia, Azerbaijan, Turkey, Cyprus, Syria, Iran.

Subfamily EUMENINAE – POTTER WASPS

#### A.V. FATERYGA

**ALASTOR** Lepeletier de Saint Fargeau, 1841 (*Antalastor* de Saussure, 1856; *Eualastor* Dalla Torre, 1904; *Belalastor* Atanassov, 1967). Type species *Alastor atropos* Lepeletier de Saint Fargeau, 1841. Females nest in preexisting cavities such as hollow stems or empty snail shells; partitions between cells are made of gravel and mud; provision is larvae of Curculionidae. The genus is distributed in the Palaearctic, Afrotropical, and Oriental regions and includes four subgenera: *Alastor* s.str.; *Alastorellus* Giordani Soika, 1991; *Megalastor* Blüthgen, 1951; *Parastalor* Blüthgen, 1939. Number of species: World – 79; Palaearctic – 28; Russia – 1.

**Alastor (Alastor) mocsaryi** (André, 1884) [Odynerus] (*A. atropos*: Morawitz, 1895, Kostylev, 1928; *A. biegelebeni* Giordani Soika, 1942; *A. biegelebeni pannonicus* Blüthgen, 1956; *A. kuehlhorni* Giordani Soika, 1958; *A. biegelebeni* (!): Tobias, Kurzenko, 1978). Russia: **EP** (E, S, NC, CR). – Europe (WE, SE, EE), Caucasus, Turkey, Syria, Lebanon.

**ALLODYNERUS** Blüthgen, 1938 (*Delphinaloides* Bohart, 1951; *Acarepipona* Giordani Soika, 1985). Type species *Odynerus floricola* de Saussure, 1853. Females nest in preexisting cavities such as beetle burrows in wood or hollow stems; partitions between cells are made of mud; provision is caterpillars, mainly of Gelechiidae. The genus is distributed in the Palaearctic, Afrotropical and Oriental regions. Number of species: World – 11; Palaearctic – 9; Russia – 4.

**Allodynerus delphinalis** (Giraud, 1866) [Odynerus] (*O. tristis* Thomson, 1870; *O. novellus* Morawitz, 1895; *Allodynerus delphinalis fallax* Blüthgen, 1953;

*A. delphinalis sardous* Blüthgen, 1953). Russia: **EP** (E, S, NC, CR), **UR**, **WS** (AL), **FE** (AM, PR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Lebanon, Iran, Central Asia, Kazakhstan, China (NE), Korean Peninsula, Japan (Hok, Hon).

**Allodynerus floricola** (de Saussure, 1853) [Odynerus] (*Odynerus floricola* ab. *immaculata* Mader, 1936; *Allodynerus floricola inaequalis* Giordani Soika, 1970). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Armenia, Turkey, Cyprus, Jordan.

**Allodynerus mandschuricus** Blüthgen, 1953. Russia: **ES** (BR), **FE** (PR). – Mongolia, China (NE), Korean Peninsula, Japan (Hon).

**Allodynerus rossii** (Lepelletier de Saint Fargeau, 1841) [Odynerus] (?*Odynerus hospes* Dufour et Perris, 1840; *O. notabilis* Morawitz, 1895, nom. praeocc., nec Walker, 1871; *O. umbilicalis* Dalla Torre, 1904). Russia: **EP** (C, ?E, S, NC, CR), **ES** (?BR, ?ZB). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Iran, Turkmenistan.

**ANCISTROCERUS** Wesmael, 1836 (*Aucistrocerus* (!): Rudow, 1876; *Ancistrocerus* (!): Dalla Torre, 1894; *Euancistrocerus* Dalla Torre, 1904). Type species *Vespa parietum* Linnaeus, 1758. Females nest in various preexisting cavities: hollow stems, beetle burrows in wood, abandoned nests of other wasps and bees; several species (*A. densipilosellus*, *A. japonicus*, *A. oviventris*) build aerial nests consisted of mud cells attached to stones and covered with additional layer of mud. Provision is caterpillars of various Lepidoptera or rarely larvae of beetles (Chrysomelidae or Curculionidae) or sawflies (Tenthredinidae). The genus is distributed worldwide except Australia. Number of species: World – 116; Palaearctic – 57; Russia – 19.

**Ancistrocerus antilope** (Panzer, 1798) [Vespa] (?*Vespa insolens* Harris, 1780; *Odynerus pictus* Curtis, 1826; *O. capra* de Saussure, 1857; *Ancistrocerus nearcticus* Cameron, 1906; *A. lecontei* Cameron, 1908; *A. navajo* Bequaert, 1925; *A. antilope allegrus* Bequaert, 1943; *A. antilope spenceri* Bequaert, 1943). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TK, NS, AL), **ES** (KR, IR, BR, ZB), **FE** (AM, KH, PR, SA). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Afghanistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NE), Japan (Hok, Hon), N America, India.

**Ancistrocerus auctus** (Fabricius, 1793) [Vespa]. Russia: **EP** (C, S, NC, CR). – Europe (WE, SE, EE), Caucasus, Turkey, Syria, Jordan, Israel, Iraq, Iran, Central Asia, Kazakhstan.

- Ancistrocerus claripennis** Thomson, 1874 (?*Vespa quadrata* Panzer, 1799; *Ancistrocerus claripennis* var. *subrenimacula* Blüthgen, 1938; *A. claripennis ponticus* Giordani Soika, 1970). Russia: **EP** (N, NW, C, NC). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Tajikistan, China (NC).
- Ancistrocerus densepilosellus** Cameron, 1911. Russia: **WS** (NS, AL), **ES** (IR, BR), **FE** (AM, KH, PR, KU). – Mongolia, ?China (NE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu).
- Ancistrocerus dusmetiolus** (Strand, 1914) [Odynerus] (*Odynerus sociabilis* Dusmet, 1903, nom. praecoc., nec Perkins, 1899; *O. alius* Kostylev, 1935). Russia: **WS** (AL), **ES** (KR). – Europe (WE, SE, EE), Turkey, Afghanistan, Central Asia, Kazakhstan.
- Ancistrocerus gazella** (Panzer, 1798) [*Vespa*] (?*Vespa emarginata* Fabricius, 1793; *Ancistrocerus pictipes* Thomson, 1874; *Odynerus parietum*: Kostylev, 1928; *A. verhaereni* Bondroit, 1943; *A. claripennis*: Tobias, Kurzenko, 1978). Russia: **EP** (C, E, S, NC, CR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Cyprus, Israel, Iran, Afghanistan, ?Pakistan, N America (introduced), New Zealand (introduced).
- Ancistrocerus hangaicus** Kurzenko, 1977. Russia: **WS** (AL), **ES** (IR, BR, ZB), **FE** (MG). – Mongolia.
- Ancistrocerus ichneumonideus** (Ratzeburg, 1844) [*Vespa*] (*A. thomsoni* Blüthgen, 1938; *A. ichneumonideus kaszabi* Giordani Soika, 1970). Russia: **EP** (NW, C, NC), **UR**, **WS** (AL), **ES** (KR, IR, BR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Kazakhstan, Mongolia.
- Ancistrocerus japonicus** (von Schulthess, 1908) [Odynerus]. Russia: **FE** (PR). – Korean Peninsula, Japan (Hon, Shi, Kyu, Ryu).
- Ancistrocerus kazbekianus** (Kostylev, 1940) [Odynerus]. Russia: **EP** (NC). – Georgia.
- Ancistrocerus leleji** Kurzenko, 1995. Russia: **FE** (PR).
- Ancistrocerus mongolicus** (Kostylev, 1940) [Odynerus]. Russia: **WS** (AL), **ES** (?KR, IR), **FE** (AM, KH, PR). – Mongolia, Korean Peninsula.
- Ancistrocerus nigricornis** (Curtis, 1826) [Odynerus] (?*Vespa sexpunctata* Christ, 1791; *Odynerus callosus* Thomson, 1870; *O. excisus* Thomson, 1870; *Ancistrocerus nigricornis* var. *polonica* Blüthgen, 1952). Russia: **EP** (NW, C, ?E, S, NC, CR), **UR**, **WS** (NS, KM, AL), **ES** (KR, IR, BR, YA, ZB), **FE** (KH, PR, SA). – Europe (WE, NE, SE, EE), N Africa, Turkey, Iran, Central Asia, Kazakhstan, Mongolia, China (NE), Japan (Hok, Hon), India.
- Ancistrocerus oviventris** (Wesmael, 1836) [Odynerus] (*Odynerus constans* Herrich-Schäffer, 1839; *O. viduus* Herrich-Schäffer, 1839; *O. pictus* var. *hibernica* Blüthgen, 1937; *O. oviventris* var. *rufipes* Blüthgen, 1938; *A. oviventris sculus* Blüthgen, 1955; *A. yamanei* Giordani Soika, 1986; *A. oviventris caucasicus* Gusenleitner, 1994). Russia: **EP** (N, NW, C, S, NC, CR), **UR**, **WS** (TK, AL), **ES** (IR, BR, YA, ZB), **FE** (KH, PR, SA, MG). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Central Asia, Kazakhstan, Mongolia, China (NE), Korean Peninsula, Japan (Hok, Hon).
- Ancistrocerus parietinus** (Linnaeus, 1761) [*Vespa*] (*Sphex domestica* Christ, 1791; *Odynerus affinis* Herrich-Schäffer, 1839; *O. thuringiacus* Blüthgen, 1937). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (TK, NS, AL), **ES** (KR, IR, BR, ZB), **FE** (AM, KH, PR, SA). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Iran, Kazakhstan, Mongolia, Korean Peninsula, Japan (Hok).
- Ancistrocerus parietum** (Linnaeus, 1758) [*Vespa*] (?*Vespa parietum*  $\beta$  *nigra* Poda, 1761; ?*V. aeneipennis* Christ, 1791; ?*Odynerus geoffroyanus* Spinola, 1808; ?*V. angulata* Donovan, 1810; *O. flavipes* Curtis, 1826; ?*O. similis* Curtis, 1826; *O. ochlerus* de Saussure, 1852; *O. parietum* var. *incisoides* Verhoeff, 1890; *O. parietum* var. *incisus* Verhoeff, 1890; *O. parietum* var. *parietoides* Verhoeff, 1890). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (OM, TK, NS, AL), **ES** (KR, IR, BR, ZB), **FE** (AM, KH, PR, SA). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, ?Iran, Central Asia, Kazakhstan, Mongolia, China (NE, NC), Korean Peninsula, N America (introduced).
- Ancistrocerus raddei** (Kostylev, 1940) [Odynerus]. Russia: **WS** (AL), **ES** (ZB). – Mongolia, China (NC, NW).
- Ancistrocerus scoticus** (Curtis, 1826) [Odynerus] (*Odynerus albotricinctus* Zetterstedt, 1838; *O. albotricinctus* (!): Dalla Torre, 1894; *Ancistrocerus scoticus iberogallicus* Blüthgen, 1956; *A. scoticus meridianus* Gusenleitner, 1977). Russia: **EP** (N, NW, NC), **UR**, **WS** (TK, NS, AL), **ES** (KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KA, MG). – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey, Iran, Kazakhstan, Mongolia, China (NE, NC), Korean Peninsula.
- Ancistrocerus trifasciatus** (Müller, 1776) [*Vespa*] (*Vespa trifasciata* Fabricius, 1787; ?*V. iuncea* Christ, 1791; *Odynerus trimarginatus* Zetterstedt, 1838;

*O. tricinctus* Herrich-Schäffer, 1839; *O. trifasciatus orientalis* Kostylev, 1938, nom. praeocc., nec *O. orientalis* Dalla Torre, 1889; *O. shibuyai* Yasumatsu, 1938; *Ancistrocerus trifasciatus* var. *moeschleri* Blüthgen, 1938; *A. trifasciatus kostylevi* van der Vecht, 1972). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, KA). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Kyrgyzstan, Kazakhstan, Mongolia, China (NE), Korean Peninsula, Japan (Hok, Hon).

**ANTEPIPONA** de Saussure, 1855 (*Antepiponus* (!): de Saussure, 1875; *Antepipone* (!): Dalla Torre, 1894; *Odontodynerus* Blüthgen, 1938; *Dichodynerus* Blüthgen, 1938; *Metastenancistrocerus* Blüthgen, 1938; *Mehelyella* Bohart, 1951). Type species *Odynerus silaos* de Saussure, 1853. Females nest in ground, often on vertical cliffs, and excavate burrows surmounted by turrets; provision is caterpillars of Psychidae, Tortricidae and Gelechiidae. The genus is distributed in the Palaearctic, Afrotropical, and Oriental regions. Number of species: World – 165; Palaearctic – 54; Russia – 4.

**Antepipona cribrata** (Morawitz, 1885) [Lionotus] (*Odynerus biarcuatus* Morawitz, 1895). Russia: **EP** (NC). – Armenia, Azerbaijan, Turkey, Afghanistan.

**Antepipona deflenda** (S. Saunders, 1853) [Ancistrocerus] (*Odynerus parvulus* Lepeletier de Saint Fargeau, 1841; *O. parvulus* var. *ruthenicus* Morawitz, 1867; *O. bidenticulatus* Maidl, 1922; *Odontodynerus deflendus lepeletieri* Blüthgen, 1961). Russia: **EP** (?E, S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Cyprus, Jordan, Lebanon, Israel, Iraq, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, China (?NC).

**Antepipona nigricornis** (Morawitz, 1885) [Lionotus] (*Nannodynerus binominatus* Blüthgen, 1939; *Alloodynerus hispanicus* Gusenleitner, 1993; *Antepipona gusenleitneri* Tussac, 1996). Russia: **EP** (NC, CR). – Europe (WE, SE), Turkey, Turkmenistan.

**Antepipona orbitalis** (Herrich-Schäffer, 1839) [Odynerus] (*Odynerus ballioni* Morawitz, 1867; *O. rubripes* André, 1884; *O. parvulus* var. *alpicola* Berland, 1928). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (NS), **ES** (IR, BR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Kazakhstan, Mongolia.

**BRACHYODYNERUS** Blüthgen, 1938. Type species *Odynerus magnificus* Morawitz, 1867. Females

excavate nest burrows in lateral walls of ground cracks; provision is caterpillars of Coleophoridae. The genus is distributed in the Palaearctic. Number of species: Palaearctic – 9; Russia – 2.

**Brachyodynerus magnificus** (Morawitz, 1867) [Odynerus] (*Odynerus morawitzi* André, 1884; *O. magnificus luxorius* Kostylev, 1929). Russia: **EP** (S, NC, CR). – Europe (EE), Armenia, Azerbaijan, Turkey, Turkmenistan, Kazakhstan.

**Brachyodynerus quadrimaculatus** (André, 1884) [Odynerus]. Russia: **EP** (S, NC, CR). – Europe (SE: Greece), Azerbaijan, Turkey.

**BRACHYPIPONA** Gusenleitner, 1967 (*Desertodynerus* Kurzenko, 1977). Type species *Pseudepipona schmidti* Gusenleitner, 1967. Bionomics of the genus is unknown. The genus is distributed in the Palaearctic. Number of species: Palaearctic – 7; Russia – 1.

**Brachypipona laticeps** (Morawitz, 1895) [Odynerus]. Russia: **EP** (S). – Kazakhstan.

**CHLORODYNERUS** Blüthgen, 1951. Type species *Odynerus chloroticus* Spinola, 1838. Bionomics of the genus is unknown. The genus is distributed in the Palaearctic, Afrotropical, and Oriental regions. Number of species: World – 26; Palaearctic – 19; Russia – 1.

**Chlorodynerus ypsilon** (Kostylev, 1929) [Odynerus] (*Euodynerus ypsilon rhodius* Blüthgen, 1954). Russia: **EP** (NC). – Europe (SE), Caucasus, Turkey, Cyprus, Syria, Israel.

**DELTA** de Saussure, 1855 (*Phi* de Saussure, 1855, nec 1854; *Alferia* Giordani Soika, 1934; *Alferia* (!): Neave, 1939; *Erinyes* Zirngiebl, 1953, nec Rye, 1876). Type species *Vespa maxillosa* De Geer, 1773. Females build aerial nests consisted of several juglike mud cells covered with additional mud layer; provision is caterpillars of Geometridae, Noctuidae, Lyceanidae and Pieridae. The genus is distributed worldwide. Number of species: World – 48; Palaearctic – 13; Russia – 1.

**Delta unguiculatum** (Villers, 1789) [Vespa] (*V. coangustata* Rossi, 1790; *Sphex cursor* Christ, 1791; *S. lapicida* Christ, 1791; *V. infundibuliformis* Olivier, 1791, nom. praeocc., nec Geoffroy, 1785; *V. dumetorum* Panzer, 1799; *Eumenes olivieri* Lepeletier de Saint Fargeau, 1841; *E. huberti* de Saussure,

1852; *E. aschabadensis* Radoszkowski, 1893; *E. unguiculatus* (!) var. *sporadensis* von Schulthess, 1929; ?*E. tadhicorum* Gussakovskij, 1935; *E. unguiculatus* var. *libanicus* Giordani Soika, 1941; *E. unguiculatus* var. *mauritanicus* Giordani Soika, 1941). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Cyprus, Syria, Lebanon, Israel, Saudi Arabia, Iran, Central Asia.

**DISCOELIUS** Latreille, 1809 (*Discaelias* (!): Leach, 1815; *Discaelius* (!): Leach, 1815; *Dicoelius* (!): Haliday, 1836; *Discollius* (!): Froggatt, 1892; *Tritodiscoelius* Dalla Torre, 1904). Type species *Vespa zonalis* Panzer, 1801. Females nest in preexisting cavities such as beetle burrows in wood or hollow stems; partitions between cells are made of partially masticated leaf cuts; provision is caterpillars of various Microlepidoptera or rarely larvae of Pamphiliidae. The genus is distributed in the Palaearctic and Oriental regions. Number of species: World – 11; Palaearctic – 3, Russia – 2.

**Discoelius dufourii** Lepeletier de Saint Fargeau, 1841 (*D. manchurianus* Yasumatsu, 1934; *D. priesneri* Mader, 1936; *D. dufourii atripes* Giordani Soika, 1970; *D. planiventris* Giordani Soika, 1971). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (TM, TK, NS, AL), **ES** (BR, YA, ZB), **FE** (AM, KH, PR, SA). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Kazakhstan, Mongolia, China (NE, SE), Korean Peninsula.

**Discoelius zonalis** (Panzer, 1801) [*Vespa*] (*D. naryschkini* Morawitz, 1894; *D. japonicus* Pérez, 1905). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (TM, NS, AL), **ES** (BR, ZB), **FE** (PR, KU). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Mongolia, China (NE, CC, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu).

**EUMENES** Latreille, 1802 (*Alpha* de Saussure, 1855, nec 1854; *Eumenis* (!): Kriechbaumer, 1879; *Eumenes* (!): Fox, 1899; *Eumes* (!): Bertoni, 1910; *Eumenidion* von Schulthess, 1913; *Eumenidium* (!): Sharp, 1915). Type species *Vespa coarctata* Linnaeus, 1758. Females build aerial nests consisted of one or several juglike mud cells sometimes covered with additional mud layer or rarely placed within preexisting cavities; provision is usually caterpillars of Geometridae or various Microlepidoptera. The genus is distributed worldwide and includes two subgenera: *Eumenes* s.str.; *Zeteumenooides* Giordani

Soika, 1972. Number of species: World – 107; Palaearctic – 43; Russia – 23.

**Eumenes (Eumenes) affinis** de Saussure, 1852 (*E. coelestimontana* Kostylev, 1940; ?*E. solidus* Gusenleitner, 1972). Russia: **WS** (AL). – Pakistan, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, China, SE Asia, India.

**Eumenes (Eumenes) aquilonius** Sk. Yamane, 1977 (*E. rubronotatus aquilonius* Sk. Yamane, 1977). Russia: **FE** (PR). – Korean Peninsula, Japan (Hok).

**Eumenes (Eumenes) coarctatus** (Linnaeus, 1758) [*Vespa*] (*E. lunulata* Fabricius, 1804; *E. pomiformis dernaensis* Blüthgen, 1938; *E. pomiformis limissicus* Blüthgen, 1938; *E. pomiformis ordubadensis* Blüthgen, 1938; *E. pomiformis barbatulus* Blüthgen, 1943; *E. pedunculata* var. *punctata* Hellén, 1944; *E. pedunculatus* var. *turaniformis* Blüthgen, 1959; *E. coarctatus corsicus* Gusenleitner, 1972; *E. coarctatus maroccanus* Gusenleitner, 1972; *E. lunulatus* var. *tenebricosus* Gusenleitner, 1972; *E. lunulatus* var. *balcanicus* Gusenleitner, 1972; *E. coarctatus nugaricus* Giordani Soika, 1986; *E. coarctatus dernansis* (!): Gusenleitner, 1999). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, NS, AL), **ES** (KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, MG). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Cyprus, Syria, Jordan, Israel, Iran, Central Asia, Kazakhstan, Mongolia, China (NE, NC, NW, CC, SW), Japan (Hon, Shi, Kyu).

**Eumenes (Eumenes) coronatus** (Panzer, 1799) [*Vespa*] (*E. atricornis* Fabricius, 1804; *E. costata* (!): Luciani, 1845; *Eumenis* (!) *mediterranea* var. *neesii* Kriechbaumer, 1879; *Eumenes coarctatus* var. *opulenta* Blüthgen, 1938; *E. coarctatus detonsus* Blüthgen, 1943; *E. coarctatus* ab. *nigrotibia* Hellén, 1944; *E. coarctatus* var. *niger* Szulczewski, 1950; *E. coarctatus ibericus* Blüthgen, 1956; *E. coronatus corruetus* Gusenleitner, 1972). Russia: **EP** (NW, C, E, NC, CR), **UR**, **WS** (AL), **ES** (IR, BR, ZB), **FE** (AM, KH, PR, KU). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Israel, Iran, Central Asia, Kazakhstan, Mongolia, China (NE, SW), Korean Peninsula, Japan (Kyu).

**Eumenes (Eumenes) crimensis** Blüthgen, 1938 (*E. dubius crimensis* Blüthgen, 1938; *E. sareptanus scabrosus* Gusenleitner, 1972). Russia: **EP** (CR). – Iran, Turkmenistan, Uzbekistan, Kazakhstan.

**Eumenes (Eumenes) dubius** de Saussure, 1852 (*E. dubius dubius* var. *palaestinensis* Blüthgen, 1938;

- E. dubius dubius* var. *macedonica* Blüthgen, 1952). Russia: **EP** (NC, CR). – Europe (WE, EE, SE), N Africa, Caucasus, Turkey, Cyprus, Syria, Jordan, Lebanon, Israel, Iraq, Iran, Turkmenistan, Tajikistan, Kazakhstan, S America (introduced).
- Eumenes (Eumenes) fraterculus** Dalla Torre, 1894 (*E. fraterna* Smith, 1873, nom. praeocc., nec Say, 1824). Russia: **FE** (AM, KH, PR). – China (NE, CC), Japan (Hon, Shi, Kyu, Ryu).
- Eumenes (Eumenes) glacialis** Giordani Soika, 1940. Russia: **ES** (IR). – Mongolia.
- Eumenes (Eumenes) kiangsuensis** Giordani Soika, 1941. Russia: **FE** (PR). – China (NE, CC, SE), Korean Peninsula.
- Eumenes (Eumenes) mediterraneus** Kriechbaumer, 1879 [Eumenis] (*E. affinissima* race *quettaensis* Cameron, 1907; *Labus superbus* Meade-Waldo, 1910; *E. mediterraneus bengasinus* Blüthgen, 1938; *E. mediterraneus cypricus* Blüthgen, 1938; *E. houskai* Giordani Soika, 1952; *E. mediterraneus anatolicus* Giordani Soika, 1952; *E. mediterraneus manchurianus* Giordani Soika, 1971; *E. mediterraneus* var. *opacus* Gusenleitner, 1972). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Cyprus, Syria, Jordan, Lebanon, Israel, Saudi Arabia, Yemen, UAE, Oman, Iraq, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, Mongolia, China (NE, NC, NW, CC), Korean Peninsula, Tahiti (introduced).
- Eumenes (Eumenes) micado** Cameron, 1904 (*E. samuray* von Schulthess, 1908; *E. samurayi* (!) *rufescens* Giordani Soika, 1973). Russia: **FE** (KU). – ?China (NC), Japan (Hok, Hon, Shi, Kyu, Ryu).
- Eumenes (Eumenes) mongolicus** Morawitz, 1889 (*E. coarctatus* var. *mongolicus* Morawitz, 1889). Russia: **WS** (AL), **ES** (IR, BR, ZB). – Kyrgyzstan, Mongolia, China (NC, WP).
- Eumenes (Eumenes) papillarius** (Christ, 1791) [Sphex] (*E. bipunctis* de Saussure, 1852; *E. bimaculatus* André, 1884; *E. papillarius* var. *baltica* Blüthgen, 1938; *E. papillarius monticola* Blüthgen, 1956; *E. papillarius rubricornis* Gusenleitner, 1972). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), Caucasus, Turkey, Syria, Lebanon, Israel, Iran, Pakistan, Central Asia, Kazakhstan, Mongolia.
- Eumenes (Eumenes) pedunculatus** (Panzer, 1799) [Vespa] (*E. eburneopictus* Giordani Soika, 1940; *E. pedunculatus turanus* Blüthgen, 1943; *E. pedunculatus* var. *lapponica* Hellén, 1944; *E. karafutonis* Sk. Yamane, 1977). Russia: **EP** (NW, C, E), **UR**, **WS** (OM, TK, NS, AL), **ES** (KR, IR, BR, YA, ZB), **FE** (PR, SA). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan, Mongolia, China (SW).
- Eumenes (Eumenes) pomiformis** (Fabricius, 1781) [Vespa] (*Eumenis* (!) *mediterranea* var. *heri* Kriechbaumer, 1879; *Eumenes fastidiosissimus* Giordani Soika, 1943; *E. pomiformis turcicus* Giordani Soika, 1952). Russia: **EP** (S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Lebanon, UAE, Pakistan, Central Asia, Kazakhstan, China (SW), Korean Peninsula, India.
- Eumenes (Eumenes) punctaticlypeus** Giordani Soika, 1943 (*E. robustus* Kostylev, 1940, nom. praeocc., nec Isely, 1917; *E. calabricus* Giordani Soika, 1943; *E. kostylevi* Kurzenko, 1976). Russia: **EP** (CR), **WS** (AL). – Europe (WE, SE, EE), Turkey, Iran, Central Asia, Kazakhstan.
- Eumenes (Eumenes) punctatus** de Saussure, 1852 (*E. formosensis nigrior* Giordani Soika, 1973; *E. asioboreus* Kim et Sk. Yamane, 2001). Russia: **FE** (KH, PR). – Pakistan, Mongolia, China (NE, NC, CC, SW, SE), Korean Peninsula, Japan (Tsushima), India, Sri Lanka.
- Eumenes (Eumenes) rubronotatus** Pérez, 1905 (*E. dimidiaticlypeus* Giordani Soika, 1973). Russia: **FE** (PR). – China (NE, CC, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu), SE Asia.
- Eumenes (Eumenes) sareptanus** André, 1884 (*E. pomiformis* f. *insolata* Müller, 1923; *E. dubius sareptanus* var. *germanica* Blüthgen, 1938). Russia: **EP** (E, S, NC, CR), **UR**, **WS** (OM, NS, AL). – Europe (WE, SE, EE), Caucasus, Turkey, Central Asia, Kazakhstan.
- Eumenes (Eumenes) septentrionalis** Giordani Soika, 1940 (*E. septentrionalis khangmarensis* Giordani Soika, 1966; *E. glacialis*: Kurzenko, 1995). Russia: **ES** (IR, BR, ZB), **FE** (AM, KH, PR). – Mongolia, China (NE, WP).
- Eumenes (Eumenes) subpomiformis** Blüthgen, 1938 (*E. subpomiformis crassipunctatus* Blüthgen, 1956). Russia: **EP** (NC). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Lebanon, Israel, Central Asia, Kazakhstan.
- Eumenes (Eumenes) transbaicalicus** Kurzenko, 1984. Russia: **ES** (BR). – Mongolia, China (NE).
- Eumenes (Eumenes) tripunctatus** (Christ, 1791) [Sphex] (*E. venusta* Fischer-Waldheim, 1843). Russia: **EP** (E, S, NC, CR), **UR**. – Europe (EE), Iran, Turkmenistan, Kazakhstan, Mongolia, China (NC, NW, WP).

**EUODYNERUS** Dalla Torre, 1904. Type species *Vespa dantici* Rossi, 1790. Females nest mainly in various preexisting cavities: hollow stems, beetle burrows in wood and abandoned nests of other wasps and bees, partitions between cells are made of mud; several Nearctic species excavate nest burrows in ground and surmount them by turrets; provision is various caterpillars (mainly of Microlepidoptera) or rarely larvae of Chrysomelidae. The genus is distributed worldwide and includes three subgenera: *Euodynerus* s.str.; *Incolepipona* Giordani Soika, 1995; *Pareuodynerus* Blüthgen, 1938. Number of species: World – 104; Palaearctic – 44; Russia – 9.

**Euodynerus (Euodynerus) caspicus** (Morawitz, 1873) [Leionotus] (*Lionotus cardinalis* Morawitz, 1885; *E. caspicus astrachanensis* Blüthgen, 1942). Russia: **EP** (S). – Armenia, Azerbaijan, Iran, Turkmenistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NC, NW).

**Euodynerus (Euodynerus) dantici** (Rossi, 1790) [Vespa] (*Odynerus postscutellatus* Lepeletier de Saint Fargeau, 1814; *O. tinctus* Walker, 1871; *O. dantici brachytomus* Kostylev, 1940; *E. dantici iberogallicus* Blüthgen, 1942; *E. dantici pamiricus* Blüthgen, 1942; *O. dantici* var. *lagostae* Giordani Soika, 1942; *E. espanyoli* Vergés, 1965; *O. dantici violaceipennis* Giordani Soika, 1973; *E. dantici nigrescens* Gusenleitner, 1979; *O. dantici poggii* Giordani Soika, 1986). Russia: **EP** (S, NC, CR), **UR**, **ES** (BR, ZB), **FE** (PR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Syria, Jordan, Lebanon, ?Israel, Iran, Afghanistan, Central Asia, Kazakhstan, Mongolia, China (NE, NC, NW, CC, SE), Korean Peninsula, Japan (Hon, Shi, Kyu, Ryu), SE Asia.

**Euodynerus (Euodynerus) disconotatus** (Lichtenstein, 1884) [Odynerus] (*Lionotus sulfuripes* Morawitz, 1885; *Odynerus kokpeticus* Radoszkowski, 1886; *O. collariventris* Giordani Soika, 1942; *E. disconotatus albidus* Blüthgen, 1951; *E. disconotatus laniensis* Giordani Soika, 1979). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), Caucasus, Turkey, Cyprus, Jordan, Saudi Arabia, Iraq, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan.

**Euodynerus (Euodynerus) fastidiosus** (de Saussure, 1853) [Odynerus] (*Odynerus germabicus* Radoszkowski, 1893; *O. garmabicus* (!): Dalla Torre, 1904). Russia: **EP** (S, NC, CR). – Europe (WE, SE), N Africa, Caucasus, Turkey, Syria, Lebanon, Oman, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, China (NC).

**Euodynerus (Euodynerus) velutinus** Blüthgen, 1951 (*Odynerus curictensis*: Kostylev, 1940). Russia: **EP** (CR). – Europe (SE: Greece), Caucasus, Turkey.

**Euodynerus (Pareuodynerus) nipanicus** (von Schulthess, 1908) [Lionotus] (*Lionotus tomentosus* var. *nipanicus* von Schulthess, 1908; ?*Rhynchium seuli* Radoszkowski, 1890; *Odynerus micado* (!): Matsu-mura, 1911; *O. flaviclypeatus* Sonan, 1930; *Rh. satsumanus* Sonan, 1930; *Euodynerus notatus tonkinensis* Giordani Soika, 1973; *E. nipanicus* (!): Giordani Soika, 1982; *E. notatus flavicornis* Sk. Yamane, 1987; *E. notatus ryukyuensis* Tano, 1987; *E. notatus*: Kurzenko, 1995, 2012). Russia: **ES** (ZB), **FE** (AM, KH, PR, SA, MG). – ?Mongolia, China (NE, NC, CC, SW, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu), SE Asia.

**Euodynerus (Pareuodynerus) notatus** (Jurine, 1807) [Vespa] (?*Odynerus bisstrigatus* Spinola, 1808; *O. nigripes* Herrich-Schäffer, 1839; ?*O. maculatus* Lepeletier de Saint Fargeau, 1841; *O. clypealis* Thomson, 1870; *O. pubescens* Thomson, 1870; *O. unguularis* Thomson, 1870; ?*O. pubescens* var. *cupreus* von Schulthess, 1897; *Euodynerus notatus* var. *pernotata* Blüthgen, 1938; *E. notatus cyrenai-cus* Giordani Soika, 1986). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (IR, BR, YA, ZB), ?**FE** (AM, KH, PR, SA, MG). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Iran, Kazakhstan, Mongolia, ?China (NC).

**Euodynerus (Pareuodynerus) posticus** (Herrich-Schäffer, 1841) [Odynerus] (*Odynerus innumera-bilis* de Saussure, 1853; *O. graphicus* de Saussure, 1853; *O. differens* Morawitz, 1895; *Euodynerus cephalicus* Blüthgen, 1944; *Pseudepipona postica punctatissima* Giordani Soika, 1952; *E. posticus posticus* var. *notatiformis* Blüthgen, 1955; *E. posticus punctatissimus* var. *nahariensis* Blüthgen, 1955). Russia: **EP** (S, NC, CR). – Europe (WE, EE, SE), N Africa, Caucasus, Turkey, Israel, Iran.

**Euodynerus (Pareuodynerus) quadrifasciatus** (Fabricius, 1793) [Vespa] (*Vespa quadricincta* Fabricius, 1793; *V. simplex* Fabricius, 1793; *Odynerus lindemii* Lepeletier de Saint Fargeau, 1841; *O. tomentosus* Thomson, 1870; *Pseudepipona sachalinensis* Yasumatsu, 1938; *Euodynerus quadrifasciatus* var. *pseudonotata* Blüthgen, 1939; *E. quadrifasciatus atripes* Giordani Soika, 1976; *E. quadrifasciatus rubrosignatus* Gusenleitner, 1984; *E. quadrifasciatus rufipes* Gusenleitner, 1984; *E. quadrifasciatus eburnus* Sk. Yamane, 1987). Russia: **EP** (N, NW, C,



E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, AL), **ES** (KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, MG). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Kazakhstan, Mongolia, China (NE), Korean Peninsula, Japan (Hok, Hon).

**EUSTENANCISTROCERUS** Blüthgen, 1938. Type species *Odynerus blanchardianus* de Saussure, 1855. Females nest in ground and excavate burrows surmounted by turrets; provision is caterpillars of Coleophoridae. The genus is distributed in the Palaearctic and Afrotropical regions and includes three subgenera: *Eustenancistrocerus* s.str.; *Hemistenancistrocerus* Blüthgen, 1938; *Parastenancistrocerus* Blüthgen, 1938. Number of species: World – 20; Palaearctic – 17; Russia – 2.

**Eustenancistrocerus (Eustenancistrocerus) tegularis** (Morawitz, 1885) [Lionotus]. Russia: **EP** (NC). – ?Europe (SE: Greece), Caucasus, ?Iran, Central Asia, Kazakhstan.

**Eustenancistrocerus (Parastenancistrocerus) amadanensis** (de Saussure, 1855) [Odynerus] (*Odynerus turca* de Saussure, 1863; *O. transitorius* Morawitz, 1867; *O. lobatus* André, 1883; *Ancistrocerus iranensis* Giordani Soika, 1943; *Eustenancistrocerus transitorius hoberlandti* Giordani Soika, 1952; *E. transitorius mauritaniensis* Giordani Soika, 1953; *E. lobatus flavellus* Giordani Soika, 1952). Russia: **EP** (S, NC, CR). – Europe (EE, SE), N Africa, Caucasus, Turkey, Cyprus, Syria, Israel, Saudi Arabia, Iraq, Iran, Pakistan, Central Asia, Kazakhstan.

**GYMNOMERUS** Blüthgen, 1938. Type species *Odynerus laevipes* Shuckard, 1837. Females nest in hollow stems where they build a compact row of cylindrical mud cells without plugs, the nest is stopped by an empty final cell filled with particles of soil and various plant material; provision is larvae of *Hypera* Germar (Curculionidae). The monotypic Palaearctic genus.

**Gymnomerus laevipes** (Shuckard, 1837) [Odynerus] (*Odynerus cognatus* Dufour, 1839; *O. rubicola* Dufour, 1839; *Pterochilus simplicipes* Herrich-Schäffer, 1839; *O. scandinavus* de Saussure, 1856; *O. sibiricus* Mocsáry, 1883; *O. levipes* (!): Dalla Torre, 1894; *O. algeriensis* Dusmet, 1928). Russia: **EP** (NW, C, E, ?S, NC, CR), **UR**, **WS** (TM, NS, AL), **ES** (BR, YA), **FE** (AM, PR, SA). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Iran, Kazakhstan, Mongolia.

**HEMIPTEROCHILUS** Ferton, 1909 (*Pseudopterochilus* van der Vecht, 1972). Type species *Odynerus terricola* Mocsáry, 1883. Females nest in ground and excavate vertical burrows surmounted by a small collar; provision is caterpillars of Noctuidae and Pyraustidae. The genus is distributed in the Palaearctic. Number of species: Palaearctic – 12; Russia – 1.

**Hemipterochilus bembeciformis** (Morawitz, 1867) [Odynerus] (*Odynerus terricola* Mocsáry, 1883; *O. sinuatofasciatus* Costa, 1888; *Hoplomerus tinniens*: Białynicki-Birula, 1926; *H. tinniens* var. *rubromaculatus* Białynicki-Birula, 1926; *Hoplomerus tinniens turcestanicus* Białynicki-Birula, 1926; *Pterochilus bembeciformis* var. *circensis* Giordani Soika, 1942). Russia: **EP** (E, S, NC, CR), **UR**. – Europe (WE, SE, EE), Caucasus, Turkey, Central Asia, Kazakhstan.

**JUCANCISTROCERUS** Blüthgen, 1938 (*Jucancistrocerus* (!): Blüthgen, 1951). Type species *Odynerus jucundus* Mocsáry, 1883. Females nest in vertical clay cliffs and excavate burrows surmounted by turrets; provision is larvae of Curculionidae. The genus is distributed in the Palaearctic and includes two subgenera: *Eremodynerus* Blüthgen, 1939; *Jucancistrocerus* s.str. Number of species: Palaearctic – 13; Russia – 2.

**Jucancistrocerus (Jucancistrocerus) caspicus** Giordani Soika, 1970. Russia: **EP** (S, NC). – Europe (EE: Ukraine), Caucasus, Turkey, Iran, Kazakhstan.

**Jucancistrocerus (Jucancistrocerus) minutepunctatus** Giordani Soika, 1970. Russia: **EP** (S). – Armenia, Azerbaijan.

**KATAMENES** Meade-Waldo, 1910. Type species *Katamenes watsoni* Meade-Waldo, 1910. Females build aerial nests attached to stones and consisted of one or several juglike cells build of pebbles confirmed and covered with mud, the nest is usually covered by additional layer of pebbles confirmed with mud; provision is caterpillars of Noctuidae, Pieridae, Lyceanidae and Pterophoridae. The genus is distributed in the Palaearctic, Afrotropical, and Oriental regions. Number of species: World – 14; Palaearctic – 13; Russia – 5.

**Katamenes arbustorum** (Panzer, 1799) [Vespa] (*Eumenes amedei* Lepelletier de Saint Fargeau, 1841; *E. friwaldszkyi* Herrich-Schäffer, 1841; *E. tabida* Eversmann, 1854; *E. arbustorum* var. *burlinii* Giordani

Soika, 1949; *K. arbustorum soikai* Borsato, 1993). Russia: **EP** (E), **UR**. – Europe (WE, SE, EE), ?Kazakhstan.

**Katamenes dimidiatus** (Brullé, 1832) [Eumenes] (*?E. fulva* var.  $\beta$  Eversmann, 1854; *E. montana* Nurse, 1904; *K. watsoni* Meade-Waldo, 1910; *E. arbustorum*: Kostylev, 1928, 1929; *?K. sesquicinctus radoszkowskii* Blüthgen, 1962; *K. dimidiatus arrectus* Giordani Soika, 1970). Russia: **EP** (S, CR), **UR**. – Europe (SE, EE), Caucasus, Turkey, Cyprus, Syria, Israel, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, Mongolia, China (NC).

**Katamenes flavigularis** (Blüthgen, 1951) [Eumenes] (*E. arbustorum flavigularis* Blüthgen, 1951; *E. arbustorum* var. *tabidus*: Kostylev, 1928; *K. arbustorum*: Tobias, Kurzenko, 1978). Russia: **EP** (NC, CR). – Europe (SE, EE), ?Caucasus, Turkey, Syria, Lebanon, Iran, Afghanistan, Tajikistan.

**Katamenes sichelii** (de Saussure, 1852) [Eumenes] (*?Eumenes fluctuans* de Saussure, 1852; *E. fulva* Eversmann, 1854; *E. baerii* Radoszkowski, 1865; *E. sichelii* var. *biblicus* Giordani Soika, 1935; *E. sichelii* var. *fulvoides* Giordani Soika, 1949; *E. sichelii* var. *luristanensis* Giordani Soika, 1949; *E. sichelii tauriae* Giordani Soika, 1960; *K. sichelii hispanicus* Giordani Soika, 1966; *K. sichelii pseudofulvus* Giordani Soika, 1966; *K. sichelii coranicus* Giordani Soika, 1970; *K. sichelii timanensis* Giordani Soika, 1986). Russia: **EP** (S), **UR**. – Europe (SE), N Africa, Caucasus, Turkey, Jordan, Israel, Saudi Arabia, UAE, Iraq, Iran, Afghanistan, Central Asia, Kazakhstan, Mongolia, China (WP), India.

**Katamenes tauricus** (de Saussure, 1855) [Eumenes] (*E. latipes* Sickmann, 1894; *E. arbustorum* var. *baicalensis* Kokujev, 1927; *E. latipes* var. *viratus* Giordani Soika, 1949; *E. sesquicinctus viratus* var. *caspica* Blüthgen, 1952). Russia: **EP** (CR), **WS** (AL), **ES** (TU, IR, BR). – Iran, Afghanistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NC), India.

**LEPTOCHILUS** de Saussure, 1853. Type species *Pterochilus mauritanicus* Lepeletier de Saint Fargeau, 1841. Females nest in various preexisting cavities: hollow stems, beetle burrows in wood or empty snail shells; partitions between cells are made of sand or gravel, several species use also macerated pith in addition to mineral material or build partitions of shell bits and sand confirmed with mud or resin; provision is caterpillars of various Microlepidoptera or beetle larvae (usually Curculionidae

or Chrysomelidae). The genus is distributed worldwide except Australia and includes six subgenera: *Euleptochilus* Blüthgen, 1943; *Leptochilus* s.str.; *Lionotulus* Blüthgen, 1938; *Neoleptochilus* Blüthgen, 1961; *Sarochilus* Gusenleitner, 1970; *Zendalia* Robertson, 1928. Number of species: World – 197; Palaearctic – 137; Russia – 6.

**Leptochilus (Euleptochilus) limbiferus** (Morawitz, 1867) [Odynerus] (*L. limbiferus anatolicus* Blüthgen, 1955; *L. limbiferus achaeus* Gusenleitner, 1970). Russia: **EP** (NC). – Europe (SE, EE), Armenia, Turkey.

**Leptochilus (Lionotulus) alpestris** (de Saussure, 1855) [Odynerus] (*O. trinacriae* André, 1883; *Leptochilus alpestris* var. *grandii* Giordani Soika, 1947; *L. alpestris alpestris* var. *bulsanensis* Blüthgen, 1953; *L. alpestris iberobarbarus* Blüthgen, 1953; *L. alpestris iberobarbarus* var. *rufina* Blüthgen, 1953; *L. guichardi* Giordani Soika, 1973; *L. astrictus* Giordani Soika, 1986). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Jordan, Turkmenistan.

**Leptochilus (Lionotulus) ergenicus** (Kostylev, 1940) [Odynerus]. Russia: **EP** (S). – Kazakhstan.

**Leptochilus (Lionotulus) membranaceus** (Morawitz, 1867) [Odynerus] (*L. membranaceus luxuriosus* Blüthgen, 1955). Russia: **EP** (E, S, NC, CR). – Europe (SE, EE), Caucasus, Turkey, Israel, Iran, Turkmenistan, Uzbekistan, Kazakhstan.

**Leptochilus (Lionotulus) signatus** Gusenleitner, 1995 (*L. signatus gueruensis* Gusenleitner, 1995). Russia: **EP** (NC). – Turkey.

**Leptochilus (Neoleptochilus) regulus** (de Saussure, 1855) [Odynerus] (*O. gallicus* de Saussure, 1855; *?O. calabricus* Gribodo, 1881; *O. siculus* De Stefani, 1883; *O. costae* Costa, 1884; *O. buyssoni* Medina, 1891; *?O. pauli* Medina, 1892; *O. perforatus* Dusmet, 1903; *O. obtusidentatus* Moidl, 1922; *Microdynerus wuczetici* Kostylev, 1928). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Cyprus, Syria, Jordan, Iran.

**MICRODYNERUS** Thomson, 1874. Type species *Odynerus exilis* Herrich-Schäffer, 1839. Females of the nominotypical subgenus nest in preexisting cavities (hollow stems or beetle burrows in wood), partitions between cells are made of mud; species of the subgenus *Pseudomicrodynerus* excavate burrows in pith of plant stems and braches; nesting of the subgenus *Alastorynerus* is unknown;

provision is larvae of Curculionidae or caterpillars of Microlepidoptera. The genus is distributed in the Holarctic and includes three subgenera: *Alastorynerus* Blüthgen, 1938; *Microdynerus* s.str.; *Pseudomicrodynerus* Blüthgen, 1938. Number of species: World – 53; Palaeartic – 37; Russia – 7.

**Microdynerus (Alastorynerus) microdynerus** (Dalla Torre, 1889) [Odynerus] (*M. alastoroides* Morawitz, 1885, nom. praeocc., nec de Saussure, 1852; *M. tridentatus* Kostylev, 1935). Russia: **EP** (S, CR). – Europe (SE, EE), Caucasus, Turkey, Jordan, Iran, Tajikistan, Kazakhstan.

**Microdynerus (Microdynerus) exilis** (Herrich-Schäffer, 1839) [Odynerus] (*O. bivittatus* Lapeletier de Saint Fargeau, 1841). Russia: **EP** (E, ?S, NC). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey.

**Microdynerus (Microdynerus) longicollis** Morawitz, 1895 (*Odynerus patagiatus* von Schulthess, 1897; *Microdynerus patagiatus sicanius* Blüthgen, 1964). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Turkey, Turkmenistan.

**Microdynerus (Microdynerus) mirandus** (Giordani Soika, 1947) [Leptochilus]. Russia: **EP** (CR). – Europe (SE, EE), Turkey.

**Microdynerus (Microdynerus) nugdunensis** (de Saussure, 1855) [Odynerus] (*M. nugdunensis sicelis* Blüthgen, 1964; *Leptochilus micans* Giordani Soika, 1986). Russia: **EP** (E, NC, CR). – Europe (WE, SE, EE), Azerbaijan, Turkey.

**Microdynerus (Microdynerus) timidus** (de Saussure, 1856) [Odynerus] (*Vespa minuta* Fabricius, 1798, nom. praeocc., nec Linnaeus, 1767; ?*Odynerus ruskysky* Dusmet, 1917; *Microdynerus timidus adustus* Gusenleitner, 1977). Russia: **EP** (CR). – Europe (WE, NE, SE, EE), N Africa.

**Microdynerus (Pseudomicrodynerus) parvulus** (Herrich-Schäffer, 1838) [Odynerus] (*O. helveticus* de Saussure, 1855; *Microdynerus bifidus* Morawitz, 1885). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL). – Europe (WE, SE, EE), Caucasus, Turkey, Iran, Uzbekistan, Kazakhstan.

**ODYNERUS** Latreille, 1802 (*Odynera* (!): Illiger, 1807; *Epipone* Kirby et Spence, 1815, nec Latreille, 1804; *Oplopus* Wesmael, 1836, nec Laporte, 1832; *Oplomerus* Westwood, 1840, nec Dejean, 1833; *Hoplomerus* (!): Agassiz, 1846; *Hoplopus* (!): Agassiz, 1846; *Epiponus* (!): de Saussure, 1875; *Hoplonus* (!): Dalla Torre, 1889; *Euepipona* Dalla Torre, 1904;

*Odynerus* (!): Wolcott, 1924). Type species *Vespa spinipes* Linnaeus, 1758. Females of most species nest in ground (on both vertical and horizontal surfaces) and excavate burrows (containing several cells) surmounted by turrets; provision is larvae of *Hypera* Germar (Curculionidae) or rarely larvae of Tenthredinidae (in subgenus *Monoplomerus*). Some Nearctic species nest in preexisting holes in ground and use pressed soil to make partitions between cells (they do not construct turrets and do not use water during the building works); their provision is caterpillars of Gelechiidae. The genus is distributed in the Holarctic and Afrotropical regions and includes three subgenera: *Monoplomerus* Blüthgen, 1941; *Odynerus* s.str.; *Spinicoxa* Blüthgen, 1938. Number of species: World – 45; Palaeartic – 39; Russia – 12.

**Odynerus (Odynerus) alpinus** von Schulthess, 1897 (*O. spinipes* var. *alpinus* von Schulthess, 1897). Russia: **EP** (NC), **WS** (AL), **ES** (KR, IR, BR, YA, ZB), **FE** (KH, MG). – Europe (WE, SE, EE), Turkey, Tajikistan, Mongolia.

**Odynerus (Odynerus) femoratus** de Saussure, 1856 (*O. duskei* Morawitz, 1895). Russia: **EP** (S, NC, CR), **ES** (IR, BR). – Europe (WE, SE, EE), Caucasus, Turkey, Syria, Israel, Iran.

**Odynerus (Odynerus) melanocephalus** (Gmelin, 1790) [Vespa] (*Pterocheilus dentipes* Herrich-Schäffer, 1839; *P. serripes* Taschenberg, 1866; *O. sareptanus* André, 1884; *Hoplomerus armeniacus* Morawitz, 1885; *H. melanocephalus* var. *combinata* Blüthgen, 1940; *H. armeniacus* var. *plurinotata* Blüthgen, 1941; *H. melanocephalus tadschicus* Blüthgen, 1941; *H. melanocephalus melanocephalus* var. *luxuriosa* Blüthgen, 1955; *O. melanocephalus robustus* Eck, 1971; *O. melanocephalus cypriacus* Eck, 1971; *O. melanocephalus latus* Eck, 1971). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (NS, KM, AL). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Cyprus, Syria, Jordan, Israel, Iraq, Iran, Afghanistan, Central Asia, Kazakhstan.

**Odynerus (Odynerus) poecilus** de Saussure, 1856 (*O. ruficornis* Rudow, 1876). Russia: **EP** (NC). – Europe (WE, SE, EE), Azerbaijan, Turkey.

**Odynerus (Odynerus) serricus** (Blüthgen, 1961) [Oplomerus] (*Odynerus serripes* Morawitz, 1867, nom. praeocc., nec *Pterocheilus serripes* Taschenberg, 1866). Russia: **EP** (C, E, S), ?**WS** (OM, TK, AL). – ?Europe (EE), Turkey, Kyrgyzstan, Kazakhstan.

**Odynerus (Odynerus) spinipes** (Linnaeus, 1758) [Vespa] (*V. quinquefasciata* Fabricius, 1793; *Odynerus muticus* Zetterstedt, 1838; *O. spinipes* ab. *flaviscapus* Mader, 1936; *Hoplomerus spinipes* var. *scutellaris* Blüthgen, 1940; *H. spinipes amurensis* Blüthgen, 1941). Russia: **EP** (NW, C, E, NC), **UR**, **WS** (TK, AL), **ES** (IR, BR), **FE** (KH, PR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Tajikistan, Kazakhstan, Mongolia.

**Odynerus (Odynerus) tristis** (Blüthgen, 1939) [Hoplomerus] (*O. tristis tianschanicus* Kurzenko, 1977). Russia: **EP** (NC). – Tajikistan, Kyrgyzstan, Kazakhstan, China (NW).

**Odynerus (Spinicoxa) albopictus** de Saussure, 1856 (*Hoplomerus calcaratus* Morawitz, 1885; *H. rufospinosus* Morawitz, 1895; *Odynerus rufospinosus* var. *argivus* von Schulthess, 1924; *O. albopictus kazakhstanicus* Kurzenko, 1977). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), ?N Africa, Caucasus, Turkey, Syria, Jordan, Israel, Iraq, Iran, Turkmenistan, Uzbekistan, Kazakhstan.

**Odynerus (Spinicoxa) cuneiformis** Kostylev, 1940. Russia: **ES** (TU, BR), **FE** (AM, KH). – Mongolia.

**Odynerus (Spinicoxa) fulvitaris** (Morawitz, 1895) [Hoplomerus]. Russia: **EP** (S, NC). – Caucasus, Turkey, Turkmenistan, Uzbekistan, Kazakhstan.

**Odynerus (Spinicoxa) reniformis** (Gmelin, 1790) [Vespa] (?*Vespa sexfasciata* Fabricius, 1781; *V. melanochra* Gmelin, 1790; *Pterochelilus coxalis* Herich-Schäffer, 1839; *Odynerus reaumurii* Dufour, 1839; *O. dufourii* Lapeletier de Saint Fargeau, 1841; *O. velox* de Saussure, 1853; ?*O. depressus* André, 1883; *Hoplomerus reniformis balcanicus* Blüthgen, 1960). Russia: **EP** (NW, C, E), **UR**, **WS** (TK, AL), **ES** (TU, BR, YA, ZB). – Europe (WE, NE, SE, EE), N Africa, Turkey, Israel, Kazakhstan.

**Odynerus (Spinicoxa) simillimus** Morawitz, 1867 (*O. dentifer* Drogoszewski, 1934). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (NS, AL), **ES** (KR, IR, YA). – Europe (WE, EE), Caucasus, Turkey, Israel, Turkmenistan, Kazakhstan, Mongolia.

**ONYCHOPTEROCHEILUS** Blüthgen, 1955. Type species *Odynerus daw* Dusmet, 1903. Females excavate nest burrows in friable soil without using water; provision is caterpillars. The genus is distributed in the Palaeartic and includes five subgenera: *Acutopterocheilus* Kurzenko, 1988; *Asiapterocheilus* Kurzenko, 1988; *Ghilarocheilus* Kurzenko, 1988; *Neopterocheilus* Kurzenko, 1988;

*Onychopterocheilus* s.str. Number of species: Palaeartic – 60; Russia – 4.

**Onychopterocheilus (Acutopterocheilus) sareptanus** (Kurzenko, 1976) [Pterochelilus]. Russia: **EP** (S).

**Onychopterocheilus (Onychopterocheilus) crabroniformis** (Morawitz, 1867) [Odynerus] (*Pterochelilus albopictus*: Morawitz, 1895, Kostylev, 1940). Russia: **EP** (S), **UR**, **WS** (AL), **ES** (KR). – Kazakhstan.

**Onychopterocheilus (Onychopterocheilus) eckloni** (Morawitz, 1885) [Pterochelilus]. Russia: **ES** (TU, IR, BR, ZB). – Mongolia, China (NC).

**Onychopterocheilus (Onychopterocheilus) pallasii** (Klug, 1805) [Pterochelilus] (*P. latipalpis* Lapeletier de Saint Fargeau, 1841). Russia: **EP** (E, S, NC, CR), **UR**, **WS** (OM, NS, AL). – Europe (EE), Turkey, Kazakhstan, Mongolia.

**PARAGYMNOMERUS** Blüthgen, 1938. Type species *Odynerus spiricornis* Spinola, 1808. Females nest in ground (on both vertical and horizontal surfaces) and excavate burrows contained several cells and surmounted by turrets; provision is larvae of Pamphiloidea. The genus is distributed in the Palaeartic. Number of species: Palaeartic – 7; Russia – 1.

**Paragymnomerus signaticollis** (Morawitz, 1888) [Hoplomerus] (*H. semenowi* Morawitz, 1895; *H. signaticollis semenovi* (!): Białynicki-Birula, 1926; *H. signaticollis* var. *lutescens* Białynicki-Birula, 1926; *Odynerus signaticollis tauricus* Kostylev, 1940). Russia: **EP** (CR). – Europe (EE), Azerbaijan, Turkey, Turkmenistan, Tajikistan, Uzbekistan.

**PARARRHYNCHIUM** de Saussure, 1855 (*Prorhynchium* de Saussure, 1855; *Prorrhynchium* (!): de Saussure, 1856; *Pararrhynchium* (!): de Saussure, 1862; *Parrhynchium* (!): Dalla Torre, 1894). Type species *Rhynchium ornatum* Smith, 1852. Females nest in preexisting cavities such as hollow stems, partitions between cells are made of mud; provision is caterpillars. The genus is distributed in the Palaeartic and Oriental regions. Number of species: World – 11; Palaeartic – 4; Russia – 1.

**Pararrhynchium paradoxum** (Gussakovskij, 1932) [Odynerus] (?*Pararrhynchium* (!) *paradoxum laetum* Giordani Soika, 1986). Russia: **FE** (PR). – China (CC, SE), Korean Peninsula, ?India.

**PARAVESPA** Radoszkowski, 1886 (*Theletor* Kokujev, 1913). Type species *Paravespa komarowii*

Radoszkowski, 1886. Females nest in ground and excavate vertical burrows surmounted by turrets; provision is caterpillars of Noctuidae. The genus is distributed in the Palaearctic and Afrotropical regions and includes two subgenera: *Gestrodynerus* Giordani Soika, 1961; *Paravespa* s.str. Number of species: World – 17; Palaearctic – 4; Russia – 1.

**Paravespa (Paravespa) rex** (von Schulthess, 1924) [Odynerus] (*O. rex* var. *clarior* von Schulthess, 1924; *O. rex* var. *obscurior* von Schulthess, 1924; *Hoplomerus jakobsoni* Białynicki-Birula, 1926; *P. regina* (!): Blüthgen, 1939; *P. rex* var. *rufina* Blüthgen, 1955; *P. rex* var. *submimetica* Blüthgen, 1955). Russia: **EP** (CR). – Turkey, Iran, Uzbekistan, Kyrgyzstan, Kazakhstan.

**PARODONTODYNERUS** Blüthgen, 1938 (*Parodontodynerus* (!): Blüthgen, 1961). Type species *Eumenes ephippium* Klug, 1817. Females build nests consisted of several barrel-shaped mud cells often placed within preexisting cavities such as hollow stems of caverns in stones; provision is beetle larvae (Coleoptera). The genus is distributed in the Palaearctic. Number of species: Palaearctic – 5; Russia – 1.

**Parodontodynerus ephippium** (Klug, 1817) [Eumenes] (*?Pterocheilus laetus* Herrich-Schäffer, 1839; *Odynerus dubius* de Saussure, 1852; *O. opacus* Morawitz, 1867; *O. schulthessi* Dusmet, 1903; *Odontodynerus ephippium anatoliae* Giordani Soika, 1951; *Parodontodynerus ephippium dalanicus* Kurzenko, 1976). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Caucasus, Turkey, Lebanon, Iran, Turkmenistan, Uzbekistan, Kazakhstan.

**PSEUDEPIPONA** de Saussure, 1856 (*Leptepipona* Blüthgen, 1951; *Metepipona* Blüthgen, 1951; *Trichepipona* Blüthgen, 1951; *Pseudopipona* (!): Giordani Soika, 1952; *Pseudepipone* (!): Bytinski-Salz, Gusenleitner, 1971). Type species *Odynerus herrichii* de Saussure, 1856. Females excavate nests in ground, on horizontal surfaces; provision is caterpillars of Microlepidoptera (mainly Gelechiidae). The genus is distributed in the Holarctic and Afrotropical regions and includes two subgenera: *Deuterepipona* Blüthgen, 1951; *Pseudepipona* s.str. Number of species: World – 34; Palaearctic – 32; Russia – 10.

**Pseudepipona (Deuterepipona) niveopicta** Giordani Soika, 1970. Russia: **EP** (NC). – Turkey.

**Pseudepipona (Deuterepipona) superba** (Morawitz, 1867) [Odynerus] (*O. hyalinipennis* André, 1884). Russia: **EP** (S, CR). – ?Azerbaijan.

**Pseudepipona (Deuterepipona) tricolor** Gusenleitner, 1976. Russia: **EP** (NC). – Iran, Kazakhstan.

**Pseudepipona (Pseudepipona) augusta** (Morawitz, 1867) [Odynerus] (*O. aurantiacus* Mocsáry, 1877). Russia: **EP** (?E, S, NC, CR), **UR**, **WS** (AL), **ES** (KR). – Europe (EE), Caucasus, Turkey, Kazakhstan, Mongolia, China (NC).

**Pseudepipona (Pseudepipona) beckeri** (Morawitz, 1867) [Odynerus] (*O. falsus*: Kostylev, 1928; *Pseudepipona lativentris*: Tobias, Kurzenko, 1978). Russia: **EP** (?E, S, CR). – Kazakhstan.

**Pseudepipona (Pseudepipona) herrichii** (de Saussure, 1856) [Odynerus] (*O. variegatus* Herrich-Schäffer, 1839, nom. praeocc., nec Fabricius, 1793; *O. basalis* Smith, 1857; *O. aldrichi* Fox, 1892; *Pseudepipona herrichii* var. *derufata* Blüthgen, 1951; *P. variegata mongolica* Giordani Soika, 1970; *P. herrichii afromontana* Gusenleitner, 1977). Russia: **EP** (E, S, NC, CR), **UR**, **WS** (OM, NS, AL), **ES** (KR, IR, BR, YA, ZB), **FE** (AM, PR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Syria, Central Asia, Kazakhstan, Mongolia, China (NE, NC, SW), N America.

**Pseudepipona (Pseudepipona) peculiarus** (Morawitz, 1895) [Odynerus]. Russia: **EP** (S). – Iran, Kazakhstan.

**Pseudepipona (Pseudepipona) rubiginosa** (André, 1884) [Odynerus]. Russia: **EP** (S). – ?Georgia.

**Pseudepipona (Pseudepipona) sellata** (Morawitz, 1885) [Lionotus]. Russia: **EP** (S, NC). – Azerbaijan, Turkey, Iran, Turkmenistan, Kazakhstan.

**Pseudepipona (Pseudepipona) tricarinata** (Kokujev, 1912) [Odynerus] (*O. herrichii* var. *tricarinatus* Kokujev, 1912). Russia: **EP** (S, NC). – Azerbaijan, Turkey, Kazakhstan, China (NC).

**PSILIGLOSSA** S. Saunders, 1872 (*Stenoglossa* de Saussure, 1852, nec Chaudoir, 1848; *Psiloglossa* (!): Dalla Torre, 1894). Type species *Raphiglossa odyneroides* S. Saunders, 1850. Females nest in hollow stems, partitions between cells are made of plant pith, soil particles or other pressed material; provision is beetle larvae (Coleoptera). The genus is distributed in the Palaearctic. Number of species: Palaearctic – 4; Russia – 1.

**Psiliglossa odyneroides** (S. Saunders, 1850) [Raphiglossa] (*P. odyneroides kozhantshikovi* Kostylev,

1940). Russia: **EP** (NC). – Europe (EE, SE), Caucasus, Turkey, Turkmenistan.

**PTEROCHEILUS** Klug, 1805 (*Pterochilus* (!): Illiger, 1807; *Pterochile* (!): Blanchard, 1840; *Pterochylus* (!): de Saussure, 1853; *Odontopterochilus* van der Vecht, 1971; *Nannopterochilus* Blüthgen, 1961). Type species *Vespa phalerata* Panzer, 1797. Females excavate nest burrows in friable soil without using water; provision is caterpillars (Psychidae and Noctuidae). The genus is distributed in the Holarctic and Afrotropical regions and includes four subgenera: *Megapterocheilus* Bohart, 1940; *Micropterocheilus* Bohart, 1940; *Onchopterocheilus* Bohart, 1940; *Pterocheilus* s.str. Number of species: World – 85; Palaeartic – 32; Russia – 2.

**Pterocheilus (Pterocheilus) phaleratus** (Panzer, 1797) [*Vespa*] (*P. interruptus* Klug, 1805; *P. klugii* Panzer, 1809; *Pterochilus* (!) *chevrieranus* de Saussure, 1856; *Pterochilus* (!) *formosus* Frivaldski, 1876; *Pterochilus* (!) *bezzii* Cobelli, 1892; *Pterochilus* (!) *phaleratus yeguasicus* Blüthgen, 1951; *Pterocheilus phaleratus tuberculatus* Blüthgen, 1955; *P. phaleratus kaszabi* Giordani Soika, 1970; *P. phaleratus luteiscapus* Gusenleitner, 1979; *P. phaleratus tibialis* Gusenleitner, 1991; *P. phaleratus suarezi* Gusenleitner, 1994; *P. phaleratus boreoibericus* Castro, 2003). Russia: **EP** (C, ?E, S, CR), **UR**, **WS** (NS, AL). – Europe (WE, NE, SE, EE), Georgia, Azerbaijan, Turkey, Kazakhstan, Mongolia.

**Pterocheilus (Pterocheilus) sibiricus** (Morawitz, 1867) [*Odynerus*] (*P. sibiricus* var. *fulvuleja* Blüthgen, 1955). Russia: **ES** (TU, BR, ZB). – Mongolia, China (NC).

**RHYNCHIUM** Spinola, 1806 (*Rygchium* (!) Spinola, 1806; *Rhynchium*: Billberg, 1820, emend. supported by ICZN, 1965, Opinion 747; *Rychium* (!): Billberg, 1820; *Rynchium* (!): Sturm, 1829; *Rhygchium* (!): de Saussure, 1853; *Rhynchiuum* (!): de Saussure, 1863; *Eurrhynchium* Dalla Torre, 1904; *Rygohium* (!): Willink, 1982). Type species *Rygchium europaeum* Spinola, 1806. Females nest in various pre-existing cavities: hollow stems, beetle burrows in wood and abandoned nests of other wasps and bees, partitions between cells are made of mud; provision is various caterpillars (mainly of Microlepidoptera). The genus is distributed in the Palaeartic, Afrotropical, Oriental, and Australian regions. Number of species: World – 21; Palaeartic – 5; Russia – 1.

**Rhynchium quinquecinctum** (Fabricius, 1787) [*Vespa*] (*Rh. tahitense* de Saussure, 1867; *Rh. fukaii* Cameron, 1911; *Rh. haemorrhoidale samurayi* Giordani Soika, 1973; *Rh. quinquecinctum murotai* Tano, 1983; *Rh. quinquecinctum nambui* Sk. Yamane, 1983). Russia: **FE** (KH, PR). – China (NE, NC, SE), Korean Peninsula, Japan (Hon, Shi, Kyu, Ryu), New Caledonia, Tahiti.

**STENANCISTROCERUS** de Saussure, 1863 (*Stenancistrocerus* (!): Dalla Torre, 1894; *Atropancistrocerus* Blüthgen, 1938). Type species *Odynerus atropos* Lepeletier de Saint Fargeau, 1841. Females build nests in vertical loam cliffs; provision is larvae of Curculionidae. The genus is distributed in the Palaeartic and Oriental regions and includes two subgenera: *Paratropancistrocerus* Blüthgen, 1938; *Stenancistrocerus* s.str. Number of species: World – 9; Palaeartic – 8; Russia – 1.

**Stenancistrocerus (Paratropancistrocerus) obstrictus** (Morawitz, 1895) [*Odynerus*]. Russia: **EP** (S, NC). – Caucasus.

**STENODYNERUS** de Saussure, 1863 (*Stemodynerus* (!): Rohwer, 1913; *Nannodynerus* Blüthgen, 1938; *Parhypodynerus* Giordani Soika, 1974). Type species *Odynerus chinensis* de Saussure, 1863. Females nest mainly in various pre-existing cavities such as hollow stems, galls and abandoned nests of other wasps and bees, partitions between cells are made of mud; several Nearctic species excavate nest burrows in ground and surmount them by turrets; provision is various caterpillars (mainly of Microlepidoptera) or rarely larvae of Chrysomelidae. The genus is distributed in the Holarctic, Oriental, and Neotropical regions. Number of species: World – 166; Palaeartic – 44; Russia – 16.

**Stenodynerus aequisculptus** (Kostylev, 1940) [*Odynerus*] (*Nannodynerus meyeri* Blüthgen, 1952; *Pseudepipona constrictiventris* Giordani Soika, 1952; *N. aequisculptus taurus* Gusenleitner, 1966; *S. aequisculptus inaequisculptus* Giordani Soika, 1979; *S. aequisculptus cretensis* Gusenleitner, 1985). Russia: **EP** (NC). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Cyprus, Syria, Lebanon, Israel, Pakistan, Central Asia, Kazakhstan.

**Stenodynerus bluethgeni** van der Vecht, 1971 (*Odynerus pictus* Herrich-Schäffer, 1839, nom. praecoc., nec Curtis, 1826; *O. dentisquama*: Morawitz, 1895, Kostylev, 1928). Russia: **EP** (NW, S, NC, CR), **UR**,

- WS** (NS), **ES** (KR, IR). – Europe (WE, SE, EE), Caucasus, Turkey, Iran, Turkmenistan, Kazakhstan, China (NE, NC).
- Stenodynerus chevrieranus** (de Saussure, 1855) [Odynerus] (*O. dufourianus* de Saussure, 1855; *O. germanicus*: Kostylev, 1928; *O. germanicus ponticus* Kostylev, 1928; *Nannodynerus chevrieranus* var. *eximia* Blüthgen, 1953). Russia: **EP** (C, ?E, S, NC, CR), **UR**. – Europe (WE, SE, EE), Caucasus, Turkey, Iran, Central Asia, Kazakhstan.
- Stenodynerus clypeopictus** (Kostylev, 1940) [Odynerus] (*O. japonicus* Matsumura, 1926, nom. praecoc., nec von Schulthess, 1908; *Nannodynerus hungaricus* Blüthgen, 1961). Russia: **EP** (NC), **FE** (KH, PR). – Europe (WE, SE, EE), Caucasus, Turkey, Kyrgyzstan, Kazakhstan, Mongolia, China (NC), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu).
- Stenodynerus fastidiosissimus** (de Saussure, 1855) [Odynerus] (*O. difficilis* Morawitz, 1867; *O. proximus* Morawitz, 1867, nom. praecoc., nec de Saussure, 1857; *O. laborans* Costa, 1882; *O. insularis* André, 1883, nom. praecoc., nec Smith, 1857; *O. maroccanus* Dalla Torre, 1889; *O. ferrugineitarsis* De Stefani, 1889; *O. insulicola* Dalla Torre, 1894; *O. punctuosus* Ferton, 1901; *Nannodynerus vergesi* Giordani Soika, 1961; *Stenodynerus difficilis judaicus* Gusenleitner, 1970; *S. fastidiosissimus rufescens* Giordani Soika, 1977). Russia: **EP** (S, NC, CR), **UR**, **WS** (AL). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iraq, Iran, Central Asia, Kazakhstan.
- Stenodynerus frauenfeldi** (de Saussure, 1867) [Odynerus] (*O. nigriclypeatus* Sonan, 1930). Russia: **FE** (PR, SA, KU). – China (NE, NC, CC, SW), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu).
- Stenodynerus funebris** (André, 1884) [Odynerus] (*O. limbonotatus* Kostylev, 1940). Russia: **ES** (BR, YA), **FE** (AM, KH, PR). – China (NE, NC), Korean Peninsula.
- Stenodynerus orenburgensis** (André, 1884) [Odynerus] (*Lionotus orbitalis* Thomson, 1874, nom. praecoc., nec *Odynerus orbitalis* Herrich-Schäffer, 1839). Russia: **EP** (C, S, NC, CR), **UR**, **WS** (OM, AL), **ES** (IR, BR, YA). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Kyrgyzstan, Kazakhstan, Mongolia, China (NE).
- Stenodynerus pappi** Giordani Soika, 1976 (*Parancistrocerus ussuriensis* Kurzenko, 1982; *S. pappi luteifasciatus* Kim et Sk. Yamane, 2004). Russia: **FE** (PR). – China (NE, NC, CC, SW, SE), Korean Peninsula.
- Stenodynerus picticus** (Thomson, 1874) [Lionotus]. Russia: **EP** (N, NW, C), **UR**, **WS** (TK, AL), **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KA, MG). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan, Mongolia.
- Stenodynerus pullus** Gusenleitner, 1981. Russia: **ES** (BR, ZB), **FE** (AM, PR). – Turkey, Mongolia, China (NC), Korean Peninsula.
- Stenodynerus punctifrons** (Thomson, 1874) [Lionotus]. Russia: **EP** (C), **UR**, **WS** (OM, NS, AL), **ES** (TU, IR, BR, YA, ZB), **FE** (AM, PR). – Europe (WE, SE, EE), Caucasus, Turkey, ?Iran, Kyrgyzstan, Kazakhstan, Mongolia.
- Stenodynerus sapidus** Giordani Soika, 1970. Russia: **EP** (S, NC). – Iran.
- Stenodynerus steckianus** (von Schulthess, 1897) [Odynerus] (*O. dentisquama* var. *steckianus* von Schulthess, 1897; *O. teutonicus* Blüthgen, 1937). Russia: **EP** (S, NC, CR), **UR**. – Europe (WE, SE, EE), Azerbaijan, Turkey, Kazakhstan.
- Stenodynerus tokyanus** (Kostylev, 1940) [Odynerus] (*S. tokyanus flavoscutellatus* Sk. Yamane et Gusenleitner, 1982). Russia: **FE** (PR). – Korean Peninsula, Japan (Hon, Shi, Kyu, Ryu).
- Stenodynerus xanthomelas** (Herrich-Schäffer, 1839) [Odynerus] (*O. germanicus* de Saussure, 1855). Russia: **EP** (C, E, S, NC, CR), **WS** (AL). – Europe (WE, SE, EE), Caucasus, Turkey, Iran, China (NE).
- SYMMORPHUS** Wesmael, 1836 (*Protodynerus* de Saussure, 1855; *Synomorphus* (!): Rohwer, 1917; *Odynerus*: Blüthgen, 1938; *Koptodynerus* Blüthgen, 1943). Type species *Odynerus elegans* Wesmael, 1833. Females nest in various preexisting cavities (hollow stems, galls, beetle burrows in wood, abandoned nests of other wasps and bees), partitions between cells are made of mud; provision is generally larvae of Chrysomelidae, some species hunt for caterpillars of Microlepidoptera (*S. debilitatus*) or larvae of *Cionus* Clairville (Curculionidae) (*S. gracilis*). The genus is distributed in the Holarctic, Oriental, and Neotropical regions and includes two subgenera: *Parasymmorphus* Cumming et van der Vecht, 1986; *Symmorphus* s.str. Number of species: World – 48; Palaearctic – 27; Russia – 14.
- Symmorphus (Symmorphus) allobrogus** (de Saussure, 1855) [Odynerus] (*S. bifasciatus*: Tobias, Kurzenko, 1978). Russia: **EP** (N, NW, C, NC), **UR**, **WS** (TK, NS, KM, AL), **ES** (KR, BR, YA, ZB), **FE** (PR, MG). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Kyrgyzstan, Kazakhstan, China (NC).

- Symmorphus (Symmorphus) angustatus** (Zetterstedt, 1838) [Odynerus] (*Odynerus alternanus* Zetterstedt, 1838; *O. suecicus* de Saussure, 1855; *O. laeiventrtris* Thomson, 1874; *Symmorphus hakutozamus* Tsuneki, 1986; *S. nansetsurei* Tsuneki, 1986; *S. iwatai* Sk. Yamane, 1990). Russia: **EP** (N, NW, C), **UR**, **WS** (TK, AL), **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KA, MG). – Europe (WE, NE, SE, EE), Caucasus, Kazakhstan, Mongolia, China (NE), Korean Peninsula, Japan (Hon).
- Symmorphus (Symmorphus) apiciornatus** (Cameron, 1911) [Ancistrocerus] (*S. seoulensis* Tsuneki, 1986). Russia: **FE** (PR). – China (NE, NC, CC, SW, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Symmorphus (Symmorphus) bifasciatus** (Linnaeus, 1761) [Vespa] (*Vespa sinuata* Fabricius, 1793, nom. praecoc., nec Geoffroy, 1785; *Odynerus sinuatus* var. *mutinensis* Baldini, 1894; *Symmorphus sparsus* Morawitz, 1895; *S. sinuatissimus* Richards, 1935; *S. mutinensis auster* Giordani Soika, 1975; *S. mutinensis yezoanus* Tsuneki, 1977). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (NS, AL), **ES** (KR, IR, ZB), **FE** (AM, KH, PR, SA). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Central Asia, Kazakhstan, Mongolia, China (NE, NC, CC, SW), Korean Peninsula, Japan (Hok, Hon).
- Symmorphus (Symmorphus) connexus** (Curtis, 1826) [Odynerus]. Russia: **EP** (C, NC), **WS** (AL). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Kazakhstan.
- Symmorphus (Symmorphus) crassicornis** (Panzer, 1798) [Vespa] (*Odynerus arcticus* de Saussure, 1855; *O. herrichianus* de Saussure, 1855; *O. nursei* Bingham, 1898; *O. hospes* Nurse, 1902, nom. praecoc., nec Dufour et Perris, 1840; *O. hospitans* Dalla Torre, 1904; *O. crassicornis* var. *baltica* Blüthgen, 1937). Russia: **EP** (N, NW, C, S, NC, CR), **UR**, **WS** (NS, AL), **ES** (KR, IR, ZB). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Central Asia, Kazakhstan, Mongolia, ?China (NE), India.
- Symmorphus (Symmorphus) debilitatus** (de Saussure, 1855) [Odynerus]. Russia: **EP** (C, E, NC, CR). – Europe (WE, NE, SE, EE), Turkey.
- Symmorphus (Symmorphus) decens** (Kostylev, 1940) [Odynerus]. Russia: **FE** (PR). – Korean Peninsula, Japan (Hon, Shi, Kyu).
- Symmorphus (Symmorphus) foveolatus** Gussakovskij, 1932. Russia: **FE** (KH, PR, SA). – China (SW), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu).
- Symmorphus (Symmorphus) fuscipes** (Herrich-Schäffer, 1838) [Odynerus] (*S. karelicus* Morawitz, 1895). Russia: **EP** (N, NW, C), **UR**, **WS** (TK, NS, AL), **ES** (KR, IR, BR, YA, ZB), **FE** (AM, PR, SA, MG). – Europe (WE, NE, EE), Azerbaijan, Kazakhstan, Mongolia, China (NE).
- Symmorphus (Symmorphus) gracilis** (Brullé, 1832) [Odynerus] (*O. elegans* Wesmael, 1833; *Symmorphus elegans libanicus* Giordani Soika, 1963). Russia: **EP** (C, E, S, NC, CR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Syria, Lebanon, Israel, Iran, Turkmenistan, Tajikistan, Kazakhstan.
- Symmorphus (Symmorphus) lucens** (Kostylev, 1938) [Odynerus] (*S. ishikawai* Giordani Soika, 1975). Russia: **UR**, **WS** (AL), **ES** (IR, BR, ZB), **FE** (AM, KH, PR, SA). – Mongolia, China (NC), Korean Peninsula, Japan (Hon).
- Symmorphus (Symmorphus) mizuhonis** Tsuneki, 1977 (*S. kurentzovi* Kurzenko, 1982; *S. iiyamai* Tsuneki, 1986; *S. shiroyamai* Tsuneki, 1986; *S. piceanus* Tsuneki, 1986; *S. sassai* Tsuneki, 1986). Russia: **WS** (AL), **ES** (IR, BR, ZB), **FE** (KH, PR, SA). – Kazakhstan, China (NE, NC, CC, SW, SE), Korean Peninsula, Japan (Hon).
- Symmorphus (Symmorphus) murarius** (Linnaeus, 1758) [Vespa] (*Odynerus nidulator* de Saussure, 1855). Russia: **EP** (NW, C, NC, CR), **UR**, **WS** (TM), **ES** (KR, IR, BR, ZB), **FE** (PR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Iran, Central Asia, Kazakhstan, Korean Peninsula.
- SYNEUDYNERUS** Blüthgen, 1951 (*Syneodynerus* (!): Kurzenko, 1981). Type species *Odynerus egregius* Herrich-Schäffer, 1839. Females nest in preexisting cavities such as hollow stems or beetle burrows in wood, partitions between cells are double and made of mud; provision is caterpillars of Pyraustidae. The genus is distributed in the Palearctic, Afrotropical, and Australian region. Number of species: World – 11; Palearctic – 5; Russia – 1.
- Syneodynerus egregius** (Herrich-Schäffer, 1839) [Odynerus] (*O. bohemani* de Saussure, 1855; *O. unimaculatus* Moidl, 1922; *O. egregius* var. *discosignatus* Mader, 1936; *Euodynerus egregius barbarus* Blüthgen, 1942; *E. egregius arzhakanensis* Giordani Soika, 1970; *E. egregius egregior* Gusenleitner, 1970). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Cyprus, Syria, Jordan, Israel, Iran, Turkmenistan.
- TROPIDODYNERUS** Blüthgen, 1939. Type species *Polistes interrupta* Brullé, 1832. Females



excavate vertical nest burrows on horizontal ground surface, each nest contains one cell; nest entrance is obstructed by the female with mud pellets before each her departure from the nest; provision is larvae of Curculionidae. The genus is distributed in the Palaearctic and Oriental regions and includes two subgenera: *Tropidepipona* Giordani Soika, 1995; *Tropidodynerus* s.str. Number of species: World – 7; Palaearctic – 5; Russia – 1.

**Tropidodynerus (Tropidodynerus) interruptus** (Brullé, 1832) [Polistes] (*Pterocheilus interruptus* Herrich-Schäffer, 1839, nom. praeocc., nec Klug, 1805; *Odynerus bulgaricus* Mocsáry, 1883; *Hoplomerus mandibularis* Morawitz, 1885; *Tropidodynerus interruptus tricolor* Blüthgen, 1956; *T. interruptus hispanicus* Giordani Soika, 1966). Russia: **EP** (E, S, NC, CR). – Europe (WE, SE, EE), Armenia, Azerbaijan, Turkey, Kazakhstan.

#### Subfamily POLISTINAE – PAPER WASPS

##### A.V. ANTROPOV

**POLISTES** Latreille, 1802 (*Polystes*: Palisot de Beauvois, 1818, lapsus calami; *Polistes* (*Eupolistes*) Dalla Torre, 1904; *Pseudopolistes* Weyrauch, 1937, unavailable name, Art. 13.3 (ICZN, 1999); *Polistes* (*Sulcopolistes*) Blüthgen, 1938; *Polistula* Weyrauch, 1938, unavailable name, Art. 13.3 (ICZN, 1999); *Polistula* Weyrauch, 1939, *Pseudopolistes* Weyrauch, 1939, *Polistes* (*Leptopolistes*) Blüthgen, 1943. Type species “*Polistes gallica*, Fab.” [= *Vespa gallica* Linnaeus, 1767]. The genus includes four subgenera: *Gyrostoma* Kirby, 1828 (*Cyclostoma* Kirby, 1826, nom. praeocc., nec Lamarck, 1779; *Megapolistes* van der Vecht, 1968; *Nygmopolistes* Richards, 1973; *Megapostes* [!]: Lee, 1982), *Polistella* Ashmead, 1904 (*Stenopolistes* van der Vecht, 1972), *Polistes* s.str., *Aphanilopterus* Meunier, 1888 (*Polistoides* Dalla Torre, 1904, nom. praeocc., nec Loew, 1873; *Onerarius* Richards, 1973; *Fuscopolistes* Richards, 1973; *Polistarchus* Richards, 1973; *Palisotius* Richards, 1973; *Epicnemius* Richards, 1973). Number of species: World – 224; Palaearctic – 33; Russia – 14.

**Polistes (Gyrostoma) rothneyi** Cameron, 1900 (*P. rufolineatus* Cameron, 1900; *P. rothneyi yayeyamae* Matsumura, 1908; *P. rothneyi grahami* van der Vecht, 1968; *P. rothneyi hainanensis* van der

Vecht, 1968; *P. rothneyi iwatai* van der Vecht, 1968; *P. rothneyi gressitti* van der Vecht, 1968; *P. rothneyi tibetanus* van der Vecht, 1968; *P. rothneyi koreanus* van der Vecht, 1968; *P. rothneyi sikkimensis* van der Vecht, 1968). Russia: **FE** (PR). – Pakistan, China (WP, SE), Korean Peninsula, Japan (Ryu), Nepal, Bhutan, SE Asia, India.

**Polistes (Polistella) diakonovi** Kostylev, 1940. Russia: **FE** (PR). – Korean Peninsula.

**Polistes (Polistella) snelleni** de Saussure, 1862 (*P. puncticollis* F. Morawitz, 1892; *P. snelleni* f. *nigrihumerus* Uchida, 1936). Russia: **ES** (BR, ZB), **FE** (AM, KH, PR). – Mongolia, China (NE), Korean Peninsula, Japan (Hok, Hon, Kyu).

**Polistes (Polistes) albells** Giordani Soika, 1976 (*P. foederatus albells* Giordani Soika, 1976; *P. bischoffi* Weyrauch, 1937, part.; *P. helveticus* Neumeyer, 2014). Russia: **EP** (C, E, S), **UR**, **WS** (NS, AL), **ES** (KS, TU, IR, BR, ZB), ?**FE** (PR). – Europe (WE, SE, EE), Kazakhstan, Mongolia.

**Polistes (Polistes) associus** Kohl, 1898 (*P. associa* Kohl, 1898). Russia: **EP** (S, NC). – Europe (WE, SE, EE), Azerbaijan, Turkey, Israel, Iran, Pakistan, Tajikistan, India, China (NW).

**Polistes (Polistes) atrimandibularis** Zimmermann, 1930 (*P. atrimandibularis albidus* Blüthgen, 1957). Russia: **EP** (S, NC). – Europe (SE, EE), Egypt, Armenia, Turkey, Iran.

**Polistes (Polistes) biglumis** (Linnaeus, 1758) [*Vespa*] (*V. rupestris* Linnaeus, 1758; *V. bimaculata* Geoffroy in Fourcroy, 1785; *P. Geoffroyi* Lepeletier de Saint Fargeau et Audinett-Serville, 1825; *P. dubia* Kohl, 1898, nom. praeocc., nec de Saussure, 1867; *P. Kohli* Dalla Torre, 1904, replacement name for *P. dubia* Kohl, 1898; *V. bimacula* [!] “Fourcroy”: Dalla Torre, 1904; *P. bimaculatus* var. *Arduinoi* Guiglia, 1948; *P. pamirensis* Soika: Zirngiebl, 1955; *P. pamirensis* var. *soikai* Zirngiebl, 1955; *P. pamirensis* var. *interruptus* Zirngiebl, 1955; *P. bimaculatus* var. *nigrinotum* Zirngiebl, 1955; *P. biglumis alpium* Blüthgen, 1957; *P. geoffroyi* [!]: Das, Gupta, 1984). Russia: **EP** (C, S, NC). – Europe (WE, NE, SE, EE), N Africa, Abkhasia, Azerbaijan, Turkey, Syria, Israel, Iraq, Iran, Pakistan, Kyrgyzstan, Kazakhstan, Mongolia, Korean Peninsula, India.

**Polistes (Polistes) bischoffi** Weyrauch, 1937 (*P. Bischoffi* Weyrauch, 1937). Russia: **EP** (C, S, NC), **FE** (AM, KU). – Europe (WE, NE, SE, EE), N Africa, Turkey, Kazakhstan, Iran, Mongolia.

**Polistes (Polistes) chinensis** (Fabricius, 1793) [Vespa] (*P. biglumis* var. *antennalis* Pérez, 1905; *P. insepultus* Giordani Soika, 1976; *P. caspicus* Yoshikawa, 1962, nom. nud.). Russia: **WS** (AL), **ES** (TU, BR, ZB), **FE** (AM, KH, PR, ?KA). – Turkey, Kazakhstan, Iran, Mongolia, China (SE), Korean Peninsula, Japan (Hok, Hoh, Kyu, Ryu). Introduced into New Zealand.

**Polistes (Polistes) dominula** (Christ, 1791) [Vespa] (*P. italica* Herrich-Schäffer, 1840, nom. nud.; *P. pectoralis* “Meg.” Herrich-Schäffer, 1841; *P. gallica* var. *Lefebvrei* Guérin-Méneville, 1844; *P. Bucharensis* Erichson, 1849; *P. Lefebvrii* [!]: de Saussure, 1853; *P. maculatus* Rudow, 1889; *P. Merceti* Dusmet, 1903; *P. gallicus* var. *rufescens* du Buysson, 1912; *P. gallica* var. *ornata* Weyrauch, 1938, nom. praeocc., nec *Polistes ornata* Lepeletier de Saint Fargeau, 1836; *P. gallica* var. *pacifica* Weyrauch, 1939, nom. praeocc., nec *P. pacifica* Fabricius, 1804; *P. gallicus pseudopacificus* Giordani Soika, 1970, replacement name for *P. gallica* var. *pacifica* Weyrauch, 1939; *P. gallicus muchei* Gusenleitner, 1976; *Vespa dominula* [!]: Das, Gupta, 1984). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (AL). – Europe (WE, NE, SE, EE), N Africa, Armenia, Georgia, Turkey, Syria, Jordan, Israel, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, Mongolia, China (NW), India. Introduced into the Canary Islands, Australia, N and S America.

**Polistes (Polistes) gallicus** (Linnaeus, 1767) [Vespa] (*P. pictior* Radoszkowski, 1872, nom. nud.; *P. foederata* Kohl, 1898; *P. gallicus* var. *mongolicus* du Buysson, 1911; *P. foederata* var. *obscuricornis* Mader, 1936; *Polistula omissa* Weyrauch, 1938; *Polistes omissus* var. *ordubadensis* Zirngiebl, 1955; *P. gallicus* var. *monogolicus* [!]: Yoshikawa, 1962; *P. omissus kaszabi* Giordani Soika, 1970). Russia: **EP** (C, S, NC, CR), **WS** (AL). – Europe (WE, SE, EE), N Africa, Ethiopia, Israel, Jordan, Turkey, Iran, Afghanistan, Pakistan, Armenia, Azerbaijan, Turkmenistan, Kyrgyzstan, Kazakhstan, Mongolia.

**Polistes (Polistes) nimpha** (Christ, 1791) [Vespa] (*V. diadema* Latreille, 1802, nom. praeocc., nec Christ, 1791; *Polistes opinabilis* Kohl, 1898; *P. nimpha* [!]: Weyrauch, 1939; *P. nimpha* var. *Moltonii* Guiglia, 1944; *P. nimpha* var. *molotnii* [!]: Yoshikawa, 1962; *P. nimpha irakensis* Gusenleitner, 1976). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (TM, KM, AL), **ES** (KS, TU, KR, BR, YA, ZB), **FE** (AM, KH). – Europe (WE, NE, SE, EE), N Africa, Israel, Jordan, Turkey, Georgia, Armenia, Azerbaijan, Iraq,

Iran, Pakistan, Kazakhstan, Kyrgyzstan, Mongolia, China (NE), India.

**Polistes (Polistes) riparius** Sk. Yamane et S. Yamane, 1987. Russia: **EP** (C), **UR**, **WS** (TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU). – Mongolia, Kazakhstan, Mongolia, China (NE), Korean Peninsula, Japan (Hok, Hon).

**Polistes (Polistes) sulcifer** Zimmermann, 1930 (*P. sulcifer* [!]: Guiglia, Capra, 1933; *Pseudopolistes sulcifer* var. *similator* Zirngiebl, 1955). Russia: **EP** (NC). – Europe (WE, SE, EE), N Africa, Armenia, Azerbaijan, Egypt, Israel, Turkey, Iran.

#### Subfamily VESPINAE – HORNETS AND JELLOW JACKETS

##### A.V. ANTROPOV

**VESPA** Linnaeus, 1758 – Hornets (*Macrovespa* Dalla Torre, 1904; *Nyctovespa* van der Vecht, 1959). Type species “*Vespa crabro* Fab.” [= *Vespa crabro* Linnaeus, 1758]. Number of species: World – 22; Palaearctic – 15; Russia – 8.

**Vespa analis** Fabricius, 1775 – Yellow-tailed Hornet (*V. Crabro sphinx* Christ, 1791; *V. tyrannica* F. Smith, 1857; *V. japonica* F. Smith, 1868, nom. praeocc., nec Radoszkowski, 1857, nec de Saussure, 1858; *V. parallela* André, 1884; *V. insularis* Dalla Torre, 1894, replacement name for *V. japonica* F. Smith, 1868; *V. tridentata* Cameron, 1903; *V. nigrans* du Buysson, 1903; *V. parallela* var. *Biroi* du Buysson, 1905; *V. analis* var. *tenebrosa* du Buysson, 1905; *V. analis* var. (subsp.) *barbouri* Bequaert, 1939; *V. analis* var. (subsp.) *kuangsiana* Bequaert, 1939; *V. analis eisa* Sk. Yamane, 1987; *V. analis nagatomii* Sk. Yamane, 1987; *V. maguanensis* Dong, 2001; *V. hekouensis* Dong et Wang, 2003). Russia: **FE** (AM, KH, PR). – China (NE, CC, SW, SE), Korean Peninsula, Japan (Hok. Hon, Ryu), Nepal, SE Asia, India.

**Vespa binghami** du Buysson, 1905 – Hornet of Bingham (*V. Binghami* du Buysson, 1905; *V. suprunenkoi* Birula, 1925). Russia: **FE** (KH, PR, SA). – China (CC, SW, WP, ), Korean Peninsula, SE Asia, India.

**Vespa crabro** Linnaeus, 1758 – Common Hornet (*V. Crabro* Linnaeus, 1758; *V. vexator* Harris, 1776; *V. Crabro major* Retzius, 1783; ?*V. pratensis* Geoffroy in Fourcroy, 1785; *V. Crabro germana* Christ, 1791; *V. Crabroniformis* F. Smith, 1852; *V. crabro* var. *borealis* Radoszkowski, 1863, nom. praeocc.,

nec *V. borealis* Kirby, 1837, nec *V. borealis* Zetterstedt, 1838, nec *V. borealis* Zetterstedt, 1840, nec *V. borealis* F. Smith, 1843; *V. crabro* var. *anglica* Gribodo, 1892, nom. praeocc., nec *V. anglica* F. Smith, 1843; *V. oberthuri* du Buysson, 1902; *V. flavofasciata* Cameron, 1903; *V. crabro* var. *tartarea* du Buysson, 1905; *V. Crabro* var. *Altaica* Pérez, 1910; *V. Crabro* var. *Caspica* Pérez, 1910; *V. crabro nigra* Birula, 1925, nom. praeocc., nec *V. nigra* Geoffroy, 1785; *V. crabro vulgata* Birula, 1925; *V. crabro meridionalis* Birula, 1925; *V. crabro chinensis* Birula, 1925, nom. praeocc., nec *V. chinensis* Fabricius, 1793; *V. crabro* var. *birulai* Bequaert, 1931, replacement name for *V. crabro chinensis* Birula, 1925; *V. crabro* var. *gribodoi* Bequaert, 1931, replacement name for *V. crabro* var. *anglica* Gribodo, 1892). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, ZB), **FE** (AM, KH, PR, SA). – Europe (WE, NE, SE, EE), Georgia, Azerbaijan, Turkey, Turkmenistan, Kazakhstan, Iran, Mongolia, China (NE, CC, SW, SE), Korean Peninsula, Japan (Hok, Hon). Introduced into N America and Guatemala.

**Vespa ducalis** F. Smith, 1852 – Black-tailed Hornet (*V. ducalis* var. *pulchra* du Buysson, 1905; *V. matsumurai* Sonan, 1935; *V. esakii* Sonan, 1935; *V. tropica loochooensis* Bequaert, 1936; *V. tropica pseudosoror* van der Vecht, 1959). Russia: **ES** (ZB), **FE** (AM, KH, PR). – China (NE, NC, CC, SW, SE), Korean Peninsula, Japan (Hok, Hon, Ryu), Nepal, SE Asia, India.

**Vespa dybowskii** André, 1884 – Hornet of Dybowski (*Vespa Dybowskii* “Rad. in litt.” André, 1884; *V. Dubowskii*: Dalla Torre, 1904; *V. Walkeri* du Buysson, 1905; *V. dybowskii mutata* Ma, 1937). Russia: **ES** (ZB), **FE** (AM, KH, PR). – China (NW, CC), Korean Peninsula, Japan (Hok, Hon, Ryu), Myanmar, Thailand.

**Vespa mandarinia** F. Smith, 1852 – Asian Giant Hornet (*V. Mandarinia* F. Smith, 1852; *V. magnifica* F. Smith, 1852; *V. japonica* Radoszkowski in Motschulsky, 1857; *V. bellona* F. Smith, 1871; *V. magnifica* var. *latilineata* Cameron, 1903; *V. mandarina*: Dalla Torre, 1894; *V. magnifica* var. *nobilis* Sonan, 1929; *V. magnifica sonani* Matsumura, 1930). Russia: **FE** (AM, KH, PR). – China (NW, CC, SW, SE), Korean Peninsula, Japan (Hok, Hon, Kyu, Ryu), Nepal, Bhutan, SE Asia, India, Sri Lanka.

**Vespa orientalis** Linnaeus, 1771 – Oriental Hornet (*V. turcica* Drury, 1773; *V. quadripunctata* Forskål, 1775; *V. Crabro fusca* Christ, 1791; *V. Aegyptiaca*

Vallot, 1802; *V. Nilotica* Vallot, 1802; *V. Jurinei* de Saussure, 1854; *V. orientalis* var. *Aegyptiaca* André, 1884, nom. praeocc., nec *V. Aegyptiaca* Vallot, 1802; *V. indica*: Wroughton, 1889; *V. orientalis* var. *Zavattarii* Guiglia et Capra, 1933; *V. orientalis* var. *somalica* Giordani Soika, 1934; *V. orientalis arabica* Giordani Soika, 1957). Russia: **EP** (S, NC, CR). – Europe (SE, EE), N Africa, Georgia, Armenia, Turkey, Syria, Jordan, Lebanon, Israel, Saudi Arabia, Bahrein, Yemen, UAE, Oman, Iraq, Iran, Afghanistan, Pakistan, Turkmenistan, Tajikistan, Uzbekistan, Nepal, India. Introduced into China (SE), Madagascar, and Mexico.

**Vespa simillima** F. Smith, 1868 – Japanese Hornet (*V. mongolica* André, 1884; *V. xanthoptera* Cameron, 1903; *V. micado* Cameron, 1903; *V. Mongolica* var. *Sexpunctata* Pérez, 1905; *V. Mongolica* var. *flavata* Pérez, 1910). Russia: **FE** (AM, KH, PR, SA, KU, KA). – China (NE), Korean Peninsula, Japan (Hok, Hon, Kyu, Ryu). Introduced into Canada (BC) but has apparently not become established.

**DOLICHOVESPULA** Rohwer, 1916 – “Long-cheeked” Jellow Jackets [*Pseudovespa* (*Pseudovespula*) Bischoff, 1931; *Dolichovespula* (*Boreovespula*) Blüthgen, 1943; *Dolichovespula* (*Metavespula*) Blüthgen, 1943]. Type species *Vespa maculata* Linnaeus, 1763. Number of species: World – 19; Palaearctic – 10; Russia – 8.

**Dolichovespula adulterina** (du Buysson, 1905) [*Vespa*] – False wasp (*V. norvegica* var. *adulterina* du Buysson, 1905; *V. norvegica saxonica* natio *colchica* Birula, 1930, unavailable name, Art. 45.5, 45.5.1 (ICZN, 1999); *D. adulterina montivaga* Sk. Yamane, 1982). Russia: **EP** (N, NW, C, E, NC), **WS** (TK, NS, AL), **ES** (KM, TM, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, KA, MG, CH). – Europe (WE, NE, SE, EE), Georgia, Kyrgyzstan, Kazakhstan, Turkey, Mongolia, China (SW, ?SE), Korean Peninsula, Japan (Hok, Hon). All records of this species from North America should be referred to *D. arctica* (Rohwer, 1916) (*Vespa borealis* Lewis, 1897).

**Dolichovespula intermedia** (Birula, 1930) [*Vespula*] (*Vespula sylvestris* var. *intermedia* Birula, 1930; *D. asiatica* Archer, 1981, unnecessary replacement name for *Vespula sylvestris* var. *intermedia* Birula, 1930, nec *Vespa rufa* var. *intermedia* du Buysson, 1905). Russia: **WS** (AL). – Central Asia, Kazakhstan, Afghanistan, Pakistan, Mongolia, China (NC, NW, SE), Japan (Hok, Hon), India.

- Dolichovespula media** (Retzius, 1783) [Vespa] – Medium wasp (*V. Crabro medius* Retzius, 1783; *V. Geerii* Lepeletier de Saint Fargeau, 1836; *V. crassa* Herrich-Schäffer, 1841; *V. similis* Schenck, 1853; *V. rufoscutellata* Schenck, 1853; *V. flavicincta* Schenck, 1853, nom. praeocc., nec Gravenhorst, 1807; *V. Geeri*: Dalla Torre, 1904; *V. media* var. *lineolata* Pérez, 1910; *Vespula media media* var. *lugubris* Birula, 1927, unavailable name, Art. 45.5, 45.5.1 (ICZN, 1999); *D. media* var. *conjugens* Paul, 1943; *D. media sugare* Ishikawa, 1969; *D. borealis* Lee, 1986, nom. praeocc., nec *V. borealis* Kirby, 1837, nec *V. borealis* Zetterstedt, 1838, nec *V. borealis* Lewis, 1897). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, ?KA). – Europe (WE, NE, SE, EE), Morocco, Georgia, Turkey, Syria, Kazakhstan, Mongolia, China (NE), Korean Peninsula, Japan (Hok, Hon). Occasionally introduced into New Zealand.
- Dolichovespula norvegica** (Fabricius, 1781) [Vespa] – Norwegian wasp (*V. britannica* Leach, 1814; *V. marginata* Kirby, 1837, nom. praeocc., nec Gmelin, 1790; *V. borealis* Zetterstedt, 1838, nom. praeocc., nec Kirby, 1837; *V. norvegica*: Olivier, 1792; *V. peruana* de Saussure, 1867; *V. saxonica* var. *arctica* Friese, 1919, nec *Vespula arctica* Rohwer, 1916; *D. norvegica* var. *Zetterstedti* Blüthgen, 1937, replacement name for *V. saxonica* var. *arctica* Friese, 1919). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (TM, OM, NS, TK, AL), **ES** (KS, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KA, MG, CH). – Europe (WE, NE, EE), Georgia, Turkey, Kyrgyzstan, Kazakhstan, Mongolia, China (NE, NW). All records of this species from North America should be referred to *D. albida* (Sladen, 1918).
- Dolichovespula omissa** (Bischoff, 1931) [Vespa] – Carefree wasp [*V. tripunctata* Schenck, 1861, nom. praeocc., nec Fabricius, 1787; *Vespula norvegica saxonica* morpha *ingrica* Birula, 1930, unavailable name, Art. 45.5, 45.5.1 (ICZN, 1999); *Vespula ingrica* Bequaert, 1932, available name, Art. 45.5.1 (ICZN, 1999)]. Russia: **EP** (NW, C, E), **UR**, **WS** (AL), **ES** (KS). – Europe (WE, NE, EE), Georgia, Turkey; Iran, Kazakhstan.
- Dolichovespula pacifica** (Birula, 1930) [Vespula] – Pacific wasp (*V. norvegica pacifica* Birula, 1930; *D. loekenae* Eck, 1980). Russia: **EP** (N, NW, C), **UR**, **WS** (TM, OM, NS, TK, AL), **ES** (TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, MG, KA). – Europe (NE), Kazakhstan, Korean Peninsula, Japan (Hok, Hon, Shi).
- Dolichovespula saxonica** (Fabricius, 1793) [Vespa] – Saxonian wasp (*V. bavarica* von Schrank, 1802; *V. tridens* Schenck, 1853; *Vespula norvegica saxonica* morpha *monticola* Birula, 1930, unavailable name, Art. 45.5, 45.5.1 (ICZN, 1999); *D. saxonica nipponica* Sk. Yamane, 1975; *D. saxonica kamtschatkensis* Eck, 1983; *D. saxonica nigrescens* Eck, 1983). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KH, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, KA, MG, CH). – Europe (WE, NE, SE, EE), Turkey, Iran, Kazakhstan, Mongolia, China (NE, NC, NW, SW), Korean Peninsula, Japan (Hok, Hon).
- Dolichovespula sylvestris** (Scopoli, 1763) [Vespa] – Forest wasp (*V. parietum* Harris, 1776, nom. praeocc., nec Linnaeus, 1758; *V. holsatica* Fabricius, 1793; *V. frontalis* Latreille, 1802; *V. campanaria* Fowler, 1833; *V. anglica* "Leach" F. Smith, 1843, available name, Art. 11.6.1 (ICZN, 1999); *V. pilosella* A. Costa, 1858, nom. praeocc., nec Gravenhorst, 1807; *V. sylvestris*: Dalla Torre, 1894; *V. sylvestris* var. *sumptuosa* du Buysson, 1905; *D. xinjiangensis* Lee, 1986). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, AL), **ES** (KS, TU, KR, IR, BR, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), Morocco, Georgia, Armenia, Turkey, Syria, Iran, Afghanistan, Pakistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NE, NC, NW, CC, SE), India.
- VESPULA** Thomson, 1869 – "Short-cheeked" Jellow Jackets [*Vespa (Pseudovespa)* Schmiedeknecht, 1881; *Dolichovespula (Paravespula)* Blüthgen, 1938; *Paravespula (Allovespula)* Blüthgen, 1943; *Vespula (Rugovespula)* Archer, 1982]. Type species *Vespa austriaca* Panzer, 1799. Number of species: World – 25; Palaeartic – 11; Russia – 7.
- Vespula austriaca** (Panzer, 1799) [Vespa] – Austrian wasp (*V. borealis* F. Smith, 1843, nom. praeocc., nec Kirby, 1837, nec Zetterstedt, 1840; *V. arborea* F. Smith, 1849, replacement name for *V. borealis* F. Smith, 1843; *V. biloba* Schilling, 1850; *V. arborea* "Ross" Dalla Torre, 1894, nom. praeocc., nec F. Smith, 1849; *Vespula shinanoensis* Takamizawa, 2005, nom. nud.). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (TM, NS, AL), **ES** (KS, KR, IR, BR, YA), **FE** (AM, KH, PR, SA, KU, KA). – Europe (WE, NE, EE), Georgia, Azerbaijan, Turkey, Pakistan,

Kyrgyzstan, Kazakhstan, Mongolia, China (NE, NW), Korean Peninsula, Japan (Hok, Hon), India. All records of this species from North America should be referred to *V. infernalis* (de Saussure, 1854).

**Vespula flaviceps** (F. Smith, 1870) [Vespa] – Yellow-fronted wasp (*V. japonica* de Saussure, 1858, nom. praeocc., nec Radoszkowski, 1857; “*V. Lewisii*, Sauss. Guepes Soc. (MS.)” F. Smith, 1873, nom. nud.; *V. “lewisii*, Saus. MS.” Cameron, 1903, available name, Art. 11.6.1.(ICZN, 1999); *V. Saussurei* Schulz, 1906, replacement name for *V. japonica* de Saussure, 1858; *V. karenkona* Sonan, 1929; *V. 4-maculata* Sonan, 1929; *V. vulgaris* var. *flavior* Stolfa, 1934; *Vespula japonica pionganensis* Giordani Soika, 1976; *Vespa vulgaris* var. *flavitor*: Das, Gupta, 1984; *Vespula gracilia* Lee, 1986). Russia: **FE** (AM, KH, PR). – China (NE, NW, CC, SW, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu), Nepal, SE Asia, India.

**Vespula germanica** (Fabricius, 1793) [Vespa] – German wasp (?*V. maculata* Scopoli, 1763, nom. praeocc., nec Linnaeus, 1763; ?*V. macularis* Olivier, 1792). Russia: **EP** (C, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, AL), **ES** (KS, TU, KR, BR, ZB), **FE** (AM, KH, PR, SA). – Europe (WE, NE, SE, EE), N Africa, Israel, Jordan, Lebanon, Georgia, Armenia, Turkey, Syria, Iran, Iraq, Afghanistan, Pakistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NE, NC, NW, SW, WP, SE), Korean Peninsula, India. Introduced into Iceland, Madeira, Azores, Canaries, South Africa, Australia, Tasmania, New Zealand, Ascension Is., Norfolk Is., Hawaiian Is., N America, S America (Argentina, Chile).

**Vespula koreensis** (Radoszkowski, 1887) [Vespa] – Korean wasp (*V. Koreensis* Radoszkowski, 1887; *V. germanica* var. *stizoides* du Buysson, 1905; ?*V. orbata* var. *aurulenta* du Buysson, 1905; *Pseudovespa birulai* Gussakovskii, 1932; *Vespula koreensis salebrosa* Archer, 1982; *V. hainanensis* Lee,

1986). Russia: **FE** (AM, KH, PR). – China (NE, CC, SW, SE), Korean Peninsula, Thailand, Laos, India.

**Vespula rufa** (Linnaeus, 1758) [Vespa] – Red wasp (*V. Schrenckii* Radoszkowski, 1861; *V. Sibirica* André, 1884; *V. schrenki*: Dalla Torre, 1904; *Vespula rufa grahami* Archer, 1981; *V. obscura* Lee, 1986; *V. yichunensis* Lee, 1986; *V. yulongensis* Dong et Wang, 2002; *V. gongshanensis* Dong, 2005). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, KA, MG, CH). – Europe (WE, NE, SE, EE), Turkey, Georgia, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Iran, Mongolia, China (NE, NW, SW, SE), Korean Peninsula, Japan (Hok, Hon, Shi), Nepal. All records of this species from North America should be referred to *V. intermedia* (du Buysson, 1905).

**Vespula shidai** Ishikawa, Sk. Yamane et Wagner, 1980 – Wasp of Shida (*V. shidai amamiana* Sk. Yamane, 1987). Russia: **FE** (AM, KH, PR, KU). – China (NE), Korean Peninsula, Japan (Hok, Hon, Shik, Kyu, Ryu).

**Vespula vulgaris** (Linnaeus, 1758) [Vespa] – Common wasp (*V. sexcincta* Panzer, 1799; *V. communis* de Saussure, 1857, nom. praeocc., nec von Schrank, 1785; *V. vulgaris* var. *pseudogermanica* Stolfa, 1932; *V. mixta* “Schenck” Edwards, 1980, nom. nud.; *Vespula rufosignata* Eck, 1998; *V. rufosignata vetus* Eck, 1999; *V. yunlongensis* Dong et Wang, 2003). Russia: **EP** (NW, N, C, E, S, NC, CR), **UR**, **WS** (TM, TK, NS, KM, AL), **ES** (TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, KA, MG, CH). – Europe (WE, NE, SE, EE), Turkey, Georgia, Kyrgyzstan, Kazakhstan, Iran, Mongolia, China (NE, SW), Korean Peninsula, Japan (Hok, Hon), India. Introduced into Iceland, New Zealand, Australia, and occasionally into Maui and Hawaii. All records of this species from North America should be referred to *V. alascensis* (Packard, 1870).

## SUPERFAMILY FORMICOIDEA

## Subfamily DOLICHODERINAE

## 69. FAMILY FORMICIDAE – ANTS

## D.A. DUBOVIKOFF AND Z.M. YUSUPOV

Ants are eusocial aculeate hymenopterous insects and currently include 13240 extant species belongs to 334 genera of 17 subfamilies and 738 fossil species from 151 genera of 14 subfamilies (3 subfamilies are known only by fossils) (Bolton, 2016). There are 1777 species in 97 genera of 11 subfamilies in the Palaearctic region (AntWeb, 2017). Ants, as eusocial insects, have a clear cast differentiation, e.g. sexual (females (queens) and males) and workers (or also soldiers). Colonies include one (or more in polyginous colonies) queen and from dozens to millions of workers. Ants are one of the most evolutionarily successful groups of invertebrates. They are of great importance in various ecosystems, primarily as effective predators, but also as consumers and distributors of plant seeds, play a significant role in soil formation and much more. Ants nesting is much different: in soil, leaf litter, dead wood, in epiphytes, different plants and with different special constructions like mounds. Synonymic and nomenclature data are given according to «An online catalog of the ants of the world» (Bolton, 2016). The total number of taxa is given excluding fossil and infraspecific taxa, unless explicitly indicated.

Sections for the genera *Leptothorax*, *Myrmica*, *Temnothorax* and most part of *Tetramorium* species were prepared by Z.M. Yusupov, the rest of the text was prepared by D.A. Dubovikoff.

Number of taxa: World – 485 genera, 13978 species (including fossils), Palaearctic – 94/1350, Russia – 44/264.

**R e f e r e n c e s.** Ruzsky, 1905, 1907; Karawajew, 1926; Kuznetsov-Ugamsky, 1929; Dlussky, Soyunov, Zabelin, 1990; Kupianskaya, 1990, 1995, 2012; Radchenko, 1991, 1992, 1996a, 1996b, 1997a,b,c,d, 2004, 2005a,b, 2016; Seifert, 1992, 2000, 2003, 2007, 2012; Arakelian, 1994; Czechowski et al., 2002; Dubovikoff, 2002, 2005; Csösz et al., 2007, 2010, 2015; Pfeiffer et al., 2007; Seifert, Schultz, 2009; Yusupov, 2009, 2014; Radchenko, Elmes, 2010; Czechowski et al., 2012; Douwes et al., 2012; Guénard, Dunn, 2012; Radchenko, Yusupov, 2012, 2017; Borowiec, 2014; Radchenko, Scupola, 2015; Radchenko et al., 2015; Bolton, 2016; Radchenko et al., 2016; Ward et al., 2016; AntWeb, 2017; Grebennikov, Zryanin, 2017; Dubovikoff, Yusupov, 2017.

Number of taxa: World – 28 genera, 707 species, Palaearctic – 8/53, Russia – 4/16.

**BOTHRIOMYRMEX** Emery, 1869. **Type species** *Bothriomyrmex costae* Emery, 1869. Temporary social parasites of *Tapinoma* species. Number of species: World – 24, Palaearctic – 22, Russia – 5.

**Bothriomyrmex anastasiae** Dubovikoff, 2002. Russia: **EP** (NC).

**Bothriomyrmex communista** Santschi, 1919 (*B. meridionalis* var. *communista* Santschi, 1919). Russia: **EP** (NC, CR). – Europe (WE, SE, EE).

**Bothriomyrmex corsicus** Santschi, 1923 (*B. meridionalis* var. *corsica* Santschi, 1923; *B. gallicus* Emery, 1925; *B. gibbus* Soudek, 1925; *B. menozzii* Emery, 1925). Russia: **EP** (NC, CR). – Europe (WE, SE, EE).

**Bothriomyrmex modestus** Radchenko, 1985. Russia: **EP** (S). – Europe (EE).

**Bothriomyrmex turcomenicus** Emery, 1925 (*B. syrius turcomenicus* Emery, 1925). Russia: **EP** (S, NC). – Turkmenistan, Kazakhstan.

**DOLICHODERUS** Lund, 1831 (*Hypoclinea* Mayr, 1855). **Type species** *Formica attelaboides* Fabricius, 1775. Number of species: World – 131, Palaearctic – 2, Russia – 2.

**Dolichoderus quadripunctatus** (Linnaeus, 1771) [*Formica*] (*Hypoclinea quadripunctata* (Linnaeus, 1771), auct.). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), Armenia, Iran.

**Dolichoderus sibiricus** Emery, 1889 (*D. quadripunctatus sibiricus* Emery, 1889). Russia: **ES** (KS, KR, BR), **FE** (AM, KH, PR, KU). – Mongolia, China (NE, NC), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

**LIOMETOPUM** Mayr, 1861. **Type species** *Formica microcephala* Panzer, 1798. Number of species: World – 7, Palaearctic – 3, Russia – 2.

**Liometopum microcephalum** (Panzer, 1798) [*Formica*]. Russia: **EP** (S, NC). – Europe (WE, SE, EE).

**Liometopum orientale** Karawajew, 1927 (*L. microcephalum* var. *orientalis* Karawajew, 1927). Russia: **FE** (PR). – Korean Peninsula.

**TAPINOMA** Förster, 1850. **Type species** *Tapinoma collina* Förster, 1850 = *T. erraticum* (Latreille, 1798). Number of species: World – 69, Palaearctic – 18, Russia – 7.

- Tapinoma christophi** Emery, 1925. Russia: **EP** (S).  
**Tapinoma emeryanum** Kuznetsov-Ugamsky, 1927 (*T. emeryanum dagestanicum* Kuznetsov-Ugamsky, 1927). Russia: **EP** (NC). – Turkmenistan, Kazakhstan.  
**Tapinoma erraticum** (Latreille, 1798) [Formica] (*T. breve* Emery, 1925; *T. tauridis* Emery, 1925). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), Caucasus, Turkmenistan, Kazakhstan.  
**Tapinoma kinburni** Karawajew, 1937. Russia: **EP** (C, S). – Europe (EE).  
**Tapinoma melanocephalum** (Fabricius, 1793) [Formica]. Tramp species. Russia: **EP** (Moscow, introduced). – Cosmopolitan.  
**Tapinoma sinense** Emery, 1925. Russia: **ES** (IR), **FE** (KH, PR). – Mongolia, China (NE, NC, NW, CC, SW, WP, SE), Korean Peninsula.  
**Tapinoma subboreale** Seifert, 2012 (*T. erraticum ambiguum* Emery, 1925; *T. ambiguum* Emery, 1925, auct.). Russia: **EP** (C, S, NC). – Europe (WE, NE, SE, EE).

#### Subfamily FORMICINAE

Number of taxa: World – 51 genera, 3050 species, Palaeartic – 23/382, Russia – 12/98.

- CAMPONOTUS** Mayr, 1861. Type species *Formica ligniperda* Latreille, 1802. Number of species: World – 1021, Palaeartic – 113, Russia – 16.  
**Camponotus (Camponotus) herculeanus** (Linnaeus, 1758) [Formica] (*C. herculeanus* var. *shitkovi* Ruzsky, 1904; *C. herculeanus* var. *altaica* Ruzsky, 1915; *C. herculeanus caucasicus* Arnoldi, 1967). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (TM, OM, NS). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Kyrgyzstan, Kazakhstan.  
**Camponotus (Camponotus) japonicus** Mayr, 1866 (*C. herculeanus* var. *aterrima* Emery, 1894; *C. herculeanus japonicus* var. *manczhuricus* Ruzsky, 1915; *C. japonicus* var. *sanguinea* Karawajew, 1929; *C. japonica* var. *miltotus* Wheeler, 1929; *C. japonica wui* Wheeler, 1929; *C. aterrimus* Emery, 1895; Kupianskaya, 2012). Russia: **ES** (KS, KR, IR, BR, ZB), **FE** (AM, KH, PR, SA, KU). – Mongolia, China (NE, NC, NW), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).  
**Camponotus (Camponotus) ligniperda** (Latreille, 1802) [Formica]. Russia: **EP** (N, NW, C, NC), **UR**. – Europe (WE, NE, SE, EE), Caucasus, Turkey.

- Camponotus (Camponotus) obscuripes** Mayr, 1879 (*C. herculeanus ligniperda* var. *obscuripes* Mayr, 1879). Russia: **FE** (SA, KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).  
**Camponotus (Camponotus) sachalinensis** Forel, 1904 (*C. herculeanus* var. *sachalinensis* Forel, 1904; *C. herculeanus* var. *wymperi* Forel, 1904; *C. herculeanus* var. *montana* Ruzsky, 1905 (part); *C. herculeanus* var. *altaica* Ruzsky, 1915; *C. herculeanus* var. *eudokiae* Ruzsky, 1926; *C. herculeanus* var. *jacutica* Karawajew, 1929). Russia: **WS** (AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (KH, PR, SA, KU, KA, MG). – Mongolia, China (NE), Korean Peninsula, Japan (Hok, Hon, Shi).  
**Camponotus (Camponotus) saxatilis** Ruzsky, 1895 (*C. herculeanus saxatilis* Ruzsky, 1895; *C. pennsylvanicus saxatilis* Ruzsky, 1905). Russia: **EP** (E, S), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, MG). – Mongolia, China (NE), Korean Peninsula.  
**Camponotus (Camponotus) vagus** (Scopoli, 1763) [Formica] (*C. vagus* var. *kodorica* Forel, 1913). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL). – Europe (WE, NE, SE, EE), N Africa, Turkey, Kazakhstan.  
**Camponotus (Myrmentoma) atricolor** (Nylander, 1849) [Formica] (*C. merula* Losana, 1834; *C. piceus* (Leach, 1825), part, auct.). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Iran, Kazakhstan.  
**Camponotus (Myrmentoma) fallax** (Nylander, 1856) [Formica] (*C. marginatus* Latreille, 1798 (part, auct.); *C. marginatus* var. *ruzskyi* Emery, 1898; *C. marginatus* var. *kamensis* Ruzsky, 1903). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Kazakhstan.  
**Camponotus (Myrmentoma) quadrinotatus** Forel, 1886 (*C. marginatus* var. *quadrinotatus* Forel, 1886; *C. marginatus* var. *rubicolor* Ruzsky, 1925; *C. maculatus quadrinotatus* var. *nigricolor* Ruzsky, 1925; *C. marginatus brunni* Ruzsky, 1926). Russia: **FE** (KH, PR). – China (NC, NW, CC, SW, WP, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).  
**Camponotus (Myrmentoma) interjectus** Mayr, 1877. Russia: **EP** (NC). – Israel, Iraq, Iran, Afghanistan, Central Asia.  
**Camponotus (Myrmentoma) lateralis** (Olivier, 1792) [Formica]. Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Iran, Turkmenistan.

- Camponotus (Tanaemyrmex) aethiops** (Latreille, 1798) [Formica] (*F. nigrata* Nylander, 1849; *Camponotus aethiops* var. *glaber* Emery, 1925). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iran, Afghanistan, Central Asia, Kazakhstan.
- Camponotus (Tanaemyrmex) fedtschenkoi** Mayr, 1877 (*C. tichomirovi* Ruzsky, 1905; *C. fedtschenkoi* var. *adi* Stitz, 1930). Russia: **EP** (S, NC). – Armenia, Azerbaijan, Syria, Iran, Afghanistan, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan.
- Camponotus (Tanaemyrmex) turkestanicus** Emery, 1887 (*C. sylvaticus* st. *turkestanicus* Emery, 1887; *C. attila* Stårcke, 1935). Russia: **EP** (S, NC). – Iran, Afghanistan, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan.
- Camponotus (Tanaemyrmex) turkestanus** André, 1881 (*C. sylvaticus* var. *turkestanus* André, 1882; *C. ferganensis* Pisarski, 1967). Russia: **EP** (S, NC). – Israel, Iran, Afghanistan, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan.
- CATAGLYPHIS** Förster, 1850. Type species *Cataglyphis fairmairei* Förster, 1850. Number of species: World – 91, Palaeartic – 65, Russia – 3.
- Cataglyphis aenescens** (Nylander, 1849) [Formica] (*Myrmecocystus cursor* r. *tancrei* Forel, 1901; *M. cursor* var. *caspius* Ruzsky, 1902; *M. altisquamis* var. *jakobsoni* Ruzsky, 1905; *Cataglyphis aenescens aterrima* Pisarski, 1967; *C. aenescens georgica* Arnoldi, 1968; *C. aenescens chatkalensis* Tarbinsky, 1976). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (OM, NS, AL), **ES** (KS, TU, BR). – Europe (SE, EE), Caucasus, Turkey, Iran, Afghanistan, Central Asia, Kazakhstan, Mongolia, China (NE, NC, NW).
- Cataglyphis nodus** (Brullé, 1833) [Formica] (*Cataglyphis nodus caucasicola* Arnoldi, 1964). Russia: **EP** (NC). – Europe (SE, EE), Caucasus, Turkey, Israel, Saudi Arabia, Iran, United Arab Emirates, Afghanistan, Central Asia.
- Cataglyphis pallida** Mayr, 1877. Russia: **EP** (S, NC). – Afghanistan, Central Asia, Kazakhstan.
- COLOBOPSIS** Mayr, 1861. Type species *Formica truncata* Spinola, 1808. Number of species: World – 94, Palaeartic – 1, Russia – 1.
- Colobopsis truncatus** (Spinola, 1808) [Formica] (*Camponotus (Colobopsis) truncatus* (Mayr, 1861), auct.). Russia: **EP** (C, E, S, NC, CR). – Europe (WE, SE), N Africa, Caucasus, Turkey, Turkmenistan.
- FORMICA** Linnaeus, 1758. Type species *Formica rufa* Linnaeus, 1761. Number of species: World – 176, Palaeartic – 53, Russia – 32.
- Formica (Coptoformica) exsecta** Nylander, 1846 (*F. exsecta* var. *rubens* Forel, 1874; *F. nemoralis* Dlussky, 1964). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (IR, BR, ZB), **FE** (AM, KH, SA, KA, MG). – Europe (WE, NE, SE, EE), Mongolia, China (NE).
- Formica (Coptoformica) fennica** Seifert, 2000. Russia: **EP** (N, NC). – Europe (NE).
- Formica (Coptoformica) foreli** Bondroit, 1918 (*F. exsecta pressilabris* var. *foreli* Bondroit, 1918; *F. tamarae* Dlussky, 1964). Russia: **EP** (C, NC). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan.
- Formica (Coptoformica) forsslundi** Lohmander, 1949 (*F. brunneonitida* Dlussky, 1964; *F. fossilabris* Dlussky, 1965). Russia: **EP** (N, C, NC), **ES** (TU). – Europe (WE, NE, EE).
- Formica (Coptoformica) manchu** Wheeler, 1929 (*F. exsecta* var. *manchu* Wheeler, 1929; *F. longiceps* Dlussky, 1964, nom. praeocc., nec Smith, 1863; *F. dlusskyi* Bolton, 1995). Russia: **ES** (BR, YA, ZB), **FE** (AM, PR). – Mongolia, China (NE), Korean Peninsula.
- Formica (Coptoformica) pisarskii** Dlussky, 1964. Russia: **ES** (BR, YA, ZB), **FE** (AM). – Mongolia.
- Formica (Coptoformica) pressilabris** Nylander, 1846 (*F. exsecta pressilabris* var. *rufomaculata* Ruzsky, 1895; *F. exsecta pressilabris* Kuznetsov-Ugamsky, 1928; *F. rufomaculata*: Kupianskaya, 1995). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (AL), **ES** (IR, BR, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), Turkey, Mongolia, China (NE), Korean Peninsula.
- Formica (Coptoformica) suecica** Adlerz, 1902. Russia: **EP** (N), **WS** (OM). – Europe (NE).
- Formica (Formica) aquilonia** Yarrow, 1955. Russia: **EP** (N, NW, C), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, KR, IR, BR, YA, ZB), **FE** (KH, PR, SA, MG). – Europe (WE, NE, SE, EE), Mongolia, China (NE), Korean Peninsula.
- Formica (Formica) kupyanskayae** Bolton, 1995 (*F. opaca* Kupianskaya, 1980, nom. praeocc., nec Nylander, 1856). Russia: **FE** (AM, KH, PR, SA). – Korean Peninsula.
- Formica (Formica) lugubris** Zetterstedt, 1838 (*F. congerens* Nylander, 1846; *F. rufa* var. *rufo-pratensis* Forel, 1874; *F. pratensis unicolor* Ruzsky, 1926; *F. rufa* var. *nylanderi* Bondroit, 1919). Russia: **EP** (N, NW, C), **UR**, **WS** (TM, OM, TK, NS, KM, AL),



- ES** (KR, IR, BR, YA, ZB), **FE** (KH, PR, KA, MG). – Europe (WE, NE, SE, EE), Mongolia, China (NE), Korean Peninsula.
- Formica (Formica) polycytena** Förster, 1850. Russia: **EP** (N, NW, C, E, S), **UR, WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, KR, IR, BR, YA, ZB). – Europe (WE, NE, SE, EE), Kazakhstan.
- Formica (Formica) pratensis** Retzius, 1783 (*F. pratensis* var. *ciliata* Ruzsky, 1926). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR, WS** (TM, OM, TK, NS, AL), **ES** (KR, IR, BR, ZB), **FE** (AM). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Central Asia, Kazakhstan, Mongolia, China (NE).
- Formica (Formica) rufa** Linnaeus, 1761 (*F. rufa* var. *meridionalis* Nasonov, 1889). Russia: **EP** (N, NW, C, E, S), **UR, WS** (TM, OM, NS, AL), **ES** (KS, KR, IR). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan.
- Formica (Formica) truncorum** Fabricius, 1804 (*F. truncicola* Nylander, 1846; *F. rufa* var. *rufotruncicola* Ruzsky, 1896; *F. truncorum* var. *menozzii* Krausse, 1926). Russia: **EP** (N, NW, C, E, S, NC), **UR, WS** (TM, NS, AL), **ES** (KS, TU, KR, IR, BR, ZB), **FE** (AM, KH, PR, SA, KU). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Afghanistan, Central Asia, Kazakhstan, Mongolia, China (NE), Korean Peninsula, Japan (Hok).
- Formica (Formica) yessensis** Forel, 1901 (*F. truncicola* var. *yessensis* Forel, 1901). Russia: **FE** (PR). – China (NW, SE), Korean Peninsula, Japan (Hok, Hon).
- Formica (Raptiformica) sanguinea** Latreille, 1798 (*F. dominula* Nylander, 1846; *F. sanguinea* var. *fuscipes* Emery, 1895; *F. sanguinea* var. *mollesonae* Ruzsky, 1903; *F. sanguinea* var. *clarior* Ruzsky, 1905; *F. sanguinea arenicola* Kuznetsov-Ugamskij, 1928). Russia: **EP** (NW, C, E, S, NC, CR), **UR, WS** (OM, TK, NS, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, MG). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Afghanistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NE, NW, CC), Korean Peninsula, Japan (Hok, Hon).
- Formica (Serviformica) candida** F. Smith, 1878 (*F. fusca picea* var. *inplana* Ruzsky, 1914; *F. fusca picea* var. *orientalis* Ruzsky, 1914; *F. picea* auct.). Russia: **WS** (AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, MG). – Kyrgyzstan, Kazakhstan, Mongolia, China (NE, NW, CC), Korean Peninsula, Japan (Hok, Hon, Kyu).
- Formica (Serviformica) cinerea** Mayr, 1853 (*F. cinerea* var. *armenica* Ruzsky, 1905; *F. imitans* Ruzsky, 1902, auct.). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR, WS** (TM, AL). – Europe (WE, NE, SE, EE), Caucasus, Kazakhstan.
- Formica (Serviformica) cinereofusca** Karawajew, 1929 (*F. cinerea* var. *cinereofusca* Karawajew, 1929). Russia: **EP** (NC). – Europe (SE, EE), Caucasus.
- Formica (Serviformica) clarissima** Emery, 1925 (*F. rufibarbis subpilosa* var. *clarior* Ruzsky, 1914, nom. praecox., nec Ruzsky, 1905; *F. rufibarbis* var. *clarissima* Emery, 1925; *F. subpilosa ruzskyi* Dlussky, 1965; Kupianskaya, 2012). Russia: **ES** (BR, ZB), **FE** (AM, KH). – Mongolia, China (NE).
- Formica (Serviformica) cunicularia** Latreille, 1798 (*F. cunicularia fuscoides* Dlussky, 1967). Russia: **EP** (C, E, S, NC, CR), **UR, WS** (OM, TK, NS, AL). – Europe (SE, EE), Caucasus, Turkey, Iran, Central Asia, Kazakhstan.
- Formica (Serviformica) fusca** Linnaeus, 1758. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR, WS** (OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, ZB). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Central Asia, Kazakhstan, Mongolia, China (NE), N America (introduced).
- Formica (Serviformica) gagates** Latreille, 1798. Russia: **EP** (C, S, NC, CR). – Europe (WE, SE, EE), Georgia, Turkey.
- Formica (Serviformica) gagatoides** Ruzsky, 1904 (*F. fusca* var. *gagatoides* Ruzsky, 1904). Russia: **EP** (N, NW), **UR, WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (KH, KA, MG). – Europe (NE), Japan (Hon).
- Formica (Serviformica) glauca** Ruzsky, 1896 (*F. rufibarbis* var. *glauca* Ruzsky, 1896; *F. rufibarbis* var. *katuniensis* Ruzsky, 1915). Russia: **EP** (C, E, S, NC, CR), **UR, WS** (OM, TK, NS, KM, AL), **ES** (KS, KR, IR). – Europe (SE, EE), Caucasus, Turkey, Central Asia, Kazakhstan, Mongolia.
- Formica (Serviformica) japonica** Motschulsky, 1866 (*F. fusca* var. *nipponensis* Forel, 1901; *F. fusca* var. *japonica* Wheeler, 1913). Russia: **FE** (AM, PR, SA, KU). – Mongolia, China (NE, NC, NW, CC, SW, WP, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Formica (Serviformica) lemani** Bondroit, 1917 (*F. fusca* var. *borealis* Waschkevitich, 1924). Russia: **EP** (N, NW, NC), **UR, WS** (TM, OM, TK, NS, KM, AL), **ES** (KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, KA, MG, CH). – Europe (WE, NE, SE, EE), Mongolia, China (NE), Korean Peninsula, Japan (Hok, Hon, Shi).

- Formica (Serviformica) picea** Nylander, 1846 (*F. transcaucasica* Nasonov, 1889). Russia: **EP** (N, NW, C, E, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL). – Europe (WE, NE, SE, EE), Georgia, Armenia, Turkey, Kazakhstan.
- Formica (Serviformica) rufibarbis** Fabricius, 1793. Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (OM, TK, NS, KM, AL). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran.
- Formica (Serviformica) subpilosa** Ruzsky, 1902 (*F. rufibarbis subpilosa* Ruzsky, 1902; *F. cinerea* var. *bipilosa* Karawajew, 1926). Russia: **EP** (S, NC). – Caucasus, Central Asia.
- Formica (Serviformica) uralensis** Ruzsky, 1895. Russia: **EP** (C, NC), **UR**, **WS** (OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, ZB), **FE** (AM, PR, SA, KU). – Europe (WE, NE, EE), Mongolia, China (NE), Korean Peninsula.
- LASIVS** Fabricius, 1804. Type species *Formica nigra* Linnaeus, 1758. Number of species: World – 112, Palearctic – 55, Russia – 31.
- Lasius (Austrolasius) carnolicus** Mayr, 1861. Russia: **EP** (C, S), **UR**, **WS** (Radchenko, 2016), **ES** (Radchenko, 2016), **FE** (PR, SA). – Europe (WE, NE, SE, EE), Kazakhstan.
- Lasius (Cautolasius) flavus** (Fabricius, 1782) [Formica] (*L. flavus* var. *fuscoides* Ruzsky, 1902; *L. flavus odoratus* Ruzsky, 1905; *L. flavus* var. *olivacea* Karawajew, 1926). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU). – Europe (WE, NE, SE, EE), Caucasus, Iran, Kazakhstan, Korean Peninsula, Japan (Hok, Hon, Shi, Kyu), N America.
- Lasius (Chthonolasius) bicornis** (Förster, 1850) [Formica]. Russia: **EP** (C, E, S, NC). – Europe (WE, NE, SE, EE), Caucasus.
- Lasius (Chthonolasius) citrinus** Emery, 1922 (*L. affinis* Schenck, 1852, nom. praecoc., nec Leach, 1825; *L. bicornis* var. *citrine* Emery, 1922; *L. affinis* auct.). Russia: **EP** (C, E, S, NC, CR), **ES** (BR), **FE** (AM, KH, PR, SA, KU). – Europe (WE, SE, EE), Caucasus, Kazakhstan, Korean Peninsula.
- Lasius (Chthonolasius) distinguendus** (Emery, 1916) [Formicina] (*F. umbrata distinguenda* Emery, 1916; *Lasius hybrida* (Bondroit, 1918)). Russia: **EP** (C, E, S, NC), **ES** (ZB), **FE** (AM, PR). – Europe (WE, SE, EE), Georgia, Armenia, Kazakhstan, Mongolia, Korean Peninsula.
- Lasius (Chthonolasius) jensi** Seifert, 1982 (*L. umbratus*: Kupianskaya, 1995). Russia: **FE** (AM, PR). – Europe (WE, EE), Armenia, Korean Peninsula.
- Lasius (Chthonolasius) longiceps** Seifert, 1988. Russia: **EP** (C, S), **UR**. – Europe (EE), Kazakhstan.
- Lasius (Chthonolasius) meridionalis** (Bondroit, 1920) [Formicina]. Russia: **EP** (C, S, NC), **FE** (PR). – Europe (WE, NE, SE, EE), Georgia, Armenia, Kazakhstan, Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Lasius (Chthonolasius) mixtus** (Nylander, 1846) [Formica]. Russia: **EP** (NW, C, E, S, NC, CR), **WS** (TM, OM, TK, NS, KM, AL), **ES** (ZB), **FE** (AM, KH, PR). – Europe (WE, SE, EE), Georgia, Armenia, Kazakhstan, Korean Peninsula.
- Lasius (Chthonolasius) sabularum** (Bondroit, 1918) [Formicina]. Russia: **EP** (C, S, NC), **ES** (IR). – Europe (WE, NE, SE, EE).
- Lasius (Chthonolasius) umbratus** (Nylander, 1846) [Formica] (*L. umbratus* var. *exacutus* Ruzsky, 1902). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (ZB), **FE** (AM, PR, SA, KU). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Kazakhstan, Korean Peninsula, Japan (Hok, Hon, Shi, Kyu), N America.
- Lasius (Dendrolasius) capitatus** (Kuznetsov-Ugamsky, 1928) [Acanthomyops] (*A. fuliginosus capitatus* Kuznetsov-Ugamsky, 1928). Russia: **FE** (PR). – Japan (Hok, Hon, Shi).
- Lasius (Dendrolasius) fuji** Radchenko, 2005 (*L. fuliginosus*: Kupianskaya, 1995). Russia: **FE** (AM, KH, PR, SA, KU). – China (NE), Korean Peninsula, Japan (Hok, Hon, Shi).
- Lasius (Dendrolasius) fuliginosus** (Latreille, 1798) [Formica]. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (OM, TK, NS, KM, AL). – Europe (WE, NE, SE, EE), Caucasus, Kazakhstan.
- Lasius (Dendrolasius) morisitai** Yamauchi, 1978. Russia: **FE** (PR). – Korean Peninsula, Japan (Hon).
- Lasius (Dendrolasius) nipponensis** Forel, 1912 (*L. fuliginosus* var. *nipponensis* Forel, 1912; *L. crispus* Wilson, 1955). Russia: **FE** (PR). – Korean Peninsula, Japan (Hok, Hon, Shi).
- Lasius (Dendrolasius) orientalis** Karawajew, 1912 (*L. fuliginosus* var. *orientalis* Karawajew, 1912; *L. teranishii* Wheeler, 1928; *L. ouchii* Teranishi, 1940). Russia: **FE** (AM, PR, SA, KU). – Korean Peninsula, Japan (Hok, Hon).
- Lasius (Dendrolasius) spathepus** Wheeler, 1910. Russia: **FE** (PR). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

- Lasius (Lasius) alienus** (Förster, 1850) [Formica]. Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (OM, TK, NS, KM, AL), **ES** (BR, ZB), **FE** (AM, KH, PR, SA). – Europe, Caucasus, Turkey, Israel, Iran, Kazakhstan, Mongolia, Japan (Hok, Hon, Shi, Kyu), N America.
- Lasius (Lasius) brunneus** (Latreille, 1798) [Formica]. Russia: **EP** (C, E, S, NC, CR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Israel, Iran.
- Lasius (Lasius) emarginatus** (Olivier, 1792) [Formica] (*L. alienus* var. *pontica* Stårcke, 1944). Russia: **EP** (C, S, NC, CR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Israel, Iran.
- Lasius (Lasius) hayashi** Yamauchi et Hayashida, 1970. Russia: **FE** (KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Lasius (Lasius) japonicus** Santschi, 1941 (*L. emarginatus* var. *japonicus* Santschi, 1941; *L. niger*: Kupianskaya, 1995). Russia: **FE** (AM, KH, PR, SA, KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Lasius (Lasius) neglectus** Van Loon, Boomsma et Andrasfalvy, 1990. Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Turkey, Israel, Iran, Uzbekistan, Kyrgyzstan.
- Lasius (Lasius) niger** (Linnaeus, 1758) [Formica] (*L. niger* var. *alienonigra* Forel, 1874). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (BR, ZB). – Europe (WE, NE, SE, EE), Kazakhstan, Mongolia, N America.
- Lasius (Lasius) koreanus** Seifert, 1982. Russia: **FE** (KU). – Korean Peninsula.
- Lasius (Lasius) obscuratus** Stitz, 1930 (*L. brunneus* var. *obscurata* Stitz, 1930). Russia: **EP** (NC). – Tajikistan.
- Lasius (Lasius) paralienus** Seifert, 1992. Russia: **EP** (C, S, NC, CR). – Europe (WE, NE, SE, EE), Turkey.
- Lasius (Lasius) platythorax** Seifert, 1991. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL). – Europe (WE, NE, SE, EE), Iran.
- Lasius (Lasius) psammophilus** Seifert, 1992. Russia: **EP** (C, S, NC, CR). – Europe (WE, NE, SE, EE).
- Lasius (Lasius) turcicus** Santschi, 1921. Russia: **EP** (NC). – Europe (WE, SE, EE), Georgia, Turkey, Iran.
- LEPISIOTA** Santschi, 1926 (*Acantholepis* Mayr, 1861). Type species *Plagiolepis rothneyi* Forel, 1894. Number of species: World – 83, Palaeartic – 25, Russia – 1.
- Lepisiota semenovi** Ruzsky, 1905 [*Acantholepis*] (*Acantholepis frauenfeldi* var. *semenovi* Ruzsky, 1905). Russia: **EP** (NC). – Europe (SE, EE), Caucasus, Turkey, Iran, Central Asia, Kazakhstan.
- NYLANDERIA** Emery, 1906. Type species *Formica vividula* Nylander, 1846. Number of species: World – 110, Palaeartic – 9, Russia – 3.
- Nylanderia colchica** (Pisarski, 1960) [Paratrechina]. Russia: **EP** (NC). – Abkhazia, Georgia.
- Nylanderia flavipes** (Smith, 1874) [Tapinoma]. Russia: **EP** (NC, introduced), **FE** (KU). – Abkhazia (introduced), China (NE, NC, CC, SW, WP, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu).
- Nylanderia vividula** (Nylander, 1846) [Formica]. Russia: **EP** (C, S, NC, CR) (introduced). – Tramp species. Copsopolitan.
- PLAGIOLEPIS** Mayr, 1861. Type species *Formica pygmaea* Latreille, 1798. Number of species: World – 62, Palaeartic – 14, Russia – 3.
- Plagiolepis karawajewi** Radchenko, 1989. Russia: **EP** (CR).
- Plagiolepis pallescens** Forel, 1889. Russia: **EP** (NC). – Europe (SE, EE), N Africa, Caucasus, Turkey, Central Asia.
- Plagiolepis taurica** Santschi, 1920 (*P. maura* var. *taurica* Santschi, 1920; *P. barbara* var. *pyrenaica* Emery, 1921; *P. satunini* Karawajew, 1931). **EP** (C, E, S, NC, CR). – Europe (WE, SE, EE), Caucasus, Iran, Central Asia, Kazakhstan.
- POLYERGUS** Latreille, 1804. Type species *Formica rufescens* Latreille, 1798. Number of species: World – 14, Palaeartic – 3, Russia – 3.
- Polyergus nigerrimus** Marikovskiy, 1963. Russia: **ES** (TU, BR), **FE** (KH). – Mongolia.
- Polyergus rufescens** (Latreille, 1798) [Formica]. Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (OM, AL). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Kyrgyzstan, Kazakhstan.
- Polyergus samurai** Yano, 1911. Russia: **FE** (AM, PR). – China (NE, NC, CC, SW, WP, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- PRENOLEPIS** Mayr, 1861. Type species *Tapinoma nitens* Mayr, 1853. Number of species: World – 13, Palaeartic – 1, Russia – 1.
- Prenolepis nitens** (Mayr, 1853) [Tapinoma]. Russia: **EP** (NC, CR). – Europe (WE, SE, EE), Georgia, Turkey.

**PROFORMICA** Ruzsky, 1902. Type species *Formica nasuta* Nylander, 1856. Number of species: World – 25, Palaeartic – 25, Russia – 3.

**Proformica epinotalis** Kuznetsov-Ugamsky, 1927. Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (EE), Iran, Turkmenistan, Kyrgyzstan, Kazakhstan.

**Proformica mongolica** (Emery, 1901) [Formica]. Russia: **ES** (KS, TU, KR, IR, BR, ZB). – Kyrgyzstan, Kazakhstan, Mongolia, China (NE, NC, NW), Korean Peninsula.

**Proformica ossetica** Dubovikoff, 2005. Russia: **EP** (NC).

**ROSSOMYRMEX** Arnoldi, 1928. Type species *Rossomyrmex proformicarum* Arnoldi, 1928. Number of species: World – 4, Palaeartic – 4, Russia – 1.

**Rossomyrmex proformicarum** Arnoldi, 1928. Russia: **EP** (S, NC). – Kazakhstan.

#### Subfamily MYRMICINAE

Number of taxa: World – 142 genera, 6605 species, Palaeartic – 34/1000, Russia – 23/142.

**ANERGATES** Forel, 1874. Type species *Myrmica atratula* Schenck, 1852. The social parasites of *Tetramorium* species. Number of species: World – 1, Palaeartic – 1, Russia – 1.

**Anergates atratulus** (Schenck, 1852) [Myrmica]. The social parasite of *Tetramorium caespitum*. Russia: **EP** (C, S, NC, CR). – Europe (WE, NE, SE, EE), Armenia, Turkey, Kazakhstan, N America (introduced).

**APHAENOGASTER** Mayr, 1853. Type species *Aphaenogaster sardoa* Mayr, 1853. Number of species: World – 187, Palaeartic – 78, Russia – 8.

**Aphaenogaster famelica** (Smith, 1874) [Ischnomyrmex] (*A. famelica frontosa* Wheeler, 1928; *A. famelica ruida* Wheeler, 1928; *A. vapida* Wheeler, 1928). Russia: **FE** (KU). – China (CC, SW, WP, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

**Aphaenogaster gibbosa** (Latreille, 1798) [Formica] (*A. striola* (Roger, 1859); *A. gibbosa muschtaidica* Emery, 1908). Russia: **EP** (NC). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iraq, Iran, Turkmenistan.

**Aphaenogaster japonica** Forel, 1911 (*A. schmitzi japonica* Forel, 1911; *A. smythiesii sinensis* Wheeler,

1928; *A. sinensis*: Kupianskaya, 1995). Russia: **FE** (KU). – China (CC, SW, WP, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

**Aphaenogaster kurdica** Ruzsky, 1905 (*A. subterranea* var. *kurdica* Ruzsky, 1905). Russia: **EP** (NC). – Georgia, Turkey.

**Aphaenogaster obsidiana** (Mayr, 1861) [Atta]. Russia: **EP** (NC). – Europe (SE), Georgia, Turkey.

**Aphaenogaster splendida** (Roger, 1859) [Atta] (*Aphaenogaster splendida transcaucasica* Karawajew, 1926). Russia: **EP** (NC, CR). – Europe (SE), N Africa, Armenia, Azerbaijan, Turkey, Israel, Iran.

**Aphaenogaster subterranea** (Latreille, 1798) [Formica]. Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey.

**Aphaenogaster subterraneoides** Emery, 1881 (*A. pallida* var. *subterraneoides* Emery, 1881). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey.

**CARDIOCONDYLA** Emery, 1869. Type species *Cardiocondyla elegans* Emery, 1869. Number of species: World – 70, Palaeartic – 31, Russia – 5.

**Cardiocondyla koshewnikovi** Ruzsky, 1902. Russia: **EP** (S, NC). – Kyrgyzstan, Kazakhstan, Mongolia, China (NW).

**Cardiocondyla mauritanica** Forel, 1890 (*C. nuda* var. *mauritanica* Forel, 1890). Russia: **EP** (CR). – Europe (SE), N Africa, Afghanistan, Turkey, introduced into many countries.

**Cardiocondyla sahlbergi** Forel, 1913 (*C. elegans* var. *sahlbergi* Forel, 1913). Russia: **EP** (NC). – Europe (EE), N Africa, Caucasus, Turkey, Israel, Iran, Uzbekistan.

**Cardiocondyla stambuloffii** Forel, 1892 (*C. bogdanovi* Ruzsky, 1905; *C. stambuloffii taurica* Karawajew, 1927). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (SE, EE), Armenia, Turkey, Iran.

**Cardiocondyla ulianini** Emery, 1889 (*C. elegans* Emery, 1869, auct.; *C. elegans* var. *ulianini* Emery, 1889; *C. elegans schkaffi* Arnoldi, 1928). Russia: **EP** (E, S, NC, CR). – Europe (EE), Caucasus, Saudi Arabia, Iran, Afghanistan, Kyrgyzstan, Kazakhstan, Mongolia.

**CHALEPOXENUS** Menozzi, 1923 (*Leonomyrma* Arnoldi, 1968). Type species *Chalepoxenus gribodoi* Menozzi, 1923. The social parasites of *Temnothorax* species. Number of species: World – 9, Palaeartic – 9, Russia – 1.

- Chalepoxenus tauricus** Radchenko, 1989. The social parasite of *Temnothorax tauricus*. Russia: **EP** (CR).
- CREMATOGASTER** Lund, 1831. Type species *Formica scutellaris* Olivier, 1792. Number of species: World – 506, Palaearctic – 36, Russia – 3.
- Crematogaster schmidti** (Mayr, 1853) [Acrocoelia]. Russia: **EP** (CR, NC). – Europe (WE, SE, EE), Caucasus, Turkey, Iran, Turkmenistan.
- Crematogaster sordidula** (Nylander, 1849) [Myrmica] (*C. sordidula* var. *caspica* Emery, 1912). Russia: **EP** (NC). – Europe (WE, SE, EE), Caucasus, Turkey, Israel, Iran, Turkmenistan.
- Crematogaster subdentata** Mayr, 1877. Russia: **EP** (S introduced, NC, CR introduced). – Caucasus, Turkey, Iran, Afghanistan, Central Asia, Kazakhstan, Mongolia.
- FORMICOXENUS** Mayr, 1855. Type species *Myrmica nitidula* Nylander, 1846. The social parasite species, in nest of *Formica* s. str. (xenobiotic). Number of species: World – 7, Palaearctic – 2, Russia – 2.
- Formicoxenus nitidulus** (Nylander, 1846) [Myrmica] (*F. laeviuscula* Förster, 1850). Russia: **EP** (NW, C, E, NC), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (IR, YA, ZB), **FE** (KH, PR). – Europe (WE, NE, SE, EE), Turkey.
- Formicoxenus sibiricus** (Forel, 1899) [Leptothorax] (*F. orientalis* Dlussky, 1963). Russia: **ES** (BR, ZB), **FE** (PR).
- HARPAGOXENUS** Forel, 1893 (*Tomognathus* Mayr, 1861). Type species *Myrmica sublaevis* Nylander, 1849. The social parasites of *Leptothorax* species (dulosis). Number of species: World – 3, Palaearctic – 1, Russia – 1.
- Harpagoxenus sublaevis** (Nylander, 1852) [Myrmica] (*M. hirtula* Nylander, 1849). The social parasite of *Leptothorax acervorum*. Russia: **EP** (N, NW, C, E, NC), **UR**, **ES** (BR, ZB), **FE** (PR). – Europe (WE, NE, SE, EE).
- LEPTOTHORAX** Mayr, 1855. Type species *Formica acervorum* Fabricius, 1793. Number of species: World – 19, Palaearctic – 9, Russia – 6.
- Leptothorax acervorum** (Fabricius, 1793) [Formica] (*L. acervorum* var. *superus* Ruzsky, 1905; *L. acervorum* var. *nigrescens* Ruzsky, 1905; *L. acervorum kamtschaticus* Ruzsky, 1920; *Mychothorax acervorum orientalis* Kuznetzov-Ugamsky, 1928). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Central Asia, Kazakhstan, Mongolia, China (NE, NC), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Leptothorax grederi** Mayr, 1855. Russia: **EP** (NC). – Europe (WE, NE, SE, EE).
- Leptothorax muscorum** (Nylander, 1846) [Myrmica] (*L. muscorum* var. *fagi* Ruzsky, 1905; *L. muscorum* var. *betulae* Ruzsky, 1916). Russia: **EP** (N, NW, C, E, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Mongolia, China (NE, NC).
- Leptothorax oceanicus** (Kuznetzov-Ugamsky, 1928) [Mychothorax] (*L. muscorum oceanicum*: Kupianskaya, 1990). Russia: **FE** (AM, KH, PR). – China (NE), Korean Peninsula.
- Leptothorax pacis** (Kutter, 1945) [Doronomyrmex]. Russia: **EP** (N), **WS** (KM). – Europe (WE, NE, SE).
- Leptothorax scamni** Ruzsky, 1905 (*L. muscorum* var. *scamni* Ruzsky, 1905). Russia: **EP** (NC). – Caucasus, Turkey.
- MANICA** Jurine, 1807. Type species *Formica rubida* Latreille, 1802. Number of species: World – 6, Palaearctic – 2, Russia – 1.
- Manica rubida** (Latreille, 1802) [Formica]. Russia: **EP** (NC, CR). – Europe (WE, SE, EE), Georgia, Armenia, Turkey.
- MESSOR** Forel, 1890. Type species *Formica barbara* Linnaeus, 1767. Number of species: World – 106, Palaearctic – 69, Russia – 4.
- Messor aciculatus** (Smith, 1874) [Aphaenogaster]. Russia: **FE** (PR). – Mongolia, China (NE, NC, NW), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Messor denticulatus** Kuznetzov-Ugamsky, 1927 (*M. barbarus meridionalis* var. *denticulatus* Kuznetzov-Ugamsky, 1927). Russia: **EP** (S, NC). – Caucasus, Iran, Central Asia, Kazakhstan.
- Messor kasakorum** Arnoldi, 1970 (*M. kasakorum nadezhdae* Arnoldi, 1970). Russia: **EP** (S). – Kazakhstan.
- Messor structor** (Latreille, 1798) [Formica] (*Myrmica mutica* Nylander, 1849; *Messor structor* var. *clivorum* Ruzsky, 1905; *M. tataricus* Ruzsky, 1905; *M. structor turanicus* Kuznetzov-Ugamsky, 1927;

*M. rufitarsis jakowlevi* Arnoldi, 1977; *M. clivorum* auct., *M. rufitarsis* auct.). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), Caucasus, Israel, Iran, Afghanistan, Central Asia, Kazakhstan.

**MONOMORIUM** Mayr, 1855. Type species *Monomorium monomorium* Bolton, 1987, replacement name for *Monomorium minutum* Mayr, 1855. Number of species: World – 358, Palaeartic – 76, Russia – 2.

**Monomorium barbatulum** Mayr, 1877. Russia: **EP** (S). – Israel, Saudi Arabia, Iran, Oman, United Arab Emirates, Afghanistan, Turkmenistan, Kyrgyzstan, Kazakhstan.

**Monomorium pharaonis** (Linnaeus, 1758) [Formica]. Synanthropic species with cosmopolitan distribution, in Russia only in heated rooms. Russia, introduced. – Cosmopolitan.

**MYRMECINA** Curtis, 1829. Type species *Myrmecina latreillii* Curtis, 1829. Number of species: World – 53, Palaeartic – 7, Russia – 2.

**Myrmecina graminicola** (Latreille, 1802) [Formica] (*Myrmica striatula* Nylander, 1849). Russia: **EP** (C, E, S, NC, CR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Israel.

**Myrmecina nipponica** Wheeler, 1906 (*M. graminicola nipponica* Wheeler, 1906; *M. graminicola*: Kupianskaya, 1995). Russia: **FE** (AM, KH, PR, KU). – China (SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

**MYRMICA** Latreille, 1804. Type species *Formica rubra* Linnaeus, 1758. Number of species: World – 188, Palaeartic – 75, Russia – 44.

**Myrmica ademonia** Bolton, 1995 (replacement name for *M. aspersa* Kupianskaya, 1990). Russia: **FE** (KH, PR, KU). – Korean Peninsula.

**Myrmica angulinodis** Ruzsky, 1905 (*M. scabrinodis angulinodis* Ruzsky, 1905; *M. incurvata* Collingwood, 1976; *M. baikalensis* Dmitrienko, 1979; *M. kasczenkoi*: Kupianskaya, 1979; *M. forcipata*: Kupianskaya, 1990). Russia: **WS** (NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, MG). – Mongolia, China (NE), Korean Peninsula.

**Myrmica arnoldii** Dlussky, 1963. Russia: **ES** (TU, KR, IR, BR, ZB). – Mongolia.

**Myrmica bakurianica** Arnoldi, 1970 (*M. pilosiscapus bakurianica* Arnoldi, 1970). Russia: **EP** (NC). – Georgia.

**Myrmica bergi** Ruzsky, 1902 (*M. rugosa* var. *kirgisisa* Ruzsky, 1903; *M. bergi* var. *barchanica* Ruzsky, 1905; *M. bergi* var. *fortior* Crawley, 1920; *M. kamyshiensis* Arnoldi, 1934; *M. bergi persiana* Weber, 1947). Russia: **EP** (S, NC, CR), **WS** (AL). – Europe (EE), Azerbaijan, Iran, Central Asia.

**Myrmica commarginata** Ruzsky, 1905. Russia: **ES** (KR, BR, ZB). – Mongolia.

**Myrmica deplanata** Emery, 1921 (*M. lobicornis* var. *deplanata* Emery, 1921; *M. moravica* Soudek, 1922; *M. lobicornis* var. *plana* Karawajew, 1927; *M. moravica* var. *dagmarae* Sadil, 1939). Russia: **EP** (C, S, NC, CR), **WS** (AL). – Europe (WE, SE, EE), Caucasus, Iran, Central Asia.

**Myrmica displicentia** Bolton, 1995 (*M. bicolor* Kupianskaya, 1986). Russia: **FE** (MG, KA).

**Myrmica divergens** Karawajew, 1931 (*M. bergi* var. *divergens* Karawajew, 1931). Russia: **WS** (AL), **ES** (KR, IR, BR, YA, ZB). – Mongolia.

**Myrmica eidmanni** Menozzi, 1930 (*M. lobicornis littoralis* Weber, 1948). Russia: **WS** (AL), **ES** (KS, TU, KR, IR, BR, ZB), **FE** (AM, KH, PR). – Mongolia, China (NE), Korean Peninsula.

**Myrmica elbrusi** Radchenko et Yusupov, 2012. Russia: **EP** (NC).

**Myrmica excelsa** Kupianskaya, 1990 (*M. sinica* Wu et Wang, 1995; *M. cadusa* B. Kim, Park et J. Kim, 1997). Russia: **FE** (PR). – China (NE), Korean Peninsula, Japan (Hok, Hon).

**Myrmica forcipata** Karawajew, 1931. Russia: **ES** (KR, IR, BR, YA, ZB). – Mongolia.

**Myrmica gallienii** Bondroit, 1920 (*M. rugulosa limanica* Arnoldi, 1934; *M. jacobsoni* Kutter, 1963; *M. limanica obensis* Arnoldi, 1970). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (Radchenko, Elmes, 2010). – Europe (WE, NE, EE).

**Myrmica hellenica** Finzi, 1926 (*M. rugulosa* var. *hellenica* Finzi, 1926; *M. rugulosa* var. *rugulososcabrinodis* Karawajew, 1929; *M. rugulosa caucasica* Arnoldi, 1934). Russia: **EP** (NC, CR). – Europe (SE, EE), Caucasus, Turkey.

**Myrmica hirsuta** Elmes, 1978. Russia: **EP** (C). – Europe (WE, NE, SE, EE).

**Myrmica jennyae** Elmes, Radchenko et Aktac, 2002. Russia: **EP** (NC). – Turkey.

**Myrmica kamtschatica** Kupianskaya, 1986 (*M. aboriginica* Zhigulskaya, 1991). Russia: **WS** (KM, AL), **ES** (Radchenko, Elmes, 2010), **FE** (AM, KH, PR, MG, KA). – Mongolia, Korean Peninsula.

- Myrmica karavajevi** (Arnoldi, 1930) [Symbiomyrma] (*Sifolinia karavajevi* Arnoldi, 1930). Russia: **EP** (NW, C). – Europe (WE, NE, SE, EE).
- Myrmica kasczenkoi** Ruzsky, 1905 (*M. scabrinodis kasczenkoi* Ruzsky, 1905). Russia: **WS** (KM, AL), **ES** (KS, TU, KR, IR, BR, ZB). – Mongolia.
- Myrmica koreana** Elmes, Radchenko et Kim, 2001. Russia: **WS** (KM, AL), **ES** (KS, TU, KR, IR, BR, ZB), **FE** (AM, KH, PR). – Kazakhstan, Mongolia, China (NE), Korean Peninsula.
- Myrmica kotokui** Forel, 1911 (*M. rubra kotokui* Forel, 1911; *M. ruginodis orientalis* Karawajew, 1926; *M. orientalis*: Kupianskaya, 1990). Russia: **FE** (PR). – China (NE), Korean Peninsula, Japan (Hok, Hon).
- Myrmica kozakorum** Radchenko et Elmes, 2010. Russia: **EP** (S, NC, CR). – Europe (EE).
- Myrmica kurokii** Forel, 1907 (*M. rubra kurokii* Forel, 1907). Russia: **FE** (PR). – China (NE, NC), Korean Peninsula, Japan (Hok, Hon).
- Myrmica lobicornis** Nylander, 1846 (*M. lobicornis alpestris* Arnoldi, 1934). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (Radchenko, 2016), **ES** (KS, TU, KR, IR, BR, YA, ZB). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Kazakhstan, Mongolia.
- Myrmica lonae** Finzi, 1926 (*M. scabrinodis lonae* Finzi, 1926). Russia: **EP** (N, NW, C, E), **UR**, **WS** (Radchenko, 2016), **ES** (BR). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan.
- Myrmica luteola** Kupianskaya, 1990. Russia: **FE** (PR). – China (NE), Korean Peninsula, Japan (Hok, Hon).
- Myrmica pisarskii** Radchenko, 1994. Russia: **WS** (KM, AL), **ES** (KS, TU, KR, IR, BR, ZB). – Mongolia.
- Myrmica ravasinii** Finzi, 1923. Russia: **EP** (NC). – Europe (SE), Georgia, Armenia, Turkey.
- Myrmica rubra** (Linnaeus, 1758) [Formica] (*M. laevinodis* Nylander, 1846; *M. longiscapus* Curtis, 1854; *M. laevinodis* var. *europa* Finzi, 1926; *M. laevinodis* var. *bruesi* Weber, 1947; *M. microrubra* Seifert, 1993). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Central Asia.
- Myrmica ruginodis** Nylander, 1846 (*M. diluta* Nylander, 1849). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Kazakhstan, Mongolia, China (NE, NC), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Myrmica rugulosa** Nylander, 1849. Russia: **EP** (NW, C, E, NC, CR), **UR**. – Europe (WE, NE, SE, EE), Caucasus.
- Myrmica sabuleti** Meinert, 1861. Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (Radchenko, 2016). – Europe (WE, NE, SE, EE), Caucasus, Turkey.
- Myrmica salina** Ruzsky, 1905 (*M. scabrinodis* var. *salina* Ruzsky, 1905). Russia: **UR**, **WS** (Radchenko, Elmes, 2010). – Kazakhstan.
- Myrmica scabrinodis** Nylander, 1846 (*M. scabrinodis* var. *rugulosoides* Forel, 1915; *M. scabrinodis* var. *ahngeri* Karawajew, 1926). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (Radchenko, 2016), **ES** (KR, BR, ZB). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Kazakhstan.
- Myrmica schencki** Viereck, 1903 (*M. rubra* var. *schlencki* Viereck, 1903; *M. schenckioides* Boer, Noordijk, 2005). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (Radchenko, 2016), **ES** (KR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Central Asia.
- Myrmica slovaca** Sadil, 1952 (*M. curvithorax* Bondroit, 1920). Russia: **EP** (C, S, NC, CR), **UR**, **WS** (Radchenko, 2016). – Europe (WE, SE, EE), Caucasus, Turkey, Kazakhstan.
- Myrmica specioides** Bondroit, 1918 (*M. scabrinodis* var. *sancta* Karawajew, 1926; *M. sancta tshuliensis* Arnoldi, 1976). Russia: **EP** (C, S, NC, CR), **UR**, **WS** (Radchenko, Elmes, 2010). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Turkmenistan, Kazakhstan.
- Myrmica stangeana** Ruzsky, 1902 (*M. bergi stangeana* Ruzsky, 1902; *M. stangeana medvedevi* Arnoldi, 1970). Russia: **EP** (E, S), **UR**, **WS** (AL). – Europe (EE), Kazakhstan.
- Myrmica sulcinodis** Nylander, 1846 (*M. sulcinodis* var. *nigripes* Ruzsky, 1895; *M. myrmecophila* Wasmann, 1910; *M. sulcinodis* var. *sulcinodoscabrinodis* Forel, 1915). Russia: **EP** (N, NW, C, NC, CR), **UR**, **WS** (Radchenko, 2016), **ES** (Radchenko, 2016), **FE** (AM, KH, PR, SA, MG). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Kazakhstan, Mongolia, Korean Peninsula.
- Myrmica transsibirica** Radchenko, 1994 (*M. taediosa* Bolton, 1995). Russia: **WS** (KM, AL), **ES** (Radchenko, Elmes, 2010), **FE** (AM, KH, PR, SA). – China (NE), Korean Peninsula, Japan (Hok).
- Myrmica tschekanovskii** Radchenko, 1994. Russia: **ES** (KR, YA).
- Myrmica vandeli** Bondroit, 1920 (*M. scabrinodis* var. *vandeli* Bondroit, 1920). Russia: **EP** (NC). – Europe (WE, NE, SE, EE).

- Myrmica zojæ** Radchenko, 1994. Russia: **UR, WS** (AL).
- MYRMOXENUS** Ruzsky, 1902 (*Epimyrmica* Emery, 1915). Type species *Myrmoxenus gordiagini* Ruzsky, 1902. The social parasites of *Temnothorax* species. Number of species: World – 12, Palaearctic – 12, Russia – 2.
- Myrmoxenus gordiagini** Ruzsky, 1902 (*Myrmetaerus microcellatus* Soudek, 1925). Russia: **WS** (TK, NS, AL). – Europe (SE, EE), Kazakhstan.
- Myrmoxenus ravouxi** (André, 1896) [Formicoxenus] (*Epimyrmica goesswaldi* Menozzi, 1930). Russia: **EP** (NC, CR). – Europe (WE, SE, EE).
- PHEIDOLE** Westwood, 1839. Type species *Atta providens* Sykes, 1835. Number of species: World – 1004, Palaearctic – 19, Russia – 2.
- Pheidole fervida** Smith, 1874. Russia: **FE** (PR, KU). – China (CC, SW, WP, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Pheidole pallidula** (Nylander, 1849) [Myrmica] (*Ph. pallidula* var. *arenarum* Ruzsky, 1905; *Ph. pallidula koshewnikovi* Ruzsky, 1905). Russia: **EP** (S, NC). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iran, Afghanistan, Central Asia, Kazakhstan.
- SOLENOPSIS** Westwood, 1840 (*Diplorhoptrum* Mayr, 1855). Type species *Solenopsis mandibularis* Westwood, 1840. Number of species: World – 195, Palaearctic – 33, Russia – 5.
- Solenopsis deserticola** Ruzsky, 1905 [Diplorhoptrum] (*D. deserticola* auct.). Russia: **EP** (S, NC). – Caucasus, Central Asia, Kazakhstan.
- Solenopsis fugax** (Latreille, 1798) [Formica] (*Myrmica flavidula* Nylander, 1849; *Solenopsis fugax orientalis* Ruzsky, 1905; *S. orbula* var. *latroides* Ruzsky, 1905; *S. (Diplorhoptrum) fugax* var. *pontica* Santschi, 1934; *Diplorhoptrum fugax* auct.). Russia: **EP** (C, E, S, NC, CR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iran, Afghanistan, Central Asia, Kazakhstan.
- Solenopsis ilinei** Santschi, 1936 (*S. orbula* var. *oculata* Karawajew, 1926; *S. (Diplorhoptrum) orbula* var. *ilinei* Santschi, 1936). Russia: **EP** (CR). – Azerbaijan.
- Solenopsis japonica** Wheeler, 1928 (*S. fugax* var. *japonica* Wheeler, 1928; *Diplorhoptrum japonica*: Kupianskaya, 1995). Russia: **FE** (KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Solenopsis juliae** (Arakelian, 1991) [Diplorhoptrum]. Russia: **EP** (NC). – Armenia.
- STENAMMA** Westwood, 1839. Type species *Stenamma westwoodi* Westwood, 1839. Number of species: World – 84, Palaearctic – 14, Russia – 6.
- Stenamma debile** (Förster, 1850) [Myrmica] (*S. westwoodii* Westwood, 1839, auct.; *S. golosejevi* Karawajew, 1926; *S. ucrainicum* Arnoldi, 1928). Russia: **EP** (C, E, S, NC, CR). – Europe (WE, NE, SE, EE), Armenia, Turkey.
- Stenamma georgii** Arnoldi, 1975. Russia: **EP** (NC). – Abkhazia, Georgia.
- Stenamma kurilense** Arnoldi, 1975. Russia: **FE** (KU).
- Stenamma lippulum** (Nylander, 1849) [Myrmica] (*S. westwoodi* var. *hirtula* Emery, 1898; *S. caucasicum* Arnoldi, 1975). Russia: **EP** (NC). – Abkhazia, Georgia, Azerbaijan.
- Stenamma striatulum** Emery, 1895 (*S. westwoodi* var. *striatulum* Emery, 1895; *S. westwoodi* var. *tscherkesicum* Arnoldi, 1928). Russia: **EP** (NC). – Europe (SE, EE), Turkey.
- Stenamma ussuriense** Arnoldi, 1975. Russia: **FE** (PR). – Korean Peninsula.
- STRONGYLOGNATHUS** Mayr, 1853. Type species *Eciton testaceum* Schenck, 1852. The social parasites of *Tetramorium* species (dulosis). Number of species: World – 24, Palaearctic – 24, Russia – 5.
- Strongylognathus arnoldii** Radchenko, 1985. Russia: **EP** (CR).
- Strongylognathus christophi** Emery, 1889 (*S. huberi ruzskyi* Emery, 1909). Russia: **EP** (E, S, NC, CR), **UR**. – Caucasus, Kazakhstan.
- Strongylognathus karawajewi** Pisarski, 1966. Russia: **EP** (S, NC, CR). – Caucasus, Turkmenistan.
- Strongylognathus rehbinderi** Forel, 1904. Russia: **EP** (S, NC). – Abkhazia.
- Strongylognathus testaceus** (Schenck, 1852) [Eciton] (*Myrmus emarginatus* Schenck, 1853; *Strongylognathus diveri* Donisthorpe, 1936). Russia: **EP** (C, E, S, NC, CR), **UR, WS** (NS, AL). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Kazakhstan.
- STRUMIGENYS** Smith, 1860 (*Pyramica* Roger, 1862; *Epitritus* Emery, 1869). Type species *Strumigenys mandibularis* Smith, 1860. Number of species: World – 837, Palaearctic – 19, Russia – 1.
- Strumigenys argiola** (Emery, 1869) [Epitritus] (*Pyramica argiola* auct.). Russia: **EP** (NC). – Europe (WE, SE), N Africa, Caucasus, Turkey, Israel.



- TELEUTOMYRMEX** Kutter, 1950. Type species *Teleutomyrmex schneideri* Kutter, 1950. Number of species: World – 2, Palaeartic – 2, Russia – 1.
- Teleutomyrmex schneideri** Kutter, 1950. Russia: **EP** (S). – Europe (WE), Turkmenistan.
- TEMNOTHORAX** Mayr, 1861. Type species *Myrmica recedens* Nylander, 1856. Number of species: World – 390, Palaeartic – 200, Russia – 29.
- Temnothorax affinis** (Mayr, 1855) [Leptothorax]. Russia: **EP** (C, E, S, NC, CR). – Europe (WE, NE, SE, EE), Caucasus, Turkey.
- Temnothorax alinae** (Radchenko, 1994) [Leptothorax]. Russia: **FE** (PR).
- Temnothorax alpinus** (Ruzsky, 1902) [Leptothorax] (*L. wernerii* (Radchenko, 1994)). Russia: **EP** (NC). – Georgia.
- Temnothorax arnoldii** Radchenko et Fedoseeva, 2015. Russia: **EP** (NC).
- Temnothorax brauneri** (Ruzsky, 1905) [Leptothorax] (*L. serviculus* var. *brauneri* Ruzsky, 1905). Russia: **EP** (NC). – Georgia.
- Temnothorax clypeatus** (Mayr, 1853) [Myrmica]. Russia: **EP** (CR). – Europe (WE, SE, EE).
- Temnothorax congruus** (Smith, 1874) [Leptothorax]. Russia: **FE** (PR, KU). – China (NE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Temnothorax corticalis** (Schenck, 1852) [Myrmica]. Russia: **EP** (S, NC, CR). – Europe (WE, NE, SE, EE), N Africa, Caucasus.
- Temnothorax crasecundus** Seifert et Csósz, 2015. Russia: **EP** (NC, CR). – Europe (SE, EE), Caucasus, Turkey.
- Temnothorax crassispinus** (Karawajew, 1926) [Leptothorax] (*L. nylanderi* var. *crassispinus* Karawajew, 1926; *L. nylanderi slavonicus* Seifert, 1995). Russia: **EP** (C, E, S). – Europe (WE, SE, EE).
- Temnothorax discoloratus** (Arnoldi, 1977) [Leptothorax]. Russia: **EP** (NC).
- Temnothorax dluskyi** Radchenko, Yusupov et Fedoseeva, 2015. Russia: **EP** (NC).
- Temnothorax interruptus** (Schenck, 1852) [Myrmica]. Russia: **EP** (NC). – Europe (WE, NE, SE, EE).
- Temnothorax jailensis** (Arnoldi, 1977) [Leptothorax]. Russia: **EP** (CR).
- Temnothorax kaszabi** (Pisarski, 1969) [Leptothorax] (*L. tuberum sachalinensis* Kupianskaya, 1990). Russia: **WS** (AL), **ES** (TU, YA, ZB), **FE** (SA). – Mongolia, Korean Peninsula.
- Temnothorax knipovitschi** (Karawajew, 1916) [Leptothorax] (*L. tuberum knipovitshi* Karawajew, 1916; *L. nikitae* Arnoldi, 1977; *L. junipereti* Arnoldi, 1977). Russia: **EP** (E, S, NC, CR), **UR**. – Europe (EE), Caucasus, Kazakhstan.
- Temnothorax kurilensis** (Radchenko, 1994) [Leptothorax]. Russia: **FE** (KU).
- Temnothorax mongolicus** (Pisarski, 1969) [Leptothorax] (*L. serviculus mongolicus* Pisarski, 1969). Russia: **ES** (ZB), **FE** (AM). – Mongolia, Korean Peninsula.
- Temnothorax nassonovi** (Ruzsky, 1895) [Leptothorax] (*L. nassonovi* var. *subnudus* Ruzsky, 1905; *L. galeatus* Wheeler, 1927; *L. nassonovi firssovi* Kuznetsov-Ugamsky, 1928). Russia: **EP** (E, S), **UR**, **WS** (OM, TK, NS, AL), **ES** (BR, ZB), **FE** (AM, KH, PR, SA). – Europe (EE), Kazakhstan, Mongolia, China (NE, NC), Korean Peninsula.
- Temnothorax parvulus** (Schenck, 1852) [Myrmica]. Russia: **EP** (NC). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Iran, Turkmenistan.
- Temnothorax recedens** (Nylander, 1856) [Myrmica]. Russia: **EP** (S, NC, CR). – Europe (SE), N Africa, Caucasus, Turkey, Iran, Turkmenistan.
- Temnothorax satunini** (Ruzsky, 1902) [Leptothorax]. Russia: **EP** (NC). – Caucasus, Turkey.
- Temnothorax semenovi** (Ruzsky, 1903) [Leptothorax]. Russia: **EP** (S, NC, CR). – Central Asia.
- Temnothorax serviculus** (Ruzsky, 1902) [Leptothorax]. Russia: **EP** (E, S), **UR**, **WS** (Radchenko, 1996b), **ES** (Radchenko, 1996b). – Kazakhstan, Mongolia.
- Temnothorax tauricus** (Ruzsky, 1902) [Leptothorax] (*L. unifasciatus* var. *tauricus* Ruzsky, 1902; *L. pithyusae* Arnoldi, 1977; *L. pithyusae babuganicus* Arnoldi, 1977). Russia: **EP** (NC, CR). – Europe (EE).
- Temnothorax tembotovi** Radchenko et Yusupov, 2015. Russia: **EP** (NC).
- Temnothorax tuberum** (Fabricius, 1775) [Formica] (*F. tuberosa* Latreille, 1802; *Leptothorax tuberum stipaceus* Ruzsky, 1905; *L. tuberum* var. *nigricephala* Karawajew, 1930; *L. tuberum alaicus* Tarbinsky, 1976; *L. pratostepposus* Arnoldi, 1977; *L. tuberum acutinodis* Arnoldi, 1977; *L. tuberum ciscaucasicus* Arnoldi, 1977). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (NS, AL). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Central Asia.
- Temnothorax unifasciatus** (Latreille, 1798) [Formica] (*Leptothorax tuberum kirillovi* Ruzsky, 1905; *L. tuberum* var. *salina* Karawajew, 1937; *L. unifasciatus*

- ucrainicus* Arnoldi, 1977). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Iran, Turkmenistan.
- Temnothorax volgensis** (Ruzsky, 1905) [Leptothorax] (*L. nassonovi volgensis* Ruzsky, 1905). Russia: **EP** (C, E, S), **UR**. – Europe (EE), Kazakhstan.
- TETRAMORIUM** Mayr, 1855. Type species *Formica caespitum* Linnaeus, 1758. Number of species: World – 564, Palaeartic – 120, Russia – 10.
- Tetramorium caespitum** (Linnaeus, 1758) [Formica]. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (OM, TK, NS, AL), **ES** (KS, TU, KR, IR, BR, ZB). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Syria, Lebanon, Central Asia.
- Tetramorium chefketi** Forel, 1911 (*T. caespitum* var. *cheketi* Forel, 1911; *T. caespitum* var. *sarkissiani* Forel, 1911; *T. caespitum* st. *turcomanicum* Santschi, 1921; *T. taurocausicum* Arnoldi, 1968). Russia: **EP** (S, NC), **UR**, **WS** (AL). – Europe (SE, EE), Caucasus, Turkey, Iran, Central Asia, Kazakhstan.
- Tetramorium densopilosum** Radchenko et Arakelian, 1990. Russia: **EP** (S, NC). – Georgia, Armenia, Turkey.
- Tetramorium ferox** Ruzsky, 1903 (*T. caespitum* var. *ferox* Ruzsky, 1903; *T. caespitum* st. *ferox* var. *perspicax* Santschi, 1921; *T. confinis* Radchenko et Arakelian, 1990; *T. perspicax* Radchenko, 1992). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Caucasus, Turkey.
- Tetramorium feroxoides** Dlussky et Zabelin, 1985 (*T. bursakovi* Radchenko, 1992). Russia: **EP** (S, NC). – Caucasus, Turkey, Iran, Central Asia, Kazakhstan.
- Tetramorium hungaricum** Rösler, 1935 (*T. caespitum hungarica* Rösler, 1935). Russia: **EP** (S, CR). – Europe (WE, EE).
- Tetramorium impurum** (Förster, 1850) [Myrmica] (*T. caespitum* var. *penninum* Santschi, 1927; *T. staerckei* Kratochvíl, 1944). Russia: **EP** (S, NC). – Europe (WE, NE, SE, EE).
- Tetramorium inerme** Mayr, 1877 (*T. caespitum* var. *inermis* Mayr, 1877). Russia: **EP** (S, NC). – Iran, Central Asia, Kazakhstan.
- Tetramorium moravicum** Novák et Sadil, 1941 (*T. rhenanum* Schulz, 1996). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Caucasus, Turkey.
- Tetramorium tsushimae** Emery, 1925 (*T. caespitum jacoti* Wheeler, 1927). Russia: **FE** (AM, KH, PR, KU). – China (NE), Korean Peninsula, Japan (Hok, Hon, Shi, Tsushima, Kyu, Yakushima).
- TRICHOMYRMEX** Mayr, 1865. Type species *Trichomyrmex rogeri* Mayr, 1865. Number of species: World – 24, Palaeartic – 10, Russia – 1.
- Trichomyrmex perplexus** (Radchenko, 1997) [Monomorium]. Russia: **EP** (NC). – Europe (SE), Caucasus, Turkey, United Arab Emirates, Iran.

## Subfamily PONERINAE

Number of taxa: World – 142 genera, 6605 species, Palaeartic – 12/33, Russia – 4/7.

**BRACHYPONERA** Emery, 1900. Type species *Euponera (Brachyponera) croceicornis* Emery, 1900. Number of species: World – 19, Palaeartic – 2, Russia – 1.

**Brachyponera chinensis** (Emery, 1895) [Ponera] (*P. nigrita chinensis* Emery, 1895). Russia: **EP** (NC introduced), **?FE** (PR). – Abkhazia (introduced), Georgia (introduced), China (CC, SW, WP, SE), Korean Peninsula, Japan (Hon, Shi, Kyu, Ryu).

**CRYPTOPONE** Emery, 1893. Type species *Cryptopone testacea* Emery, 1893. Number of species: World – 24, Palaeartic – 1, Russia – 1.

**Cryptopone ochracea** (Mayr, 1855) [Ponera]. Russia: **EP** (NC, CR). – Europe (WE, SE, EE), Saudi Arabia.

**HYPOPONERA** Santschi, 1938. Type species *Ponera abeillei* André, 1881. Number of species: World – 152, Palaeartic – 9, Russia – 2.

**Hypoponera eduardi** (Forel, 1894) [Ponera]. Russia: **EP** (NC). – Europe (WE, SE, EE), N Africa, Turkey, Israel, Saudi Arabia, Iran, United Arab Emirates.

**Hypoponera punctatissima** (Roger, 1859) [Ponera]. Tramp species. Russia, in heated buildings. – Cosmopolitan.

**PONERA** Latreille, 1804. Type species *Formica coarctata* Latreille, 1802. Number of species: World – 57, Palaeartic – 5, Russia – 3.

**Ponera coarctata** (Latreille, 1802) [Formica] (*P. coarctata* var. *lucida* Emery, 1898; *P. coarctata coarctata colchica* Arnoldi, 1932; *P. taurica* Arnoldi, 1932). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iran, Kyrgyzstan, Kazakhstan.

**Ponera japonica** Wheeler, 1906 (*P. japonica* var. *crocea* Santschi, 1941). Russia: **FE** (PR, KU). – China

(SW, WP, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

**Ponera testacea** Emery, 1895 (*P. coarctata* var. *testacea* Emery, 1895). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE).

#### Subfamily PROCERATIINAE

Number of taxa: World – 3 genera, 144 species, Palaeartic – 1/7, Russia – 1/1.

**PROCERATIUM** Roger, 1863. Type species *Proceratium silaceum* Roger, 1863. Number of species: World – 83, Palaeartic – 7, Russia – 1.

**Proceratium melinum** (Roger, 1860) [*Ponera*] (*Syphingta europaea* Forel, 1886; *S. fialai* Kratochvíl, Novák et Snoflák, 1944, *S. rossica* Arnoldi, 1930). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Turkey.

## SUPERFAMILY APOIDEA

## SECTION SPHECIFORMES – DIGGER WASPS

Number of taxa: Word – 4 families, 276 genera, 9889 species, Palaeartic – 4/101/2302, Russia – 3/87/684.

70. FAMILY AMPULICIDAE – AMPULICID  
DIGGER WASPS

YU.N. DANILOV

The cockroach wasps are a small, mainly tropical group. These wasps hunt cockroaches. The wasps may enter houses in search of domestic roaches. After a cockroach is captured and weakly paralyzed, the wasp grasps it by the antennal bases with her mandibles and walking back-wards drags the prey to any suitable niche. The nest is stoppered with bits of leaves, grass, and other debris.

The family is distributed mainly in tropical and subtropical regions. Number of taxa: Word – 6 genera and 202 species, Palaeartic – 3/38, Russia – 2/4.

References. Bohart, Menke, 1976; Mokrousov, 2009; Kolesnikov, 1977; Mokrousov, 2010; Mokrousov, Popov, 2016; Shorenko, 2007.

## Subfamily AMPULICINAE

**AMPULEX** Jurine, 1807 (*Pronaeus* Latreille, 1809; *Lorrhoeum* Shuckard, 1837; *Rhinopsis* Westwood, 1844; *Waagenia* Kriechbaumer, 1874; *Chlorampulex* de Saussure, 1892). Type species *Chlorion compressum* of Latreille and of Fabricius (= *Chlorion compressum* (Fabricius, 1804) = *Sphex compressus* Fabricius, 1781). Number of species: World – 132, Palaeartic – 21, Russia – 1.

**Ampulex fasciata** Jurine, 1807 (*A. europaea* Giraud, 1858). Russia: **EP** (CR). – Europe (WE, SE, EE).

**DOLICHURUS** Latreille, 1809 (*Thyreosphex* Ashmead, 1904). Type species *Pompilus corniculus* Spinola, 1808. Number of species: World – 50, Palaeartic – 16, Russia – 3.

**Dolichurus bicolor** Lepeletier de Saint Fargeau, 1845. Russia: **EP** (CR). – Europe (WE, NE, SE, EE), Turkey.

**Dolichurus corniculus** (Spinola, 1808) [*Pompilus*] (*Pompilus clavipes* Dahlbom, 1829; *D. dahlbomii* Tischbein, 1852). Russia: **EP** (NW, C, E, NC). – Europe (WE, NE, SE, EE), Turkey.

**Dolichurus haemorrhous** A. Costa, 1886. Russia: **EP** (NC, CR). – Europe (WE, SE), N Africa.

## 71. FAMILY SPHECIDAE – SPHECID DIGGER WASPS

YU.N. DANILOV

Sphecidae - mainly large, actively flying, 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, Dytioptera, Lepidoptera, Hymenoptera, and 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* make the mud-nests and *Chalybion* arrange nests in the ready cavities. Most of Sphecidae prefer the open landscapes; they are rare in forests.

The family is distributed worldwide, mainly in arid, semiarid and tropical regions. Number of taxa: Word – 19 genera and 779 species, Palaearctic – 13/260, Russia – 11/68.

References. Bohart, Menke, 1976; Danilov, 2012; Danilov, 2014; Dollfuss, 2010, 2013; Menke, Pulawski, 2000; Nemkov, 2009; Nemkov, 2012.

### Subfamily AMMOPHILINAE

**AMMOPHILA** W. Kirby, 1798 (*Miscus* Jurine, 1807; *Coloptera* Latreille, 1845; *Argyramphila* Gussakovskij, 1928; *Apynemia* Leclercq, 1961). Type species *Sphex sabulosus* Linnaeus, 1758. Number of species: World – 234, Palaearctic – 103, Russia – 23.

**Ammophila adelpha** Kohl, 1884. Russia: **EP** (S). – Iran, Uzbekistan, Kyrgyzstan, Kazakhstan, China (NW).

**Ammophila asiatica** Tsuneki, 1971. Russia: **WS** (AL), **ES** (TU, BR, ZB). – Mongolia.

**Ammophila campestris** Latreille, 1809. Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (OM, TK, NS, AL), **ES** (TU, KR, IR), **FE** (AM, PR). – Europe (WE, NE, SE, EE), N Africa, Turkey, Central Asia, Kazakhstan, Mongolia, China (NE, NC, NW), Korean Peninsula.

**Ammophila deserticola** Tsuneki, 1971. Russia: **UR**, **WS** (OM, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR). – Kyrgyzstan, Mongolia, China (NC).

**Ammophila elongata** Fischer de Waldheim, 1843. Russia: **EP** (S), **UR**, **FE** (AM). – Turkey, Iran, Turkmenistan, Kazakhstan, Mongolia.

**Ammophila gracillima** Taschenberg, 1869 (*A. longicollis* Kohl, 1884; *A. debilis* F. Morawitz, 1889). Russia: **EP** (S). – N Africa, Turkey, Syria, Jordan, Israel, Iran, Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NE, NC, WP), India, Africa.

**Ammophila haladai** Dollfuss, 2013. Russia: **WS** (OM, NS), **ES** (KS). – Turkey.

**Ammophila heydeni** Dahlbom, 1845. Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (OM, NS, AL). – Europe (WE, SE, EE), N Africa, Armenia, Turkey, Syria, Jordan, Israel, Iran, Afghanistan, Central Asia, Kazakhstan, Mongolia, China (NW).

**Ammophila hungarica** Mocsáry, 1883 (*A. fallax* Kohl, 1884). Russia: **EP** (NC, CR), **WS** (OM, NS, AL). – Europe (WE, SE, EE), N Africa, Armenia, Turkey, Syria, Jordan, Iran, Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.

**Ammophila infesta** F. Smith, 1873. Russia: **FE** (PR). – China (NE, NC, CC), Korean Peninsula, Japan (Hon).

**Ammophila mongolensis** Tsuneki, 1971. Russia: **WS** (AL), **ES** (KS, BR, YA, ZB). – Turkey, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NC).

**Ammophila occipitalis** F. Morawitz, 1890 (*A. ruficollis* F. Morawitz, 1890). Russia: **EP** (S, NC). – Jordan, Iraq, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.

**Ammophila pubescens** Curtis, 1836 (*Miscus arvensis* Dahlbom, 1843; *A. arnaudi* Tsuneki, 1976). Russia: **EP** (N, NW, C, E, NC, CR), **UR**, **WS**, **ES**, **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), Turkey, Iran, Kazakhstan, Mongolia, China (NE, NC, NW, SW), N America.

**Ammophila sabulosa** (Linnaeus, 1758) [*Sphex*] (*A. sabulosa kamtschatica* Gussakovskij, 1932). Russia: **EP**, **UR**, **WS**, **ES**, **FE** (KA, MG). – Europe (WE, NE, SE, EE), N Africa, Turkey, Syria, Iran, Central Asia, Kazakhstan, Mongolia, China (NC).

**Ammophila sareptana** Kohl, 1884. Russia: **EP** (S, NC, CR). – Europe (EE), Turkey, Kyrgyzstan, Kazakhstan.

**Ammophila separanda** F. Morawitz, 1891. Russia: **EP** (S, NC). – Azerbaijan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.

**Ammophila sickmanni** Kohl, 1901. Russia: **ES** (ZB), **FE** (AM, PR). – Mongolia, China (NE, NC, NW, CC, SW, SE), Korean Peninsula.

- Ammophila sinensis** Sickmann, 1894. Russia: **EP** (NC), **WS** (NS, AL), **ES** (TU, KR, BR, ZB). – Turkey, Iran, Kazakhstan, Mongolia, China (NC, SE).
- Ammophila striata** Mocsáry, 1879. Russia: **ES**, **FE** (PR). – Turkey, Kazakhstan. Records in Russia doubtful.
- Ammophila tekkensis** Gussakovskij, 1930. Russia: **EP** (S). – Iran, Turkmenistan, Uzbekistan, Kazakhstan.
- Ammophila terminata** F. Smith, 1856 (*A. apicalis* Brullé, 1839; *A. mocsaryi* Frivaldszky, 1876; *A. kirgisica* F. Morawitz, 1891; *A. gegen* Tsuneki, 1971). Russia: **EP** (C, E, S, CR), **UR**, **WS** (OM, NS, AL), **ES** (TU, KR, IR, BR, ZB). – Europe (WE, NE, SE, EE), N Africa, Turkey, Central Asia, Kazakhstan, Mongolia, China (NC, NW).
- Ammophila vagabunda** F. Smith, 1856 (*A. solowiyofkae* Matsumura, 1911; *A. sabulosa nipponica* Tsuneki, 1967). Russia: **FE** (AM, KH, PR, SA, KU). – Mongolia, China (NE, NC, NW, CC, SW, WP, SE), Korean Peninsula, Japan (Hon, Kyu), SE Asia, India.
- Ammophila vetuberosa** Q. Li et J. Yang, 1994. Russia: **ES** (IR). – Mongolia, China (NC, NW).
- EREMOCHARES** Gribodo, 1882. Type species *Eremochares doriae* Gribodo, 1882 (= *Ammophila dives* Brullé, 1833). Number of species: World – 5, Palaearctic – 5, Russia – 1.
- Eremochares dives** (Brullé, 1833) [*Ammophila*] (*Parapsammophila retowskii* Konow, 1887). Russia: **EP** (S, NC, CR). – Europe (SE), N Africa, Azerbaijan, Turkey, Syria, Lebanon, Israel, Iraq, Iran, Afghanistan, Pakistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, China (NW), India.
- HOPLAMMOPHILA** de Beaumont, 1960 (*Micadophila* Tsuneki, 1962). Type species *Ammophila armata* (Illiger, 1807) (= *Sphex armatus* Illiger, 1807). Number of species: World – 4, Palaearctic – 4, Russia – 1.
- Hoplammophila aemulans** (Kohl, 1901) [*Ammophila*] (*Ammophila rhinoceros* Strand, 1913). Russia: **FE** (PR). – China (NE, NC, CC, SW, SE), Korean Peninsula, Japan (Hon, Kyu), SE Asia.
- PODALONIA** Fernald, 1927 (*Psammophila* Dahlbom, 1842). Type species *Ammophila violaceipennis* Lepeletier de Saint Fargeau, 1845. Number of species: World – 66, Palaearctic – 42, Russia – 15.
- Podalonia affinis** (W. Kirby, 1798) [*Ammophila*] (*Ammophila nigriventris* Gussakovskij, 1934). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (OM, NS, AL), **ES** (KS, TU, KR, IR, BR, ZB), **FE** (AM, KH, PR). – Europe (NE, EE), N Africa, Caucasus, Turkey, Jordan, Israel, Iran, Central Asia, Kazakhstan, Mongolia, China (NE, NC, SW), Korean Peninsula.
- Podalonia alpina** (Kohl, 1888) [*Ammophila*]. Russia: **EP** (NC), **WS** (AL), **ES** (TU). – Europe (WE, SE, EE), N Africa, Turkey, Iran, Afghanistan, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NC).
- Podalonia altaiensis** (Tsuneki, 1971) [*Ammophila*]. Russia: **ES** (TU). – Mongolia.
- Podalonia asiatica** Danilov, 2017. Russia: **ES** (TU, BR). – Mongolia, China (NC, NW, WP).
- Podalonia atrocyanea** (Eversmann, 1849) [*Psammophila*]. Russia: **EP** (CR), **UR**, **ES** (KS, TU, ZB). – N Africa, Jordan, Israel, Turkmenistan, Uzbekistan, Kazakhstan, Mongolia, China (NC).
- Podalonia caucasica** (Mocsáry, 1883) [*Psammophila*]. Russia: **WS** (OM, NS, AL), **ES** (TU, KR, IR, BR, ZB). – Europe (EE), Georgia, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NC, NW), India.
- Podalonia chalybea** (Kohl, 1906) [*Ammophila*]. Russia: **ES** (IR). – Mongolia, China (NC).
- Podalonia ebenina** (Spinola, 1839) [*Ammophila*] (*Psammophila micipsa* Morice, 1900). Russia: **EP** (NC). – Europe (WE, SE), N Africa, Caucasus, Turkey, Syria, Jordan, Lebanon, Israel, Iraq, Iran, Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- Podalonia fera** (Lepeletier de Saint Fargeau, 1845) [*Ammophila*] (*Psammophila polita* Mocsáry, 1883; *Ammophila morawitzi* Ed. André, 1886). Russia: **EP** (C, S, NC, CR), **UR**. – Europe (WE, SE, EE), Armenia, Turkey, Syria, Iran, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan.
- Podalonia flavida** (Kohl, 1901) [*Ammophila*] (*Ammophila rothi* de Beaumont, 1951; *A. obo* Tsuneki, 1971). Russia: **EP** (E, S, NC), **WS** (OM, NS, AL), **ES** (KS, TU, IR, BR, ZB), **FE** (PR, SA). – Europe (SE), N Africa, Turkey, Uzbekistan, Kazakhstan, Mongolia, China (NC).
- Podalonia gobiensis** (Tsuneki, 1971) [*Ammophila*]. Russia: **ES** (TU, ZB). – Mongolia, China (NC, NW).
- Podalonia hirsuta** (Scopoli, 1763) [*Sphex*] (*Ammophila mervensis* Radoszkowski, 1887). Russia: **EP**, **UR**, **WS**, **ES** (TU, IR, BR, ZB). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Lebanon, Israel, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, Mongolia, China (NC, NW, WP), India.

**Podalonia hirsutaffinis** (Tsuneki, 1971) [Ammophila]. Russia: **ES** (TU). – Kyrgyzstan, Kazakhstan, Mongolia, China (WP).

**Podalonia luffii** (E. Saunders, 1903) [Ammophila] (*Psammophila arenaria* Lüderwaldt, 1897). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (NS, AL), **ES** (TU, KR, BR). – Europe (WE, NE, SE, EE), Turkey, Syria, Central Asia, Kazakhstan, Mongolia.

**Podalonia tydei** (Le Guillou, 1841) [Ammophila]. Russia: **EP** (C, E, S, NC, CR). – Europe (WE, SE, EE), N Africa, Turkey, Syria, Jordan, Israel, Iraq, Iran, Afghanistan, Central Asia, Kazakhstan, Mongolia, China (NW), India, Africa, Australia.

#### Subfamily SCELIPHRINAE

**CHALYBION** Dahlbom, 1843 (*Hemichalybion* Kohl, 1918). Type species “*Chalybion caeruleum*” (= *Sphex caeruleus* Linnaeus, 1767 = *S. caeruleus* Linnaeus, 1763 (nec *S. caeruleus* Linnaeus, 1758) = *S. cyaneus* Fabricius, 1775 (nec *S. cyaneus* Linnaeus, 1758) = *Pelopeus* (sic) *californicus* de Saussure, 1867). Number of species: World – 46, Palearctic – 11, Russia – 3.

**Chalybion japonicum** (Gribodo, 1883) [Pelopaeus] (*Sceliphron inflexum* Sickmann, 1894). Russia: **FE** (PR). – China (NE, NC, CC, SE), Korean Peninsula, Japan (Hon, Kyu, Ryu), SE Asia, India.

**Chalybion turanicum** (Gussakovskij, 1935) [Sceliphron]. Russia: **WS** (AL). – Iran, Central Asia, Kazakhstan.

**Chalybion walteri** (Kohl, 1889) [Pelopaeus]. Russia: **EP** (NC). – Europe (SE), N Africa, Turkey, Syria, Jordan, Iran, Central Asia, Kazakhstan.

**SCELIPHRON** Klug, 1801 (*Pelopoeus* Latreille, 1802; *Prosceliphron* van der Vecht in van der Vecht et van Breugel, 1968; *Hensenia* Pagliano et Scaramozzino, 1990). Type species *Sphex spirifex* Linnaeus, 1758. Number of species: World – 36, Palearctic – 13, Russia – 6.

**Sceliphron caementarium** (Drury, 1773) [Sphex]. Russia: **EP** (CR). – Europe (WE, SE, EE), Iran, China (SW), Korean Peninsula, Japan (Hon), N America, India, S America, Australia.

**Sceliphron curvatum** (F. Smith, 1870) [Pelopaeus]. Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Georgia, Turkey, Iraq, Afghanistan, Tajikistan, Uzbekistan, Kyrgyzstan, Japan (Ryu), India, S America.

**Sceliphron deforme** (F. Smith, 1856) [Pelopaeus] (*Pelopoeus atripes* F. Morawitz, 1888). Russia: **EP** (C, E, NC), **WS** (NS), **ES** (KR), **FE** (AM, KH, PR). – Europe (SE), Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NE, NC, CC, SW, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu), SE Asia, India.

**Sceliphron destillatorium** (Illiger, 1807) [Pepsis]. Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (ZB). – Europe (WE, SE, EE), N Africa, Turkey, Syria, Israel, Iran, Afghanistan, Central Asia, Kazakhstan, Mongolia, China (NC, NW, CC, WP).

**Sceliphron madraspatanum** (Fabricius, 1781) [Sphex] (*Pelopaeus tubifex* Latreille, 1809). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), N Africa, Turkey, Syria, Israel, Iraq, Iran, Afghanistan, Central Asia, Kazakhstan, China (NE, NC, CC, SW, WP, SE), Korean Peninsula, Japan (Hon, Kyu, Ryu), SE Asia, India, Africa.

**Sceliphron spirifex** (Linnaeus, 1758) [Sphex]. Russia: **EP** (CR). – Europe (WE, SE, EE), N Africa, Georgia, Turkey, Lebanon, Israel, Iran, Turkmenistan, India, Africa.

#### Subfamily SPHECINAE

##### Tribe PRIONYCHINI

**CHIOSPHEX** Menke in R. Bohart et Menke, 1976. Type species *Sphex argyrius* Brullé, 1833. Number of species: World – 2, Palearctic – 2, Russia – 1.

**Chiosphex argyrius** (Brullé, 1833) [Sphex] (*Sphex emarginatus* Brullé, 1833). Russia: **EP** (NC). – Europe (WE, SE, EE), N Africa, Turkey, Israel, Iraq, Iran, Turkmenistan.

**PALMODES** Kohl, 1890. Type species *Chlorion occitanicum* (Lepeletier de Saint Fargeau et Audinet-Serville, 1828) (= *Sphex occitanicus* Lepeletier de Saint Fargeau et Audinet-Serville, 1928). Number of species: World – 20, Palearctic – 9, Russia – 4.

**Palmodes melanarius** (Mocsáry, 1883) [Sphex] (*Sphex anatolicus* Kohl, 1888; *S. picicornis* F. Morawitz, 1890). Russia: **EP** (E, S, NC, CR). – Europe (SE), N Africa, Georgia, Azerbaijan, Turkey, Syria, Iraq, Iran, Central Asia, Kazakhstan, China (NW), India.

**Palmodes occitanicus** (Lepeletier de Saint Fargeau et Audinet-Serville, 1828) [Sphex]. Russia: **EP** (C,

S, NC, CR), **WS** (AL), **ES** (KS, TU, IR, BR, YA, ZB), **FE** (AM). – Europe (WE, SE, EE), N Africa, Turkey, Syria, Israel, Iran, Central Asia, Kazakhstan, Mongolia, China (NE, NC, CC), Korean Peninsula.

**Palmodes orientalis** (Mocsáry, 1883) [Sphex]. Russia: **EP** (E, S, NC, CR), **UR**, **WS** (AL), **ES** (TU, KR, BR, ZB). – Turkey, Iran, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NW, SW).

**Palmodes strigulosus** (A. Costa, 1861) [Sphex]. Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), Georgia, Armenia, Turkey, Israel, Iran, Central Asia, Kazakhstan.

**PRIONYX** Vander Linden, 1827 (*Priononyx* Dahlbom, 1843; *Enodia* Dahlbom, 1843; *Harpactopus* F. Smith, 1856; *Parasphe* F. Smith, 1856; *Gastro-sphaeria* A. Costa, 1858; *Calosphe* Kohl, 1890). Type species *Ammophila kirbii* Vander Linden, 1827. Number of species: World – 56, Palaearctic – 28, Russia – 6.

**Prionyx kirbii** (Vander Linden, 1827) [Ammophila] (*Sphex albisectus* Lepeletier de Saint Fargeau et Audinet-Serville, 1828). Russia: **EP** (C, S, NC, CR), **WS** (AL). – Europe (WE, SE, EE), N Africa, Georgia, Turkey, Syria, Israel, Iran, Central Asia, Kazakhstan, China (NC, SE), Africa.

**Prionyx lividocinctus** (A. Costa, 1861) [Enodia]. Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), N Africa, Turkey, Central Asia, Kazakhstan, Mongolia, China (NC).

**Prionyx niveatus** (Dufour, 1854) [Sphex] (*Podium maracandicum* Radoszkowski, 1877; *Sphex suavis* F. Morawitz, 1893; *S. afghaniensis* de Beaumont, 1970). Russia: **EP** (S). – Europe (SE), N Africa, Turkey, Jordan, Israel, Iran, Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, Africa.

**Prionyx nudatus** (Kohl, 1885) [Sphex]. Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (NS, AL), **ES** (TU). – Europe (SE, EE), N Africa, Turkey, Iran, Afghanistan, Central Asia, Kazakhstan, China (NC).

**Prionyx subfuscatus** (Dahlbom, 1845) [Sphex] (*Sphex desertorum* Eversmann, 1849). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (TU, IR, BR), **FE** (PR). – Europe (WE, SE, EE), N Africa, Georgia, Turkey, Israel, Iran, Central Asia, Kazakhstan, Mongolia, China (NE, NC, NW, CC, SW, WP, SE), Korean Peninsula, India, Africa.

**Prionyx viduatus viduatus** (Christ, 1791) [Sphex] (*Sphex micans* Eversmann, 1849; *S. leuconotus* F. Morawitz, 1890). Russia: **EP** (C, S, NC, CR), **UR**, **WS** (OM). – Europe (WE, SE, EE), N Africa, Turkey, Israel, Iran, Afghanistan, Central Asia, Kazakhstan, China (NE, NC, NW, SE), Japan (Ryu), SE Asia, India, Africa.

**Prionyx viduatus mocsaryi** (Kohl, 1883) [Sphex] (*Enodia argentata* Mocsáry, 1883; *Sphex gobiensis* Tsuneki, 1971). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (TU). – Europe (SE, EE), N Africa, Turkey, Turkmenistan, Tajikistan, Kazakhstan, Mongolia, China (NC).

#### Tribe SPHECINI

**ISODONTIA** Patton, 1880. Type species *Isodontia philadelphica* (Lepeletier de Saint Fargeau, 1845) (= *Sphex philadelphicus* Lepeletier de Saint Fargeau, 1845). Number of species: World – 62, Palaearctic – 6, Russia – 3.

**Isodontia mexicana** (de Saussure, 1867) [Sphex] (*Sphex apicalis* de Saussure, 1867). Russia: **EP** (CR). – Europe (WE, SE, EE), Iran, N America.

**Isodontia nigella** (F. Smith, 1856) [Sphex]. Russia: **FE** (PR). – China (NE, NC, CC, SW, SE), Korean Peninsula, Japan (Hon, Shi, Kyu, Ryu), India, Australia.

**Isodontia paludosa** (Rossi, 1790) [Sphex]. Russia: **EP** (NC). – Europe (WE, SE, EE), N Africa, Turkey, Jordan, Iran, Turkmenistan.

**SPHEX** Linnaeus, 1758. Type species *Sphex flavipennis* Fabricius, 1793. Number of species: World – 130, Palaearctic – 20, Russia – 5.

**Sphex atopilosus** Kohl, 1885 (*Sphex atrohirtus* Kohl, 1890). Russia: **EP** (C, E, S, NC), **WS** (NS). – Europe (WE, SE, EE), N Africa, Turkey, Turkmenistan, Tajikistan, Kazakhstan.

**Sphex flavipennis** Fabricius, 1793 (*Sphex rufocinctus* Brullé, 1833). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), N Africa, Georgia, Turkey, Syria, Israel, Iran, Afghanistan, Central Asia, Kazakhstan, China (NW).

**Sphex funerarius** Gussakovskij, 1934 (*Sphex maxillosus* Fabricius, 1793). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (OM, TK, NS, AL), **ES** (TU, KR, IR, BR, ZB), **FE** (KH). – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey, Syria, Israel, Iran,



Afghanistan, Central Asia, Kazakhstan, Mongolia, China (NC, NW).

**Sphex leuconotus** Brullé, 1833 (*Sphex afer* Lepeletier de Saint Fargeau, 1845; *S. sordidus* Dahlbom, 1845; *S. tristis* Kohl, 1885; *S. plumipes* Radoszkowski, 1886; *S. pachysoma* Kohl, 1890). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), N Africa, Azerbaijan,

Turkey, Syria, Jordan, Israel, Iraq, Iran, Afghanistan, Central Asia, Kazakhstan.

**Sphex pruinosus** Germar, 1817. Russia: **EP** (S, NC). – Europe (WE, SE, EE), N Africa, Turkey, Syria, Lebanon, Israel, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, India, Africa.

## 72. FAMILY CRABRONIDAE – CRABRONID DIGGER WASPS

A.V. ANTROPOV

The family Crabronidae contains a large variety of species, which are very diverse externally – from robust Oxybelini to slender forms with strongly elongated abdomen in Trypoxylini. The body size is also variable from 2 mm in Miscophini, Ammoplanini, or Eremiaspheciinae to 50 mm in Bembicini. Their color varies from completely black or black with red elements to completely light yellow. Such diverse, from the first view, composition of the family is not a sign of artificiality of the taxon, but might speak of its relatively long evolution preserving some basal representatives. Proceeding from the latest data, the family Crabronidae is a monophyletic taxon, a sister-group of “bees” (Apidae s.lat.), with which they, obviously, have a common ancestor. An analysis of the structure of mouthparts and internal skeleton, and the discovery of representatives of the group in the fossil deposits and resins of different ages, starting at least from the Cretaceous, confirm this viewpoint.

The characteristic feature of Crabronidae consists in taking care of the offspring, usually expressed in building the nests before provisioning and oviposition. However, the commonly used name of the family - “sand wasps”, does not reflect the whole diversity of their nesting places. Only a part of species dig nests in the soil, while the majority uses hollow stems of reeds and grasses, thin branches with a soft core, abandoned nests of other Hymenoptera in ground and wood, galls, and abandoned burrows of xylophages in dead wood. Some Crabronidae are capable to gnaw burrows in rotten or even hard wood, and others build separate or combined in groups cells or galleries using wet clay and even the plant fluff. Moreover, among both tercolous and xylicolous Crabronidae there are species with presocial behavior, uniting in nesting clusters, and even using a common entrance to the complex of independent nests. Perhaps the most interesting features of crabronid biology is the nesting behavior including the guarding nesting sites by the males of *Oxybelus* and *Palarus* and directly the nests by the youngest generation in *Cerceris* and by males in some *Pison* and *Trypoxylon*. The latter can even participate in nest building. Finally, the species of the genus *Microstigmus* demonstrate eusocial behavior, forming the families with the division of functions between their

members. At the same time, the species of *Larra* does not build nests, temporarily paralyzing their victims (mole crickets), and their larvae develop as ectoparasites on a living host.

The vast majority of crabronids is active hunters, which ensure the development of their larvae with paralyzed, usually juvenile, insects of almost all free-living orders, as well as spiders. The degree of specialization in the choice of prey in various groups of Crabronidae varies from orders and families to genera, and only in rare cases to species or certain sex. Usually each cell in the nest contains a number of prey, sufficient for the full development of the larva, but the progressive feeding of each larva to its pupation is characteristic for some species. Finally, an unusual and unique among apoid wasps *Krombeinictus nordenae* Leclercq, 1996 from Sri Lanka is coadapted with internodes of acacia *Humboldtia laurifolia* Vahl (Fabaceae), and its female rears one larva at a time and feeds it progressively with clumped masses of fine-grained pollen rather than paralyzed arthropods.

The main enemies of crabronids are their nest parasites – flies (Anthomyiidae, Asilidae, Bombyliidae, Milichiidae, Phoridae, Sarcophagidae, Tachinidae), hymenopterans (Braconidae, Chrysididae, Eulophidae, Eurytomidae, Mutillidae, Pteromalidae, Torymidae), beetles (Cleridae, Dermestidae, Meloidae, Rhipiphoridae), and ticks (Winterschmidtidae). Sometimes the larvae may be destroyed by various Ichneumonidae, who are usually the parasites of the provisioned prey. At the same time, several nyssonins and bembicins are the cleptoparasites of the related or remote crabronid genera: *Epinysson* of *Hoplisoides* (Bembicini), *Nysson* of *Gorytes*, *Argogorytes*, *Oryttus*, *Dienoplus*, *Hoplisoides*, and *Lestiphorus* (Bembicini), *Brachystegus* and *Zanysson* of *Tachytes* (Larrini), *Acanthostethus* of *Sericophorus* (Miscophini), *Metanysson* of *Cerceris* (Cercerini), and *Stizoides* of *Palmodes*, *Prionyx* (Prionychini), *Sphex* (Sphecini), and *Bembix* (Bembicini). Adults of many crabronids may be the victims of the crabronid wasps *Palarus* and *Philanthus*. *Palarus variegatus* (Fabricius, 1781) can even successfully attack the females of bee-wolves as it is the only wasp known to be immune to the venom of *Philanthus triangulum* (Fabricius, 1775).

Many species of Crabronidae are effective regulators of quantity of various harmful insects, such as Homoptera, Orthoptera, and Diptera. At the same time, some species of *Palarus* and *Philanthus* which hunt honey bees may cause serious damage to apiculture.

*Palarus* species may also be harmful when hunting various pollinators and entomophagous wasps.

Crabronidae is distributed worldwide, mainly in tropical and subtropical regions. Crabronids, including 90 percentages of apoid wasps, is the largest group of insects among all families of wasps. Number of taxa: World – 250 genera, about 8900 species; Palaearctic – 84/2000; Russia – 74/613.

R e f e r e n c e s. Brothers, 1975; Bohart, Menke, 1976; Lomholdt, 1982; Gauld, Bolton, 1988; Alexander, 1990, 1992; Melo, 1999; Pulawski, 2016.

### Subfamily ASTATINAE

**P.G. NEMKOV**

- ASTATA** Latreille, 1796 (*Astatus* Latreille, 1796; *Dimorpha* Panzer, 1806). Type species *Tiphia abdominalis* Panzer, 1798 (= *Sphex boops* Schrank, 1781). Number of species: World – 82, Palaearctic – 35, Russia – 11.
- Astata apostata** Mercet, 1910. Russia: **EP** (C, S). – Europe (WE, SE, EE), N Africa, Turkey, Iran, Kazakhstan.
- Astata boops boops** (Schrank, 1781) [*Sphex*] (*Tiphia abdominalis* Panzer, 1798; *Dimorpha oculata* Jurine, 1807; *Astata victor* Curtis, 1829; *A. vanderlindeni* Robert, 1833; *A. fuscipes* Robert, 1833, unavailable (ICZN, 1999, Art. 11.5); *A. agilis* F. Smith, 1875). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **ES** (TK, NS, AL), **WS** (KR, IR, YA, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), N Africa, Abkhazia, Turkey, Israel, Yemen, Oman, Iraq, Iran, Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NE, NC), Korean Peninsula, India.
- Astata brevitarsis** Pulawski, 1958. Russia: **EP** (S, CR). – Europe (SE, EE), Turkey.
- Astata costae costae** A. Costa, 1867 (*Astatus gracilis* Gussakovskij, 1927). Russia: **EP** (S, CR), **ES** (ZB). – Europe (WE, SE, EE), N Africa, Turkey, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- Astata jucunda** Pulawski, 1959. Russia: **EP** (S, NC, CR), **WS** (AL). – Europe (SE, EE), Turkey, Iran.
- Astata kashmirensis kashmirensis** Nurse, 1909 (*A. stecki* de Beaumont, 1942). Russia: **EP** (C, S, NC, CR), **WS** (AL), **FE** (PR). – Europe (WE, SE, EE), N Africa, Turkey, Iran, Turkmenistan, Uzbekistan, Kazakhstan, China (NE), India.
- Astata miegii scapularis** (Kohl, 1889) [*Astatus*] (*Astatus pelops* Morice, 1902). Russia: **EP** (S, CR). – Europe (SE, EE), Armenia, Turkey.
- Astata minor** Kohl, 1885. Russia: **EP** (N, NW, C, E, S, CR), **WS** (NS, AL), **ES** (IR), **FE** (AM, PR). – Europe (WE, NE, SE, EE), N Africa, Turkey, Israel, Iran, Turkmenistan, Uzbekistan, Kazakhstan.
- Astata quettae** Nurse, 1903 (*Dimorpha fletcheri* R. Turner, 1917; *Astatus hirsutulus* Gussakovskij, 1927; *A. tibialis* Gussakovskij, 1927; *Astata hungarica* Pulawski, 1958). Russia: **EP** (S), **WS** (AL). – Europe (EE), Turkey, Iran, Pakistan, Kazakhstan, Mongolia, China (NW), India.
- Astata pontica** Pulawski, 1958. Russia: **EP** (S). – Europe (SE, EE), Turkey.
- Astata rufipes rufipes** Mocsáry, 1883 (*Astatus sareptanus* Gussakovskij, 1927). Russia: **EP** (S, CR). – Europe (WE, SE, EE), Turkey, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- DIPLOPLECTRON** W. Fox, 1893. Type species *Liris brunneipes* Cresson, 1881. Number of species: World – 20, Palaearctic – 4, Russia – 2.
- Diploplectron asiaticum** Pulawski, 1965. Russia: **EP** (S). – Israel, Turkmenistan, Kazakhstan, Mongolia.
- Diploplectron pulawskii** Kazenas, 1975. Russia: **EP** (S). – Kazakhstan.
- DRYUDELLA** Spinola, 1843. Type species *Dryudella ghilianii* Spinola, 1843 (= *Astata tricolor* Vander Linden, 1829). Number of species: World – 57, Palaearctic – 45, Russia – 7.
- Dryudella lineata** Mocsáry, 1879. Russia: **EP** (C, E, S). – Europe (EE), Kazakhstan.
- Dryudella picticornis** (Gussakovskij, 1927) [*Astatus*]. Russia: **EP** (S), **UR**. – Europe (EE), Turkey, Kazakhstan.
- Dryudella pinguis** (Dahlbom, 1832) [Larra] (*Larra pinguis* Zetterstedt, 1838, nom. praeocc., nec *L. pinguis* Dahlbom, 1832; *Astata jaculator* F. Smith, 1845). Russia: **EP** (C, E), **WS** (AL), **ES** (IR, YA), **FE** (SA, KA). – Europe (WE, NE, EE), Kazakhstan, N America.
- Dryudella pseudofemoralis** Nemkov, 1990. Russia: **ES** (ZB).
- Dryudella similis** (Gussakovskij, 1927) [*Astatus*]. Russia: **EP** (E, S). – Kazakhstan, China (NW).
- Dryudella stigma stigma** (Panzer, 1809) [*Dimorpha*] (*Astata intermedia* Dahlbom, 1843; *A. stigma major* Grönblom, 1946). Russia: **EP** (N, NW, C, E), **WS**

(AL), **ES** (KR, IR, BR, YA, ZB), **FE** (PR). – Europe (WE, NE, SE, EE), Kazakhstan.

**Dryudella tricolor tricolor** (Vander Linden, 1829) [Astatata] (*D. ghilianii* Spinola, 1843; *Dimorpha cincta* Spinola, 1834; *Dryudella spinolae* A. Costa, 1867; *Astatata calopteryx* Gussakovskij, 1952). Russia: **EP** (C, E, S, NC), **WS** (AL), **ES** (KR, ZB). – Europe (WE, SE, EE), N Africa.

#### Subfamily BEMBICINAE

**P.G. NEMKOV**

##### Tribe ALYSSONTINI

**ALYSSON** Panzer, 1806 (*Alysson* Jurine in Panzer, 1801, suppressed by ICZN, 1939 (Opinion 135); *Alyson* Jurine, 1807). Type species *Pompilus spinosus* Panzer, 1801. Number of species: World – 39, Palaeartic – 14, Russia – 7.

**Alysson cameroni** Yasumatsu et Masuda, 1932. Russia: **FE** (KU). – Japan (Hok, Hon).

**Alysson monticola ezoensis** Tsuneki, 1977. Russia: **FE** (KU). – Japan (Hok).

**Alysson pertheesi pertheesi** Gorski, 1852 (*A. festivus* Mocsáry, 1879; *A. fuscatus jaroslavensis* Kokujev, 1906; *A. harbinensis* Tsuneki, 1967; *A. pertheesi typica* Tsuneki et Itami, 1973; *A. pertheesi nigra* Tsuneki et Itami, 1973). Russia: **EP** (NW, E, S), **WS** (AL), **ES** (KR, IR, BR), **FE** (AM, KH, PR, SA, KU). – Europe (WE, NE, EE), Mongolia, China (NE), Korean Peninsula, Japan (Hon).

**Alysson ratzeburgi** Dahlbom, 1843. Russia: **EP** (N, NW, E), **WS** (TM), **ES** (KS, KR, IR, ZB), **FE** (PR). – Europe (WE, NE, SE, EE), Korean Peninsula, Japan (Hon).

**Alysson spinosus** (Panzer, 1801) [Pompilus] (*Sphex bimaculatus* Panzer, 1798; *A. katkovi* Kokujev, 1906). Russia: **EP** (NW, C, E, S, NC). – Europe (WE, NE, SE, EE), Georgia, Turkey, Kazakhstan.

**Alysson tricolor** Lepeletier de Saint Fargeau et Audinet-Serville, 1825. Russia: **EP** (C). – Europe (WE, SE, EE), Turkey.

**Alysson verhoeffi** Tsuneki, 1967. Russia: **FE** (AM, KH, PR). – China (NE), Korean Peninsula.

**DIDINEIS** Wesmael, 1852. Type species *Alyson lunicornis* of Vander Linden, 1829 (= *Pompilus lunicornis* Fabricius, 1798). Number of species: World – 24, Palaeartic – 14, Russia – 7.

**Didineis bactriana** Gussakovskij, 1937 (*D. ogloblini* Gussakovskij, 1937). Russia: **EP** (S). – Turkmenistan, Uzbekistan, Mongolia.

**Didineis bucharica** Gussakovskij, 1937 (*D. zimini* Gussakovskij, 1937). Russia: **EP** (S, NC), **UR**. – United Arab Emirates, Uzbekistan.

**Didineis clavimana** Gussakovskij, 1937 (*D. turanica* Gussakovskij, 1937). Russia: **EP** (S, CR). – Europe (SE, EE), Israel, Uzbekistan.

**Didineis crassicornis** Handlirsch, 1888. Russia: **EP** (C, NC). – Europe (WE, SE, EE), N Africa, Turkey.

**Didineis lunicornis** (Fabricius, 1798) [Pompilus] (*Alysson kennedii* Curtis, 1836; *Didineis kozhevnikovi* Kokujev, 1906; *D. ruthenica* Gussakovskij, 1937). Russia: **EP** (C, E, S), **UR**. – Europe (WE, NE, SE, EE), N Africa, Abkhazia.

**Didineis sibirica** Gussakovskij, 1937 (*Alysson sibiricus nipponicus* Tsuneki, 1968). Russia: **ES** (IR, BR, ZB), **FE** (PR). – Japan (Hon).

**Didineis wuestneii** Handlirsch, 1888. Russia: **EP** (S). – Europe (SE, EE), Azerbaijan, Turkey.

##### Tribe NYSSONINI

**BRACHYSTEGUS** A. Costa, 1859. Type species *Nysson dufouri* Lepeletier, 1845 (= *Nysson scalaris* Illiger, 1807). Number of species: World – 21, Palaeartic – 4, Russia – 1.

**Brachystegus scalaris** (Illiger, 1807) [Nysson] (*Nysson interruptus* Latreille, 1803, nom. praeocc., nec *N. interruptus* (Fabricius, 1798); *N. rufipes* Olivier, 1812; *N. auratus* Schummel, 1834; *N. dufourii* Dufour, 1841; *N. dufourii* Lepeletier de Saint Fargeau, 1845, nom. praeocc., nec *N. dufourii* Dufour, 1841; *N. dufouri* Dahlbom, 1845, nom. praeocc., nec *N. dufourii* Dufour, 1841; *N. dufourianum* Blanchard, 1849; *N. transcaspicus* Radoszkowski, 1893). Russia: **EP** (C, E, S, NC, CR), **WS** (AL). – Europe (WE, SE, EE), N Africa, Georgia, Turkey, Yemen, Iran, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan.

**NIPPONONYSSON** Yasumatsu et Maidl, 1936. Type species *Nippononysson rufopictus* Yasumatsu et Maidl, 1936. Number of species: World – 3, Palaeartic – 2, Russia – 1.

**Nippononysson rufopictus** Yasumatsu et Maidl, 1936. Russia: **FE** (AM, PR, KU). – Japan (Hon, Kyu, Ryu).

**NYSSON** Latreille, 1802, validated by ICZN, 1979 (Opinion 1115) (*Nysson* Latreille, 1796, rejected by

- ICZN, 1979 (Opinion 1115); *Nyssonus* Rafinesque, 1815; *Synnevrus* A. Costa, 1859; *Synnevrus* Gerstaecker, 1867). Type species *Crabro spinosus* Fabricius, 1775 (= *Sphex spinosus* J. Forster, 1771). Number of species: World – 101, Palaeartic – 59, Russia – 19.
- Nysson amurensis** Nemkov, 199. Russia: **FE** (AM, PR).
- Nysson decemmaculatus** Spinola, 1807 (*N. variolatus* A. Costa, 1867; *N. variolatus* A. Costa, 1869; *N. curtulus* F. Morawitz, 1892; *N. mopsus* Handlirsch, 1898). Russia: **EP** (CR). – Europe (WE, SE, EE), Azerbaijan, Turkey, Jordan, Israel, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- Nysson dimidiatus** Jurine, 1807 (*N. wesmaeli* Lepeletier de Saint Fargeau, 1845; *N. distinguendus* Chevriér, 1867; *N. nigrina* Barovskij, 1929; *N. susterai* Zavadil in Zavadil et Šnoflák, 1948; *N. susterai* Zavadil, 1951). Russia: **EP** (N, NW, C, S, NC), **WS** (AL), **ES** (IR, ZB), **FE** (AM, SA, MG). – Europe (WE, NE, SE, EE), Armenia, Central Asia, Kazakhstan, Mongolia.
- Nysson epeoliformis epeoliformis** F. Smith, 1856 (*Synnevrus procerus* A. Costa, 1859; *Nysson notabilis* Handlirsch, 1895). Russia: **EP** (CR). – Europe (SE), Armenia, Azerbaijan, Turkey, Turkmenistan.
- Nysson fulvipes** A. Costa, 1859. Russia: **EP** (C, S, NC). – Europe (WE, SE, EE), N Africa, Turkey, Israel, Abkhazia, Kazakhstan.
- Nysson fulviventris** Tsuneki, 1971. Russia: **ES** (ZB). – Mongolia.
- Nysson guichardi** de Beaumont, 1967. Russia: **EP** (S, CR). – Europe (SE), Turkey.
- Nysson harveyi** de Beaumont, 1967. Russia: **EP** (NC). – Turkey, Uzbekistan.
- Nysson interruptus** (Fabricius, 1798) [Mellinus] (*Ceropales spinosus* Fabricius, 1804; *N. panzeri* Lepeletier de Saint Fargeau, 1845; *N. shukardi* Wesmael, 1852). Russia: **EP** (N, NW, C, E, CR), **UR**, **WS** (NS). – Europe (WE, NE, SE, EE), N Africa, Turkey, Israel, Armenia, Kazakhstan.
- Nysson maculosus** (Gmelin, 1790) [Sphex] (*Sphex maculatus* Fabricius, 1787; *Mellinus dissectus* Panzer, 1800; *N. guttatus* Olivier, 1812; *N. omissus* Dahlbom, 1845; *N. lineolatus* Schenck, 1857; *N. dubius* A. Costa, 1859). Russia: **EP** (N, NW, C, E, CR), **UR**, **WS** (TM, KM, AL), **ES** (KR, IR, YA, ZB), **FE** (AM, KH, PR, SA). – Europe (WE, NE, SE, EE), N Africa, Georgia, Armenia, Turkey, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NE, NC), Korean Peninsula.
- Nysson militaris** Gerstaecker, 1867. Russia: **EP** (S, NC, CR). – Europe (SE, EE), Turkey, Israel.
- Nysson mimulus** Valkeila, 1964 (*N. handlirschi* West-erlund, 1896, nom. nud.; *N. handlirschi* Hellén, 1955). Russia: **EP** (NW). – Europe (WE, NE, EE).
- Nysson niger niger** Chevriér, 1868. Russia: **EP** (N, NW, C, E), **WS** (TM). – Europe (WE, NE, SE, EE), Tajikistan, Kazakhstan.
- Nysson quadriguttatus** Spinola, 1807 (?*N. quadriguttatus* Olivier, 1812). Russia: **EP** (C, E, S), **WS** (AL). – Europe (WE, SE, EE), Uzbekistan, Kyrgyzstan, Kazakhstan.
- Nysson roubali** Zavadil, 1937. Russia: **EP** (S). – Europe (SE, EE).
- Nysson spinosus** (J. Forster, 1771) [Sphex] (?*Vespa bidens* Linnaeus, 1767; *Sphex spinosus* J. Forster, 1770, nom. nud.; *Crabro spinosus* Fabricius, 1775; *Mellinus tricinctus* Fabricius, 1793; *Vespa trilineata* Turton, 1802; *N. geniculatus* Lepeletier de Saint Fargeau, 1845; *N. malaisei* Gussakovskij, 1932). Russia: **EP** (N, NW, C, E, NC), **WS** (TM, NS, AL), **ES** (KR, IR), **FE** (AM, KH, PR, SA, KU). – Europe (WE, NE, SE, EE), Azerbaijan, Turkey, Iran, Kazakhstan, Japan (Hon).
- Nysson tridens** Gerstaecker, 1867 (*N. melas* Müller, 1918; *N. fraterculus* Gussakovskij, 1932; *N. bohemicus* Zavadil in Zavadil et Šnoflák, 1948; *N. bohemicus* Zavadil, 1951). Russia: **EP** (C, S), **WS** (TM, AL), **FE** (AM, PR). – Europe (WE, NE, SE, EE), Turkey, Tajikistan, Uzbekistan, Kazakhstan, Mongolia.
- Nysson trimaculatus trimaculatus** (Rossi, 1790) [Crabro] (*N. nigripes* Spinola, 1807; *N. geniculatus* Olivier, 1812). Russia: **EP** (C, E, S), **WS** (AL), **ES** (KR, IR), **FE** (PR, KU). – Europe (WE, NE, SE, EE), Abkhazia, Azerbaijan, Kazakhstan.
- Nysson variabilis** Chevriér, 1867 (?*N. friesei* Handlirsch, 1887). Russia: **EP** (S). – Europe (WE, SE, EE), Turkey, Kazakhstan.

## Tribe BEMBICINI

- AMMATOMUS** A. Costa, 1859. Type species *Gorytes coarctatus* Spinola, 1808. Number of species: World – 30, Palaeartic – 5, Russia – 3.
- Ammatomus coarctatus** (Spinola, 1808) [Gorytes] (*Gorytes handlirschi* F. Morawitz, 1890; *G. mavromoustakisi* Balthasar, 1954; *G. mitjaevi* Kazenas, 1972). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Armenia, Azerbaijan, Turkey, Syria,

- Israel, Yemen, Iran, Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- Ammatomus mesostenus** (Handlirsch, 1888) [Gorytes] (*Gorytes rhopalocerus* Handlirsch, 1895; *G. nikolajevskii* Gussakovskij, 1928). Russia: **EP** (S, NC). – N Africa, Israel, United Arab Emirates, Oman, Iraq, Iran, Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, China (NW).
- Ammatomus rogenhoferi** (Handlirsch, 1888) [Gorytes] Russia: **EP** (E, S, CR). – Europe (SE, EE), Georgia, Armenia, Azerbaijan, Turkey, Jordan, Israel, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, China (NW).
- ARGOGORYTES** Ashmead, 1899 (*Archarpactus* Pate, 1937, suppressed by the ICN, 1939 (Opinion 135); *Malaygorytes* Nemkov, 1999). Type species *Gorytes carbonarius* F. Smith, 1856. Number of species: World – 31, Palaearctic – 5, Russia – 3.
- Argogorytes fargeii** (Shuckard, 1837) [Gorytes] (*Gorytes croceipes* Eversmann, 1849; *A. mongolensis* Tsuneki, 1971; *A. przewalskyi* Kazenas, 1971; *A. przewalskyi* Kazenas, 1972). Russia: **EP** (N, C, E, S, CR), **UR**, **WS** (NS, AL), **ES** (KR, IR, BR, YA, ZB). – Europe (WE, NE, SE, EE), Armenia, Turkey, Israel, Kazakhstan, Mongolia, China (NE).
- Argogorytes mystaceus grandis** (Gussakovskij, 1932) [Gorytes]. Russia: **ES** (ZB), **FE** (AM, KH, PR, SA, KU). – China (NE), Korean Peninsula, Japan (Hok, Hon).
- Argogorytes mystaceus mystaceus** (Linnaeus, 1761) [Spheg] (*Vespa campestris* Linnaeus, 1761; *V. inimicus* Harris, 1782; *Sphex longicornis* Rossi, 1790; *Crabro bicinctus* Fabricius, 1793; *Mellinus arpactus* Fabricius, 1804; *Vespa flavicincta* Donovan, 1808; *Gorytes tonsus* (Bondroit, 1933)). Russia: **EP** (N, C, E), **UR**, **WS** (AL), **ES** (KR, IR). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan.
- Argogorytes nipponis** Tsuneki, 1963. Russia: **FE** (PR, KU). – Japan (Hok, Hon).
- BEMBECINUS** A. Costa, 1859 (*Stizomorpha* A. Costa, 1859; *Gorystizus* Minkiewicz, 1934, not available (ICZN, 1999, Article 13.3); *Gorystizus* Pate, 1937; *Lavia* Rayment, 1953, nomen nudum). Type species *Bembecinus meridionalis* A. Costa, 1859. Number of species: World – 186, Palaearctic – 49, Russia – 2.
- Bembecinus hungaricus hungaricus** (Frivaldszky, 1876) [Larra]. Russia: **EP** (E, S, NC, CR). – Europe (WE, SE, EE), Abkhazia, Turkey, Kazakhstan.
- Bembecinus hungaricus sibiricus** (Mocsáry in Mocsáry et Szépligeti, 1901) [Stizus]. Russia: **WS** (TK, AL), **ES** (KR, BR, ZB), **FE** (AM, KH, PR). – Mongolia, China (NC, NW).
- Bembecinus tridens tridens** (Fabricius, 1781) [Vespa] (*Crabro cinctus* Rossi, 1790; *Mellinus repandus* Panzer, 1800; *Stizus sinuatus* Latreille, 1805; *S. errans* Kohl: Ferton, 1912, nomen nudum; *S. tridens errans* de Beaumont, 1950). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL). – Europe (WE, SE, EE), N Africa, Abkhazia, Georgia, Armenia, Azerbaijan, Turkey, Syria, Jordan, Lebanon, Israel, Oman.
- BEMBIX** Fabricius, 1775 (*Bembyx* Fabricius, 1775; *Bembex* Fabricius, 1777; *Apobembex* Pate, 1937; *Epibembex* Pate, 1937). Type species *Bembex rostrata* Fabricius, 1781 (= *Apis rostrata* Linnaeus, 1758). Number of species: World – 328, Palaearctic – 74, Russia – 16.
- Bembix bicolor** Radoszkowski, 1877 (*B. femoralis* Radoszkowski, 1877; *B. bipunctata* Radoszkowski, 1877; *B. barbiventris* F. Morawitz, 1889). Russia: **EP** (C). – Europe (SE, EE), Turkey, Israel, Oman, Iraq, Iran, Afghanistan, Central Asia, Kazakhstan, Mongolia, China (NC, NW).
- Bembix bidentata** Vander Linden, 1829 (*B. dalmatica* Kriechbaumer, 1869). Russia: **EP** (C, S, NC, CR), **WS** (AL). – Europe (WE, SE, EE), Abkhazia, Azerbaijan, Turkey, Iran, Kazakhstan.
- Bembix canescens** (Gmelin, 1790) [Apis]. Russia: **UR**.
- Bembix cinctella cinctella** Handlirsch, 1893. Russia: **EP** (CR). – Europe (SE), Turkey.
- Bembix diversipes** F. Morawitz, 1889. Russia: **WS** (AL), **ES** (KR, IR, BR), **FE** (PR). – Turkey, Iran, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NC, NW).
- Bembix eburnea** Radoszkowski, 1877 (*B. weberi* Handlirsch, 1893; *B. subeburnea* Tsuneki, 1971; *B. lama* Tsuneki, 1971). Russia: **EP** (S, CR). – Turkey, Iran, Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NE, NC).
- Bembix integra** Panzer, 1801, nom. praeocc., nec *B. integra* Fabricius, 1793 (now in *Stizus*) (*B. cristata* Mocsáry, 1883; *B. dubia* Gussakovskij, 1933; *B. iliensis* Kazenas, 1978; *B. iliensis* Kazenas, 1980). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), Iran, Turkmenistan, Kazakhstan.
- Bembix lutescens** Radoszkowski, 1877 (*B. gracilis* Handlirsch, 1893). Russia: **EP** (S, CR). – Europe

- (EE), Armenia, Azerbaijan, Turkey, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- Bembix megerlei** Dahlbom, 1845 (?*B. undata* Dahlbom, 1845; *B. sarafschani* Radoszkowski, 1877). Russia: **EP** (C, S, NC, CR). – Europe (C, EE), Turkey, Uzbekistan, Kazakhstan.
- Bembix niponica** F. Smith, 1873 (*B. picticollis* F. Morawitz, 1889; *B. miserabilis* J. Parker, 1929). Russia: **ES** (KR, BR), **FE** (AM, KH, PR). – Turkmenistan, Uzbekistan, Kazakhstan, Mongolia, China (NE, NC, NW), Korean Peninsula, Japan (Hon, Kyu, Ryu).
- Bembix oculata oculata** Panzer, 1801 (?*Vespa pallescens* Giorna, 1791; *B. latreillii* Lepeletier de Saint Fargeau, 1845; *B. neglecta* Dahlbom, 1845; *B. ocellata* Dahlbom, 1845; ?*B. rossii* Dahlbom, 1845; *B. panzeri* Handlirsch, 1893; *B. hispanica* Mercet, 1904; *B. ebusiana* Giner Marí, 1934; *B. oculata mongolica* Tsuneki, 1971; *B. oculata gegen* Tsuneki, 1971). Russia: **EP** (C, S, NC, CR), **UR**, **WS** (AL). – Europe (WE, SE, EE), N Africa, Abkhazia, Azerbaijan, Syria, Jordan, Lebanon, Israel, Saudi Arabia, United Arab Emirates, Oman, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, Mongolia, China (NC).
- Bembix olivacea olivacea** Fabricius, 1787 (?*Vespa clipeata* Christ, 1791; ?*V. apilinguaria* Christ, 1791; *B. senilis* Fabricius, 1804; ?*B. octopunctata* Donovan, 1810; *B. notata* Dahlbom, 1845; *B. mediterranea* Handlirsch, 1893; *B. maroccana* Mercet, 1905; *B. pardoi* Giner Marí, 1945). Russia: **EP** (C, S, NC, CR). – Europe (WE, SE, EE), N Africa, Armenia, Azerbaijan, Turkey, Israel, Saudi Arabia, Yemen, Iran, Turkmenistan, Kazakhstan, Africa, Madagascar.
- Bembix pallida** Radoszkowski, 1877. Russia: **EP** (C, S, CR). – Europe (SE, EE), Turkey, Israel, Tajikistan, Uzbekistan.
- Bembix portchinskii** Radoszkowski, 1884 (*B. seminigra* F. Morawitz, 1889; *B. kirgisica* F. Morawitz, 1891; *B. ganglbaueri* Handlirsch, 1893; *B. trimaculata* Kazenas, 1978; *B. trimaculata* Kazenas, 1980). Russia: **EP** (S). – N Africa, Turkey, Iran, Afghanistan, Central Asia, Kazakhstan, Mongolia, China (NC, NW).
- Bembix rostrata rostrata** (Linnaeus, 1758) [*Apis*] (*Vespa armata* Sulzer, 1776; *Apis rostrata* Gmelin, 1790, nom. praeocc., nec *A. rostrata* Linnaeus, 1758; *B. vidua* Lepeletier de Saint Fargeau, 1845; *B. dissecta* Dahlbom, 1845; *B. gallica* Mocsáry, 1883; *B. paradoxa* Giner Marí, 1943). Russia: **EP** (NW, C, E, S, NC), **UR**, **WS** (TK, NS, AL), **ES** (KR, IR). – Europe (WE, NE, SE, EE), Azerbaijan, Turkey, Iran, Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NC).
- Bembix turca** Dahlbom, 1845 (*B. melaena* F. Smith, 1856; *B. melanura* F. Morawitz, 1889; *B. asiatica* Radoszkowski, 1893; *B. gobiensis* Tsuneki, 1971; *B. atra* Kazenas, 1978; *B. atra* Kazenas, 1980). Russia: **EP** (S, CR). – Europe (SE, EE), N Africa, Turkey, Iran, Afghanistan, Turkmenistan, Tajikistan, Kazakhstan, Mongolia, China (NW).
- GORYTES** Latreille, 1805 (*Arpactus* Panzer, 1805; *Arpactus* Panzer, 1806, nom. praeocc., nec *Arpactus* Panzer, 1805; *Euzonia* Stephens, 1829; *Hoplissus* Lepeletier de Saint Fargeau, 1932; *Euspongus* Lepeletier de Saint Fargeau, 1832; *Pseudoplissus* Ashmead, 1899; *Laevigorytes* Zavadil in Zavadil et Šnoflák, 1948; *Leiogorytes* Bohart, 2000). Ty p e s p e c i e s *Mellinus quinquecinctus* Fabricius, 1793. Number of species: World – 73, Palaearctic – 25, Russia – 18.
- Gorytes aino** Tsuneki, 1963. Russia: **ES** (BR), **FE** (PR, SA, KU). – China (NC), Japan (Hok, Hon).
- Gorytes albidulus** (Lepeletier de Saint Fargeau, 1832) [*Hoplissus*] (*Mellinus dissectus* Panzer, 1801; *Euspongus albilabris* Lepeletier de Saint Fargeau, 1832; *G. elegans* F. Smith, 1856). Russia: **EP** (C, S, CR), **WS** (AL). – Europe (WE, SE, EE), N Africa, Azerbaijan, Turkey, Iran, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia.
- Gorytes ambiguus** Handlirsch, 1888 (*G. sogdianus* Gussakovskij, 1952; *G. verhoeffi* Tsuneki, 1967; *G. heptapotamiensis* Kazenas, 1972; *G. zaysanicus* Kazenas, 1987; *G. nobilis* Nesterov, 1993). Russia: **WS** (AL), **ES** (KR, IR), **FE** (KH, PR). – Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NE).
- Gorytes fallax** Handlirsch, 1888. Russia: **EP** (C, E, CR), **WS** (AL), **ES** (KR, IR). – Europe (WE, SE, EE), Kazakhstan.
- Gorytes foveolatus foveolatus** Handlirsch, 1888. Russia: **EP** (NC, CR). – Europe (SE, EE), Turkey, Syria, Jordan.
- Gorytes kohlii** Handlirsch, 1888 (*G. kozlovi* Nesterov, 1993). Russia: **EP** (NC, CR). – Europe (SE, EE), Turkey, Syria, Turkmenistan, Kazakhstan.
- Gorytes laticinctus koreanus** Handlirsch, 1888 (*G. radoszkowskyi* Handlirsch, 1888). Russia: **ES** (ZB), **FE** (KH, PR, SA, KU). – Korean Peninsula, Japan (Hok).

- Gorytes laticinctus laticinctus** (Lepeletier de Saint Fargeau, 1832) [Euspongius]. Russia: **EP** (N, NW, C, E, CR), **WS** (AL). – Europe (WE, NE, SE, EE), N Africa, Turkey, Uzbekistan, Kazakhstan.
- Gorytes maculicornis** (F. Morawitz, 1889) [Hoplisius] (*G. eous* Gussakovskij, 1932; *G. harbinensis* Tsuneki, 1967). Russia: **ES** (ZB), **FE** (AM, KH, PR). – China (NE, NC), Korean Peninsula, Japan (Hok, Hon).
- Gorytes neglectus** Handlirsch, 1895 (*G. hakutozanus* Tsuneki, 1963). Russia: **EP** (N, NW, C), **WS** (TM, NS, KM, AL), **ES** (KR, IR, BR), **FE** (KH, PR, SA). – Europe (NE), Turkey, Kazakhstan, Korean Peninsula.
- Gorytes nigrifacies** (Mocsáry, 1879) [Hoplisius]. Russia: **EP** (NC, CR). – Europe (WE, SE, EE), Georgia, Azerbaijan, Turkey, Jordan, Israel.
- Gorytes pieli** Yasumatsu, 1943 (*G. takeuchii* Tsuneki, 1963). Russia: **ES** (ZB), **FE** (KH, PR). – Mongolia, China (NE, NC), Korean Peninsula.
- Gorytes pleuripunctatus pleuripunctatus** (A. Costa, 1859) [Hoplisius] (*Hoplisius tirolensis* Kohl, 1880). Russia: **EP** (C, S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Georgia, Armenia, Azerbaijan, Turkey, Syria, Israel, Kazakhstan.
- Gorytes procrustes** Handlirsch, 1888. Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL). – Europe (WE, SE, EE), Georgia, Turkey, Kazakhstan.
- Gorytes quadrifasciatus** (Fabricius, 1804) [Mellinus] (*Euspongius vicinus* Lepeletier de Saint Fargeau, 1832; *Hoplisius montivagus* Mocsáry, 1878). Russia: **EP** (N, C, E, S, NC, CR), **UR**, **WS** (TM, NS, KM, AL), **ES** (KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, MG). – Europe (WE, NE, SE, EE), N Africa, Turkey, Kyrgyzstan, Kazakhstan, Mongolia, Korean Peninsula.
- Gorytes quinquecinctus quinquecinctus** (Fabricius, 1793) [Mellinus] (*Crabro calceatus* Rossi, 1794; *Mellinus arenarius* Panzer, 1798; *G. ruficornis* Latreille, 1805; *G. proximus* Handlirsch, 1893). Russia: **EP** (N, C, E, S, NC, CR), **UR**, **WS** (TM, NS, KM, AL), **ES** (TU, KR, IR, ZB). – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Turkey, Syria, Iran, Uzbekistan, Kyrgyzstan, Kazakhstan.
- Gorytes quinquefasciatus quinquefasciatus** (Panzer, 1798) [Mellinus] (*Hoplisius lacordairei* Lepeletier de Saint Fargeau, 1832; *H. anceps* Mocsáry, 1879; *H. geminatus* A. Costa, 1867; *H. geminatus* A. Costa, 1869). Russia: **EP** (C, E, NC, CR), **UR**, **WS** (AL), **ES** (KR, IR, BR), **FE** (PR). – Europe (WE, SE, EE).
- Gorytes schmiedeknechti** Handlirsch, 1888. Russia: **EP** (NC). – Europe (SE, EE), Azerbaijan, Turkey, Syria.
- Gorytes sulcifrons mongolicus** Tsuneki, 1971. Russia: **WS** (AL), **ES** (KR, IR, BR, ZB). – Azerbaijan, Kazakhstan, Mongolia, China (NC).
- Gorytes sulcifrons sulcifrons** (A. Costa, 1867) [Hoplisius] (*Hoplisius sulcifrons* A. Costa, 1869). Russia: **EP** (E, S, CR). – Europe (WE, SE, EE), N Africa, Armenia, Turkey, Lebanon, Central Asia, Kazakhstan.
- HARPACTUS** Shuckard, 1837 (*Arpactus* Jurine, 1807, nom. praeocc., nec *Arpactus* Panzer, 1805; *Harpactes* Dahlbom, 1843; *Dienoplus* W. Fox, 1894). Type species *Arpactus formosus* Jurine, 1807. Number of species: World – 72, Palaearctic – 54, Russia – 11.
- Harpactus affinis** (Spinola, 1808) [Gorytes] (*Arpactus carceli* Lepeletier de Saint Fargeau, 1832; *A. tricolor* Lepeletier de Saint Fargeau, 1832). Russia: **EP** (C, S, NC), **WS** (AL). – Europe (WE, SE, EE), Turkey, Kazakhstan.
- Harpactus annulatus** Eversmann, 1849 (*Dienoplus varipes* Tsuneki, 1971). Russia: **EP** (S), **UR**. – Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia.
- Harpactus elegans elegans** (Lepeletier de Saint Fargeau, 1832) [Arpactus] (*H. vedicus* Nesterov, 1994). Russia: **EP** (C, E, S, NC, CR), **WS** (AL), **ES** (KR). – Europe (WE, NE, SE, EE), Armenia, Azerbaijan, Kazakhstan.
- Harpactus formosus formosus** (Jurine, 1807) [Arpactus]. Russia: **EP** (C, S, NC, CR). – Europe (WE, SE, EE), N Africa, Turkey, Israel, Saudi Arabia, Kuwait, Oman, Iran, Kyrgyzstan, Kazakhstan.
- Harpactus laevis laevis** (Latreille, 1792) [Mutilla] (*Sphex cruentus* Fabricius, 1798; *Evania ruficollis* Fabricius, 1798; *H. caucasicus* Radoszkowski, 1884; *Dienoplus dzhingis* Tsuneki, 1971). Russia: **EP** (C, S, CR), **WS** (AL), **ES** (IR, BR, ZB), **FE** (AM). – Europe (WE, SE, EE), Turkey, Iran, Kazakhstan, Mongolia, China (NE, NC).
- Harpactus lunatus** (Dahlbom, 1832) [Larra] (*Arpactus belgicus* Wesmael, 1839). Russia: **EP** (N, C, E), **WS** (AL), **ES** (KR, IR, YA). – Europe (WE, NE, SE, EE), Kazakhstan.
- Harpactus morawitzi** Radoszkowski, 1884 (*Gorytes moravicus* Šnoflák, 1943). Russia: **EP** (C, S, NC), **ES** (IR, BR, ZB). – Europe (WE, SE, EE), Turkey, Turkmenistan, Kazakhstan.



- Harpactus tauricus** Radoszkowski, 1884 (*Gorytes sareptanus* Handlirsch, 1888; *H. turcmenicus* Radoszkowski, 1893). Russia: **EP** (S, CR). – Europe (SE, EE), Turkey, Iran, Turkmenistan, Tajikistan, Kazakhstan.
- Harpactus transbaicalicus** Nemkov, 1994. Russia: **ES** (BR).
- Harpactus transiens** A. Costa, 1887 (*H. transiens* A. Costa, 1888; *Gorytes consanguineus* Handlirsch, 1888; *H. chosrovicus* Nesterov, 1994). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), Armenia, Turkey, Kazakhstan.
- Harpactus tumidus tumidus** (Panzer, 1801) [Pompilus] (*Dienoplus japonensis* Tsuneki, 1963; *H. transiliensis* Kazenas, 1989). Russia: **EP** (N, C, E), **WS** (TK, AL), **ES** (IR, BR, ZB), **FE** (AM, KH, PR, SA, KA, MG). – Europe (WE, NE, SE, EE), N Africa, Kyrgyzstan, Kazakhstan, Japan (Hon).
- HOPLISOIDES** Gribodo, 1884 (*Icuma* Cameron, 1905). Type species *Hoplisoides intricans* Gribodo, 1884. Number of species: World – 79, Palaeartic – 6, Russia – 4.
- Hoplisoides craverii craverii** (A. Costa, 1867) [Hoplisus] (*Hoplisus craverii* A. Costa, 1869; *H. ottomanus* Mocsáry, 1879). Russia: **EP** (S, NC), **UR**. – Europe (WE, SE, EE), Armenia, Azerbaijan, Turkey, Turkmenistan, Uzbekistan, Kazakhstan, Mongolia.
- Hoplisoides gazagnairei distinguendus** (Yasumatsu, 1939) [Gorytes]. Russia: **FE** (PR). – Kazakhstan, Mongolia, China (NE, NC), Korean Peninsula.
- Hoplisoides latifrons** (Spinola, 1808) [Gorytes] (*Hoplisus pulchellus* Wesmael, 1852; *H. minutus* Mocsáry, 1879). Russia: **EP** (E, S, CR), **UR**. – Europe (WE, SE, EE), N Africa, Turkey, Tajikistan, Uzbekistan, Kazakhstan.
- Hoplisoides punctuosus punctuosus** (Eversmann, 1849) [Hoplisus] (*Hoplisus punctatus* Kirschbaum, 1853; *H. crassicornis* A. Costa, 1859; *H. maculipennis* Giraud in von Frauenfeld, 1861; *Gorytes ibericus* Mercet, 1906). Russia: **EP** (C, S, NC, CR), **UR**, **WS** (NS, KM, AL). – Europe (WE, SE, EE), N Africa, Armenia, Azerbaijan, Turkey, Syria, Israel, Central Asia, Kazakhstan, Mongolia.
- LESTIPHORUS** Lepeletier de Saint Fargeau, 1832 (*Lestiphorus* Agassiz, 1847; *Hypomellinus* Ashmead, 1899; *Mellinogastra* Ashmead, 1899). Type species *Crabro bicinctus* Rossi, 1794. Number of species: World – 18, Palaeartic – 8, Russia – 3.
- Lestiphorus bicinctus** (Rossi, 1794) [Crabro], validated by ICZN, 1963 (Opinion 675). Russia: **EP** (C, CR), **WS** (AL). – Europe (WE, SE, EE), Turkey.
- Lestiphorus bilunulatus bilunulatus** A. Costa, 1867 (*L. bilunulatus* A. Costa, 1869; *Gorytes semistriatus* Schmiedeknecht, 1881). Russia: **WS** (KM, AL), **ES** (KR, ZB), **FE** (AM, KH, PR, SA). – Europe (WE, SE, EE), Kazakhstan.
- Lestiphorus pacificus** (Gussakovskij, 1932) [Gorytes]. Russia: **FE** (PR).
- OLGIA** Radoszkowski, 1877 (*Kaufmannia* Radoszkowski, 1877). Type species *Olgia modesta* Radoszkowski, 1877. Number of species: World – 6, Palaeartic – 6, Russia – 1.
- Olgia helena** de Beaumont, 1953. Russia: **EP** (CR). – Europe (SE), Turkey.
- ORYTTUS** Spinola, 1836 (*Agraptus* Wesmael, 1852; *Arcesilas* Pate, 1938). Type species *Sphex concinnus* Rossi, 1790. Number of species: World – 14, Palaeartic – 5, Russia – 2.
- Oryttus concinnus concinnus** (Rossi, 1790) [Sphex]. Russia: **EP** (C, CR). – Europe (WE, SE, EE).
- Oryttus kazabi** Tsuneki, 1971 (*Gorytes kostjuki* Nesterov, 1993). Russia: **WS** (AL), **ES** (TU, ZB). – Kyrgyzstan, Kazakhstan, Mongolia.
- PSAMMAECIUS** Lepeletier de Saint Fargeau, 1832. Type species *Gorytes punctulatus* Vander Linden, 1829. Number of species: World – 5, Palaeartic – 5, Russia – 1.
- Psammaecius punctulatus** (Vander Linden, 1829) [Gorytes]. Russia: **EP** (C, S, NC, CR). – Europe (WE, SE, EE), N Africa, Armenia, Azerbaijan, Israel, Central Asia, Kazakhstan.
- SPHECIUS** Dahlbom, 1843 (*Hogardia* Dufour, 1841, not available (ICZN, 1999, Art. 11.5); *Hogardia* Lepeletier de Saint Fargeau, 1845; *Sphecienuus* Patton, 1879; *Nothosphecius* Pate, 1936). Type species *Sphecius speciosus* Dahlbom, 1843 (= *Sphex speciosus* Drury, 1773). Number of species: World – 21, Palaeartic – 10, Russia – 2.
- Sphecius antennatus** (Klug, 1845) [Larra] (*Stizus aberrans* Eversmann, 1849; *Sphecius impressus* Kokujev, 1909). Russia: **EP** (S, NC, CR), **UR**, **WS** (AL). – Europe (WE, SE, EE), Azerbaijan, Turkey, Syria, Israel, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NC).

**Sphecius conicus conicus** (Germar, 1817) [Stizus] (*Stizus luniger* Eversmann, 1849). Russia: **EP** (S, CR), **UR**, **WS** (AL). – Europe (SE, EE), Turkey, Kazakhstan.

**STIZOIDES** Guérin-Méneville, 1844 (*Omphalius* Vachal, 1900, nom. praeocc., nec *Omphalius* Philippi, 1847 (Gastropoda); *Scotomphales* Vachal, 1900; *Tachystizus* Minkiewicz, 1934, not available (ICZN, 1999, Art. 13.3); *Tachystizus* Pate, 1937). Type species *Larra fasciata* Fabricius, 1798 (= *Sphex assimilis* Fabricius, 1787). Number of species: World – 30, Palearctic – 10, Russia – 3.

**Stizoides crassicornis** (Fabricius, 1787) [Tiphia] (*Bembex rufipes* Olivier, 1789; *Pompilus alienus* Fischer de Waldheim, 1843; *Stizus fulvipes* Eversmann, 1846). Russia: **EP** (C, E, S, NC, CR). – Europe (WE, SE, EE), N Africa, Azerbaijan, Turkey, Israel, Iran, Central Asia, Kazakhstan.

**Stizoides melanopterus** (Dahlbom, 1845) [Stizus] (*Stizus concolor* Eversmann, 1849). Russia: **EP** (S, CR). – Europe (SE), Armenia, Turkey, Lebanon, Israel, Iraq, Central Asia, Kazakhstan.

**Stizoides tridentatus tridentatus** (Fabricius, 1775) [Crabro] (*Larra bifasciata* Fabricius, 1798). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Armenia, Azerbaijan, Turkey, Syria, Israel, Kazakhstan, Mongolia.

**STIZUS** Latreille, 1802 (*Megastizus* Patton, 1879; *Stizolarra* de Saussure, 1887; *Megalostizus* W. Schulz, 1906). Type species *Bembex ruficornis* Fabricius, 1787 (= *Vespa ruficornis* J. Forster, 1771). Number of species: World – 105, Palearctic – 54, Russia – 6.

**Stizus annulatus** (Klug, 1845) [Larra] (*Larra subapicalis* Walker, 1871; *S. eversmanni* Radoszkowski, 1877; *S. kizilkumii* Radoszkowski, 1877; *S. picticornis* F. Morawitz, 1891; *S. pygidialis* Handlirsch, 1892; *S. gracilipes* Handlirsch, 1892; *S. hebraeus* Balthasar, 1954; *S. gobiensis* Tsuneki, 1971). Russia: **EP** (S). – Europe (SE), N Africa, Armenia, Turkey, Syria, Israel, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia.

**Stizus bipunctatus** (F. Smith, 1856) [Larra] (*S. eugeniae* Gussakovskij, 1935). Russia: **EP** (CR). – Europe (SE, EE), Turkey, Iran, Afghanistan, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan.

**Stizus fasciatus** (Fabricius, 1781) [Bembex] (*Bembex integra* Fabricius, 1793; *S. terminalis* Dahlbom, 1845;

*S. mongolicus* Tsuneki, 1971). Russia: **EP** (C, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Turkey, Israel, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NW).

**Stizus perrisi perrisi** Dufour, 1838 (*S. perrisi* Lepeletier de Saint Fargeau, 1845; *Larra pulcherrima* F. Smith, 1856; *S. pluschtschewskii* Radoszkowski, 1888). Russia: **EP** (C, E, S, CR), **UR**, **WS** (AL), **ES** (ZB), **FE** (PR). – Europe (WE, NE, SE, EE), Armenia, Turkey, Uzbekistan, Kyrgyzstan, Kazakhstan, China (NE, NC, NW), Korean Peninsula, Japan (Hon).

**Stizus ruficornis ruficornis** (J. Forster, 1771) [Vespa] (*Bembex ruficornis* Fabricius, 1787, nom. praeocc., nec *Vespa ruficornis* J. Forster, 1771; *Vespa gaditana* Gmelin, 1790; *S. ornatus* Lepeletier de Saint Fargeau, 1845; *Larra ferruginea* F. Smith, 1856; *S. komarovi* Radoszkowski, 1888; ?*S. ritsemae* Handlirsch, 1895; *S. ritsemae* Handlirsch, 1896; *S. scutellaris* W.F. Kirby, 1900; *S. distinguendus* Handlirsch, 1901). Russia: **EP** (S, CR), **UR**. – Europe (WE, SE, EE), N Africa, Armenia, Azerbaijan, Turkey, Jordan, Saudi Arabia, United Arab Emirates, Yemen, Oman, Iran, Central Asia, Kazakhstan, Mongolia, Africa.

**Stizus rufiventris rufiventris** Radoszkowski, 1877 (*S. sarmaticus* F. Morawitz, 1891; *S. kaszabi* Tsuneki, 1971). Russia: **EP** (S, CR). – N Africa, Turkey, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NW).

## Subfamily CRABRONINAE

### A.V. ANTROPOV

#### Tribe CRABRONINI

**CRABRO** Fabricius, 1775 (*Crabro* Fabricius, 1775, nom. praeocc., nec *Crabro* Geoffroi de Saint Hilaire, 1762, which was suppressed by ICZN (1943, Opinion 144; 1994, Opinion 1754); *Carabro* Say, 1823, lapsus for *Crabro* Fabricius, 1775; *Pemphilis* Risso, 1826, nom. nud.; *Thyreopus* Lepeletier de Saint Fargeau et Brullé, 1835, objective synonym of *Crabro* Fabricius, 1775; *Thyreocnemus* A. Costa, 1867; *Paranothyreus* Kohl, 1897, unavailable under ICZN, 1961; available under ICZN, 1985, 1999; *Paranothyreus* Ashmead, 1899; *Dyscolocrabro* Kohl, 1915, unavailable under ICZN, 1961; available under ICZN, 1985, 1999; *Paranothyreus* Kohl, 1915, unavailable under ICZN, 1961; available under ICZN, 1985, 1999; *Parathyreopus* Kohl, 1915, unavailable under ICZN, 1961; available under ICZN, 1985, 1999; *Agnosicrabro*

- Pate, 1944, validation of *Agnosicrabro* Kohl, 1915; *Dyscolocrabro* Pate, 1944, validation of *Dyscolocrabro* Kohl, 1915; *Paranothyreus* Pate, 1944, validation of *Paranothyreus* Kohl, 1915; *Parathyreopus* Pate, 1944, validation of *Parathyreopus* Kohl, 1915; *Pemphilis* Pate, 1944, validation of *Pemphilis* Risso, 1826, objective synonym of *Crabro* Fabricius, 1775). Type species *Vespa cribraria* Linnaeus, 1758. The genus includes eight subgenera: *Crabro* Fabricius, 1775, *Anothyreus* Dahlbom, 1845, *Synothyreopus* Ashmead, 1899, *Dyscolocrabro* Pate, 1944, *Hemithyreopus* Pate, 1944, *Paranothyreus* Pate, 1944, *Norumbega* Pate, 1947, and *Othyreus* Marshakov, 1977. Number of species: World – 88, Palaearctic – 26, Russia – 18.
- Crabro (Anothyreus) lapponicus** Zetterstedt, 1838 (*C. biguttatus* F. Morawitz, 1892). Russia: **EP** (N, NW), **ES** (BR, KR, IR), **FE** (AM, PR). – Europe (WE, NE, EE).
- Crabro (Anothyreus) maeklini** A. Morawitz, 1866 (*C. Mäklini* A. Morawitz, 1866a; *C. Mäklini* A. Morawitz, 1866b, objective synonym of A. Morawitz, 1866a). Russia: **EP** (N, NW), **UR**, **ES** (IR, YA, ZB), **FE** (KH, PR). – Europe (NE, EE), Kazakhstan, Mongolia.
- Crabro (Crabro) alpinus** Imhoff, 1863 (*Thyreopus interruptus* Lepeletier de Saint Fargeau et Brullé, 1835, junior secondary homonym of *Crabro interruptus* Fabricius, 1787; *Th. lactarius* Chevrier, 1867; *C. interruptulus* Dalla Torre, 1897, substitute name for *C. interruptus* Lepeletier de Saint Fargeau et Brullé, 1835). Russia: **EP** (S, NC). – Europe (WE, SE, EE), Turkey.
- Crabro (Crabro) altaicus** F. Morawitz, 1892. Russia: **WS** (AL), **ES** (TU). – Central Asia, Kazakhstan, Mongolia, China (NW).
- Crabro (Crabro) cribrarius** (Linnaeus, 1758) [*Vespa*] (*Vespa cribraria* Linnaeus, 1758; *Sphex patellarius* Schreber, 1784; *S. Cribraria Argus* Christ, 1791; *S. cribraria longa* Christ, 1791; *S. cribraria lunata* Christ, 1791, nom. praeocc., nec *S. lunatus* Fabricius, 1775; *C. palmatus* Panzer, 1797; *C. interruptus* Stephens, 1829, nom. praeocc., nec Fabricius, 1787 (now in *Palarus*), substitute name for *C. clypeatus* Panzer, 1804; *C. cribrarius inornatus* Mocsáry in Mocsáry et Szépliget, 1901; *C. cribrarius hypotheticus* Kokujev, 1927). Russia: **EP** (N, NW, C, E, NC, CR), **UR**, **WS** (NS, AL), **ES** (KM, TM, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA). – Europe (WE, NE, SE, EE), N Africa, Turkey, Iran, Kazakhstan, Mongolia, Korean Peninsula.
- Crabro (Crabro) ingricus** (F. Morawitz, 1888) [*Thyreopus*]. Russia: **EP** (N, NW, C), **UR**, **WS** (AL), **FE** (PR, KA). – Europe (WE, NE, SE, EE).
- Crabro (Crabro) mocsaryi** Kohl, 1915 (*C. Mocsáryi* Kohl, 1915). Russia: **WS** (AL). – Tadjikistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NW).
- Crabro (Crabro) peltarius** (Schreber, 1784) [*Sphex*] (*Sphex peltaria* Schreber, 1784; *C. patellatus* Panzer, 1797; *C. dentipes* Panzer, 1797; *C. mediatius* Fabricius, 1798). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (OM, NS, AL), **ES** (BR, KR, IR), **FE** (AM, KH, PR, SA). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan, Mongolia, Korean Peninsula.
- Crabro (Crabro) scutellatus** (von Scheven, 1781) [*Sphex*] (*Sphex scutellata* von Scheven, 1781; *S. scutularia* Schreber, 1784; *S. scutellata quatuor maculata* Christ, 1791; *C. pterotus* Panzer, 1801; *C. geniculatus* Stephens, 1829, nom. nud.; *C. phaeopterus* Stephens, 1829, nom. nud.). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, NS, AL), **ES** (KR, BR, IR, YA), **FE** (AM, KH, PR, SA). – Europe (WE, NE, SE, EE), Kazakhstan, Mongolia, China (CE).
- Crabro (Crabro) sibiricus** A. Morawitz, 1866. Russia: **WS** (OM, NS, KM, AL), **ES** (TU, KR, IR, BR, ZB), **FE** (AM, PR). – Kazakhstan, Mongolia, China (NE).
- Crabro (Crabro) signaticrus** F. Morawitz, 1893. Russia: **WS** (AL). – Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia.
- Crabro (Crabro) ussuriensis** Gussakovskij, 1932 (*C. koreanus* Tsuneki, 1947). Russia: **ES** (BR, ZB), **FE** (AM, KH, PR). – China (NE), Korean Peninsula.
- Crabro (Crabro) werestschagini** Gussakovskij, 1932 (*C. okabei* Yasumatsu, 1944). Russia: **ES** (BR, ZB), **FE** (AM, KH, PR). – China (NE).
- Crabro (Hemithyreopus) caspicus** (F. Morawitz, 1888) [*Blepharipus*]. Russia: **UR**. – Kazakhstan, Turkmenistan.
- Crabro (Hemithyreopus) femoralis** F. Morawitz, 1892. Russia: **EP** (S, NC), **ES** (BR, IR, KR, BR, ZB), **FE** (PR). – Mongolia, China (NE).
- Crabro (Hemithyreopus) loewi** Dahlbom, 1845 (*C. Loewi* Dahlbom, 1845; *C. Jaroszewskyi* F. Morawitz, 1892). Russia: **EP** (C, S), **UR**, **WS** (AL), **ES** (IR, ZB). – Europe (WE, SE, NE, EE), Turkmenistan, Kazakhstan.
- Crabro (Hemithyreopus) malyshevi** L. Ahrens, 1933. Russia: **EP** (C), **ES** (ZB). – Kazakhstan.

**Crabro (Synothyreopus) pubens** Marshakov, 1976. Russia: **EP** (S). – Turkmenistan.

**CROSSOCERUS** Lepeletier de Saint Fargeau et Brullé, 1835 (*Coelocrabro* Thomson, 1874; *Dolichocrabro* Ashmead, 1899; *Stenocrabro* Ashmead, 1899; *Synorhopalum* Ashmead, 1899; *Ischnolynthus* Holmberg, 1903; *Yuchiha* Pate, 1944; *Fentis* Tsuneki, 1971; *Corenocrabro* Tsuneki, 1991, nom. nud., nom. praeocc., nec Tsuneki, 1974). Type species *Crabro scutatus* Fabricius, 1787 (= *Sphex palmipes* Linnaeus, 1767). The genus includes 23 subgenera: *Crossocerus* Lepeletier de Saint Fargeau et Brullé, 1835, *Blepharipus* Lepeletier de Saint Fargeau et Brullé, 1835, *Cuphopterus* A. Morawitz, 1874, *Hoplocrabro* Thomson, 1874, *Microcrabro* de Sausure, 1892, *Epicrossocerus* Ashmead, 1899, *Ablepharipus* Perkins, 1913, *Acanthocrabro* Perkins, 1913, *Apocrabro* Pate, 1944, *Nothocrabro* Pate, 1944, *Stictoptila* Pate, 1944, *Ainocrabro* Tsuneki, 1954, *Oxy-crabro* Leclercq, 1961, *Paroxy-crabro* Leclercq, 1963, *Alicrabro* Tsuneki, 1968, *Apoides* Tsuneki, 1968, *Neoblepharipus* Leclercq, 1968, *Towada* Tsuneki, 1970, *Bnunius* Tsuneki, 1971, *Ormicrabro* Leclercq, 1973, *Thao* Tsuneki, 1982, *Orthocrabro* Tsuneki, 1990, and *Yambal* Tsuneki, 1990. Number of species: World – 249, Palearctic – 78, Russia – 39.

**Crossocerus (Ablepharipus) assimilis** (F. Smith, 1856) [Crabro] (*Crabro affinis* Wesmael, 1852, nom. praeocc., nec Rossi, 1792, non *Crossocerus affinis* Lepeletier de Saint Fargeau et Brullé, 1835; *C. socius* Thomson, 1870; *C. Tirolensis* Kohl, 1878). Russia: **EP** (C, E, S, NC), **UR**, **WS** (AL), **ES** (IR, ZB), **FE** (AM, KH, PR, SA, KU). – Europe (WE, NE, EE), Turkey, Kazakhstan, Mongolia, Korean Peninsula, Japan (Hon).

**Crossocerus (Ablepharipus) congener** (Dahlbom, 1844) [Crabro]. Russia: **EP** (C, E, NC), **UR**, **WS** (AL), **FE** (PR, KU). – Europe (WE, NE, SE, EE), Kazakhstan, Mongolia, Japan (Hon).

**Crossocerus (Ablepharipus) podagricus** (Vander Linden, 1829) [Crabro] (*Crabro tibialis* Stephens, 1829, nom. nud., nom. praeocc., nec *Vespa* (*Crabro*) *tibialis* Gmelin, 1790; *Crossocerus vicinus* Dahlbom, 1842; *Crabro Snoflaki* Zavadil in Zavadil et Šnoflak, 1948; *C. podagricus punctata* Šnoflak in Zavadil et Šnoflak, 1948). Russia: **EP** (N, C, E, NC, CR), **UR**, **WS** (AL), **FE** (PR, SA, KU). – Europe (WE, NE, SE, EE), N Africa, Turkey, Iran, Kazakhstan, Mongolia, Korean Peninsula, Japan (Hok, Hon).

**Crossocerus (Ablepharipus) shibuyai** (Iwata, 1934) [Crabro]. Russia: **FE** (PR, SA, KU). – Korean Peninsula, Japan (Hok, Hon).

**Crossocerus (Acanthocrabro) vagabundus** (Panzer, 1799) [Crabro] (*Crabro bojus* Schrank, 1802; *Blepharipus 5 maculatus* Lepeletier de Saint Fargeau et Brullé, 1835; *Crossocerus lefebvrei* Lepeletier de Saint Fargeau et Brullé, 1835; *Crabro vagabundus fasciatus* A. Costa, 1871; *C. vagabundus melanotica* Bischoff, 1921; *Corenocrabro ectemiformis* Tsuneki, 1974; *C. ectemiformis* Tsuneki, 1991, nom. nud., nom. praeocc., nec Tsuneki, 1974). Russia: **EP** (N, NW, C, E, NC, CR), **UR**, **WS** (TK, AL), **ES** (KR, IR, ZB), **FE** (AM, KH, PR, SA, KA). – Europe (WE, NE, SE, EE), N Africa, Turkey, Uzbekistan, Kazakhstan, Mongolia, China (NE, NC, NW, SW, CE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu), India.

**Crossocerus (Ainocrabro) malaisei** (Gussakovskij, 1932) [Crabro] (*Crabro aino* Tsuneki, 1947). Russia: **FE** (AM, PR, SA, KU). – Mongolia, Korean Peninsula, Japan (Hok, Hon, Shi).

**Crossocerus (Blepharipus) annulipes annulipes** (Lepeletier de Saint Fargeau et Brullé, 1835) [Blepharipus] (*C. gonager* Lepeletier de Saint Fargeau et Brullé, 1835; *Crabro nigrinus* Gimmerthal, 1836, nom. praeocc., nec *Blepharipus nigrinus* Lepeletier de Saint Fargeau et Brullé, 1835; *C. ambiguus* Dahlbom, 1842; *C. Capito* Dahlbom, 1845; *B. parkeri* Banks, 1921; *Crabro davidsoni* Sandhouse, 1938). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (AL), **ES** (IR), **FE** (AM, PR). – Europe (WE, NE, SE, EE), N Africa, Abkhazia, Turkey, Israel, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, N America.

**Crossocerus (Blepharipus) annulipes hokkaidoensis** Tsuneki, 1954. Russia: **FE** (SA, KU). – China (NE, CE), Korean Peninsula, Japan (Hok, Hon).

**Crossocerus (Blepharipus) barbipes** Dahlbom, 1845 (*Crabro ater* Cresson, 1865, nom. praeocc., nec Olivier, 1792; *C. hirtipes* A. Morawitz, 1866; *C. hirtipes* A. Morawitz, 1866, nom. praeocc., nec A. Morawitz, 1866; *Dolichocrabro Wickhamii* Ashmead, 1899; *D. Wickhamii* Ashmead, 1902, nom. praeocc., nec Ashmead, 1899; *D. wickhami* Ashmead, 1910, nom. praeocc., nec Ashmead, 1899; *Crossocerus pammelas* Pate, 1944, substitute name for *Crabro ater* Cresson, 1865). Russia: **EP** (NW, C, E), **UR**, **WS** (TK, AL), **ES** (KR, IR, ZB), **FE** (KH, PR, SA, KU). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan, Mongolia, China (SW), Korean Peninsula, Japan (Hok, Hon, Yakushima, Ryu), N America.

- Crossocerus (Blepharipus) capitosus** (Shuckard, 1837) [Crabro] (*Crabro annulus* Dahlbom, 1839; *Crossocerus capitosus yezo* Tsuneki, 1960). Russia: **EP** (NW, C, E, S, NC, CR), **WS** (AL), **FE** (PR, SA, KU). – Europe (WE, NE, SE, EE), Georgia, Kazakhstan, Mongolia, China (CE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Crossocerus (Blepharipus) cetratus** (Shuckard, 1837) [Crabro] (*Crabro van der Lindeni* Dahlbom, 1839; *C. dilatatus* Herrich-Schaeffer, 1841; *C. inornatus* Matsumura, 1912; *Crossocerus dentsukanus* Tsuneki, 1976). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (IR), **FE** (PR, SA, KU). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan, Mongolia, China (SW), Korean Peninsula, Japan (Hok, Hon).
- Crossocerus (Blepharipus) cinxius** (Dahlbom, 1839) [Crabro] (*Crossocerus capitosus yamato* Tsuneki, 1960). Russia: **EP** (N, C), **UR**, **WS** (AL), **ES** (IR), **FE** (PR, SA, KU, MG). – Europe (WE, NE, SE, EE), Turkey, Tajikistan, Kazakhstan, Mongolia, China (SW), Korean Peninsula, Japan (Hok, Hon).
- Crossocerus (Blepharipus) heydeni** Kohl, 1880 (*Crabro sutshanicus* Gussakovskij, 1932; *C. hedgreni* Kjellander, 1954; *Crossocerus heydeni nipponis* Tsuneki, 1966; *C. murotai* Tsuneki, 1992). Russia: **EP** (CR), **UR**, **WS** (AL), **FE** (PR, SA). – Europe (SE, NE, EE), Turkey, Kazakhstan, Mongolia, Korean Peninsula, Japan (Hon).
- Crossocerus (Blepharipus) leucostoma** (Linnaeus, 1758) [Sphex] (*Crabro carbonarius* Dahlbom, 1839; *Crossocerus Rugosus* Herrich-Schaeffer, 1840, nom. nud.; *Crabro rugosus* Herrich-Schaeffer, 1841; *C. melanarius* Wesmael, 1852; *Blepharipus cinctipes* Provancher, 1882; *B. cinctipes* Provancher, 1883, objective synonym of Provancher, 1882; *Crabro niger* Provancher, 1888, nom. praeocc., nec *Crossocerus niger* Lepeletier de Saint Fargeau et Brullé, 1835; *Crabro nigror* W. Fox, 1895; *C. nigror* W. Fox, 1896, emendation of *C. nigror* W. Fox, 1895; *C. servus* Dalla Torre, 1897, substitute name for *C. niger* Provancher, 1888; *Stenocrabro cinctitarsis* Ashmead, 1901; *B. columbiae* Bradley, 1906; *Thyreopus stygius* Mickel, 1916; *Th. utensis* Mickel, 1916). Russia: **EP** (N, NW, C, E), **UR**, **WS** (AL), **ES** (IR), **FE** (KH, PR, SA, KA, MG). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan, Mongolia, Korean Peninsula, Japan (Hok, Hon), N America.
- Crossocerus (Blepharipus) megacephalus** (Rossi, 1790) [Crabro] (*Crabro aterrimus* Stephens, 1829, nom. nud.; *C. spiniceps* Stephens, 1829, nom. nud.; *C. tarsalis* Stephens, 1829, nom. nud.; *Crabro bidens* Haliday, 1833, nom. praeocc., nec Schrank, 1802; *Crossocerus niger* Lepeletier de Saint Fargeau et Brullé, 1835; *C. rufipes* Lepeletier de Saint Fargeau et Brullé, 1835; *Crabro laeviceps* F. Smith, 1856; *C. bison* A. Costa, 1884; *Crossocerus bison* A. Costa, 1884, objective synonym of *Crabro bison* A. Costa, 1884; ?*Crabro zaidamensis* Radoszkowski, 1887; *Coelocrabro leucostomoides* Richards, 1935, substitute name for *Crabro leucostoma* of Kohl, 1915 and authors, nec Linnaeus, 1758). Russia: **EP** (N, C, E, S, NC, CR), **UR**, **WS** (TK, AL), **ES** (IR), **FE** (AM, PR). – Europe (WE, NE, SE, EE), N Africa, Turkey, Iran, Tajikistan, Kazakhstan, Mongolia, China (NW), Japan (Hok), India.
- Crossocerus (Blepharipus) minamikawai** Tsuneki, 1966. Russia: **FE** (PR). – Japan (Hon).
- Crossocerus (Blepharipus) nigratus** (Lepeletier de Saint Fargeau et Brullé, 1835) [Blepharipus] (*Blepharipus nigrita* Lepeletier de Saint Fargeau et Brullé, 1835; *Crabro pubescens* Shuckard, 1837; *Crossocerus diversipes* Herrich-Schaeffer, 1841; *Crabro tischbeini* Dahlbom: Tischbein, 1850, nom. nud.; *C. inermis* Thomson, 1870; *Crossocerus melanogaster* Kohl, 1880; *B. nigricornis* Provancher, 1888; *Crabro sambucicola* C.Verhoeff, 1891; *C. pubescens daisetsuzanus* Tsuneki, 1947; *Crossocerus verhoeffi* Tsuneki, 1967; *C. verhoeffi sudai* Tsuneki, 1976; *C. babai* Tsuneki, 1979). Russia: **EP** (N, NW, C, E), **UR**, **WS** (AL), **ES** (IR), **FE** (PR, SA, KU, KA). – Europe (WE, NE, SE, EE), N Africa, Kazakhstan, Mongolia, China (NE), Korean Peninsula, Japan (Hok, Hon), N America.
- Crossocerus (Blepharipus) styrius** (Kohl, 1892) [Crabro] (*Crabro pauxillus* Gussakovskij, 1932; *C. sugiharai* Iwata, 1938; *Crossocerus pilicornis* Tsuneki, 1977). Russia: **EP** (E), **FE** (PR, SA, KU). – Europe (WE, NE, SE, EE), Korean Peninsula, Japan (Hok, Hon, Kyu).
- Crossocerus (Blepharipus) takeuchii** Tsuneki, 1957 (*C. etizenensis* Tsuneki, 1992). Russia: **FE** (PR). – Korean Peninsula, Japan (Hon, Kyu).
- Crossocerus (Blepharipus) tanakai** Tsuneki, 1954. Russia: **FE** (KH, PR, SA, KU). – Korean Peninsula, Japan (Hok, Hon).
- Crossocerus (Blepharipus) tyuzendzianus** Tsuneki, 1954. Russia: **EP** (C), **FE** (PR). – Korean Peninsula, Japan (Hok, Hon).
- Crossocerus (Blepharipus) walkeri** (Shuckard, 1837) [Crabro] (*Crabro Walkeri* Shuckard, 1837;

- C. geniculatus* Shuckard, 1837, nom. praeocc., nec Olivier, 1792, non Fabricius, 1793; *Crossocerus scaposus* Zetterstedt: Dahlbom, 1844, nom. nud.; *Crabro clypearis* Schenck, 1857; *C. clypearis* Schenck, 1860, nom. nud.; *C. cloëvorax* Nielson, 1901). Russia: **EP** (C, E, S, CR), **UR**, **WS** (AL), **ES** (IR, ZB), **FE** (PR, SA, KU). – Europe (WE, NE, EE), Turkey, Kazakhstan, Mongolia, Korean Peninsula, Japan (Hok, Hon).
- Crossocerus (Crossocerus) denticoxa** (Bischoff, 1932) [Crabro] (*Crabro denticornis* Gussakovskij, 1932, nom. praeocc., nec F. Smith, 1879; *Crossoce-  
rus republicus* Leclercq, 1954, substitute name for *Crabro denticornis* Gussakovskij, 1932). Russia: **EP** (NC), **WS** (AL), **ES** (IR), **FE** (AM, PR). – Europe (WE, SE, EE), Kazakhstan, Mongolia, China (CE), Korean Peninsula.
- Crossocerus (Crossocerus) denticrus** Herrich-Schaeffer, 1841 (*C. Denticrus* Herrich-Schaeffer, 1840, nom. nud.). Russia: **WS** (AL), **FE** (PR, SA, KU). – Europe (WE, NE, EE), Mongolia, Korean Peninsula, Japan (Hok, Hon).
- Crossocerus (Crossocerus) distinguendus** (A. Morawitz, 1866) [Crabro] (*Crabro mucronatus* Thomson, 1870, nom. praeocc., nec Fabricius, 1793). Russia: **EP** (C, E, NC, CR), **WS** (AL). – Europe (WE, NE, SE, EE), Kazakhstan, Mongolia.
- Crossocerus (Crossocerus) elongatulus annulatus** Lepeletier de Saint Fargeau et Brullé, 1835 (*C. annulatus* Lepeletier de Saint Fargeau et Brullé, 1835; *Crabro proximus* Shuckard, 1837; *C. hyalinus* Shuckard, 1837; *C. transversalis* Shuckard, 1837; *C. obliquus* Shuckard, 1837; *C. propinquus* Shuckard, 1837). Russia: **EP** (S), **UR**. – Europe (WE, SE, EE), Turkey.
- Crossocerus (Crossocerus) elongatulus elongatulus** (Vander Linden, 1829) [Crabro] (*Crabro Stigma* Stephens, 1829, nom. nud.; *Crossocerus varipes* Lepelletier de Saint Fargeau et Brullé, 1835; *C. affinis* Lepeletier de Saint Fargeau et Brullé, 1835; *C. luteipalpis* Lepeletier de Saint Fargeau et Brullé, 1835; *C. morio* Lepeletier de Saint Fargeau et Brullé, 1835; *C. pallidipalpis* Lepeletier de Saint Fargeau et Brullé, 1835; *Crabro brevis* Eversmann, 1849, nom. praeocc., nec Vander Linden, 1829; *C. scutellaris* F. Smith, 1851, nom. praeocc., nec Gimmerthal, 1836; *C. sulcus* W. Fox, 1895; *Stenocrabro plesius* Rohwer, 1912; *Crabro elongatulus Berlandi* Richards, 1928). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (KR, IR), **FE** (PR, SA, KU). – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Turkey, Iran, Turkmenistan, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, Japan (Hok), N America, S America.
- Crossocerus (Crossocerus) emarginatus** (Kohl, 1899) [Crabro] (*Crabro pacificus* Gussakovskij, 1932). Russia: **ES** (IR, BR, ZB), **FE** (AM, KH, PR, SA, KU). – Kazakhstan, Mongolia, China (CE), Korean Peninsula, Japan (Hok, Hon, Shi, Yakushima, Ryu).
- Crossocerus (Crossocerus) exiguus** (Vander Linden, 1829) [Crabro] (*C. aphidum* Lepeletier de Saint Fargeau et Brullé, 1835). Russia: **EP** (N, NW, C, E), **UR**, **WS** (NS, AL), **ES** (IR, YA, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), N Africa, Turkmenistan, Kazakhstan, Mongolia, China (NE), Korean Peninsula.
- Crossocerus (Crossocerus) kohli** (Bischoff, 1921) [Crabro] (*Crabro diacanthus* Gussakovskij, 1930). Russia: **WS** (AL), **ES** (ZB), **FE** (PR). – Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NW), India.
- Crossocerus (Crossocerus) lundbladi** (Kjellander, 1954a) [Crabro]. Russia: **EP** (N). – Europe (NE).
- Crossocerus (Crossocerus) ovalis** Lepeletier de Saint Fargeau et Brullé, 1835 (*Crabro punctum* Zetterstedt, 1838; *C. anxius* Wesmael, 1852; *C. Shuckardi* F. Smith, 1856, nom. praeocc., nec Dahlbom, 1838; *C. ovatus* W. Schulz, 1906, emendation of Lepeletier de Saint Fargeau et Brullé, 1835). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (AL). – Europe (WE, NE, SE, EE), Kazakhstan, Mongolia.
- Crossocerus (Crossocerus) palmipes chosensensis** Tsuneki, 1957. Russia: **ES** (ZB), **FE** (AM, KH, PR). – Korean Peninsula.
- Crossocerus (Crossocerus) palmipes palmipes** (Linnaeus, 1767) [Sphex] (*Sphex palmaria* Schreber, 1784; *Crabro scutatus* Fabricius, 1787; *Crossocerus ornatus* Lepeletier de Saint Fargeau et Brullé, 1835; *Crabro scutellaris* Gimmerthal, 1836; *C. gracilis* Eversmann, 1849). Russia: **EP** (N, NW, C, E), **UR**, **WS** (NS, AL), **ES** (KR, IR, BR). – Europe (WE, NE, SE, EE), N Africa, Turkey, Kazakhstan, Mongolia.
- Crossocerus (Crossocerus) pullulus** (A. Morawitz, 1866) [Crabro] (*Crabro imitans* Kohl, 1915). Russia: **EP** (C, E, S), **WS** (AL), **ES** (YA, IR, BR, ZB), **FE** (AM, KH, PR, SA, KA, MG). – Europe (WE, NE, SE, EE), Kazakhstan, Mongolia.
- Crossocerus (Crossocerus) tarsatus** (Shuckard, 1837) [Crabro] (*C. palmatus* De Stefani Perez, 1884, nom. praeocc., nec Panzer, 1797). Russia: **EP** (C, E, NC, CR), **WS** (AL), **FE** (PR, KA). – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey, Iran, Kazakhstan, Mongolia, Korean Peninsula, N America.

- Crossocerus (Crossocerus) ungyo** Terayama, 2017 (*C. ungyo* Terayama in Terayama et Takahashi, 2017, substitute name for *Crabro uchidai* Tsuneki, 1947, nom. praeocc., nec Takeuchi, 1931 = *Cimbex femorata* (Linnaeus, 1758)). Russia: **ES** (IR, YA, ZB), **FE** (AM, KH, PR, KU, KA, MG, CH). – Mongolia, Japan (Hok).
- Crossocerus (Crossocerus) varus** Lepeletier de Saint Fargeau et Brullé, 1835, nom. praeocc., nec *Crabro varus* Panzer, 1799 (now in *Tracheliodes* A. Morawitz); (*C. pusillus* Lepeletier de Saint Fargeau et Brullé, 1835; *C. striatulus* Lepeletier de Saint Fargeau et Brullé, 1835; *Crabro scutellatus* Stephens, 1829, nom. nud., nom. praeocc., nec *Sphex scutellata* von Scheven, 1781 (now in *Crabro*); *Crabro spinipectus* Shuckard, 1837; *Crossocerus striatus* Lepeletier de Saint Fargeau, 1845, lapsus for or emendation of *C. striatulus* Lepeletier de Saint Fargeau et Brullé, 1835; *C. varius* Lepeletier de Saint Fargeau, 1845, emendation of *C. varus* Lepeletier de Saint Fargeau et Brullé, 1835; *Crabro intricatus* F. Smith, 1856, substitute name for *C. striatus* Lepeletier de Saint Fargeau, 1845; *C. Lepeletieri* F. Smith, 1856, substitute name for *C. striatulus* Lepeletier de Saint Fargeau et Brullé, 1835). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (AL), **ES** (KR, IR), **FE** (PR, SA, KU, KA). – Europe (WE, NE, SE, EE), N Africa, Turkey, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (SW), Korean Peninsula, Japan (Hok, Hon).
- Crossocerus (Crossocerus) wesmaeli parvicorpus** Tsuneki, 1974 (*C. wesmaeli parvicorpus* Tsuneki, 1991, nom. nud.). Russia: **FE** (PR). – China (NE), Korean Peninsula, Japan (Hon).
- Crossocerus (Crossocerus) wesmaeli wesmaeli** (Vander Linden, 1829) [*Crabro*] (*Ceratocolus maurus* Lepeletier de Saint Fargeau et Brullé, 1835; *C. zieglerei* Lepeletier de Saint Fargeau et Brullé, 1835). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (TM, AL), **ES** (IR), **FE** (AM, PR, SA, KU, KA). – Europe (WE, NE, EE), N Africa, Turkey, Tajikistan, Uzbekistan, Kazakhstan, N America.
- Crossocerus (Crossocerus) yasumatsui** (Tsuneki, 1947) [*Crabro*] (*Crabro yasumatsui mongolensis* Tsuneki, 1972; *C. nambui* Tsuneki, 1982). Russia: **WS** (AL), **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, MG, CH). – Kyrgyzstan, Kazakhstan, Mongolia, Japan (Hok, Hon, Shi), SE Asia.
- Crossocerus (Cuphopteris) binotatus** Lepeletier de Saint Fargeau et Brullé, 1835 (*Crabro signatus* Panzer, 1798, nom. praeocc., nec Olivier, 1792; *C. monstrosus* Dahlbom, 1845; *C. confusus* Schulz, 1906, substitute name for *C. signatus* Panzer, 1798). Russia: **EP** (N, C, E, NC, CR), **UR**, **FE** (PR). – Europe (WE, NE, EE), N Africa, Iran, Kazakhstan, India.
- Crossocerus (Cuphopteris) dimidiatus dimidiatus** (Fabricius, 1781) [*Crabro*] (*Crabro subpunctatus* Rossi, 1790; *C. signatus* Olivier, 1792; *C. sexmaculatus* Olivier, 1792; *C. serripes* Panzer, 1797; *C. notatus* Illiger in Rossi, 1807; *C. analis* Stephens, 1829, nom. nud.; *C. consobrinus* Stephens, 1829, nom. nud.; *Blepharipus pauperatus* Lepeletier de Saint Fargeau et Brullé, 1835; *Crabro armipes* von Siebold, 1844). Russia: **EP** (N, C, E, CR), **UR**, **WS** (AL), **ES** (TU, IR), **FE** (AM, PR, KA, MG, CH). – Europe (WE, NE, SE, EE), N Africa, Turkey, Kyrgyzstan, Kazakhstan, Mongolia, China (SW).
- Crossocerus (Cuphopteris) dimidiatus agyo** Terayama et Takahashi, 2017, substitute name for *Crabro dimidiatus sapporoensis* Kohl, 1915 (*Crabro serripes sapporoensis* Kohl, 1915, nom. praeocc., nec *C. sapporoensis* Matsumura, 1911 (= *Ectemnius fossorius* (Linnaeus, 1758))). Russia: **FE** (SA, KU). – Korean Peninsula, Japan (Hok, Hon).
- Crossocerus (Cuphopteris) hakusanus** Tsuneki, 1954. Russia: **FE** (PR, SA, KU). – Korean Peninsula, Japan (Hok, Hon, Kyu, Ryu), SE Asia.
- Crossocerus (Cuphopteris) subulatus** (Dahlbom, 1845) [*Crabro*]. Russia: **EP** (N, NW, C, E), **UR**, **WS** (AL), **FE** (AM, PR, SA, KU). – Europe (WE, NE, EE), Kazakhstan, Mongolia, Japan (Hok, Hon, Shi).
- Crossocerus (Cuphopteris) suzukii** (Matsumura, 1912) [*Crabro*] (*Crabro monstrosus suzukii* Matsumura, 1912). Russia: **FE** (PR, SA, KU). – Korean Peninsula, Japan (Hok, Hon, Shi).
- Crossocerus (Cuphopteris) yanoi** (Tsuneki, 1947) [*Crabro*]. Russia: **FE** (SA, PR, KU). – Korean Peninsula, Japan (Hok, Hon, Shi).
- Crossocerus (Hoplocrabro) pseudopalmaris** (Gusakovskij, 1932) [*Crabro*] (*C. asiaticus* Tsuneki, 1967). Russia: **FE** (AM, KH, PR). – China (NE), Korean Peninsula.
- Crossocerus (Hoplocrabro) quadrimaculatus** (Fabricius, 1793) [*Crabro*] (*Crabro 4punctatus* Fabricius, 1793; *C. murorum* Latreille, 1805; *C. levipes* Vander Linden, 1829; *Crossocerus bimaculatus* Lepeletier de Saint Fargeau et Brullé, 1835; *Crabro 5-maculatus* [sic] Dahlbom, 1838; *C. rotundarius* Dahlbom, 1838). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (TM, AL), **ES** (TU, KR, IR, BR, ZB), **FE** (AM, PR). – Europe

(WE, NE, SE, EE), N Africa, Turkey, Iran, Tajikistan, Uzbekistan, Kazakhstan, Mongolia.

**Crossocerus (Neoblepharipus) amurensis** (Kohl, 1892) [Crabro]. Russia: **FE** (AM, KH, PR, SA, KU). – Mongolia, China (CE), Korean Peninsula, Japan (Hok, Hon).

**Crossocerus (Ornicrabro) flavissimus** Leclercq, 1973. Russia: **FE** (PR). – SE Asia.

**Crossocerus (Oxycrabro) acanthophorus** (Kohl, 1892) [Crabro] (*Crabro pavlovskii* Gussakovskij, 1952). Russia: **EP** (S, NC), **WS** (AL). – Europe (WE, NE, SE, EE), N Africa, Turkey, Syria, Israel, Tajikistan, Kazakhstan, Mongolia.

**Crossocerus (Towada) flavitarsus** (Tsuneki, 1947) [Crabro] (*C. leclercqi* Tsuneki, 1959). Russia: **FE** (PR, SA, KU). – Korean Peninsula, Japan (Hok, Hon, Kyu).

**Ectemnius** Dahlbom, 1845 (*Mesocrabro* C. Verhoeff, 1892; *Pseudocrabro* Ashmead, 1899; *Xestocrabro* Ashmead, 1899; *Xylocrabro* Ashmead, 1899; *Hylocrabro* R. Perkins, 1902; *Melanocrabro* R. Perkins, 1902; *Xenocrabro* R. Perkins, 1902; *Lophocrabro* Rohwer, 1916; *Ceratocrabro* Tsuneki, 1970; *Papuacrabro* Tsuneki, 1983; *Metactemnius* Tsuneki, 1984; *Spadicocrabro* Tsuneki, 1990). Type species “*E. guttatus*, Dahlb.”: Ashmead, 1899 (= *Crabro guttatus*: Dahlbom, 1845 = *C. guttatus* Vander Linden, 1829). The genus includes 16 subgenera: *Ectemnius* Dahlbom, 1845, *Clytochrysus* A. Morawitz, 1864, *Thyreocerus* A. Costa, 1871, *Hypocrabro* Ashmead, 1899, *Metacrabro* Ashmead, 1899, *Protothyreopus* Ashmead, 1899, *Nesocrabro* R. Perkins, 1899, *Oreocrabro* R. Perkins, 1902, *Merospis* Pate, 1941, *Apocnemnius* Leclercq, 1950, *Cameronitus* Leclercq, 1950, *Protoctemnius* Leclercq, 1951, *Yanonius* Tsuneki, 1956, *Policrabro* Leclercq, 1958, *Iwataia* Tsuneki, 1959, and *Leocrabro* Leclercq, 1968. Number of species: World – 188; Palaearctic – 44; Russia – 27.

**Ectemnius (Cameronitus) nigratarsus** (Herrich-Schaeffer, 1841) [Crabro] (*Crabro Nigratarsus* Herrich-Schaeffer, 1840, nom. nud.; *C. trinotatus* A. Costa, 1867). Russia: **EP** (C, E, CR), **UR**, **WS** (KM, AL), **FE** (AM, PR). – Europe (WE, NE, SE, EE), Georgia, Turkey, Korean Peninsula, Japan (Hok, Hon), India, Sri Lanka, SE Asia, Australia.

**Ectemnius (Cameronitus) radiatus** (Pérez, 1905) [Crabro] (*Crabro nigratarsus mizuho* Tsuneki, 1947; *E. mizuho* Tsuneki, 1952). Russia: **FE** (PR). – Korean Peninsula, Japan (Hok, Hon, Kyu).

**Ectemnius (Clytochrysus) cavifrons** (Thomson, 1870) [Crabro]. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (KM, AL), **ES** (KR, IR, ZB), **FE** (AM, KH, PR, SA, KU). – Europe (WE, NE, SE, EE), N Africa, Tajikistan, Kazakhstan, Mongolia, Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu), SE Asia.

**Ectemnius (Clytochrysus) lapidarius** (Panzer, 1803) [Crabro] (*Crabro sinuatus* Fabricius, 1804; *C. chrysoptomus* Lepeletier de Saint Fargeau et Brullé, 1835, nom. praeocc., nec Gmelin, 1790; *C. comptus* Lepeletier de Saint Fargeau et Brullé, 1835; *C. duodecimguttatus* Stephens, 1829, nom. nud.; *C. xylurgus* Shuckard, 1837; *C. interstinctus* F. Smith, 1851; *C. obscurus* F. Smith, 1856; *C. gracilissimus* Packard, 1866; *C. denticulatus* Packard, 1866; *C. effusus* Packard, 1866; *C. papagorum* Viereck, 1908). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (NS, KM, AL), **ES** (IR, BR, ZB), **FE** (AM, KH, PR, SA, KU). – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey, Iran, Kyrgyzstan, Kazakhstan, Mongolia, China (NE), Korean Peninsula, Japan (Hok, Hon), Africa, N America.

**Ectemnius (Clytochrysus) ruficornis** (Zetterstedt, 1838) [Crabro] (*Crabro aurilabris* Herrich-Schaeffer, 1841; *C. nigrifrons* Cresson, 1865; *C. contiguus* Cresson, 1865; *C. septentrionalis* Packard, 1866; *C. planifrons* Thomson, 1870; *C. longipalpis* C. Verhoeff, 1892; *C. lineatotarsis* Matsumura, 1911; *C. chipsani* Matsumura, 1912). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (KM, AL), **ES** (KR, IR, BR, ZB), **FE** (AM, KH, PR, SA, KU, KA). – Europe (WE, NE, EE), Turkey, Kazakhstan, Mongolia, Korean Peninsula, Japan (Hok, Hon, Ryu), SE Asia, N America.

**Ectemnius (Clytochrysus) sexcinctus** (Fabricius, 1775) [Crabro] (*Crabro quadricinctus* Fabricius, 1787; *Sphex interrupte-fasciata* Retzius, 1783; *S. cribraria quatuorcincta* Christ, 1791; *Crabro tibialis* Olivier, 1792; *C. 8 maculata* Preyßler, 1793; *C. zonatus* Panzer, 1797; *C. vespiiformis* Panzer, 1798; *C. cinctus* Spinola, 1806, nom. praeocc., nec Rossi, 1790; *C. flavipes* Lepeletier de Saint Fargeau et Brullé, 1835, nom. praeocc., nec Fabricius, 1781; *C. tetraedrus* Blanchard, 1840; *C. saundersi* R. Perkins, 1899; *E. yosemite* Pate, 1946). Russia: **EP** (NW, C, CR), **WS** (KM, AL), **ES** (TU, BR), **FE** (PR). – Europe (WE, NE, SE, EE), N Africa, Turkey, Iran, Afghanistan, Pakistan, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan, China (CE), Mongolia, India, N America.



- Ectemnius (Ectemnius) borealis** (Zetterstedt, 1838) [Crabro] (*Crabro borealis* Zetterstedt, 1838; *C. bipunctatus* Zetterstedt, 1838, nom. praeocc., nec Fabricius, 1787; *C. nigrinus* Herrich-Schaeffer, 1840, nom. nud.; *C. nigrinus* Herrich-Schaeffer, 1841; *C. parvulus* Packard, 1866, nom. praeocc., nec Herrich-Schaeffer, 1841; *Lindenius Gredleri* Kohl, 1878; *Crabro proletarius* Mickel, 1916). Russia: **EP** (N, C, E, S, NC, CR), **UR, WS** (AL), **ES** (KR, IR, BR, ZB), **FE** (AM, PR, SA, KU, KA). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan, Mongolia, Korean Peninsula, Japan (Hok), N America.
- Ectemnius (Ectemnius) dives** (Lepeletier de Saint Fargeau et Brullé, 1835) [Solenius] (*S. 8-notatus* Lepeletier de Saint Fargeau et Brullé, 1835; *S. octavonotatus* Lepeletier de Saint Fargeau et Brullé, 1835; *Crabro alatulus* Dahlbom, 1839; *C. Pictipes* Herrich-Schaeffer, 1840, nom. nud.; *C. pictipes* Herrich-Schaeffer, 1841; *C. auratus* F. Smith, 1856, substitute name for *Solenius dives* Lepeletier de Saint Fargeau et Brullé, 1835; *C. montanus* Cresson, 1865, nom. praeocc., nec Gistel, 1857; *C. cristatus* Packard, 1866; *C. cubiceps* Packard, 1866; *C. heraclei* Rohwer, 1908; *C. montivagans* Strand, 1916). Russia: **EP** (N, C, E, S, NC, CR), **UR, WS** (NS, KM, AL), **ES** (IR, BR, ZB), **FE** (AM, KH, PR, SA, KU). – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey, Israel, Kazakhstan, China (SW), Korean Peninsula, Japan (Hok, Hon) N America.
- Ectemnius (Ectemnius) guttatus** (Vander Linden, 1829) [Crabro] (*Crabro laportei* Lepeletier de Saint Fargeau et Brullé, 1835; *C. Spinicollis* Herrich-Schaeffer, 1840, nom. nud.; *C. spinicollis* Herrich-Schaeffer, 1841; *C. parvulus* Herrich-Schaeffer, 1841; *C. pictus* Schenck, 1857, nom. praeocc., nec Fabricius, 1793 (now in *Dinetus*); *C. pictus* Schenck, 1860, nom. nud.; *C. divitoides* C. Verhoeff, 1892; *C. verhoeffi* Dalla Torre, 1897, substitute name for *C. parvulus* of C. Verhoeff, 1892; *C. dives schencki* Cockerell, 1907, substitute name for *C. pictus* Schenck, 1857). Russia: **EP** (N, NW, C, E, NC, CR), **UR, WS** (AL), **ES** (IR, ZB). – Europe (WE, NE, SE, EE), Kazakhstan.
- Ectemnius (Ectemnius) rugifer** (Dahlbom, 1845) [Crabro]. Russia: **EP** (C, E, S, CR), **UR, WS** (AL). – Europe (WE, NE, SE, EE), Turkey.
- Ectemnius (Hypocrabro) confinis** (Walker, 1871) [Crabro] (*E. laevigatus* De Stefani Perez, 1884; *Crabro flavicollis* F. Morawitz, 1892; *C. Hannonis* Gribodo, 1896; *C. subtilis* Pérez: Antiga, Bofill, 1904, nom. nud.; *C. subtilis* Pérez, 1905). Russia: **EP** (C, S, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Turkey, Jordan, Israel, Iraq, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, China (NE), Korean Peninsula, Japan (Ryu), India.
- Ectemnius (Hypocrabro) continuus** (Fabricius, 1804) [Crabro] (*Crabro 6-maculatus* Say, 1824, nom. praeocc., nec Olivier, 1792; *C. agrestis* Stephens, 1829, nom. nud.; *C. divisus* Stephens, 1829, nom. nud.; *C. fuscitarsus* Herrich-Schaeffer, 1840, nom. nud.; *C. fuscitarsis* Herrich-Schaeffer, 1841; *C. vagatus* F. Smith, 1869; *C. granulatus* Walker, 1871; *C. rugosopunctatus* Taschenberg, 1875; *C. validus* De Stefani Perez, 1884; *C. vagans* Fokker, 1887; *Xylocrabro slossonae* Ashmead: Slosson, 1902: 5, nom. nud.; *C. bisex-maculatus* Viereck in J. Smith, 1910, substitute name for *Crabro 6-maculatus* Say, 1824; *C. sayi* Cockerell, 1910, substitute name for *Crabro 6-maculatus* Say, 1824; *Solenius giffardi* Rohwer, 1917). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR, WS** (TM, TK, NS, AL), **ES** (KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, KA). – Europe (WE, NE, SE, EE), N Africa, Georgia, Azerbaidjan, Turkey, Syria, Jordan, Israel, Iraq, Central Asia, Kazakhstan, Mongolia, China (NW, NE, SW), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu), N America, Cuba, Guatemala, Venezuela.
- Ectemnius (Hypocrabro) hypsae** (De Stefani Perez, 1884) [Crabro] (*Crabro Hypsae* De Stefani Perez, 1884; *C. serotinus* De-Stefani, 1894; *C. laetus* Pérez: Antiga et Bofill, 1904, nom. nud.; *C. loetus* Pérez, 1905). Russia: **EP** (S). – Europe (WE, SE, EE), N Africa, Turkey, Israel.
- Ectemnius (Hypocrabro) meridionalis** (A. Costa, 1867) [Crabro] (*Crabro finitimus* F. Morawitz, 1894). Russia: **EP** (S, CR). – Europe (WE, SE, EE), N Africa, Turkey, Syria, Jordan, Israel, Iran, Afghanistan, Central Asia, Kazakhstan.
- Ectemnius (Hypocrabro) pedicellaris** (F. Morawitz, 1889) [Crabro] (*Crabro Nielsenii* Kohl, 1915). Russia: **ES** (ZB), **FE** (AM, KH, PR). – Mongolia, China (NE, NC, CE), Korean Peninsula.
- Ectemnius (Hypocrabro) rubicola** (Dufour et Perris, 1840) [Solenius] (*Crabro Microstictus* Herrich-Schaeffer, 1840, nom. nud.; *C. microstictus* Herrich-Schaeffer, 1841; *C. larvatus* Wesmael, 1852; *C. pumilus* A. Costa, 1871). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR, WS** (AL), **ES** (KM, IR), **FE** (AM, PR, SA, KU). – Europe (WE, NE, SE, EE), Turkey, Iran, Kazakhstan, Japan (Hok, Hon, Shi, Kyu).
- Ectemnius (Hypocrabro) schlettereri** (Kohl, 1888) [Crabro] (*Crabro Schlettereri* Kohl, 1888). Russia:

- EP** (S), **UR**, **WS** (AL), **ES** (KR, IR, BR, ZB), **FE** (AM, KH, PR, SA). – Europe (WE, SE, EE), Iran, Kazakhstan, China (NE, CE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu), India, SE Asia.
- Ectemnius (Hypocrabro) varentzowi** F. Morawitz, 1894 [Crabro] (*Crabro Varentzowi* F. Morawitz, 1894). Russia: **UR**, **WS** (NS), **ES** (IR). – Turkmenistan, Uzbekistan, Kazakhstan.
- Ectemnius (Hypocrabro) walteri** (Kohl, 1889) [Crabro] (*Crabro Walteri* Kohl in Kohl et Handlirsch, 1889). Russia: **EP** (S). – Turkey, Turkmenistan, Kazakhstan.
- Ectemnius (Metacrabro) cephalotes** (Olivier, 1792a) [Crabro] (*Crabro cephalotes* Olivier, 1792; *C. floralis* Olivier, 1792; *C. geniculatus* Olivier, 1792; *C. tibialis* Olivier, 1792; *C. cephalotes* Panzer, 1799, nom. praeocc., nec Olivier, 1792; *C. subinterruptus* Stephens, 1829, replacement name for *C. lituratus* of Panzer, 1804; *C. striatus* Lepeletier de Saint Fargeau et Brullé, 1835; *C. ornatus* Lepeletier de Saint Fargeau et Brullé, 1835; *Ceratocolus striatus* Lepeletier de Saint Fargeau et Brullé, 1835, nom. praeocc., nec *Crabro striatus* Lepeletier de Saint Fargeau et Brullé, 1835; *Blepharipus striatulus* Lepeletier de Saint Fargeau et Brullé, 1835; *Crabro Lindenius* Shuckard, 1837; *C. Shuckardi* Dahlbom, 1839; *C. interruptus* Dahlbom, 1845, nom. praeocc., nec Fabricius, 1787 (now in *Palarus*); *C. Fargeii* Smith, 1856, substitute name for *Ceratocolus striatus* Lepeletier de Saint Fargeau et Brullé, 1835; *Crabro aciculatus* Provancher, 1882; *C. aciculatus* Provancher, 1883, objective synonym of Provancher, 1882; *C. ruthenicus* F. Morawitz, 1892). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (AL), **FE** (PR). – Europe (WE, NE, SE, EE), N Africa, Turkey, Syria, Kazakhstan, N America.
- Ectemnius (Metacrabro) chrysites** (Kohl, 1892) [Crabro] (*Crabro auricomus* Bingham, 1897; *C. khasianus* Cameron, 1902; *E. butuani* Leclercq, 1963). Russia: **FE** (PR). – China (NE, CE, SW, SE), Korean Peninsula, Japan (Hon, Ryu), SE Asia, India.
- Ectemnius (Metacrabro) fossorius** (Linnaeus, 1758) [Sphex] (*Sphex fossoria* Linnaeus, 1758; *S. scutellata* *Bucephalus* Christ, 1791; *Crabro aspidiphorus* Schrank, 1802; *Solenius fuscipennis* Lepeletier de Saint Fargeau et Brullé, 1835: 714, nom. praeocc., nec Lepeletier de Saint Fargeau et Brullé, 1835: 710; *S. grandis* Lepeletier de Saint Fargeau et Brullé, 1835; *S. tetraedrus* Dahlbom, 1845; *C. fumipennis* F. Smith, 1856, substitute name for *Solenius fuscipennis* Lepeletier de Saint Fargeau et Brullé, 1835:714, nec Lepeletier de Saint Fargeau et Brullé, 1835:710; *C. montanus* Gistel, 1857; *C. Konowi* Kohl, 1905; *C. sapporoensis* Matsumura, 1911; *C. rubropictus* Matsumura, 1912). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (NS, KM, AL), **ES** (KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU). – Europe (WE, NE, SE, EE), N Africa, Turkey, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NE), Korean Peninsula, Japan (Hok, Hon).
- Ectemnius (Metacrabro) iridifrons** (Pérez, 1905) [Crabro] (*E. iridifrons* [sic] *meridionalis* Tsuneki, 1984, nom. praeocc., nec *Crabro meridionalis* A. Costa, 1871). Russia: **FE** (PR). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu), SE Asia.
- Ectemnius (Metacrabro) lituratus** (Panzer, 1803) [Crabro] (*Solenius petiolatus* Lepeletier de Saint Fargeau et Brullé, 1835; *Ceratocolus fasciatus* Lepeletier de Saint Fargeau et Brullé, 1835; *Ceratocolus* [lapsus calami] *reticulatus* Lepeletier de Saint Fargeau et Brullé, 1835; *Crabro Kollari* Dahlbom, 1845; *C. argenteus* Schenck, 1857; *C. vestitus* F. Smith, 1858; *C. intermedius* A. Morawitz, 1866; *C. intermedius* A. Morawitz, 1866: 339, objective synonym of A. Morawitz, 1866: 264; *C. luxuriosus* A. Costa, 1871; *C. kollari* *Dallatorreanus* Kohl, 1880; *C. transiens* Kohl, 1915). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Turkey, Iran, Kazakhstan.
- Ectemnius (Metacrabro) spinipes** (A. Morawitz, 1866) [Crabro] (*Crabro spinipes* A. Morawitz, 1866b:341, objective synonym of A. Morawitz, 1866a:265; *C. Bulsanensis* Kohl, 1879). Russia: **EP** (C, E, NC, CR), **UR**, **WS** (TK, NS, AL), **ES** (KR, IR), **FE** (AM, KH, PR, SA). – Europe (WE, NE, C, EE), Azerbaijan, Turkey, Turkmenistan, Kazakhstan, Mongolia, China (NE), Korean Peninsula, Japan (Hok, Hon).
- Ectemnius (Thyreocerus) crassicornis** (Spinola, 1808) [Crabro] (*Crabro hybridus* Eversmann, 1849; *E. punctulatus* De-Stefani, 1884; *E. Siculus* De Stefani Perez, 1884). Russia: **EP** (E, S, NC, CR), **UR**, **WS** (AL), **ES** (KR, IR), **FE** (PR, SA, KU). – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Turkey, Syria, Jordan, Israel, Iraq, Iran, Central Asia, Kazakhstan.
- Ectemnius (Yanonius) martjanowi** (F. Morawitz, 1892) [Crabro] (*Crabro Martjanowi* F. Morawitz, 1892; *Clytochrysus dubiosus* Ashmead, 1904). Russia: **WS** (NS, AL), **ES** (KR, IR), **FE** (AM, KH, PR, SA, KU). – Mongolia, China (SW), Korean Peninsula, Japan (Hok, Hon), India.

- ENTOMOGNATHUS** Dahlbom, 1844 (*Florkinus* Leclercq, 1956). Type species *Crabro brevis* Vander Linden, 1829. The genus includes four subgenera: *Entomognathus* Dahlbom, 1844, *Koxinga* Pate, 1944, *Mashona* Pate, 1944, and *Toncahua* Pate, 1944. Number of species: World – 64, Palaearctic – 11, Russia – 4.
- Entomognathus brevis** (Vander Linden, 1829) [Crabro] (*Lindenius apicalis* Lepeletier de Saint Fargeau et Brullé, 1835; *L. nasutus* Gribodo, 1884). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (IR, YA), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), NW Africa, Georgia, Turkey, Syria, Israel, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NE, NC), Japan (Hok, Hon).
- Entomognathus dentifer** (Noskiewicz, 1929) [Crabro] (*E. permixtus* Nouvel et Ribaut, 1956). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Turkey.
- Entomognathus sahlbergi** (A. Morawitz, 1866) [Crabro] (*C. sahlbergi* A. Morawitz, 1866). Russia: **FE** (KH). – Mongolia.
- Entomognathus schmiedeknechti** (Kohl, 1905) [Crabro] (*C. schmiedeknechti* Kohl, 1905). Russia: **EP** (C, S, NC, CR). – Europe (SE, EE), Turkey.
- LESTICA** Billberg, 1820 (*Solenius* Lepeletier de Saint Fargeau et Brullé, 1835; *Ceratocolus* Lepeletier de Saint Fargeau et Brullé, 1835; *Thyreus* Lepeletier de Saint Fargeau et Brullé, 1835, nom. praeocc., nec Panzer, 1806, non Swainson, 1821; *Hypothyreus* Ashmead, 1899; *Clypeocrabro* Richards, 1935; *Ptyx* Pate, 1947). Type species *Crabro subterraneus* Fabricius, 1775. Number of species: World – 44, Palaearctic – 12, Russia – 9.
- Lestica alata** (Panzer, 1797) [Crabro] (*Crabro basalis* F. Smith, 1856; *C. alatus japonicus* Schulz, 1904; *C. alatus rubidus* Schirmer, 1915; *L. spinicollis* Tsuneki, 1976). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (NS, AL), **ES** (KR, IR, BR, YA, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), N Africa, Turkey, Kyrgyzstan, Kazakhstan, Mongolia, China (NE, NC, CE), Korean Peninsula, Japan (Hok), N India.
- Lestica camelus** (Eversmann, 1849) [Crabro] (*Crabro sapporensis* Matsumura, 1912). Russia: **EP** (C, E), **UR**, **WS** (NS, KM, AL), **ES** (KR, IR, BR, YA), **FE** (AM, KH, PR, SA). – Turkey, Kazakhstan, Mongolia, China (NE, SW), Korean Peninsula, Japan (Hok, Hon).
- Lestica clypeata** (Schreber, 1759) [Apis] (*Sphex clypearia* Schreber, 1784, misspelling or substitute name for *Apis clypeata* Schreber, 1759; *S. clypeata ovata* Christ, 1791; *Crabro vexillatus* Panzer, 1797; *C. lapidarius* Fabricius, 1804, nom. praeocc., nec Panzer, 1804; *Philanthus clypeatus* Thunberg, 1815, nom. praeocc., nec *Apis clypeata* Schreber, 1759; *Crabro Nigridens* Herrich-Schaeffer, 1840, nom. nud.; *C. nigridens* Herrich-Schaeffer, 1841; *C. quadrifer* Dufour, 1841). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, KM, AL), **ES** (IR, BR), **FE** (PR). – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey, Syria, Lebanon, Israel, Iraq, Iran, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan.
- Lestica collaris** (Matsumura, 1912) [Crabro] (*Crabro aberrans* Gussakovskij, 1932). Russia: **FE** (KH, PR). – Korean Peninsula, Japan (Hok, Hon, Kyu).
- Lestica constricta** Krombein, 1949. Russia: **FE** (PR). – China (SE), SE Asia.
- Lestica heros** (Kohl, 1915) [Crabro]. Russia: **FE** (PR). – China (SE), Korean Peninsula, Japan (Hok, Hon).
- Lestica pluschtschevskiyi** (F. Morawitz, 1891) [Crabro] (*Crabro Pluschtschevskiyi* F. Morawitz, 1891). Russia: **UR**, **WS** (AL). – Spain, Turkey, Kazakhstan.
- Lestica reiteri** (Kohl, 1915) [Crabro] (*Crabro Reiteri* Kohl, 1915; *C. reiteri kuramaensis* Iwata, 1938). Russia: **FE** (KH, PR). – Korean Peninsula, Japan (Hok, Hon).
- Lestica subterranea ochotica** (A. Morawitz, 1866) [Crabro] (*Crabro ochoticus* A. Morawitz, 1866a; *C. ochoticus* A. Morawitz, 1866b: 337, objective synonym of *C. ochoticus* A. Morawitz, 1866a: 128). Russia: **WS** (AL), **ES** (KR, BR, YA, ZB), **FE** (KH, PR). – Mongolia, China (CE).
- Lestica subterranea subterranea** (Fabricius, 1775) [Crabro] (*Crabro philanthoides* Panzer, 1801). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (AL). – Europe (WE, NE, SE, EE), N Africa, Turkey, Iran, Tajikistan, Kyrgyzstan, Kazakhstan, China (NC).
- LINDENIUS** Lepeletier de Saint Fargeau et Brullé, 1835 (*Chalcolamprus* Wesmael, 1852; *Trachelosimus* A. Morawitz, 1866). Type species *Crabro albilabris* Fabricius, 1793. Number of species: World – 64, Palaearctic – 53, Russia – 13.
- Lindenius aegyptius** (Kohl, 1888) [Crabro]. Russia: **EP** (S, NC). – Europe (WE), N Africa, Jordan, United Arab Emirates, Pakistan, Uzbekistan, Kazakhstan.
- Lindenius albilabris** (Fabricius, 1793) [Crabro] (*Crabro aenescens* Dahlbom, 1839). Russia: **EP** (N, NW, C,

- E, S, NC, CR), **UR**, **WS** (TK, KM, AL), **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey, Syria, Israel, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, Korean Peninsula.
- Lindenius altaicus** Mokrousov, 2016. Russia: **WS** (AL).
- Lindenius gussakovskii** Marshakov, 1973. Russia: **EP** (S). – Uzbekistan, Kyrgyzstan, Kazakhstan.
- Lindenius ibex** Kohl, 1883. Russia: **EP** (C), **WS** (AL). – Greece, Bulgaria, Turkey, Syria, Israel.
- Lindenius laevis** A. Costa, 1867 (*Crabro rhaibopus* Kohl, 1915). Russia: **EP** (C, S, NC), **UR**. – Europe (SE, EE), Turkey, Kazakhstan.
- Lindenius latitarsis** Marshakov, 1973. Russia: **EP** (S, CR), **UR**. – Europe (EE), Turkey, Kazakhstan.
- Lindenius mesopleuralis** (F. Morawitz, 1890) [Crabro]. Russia: **EP** (E, S, NC, CR), **UR**, **WS** (NS, AL), **ES** (ZB), **FE** (PR). – Europe (WE, SE, EE), Turkey, Turkmenistan, Kazakhstan, Mongolia, China (NC, NW).
- Lindenius panzeri** (Vander Linden, 1829) [Crabro] (*L. venustus* Lepeletier de Saint Fargeau et Brullé, 1835; *Crabro latebrosus* Kohl, 1905; *L. harbinensis* Tsuneki, 1967; *L. panzeri mongolicus* Tsuneki, 1972). Russia: **EP** (C, E, S, NC), **UR**, **WS** (TM, AL), **ES** (IR, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), N Africa, Turkey, Iran, Afghanistan, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NE).
- Lindenius parkanensis** (Zavadil, 1948) [Crabro] (*Crabro parkanensis* Zavadil in Zavadil et Šnoflak, 1948; *L. ponticus* de Beaumont, 1956). Russia: **EP** (C, S), **UR**, **WS** (AL). – Europe (SE, EE), Kazakhstan.
- Lindenius pygmaeus** (Rossi, 1794) [Crabro]. Russia: **EP** (C, E, S, NC), **UR**. – Europe (WE, NE, SE, EE), N Africa, Turkey, Syria, Jordan, Israel, Iran, Afghanistan, Central Asia, Kazakhstan.
- Lindenius satschouanus** (Kohl, 1915) [Crabro] (*Crabro satschouanus* Kohl, 1915; *L. kaszabi* Tsuneki, 1972). Russia: **EP** (S). – Turkey, Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (CE).
- Lindenius subaeneus** Lepeletier de Saint Fargeau et Brullé, 1835. Russia: **EP** (S), **WS** (AL). – Europe (WE, SE, EE), N Africa, Kazakhstan.
- ODONTOCRABRO** Tsuneki, 1971. Type species *Odontocrabro abnormis* Tsuneki, 1971. Number of species: World – 8, Palaearctic – 6, Russia – 1.
- Odontocrabro antropovi** Leclercq, 1991. Russia: **FE** (PR).
- RHOPALUM** Stephens, 1829 (*Euphilis* Risso, 1826, suppressed by ICZN (1978, Opinion 1106); *Rhopalum* Stephens, 1829, conserved by ICZN (1978, Opinion 1106); *Physoscelus* Lepeletier de Saint Fargeau et Brullé, 1835; *Physoscelis* Westwood, 1839, lapsus or emendation of *Physoscelus* Lepeletier de Saint Fargeau et Brullé, 1835; *Dryphus* Herrich-Schaeffer, 1840; *Alliognathus* Ashmead, 1899). Type species *Crabro rufiventris* Panzer, 1799. The genus includes seven subgenera: *Rhopalum* Stephens, 1829, *Corynopus* Lepeletier de Saint Fargeau et Brullé, 1835, *Calceorhopalum* Tsuneki, 1952, *Latrorhopalum* Tsuneki, 1952, *Aporhopalum* Leclercq, 1955, *Zelorhopalum* Leclercq, 1955, and *Notorhopalum* Leclercq, 1979. Number of species: World – 287, Palaearctic – 21, Russia – 12.
- Rhopalum (Calceorhopalum) pygidiale** Bohart in Bohart et Menke, 1976, (substitute name for *Crabro calceatus* Tsuneki, 1947, nom. praeocc., nec Rossi, 1794). Russia: **FE** (AM, PR, SA, KU). – Korean Peninsula, Japan (Hok, Hon).
- Rhopalum (Calceorhopalum) watanabei** Tsuneki, 1952 (*Rh. arasianum* Tsuneki, 1972). Russia: **FE** (PR, SA, KU). – Japan (Hok, Hon), SE Asia.
- Rhopalum (Corynopus) coarctatum** (Scopoli, 1763) [Sphex] (*Crabro crassipes* Fabricius, 1798; *C. tibialis* Fabricius, 1798, nom. praeocc., nec Olivier, 1792; *Rh. modestum* Rohwer, 1908). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (TK, NS, AL), **ES** (IR), **FE** (AM, KH, PR, KA, MG). – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey, Iran, Kazakhstan, China (CE), Korean Peninsula, Japan (Hok, Hon), N America.
- Rhopalum (Corynopus) gracile** Wesmael, 1852 (*Rh. nigrinum* Kiesenwetter, 1849, nom. praeocc., nec *Crabro nigrinus* Herrich-Schaeffer, 1841; *Rh. Gracile* Wesmael, 1852; *Crabro Kiesenwetteri* A. Morawitz, 1866, substitute name for *C. nigrinus* (Kiesenwetter, 1849); *Corynopus simplicipes* F. Morawitz, 1888). Russia: **EP** (C, S, NC), **UR**, **WS** (AL), **FE** (KH, PR, SA, KU, MG, KA). – Europe (WE, NE, SE, EE), Turkey, Uzbekistan, Kazakhstan, Korean Peninsula, Japan (Hok, Hon), N America.
- Rhopalum (Corynopus) kawabatai** Marshakov, 1976. Russia: **FE** (AM, KH, PR, SA).
- Rhopalum (Latrorhopalum) laticorne** (Tsuneki, 1947) [Crabro]. Russia: **ES** (IR, ZB), **FE** (AM, KH, PR, SA). – China (NE), Korean Peninsula.

**Rhopalum (Latrorhopalum) latronum** (Kohl, 1915) [Crabro]. Russia: **ES** (ZB), **FE** (KH, PR, SA, KU). – China (NC), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

**Rhopalum (Rhopalum) austriacum** (Kohl, 1899) [Crabro]. Russia: **EP** (CR), **FE** (PR, SA). – Europe (WE, SE, EE), N Africa, Abkhazia, Turkey, Israel.

**Rhopalum (Rhopalum) clavipes** (Linnaeus, 1758) [Sphex] (*Crabro rufiventris* Panzer, 1799). Russia: **EP** (N, C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (IR), **FE** (PR, KU, KA). – Europe (WE, NE, EE), N Africa, Uzbekistan, Kazakhstan, Mongolia, Korean Peninsula, Japan (Hok), N America.

**Rhopalum (Rhopalum) jessonicum** (Bischoff, 1921) [Crabro] (*Rh. ebetsuense* Tsuneki, 1952). Russia: **FE** (PR, SA, KU). – Korean Peninsula, Japan (Hok, Hon).

**Rhopalum (Rhopalum) kuwayamai** Tsuneki, 1952. Russia: **FE** (PR, SA, KU). – China (CE), Korean Peninsula, Japan (Hok, Hon).

**Rhopalum (Rhopalum) mushaense** Tsuneki, 1971. Russia: **FE** (PR). – SE Asia.

**TRACHELIODES** A. Morawitz, 1866 (*Brachymerus* Dahlbom, 1845, nom. praeocc., nec Chevolet in Dejean, 1835; *Fertonius* Pérez in Ferton, 1892). Type species *Crabro megerlei* Dahlbom, 1845. Number of species: World – 17, Palaearctic – 5, Russia – 2.

**Tracheliodes alinae** Nemkov, 1988. Russia: **FE** (PR).

**Tracheliodes ghilarovi** Nemkov, 1988. Russia: **FE** (PR).

**TSUNEKIOLA** Antropov, 1986. Type species *Tsunekiola tracheliformis* Antropov, 1986. Monotypic Palaearctic genus.

**Tsunekiola tracheliformis** Antropov, 1986. Russia: **FE** (PR).

#### Tribe LARRINI

**GASTROSERICUS** Spinola, 1839 (*Eparmatostethus* Kohl, 1907; *Paralellopsis* Maidl, 1914; *Dinetomorpha* Gussakovskij, 1931, unavailable under ICZN (1999, Article 13.3); *Gastrargyron* Gussakovskij, 1931, unavailable under ICZN (1999, Article 13.3); *Dinetomorpha* Pate, 1937, validation of *Dinetomorpha* Gussakovskij, 1931 under ICZN (1999, Article 13.1.2); *Gastrargyron* Pate, 1937:28, validation of *Gastrargyron* Gussakovskij, 1931 under ICZN (1999, Article 13.1.2)). Type species

*Gastrosericus waltlii* Spinola, 1839. Number of species: World – 61, Palaearctic – 14, Russia – 1.

**Gastrosericus waltlii** Spinola, 1839 (*Dinetus niger* Dufour, 1854; *G. Maracandicus* Radoszkowski, 1877; *G. rufiventris* F. Morawitz, 1889; *G. rufitarsis* Cameron, 1902; *G. lanuginosus* Arnold, 1922; *G. maracandicus dubius* Gussakovskij, 1931; *G. aiunensis* Giner Marí, 1945). Russia: **EP** (S, NC). – Europe (SE), N Africa, Armenia, Turkey, Cyprus, Syria, Jordan, Israel, Oman, Qatar, Saudi Arabia, United Arab Emirates, Yemen, Iraq, Iran, Pakistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, China (NC), India, Africa.

**LARRA** Fabricius, 1793 (*Larrana* Rafinesque, 1815, emendation or substitute name for *Larra* Fabricius, 1793; *Lara* Drapiez, 1819, lapsus or emendation of *Larra* Fabricius, 1793; *Monomatium* Shuckard, 1840; *Lyrops* Dahlbom, 1843, nom. praeocc., nec Illiger, 1807; *Larraxena* F. Smith, 1851; *Lara* LeConte, 1852, nom. praeocc., nec Drapiez, 1819; *Larrada* F. Smith, 1856). The genus includes two subgenera: *Larra* Fabricius, 1793 and *Cratolarra* Cameron, 1900. Type species *Larra ichneumoniformis* Fabricius, 1793 (= *Sphex anathema* Rossi, 1790). Number of species: World – 65, Palaearctic – 9, Russia – 1.

**Larra anathema** (Rossi, 1790) [Sphex] (*L. ichneumoniformis* Fabricius, 1793; *Pompilus teutonius* Fabricius, 1804; *Tachytes grandis* Chevrier, 1872). Russia: **EP** (C, E, S, NC, CR), **WS** (NS). – Europe (WE, SE, EE), N Africa, Georgia, Turkey, Syria, Iraq, Iran, Saudi Arabia, Bahrain, Israel, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, China (NE).

**LARROPSIS** Patton, 1892. Type species *Larrada tenuicornis* F. Smith, 1856. The genus includes two subgenera: *Larropsis* Patton, 1892 and *Ancistromma* Fox, 1893. Number of species: World – 40, Palaearctic – 4, Russia – 1.

**Larropsis (Ancistromma) asiatica** (Gussakovskij, 1935) [Ancistromma] (*Ancistromma shestakovi* Gussakovskij, 1935). Russia: **EP** (S). – Turkey, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.

**LIRIS** Fabricius, 1804 (*Liris* Rafinesque, 1815, emendation or substitute name for *Liris* Fabricius, 1804; *Notogonia* A. Costa, 1867, nom. praeocc., nec Perty, 1850 [Crustacea]; *Caenolarra* Cameron, 1900; *Spanolarra* Cameron, 1900; *Notogonius* Howard, 1901, lapsus for *Notogonia* A. Costa, 1867; *Chrysolarra*

- Cameron, 1901; *Notogonidea* Rohwer, 1911; *Dociliris* Tsuneki, 1967; *Nigiliris* Tsuneki, 1967; *Colloliris* Tsuneki, 1974). The genus includes four subgenera: *Liris* Fabricius, 1804, *Motes* Kohl, 1897, *Leptolarra* Cameron, 1900, and *Pitaliris* Tsuneki, 1982. Type species *Sphex auratus* Fabricius, 1787, nom. praec., nec Linnaeus, 1758 (= *Sphex aurulentus* Fabricius, 1787). Number of species: World – 314, Palaearctic – 17, Russia – 6.
- Liris atratus** (Spinola, 1805) [Larra] (*Larra micans* Spinola, 1806, unjustified emendation of *Larra atrata* Spinola, 1905; *Tachytes nigrita* Lepeletier de Saint Fargeau, 1845; *Notogonia pharaonum* Kohl, 1906). Russia: **UR**. – Europe (WE, SE), N Africa, United Arab Emirates, Kuwait, Turkey, Jordan, Israel, Iraq, Iran, Afghanistan, Pakistan, Kazakhstan.
- Liris festinans preaetermissus** (Richards, 1928) [Notogonia] (*Leptolarra schulthessi* Giner Marí, 1942). Russia: **EP** (NC). – Europe (WE, SE, EE), N Africa, Oman, United Arab Emirates, Saudi Arabia, Israel, Abkhasia, Turkey, Iran, Afghanistan, Uzbekistan.
- Liris inopinatus** de Beaumont, 1961. Russia: **EP** (S). – Europe (SE), Turkey, Syria, Israel.
- Liris niger** (Fabricius, 1775) [Sphex] (*Sphex nigra* Fabricius, 1775; *Larra pompiliformis* Panzer, [1807-1809], nom. praec., nec Panzer, 1804; *Anoplius uniocellatus* Dufour, 1833; *Larra confusa* Radoszkowski, 1887; *L. nigriventris* Cameron, 1889; *Tachytes germabensis* Radoszkowski, 1893; *Larra nana* Bingham, 1897; *L. iridipennis* Cameron, 1900; *Notogonidea baguenai* Giner Marí, 1934). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), N Africa, Yemen, Turkey, Jordan, Iran, Iraq, Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NE, CE), SE Asia, India.
- Liris nigricans** (Walker, 1871) [Larrada] (*Notogonia argyropyga* A. Costa, 1875; *N. sculpturata* Kohl, 1892; *N. reticulata* de Saussure, 1892; *Larra Jugurthae* Gribodo, 1894; *L. palumbula* Kohl, 1894; *N. mahensis* Cameron, 1907; *N. punctipleura* Cameron, 1908). Russia: **EP** (NC). – Europe (WE, SE, EE), N Africa, Yemen (Socotra), Oman, United Arab Emirates, Turkey, Israel, Iraq, Iran, Afghanistan, Tajikistan, Uzbekistan, Kazakhstan, China (CE), Japan (Kyu), India, Africa.
- Liris opalipennis** (Kohl, 1898) [Notogonia]. Russia: **EP** (S). – N Africa, United Arab Emirates, Turkmenistan, Tajikistan, Kazakhstan.
- PARAPIAGETIA** Kohl, 1897a (*Lirosphex* Brèthes, 1913; *Psammosphe* Gussakovskij, 1952). Type species *Piagetia odontostoma* Kohl, 1884. Number of species: World – 29, Palaearctic – 17, Russia – 2.
- Parapiagetia kaszabi** Tsuneki, 1972. Russia: **EP** (S). – Turkmenistan, Kazakhstan, Mongolia, China (NW).
- Parapiagetia tridentata** Tsuneki, 1972. Russia: **EP** (S). – Iran, Pakistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NW).
- PROSOPIGASTRA** A. Costa, 1867 (*Homogambrus* Kohl, 1889; *Hologambrus* Morice, 1897, lapsus or emendation of *Homogambrus* Kohl, 1889). Type species *Prosopigastra punctatissima* A. Costa, 1867. Number of species: World – 36, Palaearctic – 22, Russia – 5.
- Prosopigastra bulgarica** Pulawski, 1958. Russia: **EP** (S). – Europe (SE, EE), Turkey, Iran, Kazakhstan.
- Prosopigastra globiceps** (F. Morawitz, 1889) [Tachysphex]. Russia: **EP** (S). – N Africa, United Arab Emirates, Turkmenistan, Kazakhstan, Mongolia, China (NC).
- Prosopigastra latifrons** Gussakovskij, 1933. Russia: **EP** (S). – Turkmenistan, Kazakhstan.
- Prosopigastra orientalis** de Beaumont, 1954 (*P. punctatissima orientalis* de Beaumont, 1947). Russia: **EP** (S, NC, CR). – Europe (SE, EE), Turkey, Israel, Tajikistan, Uzbekistan, Kazakhstan.
- Prosopigastra zalinda** de Beaumont, 1955. Russia: **EP** (S, NC). – Europe (WE, SE, EE), N Africa, Turkey, Israel, Kazakhstan, Mongolia.
- TACHYSPHEX** Kohl, 1883 (*Schistosphex* Arnold, 1922; *Atelosphex* Arnold, 1923). Type species *Tachysphex filicornis* Kohl, 1883. Number of species: World – 446, Palaearctic – 136, Russia – 38.
- Tachysphex angustatus** Pulawski, 1967. Russia: **EP** (S). – Europe (SE), Turkey, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NC).
- Tachysphex argentatus** Gussakovskij, 1952. Russia: **EP** (S). – N Africa, Israel, Saudi Arabia, Turkey, Syria, Turkmenistan, Tajikistan, Kazakhstan.
- Tachysphex blattivorus** Gussakovskij, 1952. Russia: **EP** (S). – Europe (WE), Tajikistan, Uzbekistan, Kazakhstan.
- Tachysphex brevipennis** Mercet, 1909 (*T. minutus* Nurse, 1909; *T. lilliputianus* R. Turner, 1917; *Atelosphex miscophoides* Arnold, 1923; *A. lugubris*

- Arnold, 1924; *T. imperfectus* de Beaumont, 1940; *T. rugosus* Gussakovskij, 1952; *T. heterochromus* de Beaumont, 1955; *T. rhodius* de Beaumont, 1960; *T. sinaiticus* Pulawski, 1964; *T. convexus* Pulawski, 1971). Russia: **EP** (S, CR). – Europe (WE, SE, EE), N Africa, Turkey, Syria, Jordan, Israel, Saudi Arabia, United Arab Emirates, Oman, Iran, Turkmenistan, Tajikistan, Kazakhstan, India, Sri Lanka, Africa.
- Tachysphex brullii** (F. Smith, 1856) [Tachytes] (*Tachytes bicolor* Brullé, 1833, nom. praeocc., nec *Larra bicolor* Fabricius, 1804; *T. Brullii* F. Smith, 1856, substitute name for *T. bicolor* Brullé, 1833; *T. spoliata* Giraud, 1863; *T. Brulléi* Kirchner, 1867, emendation of *T. brullii* F. Smith, 1856; *T. rufipes* von Aichinger, 1870; *T. montanus* Radoszkowski, 1886, nom. praeocc., nec *Larrada montana* Cresson, 1865; *T. monticola* Dalla Torre, 1897, substitute name for *T. montanus* Radoszkowski, 1886). Russia: **EP** (C, S, NC, CR). – Europe (WE, SE, EE), N Africa, Turkey, Israel, Turkmenistan, Kazakhstan.
- Tachysphex consocius** Kohl, 1892 (*T. Cabrerae* Mercet, 1909; *T. minutulus* Arnold, 1923; *T. grandii* de Beaumont, 1965). Russia: **EP** (C, S, NC, CR). – Europe (WE, SE, EE), N Africa, Abkhazia, Azerbaijan, Turkey, Syria, Iran, Afghanistan, Saudi Arabia, Oman, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, India, Africa.
- Tachysphex coriaceus** (A. Costa, 1867) [Tachytes] (*Tachytes coriacea* A. Costa, 1867b; *Tachysphex coriaceus* A. Costa, 1867c, objective synonym of *T. coriaceus* A. Costa, 1867b; *T. Reiseri* Kohl, 1901). Russia: **EP** (S). – Europe (WE, SE, EE), Turkey.
- Tachysphex costae** (De Stefani Perez, 1882) [Tachytes] (*Tachytes Costae* De Stefani Perez, 1882; *Tachysphex laticeps* Arnold, 1924; *T. zarudnyi* Gussakovskij, 1933; *T. tadzhikus* Gussakovskij, 1952; *T. costai canariensis* de Beaumont, 1968; *T. costai fertoni* Pulawski, 1971). Russia: **EP** (S, CR). – Europe (WE, SE, EE), N Africa, Turkey, Israel, Iran, Turkmenistan, Tajikistan, Kazakhstan, Africa.
- Tachysphex ctenophorus** Pulawski, 1971. Russia: **EP** (S), **ES** (BR), **FE** (PR). – Kazakhstan.
- Tachysphex erythropus** (Spinola, 1839) [Lyrops] (*Tachytes Maracandica* Radoszkowski, 1877, *T. flavogeniculatus* Taschenberg, 1880; *Tachysphex heliopolites* Morice, 1897; *T. inventus* Nurse, 1903; *T. mantivora* de Beaumont, 1940). Russia: **EP** (S, NC). – Europe (WE, SE, EE), N Africa, Saudi Arabia, United Arab Emirates, Oman, Turkey, Israel, Iran, Pakistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, China (NW), India, Sri Lanka.
- Tachysphex excelsus** R. Turner, 1917 (*T. mysticus* Pulawski, 1971). Russia: **WS** (AL). – Europe (WE, SE), Turkey, Pakistan, Kazakhstan, Mongolia, China (NW).
- Tachysphex ferrugineus** Pulawski, 1971. Russia: **EP** (C, NC). – Europe (EE), Turkey, Kazakhstan.
- Tachysphex fugax** (Radoszkowski, 1877) [Tachytes] (*T. filicornis* Kohl, 1883; *T. micromegas* de Saussure, 1892; *T. sikorae* de Saussure, 1892; *T. filicornis excerptus* R. Turner, 1917). Russia: **EP** (S, NC). – Europe (WE, SE, EE), N Africa, Turkey, Syria, Saudi Arabia, Oman, Yemen, Israel, Uzbekistan, Kazakhstan, Africa.
- Tachysphex fulvitaris** (A. Costa, 1867) [Tachytes] (*Tachytes fulvitaris* A. Costa, 1867c, objective synonym of A. Costa, 1867b; *T. acrobates* Kohl, 1878; *T. strigosus* Mocsáry, 1879; *T. erythrogastra* A. Costa, 1882; *T. erythrogastra* A. Costa, 1884, objective synonym of A. Costa, 1882; *T. dubius* Radoszkowski, 1886; *Tachysphex bipunctatus* F. Morawitz, 1891). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (NS, AL), **ES** (BR, YA, ZB), **FE** (AM, PR). – Europe (WE, NE, SE, EE), N Africa, Turkey, Syria, Jordan, Israel, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- Tachysphex gibbus** Kohl, 1885 (*T. lativalvis gibba* Kohl, 1885; *T. philippi* S. Saunders, 1910). Russia: **EP** (NC, CR). – Europe (WE, SE), N Africa.
- Tachysphex gussakovskii** Pulawski, 1971. Russia: **EP** (S). – Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- Tachysphex helveticus** Kohl, 1885. Russia: **EP** (C, E, S, NC), **UR**, **WS** (AL), **ES** (KR, IR, BR, ZB), **FE** (PR). – Europe (WE, NE, SE, EE), N Africa, Turkey, Jordan, Tajikistan, Kazakhstan, Mongolia.
- Tachysphex incertus** (Radoszkowski, 1877) [Tachytes] (*Tachytes incerta* Radoszkowski, 1877; *T. panzeri geniculata* A. Costa, 1867b, nom. praeocc., nec *Lyrops geniculata* Spinola, 1839; *T. panzeri geniculata* A. Costa, 1867c, objective synonym of A. Costa, 1867b; *Tachysphex pygidialis* Kohl, 1883; *T. ruftventralis* Ferton, 1905; *T. incertus kallipygus* Pulawski, 1971). Russia: **EP** (S, NC, CR), **UR**, **WS** (AL). – Europe (WE, SE, EE), Turkey, Oman, Yemen, Israel, Jordan, Lebanon, Iran, Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, China (NW).
- Tachysphex julliani** Kohl, 1883 (*T. julliani* Kohl, 1883; *T. semenovi* Gussakovskij, 1933; *T. julliani africanus* Pulawski, 1971). Russia: **EP** (S, CR). – Europe (WE,

- SE, EE), N Africa, Turkey, Lebanon, Israel, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- Tachysphex latifrons** Kohl, 1884 (*T. cyrenaicus* de Beaumont, 1947). Russia: **EP** (S, CR), **WS** (AL). – Europe (SE, EE), N Africa, Azerbaijan, Turkey, Israel, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, China (NC).
- Tachysphex mediterraneus** Kohl, 1883 (*T. mediterranea* Kohl, 1883; *T. collaris* Kohl, 1898; *T. lanatus* Arnold, 1947). Russia: **EP** (C, S, NC, CR). – Europe (WE, SE, EE), Turkey, Israel, Kazakhstan, India, Sri Lanka, Africa.
- Tachysphex melas** Kohl, 1898. Russia: **EP** (S), **WS** (AL), **ES** (IR), **FE** (PR). – N Africa, Turkey, Jordan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia.
- Tachysphex micans** (Radoszkowski, 1877) [Tachytes]. Russia: **EP** (S). – N Africa, Oman, United Arab Emirates, Turkmenistan, Tajikistan, Kazakhstan, Mongolia.
- Tachysphex mocsaryi** Kohl, 1884 (*T. Mocsaryi* Kohl, 1884; *T. algira* Kohl, 1892; *T. mocsaryi maroccana* de Beaumont, 1947). Russia: **EP** (S, CR), **UR**. – Europe (WE, SE, EE), N Africa, Turkey, Israel, Jordan, Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- Tachysphex moczari** Tsuneki, 1972. Russia: **ES** (ZB), **FE** (PR). – Mongolia, China (NC).
- Tachysphex nigricolor** (Dalla Torre, 1897) [Larra] (*Larrada nigricans* F. Smith, 1873, nom. praeocc., nec Walker, 1871; *Larra nigricolor* Dalla Torre, 1897, substitute name for *Larrada nigricans* F. Smith, 1873; *T. japonicus* Iwata, 1933). Russia: **FE** (AM, KH, PR, KU). – China (NE, SE), Korean Peninsula, Japan (Hon, Kyu, Ryu), SE Asia.
- Tachysphex nitidior** de Beaumont, 1940. Russia: **EP** (C, S, NC, CR). – Europe (WE, SE, EE), N Africa, Turkey, Israel, Lebanon, Iran, Turkmenistan, Uzbekistan, Kazakhstan, Mongolia, SE Asia.
- Tachysphex nitidus** (Spinola, 1805) [Astata] (*Tachytes ibericus* de Saussure, 1867; *Tachysphex ibericus borealis* Pulawski, 1971). Russia: **EP** (N, C, E, S, NC, CR), **WS** (NS, AL). – Europe (WE, NE, SE, EE), N Africa, Turkey, Israel, Kuwait, Oman, Turkmenistan, Tajikistan, Kazakhstan, China (NC).
- Tachysphex obscuripennis** (Schenck, 1857) [Tachytes] (*Tachytes obscuripennis* Scheck, 1860, nom. nud.; *T. lativalvis* Thomson, 1870). Russia: **EP** (N, C, E, S, NC), **WS** (AL). – Europe (WE, NE, SE, EE), Morocco, Turkey, Lebanon.
- Tachysphex panzeri** (Vander Linden, 1829) [Tachytes] (*Lyrops rufiventris* Spinola, 1839; *L. haemorrhoea* Spinola, 1843, unavailable under ICZN (1999, Article 11.6); *Tachytes Oraniensis* Lepeletier de Saint Fargeau, 1845; *T. aurifrons* Lucas, 1849; *T. discolor* Frivaldszky, 1877; *T. pulverosus* Radoszkowski, 1886; *T. ceylonica* Cameron, 1900; *T. aurifrons* Cameron, 1900, junior primary homonym of Lucas, 1849; *Tachysphex ablatatus* Nurse, 1909; *T. panzeri fortunatus* de Beaumont, 1968; *T. panzeri cyprius* Pulawski, 1971; *T. panzeri sareptanus* Pulawski, 1971). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Turkey, Syria, Israel, Jordan, Saudi Arabia, Yemen, Bahrain, United Arab Emirates, Djibouti, Iran, Pakistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, India, Sri Lanka.
- Tachysphex pompiliformis** (Panzer, 1804) [Larra] (*Larrada parvula* Cresson, 1865; *Larra Quebecensis* Provancher, 1882; *L. Quebecensis* Provancher, 1883, objective synonym of Provancher, 1882; *T. decorus* W. Fox, 1894; *T. tenuipunctus* W. Fox, 1894; *T. consimilis* W. Fox, 1894; *T. rufo-niger* Bingham, 1897; *T. projectus* Nurse, 1903; *T. argyrotrichus* Rohwer, 1911; *T. granulatus* Mickel, 1916; *T. erythraeus* Mickel, 1916; *T. angularis* Mickel, 1916). Russia: **EP** (N, C, E, S, NC, CR), **UR**, **WS** (NS, AL), **ES** (KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, MG, KA). – Europe (WE, NE, SE, EE), N Africa, Turkey, Iran, Pakistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NC), Korean Peninsula, India, N America.
- Tachysphex psammobius** (Kohl, 1880) [Tachytes] (*Tachytes psammobia* Kohl, 1880; *Tachysphex asperatus* W. Fox, 1894; *T. sculptilis* W. Fox, 1894; *T. nigrescens* Rohwer, 1908; *T. sphecodoides* Rohwer, 1911). Russia: **EP** (C, S, NC, CR), **UR**, **WS** (TM, AL), **ES** (IR, BR), **FE** (PR). – Europe (WE, SE, EE), N Africa, Turkey, Israel, Kazakhstan, China, N America.
- Tachysphex schmiedeknechti** Kohl, 1883 (*T. Schmiedeknechti* Kohl, 1883; *T. psilopus* Kohl, 1884; *T. heliophilus* Nurse, 1909; *T. ornatipennis* Gussakovskij, 1933; *T. fasciipennis* Gussakovskij, 1933; *T. calopteryx* Gussakovskij, 1933; *T. schmiedeknechti satanas* Pulawski, 1971). Russia: **EP** (E, S). – Europe (WE, SE), Saudi Arabia, United Arab Emirates, Oman, Yemen, Turkey, Syria, Jordan, Israel, Iran, Afghanistan, Turkmenistan, Uzbekistan, Kazakhstan, India, Sri Lanka, Africa.



- Tachysphex speciosissimus** Morice, 1897 (*T. redivivus* Kohl, 1901). Russia: **EP** (S). – N Africa, Syria, Israel, Iran, Uzbekistan.
- Tachysphex stachi** de Beaumont, 1936. Russia: **EP** (S). – Georgia, Turkey, Israel, Turkmenistan, Uzbekistan, Kazakhstan.
- Tachysphex subdentatus** F. Morawitz, 1893. Russia: **EP** (S), **WS** (AL). – Europe (SE, EE), Turkey, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- Tachysphex tarsinus** (Lepeletier de Saint Fargeau, 1845) [Tachytes] (*Tachytes tarsina* Lepeletier de Saint Fargeau, 1845). Russia: **EP** (C, S, NC), **WS** (NS, AL). – Europe (WE, SE, EE), N Africa, Turkey, Saudi Arabia, Oman, Israel, Lebanon, Iran, Tajikistan, Uzbekistan, Kazakhstan, China (NC).
- Tachysphex unicolor** (Panzer, 1807-1809) [Larra] (*Larra jurinii* Drapiez, 1819). Russia: **EP** (N, C, E, S). – Europe (WE, NE, SE, EE), N Africa, Turkey, Israel, Lebanon, Afghanistan, Turkmenistan, Kazakhstan, Mongolia, China (NE).
- TACHYTES** Panzer, 1806 (*Lyrops* Illiger, 1807; *Tachyptera* Dahlbom, 1843, nom. praeocc., nec Berge, 1842; *Holotachytes* R. Turner, 1917; *Calotachytes* R. Turner, 1917; *Tachyoides* Banks, 1942; *Tachyplena* Banks, 1942, substitute name for *Tachyptera* Dahlbom, 1843; *Tachynana* Banks, 1942). Type species *Pompilus tricolor* of Fabricius, 1798 (= *Sphex tricolor* Fabricius, 1793, nom. praeocc., nec Schrank, 1781; = *Sphex tricoloratus* Turton, 1801). Number of species: World – 297, Palaearctic – 58, Russia – 8.
- Tachytes ambidens** Kohl, 1884 (*T. caucasicus* Radoszkowski, 1886). Russia: **EP** (S, NC). – Europe (SE), N Africa, Georgia, Armenia, Turkmenistan, Tajikistan, Kazakhstan, China (NW).
- Tachytes argyreus** (F. Smith, 1856) [Larrada] (*L. argyrea* F. Smith, 1856; *T. melanopyga* A. Costa, 1893a; *T. melanopyga* A. Costa, 1893b, objective synonym of A. Costa, 1893a; *Tachysphex debilis* Pérez, 1907). Russia: **EP** (S, NC). – N Africa, Turkey, Israel, Saudi Arabia, United Arab Emirates, Bahrain, Iraq, Iran, Pakistan, Turkmenistan, Tajikistan, India.
- Tachytes bidens** Gussakovskij, 1952. Russia: **EP** (S). – Iran, Turkmenistan, Uzbekistan, Kazakhstan.
- Tachytes etruscus etruscus** (Rossi, 1790) [Andrena] (*A. Etrusca* Rossi, 1790; *T. argentata* Brullé, 1832). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL). – Europe (WE, SE, EE), N Africa, Turkey, Syria, Israel, Saudi Arabia, Iran, Turkmenistan, Kazakhstan, Mongolia, Africa.
- Tachytes etruscus sibiricus** Gussakovskij, 1932 (*T. sibirica* Gussakovskij, 1932; *T. nipponicus* Tsuneki, 1964). Russia: **FE** (KH, PR). – China (NE), Korean Peninsula, Japan (Hon).
- Tachytes freydessneri** Kohl, 1881 (*Apis hispanica* Linnaeus in Kirby, 1802, nom. praeocc., nec Fabricius, 1787; *T. Frey-Gessneri* Kohl, 1881). Russia: **EP** (S). – Europe (WE, NE, SE, EE), N Africa, Turkey, Iraq, Iran, Tajikistan, Uzbekistan, Kazakhstan, China (NC, NW).
- Tachytes latifrons** Tsuneki, 1964. Russia: **FE** (PR). – Korean Peninsula, Japan (Hok, Hon).
- Tachytes obsoletus** (Rossi, 1792) [Apis] (*Apis Obsoleta* Rossi, 1792). Russia: **EP** (S, NC), **UR**, **WS** (NS, AL). – Europe (WE, SE, EE), N Africa, Turkey, Israel, Iraq, Tajikistan, Uzbekistan, Kazakhstan, China (NE, NC).
- Tachytes panzeri orientis** Pulawski, 1962. Russia: **FE** (AM, KH, PR). – China (NE, NC).
- Tachytes panzeri panzeri** (Dufour, 1841) [Lyrops] (*Lyrops Panzeri* Dufour, 1841, substitute name for *Pompilus tricolor* of Panzer, 1801, nom. praeocc., nec *Tachytes panzeri* Vander Linden, 1829 (now in *Tachysphex*); *Tachytes europaea* Kohl, 1883). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (NS, AL), **ES** (IR). – Europe (WE, SE, EE), N Africa, Turkey, Israel, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.

## Tribe MISCOPHINI

**LYRODA** Say, 1837 (*Morphota* F. Smith, 1856; *Odonotolarra* Cameron, 1900; *Lyrodon* Howard, 1901, lapsus pro *Lyroda* Say, 1837, nom. praeocc., nec *Lyrodon* Goldfuss, 1837). Type species *Lyroda subita* Say, 1837. Number of species: World – 25, Palaearctic – 2, Russia – 1.

**Lyroda nigra japonica** Iwata, 1933 (*L. japonica* Iwata, 1933). Russia: **FE** (KH, PR). – China (NE), Korean Peninsula, Japan (Hon, Kyu, Ryu).

**MISCOPHUS** Jurine, 1807 (*Nitelopterus* Ashmead, 1897; *Hypomiscophus* Cockerell, 1898; *Miscophinus* Ashmead, 1898). Type species *Miscophus bicolor* Jurine, 1807. Number of species: World – 184, Palaearctic – 131, Russia – 14.

**Miscophus albufeirae** de Andrade, 1952. Russia: **EP** (NC). – Europe (WE, SE), Turkey.

**Miscophus ater** Lepeletier de Saint Fargeau, 1845 (*M. maritimus* F. Smith, 1858). Russia: **EP** (C, S), **WS**

- (AL), **ES** (IR), **FE** (AM, PR). – Europe (WE, NE, EE), N Africa, Azerbaijan, Turkey, Iran, Kazakhstan.
- Miscophus bicolor** Jurine, 1807 (*Larra dubia* Panzer, 1807-1809; *M. metallicus* C. Verhoeff, 1890; *M. tsunekii* de Andrade, 1960). Russia: **EP** (C, E, S, NC), **UR**, **WS** (AL), **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR, SA). – Europe (WE, NE, SE, EE), N Africa, Abkhasia, Turkey, Syria, Iran, Kazakhstan, Mongolia, Korean Peninsula.
- Miscophus concolor** Dahlbom, 1844 (*M. moravicus* Balthasar, 1957). Russia: **EP** (C, E). – Europe (WE, NE, SE, EE).
- Miscophus gegensumus** Tsuneki, 1971 (*M. angarensis* Nemkov, 1985). Russia: **ES** (IR, BR). – China (NC).
- Miscophus gussakovskiji** de Andrade, 1954. Russia: **EP** (S). – Uzbekistan.
- Miscophus helveticus** Kohl, 1883 (*M. gallicus* Kohl, 1884; *M. rubriventris* Ferton, 1896; *M. deserti* Berland, 1943; *M. gallicus rufus* Giner Mari, 1943; *M. cypriacus* de Andrade, 1953; *M. cypriacus obscurus* de Andrade, 1954). Russia: **EP** (C, E). – Europe (WE, SE, EE), N Africa, United Arab Emirates, Turkey, Israel.
- Miscophus johni** Mokrousov, 2004. Russia: **EP** (C). – Europe (SE).
- Miscophus niger** Dahlbom, 1844. Russia: **EP** (N, C, E, S), **UR**, **ES** (IR), **FE** (AM, PR, SA). – Europe (WE, NE, SE, EE), N Africa, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- Miscophus percitus** Mokrousov, 2004. Russia: **EP** (C).
- Miscophus rufiventris** Tsuneki, 1972. Russia: **ES** (BR). – Mongolia.
- Miscophus spurius** (Dahlbom, 1832) [Larra] (*Larra spuria* Dahlbom, 1832). Russia: **EP** (N, S), **UR**, **ES** (IR, YA), **FE** (AM, PR, SA). – Europe (WE, NE, SE), N Africa Kazakhstan.
- Miscophus transcaspicus** de Andrade, 1960. Russia: **ES** (BR). – Turkmenistan, Kasakhstan.
- Miscophus tricolor** Kazenas, 1992. Russia: **EP** (S). – Kasakhstan.
- NITELA** Latreille, 1809 (*Rhinonitela* F. Williams, 1928). Type species *Nitela spinolae* Latreille, 1809. The genus includes two subgenera: *Nitela* Latreille, 1809 and *Tenila* Brèthes, 1913. Number of species: World – 66, Palaeartic – 14, Russia – 5.
- Nitela (Nitela) borealis** Valkeila, 1974. Russia: **EP** (C, E, S), **UR**, **WS** (AL). – Europe (WE, NE, SE, EE), Georgia, Turkey, Kazakhstan.
- Nitela (Nitela) fallax** Kohl, 1884. Russia: **EP** (C, E, S), **UR**. – Europe (WE, SE, EE), Turkey.
- Nitela (Nitela) koreana** Tsuneki, 1982. Russia: **FE** (PR). – Korean Peninsula.
- Nitela (Nitela) lucens** Gayubo et Felton, 2000. Russia: **EP** (C). – Europe (WE, SE), N Africa.
- Nitela (Nitela) spinolae** Latreille, 1809. Russia: **EP** (N, C, E, NC). – Europe (WE, NE, SE, EE), N Africa, Turkey, Japan (Hok.).
- PLENOCULUS** W. Fox, 1893 (*Ptygosphe* Gussakovskij, 1928; *Ptygosphe* Gussakovskij, 1928, lapsus for *Ptygosphe* Gussakovskij, 1928; *Pavlovskia* Gussakovskij, 1935). Type species *Plenoculus davisi* W. Fox, 1893. Number of species: World – 21, Palaeartic – 2, Russia – 1.
- Plenoculus murgabensis** (Gussakovskij, 1928) [Ptygosphe] (*Pavlovskia tadhika* Gussakovskij, 1935). Russia: **EP** (S). – Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- SOLIERELLA** Spinola, 1851 (*Sylaon* Piccioli, 1869; *Silaon* Piccioli, 1869, lapsus or emendation of *Sylaon* Piccioli, 1869; *Niteliopsis* S. Saunders, 1873; *Ammosphecidium* Kohl, 1878; *Lautara* Herbst, 1920). Type species *Solierella miscophoides* Spinola, 1851. Number of species: World – 113, Palaeartic – 34, Russia – 5.
- Solierella bactriana** Gussakovskij, 1930. Russia: **EP** (S). – Iran, Tadjikistan, Turkmenistan, Uzbekistan.
- Solierella compedita** (Piccioli, 1869) [Silaon] (*Silaon compeditus* Piccioli, 1869; *Ammosphecidium Helleri* Kohl, 1877; *Sylaon Xambeui* Er. André, 1896). Russia: **EP** (C, S, CR). – Europe (WE, SE, EE), N Africa, Turkey, Syria, Jordan, Israel, Kazakhstan.
- Solierella pisonoides** (S. Saunders, 1873) [Niteliopsis] (*Solierella paradoxa* Gussakovskij, 1930). Russia: **EP** (C, CR). – Europe (WE, SE, EE), Turkey, Syria, Israel, Turkmenistan, Kazakhstan.
- Solierella seabrai** de Andrade, 1950. Russia: **EP** (S). – Europe (WE, SE, EE), N Africa.
- Solierella zimini** Gussakovskij, 1928. Russia: **EP** (S). – Uzbekistan, Turkmenistan.

## Tribe OXYBELINI

**BELOMICRUS** A. Costa, 1871b (*Oxybeloides* Radoszkowski, 1877). Type species *Belomicrus italicus*

- A. Costa, 1817. Number of species: World – 101, Palaearctic – 61, Russia – 8.
- Belomicrus antennalis** Kohl, 1899. Russia: **EP** (S), **WS** (AL), **ES** (IR). – Europe (SE), Kazakhstan, Mongolia.
- Belomicrus borealis** Forsius, 1923. Russia: **EP** (NW, E). – Europe (NE).
- Belomicrus corniger** Kazenas, 1995. Russia: **EP** (S). – Kazakhstan.
- Belomicrus odontophorus** (Kohl, 1892) [Oxybelus] (*B. odontomorphus*: von Schulthess, 1926, lapsus pro *B. odontophorus* (Kohl, 1892)). Russia: **EP** (S). – Europe (EE), Armenia, Turkey, Turkmenistan, Kazakhstan, Mongolia.
- Belomicrus parvulus** (Radoszkowski, 1877) [Oxybelus] (*B. femoralis* Kohl, 1899). Russia: **UR**. – Turkmenistan, Uzbekistan, Kazakhstan.
- Belomicrus schulthessii** Kohl, 1924 (*B. Schulthessii* Kohl, 1924). Russia: **EP** (S). – N Africa, Saudi Arabia, United Arab Emirates, Iran, Turkmenistan, Kazakhstan.
- Belomicrus tricolor** Kazenas, 1991. Russia: **EP** (S). – Kazakhstan.
- Belomicrus ussuriensis** Antropov, 1993. Russia: **FE** (PR).
- OXYBELUS** Latreille, 1796 (*Notoglossa* Dahlbom, 1845; *Alepidaspis* A. Costa, 1882; *Anoxybelus* Kohl, 1924; *Gonioxybelus* Minkiewicz, 1934, unavailable under ICZN (1999, Article 13.3); *Orthoxybelus* Minkiewicz, 1934, unavailable under ICZN (1999, Article 13.3); *Gonioxybelus* Pate, 1937, validation of *Gonioxybelus* Minkiewicz, 1934; *Orthoxybelus* Pate, 1937, validation of *Orthoxybelus* Minkiewicz, 1934; *Euoxybelus* Noskiewicz et Chudoba, 1950, unavailable under ICZN (1999, Article 13.3); *Latroxybelus* Noskiewicz et Chudoba, 1950). **Type species** *Crabro uniglumis* of Fabricius, 1775 (= *Vespa uniglumis* Linnaeus, 1758). Number of species: World – 264, Palaearctic – 86, Russia – 16.
- Oxybelus argentatus** Curtis, 1833 (?*Vespa decimaculata* Donovan, 1806; *O. ferox* Shuckard, 1837; *O. nigricornis* Shuckard, 1837). Russia: **EP** (N, C, E, S), **UR**, **WS** (AL), **ES** (IR, ZB), **FE** (PR). – Europe (WE, NE, SE, EE), Mongolia.
- Oxybelus aurantiacus** Mocsáry, 1883 (*O. rufitarsis* F. Morawitz, 1894). Russia: **EP** (S), **WS** (AL). – Europe (WE, SE, EE), N Africa, Yemen, Saudi Arabia, Turkey, Syria, Jordan, Israel, Pakistan, Central Asia, Kazakhstan, Mongolia.
- Oxybelus bipunctatus** Olivier, 1812 (*O. nigroaeneus* Shuckard, 1837; *O. laevigatus* Schilling, 1848). Russia: **EP** (N, C, E, S), **UR**, **WS** (AL), **ES** (IR, BR), **FE** (AM, PR, SA). – Europe (WE, NE, SE, EE), N Africa, Turkey, Syria, Iran, Turkmenistan, Uzbekistan, Kazakhstan, Mongolia, Korean Peninsula, N America.
- Oxybelus dissectus dissectus** Dahlbom, 1845 (*O. monachus* Gerstaecker, 1867). Russia: **EP** (C). – Europe (WE, NE, SE, EE), N Africa, Kuwait, Turkey, Syria, Iran, Turkmenistan, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia.
- Oxybelus dissectus eburneofasciatus** Dahlbom, 1845 (*O. eburneo-fasciatus* Dahlbom, 1845; *O. dufouri* Marquet, 1896). Russia: **UR**. – Europe (WE, SE).
- Oxybelus dissectus elegans** Mocsáry, 1879. Russia: **EP** (S). – Europe (WE, SE, EE), N Africa, Turkey, Israel, Mongolia.
- Oxybelus haemorrhoidalis** Olivier, 1812 (*O. victor* Lepeletier de Saint Fargeau, 1845; *O. dubius* Dahlbom, 1845; *O. fasciatus* Dahlbom, 1845; *O. simplex* Dahlbom, 1845; *O. bicolor* Schilling, 1848; *O. elegantulus* Gerstaecker, 1867; *O. incomptus* Gerstaecker, 1867; *O. analis* Gerstaecker, 1867; *O. melancholicus* Chevrier, 1868). Russia: **EP** (NW, C, E, S), **UR**, **WS** (NS, AL), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Turkey, Syria, Israel, Iran, Afghanistan, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NC), Korean Peninsula, Japan (Hon).
- Oxybelus lamellatus** Olivier, 1811 (*O. Savignyi* Spinola, 1839; *Notoglossa sagittata* Dahlbom, 1845; *O. squamosus* F. Smith, 1875; *O. rufipes* Taschenberg, 1880; *O. forticarinatus* Cameron, 1908; *O. ceylonicus* Cameron, 1897). Russia: **EP** (S). – Europe (WE, SE), N Africa, Cyprus, Turkey, Syria, Jordan, Israel, Iraq, Iran, Saudi Arabia, Kuwait, Oman, United Arab Emirates, Afghanistan, Pakistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, China (SW, SE), SE Asia, India, Africa.
- Oxybelus latro** Olivier, 1812 (*O. armiger* Olivier, 1812; *O. affinis* Marquet, 1881; *O. opacus* Tournier, 1901; *O. latro rugulosus* Móczár, 1957). Russia: **EP** (NC, E, S, CR), **UR**, **WS** (AL). – Europe (WE, NE, SE, EE), N Africa, Turkey, Iran, Afghanistan, Central Asia, Kazakhstan, Mongolia, China (NC).
- Oxybelus lineatus** (Fabricius, 1787) [Nomada] (*Nomada lineata* Fabricius, 1787; *O. bellicosus* Olivier, 1812). Russia: **EP** (C, E, S), **UR**, **ES** (KR). – Europe (WE, NE, SE, EE), N Africa, Turkey.

- Oxybelus maculipes** F. Smith, 1856 (*O. Solskii* Radoszkowski, 1877, *O. acuticornis* F. Morawitz, 1891, *O. pictipes* F. Morawitz, 1891). Russia: **EP** (C, S), **UR**. – Europe (SE, EE), Turkey, Iran, Tajikistan, Kyrgyzstan, Kazakhstan, China (SW).
- Oxybelus mandibularis** Dahlbom, 1845 (*O. sericatus* Gerstaecker, 1867). Russia: **EP** (C, E, S), **UR**, **WS** (TM, AL), **ES** (IR, BR), **FE** (AM, PR, SA). – Europe (WE, NE, SE, EE), N Africa, Turkey, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia.
- Oxybelus mucronatus** (Fabricius, 1793) [Crabro] (*O. pugnax* Olivier, 1812; *O. ambiguus* Gerstaecker, 1867; *O. scutellaris* A. Costa, 1867; *O. meridionalis* Mocsáry, 1879; *O. maculiventris* Tournier, 1901; *O. nigriventris* Tournier, 1901; *O. nigripes immaculatus* Guiglia, 1944; *O. pugnax bistillatus* Balthasar, 1972, unavailable under ICZN (1999, Articles 1.3.4, 15.2)). Russia: **EP** (NW, C, E, S, CR), **UR**, **WS** (AL). – Europe (WE, NE, SE, EE), N Africa, Turkey, Syria, Jordan, Lebanon, Israel, Iraq, Iran, Central Asia, Kazakhstan, China (NE).
- Oxybelus quatuordecimnotatus** Jurine, 1807 (*O. 14 notatus* Jurine, 1807; *Crabro crassipes* Walckenaer, 1817, nom. praeocc., nec Fabricius, 1798; *C. punctatus* Walckenaer, 1817; *C. parisinus* Kittel, 1828; *Oxybelus bellus* Dahlbom, 1844; *O. furcatus* Lepeletier de Saint Fargeau, 1845; *O. raptor* Lepeletier de Saint Fargeau, 1845; *O. timidus* Chevrier, 1868; *O. venustus* Sickmann, 1894; *O. maritimus* Marquet, 1896). Russia: **EP** (NW, C, E, S, CR), **UR**, **WS** (TM, AL), **ES** (KR, IR), **FE** (KH, PR). – Europe (WE, NE, SE, EE), N Africa, Saudi Arabia, Oman, Yemen, Turkey, Syria, Jordan, Israel, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, Mongolia, China (NE, SW).
- Oxybelus subspinus** Klug in Waltl, 1835 (*O. fissus* Lepeletier de Saint Fargeau, 1845; *O. latidens* Gerstaecker, 1867; *O. psammobius* Kohl, 1884). Russia: **EP** (C, E, S, CR), **WS** (AL), **ES** (IR), **FE** (PR). – Europe (WE, NE, SE, EE), N Africa, Armenia, Saudi Arabia, Turkey, Syria, Jordan, Israel, Iran, Afghanistan, Central Asia, Kazakhstan, China (NC).
- Oxybelus trispinosus** (Fabricius, 1787) [Apis] (*Apis trispinosa* Fabricius, 1787; *O. nigripes* Olivier, 1812). Russia: **EP** (C, NC), **UR**, **WS** (AL), **ES** (IR, BR), **FE** (KH, PR). – Europe (WE, NE, SE, EE), N Africa, Turkey, Kazakhstan.

- Oxybelus uniglumis** (Linnaeus, 1758) [Vespa] (*Nomada punctata* Fabricius, 1793; *Crabro tridens* Fabricius, 1798; ?*Vespa decim-maculata* Donovan, 1806; *O. pygmaeus* Olivier, 1812; *O. 4-notatus* Say, 1824; *O. impatiens* F. Smith, 1856; *O. interruptus* Cresson, 1865; *O. fallax* Gerstaecker, 1867; *O. Brodiei* Provancher, 1883a; *O. Brodiei* Provancher, 1883b, objective synonym of Provancher, 1883a; *O. quadrinotatus montanus* Robertson, 1889; *O. hispanicus* García Mercet: Dusmet y Alonso, 1935, nom. nud.; *O. hispanicus* Giner Marí, 1943). Russia: **EP** (N, NW, C, E, S, CR), **UR**, **WS** (NS, AL), **ES** (KR, IR, BR, ZB), **FE** (SA, KU, KA). – Europe (WE, NE, SE, EE), N Africa, Turkey, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NE), N America.
- Oxybelus variegatus** Wesmael, 1852 (*O. pulchellus* Gerstaecker, 1867). Russia: **EP** (C, E, S, CR), **UR**, **WS** (AL). – Europe (WE, NE, SE, EE), Turkey, Iran, Afghanistan, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan.

## Tribe PALARINI

- PALARUS** Latreille, 1802 (*Gonius* Panzer, 1806; *Gonius* Jurine, 1807, nom. praeocc., nec Panzer, 1806). Type species *Tiphia flavipes* Fabricius, 1793. Number of species: World – 34, Palaearctic – 18, Russia – 2.
- Palarus funerarius** F. Morawitz, 1889 (*P. gracilis* Kohl in Kohl et Handlirsch, 1889; *P. seraxensis* Radoszkowski, 1893; *P. incertus* Radoszkowski, 1893; *P. quiescens* Nurse, 1903; *P. nursei* R. Turner, 1911; *P. beaumonti* Bytinski-Salz, 1957). Russia: **EP** (S, NC). – Greece (Rhodes), Armenia, Turkey, Iran, Pakistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NC), India.
- Palarus variegatus variegatus** (Fabricius, 1781) [Tiphia] (*Tiphia variegata* Fabricius, 1781; *Crabro flavipes* Fabricius, 1781; *P. auriginosus* Eversmann, 1849; *P. affinis* F. Morawitz, 1893; *P. fortistriolatus* Cameron, 1907). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (KR, ZB). – Europe (WE, SE, EE), N Africa, Georgia, Armenia, Turkey, Afghanistan, Pakistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NC, NW), India.
- Palarus variegatus varius** Sickmann, 1894 (*P. flavipes varius* Sickmann, 1894; *P. saishiuensis* Okamoto, 1924). Russia: **FE** (AM, PR). – Korean Peninsula, China (NE).

## Tribe TRYPOXYLINI

- PISON** Jurine, 1808 (*Pison* Jurine in Spinola, 1808; *Tachybulus* Latreille, 1809; *Nephridia* Brullé, 1833; *Pisonitus* Shuckard, 1838; *Pisum* Agassiz, 1846, nom. praeocc., nec Megerle, 1811, unjustified emendation of *Pison* Jurine, 1808; *Pisonoides* F. Smith, 1858; *Parapison* F. Smith, 1869; *Pseudo-Nysson* Radoszkowski, 1876; *Taranga* W.F. Kirby, 1883; *Paraceramius* Radoszkowski, 1887, nom. praeocc., nec de Saussure, 1854; *Pisum* W. Schulz, 1906, nom. praeocc., nec Megerle, 1811, non Agassiz, 1846, unjustified emendation of *Pison* Jurine, 1808; *Krombeiniellum* Richards, 1962, substitute name for *Paraceramius* Radoszkowski, 1887). Type species *Pison Jurini* Spinola, 1808 (= *Alyson ater* Spinola, 1808). Number of species: World – 183, Palaeartic – 11, Russia – 6.
- Pison atrum** (Spinola, 1808) [*Alyson*] (*Alyson ater* Spinola, 1808; *P. Jurini* Spinola, 1808; *Tachybulus niger* Latreille, 1809; *P. montanus* Cameron, 1908). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), N Africa, Georgia, Turkey, Oman, Iran, Kazakhstan, Africa.
- Pison fasciatum** (Radoszkowski, 1876) [*Pseudonysson*] (*P. suspicax* Kokujev, 1912). Russia: **EP** (NC). – Europe (SE), Azerbaidjan, Turkey, Kazakhstan.
- Pison insigne** Sickmann, 1894. Russia: **FE** (PR). – China (NE, NC, CE), Korean Peninsula, Japan (Hok).
- Pison koreense** (Radoszkowski, 1887) [*Paraceramius*]. Russia: **FE** (PR). – China (CE), Korean Peninsula, Japan (Hon), N America, SE Asia.
- Pison sericeum** Kohl, 1888. Russia: **EP** (S, NC). – Europe (SE, EE), Turkey, Israel.
- Pison strandi** Yasumatsu, 1935 (*P. iwatai* Yasumatsu, 1935; *P. ussuriense* Gussakovskij, 1937). Russia: **FE** (PR). – Korean Peninsula, Japan (Hon, Kyu, Tsushima).
- TRYPOXYLON** Latreille, 1796 (*Tripoxilon* Spinola, 1806, lapsus or emendation of *Trypoxylon* Latreille, 1796; *Apius* Panzer, 1806; *Apius* Jurine, 1807, nom. praeocc., nec Panzer, 1806; *Trypoxilon* Jurine, 1807, lapsus or emendation of *Trypoxylon* Latreille, 1796; *Trypoxylum* Agassiz, 1846, unjustified emendation of *Trypoxylon* Latreille, 1796; *Trypoxylum* W. Schulz, 1906, nom. praeocc., nec Agassiz, 1846, unjustified emendation of *Trypoxylon* Latreille, 1796; *Asaconoton* Arnold, 1959). Type species
- Sphex figulus* Linnaeus, 1758. The genus includes two subgenera: *Trypoxylon* Latreille, 1796 and *Trypargilum* Richards, 1934. Number of species: World – 631, Palaeartic – 54, Russia – 28.
- Trypoxylon (Trypoxylon) ambiguum** Tsuneki, 1956. Russia: **FE** (KU). – Japan (Hon).
- Trypoxylon (Trypoxylon) attenuatum** F. Smith, 1851 (*T. hannibalis* Gribodo, 1894). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (AL). – Europe (WE, NE, SE, EE), N Africa, Turkey, Israel, Afghanistan, Uzbekistan, Kazakhstan, ?China (NW), N America.
- Trypoxylon (Trypoxylon) beaumonti** Antropov, 1991. Russia: **EP** (NC). – Europe (WE, SE, EE).
- Trypoxylon (Trypoxylon) clavicerum** Lepeletier de Saint Fargeau et Audinet-Serville, 1828 (*T. tibiale* Zetterstedt, 1840; *T. batumicum* Antropov, 1985). Russia: **EP** (N, NW, C, E, S, NC, CR), **WS** (AL), **ES** (IR). – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey, Israel, Iran, Kazakhstan, Japan (Hachijo-jima), N America.
- Trypoxylon (Trypoxylon) deceptorium** Antropov, 1991. Russia: **EP** (E, S, NC, CR), **WS** (AL). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Syria, Lebanon, Israel, Iran, Central Asia, Kazakhstan, Mongolia.
- Trypoxylon (Trypoxylon) exiguum exiguum** Tsuneki, 1956 (*T. clavicerum exiguum* Tsuneki, 1956). Russia: **FE** (SA, KU). – Japan (Hok, Hon, Shi, Kyu).
- Trypoxylon (Trypoxylon) exiguum gussakovskiji** Tsuneki, 1974 (*T. pygmaeum* Gussakovskij, 1933, nom. praeocc. nec Cameron, 1900; *T. clavicerum gussakovskiji* Tsuneki, 1974; *T. exiguum gussakovskiji*: Antropov, 1986; *T. clavicerum gussakovskiji* Tsuneki, 1991). Russia: **FE** (PR). – Korean Peninsula.
- Trypoxylon (Trypoxylon) figulus** (Linnaeus, 1758) [*Sphex*] (*Sphex figulus* Linnaeus, 1758; *T. figulus major* Kohl, 1883; *T. apicalis* W. Fox, 1891; *T. figulus yezo* Tsuneki, 1956; *T. figulus barbarum* de Beaumont, 1957; *T. fieuzeti* Giner Marí, 1959). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, TK, NS, KM, AL), **ES** (KS, KR, IR, BR, ZB), **FE** (PR). – Europe (WE, NE, SE, EE), N Africa, Turkey, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NE, CE), Japan (Hok, Hon), N America.
- Trypoxylon (Trypoxylon) frigidum cornutum** Gussakovskij, 1932 (*T. cornutum* Gussakovskij, 1932; *T. frigidum chongar* Tsuneki, 1956; *T. frigidum yamatonis* Tsuneki, 1981). Russia: **WS** (AL), **ES** (BR, ZB), **FE** (AM, KH, PR, SA, KU, MG, KA). – Korean Peninsula, Japan (Hon, Kyu).

- Trypoxylon (Trypoxylon) fronticorne fronticorne** Gussakovskij, 1936. Russia: **EP** (C, E, NC), **ES** (KR, IR). – Europe (WE, NE, SE, EE), Armenia, Azerbaidjan, Turkey, Kazakhstan, India.
- Trypoxylon (Trypoxylon) fronticorne japonense** Tsuneki, 1956 (*T. fronticorne japonense*: Nemkov, 2009, 2012, lapsus pro *T. fronticorne japonense* Tsuneki, 1956). Russia: **WS** (AL), **ES** (BR, ZB), **FE** (AM, KH, PR, SA, KU, KA). – China (NE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Trypoxylon (Trypoxylon) imayoshii** Yasumatsu, 1938. Russia: **FE** (PR). – Japan (Hon, Kyu).
- Trypoxylon (Trypoxylon) inopinatum** Antropov, 1986. Russia: **EP** (NC).
- Trypoxylon (Trypoxylon) koikense** Tsuneki, 1956. Russia: **FE** (PR, KU). – Japan (Hon, Shi).
- Trypoxylon (Trypoxylon) kolazyi** Kohl, 1893a (*T. Kolazyi* Kohl, 1893; *T. backi* Sandhouse, 1940). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Georgia, Turkey, Uzbekistan, Kazakhstan, N America.
- Trypoxylon (Trypoxylon) koma** Tsuneki, 1956g (*T. figulus koma* Tsuneki, 1956). Russia: **FE** (AM, KH, PR). – Korean Peninsula.
- Trypoxylon (Trypoxylon) konosuense** Tsuneki, 1968. Russia: **FE** (KH, PR). – Japan (Hon).
- Trypoxylon (Trypoxylon) koreanum** Tsuneki, 1956 (*T. mowchowense* Tsuneki, 1981; *T. okeanskayanum* Tsuneki, 1981). Russia: **EP** (C), **FE** (PR, SA). – China (NC, SW), Korean Peninsula.
- Trypoxylon (Trypoxylon) kostylevi** Antropov, 1985. Russia: **EP** (NC). – Europe (SE, NE, EE), Abkhazia, Turkey.
- Trypoxylon (Trypoxylon) malaisei** Gussakovskij, 1932. Russia: **FE** (PR). – China (CE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu), SE Asia, N America.
- Trypoxylon (Trypoxylon) medium** de Beaumont, 1945 (*T. figulus minus rubi* Wolf, 1959). Russia: **EP** (C, E, S, NC), **WS** (AL), **ES** (KR). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan.
- Trypoxylon (Trypoxylon) minus** de Beaumont, 1945 (*T. figulus minor* de Beaumont, 1945; *T. figulus koma* Tsuneki, 1956). Russia: **EP** (C, E, S, NC, CR), **WS** (AL). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan.
- Trypoxylon (Trypoxylon) pacificum** Gussakovskij, 1932. Russia: **FE** (PR). – China (CE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Trypoxylon (Trypoxylon) regium regium** Gussakovskij, 1932. Russia: **FE** (PR).

- Trypoxylon (Trypoxylon) rubiginosum** Gussakovskij, 1936 (*T. adzharicum* Antropov, 1984). Russia: **EP** (NC, CR). – Abkhazia, Georgia, Azerbaijan.
- Trypoxylon (Trypoxylon) rufimaculatum** Antropov, 1987 (*T. rufomaculatum*: Haneda et al., lapsus pro *T. rufimaculatum* Antropov, 1987). Russia: **FE** (KH, PR). – China (NE, NC, SW), Korean Peninsula, Japan (Hon, Kyu, Ryu).
- Trypoxylon (Trypoxylon) scutatum scutatum** Chevrier, 1867 (*T. ammophiloides* A. Costa, 1867; *T. quartinae* Gribodo, 1884; *T. scutigerum* Taschenberg, 1881). Russia: **EP** (S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Turkey, Syria, Israel, Iran, Afghanistan, Turkmenistan, Tajikistan, Kazakhstan.
- Trypoxylon (Trypoxylon) shimoyamai** Tsuneki, 1958. Russia: **FE** (PR). – China (SW), Japan (Hon).
- Trypoxylon (Trypoxylon) ussuriense** Kazenas, 1980. Russia: **FE** (PR).
- Trypoxylon (Trypoxylon) varipes** Pérez, 1905 (*T. monticola* Tsuneki, 1956, *T. varipes nasutum* Tsuneki, 1974, *T. varipes nasutum* Tsuneki, 1991, nom. nud.). Russia: **FE** (PR, KU). – Korean Peninsula, Japan (Hon, Kyu, Ryu).

## Subfamily DINETINAE

**P.G. NEMKOV**

- DINETUS** Panzer, 1806 (*Dinetus* Jurine, 1807, nom. praeocc., nec *Dinetus* Panzer, 1806). Type species *Crabro pictus* Panzer, 1794 (= *Crabro pictus* Fabricius, 1793). Number of species: World – 12, Palaeartic – 11, Russia – 1.
- Dinetus pictus** Fabricius, 1793 [*Crabro*] (*Sphex guttatus* Fabricius, 1793, nom. praeocc., nec *S. guttatus* Gmelin, 1790; *Crabro ceraunius* Rossi, 1794). Russia: **EP** (N, C, E, S, NC), **WS** (AL). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan.

## Subfamily EREMIASPHECIINAE

**M.V. MOKROUSOV**

- EREMIASPHECIUM** Kohl, 1897 (*Shetakovia* Gussakovskij, 1930; *Xanthosphecium* Simon Thomas, 1994). Type species *Eremiasphecium schmiedeknechtii* Kohl, 1897. Number of species: World – 16; Palaeartic – 16; Russia – 2.

**Eremiasphecium bicolor** (Gussakovskij, 1930) [Shestakovia]. Russia: **EP** (S). – Turkmenistan, Uzbekistan, Kazakhstan.

**Eremiasphecium desertorum** (Gussakovskij, 1930) [Shestakovia]. Russia: **EP** (S). – Turkmenistan, Uzbekistan.

#### Subfamily MELLININAE

**P.G. NEMKOV**

**MELLINUS** Fabricius, 1790 (*Trachogorytes* R. Bohart, 2000). Type species *Vespa arvensis* Linnaeus, 1758. Number of species: World – 16, Palaearctic – 3, Russia – 3.

**Mellinus arvensis** (Linnaeus, 1758) [Vespa] (*Sphex vagus* Linnaeus, 1758; *Crabro bipunctatus* Fabricius, 1787; *Philanthus quinque maculatus* Fabricius, 1793; *M. pratensis* Jurine, 1807; *M. compactus* Handlirsch, 1888). Russia: **EP** (NW, C, E, NC, CR), **UR**, **WS** (AL), **ES** (IR). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan.

**Mellinus crabroneus** (Thunberg, 1791) [Sphex] (*Crabro sabulosus* Fabricius, 1787, nom. praeocc., nec *Sphex sabulosus* Linnaeus, 1758; *M. ruficornis* Fabricius, 1793; *M. fulvicornis* Fabricius, 1804). Russia: **EP** (NW, C, E, S), **UR**, **WS** (AL), **ES** (IR, BR, ZB), **FE** (AM, PR). – Europe (WE, NE, SE, EE), Turkey, Kyrgyzstan, Kazakhstan, Mongolia, China (NE, NC), Korean Peninsula.

**Mellinus obscurus** Handlirsch, 1888 (*M. tristis* Pérez, 1905). Russia: **FE** (AM, KH, PR, SA, KU). – Mongolia, China (NC, NE, SE), Korean Peninsula, Japan (Hon), Nepal.

#### Subfamily PEMPHREDONINAE

**M.V. MOKROUSOV**

The subfamily is distributed worldwide, mainly in humid regions. Number of taxa: World 43 genera, more than 1100 species, Palaearctic – 22/310, Russia – 17/127.

#### Tribe ENTOMOSERICINI

**ENTOMOSERICUS** Dahlbom, 1845. Type species *Entomericus* [sic] *concinus* Dahlbom, 1845. Number of species: World – 3; Palaearctic – 3; Russia – 1.

**Entomosericus concinnus** Dahlbom, 1845. Russia: **EP** (S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Georgia, Armenia, Turkey, Syria, Israel, Turkmenistan, Kazakhstan.

#### Tribe PEMPHREDONINI

**AMMOPLANELLUS** Gussakovskij, 1931. Type species *Ammoplanus chorasmius* Gussakovskij, 1931. Number of species: World – 17; Palaearctic – 6; Russia – 2.

**Ammoplanellus chorasmius** (Gussakovskij, 1931) [Ammoplanus]. Russia: **EP** (S). – Turkmenistan, Uzbekistan.

**Ammoplanellus simplex** (Gussakovskij, 1951) [Ammoplanus] (*Ammoplanus orbiculatus* Tsuneki, 1972). Russia: **EP** (S). – Europe (SE), N Africa, Israel, Iran, United Arab Emirates, Tajikistan, Kazakhstan, Mongolia, India.

**AMMOPLANUS** Giraud, 1869 (*Hoplocrabron* De Stefani Perez, 1887; *Ceballosia* Giner Marí, 1943, nom. praeocc., nec Mercet, 1921). Type species *Ammoplanus perrisi* Giraud, 1869. Number of species: World – 49; Palaearctic – 32; Russia – 6.

**Ammoplanus gegen** Tsuneki, 1972. Russia: **EP** (S). – Europe (WE, EE), Cyprus, Jordan, Turkmenistan, Tajikistan, Mongolia.

**Ammoplanus kaszabi** Tsuneki, 1972 (*A. crudelis* Marshakov, 1976). Russia: **ES** (S), **UR**, **ES** (IR), **WS** (AL), **FE** (KH). – Europe (WE SE), Turkey, Kazakhstan, Mongolia.

**Ammoplanus marathroicus** (De Stefani Perez, 1887) [Hoplocrabron] (*A. handlirschi* Gussakovskij, 1931; *A. metatarsalis* Gussakovskij, 1931; *A. sibiricus* Gussakovskij, 1931; *A. mongolensis* Tsuneki, 1972). Russia: **EP** (C, E, NC, CR), **UR**, **WS** (AL), **ES** (KR, IR). – Europe (WE, SE, EE), N Africa, Turkey, Syria, Jordan, Israel, Iraq, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NC).

**Ammoplanus perrisi** Giraud, 1869 (*A. wesmaeli* Giraud, 1869; *A. maidli* Gussakovskij, 1931). Russia: **EP** (C, NC). – Europe (WE, SE, EE), N Africa, Turkey, Jordan, Israel, Pakistan.

**Ammoplanus rjabovi** Gussakovskij, 1931. Russia: **EP** (NC). – Europe (SE), Israel.

**Ammoplanus serratus** Tsuneki, 1972. Russia: **WS** (AL). – Mongolia.

**CARINOSTIGMUS** Tsuneki, 1954 (*Perissostigmus* Krombein, 1984). Type species *Stigmus*

*congruus* Walker, 1860. Number of species: World – 35; Palaearctic – 5; Russia – 1.

**Carinostigmus filippovi** (Gussakovskij, 1934) [Stigmus]. Russia: **FE** (KH, PR). – China (SW), Korean Peninsula, Japan (Hok, Hon, Shi).

**CERATOPHORUS** Shuckard, 1837 (*Pemphredon* auct.). Type species *Pemphredon morio* Vander Linden, 1829. Number of species: World – 2; Palaearctic – 2; Russia – 2.

**Ceratophorus clypeata** (Thomson, 1870) [Pemphredon] (*Pemphredon morio* auct.). Russia: **EP** (N, C). – Europe (WE, NE, EE).

**Ceratophorus morio** (Vander Linden, 1829) [Pemphredon] (*C. anthracinus* F. Smith, 1851; *Pemphredon carinata* Thomson, 1870; *P. intermedia* Tsuneki, 1951). Russia: **EP** (N, NW, C, E, NC), **UR**, **FE** (PR, MG). – Europe (WE, NE, SE, EE), Turkey, Iran, Uzbekistan, Kazakhstan, Korean Peninsula, Japan (Hok), N America.

**DIODONTUS** Curtis, 1834 (*Xylocelia* Rohwer, 1915; *Neodiodontus* Tsuneki, 1972; *Corenius* Tsuneki, 1974; *Corenius* Tsuneki, 1991). Type species *Pemphredon tristis* Vander Linden, 1829. Number of species: World – 76; Palaearctic – 47; Russia – 18.

**Diodontus brevilabris** de Beaumont, 1967. Russia: **EP** (C, S, E, NC). – Europe (SE, EE), Turkey, Kyrgyzstan.

**Diodontus changaiensis** Tsuneki, 1972. Russia: **WS** (AL). – Mongolia.

**Diodontus collaris** Tsuneki, 1972. Russia: **WS** (AL), **ES** (KR, IR, ZB). – Kazakhstan, Mongolia.

**Diodontus dziuroo** Tsuneki, 1972 (*D. pygmaeus* Tsuneki, 1972). Russia: **ES** (ZB), **FE** (PR). – Kazakhstan, Mongolia.

**Diodontus gegen** Tsuneki, 1972. Russia: **ES** (BR, ZB). – Mongolia.

**Diodontus handlirschi** Kohl, 1888. Russia: **WS** (AL), **FE** (MG). – Europe (WE, SE), Kyrgyzstan, Kazakhstan, Mongolia.

**Diodontus hyalipennis** Kohl, 1892 (*D. friesei* Kohl, 1901; *D. major gobiensis* Tsuneki, 1972; *D. mongolicus* Tsuneki, 1972; *D. insidiosus* auct.). Russia: **EP** (S, NC), **WS** (AL), **ES** (TU). – Europe (SE, EE), N Africa, Azerbaijan, Iran, Kazakhstan, Mongolia.

**Diodontus insidiosus** Spooner, 1938. Russia: **EP** (C, S), **UR**. – Europe (WE, NE, SE, EE).

**Diodontus kaszabi** Tsuneki, 1972 (*D. monticola* Tsuneki, 1972; *D. obo* Tsuneki, 1972). Russia: **WS** (AL), **ES** (IR, ZB), **FE** (AM, KA, MG). – Mongolia.

**Diodontus kohli** Tsuneki, 1972. Russia: **EP** (S). – Kazakhstan, Mongolia.

**Diodontus kuroo** Tsuneki, 1972. Russia: **EP** (S). – Kazakhstan, Mongolia.

**Diodontus luperus** Shuckard, 1837. Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (KR, IR, YA, ZB). – Europe (C, SE, EE), N Africa, Turkey, Kazakhstan, Mongolia.

**Diodontus major** Kohl, 1901. Russia: **EP** (C, S). – Europe (C, SE, EE).

**Diodontus medius** Dahlbom, 1844 (*D. dahlbomi* A. Morawitz, 1864). Russia: **EP** (N, C, E), **UR**, **WS** (TM, AL), **ES** (IR), **FE** (AM, PR, SA, KA, MG). – Europe (C, NE, SE, EE), Turkey.

**Diodontus minutus** (Fabricius, 1793) [Crabro] (*Xylocelia franclemonti* Krombein, 1939). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, AL), **ES** (KR, IR, ZB), **FE** (PR). – Europe (WE, NE, SE, EE), N Africa, Turkey, Syria, Israel, Iraq, Iran, Kuwait, Afghanistan, Central Asia, Kazakhstan, Mongolia, China (NC), Korean Peninsula, N America.

**Diodontus parvulus** (Radoszkowski, 1877) [Passaloecus]. Russia: **EP** (S). – Central Asia, Kazakhstan.

**Diodontus spinicollis** Gussakovskij, 1933. Russia: **EP** (S). – Iran.

**Diodontus tristis** (Vander Linden, 1829) [Pemphredon]. Russia: **EP** (N, NW, C, E, S), **UR**, **WS** (AL), **ES** (IR, YA, ZB), **FE** (AM). – Europe (WE, NE, SE, EE), Turkey, Iran, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia.

**PASSALOECCUS** Shuckard, 1837 (*Xyloecus* Shuckard, 1837, nom. praeocc., nec Déjean, 1833; *Coeloeccus* C. Verhoeff, 1890; *Heroecus* C. Verhoeff, 1890). Type species *Pemphredon insignis* Vander Linden, 1829. Number of species: World – 40; Palaearctic – 24; Russia – 17.

**Passaloecus borealis** Dahlbom, 1844. Russia: **EP** (N, NW), **WS** (AL), **ES** (IR), **FE** (KH, PR, SA, MG). – Europe (WE, NE, SE, EE), Kazakhstan, N America. Records in **EP** (C, E) and **UR** erroneous.

**Passaloecus brevilabris** Wolf, 1958. Russia: **EP** (C, CR). – Europe (WE, NE, SE, EE).

**Passaloecus clypealis** Faester, 1947 (*P. angustus* Gussakovskij, 1952). Russia: **EP** (N, C, E, NC), **UR**, **WS** (AL), **ES** (IR), **FE** (AM, KH, PR, SA, KU, KA). – Europe (WE, NE, SE, EE), Tajikistan, Uzbekistan,



- Kyrgyzstan, Kazakhstan, China (NC, CC, SE), Korean Peninsula, Japan (Hok, Hon).
- Passaloecus corniger** Shuckard, 1837. Russia: **EP** (N, C, E, S, NC, CR). – Europe (WE, NE, SE, EE), N Africa, Turkey, Kazakhstan, Japan (Hon).
- Passaloecus eremita** Kohl, 1893. Russia: **EP** (N, C, E). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan.
- Passaloecus gracilis** (Curtis, 1834) [Diodontus] (*P. brevicornis* A. Morawitz, 1864). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL). – Europe (WE, NE, SE, EE), N Africa, Abkhazia, Turkey, Iran, Uzbekistan, Kazakhstan, N America.
- Passaloecus hinganicus** Merisuo, 1976. Russia: **ES** (ZB).
- Passaloecus insignis** (Vander Linden, 1829) [Pemphredon] (*P. roettgeni* C. Verhoeff, 1890; *P. shuckardi* Yasumatsu, 1934). Russia: **EP** (NC, CR), **WS** (AL), **FE** (AM, PR). – Europe (WE, NE, SE, EE), Abkhazia, Turkey, Kazakhstan, China (CC, SW), Korean Peninsula, Japan (Hok, Hon). Records in **EP** (N, C, E) and **UR** doubtful.
- Passaloecus koreanus** Tsuneki, 1974 (*P. iwatai* Merisuo, 1976). Russia: **FE** (PR). – Korean Peninsula, Japan (Hok, Hon).
- Passaloecus longiceps** Merisuo, 1973. Russia: **EP** (N).
- Passaloecus mongolicus** Tsuneki, 1972 (*P. altaicus* Merisuo, 1976). Russia: **WS** (AL), **ES** (IR, ZB), **FE** (KH, PR, SA). – Kazakhstan, Mongolia, Japan (Hok, Hon).
- Passaloecus monilicornis** Dahlbom, 1842. Russia: **EP** (N, NW, C, E), **UR**, **WS** (TK, AL), **ES** (KR, IR, ZB), **FE** (AM, KH, PR, SA, KU, KA, MG). – Europe (WE, NE, SE, EE), Kazakhstan, Mongolia, China (NE, SW, WP, SE), Korean Peninsula, Japan (Hok, Hon, Kyu), N America.
- Passaloecus nipponicola** Tsuneki, 1955. Russia: **FE** (KH, PR). – Japan (Hon).
- Passaloecus pictus** Ribaut, 1952. Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Abkhazia, Georgia, Turkey, Syria, Iran, S America.
- Passaloecus ribauti** Merisuo, 1974. Russia: **EP** (CR). – Europe (WE, SE), N Africa, Turkey, Syria.
- Passaloecus singularis** Dahlbom, 1844 (*P. tenuis* A. Morawitz, 1864; *P. gertrudis* Krombein, 1938; *P. gracilis* auct.). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **FE** (PR). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan, Japan (Hon), N America.
- Passaloecus turionum** Dahlbom, 1844 (*P. borealis* auct.). Russia: **EP** (NW, C, E, NC), **UR**. – Europe (WE, NE, SE, EE), Turkey, Tajikistan, Kyrgyzstan, Kazakhstan.
- PEMPHREDON** Latreille, 1796 (*Cemonus* Panzer, 1806; *Cemonus* Jurine, 1807; *Dineurus* Westwood, 1837; *Diphlebus* Westwood, 1840; *Chevrieria* Kohl, 1883; *Susanowo* Tsuneki, 1972; *Sinostigma* Hong, 1984). Type species *Crabro lugubris* Fabricius, 1793. Number of species: World – 44; Palaearctic – 28; Russia – 16.
- Pemphredon austriaca** (Kohl, 1888) [Diphlebius] (*P. coracina* Valkeila, 1972; *P. tenera* Valkeila, 1972; *P. nescia* Merisuo, 1972). Russia: **EP** (C, S, NC, CR). – Europe (WE, SE, EE), N Africa, Abkhazia, Azerbaijan, Turkey.
- Pemphredon baltica** Merisuo, 1972 (*P. fennica* Merisuo, 1972). Russia: **EP** (N, C), **UR**, **WS** (AL), **FE** (KH, PR, KA). – Europe (WE, SE, NE), N America.
- Pemphredon enslini** (Wagner, 1932) [Dineurus] (*P. austriaca* auct.). Russia: **EP** (C, E). – Europe (WE, SE).
- Pemphredon fabricii** (M. Müller, 1911) [Cemonus] (*P. lethifer* auct.). Russia: **EP** (C, S, NC). – Europe (WE, SE), Turkey, Kazakhstan, Japan (Hon).
- Pemphredon flavistigma** Thomson, 1874. Russia: **EP** (NW, C, E), **UR**, **ES** (KR, IR, BR), **FE** (KH, PR, SA). – Europe (WE, NE, SE, EE), Korean Peninsula, Japan (Hok, Hon).
- Pemphredon inornata** Say, 1824 (*Cemonus shuckardi* A. Morawitz, 1864; *C. dentatus* Puton, 1871; *P. tenax* W. Fox, 1892). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TK, KM, AL), **ES** (KR, IR, BR, ZB), **FE** (AM, KH, PR, SA, KU, KA, MG). – Europe (WE, NE, SE, EE), N Africa, Turkey, Abkhazia, Central Asia, Kazakhstan, Mongolia, China (NE, NC, CC), Korean Peninsula, Japan (Hok, Hon), N America.
- Pemphredon japonica** Matsumura, 1912. Russia: **FE** (PR, SA, KU). – Nepal, Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Pemphredon krombeini** Tsuneki, 1960 (*P. mandibularis* Tsuneki, 1951, nom. praeocc., nec Cresson, 1865). Russia: **FE** (SA). – Japan (Hok, Hon).
- Pemphredon lethifer** (Shuckard, 1837) [Cemonus] (*Cemonus strigatus* Chevrier, 1870; *Diphlebus fuscatus* A. Wagner, 1918; *D. littoralis* A. Wagner, 1918; *D. neglectus* A. Wagner, 1918; *D. minutus* A. Wagner, 1918; *P. brevipetiolata* A. Wagner, 1932; *P. gemina* Valkeila, 1972; *P. trichogastor* Valkeila, 1972). Russia: **EP** (N, C, E, S, NC, CR), **UR**, **WS** (NS, AL), **FE** (AM, KH, PR, SA, KU). – Europe (WE, NE,

SE, EE), N Africa, Abkhazia, Azerbaijan, Turkey, Israel, Iraq, Iran, Tajikistan, Uzbekistan, Kyrgyzstan, Afghanistan, Kazakhstan, Mongolia, China (NE, NC, CC, SE), Korean Peninsula, Japan (Hok, Hon), N America.

**Pemphredon lugens** Dahlbom, 1842. Russia: **EP** (N, NW, C, E), **UR**, **WS** (AL), **ES** (KR, IR), **FE** (MG). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan.

**Pemphredon lugubris** (Fabricius, 1793) [Crabro] (*P. concolor* Say, 1824; *P. fuscipennis* Stephens, 1829; *P. nitida* Stephens, 1829; *P. ocellaris* Gimmerthal, 1836; *P. luctuosa* Shuckard, 1837; *P. morio* Cresson, 1865, nom. praeocc., nec Vander Linden, 1829; *P. cressoni* Dalla Torre, 1897; *P. provancheri* Dalla Torre, 1897; *P. provancheri* Ashmead, 1899, nom. praeocc., nec Dalla Torre, 1897; *P. tinctipennis* Cameron, 1908; *P. shawii* Rohwer, 1917; *P. pacifica* Gussakovskij, 1932). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (TK, AL), **ES** (IR, ZB), **FE** (KH, PR, SA, KU, KA, MG). – Europe (WE, NE, SE, EE), Turkey, Iran, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NE, CC), Korean Peninsula, Japan (Hok, Hon), N America.

**Pemphredon montana** Dahlbom, 1844 (*P. angularis* W. Fox, 1892). Russia: **EP** (N, NW, C, E), **UR**, **ES** (KR, IR, BR, YA), **FE** (AM, KH, PR, SA, KU, KA, MG). – Europe (WE, NE, SE, EE), Kazakhstan, China (NE), Korean Peninsula, Japan (Hok, Hon), N America.

**Pemphredon mortifer** Valkeila, 1972 (*P. bipartior* W. Fox, 1892; *P. harbecki* Rohwer, 1910; *P. rugifer* auct.). Russia: **EP** (NW, C, E, S, NC), **UR**, **ES** (IR), **FE** (KH, PR, SA). – Europe (WE, NE, SE, EE), Azerbaijan, Turkey, Korean Peninsula, Japan (Hok), N America.

**Pemphredon podagrica** Chevrier, 1870 (*P. laeviceps* Gussakovskij, 1932). Russia: **FE** (PR, SA). – Europe (WE, SE, EE), Japan (Hok, Hon).

**Pemphredon rugifer** (Dahlbom, 1844) [Cemonus] (*Sphex unicolor* Panzer, 1798, nom. praeocc., nec Fabricius, 1787; *Cenonmus* [sic] *pilosus* Gimmerthal, 1836, nom. oblitum; *Cemonus solivagus* Bondroit, 1932; *P. cythica* Valkeila, 1972; *P. punctifer* Merisuo, 1972). Russia: **EP** (C, E, S, NC), **UR**, **WS** (NS, AL), **ES** (KR), **FE** (SA). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan, China (NE, SW), Korean Peninsula, Japan (Hon), N America.

**Pemphredon wesmaeli** (A. Morawitz, 1864) [Cemonus] (*P. scotica* Perkins, 1929; *P. rugifer* auct.).

Russia: **EP** (N, NW, C, E), **UR**. – Europe (WE, NE, SE, EE), Kazakhstan.

**POLEMISTUS** de Saussure, 1892. Type species *Polemistus macilentus* de Saussure, 1892. Number of species: World – 37; Palaearctic – 2; Russia – 1.

**Polemistus abnormis** (Kohl, 1888) [Passalocus]. Russia: **EP** (C), **WS** (AL), **FE** (KH, PR). – Europe (WE, SE), Kazakhstan, China (CC), Korean Peninsula, Japan (Hok, Hon), SE Asia.

**SPILOMENA** Shuckard, 1838 (*Celia* Shuckard, 1837, nom. praeocc., nec Zimmermann, 1832; *Microglossa* Rayment, 1930, nom. praeocc., nec Voight, 1831; *Microglossella* Rayment, 1935; *Taialia* Tsuneki, 1971). Type species *Stigmus troglodytes* Vander Linden, 1829. Number of species: World – 87; Palaearctic – 22; Russia – 7.

**Spilomena beata** Blüthgen, 1953 (*S. expectata* Valkeila, 1957). Russia: **EP** (C, S), **UR**, **WS** (AL). – Europe (WE, NE, SE, EE), Georgia, Kazakhstan.

**Spilomena curruca** (Dahlbom, 1844) [Celia] (*Spilomena pulawskii* Dollfuss, 1983; *S. nikkoensis* Tsuneki, 1971). Russia: **EP** (N, E), **UR**, **WS** (AL), **FE** (AM, PR, KU). – Europe (WE, NE, SE, EE), Japan (Hon).

**Spilomena dedzeli** Tsuneki, 1971. Russia: **FE** (KU). – Japan (Hon).

**Spilomena differens** Blüthgen, 1953. Russia: **EP** (N). – Europe (WE, NE, EE), Estonia.

**Spilomena enslini** Blüthgen, 1953. Russia: **EP** (E), **UR**, **WS** (AL). – Europe (WE, NE, EE), Kazakhstan.

**Spilomena mocsaryi** Kohl, 1898 (*S. capitata* Gussakovskij, 1931; *S. zavadili* Šnoflák, 1942). Russia: **EP** (C, S, CR), **UR**. – Europe (C, SE, EE), Georgia, Cyprus, Turkey, Syria, Jordan, Izrael, United Arab Emirates, Central Asia.

**Spilomena troglodytes** (Vander Linden, 1829) [Stigmus] (*Stigmus minutissimus* Radoszkowski, 1877; *Spilomena vagans* Blüthgen, 1953). Russia: **EP** (NW, C, NC, CR), **UR**, **FE** (PR). – Europe (WE, NE, SE, EE), N Africa, Abkhazia, Georgia, Turkey, Israel, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan, N America.

**STIGMUS** Panzer, 1804 (*Antronius* Zetterstedt, 1838; *Gonostigmus* Rohwer, 1911; *Atopostigmus* Krombein, 1973). Type species *Stigmus pendulus* Panzer, 1804. Number of species: World – 25; Palaearctic – 9; Russia – 7.

- Stigmus convergens** Tsuneki, 1954 (*S. solskyi*: Nemkov, 1986; *S. pendulus*: Mokrousov, 2009). Russia: **FE** (KU). – Japan (Hok, Hon).
- Stigmus eurasiaticus** Mokrousov, 2017. Russia: **EP** (N, C, E), **UR**, **WS** (AL), **ES** (IR), **FE** (KH, PR). – China (SE), Korean Peninsula.
- Stigmus japonicus** Tsuneki, 1954. Russia: **FE** (AM, KH, PR, SA, KU). – Korean Peninsula, Japan (Hok, Hon).
- Stigmus munakatai** Tsuneki, 1954. Russia: **FE** (PR). – Japan (Hok, Hon, Kyu).
- Stigmus pendulus** Panzer, 1804 (*S. ater* Jurine, 1807). Russia: **EP** (C, E, NC), **UR**. – Europe (WE, NE, SE, EE).
- Stigmus quadriceps** Tsuneki, 1954. Russia: **FE** (KU). – Japan (Hok, Hon).
- Stigmus solskyi** A. Morawitz, 1864 (*S. europaeus* Tsuneki, 1954; *S. verhoeffi* Tsuneki, 1954). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (AL). – Europe (WE, NE, SE, EE), N Africa, Turkey, Kazakhstan.
- TZUSTIGMUS** Finnamore, 1995. Type species *Tzustigmus syam* Finnamore, 1995. Number of species: World – 8; Palaeartic – 3; Russia – 1.
- Tzustigmus rhinocerus** (Budrys, 1987) [Carinostigmus]. Russia: **FE** (KH, PR). – Korean Peninsula.

#### Tribe PSENINI

- MIMESA** Shuckard, 1937 (*Aporia* Wesmael, 1852, nom. praeocc., nec Hübner, 1819; *Aporina* Gussakovskij, 1937, nom. praeocc., nec Fuhrmann, 1902). Type species *Trypoxylon equestre* Fabricius, 1804. Number of species: World – 76; Palaeartic – 40; Russia – 15.
- Mimesa beckeri** Tournier, 1889. Russia: **EP** (S). – Kazakhstan, Mongolia.
- Mimesa bicolor** (Jurine, 1807) [Psen]. Russia: **EP** (N, NW, C, E, S, CR), **UR**, **WS** (NS, AL), **ES** (KR, IR, ZB), **FE** (PR, SA). – Europe (WE, NE, SE, EE), Israel, Kyrgyzstan, Kazakhstan, China (NC).
- Mimesa breviventris** F. Morawitz, 1891. Russia: **EP** (S). – Kazakhstan, China (NE).
- Mimesa bruxellensis** Bondroit, 1934 (*Psen rossicus* Gussakovskij, 1937). Russia: **EP** (NW, C, E), **UR**. – Europe (WE, NE, SE, EE), Kazakhstan.
- Mimesa caucasica** Maidl, 1914. Russia: **EP** (C, S, NC), **UR**. – Europe (EE), Georgia, Azerbaijan, Iran, Central Asia, Kazakhstan, Mongolia, China (NC).
- Mimesa crassipes** A. Costa, 1871 (*M. carbonaria* A. Costa, 1867, nom. praeocc., nec F. Smith, 1865; *M. ochroptera* A. Costa, 1871; *M. costae* Ed. André, 1888; *M. helvetica* Tournier, 1889; *M. lixivia* Tournier, 1889; *M. pannonica* Maidl, 1914). Russia: **EP** (C, E, S, NC, CR), **WS** (AL). – Europe (WE, SE, EE), Georgia, Turkey, Iran, Kyrgyzstan, Kazakhstan, China (NW).
- Mimesa equestris** (Fabricius, 1804) [Trypoxylon] (*Psen basalis* Stephens, 1829). Russia: **EP** (N, NW, C, E), **UR**, **WS** (NS, AL), **ES** (KR, IR, YA, ZB), **FE** (KH, PR, SA, KA, MG). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan, Korean Peninsula.
- Mimesa grandii** Maidl, 1933 (*Psen carinatus* Gussakovskij, 1937; *P. sciaphilus* Arcidiacono, 1965). Russia: **EP** (S). – Europe (WE, SE, EE), N Africa, Turkey, Iran, Turkmenistan, Kazakhstan, China (NC).
- Mimesa gussakovskiji** (de Beaumont, 1941) [Psen] (*Psen costae*: Gussakovskij, 1937). Russia: **EP** (E, S). – Europe (SE, EE), Kazakhstan.
- Mimesa kurzenkoi** Budrys, 1988. Russia: **FE** (PR, KU).
- Mimesa lutaria** (Fabricius, 1787) [Sphex] (*M. shuckardi* Wesmael, 1852; *M. basirufa* Packard, 1867; *M. nebrascensis* H. Smith, 1908; *Psen dispar* Gussakovskij, 1937; *M. mallochi* Finnamore, 1980). Russia: **EP** (NW, C, E), **UR**, **WS** (AL), **ES** (KR, IR, YA), **FE** (AM, KH, PR, SA, KU, KA, MG). – Europe (WE, NE, SE, EE), Turkey, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NE), Korean Peninsula, Japan (Hok, Hon, Shi), N America.
- Mimesa nigrita** Eversmann, 1849 (*M. brevis* Maidl, 1914). Russia: **EP** (S), **UR**, **WS** (AL), **ES** (KR, IR). – Europe (WE, SE, EE), Turkey, Syria, Uzbekistan, Kazakhstan, Mongolia.
- Mimesa punctipleuris** (Gussakovskij, 1937) [Psen] (*Psen angulicollis* Tsuneki, 1972). Russia: **WS** (AL), **ES** (KR, ZB), **FE** (PR). – Kyrgyzstan, Kazakhstan, Mongolia.
- Mimesa sibirica** (de Beaumont, 1937) [Psen] (*Psen albopilosus* Tsuneki, 1972). Russia: **ES** (IR, BR, ZB). – Kazakhstan, Mongolia, China (NC).
- Mimesa vindobonensis** Maidl, 1914 (*Psen bidentatus* Gussakovskij, 1937, nom. praeocc., nec Cameron, 1908). Russia: **EP** (C, S), **WS** (AL), **ES** (KR, BR, ZB). – Europe (WE, EE), Turkey, Kazakhstan, Mongolia, China (NC).
- MIMUMESA** Malloch, 1933. Type species *Psen niger* Packard, 1867. Number of species: World – 32; Palaeartic – 13 (1 introduced); Russia – 7.

- Mimumesa atratina** (F. Morawitz, 1891) [Mimesa] (*Mimesa carbonaria* Tournier, 1889, nec F. Smith, 1865; *M. belgica* Bondroit, 1932; *M. longula* Gussakovskij, 1932; *Psen sameshimai* Yasumatsu, 1937). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (TM, AL), **ES** (KR, BR, ZB), **FE** (KH, PR, SA, KU, KA, MG). – Europe (WE, NE, SE, EE), Turkey, Kyrgyzstan, Kazakhstan, Mongolia, China (NE, NC, NW), Korean Peninsula, Japan (Hon, Kyu), N America.
- Mimumesa beaumonti** (van Lith, 1949) [Psen]. Russia: **EP** (N, NW, C, E), **UR**, **WS** (TK), **ES** (IR), **FE** (PR). – Europe (WE, NE, EE), Kazakhstan.
- Mimumesa dahlbomi** (Wesmael, 1852) [Mimesa]. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (IR), **FE** (AM, KH, PR, SA, KU, KA, MG). – Europe (WE, NE, SE, EE), Turkey, Kyrgyzstan, Kazakhstan, Mongolia, China (NE, NC, NW, CC, WP), Korean Peninsula, Japan (Hon).
- Mimumesa littoralis** (Bondroit, 1934) [Mimesa] (*Psen fulvitaris* Gussakovskij, 1934; *Mimesa celtica* Spooner, 1948). Russia: **EP** (N, NW, C, S, NC), **UR**, **WS** (AL), **ES** (TU, IR, ZB), **FE** (AM, KH, PR, SA, MG). – Europe (WE, NE, SE, EE), Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NE), Korean Peninsula, Japan (Hok, Hon), India.
- Mimumesa sibiricana** R. Bohart, 1976 (*Psen sibiricus* Gussakovskij, 1937, nom. praeocc., nec de Beaumont, 1937). Russia: **WS** (AL), **ES** (IR, YA, ZB), **FE** (KA). – Europe (WE, Mongolia). Record in **UR** doubtful.
- Mimumesa spooneri** (Richards, 1948) [Mimesa]. Russia: **EP** (C). – Europe (WE, NE, EE).
- Mimumesa unicolor** (Vander Linden, 1829) [Psen] (*Mimesa borealis* Dahlbom, 1842; *M. palliditarsis* E. Saunders, 1904; *Psen oresterus* van Lith, 1976). Russia: **EP** (N, C, E, S, NC), **UR**, **WS** (NS, AL), **ES** (KR, IR, YA, ZB). – Europe (WE, NE, SE, EE), Azerbaijan, Turkey, Israel, Iraq, Afghanistan, Pakistan, Central Asia, Kazakhstan, China (NE, NC, NW, WP).
- PSEN** Latreille, 1796 (*Psenus* Rafinesque, 1815; *Psenia* Stephens, 1829; *Dahlbomia* Wissmann, 1849; *Mesopora* Wesmael, 1852; *Caenopsen* Cameron, 1899). Type species *Crabro ater* Olivier, 1792. Number of species: World – 95; Palaeartic – 25; Russia – 9.
- Psen affinis** Gussakovskij, 1937 (*P. hakusanus* Tsuneki, 1959). Russia: **FE** (AM, PR, SA, KU). – China (SW, SE), Korean Peninsula, Japan (Hok, Hon, Shi).
- Psen ater** (Olivier, 1792) [Crabro] (*Sphex ater* Fabricius, 1794; *Pelopoeus unicolor* Fabricius, 1804; *Pelopoeus compressicornis* Fabricius, 1804; *Psen atratus* Jurine, 1807; *Psen serraticornis* Jurine, 1807). Russia: **EP** (C, S, CR), **UR**, **WS** (AL), **ES** (KR, IR, BR, ZB), **FE** (AM, KH, PR, KU). – Europe (WE, NE, SE, EE), Turkey, Uzbekistan, Kazakhstan, Mongolia, China (NE, NW), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Psen aurifrons** Tsuneki, 1959 (secondary homonym of *P. aurifrons* (Taschenberg, 1875), now in *Pseneo Malloch*; *P. caocinnus* Tsuneki, 1973). Russia: **FE** (AM, KH, PR, SA, KU). – China (NC), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu).
- Psen bettoh** Tsuneki, 1977. Russia: **FE** (KU). – China (SE), Japan (Hok, Hon).
- Psen foveolatus** Budrys, 1986. Russia: **FE** (PR).
- Psen koreanus** Tsuneki, 1959 (*P. ohnonis* Tsuneki, 1973). Russia: **FE** (PR). – China (SE), Korean Peninsula, Japan (Hon, Ryu).
- Psen miyagino** Tsuneki, 1983 (*P. exorientis* Budrys, 1988). Russia: **FE** (PR). – Japan (Hon).
- Psen seminitidus** van Lith, 1965 (*Mimesa kohli* Gussakovskij, 1934, secondary homonym of *Psen kohli* W. Fox, 1898; *P. alticola* Tsuneki, 1977; *P. takanensis* Tsuneki, 1978). Russia: **ES** (ZB), **FE** (AM, PR, SA, KU). – China (NC, NW, WP, SW, SE), Korean Peninsula, Japan (Hok, Hon).
- Psen ussuriensis** van Lith, 1959 (*Mimesa orientalis* Gussakovskij, 1932, secondary homonym of *Psen orientalis* Cameron, 1890; *P. mandibularis* Tsuneki, 1959; *P. tsunekii* van Lith, 1965). Russia: **FE** (AM, PR). – China (NE), Korean Peninsula, Japan (Hok, Hon, Shi).
- PSENEO** Malloch, 1933 (*Punctipsen* van Lith, 1968). Type species *Psen kohli* W. Fox, 1898. Number of species: World – 26; Palaeartic – 1.
- Pseneo exaratus** (Eversmann, 1849) [Mimesa] (*Mimesa superba* Tournier, 1889; *M. picicornis* F. Morawitz, 1892). Russia: **EP** (C, E, NC), **UR**, **WS** (TK, KM, AL), **ES** (IR), **FE** (AM, PR). – Europe (WE, SE, EE), Abkhazia, Georgia, Kazakhstan, China (SE), Korean Peninsula, Japan (Hok, Hon, Shi, Ryu), India.
- PSENULUS** Kohl, 1897 (*Neofoxia* Viereck, 1901; *Stenomellinus* W. Schulz, 1911; *Eopsenus* Gussakovskij, 1934; *Nipponopsen* Yasumatsu, 1938). Type species *Psen fuscipennis* Dahlbom, 1843.

Number of species: World – 160; Palaearctic – 34; Russia – 15.

- Psenulus anomoneuræ** (Yasumatsu, 1938) [Nipponopsen] (*P. mandibularis* Tsuneki, 1959). Russia: **FE** (KH, PR, SA, KU). – Korean Peninsula, Japan (Hon, Kyu).
- Psenulus carinifrons** (Cameron, 1902) [Psen]. Russia: **EP** (NC). – Europe (SE), Turkey, Pakistan, China (SW), Korean Peninsula, Japan (Hon, Ryu), SE Asia, India, Australia.
- Psenulus chevrieri** (Tournier, 1889) [Psen] (*P. brevitaris* Merisuo, 1937; *P. pallipes* auct.). Russia: **EP** (C, E, S, CR), **UR**. – Europe (WE, NE, SE, EE), Armenia.
- Psenulus concolor** (Dahlbom, 1843) [Psen] (*Psen intermedius* Schenck, 1857; *P. ambiguus* Schenck, 1857). Russia: **EP** (N, C, E, NC, CR). – Europe (WE, NE, SE, EE), Turkey. Records in **UR** and Japan (Hok, Hon) doubtful.
- Psenulus fulvicornis** (Schenck, 1857) [Psen] (*P. schencki* auct.). Russia: **EP** (NC). – Europe (WE, C, SE, EE), N Africa, Turkey, Syria.
- Psenulus fuscipennis** (Dahlbom, 1843) [Psen] (*Psen nylanderi* Dahlbom, 1845; *P. dufouri* Dahlbom, 1845; *P. nigratus* Brischke, 1862; *P. procerus* A. Costa, 1867). Russia: **EP** (N, C, E, S, NC, CR), **UR**, **FE** (PR). – Europe (WE, NE, SE, EE), Georgia, Turkey, Korean Peninsula, Japan (Hok, Hon), India.
- Psenulus ghilarovi** Budrys, 1988. Russia: **FE** (KH, PR).
- Psenulus laevigatus** (Schenck, 1857) [Psen] (*Psen distinctus* Chevrier, 1870; *Psenulus fuscipes* Tsuneki, 1959). Russia: **EP** (C, E, NC, CR), **ES** (ZB), **FE** (PR, SA, KU). – Europe (WE, SE, EE), Turkey, Korean Peninsula, Japan (Hok, Hon).
- Psenulus lubricus** (Pérez, 1905) [Psen]. Russia: **FE** (SA, KU). – China (SW), Japan (Hok, Hon, Shi).
- Psenulus maculipes** Tsuneki, 1959. Russia: **FE** (KU). – Japan (Hon).
- Psenulus meridionalis** de Beaumont, 1937. Russia: **EP** (C, E, S, NC). – Europe (WE, SE, EE), Armenia, Turkey, Syria, Jordan, Iraq, Iran, Turkmenistan.
- Psenulus nikkoensis** Tsuneki, 1959. Russia: **FE** (KU). – Japan (Hok, Hon, Kyu).
- Psenulus pallipes** (Panzer, 1798) [Sphex] (*Trypoxylon atratum* Fabricius, 1804; *Psen montanus* A. Costa, 1861; *P. haemorrhoidalis* A. Costa, 1867; *P. minutus* Tournier, 1889; *P. nigricornis* Tournier, 1889; *P. pygmaeus* Tournier, 1889; *Psenulus rubicola* Harttig, 1931; *P. puncticeps* Gussakovskij, 1932, secondary

homonym of *Psen puncticeps* Cameron, 1907; *P. gussakovskij* van Lith, 1973). Russia: **EP** (N, C, E, S, NC, CR), **UR**, **WS** (TK, AL), **ES** (IR), **FE** (AM, KH, PR, SA, KU, KA). – Europe (WE, NE, SE, EE), Abkhazia, Armenia, Turkey, Iran, Kazakhstan, China (NC, SW), Korean Peninsula, Japan (Hok, Hon), N America.

**Psenulus schencki** (Tournier, 1889) [Psen] (*Psen simplex* Tournier, 1889; *P. longulus* Tournier, 1889). Russia: **EP** (C, E, S, NC, CR). – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey. Records in **WS** (AL) doubtful.

**Psenulus tanakai** Tsuneki, 1959. Russia: **FE** (PR). – Japan (Hon).

#### Subfamily PHILANTHINAE

YU.N. DANILOV AND M.V. MOKROUSOV

#### Tribe CERCERINI

**CERCERIS** Latreille, 1802 (*Apiraptrix* Shestakov, 1923; *Bucerceris* Minkiewicz, 1934; *Stercobata* Gussakovskij, 1935; *Apicerceris* Pate, 1937). Type species *Philanthus ornatus* Fabricius, 1790 [= *Sphex rybyensis* Linnaeus, 1771]. Number of species: World – about 860; Palaearctic – about 270; Russia – 62.

**Cerceris adelpha** Kohl in Schletterer, 1887 (*C. associa* Kohl, 1898). Russia: **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR). – Mongolia, China (NE, NC), Korean Peninsula.

**Cerceris albicolor** Shestakov, 1918. Russia: **EP** (S), **WS** (AL). – Europe (EE), Azerbaijan, Turkey, Turkmenistan, Kazakhstan.

**Cerceris albofasciata** Rossi, 1790 [Vespa] (*C. lucuosa* A. Costa, 1867; *C. navitatis* F. Smith, 1873; *C. cribrata* Mocsáry, 1879). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (NS, AL), **ES** (KS, KR, BR, ZB), **FE** (PR). – Europe (WE, SE, EE), Turkey, Iran, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NE, NC, SE), Korean Peninsula, Japan (Hok, Hon, Kyu, Ryu).

**Cerceris angelica** Kazenas, 1977. Russia: **EP** (S). – Turkmenistan, Uzbekistan, Kazakhstan.

**Cerceris angustirostris** Shestakov, 1918. Russia: **EP** (CR), **WS** (AL). – Europe (EE), Kazakhstan.

**Cerceris apakensis** Tsuneki, 1961. Russia: **ES** (ZB). – Mongolia, China (NC).

- Cerceris arenaria** (Linnaeus, 1758) [Sphex] (*C. striolata* Schletterer, 1887; *C. flavescens* Schletterer, 1889; *C. stecki* Schletterer, 1889). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR, WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, ZB), **FE** (AM, PR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iran, Central Asia, Kazakhstan, Mongolia, China (NE), Korean Peninsula, Japan (Hon, Ryu).
- Cerceris bicincta** Klug in Waltl, 1835 (*C. quadrimaculata* Dufour, 1849; *C. leucozonica* Schletterer, 1887; *C. schulthessi* Schletterer, 1889). Russia: **EP** (C, S, CR), **UR, WS** (OM, NS, AL), **ES** (KS), **FE** (KH, PR). – Europe (WE, SE, EE), N Africa, Turkey, Israel, Afghanistan, Pakistan, Central Asia Kazakhstan, Mongolia, China (NE, NC), Korean Peninsula.
- Cerceris bracteata** Eversmann, 1849 (*C. penicillata* Mocsáry, 1879; *C. mirabilis* Shestakov, 1927). Russia: **EP** (C, E, S, CR), **UR, WS** (OM, NS, AL). – Europe (WE, SE, EE), Turkey, Iran, Turkmenistan, Uzbekistan, Kazakhstan, China (NW).
- Cerceris bupresticida** Dufour, 1841 (*C. argentifrons* Lepeletier de Saint Fargeau, 1845; *C. mixta* Radoszkowski, 1877; *C. quadripunctata* Radoszkowski, 1877). Russia: **EP** (E, S, NC, CR), **UR, WS** (AL). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Jordan, Lebanon, Israel, Iraq, Iran, Afghanistan, Central Asia, Kazakhstan, Mongolia, China (NE, NC).
- Cerceris circularis** (Fabricius, 1804) [Philanthus] (*C. dacica* Schletterer, 1887). Russia: **EP** (C, S, NC, CR), **UR, WS** (AL). – Europe (WE, SE, EE), N Africa, Armenia, Turkey, Syria, Israel, Iran, Turkmenistan, Uzbekistan, Kazakhstan, Mongolia.
- Cerceris conica** Shestakov, 1918. Russia: **EP** (NC). – Armenia, Turkey, Turkmenistan.
- Cerceris coreensis** Tsuneki, 1961. Russia: **FE** (PR). – Korean Peninsula.
- Cerceris cupes** Shestakov, 1918 (*C. pulawskii* Kazenas, 1972, nom. praeocc., nec Tsuneki, 1971; *C. kazenasi* Pulawski, 1976). Russia: **WS** (AL). – Turkey, Central Asia, Kazakhstan.
- Cerceris dorsalis** Eversmann, 1849 (*C. solskii* Radoszkowski, 1877; *C. nobilis* Radoszkowski, 1877; *C. excavata* Schletterer, 1889; *C. caspica* F. Morawitz, 1891). Russia: **EP** (C, S, NC), **UR, WS** (AL). – Europe (EE), Armenia, Turkey, Iran, Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NC).
- Cerceris elegans** Evermann, 1849. Russia: **UR**. – Kazakhstan.
- Cerceris errata** Shestakov, 1918. Russia: **EP** (S). – Turkmenistan, Uzbekistan, Kazakhstan.
- Cerceris eryngii** Marquet, 1875 (*C. haueri* Schletterer, 1887; *C. robusta* Shestakov, 1915; *C. prahenda* Kazenas, 1978). Russia: **EP** (S, CR), **UR, WS** (AL). – Europe (WE, SE, EE), N Africa, Turkey, Israel, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- Cerceris eversmanni** W. Schulz, 1912 (*C. cornuta* Eversmann, 1849, secondary homonym of *C. cornuta* (Fabricius, 1787); *C. caucasica* Shestakov, 1915). Russia: **EP** (NC, CR), **UR, WS** (TK, NS, KM, AL), **ES** (TU, KR, IR). – Europe (WE, SE, EE), Georgia, Azerbaijan, Turkey, Kazakhstan, Mongolia, China (NE).
- Cerceris falcifera** Tsuneki, 1961. Russia: **ES** (ZB). – China (NC).
- Cerceris fimbriata** (Rossi, 1790) [Crabro] (*C. pallidopicta* Radoszkowski, 1877; *C. polita* Schletterer, 1889; *C. cogens* Kohl, 1916). Russia: **EP** (C, S), **UR**. – Europe (WE, SE, EE), N Africa, Georgia, Armenia, Turkey, Syria, Israel, Afghanistan, Pakistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia.
- Cerceris flavicornis** Brullé, 1833 (*C. conigera* Dahlbom, 1845). Russia: **EP** (S, NC, CR), **UR**. – Europe (WE, SE, EE), Georgia, Turkey, Israel, Central Asia, Kazakhstan, Mongolia, China (NW).
- Cerceris flavilabris** (Fabricius, 1793) [Hylaeus] (*C. aurita* Latreille, 1805; *C. ferreri* Vander Linden, 1829; *C. laminata* Eversmann, 1849). Russia: **EP** (C, E, S, NC, CR), **UR, WS** (OM, NS, AL), **ES** (KS). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, China (NC).
- Cerceris fodiens** Eversmann, 1849 (*C. charusini* F. Morawitz, 1891; *C. sareptana* Schletterer, 1887; *C. opalipennis* Kohl, 1888; *C. shur* Shestakov, 1918). Russia: **EP** (S, NC, CR), **UR, WS** (AL). – Europe (EE), Azerbaijan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- Cerceris fulvipes** Eversmann, 1849 (*C. shaman* Shestakov, 1918). Russia: **ES** (KR, IR, ZB). – Kazakhstan, China (WP).
- Cerceris hohlbecki** Shestakov, 1914 (*C. fragosa* Kohl, 1916). Russia: **EP** (S, NC). – Armenia, Central Asia, Kazakhstan.
- Cerceris hortivaga** Kohl, 1880. Russia: **FE** (AM, PR, KU). – Europe (WE, SE, EE), China (NE, NC), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu).

- Cerceris impercepta** de Beaumont, 1950. Russia: **EP** (S), **WS** (AL). – Europe (C, E), Kazakhstan.
- Cerceris interrupta** (Panzer, 1799) [Philanthus] (*C. labiata* (Fabricius, 1793), secondary homonym of *C. labiata* (Olivier, 1792); *C. peninsularis* Mercet, 1903). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (NS, AL), **ES** (KR). – Europe (WE, SE, EE), Turkey, Kazakhstan.
- Cerceris jakowleffi** Kohl, 1898 (*C. pulawskii* Tsuneki, 1971). Russia: **ES** (IR, BR, ZB). – Mongolia, China (NC)
- Cerceris kaszabi** Tsuneki, 1971. Russia: **ES** (KR, IR, BR, YA, ZB), **FE** (AM, PR, SA). – Mongolia, China (NE).
- Cerceris kuznetzovi** Kazenas, 1984. Russia: **EP** (S). – Uzbekistan, Kazakhstan.
- Cerceris lunata** A. Costa, 1867 (*C. dorsalis* Dufour, 1849, nom. praeocc., nec Eversmann, 1849; *C. funerea* A. Costa, 1867). Russia: **EP** (C, S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Armenia, Turkey, Syria, Israel, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- Cerceris manchuriana** Tsuneki, 1961. Russia: **FE** (PR). – China (NE).
- Cerceris manflava** Tsuneki, 1971 (*C. flava* Tsuneki, 1961, nom. praeocc., nec Mochi, 1939). Russia: **FE** (AM, PR). – Mongolia, China (NC).
- Cerceris media** Klug, 1835 (*C. capitata* F. Smith, 1856). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), Turkey, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- Cerceris micropunctata** Shestakov, 1918. Russia: **WS** (AL), **ES** (KS, KR, IR, BR, YA, ZB).
- Cerceris odontophora** Schletterer, 1887. Russia: **EP** (S, NC). – Europe (SE, EE), Azerbaijan, Turkey, Iran, Tajikistan, Kazakhstan, China (NW).
- Cerceris pedetes** Kohl, 1887 (*C. bicornuta* F. Smith, 1856, nom. praeocc., nec Guérin-Méneville, 1844; *C. smithii* Dalla Torre, 1897). Russia: **ES** (ZB), **FE** (AM, PR). – China (NE), Korean Peninsula, Japan (Hon).
- Cerceris pucilii** Radoszkowski, 1869 (*C. poutziloi* W. Schulz, 1906; *C. nupta* Shestakov, 1918). Russia: **ES** (TU, BR, ZB), **FE** (AM, KH, PR). – Mongolia, China (NE, NC, NW).
- Cerceris quadricincta** (Panzer, 1799) [Philanthus]. Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iraq, Iran, Afghanistan, Central Asia, Kazakhstan.
- Cerceris quadricolor** F. Morawitz, 1889. Russia: **ES** (BR). – Mongolia, China (NE, NC).
- Cerceris quadrifasciata** (Panzer, 1799) [Philanthus] (*C. truncatula* Dahlbom, 1844). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (NS, AL), **ES** (KS, KR, IR, ZB), **FE** (AM, KH, PR, SA). – Europe (WE, NE, SE, EE), Abkhazia, Georgia, Armenia, Turkey, Kazakhstan, China (NE), Korean Peninsula.
- Cerceris quinquefasciata quinquefasciata** (Rossi, 1792) [Crabro] (*C. nasuta* Dahlbom, 1844). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (OM, NS, KM, AL), **ES** (KS, TU, KR). – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Turkey, Kazakhstan.
- Cerceris quinquefasciata seoulensis** Tsuneki, 1961. Russia: **ES** (ZB), **FE** (AM, PR). – China (NE), Korean Peninsula.
- Cerceris rossica** Shestakov, 1914. Russia: **EP** (S, CR). – Europe (EE), Kazakhstan.
- Cerceris rubida** (Jurine, 1807) [Philanthus] (*C. albonotata* Vander Linden, 1829). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (NS, AL), **FE** (PR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Syria, Jordan, Israel, Iraq, Iran, Afghanistan, Central Asia, Kazakhstan, China (NE, NC, NW), Korean Peninsula.
- Cerceris ruficornis** (Fabricius, 1793) [Philanthus] (*C. cunicularia* (Schrank, 1802); *C. labiata* auct.). Russia: **EP** (N, C, E, S, CR), **UR**, **WS** (TM, NS, AL), **ES** (IR, BR, YA), **FE** (KH, SA). – Europe (WE, NE, SE, EE), N Africa, Turkey, Iran, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan, China (NE, NW), Korean Peninsula.
- Cerceris rybyensis** (Linnaeus, 1771) [Sphex] (*C. ornata* (Fabricius, 1790); *C. variabilis* (Schrank, 1802); *C. jacobsoni* Shestakov, 1923). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, KR, IR, BR, YA, ZB), **FE** (PR, SA). – Europe (WE, NE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Syria, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Korean Peninsula, Japan (Hon), India.
- Cerceris sabulosa** (Panzer, 1799) [Philanthus] (*C. emarginata* Panzer, 1799; *C. subgibbosa* Yasumatsu, 1935). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (OM, NS, AL). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Lebanon, Israel, Iraq, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, Mongolia, China (NE, NC, NW, WP), Korean Peninsula.

- Cerceris scutifera** Shestakov, 1914 (*C. tadjhika* Gussakovskij, 1952). Russia: **EP** (NC), **WS** (AL). – Turkmenistan, Tadjikistan, Uzbekistan, Kazakhstan.
- Cerceris semilunata** Radoszkowski, 1870. Russia: **ES** (KR, IR, BR, ZB), **FE** (AM, PR). – Mongolia, China (NE), Korean Peninsula.
- Cerceris shestakoviana** Gussakovskij, 1952. Russia: **EP** (S). – Turkmenistan, Tadjikistan, Uzbekistan, Kazakhstan.
- Cerceris sibirica** F. Morawitz, 1892. Russia: **ES** (KR, BR, ZB), **FE** (AM). – China (NE).
- Cerceris somotorensis** Balthasar, 1956. Russia: **EP** (S, NC, CR), **UR**. – Europe (WE, EE), Kazakhstan.
- Cerceris specularis** A. Costa, 1867. Russia: **EP** (S, CR), **UR**. – Europe (WE, SE, EE), N Africa, Georgia, Turkey, Syria, Jordan, Israel, Iran, Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- Cerceris spinipectus** F. Smith, 1856 (*C. prisca* Schletterer, 1887; *C. accola* Kohl, 1916). Russia: **EP** (S). – Europe (SE, EE), N Africa, Georgia, Armenia, Turkey, Jordan, Israel, Saudi Arabia, Yemen, Iraq, Iran, Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- Cerceris stratiotes** Schletterer, 1887. Russia: **EP** (NC, CR), **UR**, **WS** (AL). – Europe (SE, EE), Armenia, Azerbaijan, Turkey, Kyrgyzstan.
- Cerceris tenuivittata** Dufour, 1849. Russia: **EP** (S, CR). – Europe (WE, SE, EE), Turkey, Syria, Israel, Central Asia, Kazakhstan.
- Cerceris tuberculata** (de Villers, 1789) [Crabro] (*C. rufipes* (Fabricius, 1787); *C. caspia* (Gmelin, 1790); *C. semirufa* F. Smith, 1856; *C. evecta* Shestakov, 1918). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (OM, NS, AL), **ES** (KR, BR, ZB). – Europe (WE, SE, EE), Georgia, Armenia, Azerbaijan, Turkey, Israel, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NE, NC), Korean Peninsula.
- Cerceris vagans** Radoszkowski, 1877 (*C. rufonodis* Radoszkowski, 1877, nom. praeocc., nec *C. rufinodis* F. Smith, 1856; *C. turkestanica* Radoszkowski, 1893). Russia: **EP** (S, NC). – Turkey, United Arab Emirates, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan.
- Cerceris verhoeffi** Tsuneki, 1961. Russia: **FE** (AM, PR). – China (NE).
- Cerceris vitticollis** F. Morawitz, 1894. Russia: **EP** (S, CR). – Turkmenistan, Tadjikistan, Uzbekistan, Kazakhstan.

## Tribe PHILANTHINI

- PHILANTHINUS** de Beaumont, 1949 (*Shestakoviel-la* Gussakovskij, 1952). Type species *Philanthus integer* de Beaumont, 1949. Number of species: World – 4; Palaearctic – 4; Russia – 1.
- Philanthinus quattuordecimpunctatus** (F. Morawitz, 1888) [Anthophilus] (*Anthophilus elegans* F. Morawitz, 1888; *Philanthus eximius* F. Morawitz, 1894). Russia: **EP** (C, CR), **WS** (AL). – Turkey, Turkmenistan, Kazakhstan, China (NW).
- PHILANTHUS** Fabricius, 1790 (*Anthophilus* Dahlbom, 1844). Type species *Philanthus coronatus* Fabricius, 1790 (= *Sphex coronatus* Thunberg, 1784). Number of species: World – 133; Palaearctic – 32; Russia – 8.
- Philanthus coronatus** (Thunberg, 1784) [Sphex] (*Ph. coronatus* Fabricius, 1790, secondary homonym of *Ph. coronatus* (Thunberg, 1784)). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (NS, AL), **ES** (KR). – Europe (WE, SE, EE), N Africa, Turkey, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NE, NC, NW), Korean Peninsula.
- Philanthus decemmaculatus** Eversmann, 1849 (*Ph. angustifrons* Kohl, 1891). Russia: **EP** (C, CR), **UR**, **WS** (TK). – Europe (WE), N Africa, Armenia, Turkey, Syria, Kyrgyzstan, Kazakhstan.
- Philanthus desertorum** (F. Morawitz, 1890). Russia: **EP** (S). – Turkmenistan, Uzbekistan.
- Philanthus glaber** Kohl, 1891 (*Ph. rubriventris* Kazenas, 1970; *Ph. kaszabi* Tsuneki, 1971). Russia: **WS** (AL), **ES** (BR, ZB). – Kazakhstan, Mongolia, China (NC).
- Philanthus hellmanni** (Eversmann, 1849) [Anthophilus] (*Ph. sibiricus* Radoszkowski, 1888). Russia: **WS** (AL), **ES** (KR, IR, BR, ZB), **FE** (AM, PR). – Tajikistan, Kazakhstan, Mongolia, China (NC).
- Philanthus triangulum** (Fabricius, 1775) [Vespa]. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (NS, KM, AL). – Europe (WE, NE, SE, EE), N Africa, Abkhazia, Georgia, Azerbaijan, Turkey, Syria, Jordan, Israel, Saudi Arabia, Yemen, Iraq, Iran, Afghanistan, Central Asia, Kazakhstan, Africa.
- Philanthus variegatus** Spinola, 1839 (*Ph. kizilkumi* Radoszkowski, 1877). Russia: **EP** (S). – N Africa, Armenia, Azerbaijan, Turkey, Syria, Israel, Saudi Arabia, Kuwait, United Arab Emirates, Oman, Iraq, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, China (NC).



**Philanthus venustus** (Rossi, 1790) [Crabro]. Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Turkey, Syria, Israel, Kazakhstan, Mongolia.

Tribe PSEUDOSCOLIINI

**PSEUDOSCOLIA** Radoszkowski, 1876 (*Philoponus* Kohl, 1889; *Acolpus* Vachal, 1893; *Philoponidea* Pate, 1937; *Philoponoides* Giner Marí, 1945). Ty p e s p e c i e s *Pseudoscobia maculata* Radoszkowski, 1876. Number of species: World – 49; Palaearctic – 48; Russia – 5.

**Pseudoscobia corporica** Kazenas, 1994. Russia: **EP** (S). – Turkmenistan.

**Pseudoscobia diversicornis** (F. Morawitz, 1894) [Philanthus]. Russia: **EP** (CR). – Turkmenistan, Tajikistan, Uzbekistan.

**Pseudoscobia frontalis** Kazenas, 1994. Russia: **EP** (S). – Turkmenistan, Kazakhstan.

**Pseudoscobia marshakovi** Kazenas, 1994. Russia: **EP** (S). – Turkmenistan.

**Pseudoscobia simplicicornis** (F. Morawitz, 1894) [Philanthus] (*Philanthus variegatus* (F. Morawitz, 1889), secondary homonym of *Ph. variegatus* Spinola, 1839). Russia: **EP** (S, NC), **ES** (ZB). – Europe (EE), Turkmenistan, Uzbekistan, Kazakhstan, Mongolia.

## SECTION APIFORMES – BEES

## 73. FAMILY COLLETIDAE

M.YU. PROSHCHALYKIN

The family contains perhaps 2600 species around the world. There are five subfamilies: Colletinae, Hylaeinae, Diphaglossinae, Xeromelissinae, and Euryglossinae. The subfamily Hylaeinae is found on all continents except Antarctica but is most abundant and diverse in Australia. It is represented in Palaearctic region by the genus *Hylaeus*, which contains small, slender, black species with two submarginal cells, usually with yellow markings at least on the face. Females lack external pollen-carrying apparatus (scopa), they carry pollen in their crops. Most species nest in dead hollow or pithy stems. The subfamily Colletinae occurs around the world but it is diverse only in the southern continents. It is represented in Palaearctic region only by genus *Colletes*. Females carry pollen externally, on the well-developed scopa of the hind legs (trochanter to tibia). Nests are in burrows in the ground. Number of taxa: World – 86 genera, 2630 species; Palaearctic – 2/432; Russia – 2/100.

References. Eversmann, 1852; Morawitz, 1874; Radoszkowski, 1891; Noskiewicz, 1936; Nikiforuk, 1957; Osytshnjuk, 1970; Blagoveshchenskaya, 1970; Warncke, 1972, 1978; Sedykh, 1974; Osytshnjuk et al., 1978; Dathe, 1980a, b; Sitdikov, 1986; Ikudome, 1989; Osytshnjuk, Romankova, 1995; Proshchalykin, 2004, 2007a, 2008a, 2010, 2012a, 2014a, 2017; Humala, 2006; Kuhlmann, Quest, 2006; Levchenko, 2009; Kuhlmann, Proshchalykin, 2011, 2013a, b, 2014, 2016; Proshchalykin, Kuhlmann, 2012, 2015a, b; Proshchalykin, Dathe, 2012, 2016a, b, 2017; Shibaev, Polumordvinov, 2012; Levchenko, Yuferev, 2013; Proshchalykin, Lelej, 2013; Paukkunen, Kozlov, 2015; Dathe, Proshchalykin, 2016, 2017; Proshchalykin, Astafurova, 2016; Ascher, Pickering, 2017; Kuhlmann et al., 2017.

## Subfamily COLLETINAE

**COLLETES** Latreille, 1802 (*Evodia* Panzer, 1806; *Monia* Westwood, 1875; *Monidia* Cockerell, 1905).  
Type species *Apis succincta* Linnaeus, 1758.  
Number of species: World – 500; Palaearctic – 212; Russia – 43.

**Colletes albomaculatus** (Lucas, 1849) [*Halictus*] (*C. spectabilis* Morawitz, 1868; *C. niveofasciatus*

Dours, 1872). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Syria, Jordan, Iran, Tajikistan, Kyrgyzstan.

**Colletes alini** Kuhlmann, 2000. Russia: **ES** (KS, TU, KR, BR, ZB), **FE** (PR). – Mongolia, China (NE, NC, NW).

**Colletes anceps** Radoszkowski, 1891 (*C. caspicus anceps*: Warncke, 1978). Russia: **EP** (NC). – Turkey, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, China (NW).

**Colletes arsenjevi** Kuhlmann, 2006. Russia: **FE** (PR). – Kazakhstan, Mongolia, China (NC, NW).

**Colletes caspicus** Morawitz, 1874 (*C. balticus* Alfken, 1912). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (OM, AL), **ES** (TU, KR). – Europe (WE, NE, EE), Georgia, Azerbaijan, Central Asia, Kazakhstan.

**Colletes chengtehensis** Yasumatsu, 1935 (*C. pallescens* Noskiewicz, 1936; *C. tsunekii* Yasumatsu, 1948; *C. marginatus pallescens*: Warncke, 1978). Russia: **EP** (NW, S, NC, CR), **UR**, **WS** (OM, NS, KM, AL), **ES** (KS, TU, KR, BR, ZB). – Europe (WE, SE, EE), Georgia, Azerbaijan, Iran, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NE, NC, NW).

**Colletes cinerascens** Morawitz, 1893. Russia: **ES** (TU). – Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NW, WP).

**Colletes collaris** Dours, 1872 (*C. incerta* Radoszkowski, 1891; *C. frigidus* Pérez, 1903; *Andrena riukiensis* Matsumura, 1926). Russia: **EP** (C, E), **WS** (KM, AL), **ES** (TU, KR, IR, BR, ZB), **FE** (KH, PR, SA, KU). – Europe (WE, SE, EE), Kazakhstan, Mongolia, China (NE, NC, CC, SW, WP).

**Colletes cunicularius** (Linnaeus, 1761) [*Apis*] (*Apis cinerea* Geoffroy, 1785; *Colletes hirtus* Lepeletier de Saint Fargeau, 1825; *C. pilosus* Spinola, 1838; *C. cunicularius infuscatus* Noskiewicz, 1936; *C. c. celticus* O'Tolle, 1974; *C. c. tauricus* Warncke, 1978; *C. c. khasanensis* Osytshnjuk, 1995). Russia: **EP** (NW, C, E, S, CR), **UR**, **WS** (TK, KM, AL), **ES** (KR, IR, BR), **FE** (KH, PR). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan, Mongolia, China (NE, NC).

**Colletes daviesanus** Smith, 1846 (?*Apis canus* Gmelin, 1790; *Colletes daviesanus signatus* Verhoeff, 1890). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (OM, TK, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH). – Europe (WE, NE, SE, EE), Georgia, Armenia, Turkey, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NE, WP).

**Colletes ebmeri** Kuhlmann, 2002. Russia: **ES** (BU). – Kazakhstan, Mongolia.

- Colletes eous** Morice, 1904 (*C. cecrops* Morice, 1904; *C. porosicus* Strand, 1921; *C. illyricus* Noskiewicz, 1936; *C. dimidiatus eous*: Warncke, 1978). Russia: **EP** (C, S, NC, CR). – Europe (WE, SE, EE), N Africa, Azerbaijan, Georgia, Turkey, Lebanon, Iran, Central Asia, Kazakhstan, India.
- Colletes floralis** Eversmann, 1852 (*C. alpinus* Morawitz, 1872; *C. montana* Morawitz, 1876; *C. suecica* Aurivillius, 1903; *C. kudiensis* Cockerell, 1924; *C. yasumatsui* Hirashima et Ikudome, 1989). Russia: **EP** (N, C, E, S, NC), **UR**, **WS** (TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU). – Europe (WE, NE, SE, EE), Georgia, Turkey, Iran, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, Japan (Hok, Hon), India.
- Colletes fodiens** (Fourcroy, 1785) [Apis] (?*Apis fosorius* Razoumowsky, 1789; *A. pallidicincta* Kirby, 1802; *Colletes kirgisica* Radoszkowski, 1867; *C. fodiens hispanicus* Noskiewicz, 1936). Russia: **EP** (NW, C, S, NC, CR), **UR**, **WS** (OM, KM, AL), **ES** (KS, TU, KR). – Europe (WE, NE, SE, EE), Azerbaijan, Turkey, Iran, Pakistan, Kyrgyzstan, Kazakhstan, Mongolia.
- Colletes friesei** Cockerell, 1918 (*C. mongolicus* Friese, 1913, nom. praeocc., nec Pérez, 1903). Russia: **ES** (BU). – Tajikistan, China (NC).
- Colletes fulvicornis** Noskiewicz, 1936. Russia: **WS** (AL), **ES** (TU, ZB). – Mongolia, China (NW, WP).
- Colletes hakkari** Kuhlmann, 2002. Russia: **EP** (NC). – Turkey, Iran.
- Colletes hederæ** Schmidt et Westrich, 1993. Russia: **EP** (CR). – Europe (WE, SE).
- Colletes hylaeiformis** Eversmann, 1852 (*C. chobauti* Pérez, 1903). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Georgia, Azerbaijan, Tajikistan, Uzbekistan, Kazakhstan.
- Colletes impunctatus** Nylander, 1852. Russia: **EP** (N, NW, E), **WS** (AL), **ES** (KS, TU, IR, YA, ZB), **FE** (AM, KH, PR, SA, KU, KA). – Europe (WE, NE, SE, EE), Kazakhstan, Mongolia, China (NC).
- Colletes inexpectatus** Noskiewicz, 1936. Russia: **EP** (C, S), **UR**. – Europe (WE, SE, EE), Turkey, Central Asia, Kazakhstan, Mongolia.
- Colletes jankowskyi** Radoszkowski, 1891 (*C. ventralis* Pérez, 1903; *C. ventraliformis* Cockerell, 1924). Russia: **WS** (AL), **ES** (KS, TU, KR, IR, BR, ZB), **FE** (AM, KH, PR). – Tajikistan, Mongolia, China (NE, NC, SW).
- Colletes kaszabi** Kuhlmann, 2002. Russia: **ES** (TU, BR). – Mongolia, China (NC).
- Colletes kozlovi** Friese, 1913. Russia: **EP** (S, NC), **ES** (TU, BR). – Azerbaijan, Central Asia, Kazakhstan, Mongolia, China (NW).
- Colletes laevifrons** Morawitz, 1893. Russia: **WS** (AL). – Iran, Tajikistan, Kyrgyzstan, Kazakhstan.
- Colletes maidli** Noskiewicz, 1936 (*C. lebedewi* Noskiewicz, 1936). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Syria, Israel, Iran, Kazakhstan.
- Colletes marginatus** Smith, 1846 (*C. thomsoni* Alfken, 1899). Russia: **EP** (NW, C, E, S), **UR**, **WS** (OM, TK, KM, AL), **ES** (TU, KR). – Europe (WE, NE, SE, EE), Georgia, Turkey.
- Colletes mlokoszewiczi** Radoszkowski, 1891 (*C. brevicornis* Pérez, 1903, nom. praeocc., nec Robertson, 1897; *C. brachycerus* Swenk, 1906). Russia: **EP** (N, C, S, NC, CR), **UR**. – Europe (WE, SE, EE), Georgia, Azerbaijan, Turkey, Central Asia, Kazakhstan.
- Colletes nasutus** Smith, 1853. Russia: **EP** (S, NC). – Europe (WE, SE, EE), Armenia, Azerbaijan, Turkey, Syria, Iran.
- Colletes patellatus** Pérez, 1905 (*C. kobensis* Cockerell, 1926). Russia: **ES** (ZB). – China (NC, CC, SW, SE), Korean Peninsula, Japan (Hon, Shi, Kyu).
- Colletes perforator** Smith, 1869 (*C. vogti* Pérez, 1905). Russia: **ES** (ZB), **FE** (AM, PR). – Mongolia, China (NE, NC, CC), Japan (Hok, Hon, Shi, Kyu).
- Colletes pseudocinerascens** Noskiewicz, 1936. Russia: **WS** (AL), **ES** (TU, YA). – Mongolia.
- Colletes ravulus** Noskiewicz, 1936. Russia: **ES** (TU, BR). – Mongolia, China (NC, NW).
- Colletes roborovskyi** Friese, 1913. Russia: **EP** (E, S), **ES** (BR). – Georgia, Azerbaijan, Turkey, Iran, Pakistan, Turkmenistan, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia.
- Colletes senilis** (Eversmann, 1852) [Andrena] (*C. juvenculus* Eversmann, 1852). Russia: **EP** (E, S), **UR**. – Europe (SE, EE), Azerbaijan, Turkey, Iran, Kazakhstan.
- Colletes sidemii** Radoszkowski, 1891 (*C. mongolicus* Pérez, 1903). Russia: **EP** (E), **UR**, **WS** (AL), **ES** (KS, TU, KR, IR, BR, ZB), **FE** (AM, PR). – Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NE, NC, NW, SW, WP), Nepal.
- Colletes similis** Schenck, 1853 (*C. picistigma* Thomson, 1872). Russia: **EP** (C, S, NC, CR), **UR**, **WS** (TM, NS, KM, AL), **ES** (KS, KR, IR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Syria, Jordan, Israel, Central Asia, Kazakhstan, China (NW).

- Colletes subnitens** Noskiewicz, 1936. Russia: **EP** (S). – Iran, Kazakhstan.
- Colletes succinctus** (Linnaeus, 1758) [Apis] (*Apis glutinans* Cuvier, 1798; *A. calendarum* Panzer, 1806; *Colletes balteatus* Nylander, 1852; *Andrena xanthothorax* Eversmann, 1852). Russia: **EP** (N, NW, C, E, NC), **UR**. – Europe (WE, NE, SE, EE), Georgia, Kazakhstan.
- Colletes tuberculatus** Morawitz, 1893 (*C. tuberculatus siculus* Noskiewicz, 1959; *C. t. anatolicus* Noskiewicz, 1959; *C. daviesanus tuberculatus*: Warncke, 1978). Russia: **EP** (C, S, CR). – Europe (SE, EE), N Africa, Georgia, Armenia, Turkey, Jordan, Israel, Iran, Pakistan, Central Asia, Kazakhstan.
- Colletes ulrikae** Kuhlmann, 2002. Russia: **FE** (MG).
- Colletes wacki** Kuhlmann, 2002. Russia: **EP** (S), **ES** (TU). – Kazakhstan, Mongolia, China (NC).
- Colletes warnckei** Kuhlmann, 2002. Russia: **EP** (NC). – Turkey, Iran.

#### Subfamily HYLAEINAE

- HYLAEUS** Fabricius, 1793 (*Prosopis* Fabricius, 1804).  
Type species *Prosopis annulata* Fabricius, 1804. Number of species: World – 760; Palaearctic – 220; Russia – 57.
- Hylaeus (Abrupta) cornutus** Curtis, 1831 (*H. cornutus* Smith, 1842; *H. plantaris* Smith, 1842; *H. plumicornis* Costa, 1884). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Armenia, Azerbaijan, Turkey, Syria, Israel, Iran.
- Hylaeus (Dentigera) brevicornis** Nylander, 1852 (*Prosopis pygmaea* Schenck, 1853; *P. rubicola* Smith, 1869, nom. praeocc., nec Saunders, 1850; *Hylaeus discretus* Förster, 1871; *H. atratulus* Förster, 1871, nom. praeocc., nec Schenck, 1853; *H. suspectus* Förster, 1871; *Prosopis brevicornis sardoa* Alfken, 1934; *Hylaeus parvulus* Janvier, 1972, nom. praeocc., nec Schenck, 1853). Russia: **EP** (NW, C, E, S, NC, CR), **WS** (KM, AL), **ES** (KR). – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Turkey, Israel, Iran, Central Asia.
- Hylaeus (Dentigera) gredleri** Förster, 1871 (*H. fumipennis* Förster, 1871; *H. brevipalpis* Förster, 1871; *H. confinis* Förster, 1871; *H. rotundatus* Förster, 1871). Russia: **EP** (C, S, NC), **UR**, **WS** (AL). – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Turkey, Lebanon.
- Hylaeus (Dentigera) pallidicornis** Morawitz, 1876 (*Prosopis breviceps* auct., nec Morawitz, 1876). Russia: **EP** (NC, CR). – Europe (EE), Uzbekistan, Kyrgyzstan.
- Hylaeus (Hylaeus) aborigensis** Dathe, 1994 (*Prosopis chasanensis* Romankova, 1995; *Hylaeus chasanensis negoroi* Ikudome, 2004). Russia: **WS** (AL), **ES** (KS, TU, YA), **FE** (AM, KH, PR, SA, KU, MG). – Mongolia, Japan (Hon).
- Hylaeus (Hylaeus) altaicus** Dathe, 1986. Russia: **WS** (AL), **ES** (TU, IR, ZB). – Mongolia.
- Hylaeus (Hylaeus) angustatus** (Schenck, 1861) [Prosopis] (*H. subexcisus* Förster, 1871; *H. subtilis* Förster, 1871; *H. subpunctatus* Förster, 1871; *H. submarginatus* Thomson, 1872; *Prosopis punctifrons* Pérez, 1903; *Hylaeus pauperculus* Cockerell, 1931; *Prosopis curviscapa* Benoist, 1960). Russia: **EP** (NW, C, S, NC, CR), **WS** (AL), **ES** (KS, TU). – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Turkey, Lebanon, Iran, Mongolia.
- Hylaeus (Hylaeus) annulatus** (Linnaeus, 1758) [Apis] (*Apis xanthometopa* Preyßler, 1793; *Prosopis elliptica* Kirby, 1827; *P. patellata* Eversmann, 1852; *P. varifrons* Cresson, 1869; *P. antennata* Cresson, 1869; *Hylaeus barbatus* Förster, 1871; *Prosopis tamanukii* Yasumatsu, 1939). Russia: **EP** (NW, C, E, CR), **UR**, **WS** (TM, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, MG, CH). – Europe (WE, NE, SE, EE), Armenia, Azerbaijan, Mongolia, N America.
- Hylaeus (Hylaeus) cardioscapus** Cockerell, 1924 (*Prosopis vallei* Niemelä, 1947). Russia: **EP** (C, E), **WS** (TM, KM, AL), **ES** (KS, TU, KR, IR, ZB), **FE** (AM, KH, PR, SA, KA, MG). – Europe (WE, NE, SE, EE), Azerbaijan, Mongolia.
- Hylaeus (Hylaeus) communis** Nylander, 1852 (?*Vespa minuta* Rossi, 1790, nom. praeocc., nec Linné, 1767; ?*Hylaeus triangulus* Fabricius, 1793; *H. communis* Nylander, 1852; *Prosopis ciliata* Eversmann, 1852; *Hylaeus alienatus* Förster, 1871; *H. marginatus* Förster, 1871, nom. praeocc., nec Thomson, 1870; *H. ebeninus* Förster, 1871; *H. nigricornis* Förster, 1871, nom. praeocc., nec Schenck, 1853; *H. nitidulus* Förster, 1871, nom. praeocc., nec Fabricius, 1804; *Prosopis rupestris* Smith, 1872; *P. annulata* var. *tristis* Dalla Torre, 1877; *P. foersteri* Dalla Torre et Friese, 1895; *P. annulata* var. *nigrifacies* Alfken, 1913; *P. communis* var. *reiecta* Stoeckhert, 1954). Russia: **EP** (NW, C, E, NC, CR), **UR**, **WS** (TM, KM, AL), **ES** (IR, ZB), **FE** (AM, KH, PR, SA, KA, MG). – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Turkey, Lebanon, Iran, Central Asia, Kazakhstan.

- Hylaeus (Hylaeus) dolichocephalus** Morawitz, 1876 (*Prosopis plurifasciata* Alfken, 1931; *P. heliaca* Warncke, 1992). Russia: **ES** (TU). – Turkey, Afghanistan, Tajikistan, Kazakhstan, Mongolia, China (NW).
- Hylaeus (Hylaeus) dorni** Dathe, 1986. Russia: **ES** (TU). – Mongolia.
- Hylaeus (Hylaeus) gracilicornis** (Morawitz, 1867) [Prosopis] (*H. nigrolineatus* Cockerell, 1924). Russia: **EP** (NW, C, E, NW, NC), **WS** (TM, NS, KM, AL), **ES** (KS, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, KM, MG). – Europe (WE, NE, SE, EE), Azerbaijan, Turkey, Syria, Iran, Mongolia, China (SW).
- Hylaeus (Hylaeus) hungaricus** (Alfken, 1905) [Prosopis] (*H. affinis* Morawitz, 1876, nom. praeocc., nec Smith, 1853; *Prosopis morawitzi* Dalla Torre, 1896, nom. praeocc., nec Radoszkowski, 1893). Russia: **WS** (AL). – Iran, Afghanistan, Turkmenistan, Tajikistan, Mongolia, China (NW).
- Hylaeus (Hylaeus) leleji** Proshchalykin et Dathe, 2016. Russia: **WS** (AL).
- Hylaeus (Hylaeus) leptocephalus** (Morawitz, 1871) [Prosopis] (*H. bisinuatus* Förster, 1871; *Prosopis discrepans* Schenck, 1875; *P. incompleta* Alfken, 1937; *P. stevensi* Crawford, 1913). Russia: **EP** (C, E, S, NC), **UR**, **WS** (TM, KM), **ES** (TU), **FE** (KH). – Europe (WE, NE, SE, EE), Armenia, Azerbaijan, Iran.
- Hylaeus (Hylaeus) montivagus** Dathe, 1986. Russia: **WS** (AL), **ES** (TU), **FE** (KH, PR). – Mongolia.
- Hylaeus (Hylaeus) moricei** (Friese, 1898) [Prosopis] (*Prosopis gracilicornis* var. *luteifrons* Strand, 1909; *P. moricella* Bischoff, 1954; *P. m. f. atricallosa* Bischoff, 1954; *P. nigriacies rhenana* Warncke, 1986). Russia: **EP** (C, S, NC), **ES** (KS). – Europe (WE, SE, EE), N Africa, Armenia, Azerbaijan, Turkey, Iran.
- Hylaeus (Hylaeus) nigritus** (Fabricius, 1798) [Melittinus] (*Prosopis atrata* Fabricius, 1804; *P. laevigata* Eversmann, 1852; *Hylaeus propinquus* Nylander, 1852; *Prosopis nitidiuscula* Schenck, 1853; *P. tuberculata* Smith, 1853). Russia: **EP** (C, E), **UR**. – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Turkey, Iran.
- Hylaeus (Hylaeus) nimbatus** Dathe, 1986. Russia: **WS** (AL), **ES** (TU). – Mongolia.
- Hylaeus (Hylaeus) oehlkei** Dathe, 2010. Russia: **WS** (AL), **ES** (TU, KR). – Mongolia.
- Hylaeus (Hylaeus) paulus** Bridwell, 1919 (*H. lepidulus* Cockerell, 1924). Russia: **EP** (C), **WS** (AL), **ES** (KS, TU, YA), **FE** (AM, KH, PR, SA, KU, KA). – Europe (WE, NE, SE, EE), Azerbaijan, Mongolia, China (NE, NC), Japan (Hok, Hon, Kyu).
- Hylaeus (Hylaeus) pesenkoi** Proshchalykin et Dathe, 2016. Russia: **ES** (TU). – Mongolia.
- Hylaeus (Hylaeus) scutellaris** Morawitz, 1874 (*H. flavipes* Morawitz, 1876, nom. praeocc., nec Smith, 1853; *Prosopis morawitzi* Radoszkowski, 1893; *P. turcestanica* Dalla Torre, 1896). Russia: **EP** (S, NC). – Azerbaijan, Afghanistan, Turkmenistan, Uzbekistan.
- Hylaeus (Hylaeus) sibiricus** (Strand, 1909) [Prosopis] (*Prosopis sjoestedti* Alfken, 1936; *Hylaeus communis excurrens* Cockerell, 1937). Russia: **WS** (AL), **ES** (TU, IR, BR), **FE** (KH, PR). – Mongolia, China (NE, NC).
- Hylaeus (Hylaeus) stubbei** Dathe, 1986 (*H. peregrinus* Dathe, 1986). Russia: **WS** (AL). – Mongolia.
- Hylaeus (Hylaeus) telmenicus** Dathe, 1986. Russia: **WS** (AL). – Mongolia.
- Hylaeus (Hylaeus) tsingtauensis** (Strand, 1915) [Prosopis] (*H. pallescens* Cockerell, 1924; *H. stentoriscapus* Dathe, 1986). Russia: **WS** (TM, KM, AL), **ES** (KS, TU, KR, IR, BR, ZB), **FE** (AM, KH, PR). – Mongolia.
- Hylaeus (Koptogaster) punctulatissimus** Smith, 1842 (*Prosopis obscurata* Schenck, 1853; *P. quadrimaculata* Schenck, 1861). Russia: **EP** (C, S, NC, CR). – Europe (WE, SE, EE), N Africa, Azerbaijan, Turkey, Israel.
- Hylaeus (Lambdopsis) dilatatus** (Kirby, 1802) [Melitta] (*Melitta annularis* Kirby, 1802; *Prosopis varians* Spinola, 1806; *Hylaeus distans* Eversmann, 1852; *Prosopis cervicornis* Costa, 1858; *Hylaeus compar* Förster, 1871; *H. smithii* Förster, 1871; *H. oculatus* Förster, 1871; *H. schenckii* Förster, 1871; *Prosopis consobrina* Schenck, 1874; *Hylaeus strigulosus* Costa, 1884; *Prosopis annularis elbursa* Warncke, 1981). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (TM, KM, AL), **ES** (KS, TU, KR, IR). – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Turkey, Kazakhstan.
- Hylaeus (Lambdopsis) euryscapus** Förster, 1871 (*H. rimosus* Förster, 1871). Russia: **EP** (CR). – Europe (WE, SE, EE), N Africa, Turkey.
- Hylaeus (Lambdopsis) pfankuchi** (Alfken, 1919) [Prosopis] (*H. nipponicus* Bridwell, 1919; *H. polevoiae* Cockerell, 1924; *Prosopis nigriacies* Gussakovskij, 1932). Russia: **WS** (KM, AL), **ES** (KS, TU, KR), **FE** (KH, PR, SA, KU). – Europe (WE, NE, SE, EE), Azerbaijan, Mongolia, China (NE).
- Hylaeus (Lambdopsis) rinki** (Gorski, 1852) [Prosopis] (*Prosopis gerstaeckeri* Hensel, 1870; *Hylaeus*

- clathratus* Thomson, 1870; *H. immaculatus* Förster, 1871; *H. atromicans* Cockerell, 1924; *H. sinicola* Cockerell, 1924). Russia: **EP** (NW, C, E), **WS** (TM, NS, KM, AL), **ES** (KS, TU, KR, IR, YA, ZB), **FE** (AM, KH, PR, SA, KU). – Europe (WE, SE, EE), Azerbaijan, Central Asia, Mongolia.
- Hylaeus (Nesohylaeus) niger** Bridwell, 1919. Russia: **FE** (KU). – China (CC), Japan (Hok, Hon).
- Hylaeus (Nesoprosopis) floralis** (Smith, 1873) [Prosopis]. Russia: **FE** (SA). – China (CC, SW, SE), Japan (Hok, Hon, Shi, Kyu).
- Hylaeus (Nesoprosopis) globulus** (Vachal, 1903) [Prosopis]. Russia: **FE** (PR, SA). – Japan (Hok, Hon, Shi, Kyu).
- Hylaeus (Nesoprosopis) noomen** Hirashima, 1977. Russia: **FE** (KH). – Japan (Hok, Hon, Shi, Kyu).
- Hylaeus (Nesoprosopis) pectoralis** Förster, 1871 (*H. kriechbaumeri* Förster, 1871; *Prosopis palustris* Perkins, 1900). Russia: **EP** (NW), **WS** (TM, KM, AL), **ES** (KS), **FE** (PR, SA, KU). – Europe (WE, NE, SE, EE), Azerbaijan, Turkey, Mongolia, Japan (Hok, Hon).
- Hylaeus (Nesoprosopis) transversalis** Cockerell, 1924 (*Prosopis transversalis* Gussakovskij, 1932; *P. sericata* Warncke, 1972; *Hylaeus nippon* Hirashima, 1977). Russia: **FE** (PR, KU). – Japan (Hok, Hon, Shi, Kyu, Tsu).
- Hylaeus (Paraprosopis) clypearis** (Schenck, 1853) [Prosopis] (*Prosopis angulata* Smith, 1853; *Hylaeus floricola* Förster, 1871; *H. siculus* Förster, 1871; *H. blandus* Förster, 1871; *H. opacus* Förster, 1871; *H. moniliatus* Förster, 1871; *Prosopis subopaca* Pérez, 1905; *P. clypearis* var. *genimaculata* Strand, 1909; *Hylaeus lineolellus* Cockerell, 1938). Russia: **EP** (E, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Turkey.
- Hylaeus (Paraprosopis) concinnus** Cockerell, 1924 (*H. monostictus* Cockerell, 1924). Russia: **FE** (PR). – China (NE, NC).
- Hylaeus (Paraprosopis) lineolatus** (Schenck, 1861) [Prosopis] (*H. inaequalis* Förster, 1871; *Prosopis lineolata* var. *nigrifacis* Alfken, 1913; *P. creticola* Strand, 1915; *P. lineolata rudis* Pittioni, 1950; *P. l. ferina* Warncke, 1992). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), N Africa, Azerbaijan, Turkey, Jordan, Lebanon, Israel.
- Hylaeus (Paraprosopis) pictipes** Nylander, 1852 (*Sphex annulata* Panzer, 1798, nom. praeocc., nec Linnaeus, 1758; *Prosopis varipes* Smith, 1853; *P. excisa* Schenck, 1853; *Hylaeus vicinus* Förster, 1871, nom. praeocc., nec Sichel, 1867; *H. melanarius* Förster, 1871; *H. claripennis* Förster, 1871; *H. panzeri* Förster, 1871; *Prosopis trimaculata* Schenck, 1875; *P. aquisgranensis* Dalla Torre, 1896; *P. pictipes* var. *nigriscutum* Alfken, 1913). Russia: **EP** (CR). – Europe (WE, NE, SE, EE), Azerbaijan.
- Hylaeus (Paraprosopis) sinuatus** (Schenck, 1853) [Prosopis] (*Prosopis minuta* var. *nana* Alfken, 1927, nom. praeocc., nec Friese, 1924). Russia: **EP** (C, E, NC, CR). – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Turkey, Iraq, Iran.
- Hylaeus (Paraprosopis) styriacus** Förster, 1871 (*Prosopis tristis* Frey-Gessner, 1900, nom. praeocc., nec Dalla Torre, 1870; *P. styriaca* var. *nigroelypeata* Alfken, 1913). Russia: **EP** (C, S, NC, CR), **WS** (AL). – Europe (WE, NE, SE, EE), Armenia, Azerbaijan, Turkey, Lebanon, Iran.
- Hylaeus (Patagiata) difformis** (Eversmann, 1852) [Prosopis] (*Prosopis subfasciata* Schenck, 1868, nom. praeocc., nec Imhoff, 1832, nec Schenck, 1861; *Hylaeus marginatus* Thomson, 1870; *Prosopis difformis hispanica* Warncke, 1972). Russia: **EP** (C, E, NC, CR), **UR**, **WS** (TM, KM), **FE** (PR). – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Turkey, Iran, China (NW, SW).
- Hylaeus (Patagiata) nigrocuneatus** Cockerell, 1924 (*H. nigrocuneatus* var. *rufipennis* Cockerell, 1924; *H. brevicuneatus* Cockerell, 1924; *H. laurushini* Cockerell, 1924; *H. paradifformis* Ikudome, 1989). Russia: **WS** (KM, AL), **ES** (TU, KR, IR, YA, ZB), **FE** (AM, KH, PR, SA). – Mongolia, China (NE, CC), Japan (Hok, Hon, Kyu).
- Hylaeus (Prosopis) confusus** Nylander, 1852 (*Prosopis sublaevis* Schenck, 1853; *Hylaeus xanthocnemis* Förster, 1871; *H. nigriceps* Förster, 1871; *H. similatus* Förster, 1871; *Prosopis pallididens* Dalla Torre, 1896; *Hylaeus monticola* Bridwell, 1919; *H. wilmatiae* Cockerell, 1924). Russia: **EP** (NW, C, E, NC, CR), **WS** (TM, KM, AL), **ES** (KS, TU, KR, YA, ZB), **FE** (AM, KH, PR, SA, KU). – Europe (WE, NE, SE, EE), Armenia, Azerbaijan, Turkey, Central Asia, Mongolia, China (NE, NW, WP), Japan (Hok, Hon).
- Hylaeus (Prosopis) gibbus** Saunders, 1850 (*Prosopis mixta* Schenck, 1861, nom. praeocc., nec Smith, 1852; *Hylaeus kirschbaumi* Förster, 1871; *H. aemulus* Förster, 1871; *H. genalis* Thomson, 1872). Russia: **EP** (C, E, NC, CR). – Europe (WE, SE, EE), N Africa, Azerbaijan, Turkey, Iraq, Iran.
- Hylaeus (Prosopis) hyrcanius** Dathe, 1980. Russia: **EP** (S, NC). – Azerbaijan, Iran.

- Hylaeus (Prosopis) incongruus** Förster, 1871 (*H. genalis* Thomson, 1872; *H. biareolatus* Morawitz, 1876). Russia: **EP** (S, NC), **ES** (BR). – Europe (WE, SE, EE), Uzbekistan, Kazakhstan.
- Hylaeus (Prosopis) meridionalis** Förster, 1871 (*Prosopis variegata* var. *brevimaculata* Strand, 1909; *P. maculiscutum* Alfken, 1928; *P. effasciata* Alfken, 1930). Russia: **EP** (S, NC). – Europe (WE, SE), N Africa, Azerbaijan, Turkey, Jordan, Israel.
- Hylaeus (Prosopis) rugicollis** Morawitz, 1874. Russia: **EP** (NC). – Europe (SE), Caucasus, Turkey, Lebanon, Israel, Iran.
- Hylaeus (Prosopis) signatus** (Panzer, 1798) [Sphex] (*Vespa pratensis* Geoffroy, 1785, nom. praeocc., nec Miller, 1759; *Mellinus bipunctatus* Fabricius, 1798; ?*Philanthus bilineatus* Gravenhorst, 1807; *Prosopis albinasata* Strand, 1912; *P. pratensis* var. *nigrifacies* Alfken, 1913; *P. berlandi* Benoist, 1943). Russia: **EP** (C, E, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Turkey, Iran, Uzbekistan.
- Hylaeus (Prosopis) variegatus** (Fabricius, 1798) [Mellinus] (*Mellinus labiatus* Fabricius, 1798; *Philanthus analis* Fabricius, 1804; *Prosopis colorata* Panzer, 1805; *P. coriacea* Pérez, 1895; *P. variegata* var. *obscura* Höppner, 1901; *Hylaeus hookeri* Cockerell, 1931; *Prosopis impressifrons* Gussakovskij, 1932; *P. rufithorax* Alfken, 1933; *P. variegata relicta* Warncke, 1981). Russia: **EP** (C, E, NC, CR), **UR**, **WS** (OM, TM, KM, AL), **ES** (KS, TU, KR, IR, BR, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), N Africa, Armenia, Azerbaijan, Turkey, Syria, Lebanon, Iran, Central Asia, Mongolia, China (NC).
- Hylaeus (Spatulariella) hyalinatus** Smith, 1842 (*Vespa bipunctata* Fabricius, 1798, nom. praeocc., nec Fabricius, 1798; *Hylaeus hyalinatus* Smith, 1842; *H. ormilatus* Nylander, 1848; *Prosopis longicornis* Schenck, 1853; *P. similis* Schenck, 1853, nom. praeocc., nec Smith, 1853, nec Fabricius, 1793; *Hylaeus decipiens* Förster, 1871; *H. tricuspis* Förster, 1871; *H. miscellus* Förster, 1871; *Prosopis hyalinata* var. *lugubris* Dalla Torre, 1877; *Spatidariella hyalinata montebovensis* Pittioni, 1950; *S. h. aragonensis* Pittioni, 1950; *Prosopis hyalinata minos* Warncke, 1981). Russia: **EP** (C, NC, CR). – Europe (WE, NE, SE, EE), N Africa, Armenia, Azerbaijan, Turkey, Iran.
- Hylaeus (Spatulariella) punctatus** (Brülle, 1832) [Prosopis] (*H. subquadratus* Förster, 1871; *H. insignis* Förster, 1871; *H. corvinus* Förster, 1871; *Prosopis sinuata* var. *atrifacialis* Strand, 1909). Russia: **EP** (CR). – Europe (WE, SE, EE), Azerbaijan, Turkey.

## 74. FAMILY ANDRENIDAE

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The family Andrenidae is one of the largest bee families, colonizing all continents except Australia. They are also almost absent from the tropical Asian region. Similarly, in sub-Saharan Africa there are only a few genera and species. The Andrenidae are divided into four subfamilies, two of them are widely distributed, in the Palaearctic (Andreninae and Panurginae), and two Neotropical (Alocandreninae and Oxaeinae). Most species belong to the genus *Andrena*, which is ubiquitous in the north temperate areas. All species nest in the ground and most of them are strictly solitary, although they often nest in large aggregations (Michener, 2007; Osytshnjuk et al., 2005). Number of taxa: World – 77 genera, 2917 species; Palaearctic – 13/1100; Russia – 5/244.

References. Lebedev, 1932; Popov, 1940, 1949, 1958b; Warncke, 1967; Osytshnjuk, 1977, 1982, 1983, 1984, 1986a,b, 1993, a,b, 1994a,b, 1995; Tadauchi, Xu, 1995, 1999, 2002, 2003; Xu, Tadauchi, 1999, 2005, 2006, 2009a,b, 2011, 2012; Xu et al., 2000; Gusenleitner, Schwarz, 2002; Davydova, Pesenko, 2002; Gusenleitner et al., 2005; Osytshnjuk et al., 2005, 2008; Schmid-Egger, 2005; Tadauchi, 2006, 2008; Proshchalykin, 2007b, 2009; 2010, 2012a; Shebl, Tadauchi, 2009; 2011; Scheuchl, 2010; Romankova, Astafurova, 2011; Astafurova, Romankova, 2012; Proshchalykin, Lelej, 2013; Shebl, Li, 2013; Proshchalykin, Astafurova, 2017; Aliyev et al., 2017; Ascher, Pickering, 2017; Kuhlmann et al., 2017; Levchenko, 2017; Sidorov, Proshchalykin, 2017a, b; Sidorov et al., 2017.

## Subfamily ANDRENINAE

**ANDRENA** Fabricius, 1775. Type species *Apis helvola* Linnaeus, 1758. Genus is distributed throughout the Holarctic region, south in the 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. Number of species: World – 1500; Palaearctic – 950; Russia – 225.

**Andrena (Aciandrena) aciculata** Morawitz, 1886 (*A. tenuis* sensu E. Stoeckhert, 1930, nom. praeocc., nec Morawitz, 1878; *A. tenuicula* E. Stoeckhert,

1950; *A. strymonia* Pittioni, 1950). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Azerbaijan, Turkey, Iran.

**Andrena (Aciandrena) chersona** Warncke, 1972. Russia: **EP** (CR). – Europe (EE), Azerbaijan.

**Andrena (Aciandrena) tenuis** Morawitz, 1877. Russia: **EP** (S). – Europe (EE), Georgia, Azerbaijan, Turkey, Iran, Turkmenistan.

**Andrena (Aciandrena) volgensis** Osytshnjuk, 1994. Russia: **EP** (S). – Kazakhstan.

**Andrena (Aenandrena) aeneiventris** Morawitz, 1872 (*A. locularoides* Strand, 1915; *A. aeneiventris* var. *punctata* Jaeger, 1934). Russia: **EP** (S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Jordan, Israel, Iraq, Iran, Turkmenistan, Tajikistan, Kazakhstan.

**Andrena (Aenandrena) bisulcata** Morawitz, 1877 (*A. echimulata* Pérez, 1903; *A. doderoi* Jaeger, 1934). Russia: **EP** (CR). – Europe (WE, SE, EE), Georgia, Azerbaijan, Turkey, Lebanon, Iran.

**Andrena (Aenandrena) hedikae** Jaeger, 1934 (*A. hedikae* ssp. *inexpectata* Warncke, 1975). Russia: **EP** (S). – Europe (WE, SE, EE), N Africa, Azerbaijan, Turkey, Iran.

**Andrena (Aenandrena) hystrix** Schmiedeknecht, 1883 (*A. opaciventris* Friese, 1921, nom. praeocc., nec Cockerell, 1916; *A. hystrix* var. *lateritia* Benoist, 1961; *A. h.* ssp. *rufilata* Warncke, 1975). Russia: **EP** (CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Turkmenistan.

**Andrena (Andrena) aino** Tadauchi, Hirashima et Matsumura, 1987. Russia: **ES** (BR, YA, ZB), **FE** (AM, KH, PR, SA, MG). – Japan (Hok).

**Andrena (Andrena) apicata** Smith, 1847 (*A. batava* Pérez, 1902; *A. apicata* var. *tristis* Alfken, 1904; *A. a.* var. *kamtschatica* Alfken, 1929). Russia: **EP** (NW, C), **UR**, **FE** (KA). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan.

**Andrena (Andrena) benefica** Hirashima, 1962. Russia: **FE** (KH, PR). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

**Andrena (Andrena) brevihirtiscopa** Hirashima, 1962. Russia: **FE** (KH, PR). – Korean Peninsula, Japan (Hok, Hon, Kyu).

**Andrena (Andrena) bulgariensis** Warncke, 1965. Russia: **EP** (CR). – Europe (EE).

**Andrena (Andrena) clarkella** (Kirby, 1802) [Melitta]. Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (TM, NS, KM), **ES** (KR, BR, YA, ZB), **FE** (AM, KH, PR, SA, MG, CH). – Europe (WE, NE, SE, EE), N America.



- Andrena (Andrena) fucata** Smith, 1847 (*A. clypearis* Nylander, 1848; *A. norvegica* Strand, 1910). Russia: **EP** (NW, C, E, S, NC, CR), **UR, WS** (TK, KM, AL), **ES** (KS, TU, KR). – Europe (WE, NE, SE, EE), Armenia, Turkey, Kazakhstan.
- Andrena (Andrena) helvola** (Linnaeus, 1758) [Apis] (*Melitta subdentata* Kirby, 1802; ?*Andrena incerta* Eversmann, 1852; *A. helvola* var. *concolor* Blüthgen, 1919, nom. praeocc., nec Robertson, 1898, nec Alfken, 1914). Russia: **EP** (C, E, S), **UR, WS** (TK, NS, KM). – Europe (WE, NE, SE, EE), Armenia, Turkey, Kazakhstan, China (NE).
- Andrena (Andrena) hondoica** Hirashima, 1962. Russia: **FE** (KH, PR, SA). – Korean Peninsula, Japan (Hok, Hon).
- Andrena (Andrena) ishiharai** Hirashima, 1962. Russia: **ES** (BR), **FE** (PR). – Korean Peninsula, Japan (Hok, Hon, Kyu).
- Andrena (Andrena) kamtschatkaensis** Friese, 1914. Russia: **FE** (KA).
- Andrena (Andrena) lapponica** Zetterstedt, 1838 (*A. alpina* Zetterstedt, 1838, nom. praeocc., nec Morawitz, 1872; *A. shirozui* Hirashima, 1962; *A. lapponica* ssp. *sumizome* Tadauchi, Hirashima et Matsumura, 1987). Russia: **EP** (N, NW, C), **UR, WS** (TM, TK), **ES** (IR, BR, YA, ZB), **FE** (PR, SA, KU, KA, MG). – Europe (WE, NE, SE, EE), Georgia, Kyrgyzstan, Kazakhstan, Japan (Hok, Hon).
- Andrena (Andrena) maukensis** Matsumura, 1911. Russia: **WS** (KM), **ES** (IR, YA, ZB), **FE** (KH, PR, SA, KU, KA). – Japan (Hok, Hon, Kyu).
- Andrena (Andrena) mitis** Schmiedeknecht, 1883 (*A. palumboi* Destefani, 1889). Russia: **EP** (C, CR). – Europe (WE, SE, EE), Azerbaijan, Turkey.
- Andrena (Andrena) nawai** Cockerell, 1913. Russia: **FE** (KH, PR). – China (NC), Japan (Hok, Hon, Kyu).
- Andrena (Andrena) nycthemera** Imhoff, 1868 (*A. nycthemera* var. *tergestensis* Alfken, 1904). Russia: **EP** (C, E), **UR**. – Europe (WE, NE, SE, EE), Kazakhstan.
- Andrena (Andrena) praecox** (Scopoli, 1763) [Apis] (*Melitta smithella* Kirby, 1802; *Andrena flavescens* Schenck, 1853; *A. clypeata* Smith, 1855, nom. praeocc., nec Illiger, 1806, nec Brullé, 1832, nec Smith, 1853, nec Schenck, 1853; *A. torkai* Alfken, 1913). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR, WS** (TK, NS, KM), **ES** (IR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Kazakhstan.
- Andrena (Andrena) sakagamii** Tadauchi, Hirashima et Matsumura, 1987. Russia: **ES** (BR), **FE** (AM, KH, SA). – Korean Peninsula, Japan (Hok, Hon).
- Andrena (Andrena) varians** (Kirby, 1802) [Melitta] (*Melitta angulosa* Kirby, 1802; *Andrena mesoxantha* Imhoff, 1834; *A. longula* Eversmann, 1852; *A. mixta* Schenck, 1853; *A. rectangula* Schenck, 1853; *A. varians* var. *conjungens* Blüthgen, 1916). Russia: **EP** (N, NW, C, E, S, CR), **UR**. – Europe (WE, NE, SE, EE), Kazakhstan.
- Andrena (Brachyandrena) colletiformis** Morawitz, 1874 (*Colletes parvula* Morawitz, 1871, nom. praeocc., nec Kirby, 1802; *Andrena dissidens* Schmiedeknecht, 1884; *A. colletiformis* ab. *gandzhensis* Lebedev, 1933; *A. c.* ssp. *insulana* Pittioni, 1950; *A. c.* var. *sardinica* Strand, 1915; *A. nanana* Strand, 1915; *A. subsquamularis* Noskiewicz, 1960). Russia: **EP** (S, NC, CR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iran, Turkmenistan, Kazakhstan.
- Andrena (Brachyandrena) limonii** Osytschnjuk, 1983. Russia: **EP** (S). – Kazakhstan.
- Andrena (Calomelissa) tsukubana** Hirashima, 1957. Russia: **FE** (AM, KH, PR). – Korean Peninsula, Japan (Hon, Shi, Kyu).
- Andrena (Campylogaster) erberi** Morawitz, 1871 (*Campylogaster fulvo-crustatus* Dours, 1873; *Andrena amasia* Radoszkowski, 1876; *A. squamigera* Bramson, 1879, nom. praeocc., nec Schenck, 1874; ?*A. kozarowi* Nedialkov, 1914; *A. erberi* var. *sanguiniventris* Friese, 1921; *A. e.* ssp. *migrans* Warncke, 1967). Russia: **EP** (CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Syria, Iran.
- Andrena (Campylogaster) incisa** Eversmann, 1852 (*A. gracilis* Eversmann, 1852, nom. praeocc., nec Schenck, 1869; *A. punctatissima* Morawitz, 1866, nom. praeocc., nec Kriechbaumer, 1873). Russia: **EP** (S, CR), **UR, WS** (AL), **ES** (KS, KR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Tajikistan, Kyrgyzstan, Kazakhstan.
- Andrena (Campylogaster) nova** Popov, 1940. Russia: **ES** (BR, ZB), **FE** (AM, PR).
- Andrena (Campylogaster) phaneroleuca** Cockerell, 1929. Russia: **ES** (IR).
- Andrena (Carandrena) semiflava** Lebedev, 1932. Russia: **EP** (S, NC). – Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- Andrena (Charitandrena) hattorfiana** (Fabricius, 1775) [Nomada] (*Apis splendida* Müller, 1776; *A. marginata* Müller, 1776, nom. praeocc., nec Fabricius, 1776, nec Torka, 1913; *Andrena rubida* Olivier, 1789; *Apis fuscicornis* Gmelin, 1790; *A. plumosa* Christ, 1791, nom. praeocc., nec Kim et Kim, 1989,

- nec Christ, 1791; *Andrena equestris* Panzer, 1797; *Apis florum* Cuvier, 1798; *Melitta lathamana* Kirby, 1802; *Andrena quadripunctata* Fabricius, 1804; *A. clypeata* Illiger, 1806, nom. praeocc., nec Brullé, 1832, nec Smith, 1853, nec Smith, 1855; *A. labialis* Gravenhorst, 1807, nom. praeocc., nec Kirby, 1802; *A. dimidiata* Brullé, 1832; *A. elongata* Imhoff, 1834, nom. praeocc., nec Radoszkowski, 1871, nec Radoszkowski, 1876; *A. gravida* Eversmann, 1852, nom. praeocc., nec Imhoff, 1832, nec Dours, 1872; *A. clypeata* Schenck, 1853, nom. praeocc., nec Illiger, 1806, nec Brullé, 1832, nec Smith, 1853, nec Smith, 1855; *A. fischeri* Verhoeff, 1890; *A. hattorfiana* var. *rufa* Torka, 1913; *A. h.* var. *punctulata* Torka, 1913, nom. praeocc., nec Schenck, 1853; *A. h.* var. *marginata* Torka, 1913, nom. praeocc., nec Müller, 1776, nec Fabricius, 1776; *A. haemorrhoidula* Viereck, 1916; *A. hattorfiana* ab. *deandrenalis* Strand, 1922). Russia: **EP** (NW, C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey.
- Andrena (Chlorandrena) cinereophila** Warncke, 1965. Russia: **EP** (NC). – Europe (SE, EE), Turkey, Israel, Afghanistan.
- Andrena (Chlorandrena) humilis** Imhoff, 1832 (*A. fulvescens* Smith, 1847; *A. cinerascens* Nylander, 1848, nom. praeocc., nec Eversmann, 1852; *A. scabrosa* Morawitz, 1866; *A. nasalis* Thomson, 1870; *A. nudigastra* Alfken, 1914; ?*A. nudigastra* ssp. *nudigastroides* Yasumatsu, 1935; *A. humilis* ssp. *ardeola* Warncke, 1975; *A. h.* ssp. *cucullata* Warncke, 1975; *A. h.* ssp. *hiaticula* Warncke, 1975; *A. h.* ssp. *indigena* Warncke, 1975). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TK, KM, AL), **FE** (PR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Iran, Kyrgyzstan, Kazakhstan.
- Andrena (Chlorandrena) panurgimorpha** Mavromoustakis, 1957. Russia: **EP** (CR). – Europe (WE, SE, EE), Georgia, Turkey, Israel, Iran.
- Andrena (Chlorandrena) taraxaci** Giraud, 1861 (*A. curtivalvis* Morice, 1899; *A. truncata* Pérez, 1903, nom. praeocc., nec Viereck, 1903; *A. humilis* var. *orienticola* Strand, 1915; *A. truncatiformis* Cockerell, 1922; *A. taraxaci* ssp. *chikuzenensis* Hirashima, 1957). Russia: **EP** (S, NC, CR), **UR**, **FE** (PR). – Europe (WE, SE, EE), N Africa, Georgia, Turkey, Lebanon, Israel, Iran, Turkmenistan, Tajikistan, Kazakhstan, China (NE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Andrena (Chlorandrena) tricuspidata** Scheuchl, 2010. Russia: **EP** (CR).
- Andrena (Chrysandrena) colonialis** Morawitz, 1886. Russia: **EP** (S), **WS** (NS, AL). – Europe (EE), Azerbaijan.
- Andrena (Chrysandrena) fulvago** (Christ, 1791) [Apis] (*A. constrictus* Smith, 1849). Russia: **EP** (C, E, CR), **UR**, **WS** (KM, AL), **ES** (BR). – Europe (WE, NE, SE, EE), Georgia, Armenia, Turkey.
- Andrena (Chrysandrena) hesperia** Smith, 1853 (*A. opacicollis* Morawitz, 1886; *A. marcescens* Pérez, 1895; *A. freya* Strand, 1915; *A. asunica* Strand, 1921). Russia: **EP** (CR). – Europe (WE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Israel, Iran, Turkmenistan, Tajikistan.
- Andrena (Chrysandrena) khankensis** Osytshnjuk, 1995. Russia: **FE** (AM, PR), **ES** (ZB).
- Andrena (Cnemidandrena) albicaudata** Hirashima, 1966. Russia: **FE** (PR). – Mongolia, Japan (Hon).
- Andrena (Cnemidandrena) denticulata** (Kirby, 1802) [Melitta] (*Melitta listerella* Kirby, 1802; *Andrena edentata* Friese, 1922; *A. archanensis* Cockerell, 1929; *A. baicaliella* Cockerell, 1929; *A. epimelaena* Cockerell, 1924; *A. seneciorum* Hirashima, 1964). Russia: **EP** (NW, C, E), **UR**, **WS** (TK, KM), **ES** (IR, ZB), **FE** (AM, KH, PR, SA, KU). – Europe (WE, NE, SE, EE), Georgia, Kazakhstan, Mongolia, China (NE, NC, NW), Korean Peninsula, Japan (Hok, Hon, Shi).
- Andrena (Cnemidandrena) fuscipes** (Kirby, 1802) [Melitta] (*Melitta pubescens* Kirby, 1802, nom. praeocc., nec Olivier, 1789; *Andrena cincta* Nylander, 1848, nom. praeocc., nec Fabricius, 1781; *A. germanica* Verhoeff, 1890). Russia: **EP** (NW, C, E), **UR**. – Europe (WE, NE, SE, EE), Kazakhstan.
- Andrena (Cnemidandrena) maetai** Hirashima, 1964. Russia: **FE** (PR). – Korean Peninsula, Japan (Kyu, Tsu).
- Andrena (Cnemidandrena) nigriceps** (Kirby, 1802) [Melitta] (*Melitta lanifrons* Kirby, 1802; *Andrena jagnobensis* Morawitz, 1894; *A. nigriceps* var. *hispanica* Friese, 1922, nom. praeocc., nec Alfken, 1927; *A. n.* ssp. *pamirensis* Alfken, 1931; *A. marchica* Alfken, 1939; *A. nigriceps* ssp. *comata* Warncke, 1974). Russia: **EP** (NW, C, E), **UR**, **ES** (YA). – Europe (WE, NE, SE, EE), Armenia, Azerbaijan, Turkey, Tajikistan, Uzbekistan.
- Andrena (Cnemidandrena) rufoclypeata** Alfken, 1936. Russia: **WS** (AL), **ES** (TU). – Mongolia, China (NW).
- Andrena (Cnemidandrena) simillima** Smith, 1851 (*Anthrena* (!) *baicalica* Kokujev, 1927; *Andrena*

- bremensis* Alfken, 1900; *A. similima* ssp. *sischkai* Warncke, 1988). Russia: **EP** (NW, C, E, S), **UR**, **WS** (TK, KM, AL), **ES** (KS, BR, YA). – Europe (WE, NE, SE, EE), Azerbaijan, Iran, Mongolia.
- Andrena (Cnemidandrena) tridentata** (Kirby, 1802) [Melitta] (*Melitta rufitarsis* Kirby, 1802, nom. praeocc., nec Zetterstedt, 1838). Russia: **EP** (NC), **UR**, **WS** (NS, KM, AL). – Europe (WE, SE, EE).
- Andrena (Cordandrena) cordialis** Morawitz, 1877. Russia: **EP** (S, NC, CR), **UR**, **ES** (ZB). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Central Asia, Kazakhstan, China (NW).
- Andrena (Cryptandrena) ventricosa** Dours, 1873 (*A. ventricosa* ssp. *ridibundus* Warncke, 1975). Russia: **EP** (NC). – Europe (WE, SE, EE), N Africa, Armenia, Azerbaijan, Turkey, Israel.
- Andrena (Didonia) stepposa** Osytshnjuk, 1977. Russia: **EP** (C). – Europe (EE).
- Andrena (Euandrena) allosa** Warncke, 1975 (*A. allosa* ssp. *canigica* Warncke, 1975; *A. a.* ssp. *pileata* Warncke, 1975). Russia: **EP** (S, NC), **UR**. – Europe (SE), Caucasus, Kazakhstan.
- Andrena (Euandrena) asperula** Osytshnjuk, 1977. Russia: **EP** (S, CR). – Europe (EE), Azerbaijan.
- Andrena (Euandrena) bicolor** Fabricius, 1775 (*Apis icterica* Christ, 1791; *A. fuliginosa* Christ, 1791, nom. praeocc., nec Scopoli, 1770, nec Panzer, 1798; *Andrena lucida* Panzer, 1798, nom. praeocc., nec Lepeletier de Saint-Fargeau, 1841; *Melitta picicornis* Kirby, 1802; *M. pilosula* Kirby, 1802; *M. gwynana* Kirby, 1802; *Apis ephippiata* Schrank, 1802; *Andrena oraniensis* Lepeletier de Saint-Fargeau, 1841; *A. proxima* Smith, 1847, nom. praeocc., nec Kirby, 1802; *A. aestiva* Smith, 1849; *A. consimilis* Smith, 1849, nom. praeocc., nec Smith, 1847, nec Alfken, 1900; *A. nigrifrons* Eversmann, 1852, nom. praeocc., nec Smith, 1853, nec Smith, 1855, nec Cresson, 1878; *A. laeviuscula* Schenck, 1853; *A. fuscocirta* Schenck, 1853; *A. distinguenda* Schenck, 1853, nom. praeocc., nec Schenck, 1871; *A. marginalis* Schenck, 1861; *A. violascens* Thomson, 1870; *A. beuthini* Schenck, 1876; *A. gwynana* var. *testacea* Dalla Torre, 1877, nom. praeocc., nec Warncke, 1975; *A. croatica* Friese, 1887; *A. lavandulae* Pérez, 1902; *A. nigrosterna* Pérez, 1902; *A. nigriventris* Pérez, 1902, nom. praeocc., nec Gmelin, 1790, nec Saunders, 1908; *A. fervida* Pérez, 1902; *A. heterodoxa* Pérez, 1903, nom. praeocc., nec Cockerell, 1930; *A. phaneromelas* Cockerell, 1929; *A. baleina* Cockerell, 1929; *A. bicolor* ssp. *agraria* Warncke, 1974; *A. b.* ssp. *apricaria* Warncke, 1975). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (TK, KM, AL), **ES** (KS, TU, IR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iran, Mongolia, China (NW).
- Andrena (Euandrena) capillosa** Morawitz, 1876. Russia: **UR**. – Uzbekistan, Kazakhstan.
- Andrena (Euandrena) chrysopus** Pérez, 1903 (*A. doborowlanensis* Noskiewicz, 1923). Russia: **EP** (C, E, S, CR). – Europe (WE, SE, EE), Turkey, Kazakhstan.
- Andrena (Euandrena) fulvida** Schenck, 1853 (*A. fasciatella* Schenck, 1853; *A. jasnitzkii* Cockerell, 1929). Russia: **EP** (NW, C), **WS** (TK, KM, AL), **ES** (KR, IR, BR, YA), **FE** (AM, KH, PR, SA). – Europe (WE, NE, SE, EE).
- Andrena (Euandrena) glabriventris** Alfken, 1935. Russia: **EP** (CR). – Caucasus, Turkey.
- Andrena (Euandrena) hebes** Pérez, 1905 (*A. praecociformis* Cockerell, 1911). Russia: **FE** (SA). – Japan (Hon, Shi, Kyu).
- Andrena (Euandrena) khabarovi** Osytshnjuk, 1986. Russia: **FE** (AM, KH, PR).
- Andrena (Euandrena) kudiana** Cockerell, 1924. Russia: **FE** (PR).
- Andrena (Euandrena) mutini** Osytshnjuk, 1986. Russia: **FE** (AM, KH, PR).
- Andrena (Euandrena) orientaliella** Osytshnjuk, 1986. Russia: **ES** (TU, IR, BR, YA, ZB), **FE** (AM, KH, PR, MG). – Mongolia.
- Andrena (Euandrena) roscipes** Alfken, 1933. Russia: **EP** (S, NC). – Europe (EE).
- Andrena (Euandrena) rudolfae** Osytshnjuk, 1986. Russia: **UR**, **ES** (KS, BR, ZB). – Kazakhstan.
- Andrena (Euandrena) ruficrus** Nylander, 1848. Russia: **EP** (N, NW, C, E), **UR**, **WS** (TK, KM), **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR, SA). – Europe (WE, NE, SE, EE), Turkey, Kyrgyzstan, Kazakhstan, Korean Peninsula, Japan (Hok, Hon).
- Andrena (Euandrena) symphyti** Schmiedeknecht, 1883 (*A. bothriorhina* Pérez, 1902; *A. furcata* Friese, 1921; *A. furcata* var. *amaniensis* Friese, 1921). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), Georgia, Azerbaijan, Turkey, Iran.
- Andrena (Euandrena) verae** Osytshnjuk, 1986 (*A. verae* ssp. *nikiforuki* Osytshnjuk, 1986). Russia: **EP** (S), **UR**. – Europe (EE), Kazakhstan.
- Andrena (Euandrena) vulpecula** Kriechbaumer, 1873. Russia: **FE** (AM, PR). – Europe (WE, SE, EE), N Africa.
- Andrena (Graecandrena) hyemala** Warncke, 1973 (*A. hyemala* ssp. *repressa* Warncke, 1975; *A. h.* ssp.

- kushkia* Osytshnjuk, 1994). Russia: **EP** (S, NC). – Europe (SE, EE), Turkey, Israel, Turkmenistan.
- Andrena (Graecandrena) impunctata** Pérez, 1895 (*A. contusa* Pérez, 1895; *A. paula* Noskiewicz, 1939). Russia: **EP** (S, CR). – Europe (WE, SE, EE), N Africa, Azerbaijan, Turkey, Israel, Iran.
- Andrena (Graecandrena) schwarzi** Warncke, 1975 (*A. schwarzi* ssp. *walishanovi* Osytshnjuk, 1994). Russia: **EP** (S, CR). – Europe (EE), Turkey, Kazakhstan.
- Andrena (Holandrena) decipiens** Schenck, 1861 (*Apis albifrons* Christ, 1791, nom. praeocc., nec Förster, 1771, nec Rossi, 1790; *Andrena strigosa* Dours, 1872, nom. praeocc., nec Panzer, 1799; *A. insolita* Dours, 1872; ?*A. flavilabris* Schenck, 1874; *A. deceptoria* Schmiedeknecht, 1883; *A. fimbriata paganettii* Alfken, 1904, nom. praeocc., nec Strand, 1921, nec Maidl, 1922; *A. decipiens* ssp. *capta* Warncke, 1974). Russia: **EP** (S, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Iran.
- Andrena (Holandrena) labialis** (Kirby, 1802) [Melitta] (*A. succinata* Imhoff, 1832; *A. separata* Smith, 1847; *A. albipes* Schenck, 1853; *A. fulvipes* Schenck, 1853; *A. lutescens* Schenck, 1853; *A. trachyderma* Dours, 1872; *A. nigro-stincta* Dours, 1872; *A. succinctula* Viereck, 1916; *A. labialis* ssp. *megala* Warncke, 1975; *A. l.* ssp. *stenura* Warncke, 1975). Russia: **EP** (NW, C, E, S, CR), **UR**, **WS** (OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Syria, Iran, Afghanistan, Kyrgyzstan, Tajikistan, Uzbekistan, Kazakhstan.
- Andrena (Holandrena) labiatula** Osytshnjuk, 1993. Russia: **EP** (CR).
- Andrena (Holandrena) valeriana** Hirashima, 1957. Russia: **ES** (BR), **FE** (AM, KH, PR). – Mongolia, China (NC, NW, WP), Korean Peninsula, Japan (Hok, Hon, Kyu).
- Andrena (Holandrena) variabilis** Smith, 1853 (?*A. kirbyi* Curtis, 1826; *A. calabra* Costa, 1863; *A. fonscolombii* Dours, 1872; *A. picciolii* Dours, 1872; *A. piceicornis* Dours, 1872; *A. pulcherrima* Schmiedeknecht, 1884; *A. macedonica* Strand, 1919, nom. praeocc., nec Friese, 1923). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), N Africa, Azerbaijan, Turkey, Lebanon, Israel, Iran, Turkmenistan, Kazakhstan.
- Andrena (Hoplendrena) carantonica** Pérez, 1902 (?*Apis sabulosa* Scopoli, 1763; ?*A. degener* Scopoli, 1770; ?*A. acris* Harris, 1776; ?*A. lutulenta* Gmelin, 1790; *Andrena carantonica* Pérez, 1902; *A. trimmerana* var. *scotica* Perkins, 1917; *A. jacobi* Perkins, 1921; *A. jacobi* var. *johnsoni* Perkins, 1921). Russia: **EP** (N, NW, C, E, CR), **UR**. – Europe (WE, NE, SE, EE), Armenia, Azerbaijan, Iran.
- Andrena (Hoplendrena) dentata** Smith, 1879. Russia: **WS** (TK, KM), **FE** (AM, KH, PR, KU). – China (NE, NC, SW, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Andrena (Hoplendrena) ferox** Smith, 1847 (*A. ferox* Smith, 1847; *A. distincta* Smith, 1847, nom. praeocc., nec Lucas, 1849, nec Schenck, 1861; *A. obscurata* Smith, 1853). Russia: **EP** (CR). – Europe (WE, SE, EE), Armenia, Turkey.
- Andrena (Hoplendrena) miyamotoi** Hirashima, 1964. Russia: **FE** (PR, KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu).
- Andrena (Hoplendrena) romankovae** Osytshnjuk, 1995. Russia: **ES** (BR), **FE** (PR).
- Andrena (Hoplendrena) rosae** Panzer, 1801 (*Melitta zonalis* Kirby, 1802; *Andrena postica* Imhoff, 1832; *A. coarctata* Imhoff, 1832, nom. praeocc., nec Pérez, 1902; *A. austriaca* var. *incompta* Schmiedeknecht, 1883; *A. rosae* var. *alfkeni* Friese, 1914; *A. florea* ssp. *sachalinensis* Yasumatsu, 1939; *A. austriaca* auct., nec Panzer, 1798). Russia: **EP** (NW, C, E, S, CR), **UR**, **WS** (TK, NS, KM, AL), **ES** (KS, TU, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU). – Europe (WE, NE, SE, EE), Armenia, Azerbaijan, Turkey, Iran, Kyrgyzstan, Kazakhstan, Mongolia, China (NE), Korean Peninsula, Japan (Hok).
- Andrena (Hoplendrena) trimmerana** (Kirby, 1802) [Melitta] (*Melitta spinigera* Kirby, 1802; *Andrena fusca* Lepeletier de Saint-Fargeau, 1841; *A. arietina* Dours, 1872; *A. ustulata* Dours, 1872; *A. lombardica* Schmiedeknecht, 1883; *A. dragana* Friese, 1887; *A. anglica* Alfken, 1911). Russia: **EP** (C, NC, CR), **UR**, **ES** (KR). – Europe (WE, NE, SE, EE), N Africa, Turkey, Turkmenistan,
- Andrena (Larandrena) sericata** Imhoff, 1868 (*A. favosa* Morawitz, 1872). Russia: **EP** (E, S, NC, CR), **UR**. – Europe (WE, SE, EE), Georgia, Armenia, Turkey, Turkmenistan, Kazakhstan.
- Andrena (Larandrena) ventralis** Imhoff, 1832 (?*Apis tenella* Christ, 1791; ?*Andrena analis* Fabricius, 1804; *A. ventralis* Imhoff, 1832; *A. rufiventris* Eversmann, 1852; *A. mutabilis* Morawitz, 1866, nom. praeocc., nec Pérez, 1895; *A. fukuiana* Hirashima et Haneda, 1973). Russia: **EP** (N, C, E, S, CR), **UR**, **WS** (OM, TK, KM), **ES** (IR, BR). – Europe (WE, SE, EE), Caucasus, Turkey, Central Asia, Kazakhstan, China (NC), Korean Peninsula, Japan (Hon, Shi).

- Andrena (Lepidandrena) caprimulga** Warncke, 1975. Russia: **EP** (CR). – Azerbaijan, Turkey.
- Andrena (Lepidandrena) curvungula** Thomson, 1870 (?*A. pictipes* Giraud, 1861; *A. squamigera* Schenck, 1874, nom. praeocc., nec Bramson, 1879). Russia: **EP** (C, S, CR), **UR**, **WS** (OM, TK, KM, AL). – Europe (WE, SE, EE), Georgia, Azerbaijan, Turkey, Kazakhstan.
- Andrena (Lepidandrena) florivaga** Eversmann, 1852 (*A. molhusina* Blüthgen, 1914). Russia: **EP** (C, S, NC, CR), **UR**, **WS** (NS, KM). – Europe (WE, NE, SE, EE), Turkey, Iran, Kazakhstan.
- Andrena (Lepidandrena) paucisquama** Noskiewicz, 1924 (*A. paucisquama* ssp. *curonica* Warncke, 1975). Russia: **EP** (C, NC, CR), **UR**. – Europe (WE, SE, EE), Caucasus, Turkey.
- Andrena (Lepidandrena) rufizona** Imhoff, 1834 (*A. alpina* Morawitz, 1872, nom. praeocc., nec Zetterstedt, 1838; *A. pretiosa* Schmiedeknecht, 1880, nom. praeocc., nec Morawitz, 1894). Russia: **EP** (C, E, NC), **UR**, **WS** (TK, NS, KM, AL), **ES** (KS, KR). – Europe (WE, SE, EE), Caucasus, Kazakhstan.
- Andrena (Leucandrena) argentata** Smith, 1844. Russia: **EP** (NW, C, E), **UR**, **WS** (TK, NS, AL), **ES** (KS, BR), **FE** (AM, PR). – Europe (WE, NE, SE, EE), Georgia, Turkey, Kazakhstan.
- Andrena (Leucandrena) barbilabris** (Kirby, 1802) [Melitta] (*Apis sericea* Christ, 1791, nom. praeocc., nec Förster, 1771; ?*Hylaeus similis* Fabricius, 1793, nom. praeocc., nec Smith, 1849; *Melitta albicrus* Kirby, 1802; *Andrena albocincta* Zetterstedt, 1838; *A. barbatula* Zetterstedt, 1838, nom. praeocc., nec Kirby, 1802; *A. parumpunctata* Schenck, 1853; *A. placida* Smith, 1853; *A. angustipes* Schenck, 1866; *A. ciliata* Schenck, 1869, nom. praeocc., nec Gmelin, 1790; *A. macilenta* Provancher, 1888, nom. praeocc., nec Pérez, 1895; *A. macgillivrayi* Cockerell, 1897; *A. salicacea* Robertson, 1900; *A. sapellonis* Cockerell, 1900; *A. pauperata* Pérez, 1902; *A. ciliatula* Viereck, 1916; *A. sericea* var. *malaisei* Alfken, 1929). Russia: **EP** (NW, C, E, S), **UR**, **WS** (TM, TK, AL), **ES** (BR, YA, ZB), **FE** (AM, PR, KA, MG). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan, Mongolia, China (NE, NC), Japan (Hok, Hon), N America.
- Andrena (Leucandrena) parviceps** Kriechbaumer, 1873 (*A. parviceps* var. *basalis* Kriechbaumer, 1873, nom. praeocc., nec Dours, 1872; *A. lederi* Morawitz, 1886; *A. basilaris* Viereck, 1918). Russia: **EP** (C, CR). – Europe (WE, SE, EE), Georgia, Azerbaijan, Turkey, Iran, Turkmenistan.
- Andrena (Margandrena) marginata** Fabricius, 1776 (?*Apis obscura* Linné, 1764, nom. praeocc., nec Müller, 1776, nec Robertson, 1902, nec Friese, 1914; *Nomada cingulata* Fabricius, 1775; *Apis cetii* Schrank, 1781; *Andrena suecica* Gmelin, 1790; *Apis marginella* Gmelin, 1790; *A. sphegoides* Panzer, 1798, nom. praeocc., nec Schrank, 1781; *Melitta schrankella* Kirby, 1802; *M. affinis* Kirby, 1802; *Andrena frontalis* Smith, 1849; *A. fulva* Eversmann, 1852, nom. praeocc., nec Müller, 1766, nec Schrank, 1781; *A. hyalinella* Costa, 1888; *A. marginata* var. *nigrescens* Aurivillius, 1903; *A. m.* var. *absoluta* Friese, 1914; *A. eversmanniana* Osytschnjuk, 1994). Russia: **EP** (NW, C, E, S, NC), **UR**, **WS** (TM, KM), **ES** (KS, KR, IR, BR, ZB), **FE** (AM, PR). – Europe (WE, NE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Kazakhstan, Turkmenistan.
- Andrena (Melandrena) albopunctata** (Rossi, 1792) [Apis] (*A. funebris* Panzer, 1798; *A. lugubris* Lepeletier de Saint-Fargeau, 1841, nom. praeocc., nec Erichson, 1841; *A. nigrobarbata* Morawitz, 1871; *A. macularis* Kriechbaumer, 1873; *A. lugubrescens* Cockerell, 1917; *A. albopunctata* ssp. *melona* Warncke, 1967). Russia: **EP** (E, S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iraq, Iran, Afghanistan, Pakistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- Andrena (Melandrena) comta** Eversmann, 1852 (*A. orenburgensis* Schmiedeknecht, 1884; *Anthrena* (!) *csikiana* Mocsáry, 1901; *Andrena wulungshanensis* Yasumatsu, 1935). Russia: **EP** (C), **UR**, **WS** (NS, KM, AL), **ES** (KS, TU, IR, BR, ZB), **FE** (AM, PR). – Europe (WE, EE), Kazakhstan, Mongolia, China (NE, NC, NW), Japan (Hon).
- Andrena (Melandrena) cineraria** (Linnaeus, 1758) [Apis] (*Apis atra* Scopoli, 1763, nom. praeocc., nec Müller, 1776, nec Smith, 1847, nec Popov, 1940; *Lamprocolletes peregrinus* Smith, 1878; *Andrena cineraria* var. *nigrifacies* Alfken, 1913; *A. danuvia* E. Stoeckhert, 1950; *A. barbareae* auct., partim, nec Panzer, 1805). Russia: **EP** (N, NW, C, E), **UR**, **WS** (OM, TK, NS, KM, AL), **ES** (KS, TU, IR, BR, YA, ZB), **FE** (KH). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iran, Afghanistan, Pakistan, Turkmenistan, Kazakhstan, Mongolia, China (NC, NW, WP).
- Andrena (Melandrena) cussariensis** Morawitz, 1886 (*A. cussariensis* var. *kohatensis* Cockerell, 1917). Russia: **EP** (S, NC, CR), **UR**. – Georgia, Azerbaijan, Turkey, Iran, Tajikistan, Kazakhstan, Mongolia.

- Andrena (Melandrena) gallica** Schmiedeknecht, 1883 (*A. gallica* ssp. *alpicola* Bischoff, 1922; *A. g.* ssp. *fulvitegularis* Bischoff, 1922; *A. g.* ssp. *taurica* Bischoff, 1922; *A. g.* ssp. *iberica* Bischoff, 1922). Russia: **EP** (C, NC, CR), **UR**, **WS** (OM, KM, AL), **ES** (KS, IR, BR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Kazakhstan.
- Andrena (Melandrena) gussakovskii** Lebedev, 1932. Russia: **WS** (AL). – Iran, Central Asia.
- Andrena (Melandrena) limata** Smith, 1853 (*A. lucida* Lepeletier de Saint-Fargeau, 1841, nom. praeocc., nec Panzer, 1798; *A. pectoralis* Schmiedeknecht, 1883; *A. batesiae* Cockerell, 1910; *A. bateiae* Cockerell, 1914; *A. nitida* var. *algeriensis* Alfken, 1914; *A. thoracica* var. *secunda* Friese, 1922; *A. nitida* var. *aestivalis* Friese, 1922; *A. pectoralis* var. *alemannia* Alfken, 1927; *A. nitida* var. *hispanica* Alfken, 1927, nom. praeocc., nec Friese, 1922; *A. nitida* ssp. *hispaniola* Warncke, 1967; *A. limata* ssp. *mixtura* Warncke, 1967). Russia: **EP** (C, E, S, CR). – Europe (WE, NE, SE, EE), N Africa, Georgia, Armenia, Turkey, Israel, Iran, Uzbekistan, Kyrgyzstan, Kazakhstan.
- Andrena (Melandrena) magna** Warncke, 1965. Russia: **EP** (CR). – Europe (SE, EE), Georgia, Armenia, Turkey.
- Andrena (Melandrena) metallescens** Cockerell, 1906 (*A. metallica* Radoszkowski, 1876, nom. praeocc., nec Fabricius, 1793). Russia: **EP** (S). – Azerbaijan, Kazakhstan.
- Andrena (Melandrena) morio** Brullé, 1832 (*A. lugubris* Erichson, 1841; *A. holomelana* Lepeletier de Saint-Fargeau, 1841; *A. collaris* Lepeletier de Saint-Fargeau, 1841; *A. violaceipennis* Dufour, 1841, nom. praeocc., nec Cameron, 1902; ?*A. phaeoptera* Gistel, 1857; *A. rhodia* Kriechbaumer, 1873; *A. occipitalis* Pérez, 1895, nom. praeocc., nec Gistel, 1857; *A. asterabadiae* Strand, 1921; *A. ephippium* var. *scopipes* Friese, 1923, nom. praeocc., nec Friese, 1923; *A. e.* var. *albicollis* Friese, 1923; *A. morio* var. *scopipes* Friese, 1923, nom. praeocc., nec Friese, 1923; *A. m.* ssp. *athalassae* Pittioni, 1950). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Israel, Iran, Kazakhstan.
- Andrena (Melandrena) nigroaenea** (Kirby, 1802) [Melitta] (*Apis obscura* Müller, 1776, nom. praeocc., nec Linné, 1764, Robertson, 1902, nec Friese, 1914; *Andrena splendens* Imhoff, 1832; *A. bipartita* Lepeletier de Saint-Fargeau, 1841, nom. praeocc., nec Brullé, 1839; *A. aprilina* Smith, 1848; *A. nigrosericea* Dours, 1872; *A. serotina* Destefani, 1889, nom. praeocc., nec Robertson, 1893; *A. lepeletieri* Dalla Torre, 1896, nom. praeocc., nec Lucas, 1849; *A. candiae* Strand, 1915; *A. nigroaenea* var. *fasciculata* Friese, 1922; *A. melandura* Cockerell, 1922; *A. aemula* Alfken, 1926, nom. praeocc., nec Alfken, 1926; *A. nigroaenea sarnia* Richards, 1979; *A. n. corsa* Tkalcú, 1984). Russia: **EP** (NC, CR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Israel, Syria, Iran, Afghanistan.
- Andrena (Melandrena) nitida** (Müller, 1776) [Apis] (?*Apis assiduus* Harris, 1776; ?*A. fortis* Harris, 1776; *Andrena pubescens* Olivier, 1789, nom. praeocc., nec Kirby, 1802; *Apis nigriventris* Gmelin, 1790, nom. praeocc., nec Pérez, 1902, nom. praeocc., nec Saunders, 1908; *Andrena velutina* Lepeletier de Saint-Fargeau, 1841; *A. consimilis* Smith, 1847, nom. praeocc., nec Smith, 1849, nec Alfken, 1900; *A. nitens* Schenck, 1869; *A. pectoraloides* Verhoeff, 1890; *A. denticornis* Verhoeff, 1890; *A. nitida baltica* Alfken, 1913; *A. pubescens* ssp. *omissa* Valkeila, 1954). Russia: **EP** (NW, C, NC, CR), **UR**, **WS** (TK, KM). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Iran, Central Asia, Kazakhstan.
- Andrena (Melandrena) parathoracica** Hirashima, 1957. Russia: **FE** (PR, KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Andrena (Melandrena) pyropygia** Kriechbaumer, 1873. Russia: **EP** (NC, CR). – Europe (SE), Georgia, Azerbaijan, Turkey, Syria, Israel, Iran.
- Andrena (Melandrena) senex** Eversmann, 1852 (*A. ovinella* Friese, 1914). Russia: **UR**, **ES** (TU, IR, BR). – Kazakhstan, Mongolia, China (NE).
- Andrena (Melandrena) stigmatica** Morawitz, 1895. Russia: **EP** (CR). – Turkmenistan.
- Andrena (Melandrena) thoracica** (Fabricius, 1775) [Apis] (*Melitta melanocephala* Kirby, 1802; *Andrena sinensis* Cockerell, 1910; *A. thoracica* ssp. *melanoptera* Hedicke, 1934; *A. th.* ssp. *kotschyi* Mavromoustakis, 1953). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (OM, TK, NS, KM, AL), **ES** (KS, TU, IR, BR, ZB), **FE** (AM, KH, PR, SA, KA, MG). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Israel, Jordan, Lebanon, Iran, Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, Mongolia, China (NE, NC, NW), Korean Peninsula.
- Andrena (Melandrena) vaga** Panzer, 1799 (*Apis pratensis* Müller, 1776; *Andrena ovina* Klug, 1810; *A. nitidiventris* Blanchard, 1840, nom. praeocc., nec Dufour, 1841; *A. nitidiventris* Dufour, 1841, nom.

- praeocc., nec Blanchard, 1840; *A. atricula* Biscohoff, 1922). Russia: **EP** (NW, C, E, S), **UR**, **WS** (OM, TM, KM), **ES** (IR, BU, YA, ZB). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Kyrgyzstan, Kazakhstan.
- Andrena (Melandrena) watasei** Cockerell, 1913 (*A. azalearum* Cockerell, 1930). Russia: **FE** (PR, SA). – Japan (Hok, Hon, Shi, Kyu).
- Andrena (Melanapis) fuscata** Erichson, 1835 (?*Andrena aethiops* Imhoff, 1832; *A. rutila* Spinola, 1838, nom. praeocc., nec Pérez, 1895; *A. ephippium* Spinola, 1838; *A. xanthoscelis* Brullé, 1839; *A. dorsalis* Lepeletier de Saint-Fargeau, 1841, nom. praeocc., nec Brullé, 1832; *A. lepeletieri* Lucas, 1849, nom. praeocc., nec Dalla Torre, 1896; *A. ruficornis* Smith, 1853; *A. atrocoerulea* Giraud, 1863; *A. dagestanica* Radoszkowski, 1867; *A. turcestanica* Morawitz, 1876; *A. dilecta* Mocsáry, 1879; *A. lepeletieri* var. *aschabadensis* Radoszkowski, 1893, nom. praeocc., nec Friese, 1922; *A. jucunda* Pérez, 1895; *A. ephippium* var. *cleopatra* Friese, 1899; *Melanapis violaceipennis* Cameron, 1902, nom. praeocc., nec Dufour, 1841; *M. rufifrons* Nurse, 1904; *Andrena cyprica* Cockerell, 1910; *A. ephippium* var. *flavipennis* Friese, 1914; *A. e.* var. *pallipes* Friese, 1914; *A. e.* var. *rufocincta* Friese, 1914, nom. praeocc., nec Ashmead, 1890; *A. e.* var. *rubriventris* Friese, 1922; *A. dorsatula* Viereck, 1918; *A. rutila* ab. *carnea* Lebedev, 1933; *A. rutila* ab. *zonaria* Lebedev, 1933; *A. ankarae* Alfken, 1935; *A. rutila* ssp. *mauritanica* Patiny, 1997; *A. canariensis* Patiny, 1997). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Jordan, Lebanon, Israel, Iran, Afghanistan, Central Asia, Kazakhstan, India.
- Andrena (Micrandrena) alfkenella** Perkins, 1914 (*A. moricella* Perkins, 1914; *A. pillichii* Noskiewicz, 1939; *A. alfkenella* ssp. *sunna* Warncke, 1975). Russia: **EP** (C, E, S, CR). – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Turkey.
- Andrena (Micrandrena) enlinella** Stoeckhert, 1924 (*A. chimaera* Blüthgen, 1949). Russia: **EP** (C, E, S, NC), **UR**, **WS** (KM). – Europe (WE, SE, EE), Azerbaijan, Turkey, Iran.
- Andrena (Micrandrena) falsifica** Perkins, 1915. Russia: **EP** (C, E, NC, CR), **UR**, **WS** (KM), **ES** (IR). – Europe (WE, NE, SE, EE), Georgia, Azerbaijan.
- Andrena (Micrandrena) falsificissima** Hirashima, 1966. Russia: **FE** (KH, PR). – Korean Peninsula, Japan (Hok, Hon).
- Andrena (Micrandrena) floricola** Eversmann, 1852 (*A. punctulata* Schenck, 1853, nom. praeocc., nec Torka, 1913; *A. ochropyga* Alfken, 1916). Russia: **EP** (C, E, NC, CR), **UR**, **WS** (TK). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran.
- Andrena (Micrandrena) hikosana** Hirashima, 1957. Russia: **FE** (PR). – Korean Peninsula, Japan (Hok, Hon, Kyu, Shi).
- Andrena (Micrandrena) lazoiana** Osytshnjuk, 1995. Russia: **FE** (PR).
- Andrena (Micrandrena) magunta** Warncke, 1965. Russia: **EP** (NC, CR). – Europe (SE), Georgia, Azerbaijan, Turkey.
- Andrena (Micrandrena) minutissima** Osytshnjuk, 1995. Russia: **FE** (AM, KH, PR, SA).
- Andrena (Micrandrena) minutula** (Kirby, 1802) [Melitta] (*Melitta parvula* Kirby, 1802, nom. praeocc., nec Morawitz, 1871; *Andrena nigrifrons* Smith, 1855, nom. praeocc., nec Eversmann, 1852, nec Smith, 1853, nec Cresson, 1878; *A. gilvifrons* Pérez, 1903; *A. lenis* Pérez, 1903; *A. minutula* ssp. *alga* Warncke, 1974). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, China (NE, NC, NW), Japan (Hok, Hon, Shi, Kyu).
- Andrena (Micrandrena) minutuloides** Perkins, 1914 (*A. parvuloides* Perkins, 1914; *A. sparsiciliata* Alfken, 1925). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (TK, KM, AL), **ES** (KS, KR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran.
- Andrena (Micrandrena) nana** (Kirby, 1802) [Melitta] (*A. schenkella* Pérez, 1903; *A. nana* var. *taorminae* Strand, 1921; *A. asuniensis* Strand, 1921). Russia: **EP** (C). – Europe (WE, NE, SE, EE), N Africa.
- Andrena (Micrandrena) nanaeformis** Noskiewicz, 1925. Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (KM, AL), **ES** (KS, IR). – Europe (WE, EE), Azerbaijan, Kazakhstan.
- Andrena (Micrandrena) nanula** Nylander, 1848. Russia: **EP** (NW, C, E), **UR**, **WS** (KM, AL), **ES** (KS, IR, BR, ZB), **FE** (PR). – Europe (WE, NE, SE, EE), Azerbaijan.
- Andrena (Micrandrena) niveata** Friese, 1887 (*A. niveata* ssp. *bubulca* Warncke, 1975; *A. n.* ssp. *haloga* Warncke, 1980; *A. n.* ssp. *lecana* Warncke, 1975). Russia: **EP** (C, CR), **UR**. – Europe (WE, NE, SE, EE), Turkey.
- Andrena (Micrandrena) roripae** Osytshnjuk, 1993. Russia: **EP** (S, CR).
- Andrena (Micrandrena) rugulosa** Stoeckhert, 1935. Russia: **EP** (CR). – Europe (WE, SE, EE), Turkey.

- Andrena (Micrandrena) rugulosella** Osytshnjuk, 1993. Russia: **EP** (S). – Kazakhstan.
- Andrena (Micrandrena) semilaevis** Pérez, 1903 (*A. saundersella* Perkins, 1914). Russia: **EP** (NW, C, E, S, CR). – Europe (WE, NE, SE, EE), Azerbaijan.
- Andrena (Micrandrena) semirugosa** Cockerell, 1924 (*A. brassicae* Hirashima, 1957, nom. praeocc., nec Mitchell, 1960). Russia: **FE** (AM, KH, PR, SA, KU). – China (NE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu).
- Andrena (Micrandrena) sillata** Warncke, 1975 (*A. sillata* ssp. *histrionica* Warncke, 1975). Russia: **EP** (NC, CR). – Europe (SE), Turkey.
- Andrena (Micrandrena) stoeckhertella** Pittioni, 1948. Russia: **EP** (S, NC, CR). – Azerbaijan, Turkey.
- Andrena (Micrandrena) subopaca** Nylander, 1848. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TK, KM, AL), **ES** (KR, IR, BR, ZB), **FE** (AM, KH, PR, SA, KU, KA). – Europe (WE, NE, SE, EE), Georgia, Azerbaijan, Kazakhstan, China (NE, SW), Japan (Hok, Hon, Shi, Kyu).
- Andrena (Micrandrena) tringa** Warncke, 1973. Russia: **EP** (C, S, NC, CR). – Europe (EE), Azerbaijan, Turkey.
- Andrena (Nobandrena) anatolica** Alfken, 1935. Russia: **EP** (S). – Europe (SE, EE), Azerbaijan, Turkey, Syria, Lebanon.
- Andrena (Nobandrena) athenensis** Warncke, 1965. Russia: **EP** (NC, CR). – Europe (SE, EE), Caucasus, Turkey.
- Andrena (Nobandrena) flavobila** Warncke, 1965 (*A. flavobila* ssp. *albicilla* Warncke, 1975). Russia: **EP** (CR). – Europe (SE, EE), Turkey.
- Andrena (Nobandrena) fratercula** Warncke, 1975. Russia: **EP** (NC). – Turkey.
- Andrena (Nobandrena) nobilis** Morawitz, 1874 (*A. paliuri* Morawitz, 1877). Russia: **EP** (S, NC, CR), **UR**. – Europe (WE, SE, EE), Caucasus, Turkey, Iran, Turkmenistan.
- Andrena (Notandrena) chrysoceles** (Kirby, 1802) [Melitta] (*Melitta connectens* Kirby, 1802; *Andrena fallax* Eversmann, 1852; *A. erythrocnemis* Morawitz, 1870, nec auct.). Russia: **EP** (C, E, S, NC), **UR**, **WS** (OM, TK, KM, AL). – Europe (WE, NE, SE, EE), Georgia, Turkey, Kazakhstan.
- Andrena (Notandrena) minor** (Radoszkowski, 1891) [Cilissa] (*A. kurdistanica* Engel, 2005). Russia: **FE** (PR).
- Andrena (Notandrena) nitidiuscula** Schenck, 1853 (?*A. xanthopyga* Illiger, 1806; *A. fulvicornis* Schenck, 1853; *A. fulvicornis* Schenck, 1861; *A. lucens* Imhoff, 1868; *A. nigellata* Pérez, 1895; *A. gascheti* Pérez, 1903; *A. petroselini* Pérez, 1903; *A. divergens* Pérez, 1903; *A. rostellata* Pérez, 1903; *A. rubrosignata* Saunders, 1908; *A. lucens* var. *algira* Friese, 1922; *A. franconica* E. Stoeckhert, 1922). Russia: **EP** (C, E, S, NC, CR), **WS** (TK, KM), **ES** (TU, IR, BR, ZB), **FE** (KH). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Syria, Israel, Iran, Mongolia, China (NE, NW, WP), Japan (Hok, Hon, Kyu).
- Andrena (Notandrena) pallitarsis** Pérez, 1903. Russia: **UR**, **WS** (KM). – Europe (WE, SE, EE).
- Andrena (Opandrena) schencki** Morawitz, 1866 (*A. labiata* sensu E. Stoeckhert, 1930, nom. praeocc., nec Fabricius, 1781; *A. bipustulata* Friese, 1921). Russia: **EP** (NC), **UR**. – Europe (WE, NE, SE, EE), Caucasus, Turkey, Israel, Iran, Turkmenistan.
- Andrena (Orandrena) oralis** Morawitz, 1876 (*A. sogdiana* Morawitz, 1876; *A. sisymbrii* Friese, 1887). Russia: **EP** (S, NC, CR), **UR**. – Europe (WE, SE, EE), Turkey, Uzbekistan, Kazakhstan.
- Andrena (Oreomelissa) coitana** (Kirby, 1802) [Melitta] (*Melitta shawella* Kirby, 1802; *Andrena nylanderi* Morawitz, 1864; *A. amaguensis* Cockerell, 1924; *A. coitana* var. *pilosodorsata* Alfken, 1929; *A. c.* ssp. *xema* Warncke, 1975). Russia: **EP** (NW, C, E, NC, CR), **UR**, **WS** (TK, KM, AL), **ES** (KS, TU, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, KA, MG). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Kyrgyzstan, Kazakhstan, China (NW), Korean Peninsula, Japan (Hok).
- Andrena (Oreomelissa) kamikochiana** Hirashima, 1963. Russia: **FE** (PR). – Mongolia, China (NE, NC), Korean Peninsula, Japan (Hon).
- Andrena (Oreomelissa) media** (Radoszkowski, 1891) [Cilissa] (*A. amurensis* Friese, 1922, nom. praeocc., nec Radoszkowski, 1891; *A. amurica* Engel, 2005). Russia: **FE** (PR). – China (NE), Korean Peninsula.
- Andrena (Oreomelissa) mitakensis** Hirashima, 1963. Russia: **FE** (SA, KU). – China (NC), Japan (Hok, Hon).
- Andrena (Pallandrena) braunsiana** Friese, 1887 (*A. braunsiana* ssp. *detorta* Warncke, 1975). Russia: **EP** (C, S, CR). – Europe (WE, SE, EE), Azerbaijan, Turkey.
- Andrena (Parandrenella) atrata** Friese, 1887 (*A. bicarinata* auct., nec Morawitz, 1876). Russia: **EP** (C, S, NC, CR), **UR**, **WS** (NS, KM), **ES** (KS). – Europe (WE, SE, EE), Azerbaijan, Kazakhstan.



- Andrena (Parandrenella) dentiventris** Morawitz, 1874. Russia: **EP** (S, NC). – Georgia, Azerbaijan, Turkey, Iran, Kazakhstan.
- Andrena (Parandrenella) figurata** Morawitz, 1866. Russia: **EP** (E, S, NC, CR), **UR**. – Europe (SE, EE), Caucasus, Turkey, Iran, Kazakhstan.
- Andrena (Plastandrena) bimaculata** (Kirby, 1802) [Melitta] (*A. decorata* Smith, 1847; *A. conjuncta* Smith, 1847; *A. articulata* Smith, 1847; *A. vitrea* Smith, 1847; *A. consobrina* Eversmann, 1852, nom. praeocc., nec Schenck, 1861; *A. vitreipennis* Costa, 1861; *A. mystacea* Dours, 1861; *A. intermedia* Morawitz, 1870, nom. praeocc., nec Thomson, 1870; *A. morawitzi* Thomson, 1872; *A. atro-rubricata* Dours, 1872; *A. aulica* Morawitz, 1876; *A. comparata* Morawitz, 1876; *A. melanura* Morawitz, 1877; *A. paveli* Schmiedeknecht, 1883; *A. magrettiana* Schmiedeknecht, 1884; *A. germabica* Radoszkowski, 1893; *A. vitrea* var. *tenebrosa* Gribodo, 1894; *A. atrorubricata* var. *concolor* Alfken, 1914, nom. praeocc., nec Robertson, 1898, nec Blüthgen, 1919; *A. bimaculata* var. *mondaensis* Friese, 1922; *A. bimaculata* var. *serotinella* Friese, 1922; *A. morawitzi* var. *hirtella* Friese, 1922; *A. tibialis* var. *tricolorata* Friese, 1922; *A. florea* var. *clavipes* Friese, 1924; *A. blüthgeni* Stoeckhert, 1930; *A. bimaculata* ssp. *oligotricha* Mavromoustakis, 1952; *A. gaetula* Benoist, 1961; *A. bimaculata* ssp. *lichata* Warncke, 1967). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (OM, TK, KM), **ES** (KR, IR, BR). – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey, Syria, Israel, Iraq, Iran, Afghanistan, Central Asia, Kazakhstan, Mongolia.
- Andrena (Plastandrena) dzynnanica** Popov, 1949. Russia: **ES** (TU, IR, BR, ZB), **FE** (KH, PR). – Mongolia, China (NE, NC).
- Andrena (Plastandrena) eversmanni** Radoszkowski, 1867 (*A. fasciata* Radoszkowski, 1876, nom. praeocc., nec Fabricius, 1775, nec Imhoff, 1832, nec Nylander, 1852; *A. radoszkowskyi* Schmiedeknecht, 1884, nom. praeocc., nec Dalla Torre, 1896; *A. eversmanni* ssp. *ciscaspica* Popov, 1949). Russia: **EP** (NC). – Azerbaijan, Kazakhstan.
- Andrena (Plastandrena) khasania** Osytshnjuk, 1995. Russia: **FE** (AM, PR).
- Andrena (Plastandrena) pilipes** Fabricius, 1781 (?*Apis riparia* Scopoli, 1763; *A. atra* Müller, 1776, nom. praeocc., nec Scopoli, 1763, nec Smith, 1847, nec Popov, 1940; *A. ciliata* Gmelin, 1790, nom. praeocc., nec Schenck, 1869; *Andrena aterrima* Panzer, 1799; *Nomada nigrita* Panzer, 1800, nom. praeocc., nec Fabricius, 1775, nec Morawitz, 1876; *Andrena atra* Smith, 1847, nom. praeocc., nec Müller, 1776, Scopoli, 1763, nec Popov, 1940; *A. spectabilis* Smith, 1853; *A. elongata* Radoszkowski, 1871, nom. praeocc., nec Imhoff, 1834, nec Radoszkowski, 1876; *A. nigrospina* Thomson, 1872; *A. praetexta* Smith, 1872; *A. dolorosa* Nurse, 1904; *A. carbonaria* var. *autumnalis* Friese, 1922, nom. praeocc., nec Viereck et Cockerell, 1914; *A. c.* var. *claripennis* Friese, 1922; *A. c.* ssp. *iliensis* Alfken, 1938; *A. c.* ssp. *imamiana* Osytshnjuk, 1994; *Apis carbonaria* auct., nec Linné, 1967). Russia: **EP** (N, NW, C, E, S, CR), **UR**, **WS** (NS, KM, AL), **ES** (KS, TU, IR, BR, ZB), **FE** (AM, PR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Syria, Israel, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, Mongolia, China (NC, NW, WP), India.
- Andrena (Plastandrena) tibialis** (Kirby, 1802) [Melitta] (*Melitta mouffetella* Kirby, 1802; *M. atriceps* Kirby, 1802; *Andrena fulvitaris* Eversmann, 1852, nom. praeocc., nec Brullé, 1832; *A. ambigua* Eversmann, 1852, nom. praeocc., nec Perkins, 1895; *A. subfasciata* Schenck, 1853; *A. indobonensis* Stoeckhert, 1950; *A. tibialis* ssp. *concreta* Warncke, 1975; *A. t.* ssp. *corvina* Warncke, 1967; *A. t.* ssp. *porzana* Warncke, 1975). Russia: **EP** (NW, C, E, S, CR), **UR**, **WS** (OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR), **FE** (PR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Kyrgyzstan, Kazakhstan, China (NC).
- Andrena (Plastandrena) transbaicalica** Popov, 1949 (*A. astragalina* Hirashima, 1957). Russia: **WS** (TK, NS, KM), **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR). – Korean Peninsula, Japan (Hok, Hon, Kyu).
- Andrena (Poecilandrena) fukuokensis** Hirashima, 1952 (*A. leleji* Osytshnjuk, 1982). Russia: **ES** (ZB), **FE** (PR). – China (NE, NC, CC), Korean Peninsula, Japan (Hon, Shi, Kyu, Tsu).
- Andrena (Poecilandrena) hybrida** Warncke, 1975 (*A. hybrida* ssp. *tauriensis* Warncke, 1975; *A. h.* ssp. *uralskia* Warncke, 1975). Russia: **EP** (S, CR). – Europe (SE), Turkey.
- Andrena (Poecilandrena) labiata** Fabricius, 1781 (*Apis fusciventris* Gmelin, 1790; *A. maculosa* Gmelin, 1790; *A. albilabris* Panzer, 1798; *Andrena divisa* Imhoff, 1834; *A. ferruginata* Schenck, 1853; *A. regina* Friese, 1921; *A. labiata* ssp. *bellina* Warncke, 1967; *A. cingulata* auct., nec Fabricius). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (TK, KM, AL), **ES** (KS, IR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Kyrgyzstan, Kazakhstan.

- Andrena (Poecilandrena) potentillae** Panzer, 1809 (*A. genevensis* Schmiedeknecht, 1884). Russia: **EP** (E, S), **UR**. – Europe (WE, SE, EE).
- Andrena (Poecilandrena) seminuda** Friese, 1896 (*A. setigera* Alfken, 1911). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), Georgia, Azerbaijan, Turkey.
- Andrena (Poecilandrena) semirubra** Morawitz, 1876. Russia: **EP** (S, NC, CR). – Caucasus, Turkey, Israel.
- Andrena (Poecilandrena) sphecodimorpha** Hedicke, 1942 (*A. potentillae* ssp. *pendelica* Mavromoustakis, 1958). Russia: **EP** (S, CR). – Europe (SE, EE), Israel.
- Andrena (Poliandrena) altaica** Lebedev, 1932. Russia: **WS** (NS). – Kazakhstan.
- Andrena (Poliandrena) caspica** Morawitz, 1886 (*A. unifasciata* Friese, 1899). Russia: **EP** (NC). – Europe (SE), Azerbaijan, Turkey, Lebanon.
- Andrena (Poliandrena) florea** Fabricius, 1793 (*A. austriaca* Panzer, 1798; *A. rubricata* Smith, 1847; *A. globulilabris* Pérez, 1895; *A. florea* var. *obscura* Friese, 1914, nom. praeocc., nec Linné, 1764, nec Müller, 1776, Robertson, 1902; *A. f.* var. *rubra* Friese, 1914; *A. f.* f. *haslauica* Strand, 1921; *A. f.* ssp. *anhinga* Warncke, 1975; *A. f.* ssp. *corsica* Warncke, 1975). Russia: **EP** (C, S, CR), **UR**. – Europe (WE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Iran, Turkmenistan.
- Andrena (Poliandrena) limbata** Eversmann, 1852 (*A. squamea* Giraud, 1863; *A. limbata* ssp. *dusmeti* Warncke, 1967). Russia: **EP** (S, NC, CR), **UR**. – Europe (WE, NE, EE), Georgia, Azerbaijan, Turkey, Syria, Iran, Turkmenistan.
- Andrena (Poliandrena) ornata** Morawitz, 1866. Russia: **EP** (E, S, CR), **UR**. – Azerbaijan, Kazakhstan.
- Andrena (Poliandrena) polita** Smith, 1847 (*A. ochracea* Morawitz, 1872; *A. pseudopolita* Alfken, 1939). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Iran, Kazakhstan.
- Andrena (Poliandrena) tatjanae** Osytshnjuk, 1995. Russia: **FE** (PR).
- Andrena (Proxiandrena) alutacea** E. Stoeckhert, 1942. Russia: **EP** (C, E). – Europe (WE, NE, SE, EE), Azerbaijan, Turkey, Iran, Turkmenistan.
- Andrena (Proxiandrena) proxima** (Kirby, 1802) [Melitta] (*Melitta digitalis* Kirby, 1802). Russia: **EP** (C, E, NC, CR), **UR**, **WS** (TK, KM). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Central Asia.
- Andrena (Ptilandrena) vetula** Lepeletier de Saint-Fargeau, 1841 (*A. megacephala* Smith, 1853; *A. opaca* Morawitz, 1868, *A. tyrrhena* Alfken, 1938. Russia: **EP** (NC). – Europe (WE, SE), N Africa, Caucasus, Turkey, Lebanon, Israel, Iraq, Iran.
- Andrena (Scitandrena) scita** Eversmann, 1852 (*A. obscuricanda* Costa, 1861; *A. transcaspica* Radoszkowski, 1886, nom. praeocc., nec Radoszkowski, 1893; *A. mesopyrrha* Dours, 1872; *A. scita* var. *nigra* Friese, 1914, nom. praeocc., nec Provancher, 1895, nec Saunders, 1908, nec Wu, 1982; *A. scita* var. *nigrofasciata* Friese, 1914). Russia: **EP** (E, S, NC, CR). – Europe (WE, SE, EE), Caucasus, Turkey, Iran, Afghanistan, Turkmenistan, Kazakhstan.
- Andrena (Simandrena) combinata** (Christ, 1791) [Apis] (*A. candens* Eversmann, 1852; *A. albibarbis* Schenck, 1853; *A. sahlbergi* Morawitz, 1888; *A. mehelyi* Alfken, 1936; *A. combinata* ssp. *crudelis* Warncke, 1967). Russia: **EP** (C, E, CR), **UR**, **WS** (TK, NS, KM, AL), **ES** (KS, IR, BR, YA, ZB), **FE** (MG). – Europe (WE, SE, EE), N Africa, Georgia, Armenia, Turkey, Syria, Kyrgyzstan, Kazakhstan, Mongolia, China (NW).
- Andrena (Simandrena) congruens** Schmiedeknecht, 1884 (*A. dallatorrei* Clément, 1922; *A. confinis* E. Stoeckhert, 1930). Russia: **EP** (C, E), **UR**. – Europe (WE, NE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Syria.
- Andrena (Simandrena) dorsata** (Kirby, 1802) [Melitta] (?*Apis transfuga* Christ, 1791; *Melitta lewinella* Kirby, 1802; *M. collinsonana* Kirby, 1802; *M. nudiuscula* Kirby, 1802; *M. subincana* Kirby, 1802; *Andrena propinqua* Schenck, 1853; *A. cognata* Schenck, 1853; *A. griseola* Schenck, 1861; *A. dubitata* Schenck, 1870; *A. connexa* Pérez, 1895; *A. alliarria* Pérez, 1903; *A. thomsoni* Aurivillius, 1903, nom. praeocc., nec Ducke, 1898). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (TK). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Israel, Lebanon, Iran, Turkmenistan, Kazakhstan.
- Andrena (Simandrena) kerriae** Hirashima, 1965. Russia: **WS** (KM), **ES** (BR, ZB), **FE** (AM, PR). – China (NE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Andrena (Simandrena) lepida** Schenck, 1861 (*A. separanda* Schmiedeknecht, 1884; *A. ardens* Pérez, 1895; *A. lepida* ssp. *eleonorae* Warncke, 1967). Russia: **EP** (C, NC, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey, Syria, Israel, Iran.
- Andrena (Simandrena) nippon** Tadauchi et Hirashima, 1983. Russia: **WS** (TK, KM), **ES** (KS, BR, ZB), **FE** (PR). – China (NE), Korean Peninsula, Japan (Hon),

- Andrena (Simandrena) susterai** Alfken, 1914. Russia: **EP** (NC, CR). – Europe (WE, SE, EE).
- Andrena (Simandrena) opacifovea** Hirashima, 1952. Russia: **FE** (KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu).
- Andrena (Simandrena) transitoria** Morawitz, 1871 (*A. basalis* Dours, 1872, nom. praeocc., nec Kriechbaumer, 1873; *A. aurora* Friese, 1922; *A. transitoria* ssp. *schmidti* Alfken, 1936). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Georgia, Azerbaijan, Turkey, Israel, Jordan, Syria, Iran, Afghanistan, Central Asia.
- Andrena (Stenomelissa) halictoides** Smith, 1869. Russia: **FE** (PR). – China (NE), Korean Peninsula, Japan (Hok, Hon).
- Andrena (Taeniandrena) aberrans** Eversmann, 1852 (*A. ratisbonensis* Stoeckert, 1924). Russia: **EP** (S). – Europe (WE, SE, EE), Azerbaijan.
- Andrena (Taeniandrena) callopyrrha** Cockerell, 1929 (*A. callopyrrha* ssp. *kozlovi* Osytshnjuk, 1994). Russia: **WS** (AL). – Kazakhstan, Mongolia, China (NC).
- Andrena (Taeniandrena) ezoensis** Hirashima, 1965. Russia: **ES** (YA), **FE** (SA, KU). – Kazakhstan, China (NE, NC), Korean Peninsula, Japan (Hok, Hon).
- Andrena (Taeniandrena) gelriae** van der Vecht, 1927 (*A. podolica* Noskiewicz, 1930; *A. gelriae karelica* Niemel, 1949; *A. g. k. f. fuscata* Niemel, 1949; *A. g. gredana* Warncke, 1975; *A. g. vocifera* Warncke, 1975). Russia: **EP** (N, NW, C, E, NC, CR), **UR**, **WS** (OM, TK, KM, AL), **ES** (KS, IR, YA, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), Caucasus, Turkey.
- Andrena (Taeniandrena) lathyri** Alfken, 1899. Russia: **EP** (C, E, S, CR), **WS** (TK, NS, KM), **ES** (IR), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), Azerbaijan, Turkey.
- Andrena (Taeniandrena) intermedia** Thomson, 1870. Russia: **EP** (NW, C, E). – Europe (WE, NE, SE, EE), Turkey, Iran.
- Andrena (Taeniandrena) similis** Smith, 1849 (?*Apis ocreata* Christ, 1791; *Andrena croceiventris* Morawitz, 1871; *A. rufohispida* Dours, 1872; *A. stefanii* Pérez, 1895; *A. ocreata* ssp. *cyprisina* Warncke, 1975; *A. similis* ssp. *caraimica* Osytshnjuk, 1994). Russia: **EP** (CR). – Europe (WE, NE, SE, EE), N Africa, Armenia, Turkey, Iran, Afghanistan, Kazakhstan, China (NW).
- Andrena (Taeniandrena) ovatula** (Kirby, 1802) [*Melitta*] (*Melitta afzeliella* Kirby, 1802; *M. fuscata* Kirby, 1802, nom. praeocc., nec Niemalä, 1949; *M. picipes* Kirby, 1802; *M. barbata* Kirby, 1802; *Andrena hirticeps* Eversmann, 1852, nom. praeocc., nec Smith, 1853; *A. interrupta* Eversmann, 1852, nom. praeocc., nec Schenck, 1869; *A. octostrigata* Schenck, 1853; *A. gibba* Schenck, 1853; *A. ovata* Schenck, 1853; *A. plantaris* Schenck, 1853; *A. canescens* Schenck, 1853; *A. albofimbriata* Schenck, 1853; *A. distincta* Schenck, 1861, nom. praeocc., nec Smith, 1847, nec Lucas, 1849; *A. albofasciata* Thomson, 1870; ?*A. turbida* Walker, 1871; *A. poupillieri* Dours, 1872; *A. meliloti* Verhoeff, 1890; *A. afzeliella* var. *heliopolis* Friese, 1914; *A. pseudovatula* Alfken, 1926; *A. lecerfi* Benoist, 1961; *A. poupillieri* ssp. *incana* Warncke, 1975; *A. ovatula* ssp. *transcaspiensis* Osytshnjuk, 1994). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (OM, TK, NS, KM, AL), **ES** (KS, IR, BR, YA, ZB), **FE** (AM, KH, PR, KA). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Israel, Syria, Iraq, Iran, Afghanistan, Central Asia, Kazakhstan, China (NW).
- Andrena (Taeniandrena) wilkella** (Kirby, 1802) [*Melitta*] (*Melitta xanthura* Kirby, 1802; *M. convexiuscula* Kirby, 1802; *M. barbatula* Kirby, 1802, nom. praeocc., nec Zetterstedt, 1838; *Andrena convexa* Schenck, 1853, nom. praeocc., nec Schrank, 1781, nec Provancher, 1888; *A. quadristrigata* Schenck, 1853; *A. winkleyi* Viereck, 1907; *A. meraca* Cockerell, 1924; *A. beaumonti* Benoist, 1961). Russia: **EP** (NW, C, S, NC, CR), **UR**, **WS** (TK, NS, KM), **ES** (IR, BR, YA, ZB), **FE** (AM, PR). – Europe (WE, NE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Kyrgyzstan, Kazakhstan, China (NC, NW, CC), N America.
- Andrena (Tarsandrena) angarensis** Cockerell, 1929. Russia: **WS** (TK, KM, AL), **ES** (KS, TU, IR, BR, ZB), **FE** (AM, KH, PR). – Kyrgyzstan, Mongolia.
- Andrena (Tarsandrena) bonivuri** Osytshnjuk, 1984. Russia: **ES** (ZB), **FE** (PR).
- Andrena (Tarsandrena) ehnergi** Morawitz, 1888 (*A. belicovi* Cockerell, 1929). Russia: **UR**, **WS** (OM, KM, AL), **ES** (KS, TU, KR, IR, BR, ZB), **FE** (AM, PR). – Mongolia, China (NC, NW).
- Andrena (Tarsandrena) tarsata** Nylander, 1848 (*A. basilinea* Kriechbaumer, 1873; *A. gentianae* Vachal, 1906; *A. baicalensis* Cockerell, 1929; *A. universitatis* Cockerell, 1929). Russia: **EP** (NW, C, NC), **UR**, **WS** (KM, AL), **ES** (KS, TU, IR, BR, YA, ZB), **FE** (MG). – Europe (WE, NE, SE, EE), Georgia, Azerbaijan, Turkey, Mongolia, China (NW, SW).
- Andrena (Thysandrena) hypopolia** Schmiedeknecht, 1884 (*A. consobrina* Schenck, 1861, nom. praeocc., nec Eversmann, 1852; *A. inconspicua* Morawitz, 1871; ?*A. holosericea* Bramson, 1879; *A. interrogationis* Dalla Torre, 1884, nom. praeocc., nec Viereck

- et Cockerell, 1914; *A. setosa* Pérez, 1903). Russia: **EP** (S, NC, CR), **WS** (NS). – Europe (WE, SE, EE).
- Andrena (Thysandrena) ranunculorum** Morawitz, 1877. Russia: **EP** (S, NC, CR), **UR**, **WS** (NS, KM, AL), **ES** (TU, BR, ZB). – Europe (SE), Georgia, Azerbaijan, Turkey, Iran, Turkmenistan.
- Andrena (Trachandrena) haemorrhoea** (Fabricius, 1781) [*Apis*] (?*Apis sordida* Scopoli, 1763, nom. praeocc., nec Gmelin, 1790, nec Morawitz, 1876; ?*A. tranquilla* Müller, 1776; ?*A. hiberus* Harris, 1776; *A. haemorrhoea* Fabricius, 1781; *A. convexa* Schrank, 1781, nom. praeocc., nec Schenck, 1853, nec Provancher, 1888; *A. nebulosa* Gmelin, 1790; *A. haemorrhoidalis* Christ, 1791, nom. praeocc., nec Fabricius, 1775; *Andrena salicis* Verhoeff, 1890, nom. praeocc., nec Robertson, 1891; *A. haemorrhoea* ssp. *japonibia* Hirashima, 1957; *Apis albicans* auct., nec Müller, 1776). Russia: **EP** (N, NW, C, E, S, CR), **UR**, **WS** (TK, NS, KM, AL), **ES** (KS, TU, KR, IR, YA, ZB), **FE** (AM, KH, PR, KA). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Syria, Iran, Turkmenistan, Kazakhstan, Mongolia, China (NE), Korean Peninsula, Japan (Hok, Hon, Kyu, Shi, Tsu).
- Andrena (Truncandrena) derbentina** Morawitz, 1886. Russia: **EP** (NC). – N Africa, Azerbaijan, Turkey, Israel, Iran.
- Andrena (Truncandrena) rufomaculata** Friese, 1921 (*A. paramythensis* Mavromoustakis, 1957; *A. rufomaculata* ssp. *optata* Warncke, 1975). Russia: **EP** (CR). – Europe (SE, EE), Caucasus, Turkey, Syria, Israel.
- Andrena (Truncandrena) truncatilabris** Morawitz, 1877 (*A. truncatilabris* ssp. *espanola* Warncke, 1967; *A. t.* ssp. *nigropilosa* Warncke, 1967). Russia: **EP** (S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Israel, Syria, Iran, Kazakhstan.
- Andrena (Ulandrena) combaella** Warncke, 1966 (*A. leucorhina* auct., part., nec Morawitz, 1876). Russia: **EP** (S). – Europe (WE, SE, EE), Georgia, Azerbaijan, Turkey, Israel.
- Andrena (Ulandrena) elegans** Giraud, 1863 (*Apis grisea* Fabricius, 1798, nom. praeocc., nec Gmelin, 1790). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Turkey, Kazakhstan.
- Andrena (Ulandrena) fulvitaris** Brullé, 1832 (*Campylogaster subglobosus* Dours, 1873; *Andrena carinula* Pérez, 1895). Russia: **EP** (CR). – Europe (SE, EE), Turkey, Israel.
- Andrena (Ulandrena) osychniukae** Osytshnjuk, 1977 (*A. abbreviata* ssp. *osychniuki* Warncke, 1973; *A. osychniuki* Osytshnjuk, 1977; *A. abbreviata* ssp. *osychniukae* Osytshnjuk, 1977). Russia: **EP** (CR). – Europe (SE, EE), Caucasus, Turkey.
- Andrena (Zonandrena) chrysopyga** Schenck, 1853 (*A. integra* Thomson, 1870, nom. praeocc., nec Smith, 1853; *A. chrysopyga* var. *stefaniana* Schmiedeknecht, 1884). Russia: **EP** (C, E, S, NC), **UR**, **WS** (OM, TK, KM, AL), **ES** (KS, KR, IR). – Europe (WE, NE, SE, EE), Georgia, Azerbaijan, Turkey, Kyrgyzstan, Kazakhstan.
- Andrena (Zonandrena) flavipes** Panzer, 1799 (*Apis sordida* Gmelin, 1790, nom. praeocc., nec Scopoli, 1763, nec Morawitz, 1876; *Melitta fulvicrus* Kirby, 1802, nom. praeocc., nec Dufour, 1841; *Melitta contigua* Kirby, 1802; *Andrena quadricincta* Brullé, 1832, nom. praeocc., nec Eversmann, 1852; *A. tricincta* Brullé, 1832; *A. fasciata* Imhoff, 1832, nom. praeocc., nec Fabricius, 1775, nec Nylander, 1852, nec Radoszkowski, 1876; *A. puber* Erichson, 1835; *A. mactae* Lepeletier de Saint-Fargeau, 1841; *A. fulvicrus* Dufour, 1841, nom. praeocc., nec Kirby, 1802; *A. cinerascens* Eversmann, 1852, nom. praeocc., nec Nylander, 1848; *A. capitalis* Smith, 1853; *A. interrupta* Schenck, 1869, nom. praeocc., nec Eversmann, 1852; *A. problematica* Pérez, 1903; *A. levilabris* Cameron, 1908; *A. punjaubensis* Cameron, 1909; *A. interruptula* Viereck, 1916; *A. quadricinctula* Viereck, 1916; *A. kraussei* Strand, 1921; *A. kengracensis* Cockerell, 1930; *A. flavipes* ssp. *alexandrina* Warncke, 1966; *A. flavipes* ssp. *ibizensis* Warncke, 1984). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Israel, Syria, Jordan, Iraq, Iran, Afghanistan, Central Asia, Kazakhstan, China (NW, WP), Nepal, India, N America.
- Andrena (Zonandrena) sibirica** Morawitz, 1888. Russia: **UR**, **WS** (NS, KM, AL), **ES** (KS, KR, IR, BR, ZB), **FE** (AM, KH, PR). – Kazakhstan, Mongolia, China (NE, NC).
- Andrena (?) pseudothoracica** Engel, 2005 (*Cilissa thoracica* Radoszkowski, 1891, nom. praeocc., nec Fabricius, 1775). Russia: **FE** (PR).

## Subfamily PANURGINAE

## Tribe PANURGINI

**CAMPTOPOEUM** Spinola, 1843. Type species *Prosopis frontalis* Fabricius, 1804. Genus is distributed only in the Palaearctic region. Number of species: World – 30; Palaearctic – 30; Russia – 2.

- Camptopoeum (Camptopoeum) friesei** Mocsáry, 1894 (*C. friesei* var. *disparilis* Alfken, 1934; *C. f.* var. *intermedius* Alfken, 1934; *C. f.* var. *subinterruptus* Alfken, 1934). Russia: **EP** (S, CR), **UR**. – Europe (WE, SE, EE), Georgia, Turkey, Iran, Turkmenistan.
- Camptopoeum (Camptopoeum) frontale** (Fabricius, 1804) [Prosopis] (*Panurgus fasciatus* Giraud, 1857; *Camptopoeum altaicum* Morawitz, 1892). Russia: **EP** (C, S, CR). – Europe (WE, SE, EE), Azerbaijan, Turkey, Israel, Iran, Pakistan, Turkmenistan, Kazakhstan.
- PANURGINUS** Nylander, 1848 (*Scapteroides* Gribov, 1894; *Greeleyella* Cockerell, 1904; *Birkmania* Viereck, 1909). Type species *Panurginus niger* Nylander, 1848. Genus is distributed in the Holarctic region. Number of species: World – 53; Palaearctic – 31; Russia – 13.
- Panurginus alpotanini** Romankova et Astafurova, 2011. Russia: **FE** (KH). – Mongolia.
- Panurginus alticolus** Morawitz, 1876. Russia: **EP** (E, S, NC). – Georgia, Kazakhstan.
- Panurginus arsenievi** Romankova et Astafurova, 2011. Russia: **FE** (PR).
- Panurginus crawfordi** Cockerell, 1914. Russia: **FE** (PR). – Korean Peninsula, Japan (Hon, Shi, Kyu).
- Panurginus herzi** Morawitz, 1891 (*P. tyrolensis* Richards, 1932; *Panurgus montanus tyrolensis* Warncke, 1972; *P. m. herzi* Warncke, 1972). Russia: **WS** (KM, AL), **ES** (TU, YA). – Europe (NE), Mongolia.
- Panurginus kropotkini** Romankova et Astafurova, 2011. Russia: **FE** (PR).
- Panurginus labiatus** (Eversmann, 1852) [*Panurgus*] (*Panurgus clypeatus* Eversmann, 1852; *Panurginus arenarius* Schenck, 1861). Russia: **EP** (C, E, S), **UR**, **ES** (IR). – Europe (WE, SE, EE), Georgia, Azerbaijan, Kazakhstan.
- Panurginus lactipennis** Friese, 1897. Russia: **EP** (C, S, NC, CR). – Europe (SE), Azerbaijan, Turkey, Syria, Jordan.
- Panurginus mikhno** Romankova et Astafurova, 2011. Russia: **WS** (AL), **ES** (ZB).
- Panurginus muraviovi** Romankova et Astafurova, 2011. Russia: **WS** (KM, AL). – Mongolia.
- Panurginus niger** Nylander, 1848 (*P. dubius* Osytshnjuk, 1995). Russia: **ES** (IR, BR, ZB), **FE** (AM, KH, PR). – Mongolia, China (NC).
- Panurginus romani** Aurivillius, 1914. Russia: **EP** (N), **WS** (KM, AL), **ES** (TU, KR, IR, BR, ZB), **FE** (AM, KH, PR, SA, KA, MG). – Europe (NE).
- Panurginus sculpturatus** Morawitz, 1872. Russia: **EP** (E, S, CR), **UR**. – Europe (EE).
- PANURGUS** Panzer, 1806 (*Eriops* Klug, 1807). Type species *Andrena lobata* Panzer, 1799 = *Apis calcarata* Scopoli, 1763. Genus is distributed only in the Palaearctic region. Number of species: World – 35; Palaearctic – 35; Russia – 1.
- Panurgus calcaratus** (Scopoli, 1763) [*Apis*] (*Apis calcarata* Scopoli, 1763; *A. denticulata* Gmelin, 1790; *A. ursina* Gmelin, 1790; *Philanthus ater* Fabricius, 1793; *Andrena lobata* Panzer, 1799; *Apis linnaeella* Kirby, 1802; *Panurgus unicolor* Spinola, 1808; *P. calcaratus* var. *nigricornis* Dalla Torre, 1877; *P. c.* var. *macrocephalus* Friese, 1897). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (TM, KM, AL), **ES** (KS, KR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Kazakhstan.

#### Tribe MELITTURGINI

- MELITTURGA** Latreille, 1809. Type species *Eucera clavicornis* Latreille, 1806. Genus is distributed in the Palaearctic and the Afrotropical regions. Number of species: World – 17; Palaearctic – 14; Russia – 3.
- Melitturga clavicornis** (Latreille, 1806) [*Eucera*] (*Macrocera nasalis* Eversmann, 1852; *Melitturga clavicornis* var. *thuringiaca* Friese, 1895). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (KS, TU, KR, IR, BR). – Europe (WE, SE, EE), Caucasus, Turkey, Iran, Central Asia, Kazakhstan, China (NW).
- Melitturga mongolica** Alfken, 1936. Russia: **ES** (BR, ZB), **FE** (AM, PR). – Turkey, Armenia, Iran, Afghanistan, Kyrgyzstan, Mongolia, China (NE, NC, NW, WP).
- Melitturga praestans** Giraud, 1861 (*M. caucasica* Morawitz, 1877). Russia: **UR**. – Europe (WE, SE, EE), Georgia, Turkey, Syria, Lebanon, Israel, Kazakhstan.

## 75. FAMILY HALICTIDAE

YU.V. ASTAFUROVA AND M.YU. PROSHCHALYKIN

The family Halictidae is a very large and nearly cosmopolitan group of bees, often dominate other bees in numbers of individuals. This family is monophyletic unit and belongs to generalised group conditionally named short-tongued bees. Number of taxa: World – the number of halictid genera varies in classifications by different authors, 4000 species; Palaeartic – 23 genera, 950 species; Russia – 13 genera, 263 species.

The classification of Halictini and Nomioidinae follows that of Michener (2007) and Nomiinae and Rophitinae that of Astafurova (2014).

**R e f e r e n c e s.** Morawitz, 1865, 1869; Mocsáry, Szépligeti, 1901; Blüthgen, 1923, 1924, 1925, 1931, 1935, 1955; Popov, 1935; Nikiforuk, 1957; Elfving, 1968; Ebmer, 1972, 1974, 1975, 1978, 1980, 1986, 1988a, b, 1995; 1998, 2000, 2004, 2005; Pesenko, 1972, 1985, 1986, 2005a, b, 2006a, b, 2007a, b; Bytinski-Salz, Ebmer, 1974; Sedykh, 1974; Warncke, 1975, 1982a, 1992; Dathe, 1980b; Ebmer, Sakagami, 1990; Fan, 1991; Rasmont et al., 1995; Pesenko et al., 2000; Niu et al., 2004; Murao, Tadauchi, 2007; Kuznetsova, 2009; Proshchalykin, 2009b, 2012a, 2014b; Bogusch, Straka, 2012; Proshchalykin, Astafurova, 2012, 2016; Levchenko, Yuferev, 2013; Mitai, Tadauchi, 2013; Astafurova, 2014; Astafurova, Proshchalykin, 2014, 2015, 2016, 2017a, b, c; Levchenko, 2014, 2015; Murao, 2015, 2017; Sidorov et al., 2016; Astafurova et al., 2017.

## Subfamily HALICTINAE

This is an enormous and nearly cosmopolitan subfamily. Halictinae is subdivided by into two tribes: Augochlorini and Halictini. The tribe Augochlorini with more than 500 species is distributed in Western Hemisphere. The tribe Halictini is cosmopolitan group and includes more than 2500 species. Most of Halictini nest in burrows in banks or flat soil, except for a few groups that nest in rotting wood. The Halictinae exhibit both solitary behaviour and nearly every degree of sociality, ranging from subsocial to eusocial behaviour. Some augochlorini genera and halictini subtribe Sphecodina are cleptoparasites in nests of halictids and other bees. The majority of species are polilectic.

**HALICTUS** Latreille, 1804. Type species *Apis quadricincta* Fabricius, 1776. Widely distributed in the World (except Australia), but most of species

occur in northern hemisphere. Number of taxa: World – about 200 species and 15 subgenera, Palaeartic – more 150 species, Russia – 48.

**Halictus (Argalictus) cochlearitarsis** (Dours, 1872) [Lucasius] (*H. cochlearitarsis* Dalla Torre, 1896; *H. anomalipes* Lebedev, 1911). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Armenia, Azerbaijan, Turkey.

**Halictus (Argalictus) luganicus** Blüthgen, 1936. Russia: **EP** (S, NC, CR). – Europe (EE), Georgia, Azerbaijan, Turkey, Kazakhstan.

**Halictus (Argalictus) senilis** (Eversmann, 1852) [Hylaeus] (*H. fucosus* Morawitz, 1876; *H. albarius* Pérez, 1895; *H. albarius* Pérez, 1895; *H. bivinctus* Vachal, 1902; *H. aegypticola* Strand, 1909). Russia: **EP** (S, NC), **UR**. – Europe (SE, EE), N Africa, Caucasus, Turkey, Near East, Iraq, Iran, Afghanistan, Central Asia, Kazakhstan, Mongolia, China (NC, NW, SW).

**Halictus (Halictus) brunescens** (Eversmann, 1852) [Hylaeus] (*H. quadricinctus maximus* Friese, 1916; *H. quadricinctus aegyptiacus* Friese, 1916). Russia: **EP** (S, NC, CR), **UR**, **ES** (BR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Syria, Israel, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, Mongolia, China (NC, NW, WP), N India.

**Halictus (Halictus) quadricinctus** (Fabricius, 1776) [Apis] (*Apis hortensis* Geoffroy, 1785; *Halictus quadricinctus* Latreille, 1805; *Hylaeus grandis* Illiger, 1806; *Halictus ecaphosus* Walckenaer, 1817; *H. chaharensis* Yasumatsu, 1940). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (OM, TK, NS, AL), **ES** (KR, IR, BR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Israel, Iran, Afghanistan, Central Asia, Kazakhstan, Mongolia, China (NE, NC, NW, WP).

**Halictus (Hexataenites) resurgens** Nurse, 1903 (*H. turkomannus* Pérez, 1903; *H. holtzi* Schulz, 1906; *H. asiaeminoris* Strand, 1921). Russia: **EP** (S, NC, CR). – Europe (SE, EE), N Africa, Caucasus, Turkey, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, China (NW), N India.

**Halictus (Hexataenites) sexcinctus** (Fabricius, 1775) [Apis] (*Apis ichneumonea* Christ, 1791; *Hylaeus arbustorum* Panzer, 1797; *Andrena rufipes* Spinola, 1806). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE).

**Halictus (Monilapis) adjikenticus** Blüthgen, 1923 (*H. scardicus* Blüthgen, 1936). Russia: **EP** (S, NC). – Europe (WE, SE), Armenia, Azerbaijan, Turkey.

- Halictus (Monilapis) compressus compressus** (Walckenaer, 1802) [Andrena] (*Apis flavipes* Panzer, 1798; *Hylaeus tomentosus* Herrich-Schäffer, 1840; *H. senex* Förster, 1860; *Halictus eurygnathus* Blüthgen, 1931; *H. eurygnathopsis* Blüthgen, 1936; *H. veneticus* Ebmer, 1969). Russia: **EP** (N, NW, C, E, S, NC, CR). – Europe (WE, NE, SE, EE), Georgia, Azerbaijan, Turkey, Near East.
- Halictus (Monilapis) compressus transvolgensis** Pesenko, 1985. Russia: **EP** (E), **UR**, **WS** (OM, TK, KM, AL), **ES** (KR, IR, BR, ZB). – Kyrgyzstan, Kazakhstan, China (NW).
- Halictus (Monilapis) patellatus patellatus** Morawitz, 1874 (*H. wagneri* Blüthgen, 1937). Russia: **EP** (NC). – Iran, Turkmenistan.
- Halictus (Monilapis) patellatus taorminicus** Strand, 1921. Russia: **EP** (C, E, S, NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Syria, Iran.
- Halictus (Monilapis) ponticus** Blüthgen, 1934. Russia: **EP** (NC). – Europe (EE), Turkey.
- Halictus (Monilapis) rossicus** Ebmer, 1978 (*H. samarensis* Blüthgen, 1936). Russia: **EP** (C, E, NC, CR), **UR**. – Europe (EE), Azerbaijan.
- Halictus (Monilapis) sajoi** Blüthgen, 1923 (*H. veneticus* Móczár, 1967; *H. bifidus* Warncke, 1975). Russia: **EP** (C, S, CR), **UR**. – Europe (WE, SE, EE), Azerbaijan, Armenia, Turkey, Iran, Turkmenistan, Kyrgyzstan, Kazakhstan.
- Halictus (Monilapis) simplex** Blüthgen, 1923 (*H. ibex* Warncke, 1973). Russia: **EP** (NW, C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Kazakhstan.
- Halictus (Monilapis) tetrazonianellus** Strand, 1909 (*H. leucognathus* Morice, 1921; *H. apatellatus* Strand, 1921; *H. gusenleitneri* Ebmer, 1975). Russia: **EP** (S, NC, CR). – Europe (SE, EE), Caucasus, Turkey, Iraq, Iran, Turkmenistan.
- Halictus (Monilapis) tetrazonius** (Klug, 1817) [Hylaeus] (*H. furcatus* Blüthgen, 1925; *H. galileus* Blüthgen, 1955; *H. pannonicus* Ebmer, 1969). Russia: **EP** (S, E, CR). – Europe (WE, SE, EE), Georgia, Azerbaijan, Turkey, Israel, Iran, Turkmenistan.
- Halictus (Monilapis) tsingtauensis** Strand, 1910 (*H. tsingtauensis* Blüthgen, 1923). Russia: **WS** (AL), **ES** (KR, IR, ZB), **FE** (AM, KH, PR, SA, KU). – China (NE, CC, SE), Korean Peninsula, Japan (Hok, Hon).
- Halictus (Platyhalictus) alfkenellus cedens** Strand, 1909 (*H. posthumus* Blüthgen, 1925; *H. subalfkenellus* Blüthgen, 1936). Russia: **EP** (S, NC). – Europe (WE, SE), Azerbaijan, Turkey, Lebanon, Israel, Iran, Kazakhstan.
- Halictus (Platyhalictus) graecus** Blüthgen, 1933. Russia: **EP** (CR). – Europe (SE, EE), Armenia, Azerbaijan, Turkey.
- Halictus (Platyhalictus) lussinicus** Blüthgen, 1936. Russia: **EP** (S, NC). – Europe (SE).
- Halictus (Platyhalictus) minor** Morawitz, 1876 (*H. altaicus* Pérez, 1903; *H. jarkandensis* Strand, 1909). Russia: **WS** (AL). – Azerbaijan, Iran, Pakistan, Central Asia, Kazakhstan, China (NE, NC), N India.
- Halictus (Protohalictus) hedini hedini** Blüthgen, 1934. Russia: **WS** (KM, AL), **ES** (TU, KR, IR, BR, ZB), **FE** (AM, KH, PR, SA, KU). – Kazakhstan, Mongolia, China (NE, NC, NW), Korean Peninsula, Japan (Hok).
- Halictus (Protohalictus) rubicundus** (Christ, 1791) [Apis] (*H. nidulans* Walckenaer, 1817; *H. lerouxi* Lapeletier de Saint Fargeau, 1841; *H. quadrifasciatus* Smith, 1870; *H. lerouxi ruborum* Cockerell, 1898; *H. rubicundus nesiotis* Perkins, 1922; *H. r. laticincta* Blüthgen, 1923; *H. r. mongolensis* Blüthgen, 1936; *H. lupinelli* Cockerell, 1939; *H. frater* Pesenko, 1984). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (OM, TK, KM, AL), **ES** (TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KA). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Kazakhstan, Mongolia, China (NE, NC, NW), Korean Peninsula, Japan (Hok), N America.
- Halictus (Seladonia) aerarius** Smith, 1873 (*H. confluens* Morawitz, 1889; *H. alexoides* Strand, 1910; *H. pseudoconfluens* Strand, 1910; *H. nikkoensis* Cockerell, 1911; *H. leucopogon* Strand, 1914; *H. tsushimae* Friese, 1916; *H. eruditus* Cockerell, 1924). Russia: **FE** (AM, KH, PR). – Mongolia, China (NE, NC, CC, SW, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Tsu, Yak).
- Halictus (Seladonia) cephalicus** Morawitz, 1874 (*H. conjungens* Blüthgen, 1921; *H. neuter* Blüthgen, 1923). Russia: **EP** (S, NC, CR). – Europe (SE, EE), Caucasus, Turkey, Syria, Israel, Iraq, Iran, Afghanistan.
- Halictus (Seladonia) confusus pelagius** Ebmer, 1996. Russia: **WS** (AL), **ES** (KS, KR, BR, YA), **FE** (AM, KH, PR, SA, KU, MG). – Mongolia, China (NC).
- Halictus (Seladonia) confusus perkinsi** Blüthgen, 1926. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), Georgia, Turkey, Kazakhstan.

- Halictus (Seladonia) gavarnicus** Pérez, 1903 (*H. tataricus* Blüthgen, 1933; *H. gavarnicus delphinalis* Blüthgen, 1935; *H. g. longigenae* Warncke, 1988). Russia: **EP** (C, NC, CR), **UR**, **WS** (AL), **FE** (PR). – Europe (WE, SE, EE), Caucasus, Turkey, Mongolia, China (NC).
- Halictus (Seladonia) kessleri** Bramson, 1879 (*Osmia pannonica* Zilahi-Kiss, 1915; *Halictus kessleri nebulosus* Warncke, 1975; *H. k. hakkarius* Warncke, 1984). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (SE, EE), Caucasus, Turkey.
- Halictus (Seladonia) leleji** (Pesenko, 2006) [Seladonia]. Russia: **FE** (PR).
- Halictus (Seladonia) leucaheneus arenosus** Ebmer, 1976 (*H. fasciatus* auct.). Russia: **EP** (NW, C, E), **UR**. – Europe (WE, NE, SE, EE).
- Halictus (Seladonia) leucaheneus leucaheneus** Ebmer, 1972. Russia: **WS** (AL), **ES** (BR, IR, YA, ZB), **FE** (AM, KH, PR). – Kazakhstan, Kyrgyzstan, Mongolia, China (NE, NC, NW).
- Halictus (Seladonia) mondaensis** Blüthgen, 1923. Russia: **ES** (TU, BR, YA), **FE** (MG). – Mongolia.
- Halictus (Seladonia) mongolicus** Morawitz, 1880. Russia: **ES** (BR). – Mongolia, China (NW, WP).
- Halictus (Seladonia) nikolskayae** (Pesenko, 2006) [Seladonia]. Russia: **FE** (PR).
- Halictus (Seladonia) seladonius** (Fabricius, 1794) [Apis] (*H. geminatus* Pérez, 1903). Russia: **EP** (E, S), **UR**, **ES** (AL). – Europe (WE, SE, EE), Caucasus, Turkey, Israel, Iran, Afghanistan, Turkmenistan.
- Halictus (Seladonia) semitectus** Morawitz, 1874. Russia: **EP** (C, S, NC, CR), **UR**, **WS** (AL), **ES** (BR, ZB), **FE** (KH, PR). – Europe (WE, NE, SE, EE), Armenia, Afghanistan, Mongolia, China (NC, NW).
- Halictus (Seladonia) subauratus subauratus** (Rossi, 1792) [Apis] (*H. virescens* Lepeletier de Saint Fargeau, 1841; *H. gramineus* Smith, 1849; *H. meridionalis* Morawitz, 1874; *H. subauratus syrius* Blüthgen, 1933). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iran, Central Asia, Pakistan, China (NW), N India.
- Halictus (Seladonia) submediterraneus** (Pauly, 2015) [Seladonia]. Russia: **EP** (S, NC, CR), **UR**. – Europe (WE, SE, EE), Turkey, Iran.
- Halictus (Seladonia) transbaikalensis** Blüthgen, 1933. Russia: **ES** (IR, ZB). – Mongolia, China (NC).
- Halictus (Seladonia) tumulorum ferripennis** Cockerell, 1929 (*H. tumulorum higashi* Sakagami et Ebmer, 1979). Russia: **WS** (AL), **ES** (KR, IR, BR, YA, ZB), **FE** (AM, PR, SA, MG). – Mongolia, China (NE, NC), Korean Peninsula, Japan (Hok, Hon).
- Halictus (Seladonia) tumulorum tumulorum** (Linnaeus, 1758) [Apis] (*Apis flavipes* Fabricius, 1787; *Halictus fasciatus* Nylander, 1848; *H. tumulorum deviridatus* Strand, 1910). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TK, AL). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Syria, Israel, Iran, Central Asia.
- Halictus (Tytthalictus) asperulus** Pérez, 1895 (*H. rugosulus* Pérez, 1895). Russia: **EP** (S, NC, CR). – Europe (SE, EE), Caucasus, Turkey, Syria, Israel, Iran.
- Halictus (Tytthalictus) maculatus maculatus** Smith, 1848 (*H. interruptus* Lepeletier de Saint Fargeau, 1841). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (TM, TK, KM, AL), **ES** (KR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Afghanistan, Central Asia, Kazakhstan, China (NW).
- Halictus (Vestitohalictus) mucoreus** (Eversmann, 1852) [Hylaeus]. Russia: **EP** (S, NC), **UR**. – Georgia, Iran, Afghanistan, Central Asia, Kazakhstan.
- Halictus (Vestitohalictus) pollinosus cariniventris** Morawitz, 1876 (*H. carinaeventris* Fahringer et Friese, 1921; *H. c. cretica* Strand, 1921; *H. c. flavotectus* Cockerell, 1922; *H. pollinosus limissicus* Blüthgen, 1937). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), Turkey, Israel, Iran, Afghanistan, Pakistan, Central Asia, Mongolia, China (NC, NW).
- Halictus (Vestitohalictus) pseudomucoreus** Ebmer, 1975. Russia: **EP** (S). – Azerbaijan, Turkey, Turkmenistan, Kazakhstan, China (NW).
- Halictus (Vestitohalictus) pulvereus** Morawitz, 1874 (*H. sogdianus* Morawitz, 1876; *Nomioides aenescens* Radoszkowski, 1893). Russia: **EP** (S, NC, CR). – Cyprus, Turkey, Iran, Afghanistan, Central Asia, Mongolia, China (NW).
- Halictus (Vestitohalictus) radoszkovskii** Vachal, 1902 (*H. rufus* Friese, 1916). Russia: **EP** (NC). – Armenia, Turkmenistan, Uzbekistan, Iran, Afghanistan.
- Halictus (Vestitohalictus) tectus** Radoszkowski, 1876 (*H. vestitus* auct.). Russia: **EP** (S, CR), **UR**. – Europe (WE, SE, EE), Caucasus.
- Halictus (Vestitohalictus) tuberculatus** Blüthgen, 1925. Russia: **EP** (E, S, NC, CR). – Europe (EE), Armenia, Turkey, Syria, Israel.
- LASIOGLOSSUM** Curtis, 1833. Type species *Lasioglossum tricingulum* Curtis, 1833 (= *Melitta*



- xanthopus* Kirby, 1802). Widely distributed in the World, but most of species occur in Holarctic region. Number of taxa: World – about 1200 species, Palaearctic – about 450, Russia – 148.
- Lasioglossum (Ctenonomia) blakistoni** Sakagami et Munakata, 1990. Russia: **FE** (PR). – Japan (Hok).
- Lasioglossum (Lasioglossum) aegyptiellum** (Strand, 1909) [Halictus] (*Halictus divergens* Pérez, 1911; *H. orontis* Cockerell, 1918; *H. tripolitanus* Blüthgen in Schulthess, 1924; *Lasioglossum aegyptiellum dalmaticum* Ebmer, 1970). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Near East, Iraq, Iran, Turkmenistan.
- Lasioglossum (Lasioglossum) agelastum** Fan et Ebmer, 1992 (*L. koreanum*: Pesenko, 1986; *L. nipponicola* Sakagami et Tadauchi, 1995). Russia: **FE** (PR, KU). – China (NE, NC, CC, SW), Korean Peninsula, Japan (Hok, Hon).
- Lasioglossum (Lasioglossum) alinense** (Cockerell, 1924) [Halictus] (*Halictus lutzenkoi* Cockerell, 1925; *H. gorkiensis* Blüthgen, 1931). Russia: **WS** (AL), **ES** (IR), **FE** (AM, KH, PR). – Europe (NE, EE), China (NE, NC, CC, SW).
- Lasioglossum (Lasioglossum) bicallosum** (Morawitz, 1874) [Halictus] (*Halictus dmitrijewi* Morawitz, 1891; *H. dmitrijewii* Dalla Torre, 1896). Russia: **EP** (S, NC, CR). – Europe (SE, EE), Caucasus, Turkey, Israel, Iran.
- Lasioglossum (Lasioglossum) caspicum** (Morawitz, 1874) [Halictus] (*Halictus emesianus* Pérez, 1911). Russia: **EP** (NC). – Caucasus, Turkey, Near East, Iran, Afghanistan, Turkmenistan.
- Lasioglossum (Lasioglossum) chloropus** (Morawitz, 1894) [Halictus] (*L. aksuense* Ebmer, 1972). Russia: **ES** (IR). – Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NW).
- Lasioglossum (Lasioglossum) costulatum** (Kriechbaumer, 1873) [Halictus] (*Andrena campestris* Eversmann, 1852; *Halictus alpestris* Morawitz, 1877). Russia: **EP** (C, E), **UR**, **WS** (AL), **ES** (KR, IR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Syria, Iran, Central Asia, Kazakhstan.
- Lasioglossum (Lasioglossum) cristula** (Pérez, 1895) [Halictus] (*Halictus korbi* Blüthgen, 1929; *H. mesoleus* Cockerell, 1938; *H. cristula donatus* Warncke, 1975). Russia: **EP** (NC, CR). – Europe (WE, SE), N Africa, Caucasus, Turkey, Syria, Israel, Iran.
- Lasioglossum (Lasioglossum) denticolle** (Morawitz, 1891) [Halictus] (*Halictus glycybromifer* Strand, 1915; *H. laevifrons* Blüthgen, 1923; *H. morbillosus r. orientis* Cockerell, 1924). Russia: **ES** (KR, BR), **FE** (AM, KH, PR). – China (NE, NC, NW, CC, SW, WP), Korean Peninsula.
- Lasioglossum (Lasioglossum) discum** (Smith, 1853) [Halictus] (*Halictus morbillosus* Kriechbaumer, 1873; *H. major*: Morawitz, 1876; *H. fertoni* Vachal, 1895; *H. morbillosus r. glasunovi* Cockerell, 1924; *H. platyceustus* auct.; *Lasioglossum pseudomorbillosum* Ebmer, 1970). Russia: **EP** (C, S, NC, CR), **UR**, **ES** (TU). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iran, Afghanistan, Central Asia, Kazakhstan, China (NW).
- Lasioglossum (Lasioglossum) eos** Ebmer, 1978 (*L. kaspariani* Pesenko, 1986; *L. kerzhneri* Pesenko, 1986). Russia: **ES** (TU, IR, BR), **FE** (AM, PR). – Mongolia, China (NE, NC, NW).
- Lasioglossum (Lasioglossum) exiliceps** (Vachal, 1903) [Halictus]. Russia: **FE** (KH, PR). – Korean Peninsula, Japan (Hok, Hon, Kyu, Ryu).
- Lasioglossum (Lasioglossum) euxinicum euxinicum** Ebmer, 1972. Russia: **EP** (CR). – Azerbaijan, Iran.
- Lasioglossum (Lasioglossum) fallax fallax** (Morawitz, 1874) [Halictus]. Russia: **EP** (S, NC, CR), **UR**. – Georgia, Turkey, Iran, Turkmenistan.
- Lasioglossum (Lasioglossum) harmandi** (Vachal, 1903) [Halictus] (*L. nipponense*: Pesenko, 1986). Russia: **FE** (KU). – Japan (Hok, Hon, Ryu).
- Lasioglossum (Lasioglossum) kansuense** (Blüthgen, 1934) [Halictus] (*L. esoense* Hirashima et Sakagami, 1966). Russia: **ES** (BR), **FE** (AM, KH, PR, KU). – China (NE, NC, CC, SW, WP), Korean Peninsula, Japan (Hokk, Hon, Ryu).
- Lasioglossum (Lasioglossum) korbi** (Blüthgen, 1929) [Halictus] (*Halictus haesitans* Blüthgen, 1931). Russia: **EP** (NC). – Azerbaijan, Turkey.
- Lasioglossum (Lasioglossum) kussariense** (Blüthgen, 1925) [Halictus]. Russia: **EP** (NC, CR). – Europe (SE, EE), Caucasus, Turkey.
- Lasioglossum (Lasioglossum) laevigatum** (Kirby, 1802) [Melitta] (*Melitta lugubris* Kirby, 1802; *Halictus levigatus* Lepelletier de Saint Fargeau, 1841; *Hylaeus semicinctus* Förster, 1860). Russia: **EP** (C), **UR**. – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran.
- Lasioglossum (Lasioglossum) lativentre** (Schenck, 1853) [Hylaeus] (*Hylaeus bisbistrigatus* Schenck, 1853; *Halictus bicinctus* Schenck, 1874; *H. decipiens* Perkins, 1913; *H. lativentris sotschica* Blüthgen, 1931). Russia: **EP** (NW, C, E, NC, CR). – Europe

- (WE, NE, SE, EE), Caucasus, Turkey, Near East, Iran.
- Lasioglossum (Lasioglossum) leviventre** (Pérez, 1905) [Halictus]. Russia: **FE** (PR, KU). – Japan (Hok, Hon, Izu, Shi, Ryu).
- Lasioglossum (Lasioglossum) leucozonium** (Schrank, 1781) [Apis] (*Apis leucostoma* Schrank, 1781; *Halictus similis* Smith, 1853; *H. bifasciatellus* Schenck, 1875; *H. leucozonius nigrotibialis* Dalla Torre, 1877; *H. deiphobus* Bingham, 1908; *H. tadshicus* Blüthgen, 1929; *H. satschauensis* Blüthgen, 1934; *H. leucozonius clusius* Warncke, 1975; *Lasioglossum leucozonium cedri* Ebmer, 1976; *L. zonulum elysium* Ebmer, 1979; *L. satschauense mandschuricum* Ebmer, 1978; *L. zonulum xylopedis* Ebmer, 1978). Russia: **EP** (N, NW, C, E, S, CR), **UR, ES** (TU, KS, IR, BR), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Near East, Afghanistan, Pakistan, Central Asia, Kazakhstan, Mongolia, China (NE, NC, CC, SW, WP), N India, N America.
- Lasioglossum (Lasioglossum) niveocinctum** (Blüthgen, 1923) [Halictus]. **EP** (S, NC). – Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NC, NW).
- Lasioglossum (Lasioglossum) occidens** (Smith, 1873) [Halictus] (*Halictus quadraticollis* Vachal, 1903; *Lasioglossum koreanum* Ebmer, 1978). Russia: **FE** (SA, KU). – China (NC, CC, SW, WP, SE), Japan (Hok, Hon, Izu, Kyu).
- Lasioglossum (Lasioglossum) pallens** (Brullé, 1932) [Halictus] (*Halictus lineolatus* Lepeletier de Saint Fargeau, 1841; *H. cirrhosonius* Vachal, 1895; *H. pallens kantarae* Warncke, 1982). Russia: **EP** (NC). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Iran.
- Lasioglossum (Lasioglossum) proximatium** (Smith, 1879) [Halictus] (*Halictus discrepans* Pérez, 1905; *H. moltrechti* Cockerell, 1925; *H. kraloffi* Cockerell, 1925; *H. emelianoffi* Cockerell, 1925; *Lasioglossum acuticrista* Pesenko, 1986). Russia: **FE** (AM, KH, PR, KU). – China (NE, NC, CC, SW, WP), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu).
- Lasioglossum (Lasioglossum) quadrinotatum** (Kirby, 1802) [Melitta]. Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Kazakhstan.
- Lasioglossum (Lasioglossum) rostratum** (Eversmann, 1852) [Hylaeus] (*Halictus chlapovskii* Vachal, 1902). Russia: **UR, WS** (TM, TK, OM, AL), **ES** (TU, KR, IR, ZB), **FE** (AM, KH, PR). – Kazakhstan, Mongolia, China (NE, NC, NW, WP).
- Lasioglossum (Lasioglossum) scitulum** (Smith, 1873) [Halictus] (*Halictus japonicola* Strand, 1910; *H. basicirus* Cockerell, 1919). Russia: **FE** (AM, KH, PR, SA, KU). – China (NE, NC, NW, CC, SW), Korean Peninsula, Japan (Hok, Hon, Ryu).
- Lasioglossum (Lasioglossum) sexnotatum** (Nylander, 1852) [Halictus]. Russia: **EP** (N, NW, C, E), **UR, WS** (OM). – Europe (WE, NE, SE, EE), Kazakhstan.
- Lasioglossum (Lasioglossum) sexnotatum** (Kirby, 1802) [Melitta] (*Andrena nitida* Panzer, 1798). Russia: **EP** (NW, C, E, NC, CR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Mongolia.
- Lasioglossum (Lasioglossum) sutshanicum** Pesenko, 1986. Russia: **FE** (PR). – China (SE), Korean Peninsula.
- Lasioglossum (Lasioglossum) tungusicum** Ebmer, 1978 (*Halictus tinnunculus* Warncke, 1982; *Lasioglossum sexmaculatum*: Pesenko, 1986). Russia: **EP** (NW, C, E, S), **UR, WS** (TM, AL), **ES** (IR, YA), **FE** (AM). – Caucasus, Turkey, Iran, Kazakhstan, Mongolia, China (NW, SW, WP).
- Lasioglossum (Lasioglossum) upinense** (Morawitz, 1889) [Halictus] (*Halictus carbonarius* Blüthgen, 1923; *H. tacitus* Cockerell, 1924; *H. carbonatus* Blüthgen, 1925; *H. wittenbourgi* Cockerell, 1925). Russia: **FE** (AM, KH, PR). – China (NE, NC, NW, SW, WP), Korean Peninsula.
- Lasioglossum (Lasioglossum) xanthopus** (Kirby, 1802) [Melitta] (*Apis emarginata* Christ, 1791; *Hylaeus derasus* Imhoff, 1832; *Lasioglossum tricingulum* Curtis, 1833; *Hylaeus fulvicrus* Eversmann, 1852; *Halictus soreli* Dours, 1872). Russia: **EP** (N, C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iran, Pakistan, Central Asia, Kazakhstan, Mongolia, China (NW).
- Lasioglossum (Lasioglossum) zeyanense** Pesenko, 1986 (*L. acervolum* Fan et Ebmer, 1992). Russia: **ES** (BR, YA, ZB), **FE** (AM, KH, PR). – China (NC, CC, SW, WP).
- Lasioglossum (Lasioglossum) zonulum** (Smith, 1848) [Halictus] (*Hylaeus trifasciatus* Schenck, 1853; *Halictus rhenanus* Verhoeff, 1890; *H. recepticius* Vachal, 1902; *H. craterus* Lovell, 1908; *H. zonulus sinister* Blüthgen, 1934; *H. z. dexter* Blüthgen, 1934; *Lasioglossum zonulum euronotum* Ebmer, 1998). Russia: **EP** (N, NW, C, E, S), **UR, WS** (TM), **ES** (KR, IR, BR). – Europe (WE, NE, SE, EE),

- Caucasus, Turkey, Iran, Central Asia, Kazakhstan, China (NC, NW, SW), N America.
- Lasioglossum (Evylaeus) aeratum** (Kirby, 1802) [Melitta] (*Halictus semiaeneus* Brullé, 1832; *H. viridiaeneus* Blüthgen, 1918; *H. aeratus caudatus* Warncke, 1982). Russia: **EP** (NW, C, E, S, NC). – Europe (WE, NE, SE, EE), Turkey, Syria, Iran, Central Asia, Kazakhstan.
- Lasioglossum (Evylaeus) affine** (Smith, 1853) [Halictus] (*Halictus leoninus* Vachal, 1903; *H. mandarinus* Strand, 1910; *H. nagasakiensis* Strand, 1910; *H. investigator* Strand, 1910; *H. investigatoris* Strand, 1915). Russia: **FE** (KH, PR). – China (NE, NC, CC, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu, Tsu).
- Lasioglossum (Evylaeus) albipes albipes** (Fabricius, 1781) [Apis] (*Hylaeus abdominalis* Panzer, 1798; *Halictus malachurellus* Strand, 1909; *H. albipes alpicola* Blüthgen, 1921; *H. a. rubelloides* Blüthgen, 1924). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (KM, AL), **ES** (BR, KR, IR, ZB), **FE** (KH, PR, SA, KU). – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey, Iran, Central Asia, Mongolia, China (NE, NC), Korean Peninsula, Japan (Hok, Hon).
- Lasioglossum (Evylaeus) albipes villosum** Ebmer, 1995. Russia: **FE** (AM, PR). – Korean Peninsula.
- Lasioglossum (Evylaeus) allodalum** Ebmer et Sakagami, 1985. Russia: **FE** (AM, KH, PR). – China (NC, SW), Korean Peninsula, Japan (Hok, Hon).
- Lasioglossum (Evylaeus) amurense** (Vachal, 1902) [Halictus]. Russia: **WS** (KM), **FE** (KH, PR). – China (NE, NC).
- Lasioglossum (Evylaeus) anellum** (Vachal, 1905) [Halictus] (*Halictus schelkownikovi* Kokujev, 1912). Russia: **EP** (S, NC). – Europe (SE, EE), Caucasus, Turkey, Syria, Jordan, Israel, Iran.
- Lasioglossum (Evylaeus) angaricum** (Cockerell, 1937) [Halictus]. Russia: **ES** (ZB), **FE** (AM, PR). – Mongolia.
- Lasioglossum (Evylaeus) annulipes** (Morawitz, 1876) [Halictus] (*Halictus metopias* Vachal in Kohl, 1903). Russia: **EP** (NC). – Armenia, Turkey, Afghanistan, Pakistan, Tajikistan, Uzbekistan, Kazakhstan.
- Lasioglossum (Evylaeus) apristum** (Vachal, 1903) [Halictus] (*Sphecodes pallidulus* Matsumura, 1912). Russia: **FE** (PR, KU). – China (SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu).
- Lasioglossum (Evylaeus) baleicum baleicum** (Cockerell, 1937) [Halictus]. Russia: **ES** (IR, ZB), **FE** (PR). – China (NE), Korean Peninsula.
- Lasioglossum (Evylaeus) baleicum insulicolum** (Pesenko, 2007) [Evylaeus]. Russia: **FE** (SA, KU). – Japan (Hok, Hon, Kyu, Ryu).
- Lasioglossum (Evylaeus) bavaricum olympicum** (Warncke, 1982) [Halictus]. Russia: **EP** (CR). – Europe (SE).
- Lasioglossum (Evylaeus) bluethgeni** (Ebmer, 1971) [Halictus] (*Halictus hirtiventris* Blüthgen, 1923). Russia: **EP** (NC). – Europe (WE, SE, EE), Georgia, Turkey.
- Lasioglossum (Evylaeus) brachycephalum** (Cockerell, 1925) [Halictus]. Russia: **FE** (PR).
- Lasioglossum (Evylaeus) briseis briseis** Ebmer, 2005. Russia: **ES** (TU). – Mongolia.
- Lasioglossum (Evylaeus) briseis eomontanum** Ebmer, 2006. Russia: **ES** (IR, YA), **FE** (PR, MG, CH).
- Lasioglossum (Evylaeus) brevicorne brevicorne** (Schenck, 1869) [Halictus] (*Halictus lucidicollis* Pérez, 1895; *H. analis* Pérez, 1903; *H. brevicornis aciculatus* Blüthgen in Schmiedeknecht, 1930; *H. optimellus* Cockerell, 1938). Russia: **EP** (C, E, S). – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Turkey, Israel, Iran, Afghanistan.
- Lasioglossum (Evylaeus) buccale** (Pérez, 1903) [Halictus]. Russia: **EP** (S), **UR**. – Europe (WE, SE, EE), Turkey, Iran.
- Lasioglossum (Evylaeus) calceatum** (Scopoli, 1763) [Apis] (*Hylaeus cylindricus* Fabricius, 1793; *Melitta fulvocincta* Kirby, 1802; *M. obovata* Kirby, 1802; *Andrena vulpina* Fabricius, 1804; *Halictus terebrator* Walckenaer, 1817; *Hylaeus rubellus* Eversmann, 1852; *H. bipunctatus* Schenck, 1853; *Halictus rubens* Smith, 1854; *H. rufiventris* Giraud, 1861; *H. cylindricus rhodostoma* Dalla Torre, 1877; *H. calceatus ulterior* Cockerell, 1929). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (AL), **ES** (KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Iran, Central Asia, Kazakhstan, Mongolia, China (NE, NC), Korean Peninsula, Japan (Hok, Hon, Kyu).
- Lasioglossum (Evylaeus) caliginosum** Murao, Ebmer et Tadauchi, 2006 (*L. nemorae* Ebmer, 2006). Russia: **ES** (IR), **FE** (AM, KH, PR). – Mongolia, China (NE), Japan (Hok, Hon, Kyu).
- Lasioglossum (Evylaeus) clypeare** (Schenck, 1853) [Hylaeus]. Russia: **EP** (S, NC, CR), **UR**. – Europe (WE, SE, EE), Turkey, Iran, Kyrgyzstan, Kazakhstan.
- Lasioglossum (Evylaeus) convexiusculum** (Schenck, 1853) [Hylaeus] (*Halictus appropinquans* Schenck,

- 1869; *H. clypeatus* Schenck, 1869; *H. porcus* Morawitz, 1872; *H. puncticollis genevensis* Frey-Gessner, 1903). Russia: **EP** (C, S), **UR**. – Europe (WE, NE, SE, EE), Turkey, Iran.
- Lasioglossum (Evylaeus) corvinum** (Morawitz, 1877) [Halictus]. Russia: **EP** (S, NC, CR). – Europe (WE, EE, SE), N Africa, Caucasus, Turkey, Iran.
- Lasioglossum (Evylaeus) crassepunctatum** (Blüthgen, 1923) [Halictus]. Russia: **EP** (C, S, NC, CR). – Europe (WE, SE, EE), Azerbaijan, Turkey, Jordan, Israel, Iran.
- Lasioglossum (Evylaeus) damascenum** (Pérez, 1911) [Halictus] (*Halictus semitomentosus* Blüthgen, 1923). Russia: **EP** (CR). – Europe (SE, EE), Armenia, Turkey, Syria, Israel, Iran.
- Lasioglossum (Evylaeus) duckei duckei** (Alfken, 1909) [Halictus]. Russia: **EP** (S, CR). – Europe (SE, EE), Turkey.
- Lasioglossum (Evylaeus) dybowskii** (Radoszkowski, 1877) [Halictus] (*Halictus dubowskii* Dalla Torre, 1896; *H. griseipennis* Cockerell, 1924). Russia: **FE** (AM, KH, PR, SA). – China (NE), Korean Peninsula.
- Lasioglossum (Evylaeus) elegans** (Lepelletier de Saint Fargeau, 1841) [Halictus] (*Halictus rubellus* Giraud, 1861; *H. giraudii* Dalla Torre et Friese, 1895). Russia: **EP** (S). – Europe (WE, SE, EE), N Africa, Georgia, Turkey, Iran, Turkmenistan.
- Lasioglossum (Evylaeus) ellipticeps** (Blüthgen, 1923) [Halictus] (*Halictus permicus* Blüthgen, 1923; *H. mayacensis* Cockerell, 1924). Russia: **UR**, **ES** (IR, YA), **FE** (KH, PR). – Mongolia, Korean Peninsula.
- Lasioglossum (Evylaeus) epiphron** Ebmer, 1982. Russia: **ES** (IR), **FE** (AM, KH, PR). – Mongolia.
- Lasioglossum (Evylaeus) eriphyle** Ebmer, 1996. Russia: **FE** (AM, KH, PR, KU). – China (CC).
- Lasioglossum (Evylaeus) euboense** (Strand, 1909) [Halictus] (*Halictus furnasensis* Strand, 1909; *H. kirschbaumi* Blüthgen, 1919; *H. euboensis anatolica* Blüthgen, 1931). Russia: **EP** (NW, E, S, NC). – Europe (WE, SE, EE), N Africa, Azerbaijan, Turkey, Iran.
- Lasioglossum (Evylaeus) fratellum betulae** Ebmer, 1978 (*Lasioglossum nupricola* Sakagami, 1988). Russia: **ES** (YA), **FE** (AM, KH, PR, KA, SA, KU). – Mongolia, Korean Peninsula, Japan (Hok, Hon).
- Lasioglossum (Evylaeus) fratellum fratellum** (Pérez, 1903) [Halictus] (*Halictus subfasciatus* Nylander, 1848; *H. freydessneri* Alfken, 1905; *H. norvegicus* Strand, 1910; *H. niger* auct.; *Lasioglossum nigrum* auct.). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (KM, AL), **ES** (KR, IR, ZB). – Europe (WE, NE, SE, EE).
- Lasioglossum (Evylaeus) fulvicorne fulvicorne** (Kirby, 1802) [Melitta] (*Hylaeus laeviusculus* Schenck, 1853; *H. albitarsis* Schenck, 1853; *H. bisbimaculatus* Schenck, 1853; *Halictus opacifrons* Pérez, 1911). Russia: **EP** (N, NW, C, E, NC, CR), **UR**, **WS** (AL). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Turkmenistan.
- Lasioglossum (Evylaeus) fulvicorne melanocorne** Ebmer, 1988. Russia: **WS** (AL), **ES** (KR, IR, YA), **FE** (AM, PR, SA, KU). – Mongolia.
- Lasioglossum (Evylaeus) gilanum** (Blüthgen, 1931) [Halictus]. Russia: **EP** (CR). – Iran.
- Lasioglossum (Evylaeus) gorge** Ebmer, 1982. Russia: **WS** (AL), **ES** (YA). – Mongolia.
- Lasioglossum (Evylaeus) glabriusculum glabriusculum** (Morawitz, 1872) [Halictus] (*Halictus leucopygus* Pérez, 1903; *H. truncatus* Alfken, 1905; *H. granulatus* Alfken, 1906). Russia: **EP** (S, NC). – Europe (WE, SE, EE), Georgia, Turkey, Syria, Jordan, Israel, Iran.
- Lasioglossum (Evylaeus) griseolum griseolum** (Morawitz, 1872) [Halictus] (*Halictus labrosus* Vachal, 1895; *H. misellus* Pérez, 1903; *H. dubitabilis* Saunders, 1904). Russia: **EP** (S, NC). – Europe (WE, SE), Georgia, Turkey, Israel, Iran, Afghanistan.
- Lasioglossum (Evylaeus) hoffmanni** (Strand, 1915) [Halictus] (*Halictus atropis* Strand, 1915; *H. shishkini* Cockerell, 1925; *H. suprafulgens* Cockerell, 1925; *H. speculicaudatus* Cockerell, 1931). Russia: **FE** (KH, AM, PR). – China (NE, NC), Korean Peninsula, Japan (Hon, Hon, Shi, Kyu, Tsu).
- Lasioglossum (Evylaeus) intermedium** (Schenck, 1869) [Halictus] (*Halictus melanoproctus* Pérez, 1903; *H. servulellus* Strand, 1909). Russia: **EP** (NC). – Europe (WE, NE, SE, EE), Turkey, Iran.
- Lasioglossum (Evylaeus) interruptum interruptum** (Panzer, 1798) [Hylaeus] (*Apis basimacula* Schrank, 1802; *Hylaeus geminus* Erichson, 1835; *H. quadrimaculatus* Schenck, 1853). Russia: **EP** (C, E, S). – Europe (SE, WE, NE, EE), N Africa.
- Lasioglossum (Evylaeus) interruptum trispinosus** (Alfken, 1907) [Halictus]. Russia: **EP** (CR). – Europe (EE), Georgia, Armenia, Turkey, Iran.
- Lasioglossum (Evylaeus) kankaucharis** (Strand, 1914) [Halictus]. Russia: **FE** (PR). – China (SE), Korean Peninsula, Japan (Hon).
- Lasioglossum (Evylaeus) kiautschouense** (Strand, 1910) [Halictus]. Russia: **FE** (KH, PR). – China (NE, NC), Korean Peninsula, Japan (Hok).

- Lasioglossum (Evylaeus) kirgisticum** Ebmer, 1972. Russia: **WS** (AL). – Europe (EE), Turkey, Kazakhstan.
- Lasioglossum (Evylaeus) kozlovi** (Friese, 1913) [Halictus]. Russia: **ES** (BR). – China (NC, NW).
- Lasioglossum (Evylaeus) laeve** (Kirby, 1802) [Melitta] (*Hylaeus convexus* Schenck, 1853; *Halictus nigriventris* Arnold, 1894; *H. levis* Dalla Torre, 1896; *H. kriegeri* Alfken, 1897). Russia: **EP** (C, E), **UR**, **WS** (AL). – Europe (WE, NE, SE, EE), Georgia, Armenia, Turkey, Syria, Israel, Iran.
- Lasioglossum (Evylaeus) laevoides** Ebmer, 2005. Russia: **ES** (IR, BR). – Mongolia, China (NE), Korean Peninsula.
- Lasioglossum (Evylaeus) laticeps laticeps** (Schenck, 1869) [Halictus] (*Hylaeus affinis* Schenck, 1853; *H. nigricornis* Schenck, 1853; *Halictus mendax* Alfken, 1912). Russia: **EP** (C, E, NC, CR), **UR**. – Europe (WE, NE, SE, EE).
- Lasioglossum (Evylaeus) leucopum** (Kirby, 1802) [Melitta]. Russia: **EP** (N, NW, C, E, NC, CR), **UR**, **WS** (OM, KM), **ES** (KR, IR, BR, YA). – Europe (WE, NE, SE, EE), Turkey, Iran.
- Lasioglossum (Evylaeus) lineare** (Schenck, 1869) [Halictus] (*Halictus longuloides* Strand, 1909; *H. smyrnae* Strand, 1909; *H. aeginus* Strand, 1921; *Lasioglossum sublineare* Ebmer, 1974). Russia: **EP** (C, E, NC, CR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Syria, Israel, Iran, Turkmenistan.
- Lasioglossum (Evylaeus) limbellum** (Morawitz, 1876) [Halictus] (*Halictus limbellus dongarica* Blüthgen, 1934). Russia: **EP** (NC). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iran, Afghanistan, Tajikistan, Uzbekistan, China (NC).
- Lasioglossum (Evylaeus) lissonotum** (Noskiewicz, 1926) [Halictus]. Russia: **EP** (C, E). – Europe (WE, SE, EE).
- Lasioglossum (Evylaeus) littorale colchicum** Ebmer, 1972. Russia: **EP** (CR). – Europe (SE), Turkey.
- Lasioglossum (Evylaeus) lucidulum** (Schenck, 1861) [Hylaeus] (*Hylaeus tenellus* Schenck, 1861; *Halictus gracilis* Morawitz, 1865; *H. unguinosus* Pérez, 1903; *H. chotanensis* Strand, 1909). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (KR). – Europe (WE, NE, SE, EE), Georgia, Turkey, Israel, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, Mongolia, China (NC, NW).
- Lasioglossum (Evylaeus) malachurum** (Kirby, 1802) [Melitta] (*Halictus longulus* Smith, 1848; *Hylaeus apicalis* Schenck, 1853; *H. coriarius* Schenck, 1853; *Halictus malachuroides* Strand, 1909; *H. malachurus sharificus* Cockerell, 1937). Russia: **EP** (E, S, CR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iran, Turkmenistan.
- Lasioglossum (Evylaeus) mandibulare** (Morawitz, 1866) [Halictus] (*Halictus coloratus* Morawitz, 1874; *H. czekelii* Friese, 1916; *H. sareptanus* Blüthgen, 1923). Russia: **EP** (S, NC). – Europe (WE, SE, EE), Armenia, Turkey, Israel.
- Lasioglossum (Evylaeus) marginatum** (Brullé, 1832) [Halictus] (*Halictus fasciatellus* Schenck, 1869; *H. gribodoi* Kriechbaumer, 1873; *H. riparius* Morawitz, 1874; *H. vulgaris* Morawitz, 1876; *H. kervilleanus* Pérez, 1910). Russia: **EP** (E, NC). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Syria, Jordan, Israel, Iraq, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, NW India, Nepal.
- Lasioglossum (Evylaeus) marginellum** (Schenck, 1853) [Halictus] (*Halictus marqueti* Pérez, 1903). Russia: **EP** (S, CR). – Europe (WE, SE, EE).
- Lasioglossum (Evylaeus) matianense pluto** Ebmer, 1980. Russia: **FE** (PR). – Uzbekistan, Kyrgyzstan, Kazakhstan.
- Lasioglossum (Evylaeus) mesosclerum** (Pérez, 1903) [Halictus] (*Halictus rhodosianus* Strand, 1909; *H. mesoclerus* Blüthgen, 1935; ?*Lasioglossum balnearum* Ebmer, 1974; *Halictus bubulcus* Warncke, 1982). Russia: **EP** (S, NC). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Syria, Jordan, Israel, Iran, Afghanistan, Central Asia, Kazakhstan.
- Lasioglossum (Evylaeus) minutissimum** (Kirby, 1802) [Melitta] (*Hylaeus exilis* Schenck, 1861; *Halictus hollandi* Saunders, 1904; *H. costiferellus* Strand, 1909; *H. kosensis* Strand, 1909; *H. xanthosensis* Strand, 1909; *H. arnoldi* Saunders, 1910; *H. lucidellus* Cockerell, 1937; *H. lilliput* Benoist, 1962). Russia: **EP** (C, E, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Israel.
- Lasioglossum (Evylaeus) minutuloides** Ebmer, 1978. Russia: **FE** (PR). – China (NE).
- Lasioglossum (Evylaeus) miyabei** Murao, Ebmer et Tadauchi, 2006. Russia: **FE** (PR, KU). – Korean Peninsula, Japan (Hok, Hon, Kyu).
- Lasioglossum (Evylaeus) monstificum** (Morawitz, 1891) [Halictus]. Russia: **ES** (IR).
- Lasioglossum (Evylaeus) morio** (Fabricius, 1793) [Hylaeus] (*Halictus morio basalis* Dalla Torre, 1877; *H. balticus* Blüthge, 1919). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Israel.

- Lasioglossum (Evylaeus) nigripes** (Lepeletier de Saint Fargeau, 1841) [Halictus] (*Halictus vulpinus* Nylander, 1852; *H. vulpinus nigrochrypeata* Dalla Torre, 1877; *H. cylindricus orientalis* Magretti, 1890; *H. vulpinus nigrichrypeatus* Dalla Torre, 1896; *H. nylanderi* Pérez, 1903; *H. pharaonis* Strand, 1909; *H. syriacus* Pérez, 1910). Russia: **EP** (S, NC, CR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Jordan, Israel, Iran, Turkmenistan.
- Lasioglossum (Evylaeus) nipponense** (Hirashima, 1953) [Halictus]. Russia: **FE** (AM, KH, PR, SA, KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu).
- Lasioglossum (Evylaeus) nitidiusculum nitidiusculum** (Kirby, 1802) [Melitta] (*Hylaeus rugosula* Schenck, 1853; *H. rugosula* Schenck, 1853; *H. pusillus* Schenck, 1853; *Halictus nitidulus* Pérez, 1903; *H. arnoldi* Saunders, 1910; *H. obsoletus* Warncke, 1975). Russia: **EP** (N, NW, C, E, NC), **UR**. – Europe (WE, NE, SE, EE), N Africa, Turkey, Iran.
- Lasioglossum (Evylaeus) nitidulum nitidulum** (Fabricius, 1804) [Prosopis] (*Halictus aeneidorsum* Alfken, 1920; *H. fudakowskii* Noskiewicz, 1926; *H. smeathmanellus* auct.; *H. continentalis* Blüthgen, 1944). Russia: **EP** (NW, C, S.), **UR**. – Europe (WE, NE, SE, EE), Turkey.
- Lasioglossum (Evylaeus) nodicorne** (Morawitz, 1889) [Halictus]. Russia: **ES** (IR, ZB). – Mongolia, China (NC).
- Lasioglossum (Evylaeus) obscuratum obscuratum** (Morawitz, 1876) [Halictus]. Russia: **EP** (NC). – Azerbaijan, Turkey, Syria, Jordan, Israel, Iran, Afghanistan, Central Asia, Kazakhstan.
- Lasioglossum (Evylaeus) obscuratum acerbum** (Warncke, 1975) [Halictus]. Russia: **EP** (S, CR). – Europe (WE, SE, EE).
- Lasioglossum (Evylaeus) pallidum** (Radoszkowski, 1888) [Nomioides] (*Halictus sahlbergi* Friese, 1916). Russia: **EP** (S). – Afghanistan, Turkmenistan.
- Lasioglossum (Evylaeus) pallilomum** (Strand, 1914) [Halictus]. Russia: **FE** (KH, PR). – China (NE, SE), Korean Peninsula, Japan (Hok, Hon, Shi).
- Lasioglossum (Evylaeus) parvulum** (Schenck, 1853) [Hylaeus] (*Melitta minuta*: Kirby, 1802; *Halictus striatus* Schenck, 1869; *H. striatus* Schenck, 1869; *H. ferrugineipes* Schenck, 1869; *H. minutus* auct., before 1974; *Lasioglossum minutum*: Ebmer, 1971). Russia: **EP** (N, NW, C, NC), **UR**. – Europe (WE, NE, SE, EE), Armenia, Turkey, Iran.
- Lasioglossum (Evylaeus) pauxillum** (Schenck, 1853) [Hylaeus] (*Hylaeus fulvicornis*: Schenck, 1851; *H. similis* Schenck, 1853; *H. immarginatus* Schenck, 1853; *H. flavicornis* Schenck, 1853; *H. immarginatus fuscitarsis* Schenck, 1853; *Halictus delicatus* Pérez, 1903; *H. algericolellus* Strand, 1909; *H. luteostigmatellus* Strand, 1909; *H. pseudopunctulatus* Strand, 1909; *H. schulthessi* Blüthgen in Schulthess, 1924). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (KM). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Turkmenistan.
- Lasioglossum (Evylaeus) peregrinum** (Blüthgen, 1923) [Halictus]. Russia: **EP** (CR). – Europe (WE, SE, EE), Caucasus, Turkey, Israel, Iran.
- Lasioglossum (Evylaeus) perplexans** (Cockerell, 1925) [Halictus]. Russia: **FE** (KH, PR).
- Lasioglossum (Evylaeus) podolicum podolicum** (Noskiewicz, 1925) [Halictus] (*Halictus smeathmanellus nucleolus* Warncke, 1982; *H. smeathmanellus petrosus* Warncke, 1975). Russia: **EP** (C, CR). – Europe (WE, SE, EE), Turkey.
- Lasioglossum (Evylaeus) politum politum** (Schenck, 1853) [Hylaeus] (*Hylaeus nanulus* Schenck, 1853; *Halictus granulatus* Alfken, 1906). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE).
- Lasioglossum (Evylaeus) problematicum** (Blüthgen, 1923) [Hylaeus]. Russia: **FE** (SA, KU). – Korean Peninsula, Japan (Hok, Hon).
- Lasioglossum (Evylaeus) punctatissimum punctatissimum** (Schenck, 1853) [Hylaeus] (*Hylaeus flavitarsis* Schenck, 1853; *Halictus simillimus* Schenck, 1869; *H. porcus* Morawitz, 1872; *H. griseescens* Schenck, 1873; *H. longiceps* Saunders, 1879; *H. tinitinensis* Cockerell, 1938). Russia: **EP** (N, NW, C, E, NC), **UR**. – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iran.
- Lasioglossum (Evylaeus) puncticolle** (Morawitz, 1872) [Halictus] (*Halictus puncticollis* Saunders, 1879; *H. saundersii* Dalla Torre et Friese, 1895). Russia: **EP** (C, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey, Syria, Iran.
- Lasioglossum (Evylaeus) pygmaeum patulum** (Vachal, 1905) [Halictus] (*Halictus spretus* Pérez, 1911; *H. denislucis*: Blüthgen, 1925; *H. andinus* Warncke, 1982). Russia: **EP** (S, CR). – Europe (SE, EE), Caucasus, Turkey, Syria, Jordan, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan.
- Lasioglossum (Evylaeus) quadrinotatum** (Schenck, 1861) [Halictus] (*Halictus pallipes* Morawitz, 1865; *H. megacephalus* Schenck, 1869; *H. sexsignatus*

- Schenck, 1869; *H. pallidipes* Dalla Torre, 1896). Russia: **EP** (N, NW, C, E, S), **UR**, **ES** (KR, BR, YA, ZB). – Europe (WE, NE, SE, EE), Turkey, China (NC).
- Lasioglossum (Evylaeus) quadrisignatum** (Schenck, 1853) [*Hylaeus*] (*Hylaeus rufipes* Schenck, 1853; *H. atratulus* Schenck, 1853; *Halictus pleuralis* Morawitz, 1872; *H. nigerrimus* Schenck, 1875; *H. commixtus* Dalla Torre et Friese, 1895). Russia: **EP** (C, S, E, CR). – Europe (WE, SE, EE), Caucasus, Turkey, Iran.
- Lasioglossum (Evylaeus) rufitarse** (Zetterstedt, 1838) [*Halictus*] (*Halictus parumpunctatus* Schenck, 1869; *H. lucidus* Schenck, 1869; *H. atricornis* Smith, 1870). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (TM, KM, AL), **ES** (IR, YA, ZB), **FE** (AM, PR, KA, SA, KU, MG). – Europe (WE, NE, SE, EE), Caucasus, Iran, Kazakhstan, Mongolia, China (NE, SE), Korean Peninsula
- Lasioglossum (Evylaeus) sabulosus** (Warncke, 1986) [*Halictus*]. Russia: **EP** (C, E). – Europe (WE, NE, SE, EE).
- Lasioglossum (Evylaeus) sakagami** Ebmer, 1978. Russia: **FE** (KH, PR). – Mongolia, China (NE, NC, NW), Korean Peninsula, Japan (Hok, Hon).
- Lasioglossum (Evylaeus) samaricum** (Blüthgen, 1935) [*Halictus*] (*L. pendschakenticum*: Ebmer, 1974). Russia: **EP** (E, CR). – Europe (EE), Turkey, Turkmenistan.
- Lasioglossum (Evylaeus) scirpaceum** (Warncke, 1975) [*Halictus*]. Russia: **EP** (NC). – Turkey, Iran.
- Lasioglossum (Evylaeus) semilaeve** (Blüthgen, 1923) [*Halictus*] (*Halictus minutulus speculiferus* Cockerell, 1937; *H. minutulus speculigerus* Cockerell, 1938). Russia: **WS** (AL), **ES** (IR), **FE** (AM, KH, PR). – Mongolia, China (NE).
- Lasioglossum (Evylaeus) semilucens** (Alfken, 1914) [*Halictus*] (*Hylaeus pygmaeus* Schenck, 1861). Russia: **EP** (C, E, NC). – Europe (WE, NE, SE, EE), Azerbaijan, Afghanistan, Tajikistan, Kyrgyzstan.
- Lasioglossum (Evylaeus) setulellum** (Strand, 1909) [*Halictus*] (*Halictus foveolatus* Blüthgen, 1924; *H. cinclus* Warncke, 1984). Russia: **EP** (E, S, CR), **UR**. – Europe (WE, SE, EE), Armenia, Turkey, Syria, Iran.
- Lasioglossum (Evylaeus) sexstrigatum** (Schenck, 1869) [*Halictus*]. Russia: **EP** (C, E), **UR**. – Europe (WE, NE, SE, EE), Armenia, Turkey.
- Lasioglossum (Evylaeus) sibiriacum** (Blüthgen, 1923) [*Halictus*] (*Halictus solovieffi* Cockerell, 1925). Russia: **FE** (PR). – China (NE), Korean Peninsula, Japan (Hok, Hon, Kuy, Shi, Izu, Tsu, Ryu).
- Lasioglossum (Evylaeus) simplicior** (Cockerell, 1931) [*Halictus*]. Russia: **FE** (KH, PR). – China (SE), Korean Peninsula, Japan (Izu)
- Lasioglossum (Evylaeus) speculinum** (Cockerell, 1925) [*Halictus*] (*Halictus pallilomus* Strand, 1914; *H. perplexans speculinus* Cockerell, 1925). Russia: **FE** (PR). – China (NE), Korean Peninsula.
- Lasioglossum (Evylaeus) subaenescens subaenescens** (Pérez, 1895) [*Halictus*] (*Lasioglossum illyricum* Ebmer, 1971). Russia: **EP** (CR). – Europe (WE, SE, EE).
- Lasioglossum (Evylaeus) subfulvicorne austriacum** Ebmer, 1974. Russia: **EP** (NC). – Europe (WE, SE, EE), Georgia, Turkey, Kyrgyzstan, Kazakhstan.
- Lasioglossum (Evylaeus) subfulvicorne subfulvicorne** (Blüthgen, 1934) [*Halictus*]. Russia: **WS** (KR, YA, ZB), **FE** (AM, PR, KA, SA, KU). – Mongolia, China (NC, NW), Korean Peninsula.
- Lasioglossum (Evylaeus) sulcatulum longifacies** Sakagami et Tadauchi, 1995. Russia: **FE** (KU). – Japan (Hok, Hon, Tsu).
- Lasioglossum (Evylaeus) sulcatulum sulcatulum** (Cockerell, 1925) [*Halictus*]. Russia: **FE** (AM, KH, PR). – Korean Peninsula.
- Lasioglossum (Evylaeus) tarsatum** (Schenck, 1869) [*Halictus*] (*Halictus berolinensis* Strand, 1909). Russia: **EP** (NW, C, E, S). – Europe (WE, NE, SE, EE), Afghanistan.
- Lasioglossum (Evylaeus) tauricum** Ebmer, 1972. Russia: **EP** (NC, CR).
- Lasioglossum (Evylaeus) transpositum** (Cockerell, 1925) [*Halictus*] (*Halictus tutihensis* Cockerell, 1925). Russia: **FE** (AM, KH, PR). – Korean Peninsula, Japan (Hok, Hon, Kyu).
- Lasioglossum (Evylaeus) trichorhinum** (Cockerell, 1925) [*Halictus*]. Russia: **FE** (PR). – Mongolia, China (NC).
- Lasioglossum (Evylaeus) tricinctum tricinctum** (Schenck, 1874) [*Halictus*] (*Halictus delmasi* Pérez, 1903). Russia: **EP** (E, S, CR). – Europe (WE, SE, EE).
- Lasioglossum (Evylaeus) trispine** (Vachal, 1903) [*Halictus*]. Russia: **FE** (PR). – Korean Peninsula, Japan (Hok, Hon, Shi, Ryu).
- Lasioglossum (Evylaeus) truncaticolle** (Morawitz, 1877) [*Halictus*] (*Halictus brevithorax* Pérez, 1903; *H. blidahensis* Strand, 1909; *H. sudaghensis* Strand, 1909). Russia: **EP** (S, CR). – Europe (WE, SE, EE), Caucasus, Turkey, Syria, Israel, Iran, Kazakhstan.

**Lasioglossum (Evylaeus) villosulum** (Kirby, 1802) [Melitta] (*Melitta punctulata* Kirby, 1802; *Halictus hirtellus* Schenck, 1869; *H. medinai* Vachal, 1895; *H. pauperatulellus* Strand, 1909; *H. trichopsis* Strand, 1909; *H. melanomitratatus* Strand, 1914; *H. m. mitratolus* Strand, 1914; *H. villosulopsis* Blüthgen, 1926; *H. pahanganus* Blüthgen, 1928; *H. barkensis* Blüthgen, 1930; *H. villosulus perlautus* Cockerell, 1938; *H. rufotegularis* Cockerell, 1938; *H. villiersi* Benoist, 1941; *H. berberus* Benoist, 1941). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **ES** (IR), **FE** (AM, PR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Syria, Israel, Iran, Afghanistan, Tajikistan, Mongolia, China (NE, NC, SE), Korean Peninsula, Japan (Hok, Hon, Ryu, Izu), E India, Nepal, Malaysia.

**Lasioglossum (Evylaeus) virideglaucum** Ebmer et Sakagami, 1994. Russia: **FE** (KH, PR). – China (NC, SW, SE), Korean Peninsula.

**Lasioglossum (Evylaeus) viridellum** (Cockerell, 1931) [Halictus]. Russia: **FE** (KH, PR). – China (NE, CC), Korean Peninsula.

**Lasioglossum (Evylaeus) vulsum** (Vachal, 1903) [Halictus] (*Halictus trispinis* Vachal, 1903). Russia: **ES** (KR), **FE** (AM, PR, KU). – Mongolia, Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu).

**Lasioglossum (Evylaeus) yakuticum** (Pesenko et Davydova, 2004) [Evylaeus]. Russia: **ES** (KR, YA, ZB), **FE** (AM).

**SPHECODES** Latreille, 1804. Type species *Nomada gibba* Fabricius, 1804 (= *Sphex gibba* Linnaeus, 1758). Species of this cosmopolitan bees are notable cleptoparasites in the nests of wide variety of short-tongued bees, particularly species of *Lasioglossum* Curtis and *Halictus* Latreille. Number of species: World – about 300 species, Palaearctic – about 70 species, Russia – 37.

**Sphecodes albilabris** (Fabricius, 1793) [Nomada] (*Dichroa fuscipennis* Germar, 1822; *Sphecodes latreillei* Wesmael, 1835; *S. rubripes* Spinola, 1838; *S. africanus* Lepeletier de Saint Fargeau, 1841; *S. nigripes* Lepeletier de Saint Fargeau, 1841; *S. rugosus* Smith, 1848; *S. nodicornis* Gistel, 1857; *S. fuscipennis basalis* Dalla Torre, 1877; *Sabulicola cirsii* Verhoeff, 1890; *Sphecodes grandis* Meyer, 1922; *S. rufipennis* Cockerell, 1931; *S. atrescens* Cockerell, 1931). Cleptoparasite of *Colletes cunicularius* (L.) (Colletidae), *Halictus quadricinctus* (F.) (Halictidae), *Melitturga clavicornis* (Latr.) (Andrenidae), *Dasygaster hirtipes*

(F.) (Melittidae). Russia: **EP** (NE, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, KM, AL), **ES** (KR, BR), **FE** (PR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Syria, Israel, Central Asia, Kazakhstan, India.

**Sphecodes alternatus** Smith, 1853 (*S. gibbus similis scariosus* Sichel, 1865; *S. punctiventris* Hagens, 1882; *S. gracilior* Morawitz, 1893; *S. antigae* Tournier, 1901; *S. reticulatus algeriensis* Alfken, 1914; *S. alternatus lindbergi* Pittioni, 1950). Cleptoparasite of *Halictus compressus* (Walckener), *H. longobardicus* Blüthgen, *H. patellatus* Mor. (Halictidae). Russia: **EP** (S, NC, CR), **UR**, **WS** (AL), **ES** (KR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Iran, Central Asia, Kazakhstan.

**Sphecodes crassus** Thomson, 1870 (*S. variegatus* Hagens, 1874; *S. divisus* Hagens, 1882; *S. valesianus* Frey-Gessner, 1903; *S. dyozankeanus* Tsuneki, 1983; *S. ohdeyamanus* Tsuneki, 1984). Cleptoparasite of *Lasioglossum pauxillum* (Schenck), *L. punctatissimum* (Schenck), *L. quadrinotatum* (Schenck), *L. nitidiusculum* (Kirby), *L. prasinum* (Smith) (Halictidae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KA). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Iran, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, Japan (Hok, Hon).

**Sphecodes cristatus** Hagens, 1882. Cleptoparasite of *Halictus confusus* Smith, *H. leucaheneus* Ebmer, *H. seladonius* (F.), *H. subauratus* (Rossi), *Lasioglossum nigripes* (Lep.) (Halictidae). Russia: **EP** (C, E, S, NC), **UR**, **WS** (OM, KM, AL), **ES** (KS, TU, KR, BR, ZB), **FE** (AM, KH, PR). – Europe (WE, SE, EE), Caucasus, Turkey, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NE).

**Sphecodes croaticus** Meyer, 1922. Cleptoparasite of *Lasioglossum interruptum* (Panz.) (Halictidae). Russia: **EP** (C, S, NC, CR). – Europe (WE, SE, EE), Caucasus, Turkey, Turkmenistan.

**Sphecodes ephippius** (Linnaeus, 1767) [Sphex] (*Apis minimus* Harris, 1776; *A. rufescens* Geoffroy in Fourcroy, 1785; *A. obscura* Geoffroy in Fourcroy, 1785; *A. rufescens* Gmelin, 1790; *A. labiata* Fabricius, 1793; *Melitta divisa* Kirby, 1802; *Andrena minuta* Fabricius, 1804; *Sphecodes similis* Wesmael, 1835; *S. zablockii* Blüthgen, 1924). Cleptoparasite of *Halictus tumulorum* (L.), *H. maculatus* Smith, *H. rubicundus* (Christ), *Lasioglossum laticeps* (Schenck), *L. leucozonium* (Schrank), *L. malachurum*



- (Kirby), *L. pauxillum* Schenck, *L. quadrinotatum* (Schenck), *L. fratellum* (Pérez), *L. lativentre* (Schenck), *L. prasinum* (Smith) (Halictidae), *Andrena argentata* Smith, *A. barbilabris* (Kirby), *A. flavipes* Panzer, *A. chrysopyga* Schenck, *A. labialis* (Kirby), *A. minutula* (Kirby), *A. wilkella* (Kirby) (Andrenidae). Russia: **EP** (NW, C, E, S, NC, CR), **UR, WS** (OM, TK, NS, KM, AL), **ES** (KR, IR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Central Asia, Kazakhstan, Mongolia.
- Sphecodes ferruginatus** Hagens, 1882 (*S. rufescens alpestris* Frey-Gessner, 1903; *S. koikensis* Tsuneki, 1983; *S. hanedai* Tsuneki, 1983; *S. baratonis* Tsuneki, 1983; *S. sudai* Tsuneki, 1983; *S. chibaensis* Tsuneki, 1984; *S. izumindus* Tsuneki, 1986). Cleptoparasite of *Lasioglossum fulvicorne* (Kirby), *L. laticeps* (Schenck), *L. pauxillum* Schenck, *L. vulsum* (Vachal) (Halictidae). Russia: **EP** (N, NW, C, E, NC, CR), **UR, WS** (TK, NS, KM, AL), **ES** (IR), **FE** (AM, KH, PR, KU). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Kyrgyzstan, Kazakhstan, Japan (Hok, Hon, Shi, Kyu).
- Sphecodes geoffrellus** (Kirby, 1802) [Melitta] (*S. affinis* Hagens, 1882; *S. fasciatus* Hagens, 1882; *S. rimalis* Pérez, 1903; *S. impunctatus* Meyer, 1922; *S. silvicola* Tsuneki, 1983; *S. shirozui* Tsuneki, 1983; *S. kitamius* Tsuneki, 1983). Cleptoparasite of *Lasioglossum leucopus* (Kirby), *L. morio* (F.), *L. nitidiusculum* (Kirby), *L. pauxillum* Schenck, *L. fratellum* (Pérez), *L. marginellum* (Schenck), *L. rufitarse* (Zetterstedt), *L. sexstrigatum* (Schenck) (Halictidae). Russia: **EP** (N, NW, C, E, NC), **UR, WS** (TK, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, KU). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Near East, Central Asia, Kazakhstan, Japan (Hok, Hon, Shi, Kyu).
- Sphecodes gibbus** (Linnaeus, 1758) [Sphex] (*Apis glabra* Füssli, 1775; *Nomada gibba* Fabricius, 1775; *Andrena ferruginea* Olivier, 1789; *Apis gibbosa* Christ, 1791; *Melitta sphecoidea* Kirby, 1802; *M. picea* Kirby, 1802; *Sphecodes apicatus* Smith, 1853; *S. nigripennis* Morawitz, 1876; *S. sutor* Nurse, 1903; *S. gibbus rufispinosus* Meyer, 1919; *S. g. turkestanicus* Meyer, 1919; *S. castilianus* Blüthgen, 1924; *S. pergibbus* Blüthgen, 1937; *S. lustrans* Cockerell, 1931; *S. angarensis* Cockerell, 1937). Cleptoparasite of *Halictus maculatus* Smith, *H. quadricinctus* (F.), *H. rubicundus* (Christ), *H. sexcinctus* (F.), *H. simplex* Blüthgen, *Lasioglossum malachurum* (Kirby) (Halictidae), *Andrena vaga* Panz. (Andrenidae), *Colletes cunicularius* (L.) (Colletidae). Russia: **EP** (N, NW, C, E, N, NC, CR), **UR, WS** (OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, YA). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Israel, Pakistan, Central Asia, Kazakhstan, Mongolia, China (NW), India.
- Sphecodes hyalinatus** Hagens, 1882. Cleptoparasite of *Lasioglossum fratellum* (Pérez), *L. fulvicorne* (Kirby) (Halictidae). Russia: **EP** (N, NW, C, E, NC, CR), **UR, WS** (KM, AL), **ES** (KS, TU, IR), **FE** (AM, KH, PR, KA, KU, MG). – Europe (WE, NE, SE, EE), Caucasus, Kazakhstan.
- Sphecodes intermedius** Blüthgen, 1923 (*S. lactipennis* Meyer, 1924). Parasite of *Halictus kessleri* Bramson (Halictidae). Russia: **EP** (C, S, CR), **UR**. – Europe (SE, EE), N Africa, Caucasus, Turkey, Central Asia, Kazakhstan.
- Sphecodes laticaudatus** Tsuneki, 1983. Russia: **FE** (KH, PR, SA, KU). – Japan (Hon).
- Sphecodes longulus** Hagens, 1882 (*S. longulus eupidus* Hagens, 1882; *S. nitidulus* Hagens, 1882; *S. amakusensis* Yasumatsu et Hirashima, 1951; *S. sabulosus* Tsuneki, 1983; *S. crassicornis* Tsuneki, 1983; *S. tsunekii* Haneda, 1994). Cleptoparasite of *Lasioglossum leucopus* (Kirby), *L. minutissimum* (Kirby), *L. punctatissimum* (Schenck), *L. semilucens* (Alfken), *L. zonulum* (Smith), *L. lucidulum* (Schenck), *L. sexstrigatum* (Schenck) (Halictidae). Russia: **EP** (NW, C, E, S, NC), **UR, WS** (KM), **ES** (KS, KR, IR), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Syria, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Japan.
- Sphecodes majalis** Pérez, 1903 (*S. gracilior* Pérez, 1903; *S. opacifrons* Pérez, 1903; *S. problematicus* Schulz, 1906). Cleptoparasite of *Lasioglossum pallens* (Brullé) (Halictidae). Russia: **EP** (C, NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Iran.
- Sphecodes maruyamanus** Tsuneki, 1983 (*S. convergens* Tsuneki, 1983). Russia: **FE** (PR). – Japan (Hok, Hon).
- Sphecodes miniatus** Hagens, 1882 (*S. dimidiatus* Hagens, 1882; *S. murithianus* Frey-Gessner, 1903; *S. pilicornis* Meyer, 1922). Cleptoparasite of *Lasioglossum nitidiusculum* (Kirby), *L. morio* (F.), *L. pauxillum* Schenck, *L. politum* Schenck, *L. punctatissimum* (Schenck), *L. sexstrigatum* (Schenck) (Halictidae). Russia: **EP** (NW, C, E, S, NC, CR), **UR, WS** (TM, KM, AL), **ES** (KS, TU, BR), **FE**

- (KH). – Europe (WE, NE, SE, EE), Caucasus, Kyrgyzstan, Kazakhstan, Mongolia.
- Sphecodes monilicornis** (Kirby, 1802) [Melitta] (*S. maculatus* Lepeletier de Saint Fargeau, 1841; *S. subquadratus* Smith, 1845; *S. gibbus ephippium rufipes* Sichel, 1865; *S. g. e. dubious* Sichel, 1865; *S. g. e. incertus* Sichel, 1865; *S. g. e. nigrescens* Sichel, 1865; *S. g. e. testaceipes* Sichel, 1865; *S. ruficrus* Dalla Torre, 1896; *S. hanuman* Nurse, 1903; *S. monilicornis nigerrima* Blüthgen, 1927; *S. cephalotes* Meyer, 1920; *S. smyrnensis* Meyer, 1920; *S. monilicornis quadratus* Meyer, 1920; *S. m. berberus* Warncke, 1992; *S. quadratus cephalotiformis* Pittoni, 1950). Cleptoparasite of *Halictus maculatus* Smith, *H. rubicundus* (Christ), *H. tumulorum* (L.), *Lasioglossum albipes* (F.), *L. calceatum* (Scop.), *L. leucozonium* (Schrank), *L. malachurum* (Kirby), *L. quadrinotatum* (Schenck), *L. zonulum* (Smith), *L. laticeps* (Schenck), *L. pauxillum* Schenck, *L. prasinum* (Smith), *L. villosulum* (Kirby) (Halictidae), *Andrena flavipes* Panz. (Andrenidae). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, AL), **ES** (KS, TU, KR, IR, BR, YA), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Pakistan, Central Asia, Kazakhstan, Mongolia.
- Sphecodes murotai** Tsuneki, 1983 (*S. akitanus* Tsuneki, 1983; *S. kaiensis* Tsuneki, 1983; *S. mutsuoides* Tsuneki, 1984; *S. maetai* Tsuneki, 1984). Cleptoparasite of *Lasioglossum baleicum* (Cockerell) (Halictidae). Russia: **FE** (PR). – Japan (Hon, Shi, Kyu).
- Sphecodes niger** Hagens, 1874. Cleptoparasite of *Lasioglossum morio* (F.), *L. lucidulum* (Schenck) (Halictidae). Russia: **EP** (C, E, S, NC). – Europe (WE, NE, SE, EE), Turkey.
- Sphecodes nippon** Meyer, 1922 (*S. aino* Tsuneki, 1983; *S. awaensis* Tsuneki, 1983; *S. gibbus*: Warncke, 1992). Cleptoparasite of *Lasioglossum sakagamii* Ebmer (Halictidae). Russia: **ES** (BR, ZB), **FE** (AM, KH, PR, SA, KU). – Mongolia, Japan (Hok, Hon, Shi, Kyu).
- Sphecodes nomioidis** Pesenko, 1979. Russia: **EP** (C). – Europe (WE, SE, EE), Turkey, Jordan.
- Sphecodes okuyetsu** Tsuneki, 1984 (*S. duplipunctatus* Tsuneki, 1983; *S. hasshanus* Tsuneki, 1983; *S. etizenensis* Tsuneki, 1983; *S. sapporoensis* Tsuneki, 1983; *S. brevichypeatu* Tsuneki, 1984). Cleptoparasite of *Lasioglossum allodalum* Ebmer et Sakagami (Halictidae). Russia: **FE** (KH, PR, SA, KU). – Japan (Hok, Hon, Shi, Kyu).
- Sphecodes olivieri** Lepeletier de Saint Fargeau, 1825 (*S. collaris* Spinola, 1843; *S. hispanicus abyssinicus* Sichel, 1865; *S. ruficornis* Sichel, 1865; *S. punctulatus* Sichel, 1865; *S. subpunctulatus* Sichel, 1865; *S. rufithorax* Morawitz, 1876; *S. verticalis* Hagens, 1882; *S. desertus* Nurse, 1903; *S. chionospilus* Cockerell, 1911; *S. ch. sanguinatus* Cockerell, 1911; *S. tenuis* Meyer, 1919; *S. olivieri niveatus* Meyer, 1924). Cleptoparasite of *Lasioglossum aegyptiellum* (Strand), *L. vagans* (Smith) (Halictidae). Russia: **EP** (S, NC). – Europe (SE), N Africa, Caucasus, Turkey, Israel, UAE, Qatar, Iran, Pakistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, India.
- Sphecodes orientalis** Astafurova et Proshchalykin, 2014. Russia: **FE** (KH, PR, SA).
- Sphecodes pellucidus** Smith, 1845 (*S. pilifrons* Thomson, 1870; *S. brevicornis* Hagens, 1874; *S. volatilis* Smith, 1879; *S. pellucidus algerus* Alfken, 1914; *S. p. hybridus* Blüthgen, 1924; *S. p. niveipennis* Meyer, 1924). Cleptoparasite of *Lasioglossum leucozonium* (Schrank), *L. prasinum* (Smith) (Halictidae), *Andrena barbilabris* (Kirby), *A. nycthemera* Imhoff, *A. argentata* Smith, *A. bicolor* F., *A. humilis* Imhoff, *A. ventralis* Imhoff, *A. wilkella* (Kirby) (Andrenidae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Iran, Central Asia, Kazakhstan, Mongolia, China (NW, WP).
- Sphecodes pinguiculus** Pérez, 1903 (*S. sareptensis* Meyer, 1922; *S. excellens* Meyer, 1922; *S. punctatissimus* Meyer, 1922; *S. hungaricus* Blüthgen, 1923; *S. coelebs* Blüthgen, 1923; *S. consobrinus* Blüthgen, 1923; *S. persicus* Blüthgen, 1924; *S. capverdensis* Pauly et La Roche, 2002). Cleptoparasite of *Halictus lucidipennis* Smith, *H. smaragdulus* Vachal (Halictidae). Russia: **EP** (S, CR), **ES** (TU, BR). – Europe (SE, EE), N Africa, Caucasus, Turkey, Israel, UAE, Iran, Central Asia, Kazakhstan, Mongolia.
- Sphecodes pseudofasciatus** Blüthgen, 1924. Russia: **EP** (C, NC). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey.
- Sphecodes puncticeps** Thomson, 1870 (*S. opacifrons* Pérez, 1903; *S. bituberculatus* Pérez, 1903; *S. puncticeps cretanus* Strand, 1921). Cleptoparasite of *Lasioglossum villosulum* (Kirby), *L. brevicorne* (Schenck), *L. politum* Schenck, *L. sabulosum* (Warncke) (Halictidae). Russia: **EP** (NW, C, E, S, NC, CR), **WS** (AL), **FE** (PR). – Europe (WE, NE,

SE, EE), N Africa, Caucasus, Turkey, Central Asia, Kazakhstan, Mongolia.

**Sphecodes reticulatus** Thomson, 1870 (*S. distinguendus* Hagens, 1874). Cleptoparasite of *Andrena barbibris* (Kirby), *A. argentata* Smith, *A. wilkella* (Kirby) (Andrenidae), *Lasioglossum leucozonium cedri* Ebmer, *L. prasinum* (Smith) (Halictidae). Russia: **EP** (NW, C, E, S, NC, CR), **WS** (OM, NS, KM), **ES** (KS, TU, KR, IR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Tajikistan, Kyrgyzstan, Kazakhstan.

**Sphecodes rubicundus** Hagens, 1875. Cleptoparasite of *Andrena labialis* (Kirby), *A. agilissima* (Scopoli), *A. nigroaenea* (Kirby) (Andrenidae). Russia: **EP** (E, S, NC), **UR**. – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey.

**Sphecodes rufiventris** (Panzer, 1798) [Tiphia] (*S. subovalis* Schenck, 1853; *S. brevis* Hagens, 1875; *S. singularis* Meyer, 1919; *S. combinatus* Blüthgen, 1927; *S. subovalis austrius* Erlandsson, 1979; *S. s. austrius balcanicus* Erlandsson, 1979; *S. rufiventris hethiticus* Warncke, 1992). Cleptoparasite of *Halictus maculatus* Smith (Halictidae). Russia: **EP** (C, E, S, NC), **UR**, **WS** (TK, MS, KM, AL), **ES** (KS). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.

**Sphecodes scabricollis** Wesmael, 1835 (*S. perversus* Ritsema, 1879; *S. japonicus* Cockerell, 1911; *S. sibiricus* Cockerell, 1924; *S. utinamius* Tsuneki, 1983; *S. asakura* Tsuneki, 1983; *S. hatogayuu* Tsuneki, 1983; *S. taicho* Tsuneki, 1983; *S. daisi* Tsuneki, 1983). Cleptoparasite of *Lasioglossum zonulum* (Smith), *L. prasinum* (Smith), *Halictus compressus* (Walkener), *H. quadricinctus* (F.) (Halictidae). Russia: **EP** (NW, C, E, S, CR), **UR**, **WS** (NS, KM, AL), **FE** (AM, KH, PR, SA, KU). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Kazakhstan, Korean Peninsula, Japan (Hok, Hon, Shi, Kyu), India.

**Sphecodes schenckii** Hagens, 1882. Cleptoparasite of *Lasioglossum discum* (Smith), *Halictus simplex* Blüthgen (Halictidae). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Caucasus, Turkey, Israel, Iran.

**Sphecodes schwarzi** Astafurova et Proshchalykin, 2014 Russia: **ES** (TU). – Kazakhstan, Mongolia.

**Sphecodes spinulosus** Hagens, 1875. Cleptoparasite of *Lasioglossum xanthopus* (Kirby) (Halictidae). Russia: **EP** (C, E, S, CR), **UR**, **WS** (AL). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Central Asia, Kazakhstan.

**Sphecodes simillimus** Smith, 1873 (*S. esakii* Strand et Yasumatsu, 1938). Cleptoparasite of *Lasioglossum duplex* (Dalla Torre) (Halictidae). Russia: **FE** (KH, PR, SA, KU). – Japan (Hok, Hon, Shi, Kyu).

**Sphecodes tanoi** Tsuneki, 1983 (*S. coptis* Tsuneki, 1983; *S. mutsu* Tsuneki, 1983; *S. fukuensis* Tsuneki, 1983; *S. fudzi* Tsuneki, 1983; *S. chichibuus* Tsuneki, 1984; *S. kamafuse* Tsuneki, 1983; *S. ohtsukius* Tsuneki, 1984; *S. chichibuensis* Tsuneki, 1986). Russia: **FE** (PR, KU). – Japan (Hok, Hon, Kyu).

#### Subfamily ROPHITINAE

The overwhelming majority of rophitine species occur in the Holarctic region, only a few species also inhabit Afrotropical, Oriental, and Neotropical regions; no species are recorded from Australia. Many species of Rophitinae are montane, the majority of species are oligo- or monolectic. All rophitines are nesting species (non-parasitic), constructing their nests in soil; all behaviourally known species are solitary (not even subsocial).

**DUFOUREA** Lepeletier de Saint Fargeau, 1841. Type species *Dufourea minuta* Lepeletier de Saint Fargeau, 1841. Number of species: World – 130; Palaearctic – 82; Russia – 8.

**Dufourea (Cephalictoides) paradoxa sibirica** Pesenko, 1998. Russia: **WS** (AL), **ES** (TU, YA). – Mongolia.

**Dufourea (Cyprirophites) coeruleocephala** Morawitz, 1872 (*D. caeruleocephala* Dalla Torre, 1896). Russia: **EP** (C, S). – Europe (EE).

**Dufourea (Dufourea) halictula** (Nylander, 1852) [Rophites] (*D. minuta* auct.). Russia: **EP** (NW, C, CR). – Europe (WE, NE, SE, EE).

**Dufourea (Dufourea) minuta** Lepeletier de Saint Fargeau, 1841 (*D. vulgaris* Schenck, 1861). Russia: **EP** (N, NW, C, E, NC), **UR**. – Europe (WE, NE, SE, EE), China (WP).

**Dufourea (Halictoides) carinata** (Popov, 1959) [Halictoides]. Russia: **ES** (BR, ZB), **FE** (AM, KH, PR). – China (NE, NC).

**Dufourea (Halictoides) dentiventris** (Nylander, 1841) [Halictoides] (*D. dejeanii* Lepeletier de Saint Fargeau, 1841; *Rophites bispinosa* Eversmann, 1852; *Dufourea putoniana* Dours, 1873; *D. odontogastra* Ebmer, 1978). Russia: **EP** (NW, C, E, NC), **UR**, **ES** (IR). – Europe (WE, NE, SE, EE), China (WP), Korean Peninsula.

**Dufourea (Halictoides) graeca dubiosa** (Warncke, 1979) [Rophites]. Russia: **EP** (NC). – Georgia, Armenia, Turkey.

**Dufourea (Halictoides) inermis** (Nylander, 1848) [Halictoides]. Russia: **EP** (NW, C, E, NC), **UR**, **WS** (TK, AL), **ES** (IR, YA), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), Uzbekistan, China (NE, WP).

**FLAVODUFOUREA** Ebmer, 1984. Type species *Dufourea flavicornis* Friese, 1914. Number of species: World – 2; Palaearctic – 2; Russia – 1.

**Flavodufourea flavicornis** (Friese, 1914) [Dufourea]. Russia: **WS** (BR). – China (WP).

**RHOPHITOIDES** Schenck, 1861. Type species *Rhophitoides distinguendus* Schenck, 1861 (= *Rophites cana* Eversmann, 1852). Number of species: World – 4; Palaearctic – 4; Russia – 1.

**Rhophitoides canus** (Eversmann, 1852) [Rophites] (*Rhophites bifoveolatus* Sichel, 1854; *Rhophitoides distinguendus* Schenck, 1861). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, KM, AL), **ES** (KR, TU, BR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Central Asia, Kazakhstan, Mongolia, China (NW), Korean Peninsula.

**ROPHITES** Spinola, 1808. Type species *Rophites quinquespinosus* Spinola, 1808. Number of species: World – 16; Palaearctic – 16; Russia – 6.

**Rophites algius montanus** Ebmer, 1978 (*R. algius hethiticus* Warncke, 1980). Russia: **EP** (NC). – Caucasus, Turkey, Iran.

**Rophites algius trispinosus** Pérez, 1903. Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE).

**Rophites caucasicus** Morawitz, 1876. Russia: **EP** (NC). – Caucasus, Turkey.

**Rophites clypealis stepposus** Astafurova, 2011. Russia: **EP** (S, CR). – Europe (EE), Kazakhstan.

**Rophites gruenwaldti** Ebmer, 1978. Russia: **FE** (AM). – Mongolia, China (NE, NC).

**Rophites hartmanni** Friese, 1902 (*R. bistrispinosus* Lebedev, 1931). Russia: **EP** (C, E, S, NC, CR). – Europe (WE, SE, EE), Turkey, Israel.

**Rophites quinquespinosus** Spinola, 1808 (*R. pilichi* Moczar, 1967; *R. moeschleri* Schwammberger, 1971; *R. bluethgeni* Benedek, 1973). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (TK, NS, KM, AL), **ES** (KS, KR, IR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Uzbekistan, Kyrgyzstan, Kazakhstan, China (NW).

**SYSTROPHA** Illiger, 1806. Type species *Andrena spiralis* Olivier, 1789 (= *Eucera curvicornis* Scopoli, 1770). Number of species: World – 28; Palaearctic – 13; Russia – 2.

**Systropha curvicornis** (Scopoli, 1770) [Eucera] (*Tenthredo convolvuli* Pallas, 1773; *Andrena spiralis* Olivier, 1789; *A. labrosa* Eversmann, 1852). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (NS, AL). – Europe (WE, NE, SE, EE), Armenia, Azerbaijan, Turkey, Iran, Uzbekistan, Kazakhstan, China (NW, WP).

**Systropha planidens** Giraud, 1861 (*S. chrysur* Pérez, 1905; ?*S. grandimargo* Pérez, 1905; *S. planidens anatolica* Warncke, 1977). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Kazakhstan.

#### Subfamily NOMIINAE

The subfamily Nomiinae is nearly cosmopolitan group of bees (absent in South America). Many species of Nomiinae are plain, the majority of species are polylectic. All species of the subfamily make nests; there are no cleptoparasitic forms. All species, well studied in relation their biology, are solitary (sometimes subsocial). They nest in the ground, usually on exposed warm dry areas. Females of many species form communal nests.

**LIPOTRICHES** Gerstaecker, 1858. Type species *Lipotriches abdominalis* Gerstaecker, 1858 (= *Sphcodes cribrosa* Spinola, 1843). Number of species: World – 270; Palaearctic – 9; Russia – 1.

**Lipotriches (Austronomia) fruhstorferi** (Pérez, 1905) [Nomia]. Russia: **ES** (ZB), **FE** (AM, KH, PR). – Mongolia, China (NE), Japan (Hok, Kyu, Tsu).

**NOMIAPIS** Cockerell, 1919. Type species *Nomia diversipes* Latreille, 1806. Number of species: World – 14; Palaearctic – 11; Russia – 6.

**Nomiapis armata** (Olivier, 1812) [Nomia] (*Nomia monstrosa* Costa, 1861; *N. rumelica* Friese, 1923). Russia: **EP** (CR). – Europe (SE, EE), Armenia, Azerbaijan, Turkey, Israel.

**Nomiapis bispinosa** (Brulle, 1832) [Nomia] (*Nomia rufiventris* Spinola, 1839; *N. ruficornis* Spinola, 1839; *N. perforata* Lucas, 1849; *N. albocincta* Lucas, 1849; *N. aureocincta* Costa, 1861; *N. polita* Costa, 1861; *N. basalis* Smith, 1875; *N. aureocincta turcomanica* Radoszkowski, 1893; *N. fletcheri* Cockerell,

1920; *N. basalicincta* Cockerell, 1922; *N. unidentata* auct.). Russia: **EP** (E, S, NC, CR). – Europe (SE, EE), N Africa, Caucasus, Turkey, Israel, Iraq, Afghanistan, Pakistan, Central Asia, Kazakhstan, China (NW), N India.

**Nomiapis diversipes** (Latreille, 1806) [Nomia] (*Andrena humeralis* Jurine, 1807; *Nomia hungarica* Förster, 1853). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (NS, AL). – Europe (WE, SE, EE), Caucasus, Turkey, Israel, Iran, Pakistan, Central Asia, Kazakhstan, Mongolia.

**Nomiapis femoralis** (Pallas, 1773) [Apis] (*Lasius difformis* Panzer, 1805; *Andrena brevitarsis* Eversmann, 1852). Russia: **EP** (C, E, S, NC), **UR**, **WS** (AL), **ES** (KS, TU, KR, IR, BR). – Europe (WE, SE, EE), Central Asia, Kazakhstan, Mongolia, China (NW).

**Nomiapis fugax** (Morawitz, 1877) [Nomia]. Russia: **EP** (S, NC), **ES** (IR). – N Africa, Armenia, Azerbaijan, Turkey, Iran, Pakistan, Central Asia, Kazakhstan, China (NW).

**Nomiapis mandschurica** (Hedicke, 1940) [Nomia]. Russia: **ES** (BR), **FE** (AM, PR). – Mongolia, China (NE, NC), Korean Peninsula, Japan (Hok, Hon, Kyu).

**PSEUDAPIS** Kirby, 1900. Type species *Pseudapis anomala* W.F. Kirby, 1900. Number of species: World – 41; Palaearctic – 24; Russia – 2.

**Pseudapis anatolica** (Warncke, 1976) [Nomia]. Russia: **EP** (NC). – Armenia, Turkey.

**Pseudapis elegantissima** (Popov, 1949) [Nomia]. Russia: **EP** (S, NC). – Azerbaijan, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.

#### Subfamily NOMIOIDINAE

The subfamily Nomioidinae is represented by small (body length at most 5 mm) and usually brightly colored forms and overwhelming majority of species occur in the Old World. The most of species inhabit deserts and semi-desert and are polytactic. All nomioides are

nesting species (non-parasitic), constructing their nests in soil, preferring sandy and stony soils; all behaviourally known species are solitary or subsocial (not eusocial).

**CEYLALICTUS** Strand, 1913 (*Eunomioides* Blüthgen, 1937). Type species *Halictus horni* Strand, 1913. Number of species: World – 28; Palaearctic – 1; Russia – 1.

**Ceylalictus (Ceylalictus) variegatus** (Olivier, 1789) [Apis] (*Andrena pulchella* Jurine, 1807; *A. flavopicta* Dours, 1873; *A. flavopicta* Dours, 1873; *Nomioides jucunda* Morawitz, 1874; *N. fasciatus* Friese, 1898; *N. fasciatus intermedius* Alfken, 1924; *N. variegata simplex* Blüthgen, 1925; *N. variegata unifasciata* Blüthgen, 1925; *N. labiatarum* Cockerell, 1931; *N. variegata nigrita* Blüthgen, 1934; *N. variegata pseudocerea* Blüthgen, 1934; *N. variegata nigri-ventris* Blüthgen, 1934). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Arabian Peninsula, Israel, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, Mongolia, China (NW), NW India.

**NOMIOIDES** Schenck, 1866. Type species *Apis minutissima* Rossi, 1790. Number of species: World – 62; Palaearctic – 39; Russia – 2.

**Nomioides (Nomioides) minutissimus minutissimus** (Rossi, 1790) [Apis] (?*Apis parvula* Fabricius, 1798; *Nomioides minutissima obscurata* Blüthgen, 1925; *N. m. versicolor* Blüthgen, 1925; *N. m. violascens* Blüthgen, 1925; *N. m. schencki* Blüthgen, 1925; *N. m. tristis* Blüthgen, 1934; *N. m. fusca* Blüthgen, 1934). Russia: **EP** (E, S, NC, CR). – Europe (WE, SE, EE), Caucasus, Turkey, Near East, Iraq, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, Mongolia, China (NW), NW India.

**Nomioides (Nomioides) pulverosus** Handlirsch, 1888 (*N. subgalerita* Blüthgen, 1933). Russia: **EP** (S, NC). – Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia.

## 76. FAMILY MELITTIDAE

M.YU. PROSHCHALYKIN AND YU.V. ASTAFUROVA

Melittid bees occur in temperate and xeric ecosystems of the Nearctic and the Old World. Ethiopian region shows the maximum of generic diversity but the maximum of species diversity is reached in the Palearctic region. The African continent lumps clearly the maximum of both generic and specific diversity. Melittids are typically small to moderate-sized bees, which are well known for their specialist and oligolectic foraging habits. Nests in burrows on the soil. Number of taxa: World – 15 genera, 198 species; Palearctic – 5/85; Russia – 3/25.

R e f e r e n c e s. Warncke, 1973; Dathe, 1980b; Sitdikov, 1986; Radchenko, Pesenko, 1989; Michez et al., 2004, 2012; Celary, 2005; Michez, Patiny, 2005; Michez, Eardley, 2007; Proshchalykin, 2007c, 2008b; 2010; 2012a; 2014a; Levchenko, 2009; Radchenko, 2009; 2016; Levchenko, Yuferev, 2013; Levchenko, Tomkovich, 2014.

## Subfamily DASYPODAINAE

## Tribe DASYPODAINI

**DASYPODA** Latreille, 1802 (*Podasys* Rafinesque, 1815; *Microdasypoda* Michez, 2004; *Megadasypoda* Michez, 2004; *Heterodasypoda* Michez, 2004). Type species *Andrena hirtipes* Fabricius, 1793. The genus is widespread in the Palearctic and only 2 species known in Afrotropical region. Number of taxa: World – 39; Palearctic – 37; Russia – 8.

**Dasypoda argentata** Panzer, 1809 (*D. villipes* Eversmann, 1852, nom. praeocc., nec Lepeletier de Saint Fargeau, 1841; *D. thoracica* Baer, 1853; *D. palleola* Baer, 1853; *D. decora* Baer, 1853; *D. nigrans* Baer, 1853; *D. italica* Radoszkowski, 1876; *D. rhodo-daetyla* Dalla Torre, 1881; *D. canescens* De Stefani, 1887; *D. mlokoszewiczi* Radoszkowski, 1890; *D. wankowiczi* Radoszkowski, 1891; *D. carinata* Pérez, 1895; *D. argentata rufipes* Friese, 1901; *D. a. nigricans* Friese, 1901; *D. a. cinerascens* Friese, 1901; *D. a. griseithorax* Müller, 1923; *D. a. spadix* Müller, 1923; *D. thoracica*: Radchenko, Pesenko, 1989). Russia: **EP** (C, S, E, NC, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Lebanon, Iran.

**Dasypoda braccata** Eversmann, 1852 (*D. tschertkoviana* Baer, 1853; *D. melanopleura* Baer, 1853).

Russia: **EP** (E, NC), **UR**. – Europe (WE, SE, EE), Turkey, Kazakhstan.

**Dasypoda hirtipes** (Fabricius, 1793) [*Andrena*] (?*Apis altercator* Harris, 1776; *Andrena hirtipes* Fabricius, 1793; *Apis hirta* Fabricius, 1793, nom. praeocc., nec Schrank, 1781; *Andrena plumipes* Panzer, 1797; *Melitta swammerdamella* Kirby, 1802; *Dasypoda villosa* Lepeletier de Saint Fargeau, 1841; ?*D. germanica* Gistel, 1848; *D. palleola* Baer, 1853; *D. nemorialis* Baer, 1853; ?*D. rudis* Gistel, 1857; *D. plumipes nigrescens* Friese, 1901; *D. minor* Pérez, 1903, nom. praeocc., nec Morawitz, 1874; *D. illegalis* Schulz, 1906; *D. altercator* auct.). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (NS), **ES** (BR), **FE** (PR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Iran, Kazakhstan, Mongolia, China (NE, NC).

**Dasypoda japonica** Cockerell, 1911. Russia: **ES** (BR), **FE** (KH, PR). – China (NC), Korean Peninsula, Japan (Hon, Kyu).

**Dasypoda morawitzi** Radchenko, 2016 (?*D. hirtipes minor* Morawitz, 1874). Russia: **EP** (NW, E, S, NC, CR), **UR**. – Europe (EE), Turkey, Kazakhstan.

**Dasypoda spinigera** Kohl, 1905. Russia: **EP** (NC, CR). – Europe (WE, SE, EE), Armenia, Turkey.

**Dasypoda suripes** (Christ, 1791) [*Apis*] (*Apis laniger* Christ, 1791; *Dasypoda speetabilis* Rudow, 1881; *D. aurata* Rudow, 1881; *D. leueoura* Rudow, 1882; *D. mixta* Radoszkowski, 1887; *D. thomsoni* Schletterer, 1890). Russia: **EP** (C, E, NC, CR), **UR**. – Europe (WE, NE, SE, EE), Turkey.

**Dasypoda toroki** Michez, 2004. Russia: **EP** (CR). – Turkey, Syria, Israel.

## Subfamily MELITTINAE

**MACROPIS** Panzer, 1809. Type species *Megilla labiata* Fabricius, 1805 (= *Megilla fulvipes* Fabricius, 1804). The Holarctic genus *Macropis* Panzer comprises 16 recognized species of bees (Michez, Patiny, 2005). All species of the genus are believed to be strictly oligolectic and are specialized in collecting pollen exclusively from flowers of *Lysimachia* (Primulaceae). Number of taxa: World – 16; Palearctic – 13; Russia – 4.

**Macropis (Macropis) dimidiata amurensis** Popov, 1958 (*M. fulvipes amurensis* Popov, 1958). Russia: **ES** (BR, ZB), **FE** (AM, KH, PR).

**Macropis (Macropis) europaea** Warncke, 1973 (*M. labiata* auct., nec Fabricius, 1804). Russia: **EP** (NW, C,

- E, S, NC, CR), **UR, WS** (TM, AL). – Europe (WE, NE, SE, EE), Turkey.
- Macropis (Macropis) fulvipes** (Fabricius, 1804) [Megilla] (*Megilla labiata* Fabricius, 1805). Russia: **EP** (NW, C, E, S, NC, CR), **UR, WS** (TM, AL), **ES** (KS, KR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Kazakhstan, Mongolia.
- Macropis (Paramacropis) ussuriana** (Popov, 1936) [Ctenoplectra]. Russia: **FE** (KH, PR). – China (NE).
- MELITTA** Kirby, 1802 (*Cilissa* Leach, 1812; *Kirbya* Lepeletier de Saint Fargeau, 1841; *Pseudocilissa* Radoszkowski, 1891; *Brachycephalapis* Viereck, 1909). Type species *Melitta tricineta* Kirby, 1802. The most of species occur in the Palaearctic and a few species in southern and East Africa, and in the Nearctic; nest in the soil and many species are oligolectic. Number of taxa: World – 48; Palaearctic – 30; Russia – 13.
- Melitta budashkini** Radchenko et Ivanov, 2012. Russia: **EP** (CR).
- Melitta budensis** (Mocsáry, 1878) [Cilissa]. Russia: **EP** (S, CR). – Europe (SE, EE), Armenia, Turkey, Kazakhstan.
- Melitta ezoana** Yasumatsu et Hirashima, 1956 (*M. sinensis* Wu, 1978). Russia: **FE** (PR). – China (NE, NC), Korean Peninsula, Japan (Hok, Hon).
- Melitta dimidiata** Morawitz, 1876 (*Cilissa robusta* Radoszkowski, 1876; *C. dimidiata* var. *hungaria* Mocsáry, 1883). Russia: **EP** (S, NC, CR), **UR**. – Europe (WE, SE, EE), Caucasus, Turkey, Iran, Central Asia, Kazakhstan.
- Melitta haemorrhoidalis** (Fabricius, 1775) [Andrena] (*Apis dichroa* Gmelin, 1790; *Melitta chrysur* Kirby, 1802; *Cilissa nigra* Friese, 1885). Russia: **EP** (NW, C, E, NC, CR), **UR**. – Europe (WE, NE, SE, EE), Armenia, Turkey.
- Melitta japonica** Yasumatsu et Hirashima, 1956 (*M. taishanensis* Wu, 1978). Russia: **WS** (NS), **ES** (ZB), **FE** (PR). – China (NC), Japan (Hok, Hon).
- Melitta latronis** Cockerell, 1924. Russia: **FE** (PR). This species even not mentioned since description and requires the revision.
- Melitta leporina** (Panzer, 1799) [Apis] (*Andrena fortipes* Imhoff, 1832; *Cilissa ruthenica* Radoszkowski, 1891; *Melitta centaureae* Torka, 1922; *M. leporina* var. *nigrinotum* Alfken, 1927; *M. sinkiangensis* Wu, 1978). Russia: **EP** (NW, C, E, NC, CR), **UR, WS** (AL). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Afghanistan, Central Asia, Kazakhstan, Mongolia, China (NW).
- Melitta melanura** (Nylander, 1852) [Kirbya] (*Cilissa wankowiczi* Radoszkowski, 1891). Russia: **EP** (C, S, NC, CR), **UR**. – Europe (WE, NE, EE), Armenia, Turkey, Mongolia.
- Melitta nigricans** Alfken, 1905. Russia: **EP** (C, S, CR), **UR**. – Europe (WE, SE, EE), N Africa, Turkey.
- Melitta sibirica** (Morawitz, 1888) [Cilissa] (*M. albofasciata* Friese, 1900; *Cilissa alticola* Hedicke, 1938; *Melitta borealis* Wu, 2000; *M. quinghaiensis* Wu, 2000). Russia: **EP** (E), **ES** (KR). – Tajikistan, Kyrgyzstan, Mongolia, China (NC), India.
- Melitta tricineta** Kirby, 1802 (*Andrena microstigma* Eversmann, 1852; *A. quadricincta* Eversmann, 1852; *Melitta meridionalis* Hedicke, 1933). Russia: **EP** (C, E, S, NC, CR), **UR, ES** (IR, BR, YA, ZB), **FE** (KH). – Europe (WE, NE, SE, EE), Kazakhstan, China (WP).
- Melitta udmurtica** Sitdikov, 1986. Russia: **EP** (E), **UR**. – Europe (EE).

## 77. FAMILY MEGACHILIDAE

M.YU. PROSHCHALYKIN AND A.V. FATERYGA

The family Megachilidae is one of the largest families of the bees. Megachilid bees are found in a wide diversity of habitats on all continents except Antarctica, ranging from lowland tropical rain forests to deserts or alpine environments. Bees of this family have high morphological diversity, broad range of trophic links, and extreme diversity of nesting behavior among all bee families. These solitary bees are both ecologically and economically relevant; they include many pollinators of natural, urban and agricultural vegetation. For example, *Megachile rotundata* has been introduced into many parts of the world as a pollinator of alfalfa (*Medicago sativa*, Fabaceae); several species of the genus *Osmia* is widely used for pollination of orchards (*Prunus* s. l., Malus, and Pyrus, Rosaceae) and some warmhouse plants (*Fragaria ananassa*, Rosaceae; *Cucumis sativus*, Cucurbitaceae). Megachilidae also contains a large number of cleptoparasitic bees (19 genera, including the entire tribe Dioxyini). Number of taxa: World – 76 genera, 4096 species; Palaearctic – 36/1100; Russia – 18/198.

**References.** Popov, 1933b; Nikiforuk, 1957; Pesenko, 1971; Sedykh, 1974; Osytshnjuk et al., 1978; Dathe, 1980b; Warncke, 1980; Sitdikov, 1986; Romanova, 1995a; Banaszak, Romasenko, 2001; Proshchalykin, Lelej, 2004; Humala, 2006; Proshchalykin, 2006, 2007d,f, 2009a, 2012a,b, 2013a,b, 2014b; Levchenko, 2007; Michener, 2007; Praz et al., 2008; Kuznetsova, 2009; Aguib et al., 2010; Humala, Polevoi, 2011; Gonzalez et al., 2012; Levchenko, Tomkovich, 2014; Kasperek, 2015; Paukkunen, Kozlov, 2015; Yakovleva, 2015; Litman et al., 2016; Trunz et al., 2016; Ascher, Pickering, 2017; Fateryga, 2017b; Fateryga, Popov, 2017; Johansson, Paukkunen, 2017; Kuhlmann et al., 2017; Müller, 2017; Praz, 2017; Rasmont et al., 2017; Proshchalykin et al., 2017a; Fateryga et al., 2018.

## Subfamily MEGACHILINAE

## Tribe LITHURGINI

**LITHURGUS** Berthold, 1827 (*Lithurge* Latreille, 1825; *Liturgus* (!): Ashmead, 1899). Type species *Andrena cornuta* Fabricius, 1787. The genus is widely distributed in the Palaearctic, Neotropical, Oriental, and Australian regions. Species of the subgenus *Lithurgus* s. str. are floral specialists,

some on Malvaceae, others on Asteraceae. Number of taxa: World – 26; Palaearctic – 15; Russia – 2.

**Lithurgus (Lithurgus) chrysurus** Fonscolombe, 1834 (*L. analis* Lepeletier de Saint-Fargeau, 1841; *L. haemorrhoidalis* Lepeletier de Saint-Fargeau, 1841; *L. sublaevis* Pérez, 1897; *L. cornutus* auct.). Russia: **EP** (C, CR), **UR**. – Europe (WE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Syria, Israel, Iran, ?Central Asia, N America (introduced).

**Lithurgus (Lithurgus) cornutus** (Fabricius, 1787) [*Andrena*] (*L. umbraculatus* Lepeletier de Saint-Fargeau, 1841; *L. fuseipennis* Lepeletier de Saint-Fargeau, 1841; *L. nasutus* Dufour, 1849; *Megachile monoceros* Eversmann, 1852; *M. dohrni* Radoszkowski, 1862; *Lithurgus maximus* Radoszkowski, 1872; *L. cornutus* var. *obscurus* Cockerell, 1931). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (KM, AL), **ES** (KS, KR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iran, Uzbekistan, Kyrgyzstan, Kazakhstan, N America (introduced).

## Tribe OSMIINI

**CHELOSTOMA** Latreille, 1809. Type species *Apis maxillosa* Linnaeus, 1767. The genus is widespread in the Holarctic region, ranging across North America and western and central Eurasia, but is unknown in Japan. It extends south to northern Mexico, northern Africa, and into the montane tropics in northeast India, Burma, and Thailand. Many and perhaps all species are oligolectic on particular floral taxa. Number of species: World – 54; Palaearctic – 45; Russia – 6.

**Chelostoma (Chelostoma) florisonne** (Linnaeus, 1758) [*Apis*] (*Apis maxillosa* Linnaeus, 1767; *Chelostoma culmorum* Lepeletier de Saint-Fargeau, 1841; *Heriades parumcristatus* Alfken, 1932). Russia: **EP** (NW, C, E, NC, CR), **UR**. – Europe (WE, NE, SE, EE), Georgia, Armenia, Turkey.

**Chelostoma (Chelostoma) mocsaryi** Schletterer, 1889. Russia: **EP** (CR). – Europe (WE, SE, EE), Caucasus, Turkey, Lebanon, Israel.

**Chelostoma (Foveosmia) campanularum** (Kirby, 1802) [*Apis*] (*Apis florisonnis minima* Christ, 1791, nom. praecoc., nec Poda, 1761; *Chelostoma florisonne* auct.). Russia: **EP** (C, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey, N America (introduced).



- Chelostoma (Foveosmia) distinctum** (Stoeckhert, 1929) [Eriades] (*Heriades cantabrica* Benoist, 1935). Russia: **EP** (C, S, CR), **UR**. – Europe (WE, SE, EE), Azerbaijan, Turkey, Israel, Iran.
- Chelostoma (Foveosmia) foveolatum** (Morawitz, 1868) [Eriades]. Russia: **EP** (S, NC, ?CR), **ES** (KR), **FE** (AM, MG). – Europe (WE, SE, EE), Georgia, Turkey, Iran.
- Chelostoma (Gyrodromella) rapunculi** (Lepeletier de Saint-Fargeau, 1841) [Eriades] (*Apis fuliginosa* Panzer, 1798, nom. praeocc., nec Scopoli, 1770, nec Christ, 1791; *Heriades nigricornis* Nylander, 1848; *Chelostoma inerme* Eversmann, 1852; *Heriades casularum* Chevrier, 1872; *Chelostoma proximum* Schletterer, 1889; *Osmia archanensis* Cockerell, 1928; *O. platyodonta* Cockerell, 1928; *Heriades confusa* Benoist, 1934). Russia: **EP** (N, C, E, S, NC, CR), **UR**, **WS** (TK, KM, AL), **ES** (KS, KR, IR, BR), **FE** (AM, KH, SA). – Europe (WE, NE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Syria, Jordan, Israel, Iran, Central Asia, Kazakhstan, Mongolia, China (NE), N America (introduced).
- HERIADES** Spinola, 1808 (*Trypetes* Schenck, 1861; *Eriades* Spinola, 1895; *Orientalheriades* Gupta, 1987). Type species *Apis truncorum* Linnaeus, 1758. The genus has a wide distribution, it occurs in the Palaearctic, Nearctic, Afrotropical, and Oriental regions. The great majority of species nest in preexisting cavities, mainly in insect burrows in dead wood or in hollow stems. Number of species: World – 137; Palaearctic – 22; Russia – 3.
- Heriades (Heriades) crenulata** Nylander, 1856. Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Kazakhstan.
- Heriades (Heriades) rubicola** Pérez, 1890 (*H. copeitica* Morawitz, 1892; *H. crenulatus aurantifer* Cockerell, 1931; *H. hierosolomita* Benoist, 1935). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Turkey, Syria, Jordan, Israel, Turkmenistan, Kyrgyzstan, Kazakhstan.
- Heriades (Heriades) truncorum** (Linnaeus, 1758) [Apis] (*Apis xanthogastria* Schrank, 1802; *Heriades sinuata* Spinola, 1808; *Osmia punctatissima* Lepeletier de Saint-Fargeau, 1841; *Heriades mordax* Schletterer, 1889). Russia: **EP** (N, C, E, S, NC, CR), **UR**, **FE** (AM, PR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Syria, Lebanon, Israel, Iran, Uzbekistan, Kyrgyzstan, Kazakhstan, N America (introduced).
- HOPLITIS** Klug, 1807 (*Ctenosmia* Thomson, 1872; *Bytinskia* Mavromoustakis, 1954; *Annosmia* Warncke, 1991; *Coloplitis* Griswold, 1998). Type species *Apis aduncta* Panzer, 1798. The genus is distributed in the Palaearctic, Nearctic, and Afrotropical regions, a few species also occur in the Oriental region. Number of species: World – 376; Palaearctic – 300; Russia – 28.
- Hoplitis (Alcidamea) acuticornis** (Dufour et Perris, 1840) [Osmia] (*Osmia dentiventris* Morawitz, 1877). Russia: **EP** (E, NC, CR), **UR**, **WS** (KM), **ES** (KR). – Europe (WE, SE, EE), N Africa, Armenia, Turkey, Syria, Jordan, Israel, Iran, Turkmenistan, Tajikistan, Kyrgyzstan, Kazakhstan.
- Hoplitis (Alcidamea) caularis** (Morawitz, 1875) [Osmia] (*Osmia proxima* Morawitz, 1875; *O. turcestanica* Dalla Torre, 1896). Russia: **EP** (NC, CR), **UR**. – Europe (EE), Turkey, Syria, Central Asia, Kazakstan, China.
- Hoplitis (Alcidamea) claviventris** (Thomson, 1872) [Osmia] (*Osmia interrupta* Schenck, 1861, nom. praeocc., nec Latreille, 1811; *O. foveolata* Schenck, 1873, nom. praeocc., nec Morawitz, 1868; *Hoplitis leucomelana* auct.). Russia: **EP** (C, CR), **WS** (KM). – Europe (WE, NE, SE, EE), Turkey, Kazakhstan, Mongolia, China.
- Hoplitis (Alcidamea) fulva** (Eversmann, 1852) [Osmia] (*Osmia grandis* Morawitz, 1872). Russia: **EP** (E, CR), **UR**, **ES** (TU, IR, ZB). – Europe (EE), Armenia, Azerbaijan, Turkey, Syria, Jordan, Kazakhstan, Mongolia, China (NE).
- Hoplitis (Alcidamea) laboriosa** (Smith, 1878) [Osmia] (*Osmia maculata* Morawitz, 1880; *O. magretti* Ducke, 1899). Russia: **EP** (Müller, 2017). – Kazakhstan, Mongolia, China (WP).
- Hoplitis (Alcidamea) leucomelana** (Kirby, 1802) [Osmia] (*Apis caulicola* Schrank, 1802; *A. zonata* Gravenhorst, 1807; *Osmia parvula* Dufour et Perris, 1840; *Heriades bidenticulata* Costa, 1863; *Hoplitis leucomelaena* (!): Romankova, 1995a). Russia: **EP** (N, C, E, S, NC, CR), **UR**, **WS** (KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Iran, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, China (SW).
- Hoplitis (Alcidamea) mitis** (Nylander, 1852) [Osmia] (*Osmia montivaga* Morawitz, 1872; *O. laevifrons* Pérez, 1879, nom. praeocc., nec Morawitz, 1872). Russia: **EP** (CR), **UR**, **WS** (KM), **ES** (KR). – Europe (WE, SE, EE), Armenia, Kazakhstan, Mongolia.

- Hoplitis (Alcidamea) praestans** (Morawitz, 1893) [Osmia] (*Osmia lineola* Pérez, 1895). Russia: **EP** (S, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Jordan, Israel, Iran, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan.
- Hoplitis (Alcidamea) princeps** (Morawitz, 1872) [Osmia]. Russia: **EP** (S, CR), **UR**, **ES** (BR). – Europe (EE), Kazakhstan, Mongolia, China (NW, WP).
- Hoplitis (Alcidamea) scita** (Eversmann, 1852) [Osmia] (*Osmia rubripes* Smith, 1879). Russia: **ES** (TU, IR, BR), **FE** (AM, KH, PR). – Kyrgyzstan, Mongolia, China (NW).
- Hoplitis (Alcidamea) tridentata** (Dufour et Perris, 1840) [Osmia] (*Osmia melanoleuca* Benoist, 1934; *Hoplitis tridentata asensioi* Tkalců, 1975). Russia: **EP** (C, E, NC, CR), **UR**, **WS** (KM, AL). – Europe (WE, SE, EE), N Africa, Georgia, Armenia, Turkey, Syria, Israel, Iran, Uzbekistan, Kyrgyzstan, Kazakhstan.
- Hoplitis (Alcidamea) tuberculata** (Nylander, 1848) [Osmia] (*Osmia hamata* Eversmann, 1852; *Chelostoma signatum* Eversmann, 1852, nom. praecoc., nec Erichson, 1835; *Osmia macrodonta* Cockerell, 1924; *O. amaguensis* Cockerell, 1924). Russia: **EP** (N, C, E), **UR**, **WS** (TM, KM), **ES** (IR, YA, ZB), **FE** (MG, AM, KH). – Europe (WE, NE, SE, EE), Mongolia, China.
- Hoplitis (Anthocopa) caucasicola** Müller, 2012. Russia: **EP** (S). – Georgia, Turkey.
- Hoplitis (Anthocopa) daurica** (Radoszkowski, 1887) [Osmia]. Russia: **ES** (BR).
- Hoplitis (Anthocopa) jakovlevi** (Radoszkowski, 1874) [Pseudosmia] (*Osmia serrilabris* Morawitz, 1875; *O. quadridentata* Fonscombe, 1879). Russia: **EP** (S, CR). – Europe (WE, SE), N Africa, Armenia, Azerbaijan, Turkey, Iran, Turkmenistan, Tajikistan, Kyrgyzstan, Kazakhstan, China.
- Hoplitis (Anthocopa) mocsaryi** (Friese, 1895) [Osmia]. Russia: **EP** (NC, CR). – Europe (WE, SE, EE), Armenia, Turkey, Israel, Iran.
- Hoplitis (Anthocopa) papaveris** (Latreille, 1799) [Apis] (*Osmia hyalinipennis* Lepeletier de Saint-Fargeau, 1841). Russia: **EP** (C, NC, CR), **UR**, **ES** (BR). – Europe (WE, SE, EE), Caucasus, Turkey, Kazakhstan, China.
- Hoplitis (Anthocopa) saxialis** (van der Zanden, 1994) [Anthocopa]. Russia: **EP** (NC). – Europe (SE), Turkey, Iran.
- Hoplitis (Anthocopa) taurica** (Radoszkowski, 1874) [Pseudosmia]. Russia: **EP** (CR). This species was even not mentioned since description and requires the revision.
- Hoplitis (Anthocopa) villosa** (Schenck, 1853) [Megachile] (*Osmia platycera* Gerstäcker, 1869). Russia: **EP** (Müller, 2017). – Europe (WE, SE, EE).
- Hoplitis (Formicapis) maritima** (Romankova, 1985) [Formicapis]. Russia: **FE** (PR). – Mongolia.
- Hoplitis (Formicapis) robusta** (Nylander, 1848) [Heriades] (*Osmia rhinoceros* Giraud, 1861; *Heriades trinacria* Morawitz, 1869; *Formicapis clypeata* Sladen, 1916). Russia: **ES** (IR, YA, ZB), **FE** (AM, MG, CH). – Europe (WE, NE, SE, EE), Mongolia, China (NE), N America.
- Hoplitis (Hoplitis) adunca** (Panzer, 1798) [Apis] (*Osmia spinolae* Lepeletier de Saint-Fargeau, 1841; *O. aduncoides* Strand, 1910; *O. adunca contrario* Tkalců, 1974). Russia: **EP** (C, S, NC, ?CR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Turkmenistan, Kyrgyzstan.
- Hoplitis (Hoplitis) anthocopoides** (Schenck, 1853) [Osmia] (*Osmia caementaria* Gerstäcker, 1869; *O. hybrida* Pérez, 1879; *O. romana* Morice, 1901; *Fertonella algerica* Benoist, 1969). Russia: **EP** (S, NC, CR). – Europe (WE, NE, SE, EE), N Africa, Armenia, N America (introduced).
- Hoplitis (Hoplitis) manicata** Morice, 1901. Russia: **EP** (CR). – Europe (WE, SE, EE), ?N Africa, Caucasus, Turkey.
- Hoplitis (Hoplitis) ravouxi** (Pérez, 1902) [Osmia] (*Osmia rhinotropis* Pérez, 1902; *O. brachyceros* Blüthgen, 1920; *Hoplitis ebmeri* van der Zanden, 1989). Russia: **EP** (CR). – Europe (WE, SE, EE).
- Hoplitis (Pentadentosmia) laevifrons** (Morawitz, 1872) [Osmia]. Russia: ?**EP**, **UR**. – Europe (WE, SE, EE), Armenia, Turkey, Pakistan, India.
- Hoplitis (Pentadentosmia) nitidula** (Morawitz, 1877) [Osmia] (*Osmia transcaspica* Morawitz, 1888). Russia: **EP** (S). – Armenia, Iran, Pakistan, Kazakhstan.
- OSMIA** Panzer, 1806 (*Amblys* Klug, 1807; *Ceratosmia* Thomson, 1872; *Aceratosmia* Schmiedeknecht, 1885; *Pachyosmia* Ducke, 1900; *Monosmia* Tkalců, 1974; *Orientosmia* Peters, 1978). Type species *Apis bicornis* Linnaeus, 1758. The genus is distributed in the Palaearctic and Nearctic regions, a few species also occur in the Oriental and Neotropical regions. Number of species: World – 339; Palaearctic – 204; Russia – 44.
- Osmia (Allosmia) rufohirta** Latreille, 1811 (*O. fulvohirta* Lepeletier de Saint-Fargeau, 1841;

- O. spineventris* Giraud, 1857). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Georgia, Armenia, Turkey, Syria, Jordan, Israel, Iran, China.
- Osmia (Erythrosmia) andreoides** Spinola, 1808. Russia: **EP** (NC, CR). – Europe (WE, SE, EE), Georgia, Turkey, Syria, Jordan, Israel, Iran.
- Osmia (Helicosmia) aurulenta** (Panzer, 1799) [Apis] (*Apis haematopoda* Panzer, 1801; *Osmia marginella* Lepeletier de Saint-Fargeau, 1841). Russia: **EP** (C, E, S, NC, CR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Lebanon, Iran.
- Osmia (Helicosmia) caerulescens** (Linnaeus, 1758) [Apis] (*Apis aenea* Linnaeus, 1761; *A. superbus* Harris, 1776; *A. muraria* Retzius, 1783, nom. praeocc., nec Geoffroy, 1785, nec Olivier, 1789; *A. cuprea* Geoffroy, 1785; *Andrena cupraria* Walckenaer, 1802; *Osmia rustica* Cresson, 1864, nom. praeocc., nec Geoffroy, 1785; *O. purpurea* Cresson, 1864). Russia: **EP** (C, E, S, NC, CR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Syria, Jordan, Israel, Iran, Central Asia, Kazakhstan, China, India, N America (introduced), New Zealand (introduced).
- Osmia (Helicosmia) cyanescens** Morawitz, 1875. Russia: **EP** (Müller, 2017). – Kyrgyzstzn, Tajikistan, Kazakhstan.
- Osmia (Helicosmia) dimidiata** Morawitz, 1870. Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Lebanon, Israel, Iran, Turkmenistan, Kyrgyzstan.
- Osmia (Helicosmia) leaiana** (Kirby, 1802) [Apis] (*Apis hirta* Geoffroy, 1785, nom. praeocc., nec Schrank, 1781; *Osmia atra* Schenck, 1853; *O. confusa* Morawitz, 1869; *O. solskyi* Morawitz, 1870; *O. truncatula* Thomson, 1872; *O. bidens* Pérez, 1879; *O. forsii* Alfken, 1924). Russia: **EP** (C, E, NC, CR), **UR**, **WS** (KM), **ES** (IR, YA, ZB), **FE** (KH, SA). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Iran, Kazakhstan.
- Osmia (Helicosmia) melanogaster** Spinola, 1808 (*O. aterrima* Morawitz, 1872; *O. carniolica* Morawitz, 1872; *O. incerta* Radoszkowski, 1876). Russia: **EP** (NC, CR). – Europe (WE, NE, SE, EE), N Africa, Georgia, Armenia, Turkey, Syria, Jordan, Israel, Iran, ?China.
- Osmia (Helicosmia) niveata** (Fabricius, 1804) [Anthophora] (*Apis fulviventris* Panzer, 1798, nom. praeocc., nec Scopoli, 1763; *Osmia minuta* Branson, 1879; *O. sieversi* Morawitz, 1886; *O. carneiventris* Dours, 1887; *O. fulviventris albiscopa* Alfken, 1914). Russia: **EP** (C, S, NC, CR). – Europe (WE, NE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Syria, Jordan, Lebanon, Israel, Iran, ?China.
- Osmia (Helicosmia) orientalis** Benoist, 1929. Russia: **FE** (AM, KH, PR, SA). – Japan (Hon, Shi, Kyu).
- Osmia (Helicosmia) signata** Erichson, 1835 (*O. jucunda* Smith, 1853; *O. vidua* Gerstäcker, 1869; *O. cincta* Dours, 1873; *O. laticincta* Pérez, 1879; *O. atriventris* Costa, 1883, nom. praeocc., nec Cresson, 1864; *O. costaniana* Dalla Torre et Friese, 1895). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Turkey, Syria, Jordan, Israel, Iran, Turkmenistan, China.
- Osmia (Hemiosmia) difficilis** Morawitz, 1875 (*O. falcata* Morawitz, 1875; *O. alborufa* Alfken, 1935). Russia (Müller, 2017). – Turkey, Israel, Iran, Central Asia, Kazakhstan.
- Osmia (Hoplosmia) bidentata** Morawitz, 1876 (*O. affinis* Frivaldsky, 1877). Russia: **EP** (S, CR). – Europe (WE, SE, EE), N Africa, Armenia, Azerbaijan, Turkey, Syria, Jordan, Israel, Iran.
- Osmia (Hoplosmia) scutellaris** Morawitz, 1868 (*Heriades integra* Benoist, 1934). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Syria, Jordan, Israel, Iran.
- Osmia (Hoplosmia) spinulosa** (Kirby, 1802) [Apis] (*O. euchreiformis* Radoszkowski, 1882). Russia: **EP** (C, S, NC, CR), **UR**, **WS** (KM, AL), **ES** (KS). – Europe (WE, SE, EE), Armenia, Turkey, Kyrgyzstan, Kazakhstan.
- Osmia (Melanosmia) disjuncta** Tkalců, 1995. Russia: **EP** (N). – Europe (NE), Mongolia.
- Osmia (Melanosmia) ephippiata** Smith, 1879. Russia: **ES** (IR). – Central Asia.
- Osmia (Melanosmia) inermis** (Zetterstedt, 1838) [Anthophora] (*O. globosa* Cresson, 1864; *O. vulpecula* Gerstäcker, 1869; *O. globosiformis* Cockerell, 1910). Russia: **EP** (N, C). – Europe (WE, NE, SE, EE), China, N America.
- Osmia (Melanosmia) laticeps** Thomson, 1872 (*O. hyperborea* Tkalců, 1983). Russia: **EP** (N). – Europe (WE, NE, EE), N America.
- Osmia (Melanosmia) maritima** Friese, 1885. Russia: **EP** (N, C, E), **ES** (TU, KR, BR, YA, ZB), **FE** (KH, PR, SA, KA, CH). – Europe (WE, NE, EE), Mongolia, N America.
- Osmia (Melanosmia) nigriventris** (Zetterstedt, 1838) [Anthophora] (*O. baicalensis* Radoszkowski, 1867; *O. corticalis* Gerstäcker, 1869). Russia: **EP** (N, E, NC), **UR**, **WS** (TM), **ES** (BR, YA), **FE** (AM, KH, PR, SA, KA, MG, CH). – Europe (WE, NE, EE), Mongolia, China, N America.

- Osmia (Melanosmia) parietina** Curtis, 1828 (*Anthophora angustula* Zetterstedt, 1838; *Osmia vankovitzii* Radoszkowski, 1887). Russia: **EP** (C), **UR**, **WS** (TM, KM), **FE** (MG). – Europe (WE, NE, SE, EE), Caucasus, Turkey.
- Osmia (Melanosmia) pilicornis** Smith, 1846. Russia: **EP** (C, E), **UR**, **WS** (KM). – Europe (WE, NE, SE, EE), ?China (NE).
- Osmia (Melanosmia) uncinata** Gerstäcker, 1869. Russia: **EP** (N, C, E), **WS** (TM, KM), **ES** (IR, YA, ZB), **FE** (AM, KH, PR, MG, CH). – Europe (WE, NE, SE, EE).
- Osmia (Melanosmia) xanthomelana** (Kirby, 1802) [Apis] (*O. fuciformis* Latreille, 1811; *O. chrysolelina* Panzer, 1812). Russia: **EP** (N), **UR**. – Europe (WE, NE, SE, EE).
- Osmia (Metallinella) brevicornis** (Fabricius, 1798) [Eucera] (*O. atrocaerulea* Schilling, 1849; *O. panzeri* Morawitz, 1869). Russia: **EP** (S, NC, CR). – Europe (WE, NE, SE, EE), N Africa, Armenia, Azerbaijan, Turkey, Iran, Afghanistan, Central Asia, Kazakhstan.
- Osmia (Neosmia) bicolor** (Schrank, 1781) [Apis] (*Apis rustica* Geoffroy, 1785; *A. fusca* Christ, 1971; *A. hirundinaria* Christ, 1791; *Osmia pyrenaea* Lepelletier de Saint-Fargeau, 1841; *O. fusca* Gistel, 1857; *O. rufitarsis* Smith, 1879). Russia: **EP** (C, E), **WS** (KM), **ES** (IR). – Europe (WE, NE, SE, EE), Central Asia.
- Osmia (Osmia) apicata** Smith, 1853 (*O. macroglossa* Gerstäcker, 1869). Russia (Müller, 2017). – Europe (WE, NE, EE), Georgia, Armenia, Turkey, Syria, Jordan, Lebanon, Israel, Iran.
- Osmia (Osmia) bicornis** (Linnaeus, 1758) [Apis] (*Apis rufa* Linnaeus, 1758). Russia: **EP** (N, C, NC, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Syria, Israel, Iran, Turkmenistan, Kyrgyzstan, Kazakhstan.
- Osmia (Osmia) cerinthidis** Morawitz, 1876. Russia: **EP** (S, NC, CR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, ?China.
- Osmia (Osmia) cornifrons** (Radoszkowski, 1887) [Clalicodoma]. Russia: **FE** (KH, PR). – China, Korean Peninsula, Japan (Hok, Hon), N America (introduced).
- Osmia (Osmia) cornuta** (Latreille, 1805) [Megachile]. Russia: **EP** (S, CR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Syria, Iran, Central Asia, Kazakhstan.
- Osmia (Osmia) melanocephala** Morawitz, 1875. Russia (Müller, 2017). – Central Asia, Kazakhstan, Mongolia, China (NW).
- Osmia (Osmia) mustelina** Gerstäcker, 1869. Russia: **EP** (CR). – Europe (WE, SE, EE), N Africa, Georgia, Armenia, Turkey, Lebanon, Israel, Iran.
- Osmia (Osmia) opima** Romankova, 1985. Russia: **FE** (KH, PR). – China (NE, NC), Korean Peninsula.
- Osmia (Osmia) pedicornis** Cockerell, 1920. Russia: **FE** (KH, PR). – China (CE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Osmia (Osmia) taurus** Smith, 1873 (*O. matsumurae* Cockerell, 1911). Russia: **FE** (KH, PR). – China (NE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Osmia (Pyrosmia) cephalotes** Morawitz, 1870 (*O. longiceps* Morawitz, 1876; *O. bacillus* Pérez, 1879; *O. pulsata* Buysson, 1899). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Syria, Jordan, Israel, Iran, Turkmenistan, Uzbekistan.
- Osmia (Pyrosmia) gallarum** Spinola, 1808 (*O. ruborum* Dufour et Perris, 1840). Russia: **EP** (CR). – Europe (WE, SE, EE), N Africa, Turkey.
- Osmia (Pyrosmia) nana** Morawitz, 1874 (*O. tetrodonta* Benoist, 1934). Russia: **EP** (S, NC). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Syria, Jordan, Lebanon, Israel, Turkmenistan.
- Osmia (Pyrosmia) submicans** Morawitz, 1870 (*O. giraudi* Schmiedeknecht, 1886). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Turkey, Syria, Jordan, Lebanon, Israel, Kazakhstan.
- Osmia (Pyrosmia) versicolor** Latreille, 1811. Russia: **EP** (CR). – Europe (WE, SE, EE), N Africa, Georgia, Turkey, Syria, Jordan, Lebanon, Israel.
- Osmia (Pyrosmia) viridana** Morawitz, 1874 (*O. angulata* Pérez, 1896; *O. veridata mulleolus* van der Zanden, 1984). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Syria, Jordan, Lebanon, Israel, Iran, Central Asia, Kazakhstan.
- Osmia (Tergosmia) tergestensis** Ducke, 1897 (*O. ononides* Fertton, 1897; *O. rondoui* Pérez, 1902; *O. wolhynica* Noskiewicz, 1922; *O. atlantica* Benoist, 1934; *Anthocopa tergestensis remota* Tkalců, 1979). Russia: **EP** (CR). – Europe (WE, SE, EE), N Africa, Turkey, Kazakhstan.
- PROTOSMIA** Ducke, 1900 (*Rhodosmia* Michener, 1943). Type species *Heriades glutinosus* Giraud, 1871. The genus is mainly distributed in the

Palearctic region with one species each occurring in the Nearctic and Oriental regions. Number of species: World – 27; Palearctic – 25; Russia – 2.

**Protosmia (Protosmia) tauricola** Popov, 1961. Russia: **EP** (CR). – Europe (SE, EE), Turkey.

**Protosmia (Protosmia) tiflensis** (Morawitz, 1876) [Osmia] (*Osmia graeffei* Schmiedeknecht, 1890). Russia: **EP** (CR). – Europe (SE, EE), Georgia, Turkey, Jordan, Israel.

#### Tribe ANTHIDIINI

**ANTHIDIELLUM** Cockerell, 1904 (*Cerianthidium* Friese, 1923). Type species *Trachusa strigata* Panzer, 1805. The genus is widely distributed in the Palearctic, Neotropical, Oriental, and Australian regions. Number of species: World – 61; Palearctic – 7; Russia – 1.

**Anthidiellum (Anthidiellum) strigatum** (Panzer, 1805) [Trachusa] (*Anthidium minusculum* Nylander, 1852; *A. decoratum* Chevrier, 1972; *Dianthidium leucorhinum* Cockerell, 1924; *Anthidiellum pauperulum* Cockerell, 1928). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (NS, KM, AL), **ES** (IR, BR, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Syria, Lebanon, Israel, Iraq, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Korean Peninsula.

**ANTHIDIUM** Fabricius, 1804 (*Stenanthidium* Moure, 1947; *Tetranthidium* Moure, 1947; *Melanthidium* Cockerell, 1947; *Melanoanthidium* Tkalců, 1967; *Echinanthidium* Pasteels, 1969; *Pontanthidium* Pasteels, 1969; *Ardenthidium* Pasteels, 1969; *Morphanthidium* Pasteels, 1969). Type species *Apis manicata* Linnaeus, 1758. The genus is distributed worldwide except Australia. Number of species: World – 186; Palearctic – 90; Russia – 11.

**Anthidium (Anthidium) amurensis** Radoszkowski, 1876 (*A. comatum* Morawitz, 1896). Russia: **ES** (KH, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR). – China (NW, NC).

**Anthidium (Anthidium) cingulatum** Latreille, 1809 (*A. oraniense* Lepeletier de Saint-Fargeau, 1841; *A. dissectum* Eversmann, 1852; *A. rufispinum* Costa, 1883; *A. manicatum* var. *undulatafasciatum* Friese, 1917). Russia: **EP** (C, S, CR), **UR**. – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Iran, Kyrgyzstan, Uzbekistan, Kazakhstan, China (NW), India.

**Anthidium (Anthidium) diadema** Latreille, 1809 (*A. albiventre* Lepeletier de Saint-Fargeau, 1841; *A. ornatum* Lepeletier de Saint-Fargeau, 1841; *A. radoszkowskyi* Mocsáry, 1887; *A. seraxense* Radoszkowski, 1893; *A. terminale* Morawitz, 1894; *A. diadema* var. *caucasicum* Friese, 1897; *A. diadema* var. *turcestanicum* Friese, 1897; *A. diadema* var. *obscurum* Friese, 1897). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Israel, Iran, Central Asia, Kazakhstan.

**Anthidium (Anthidium) florentinum** (Fabricius, 1775) [Apis] (*A. subspinosum* Klug, 1832; *A. caucasicum* Radoszkowski, 1862; *A. florentinum* var. *hispanicum* Mocsáry, 1884; *A. florentinum* var. *ruiescente* Dusmet, 1908; *A. florentinum* var. *kissi* Alfken, 1935; *A. florentinum cypriacum* Mavromoustakis, 1949). Russia: **EP** (C, S, NC, CR), **WS** (NS, AL), **ES** (BR), **FE** (PR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Syria, Lebanon, Israel, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, China (NW).

**Anthidium (Anthidium) loti** Perris, 1852 (*Apis variegata* Fabricius, 1781, nom. praeocc., nec Linnaeus, 1758; *A. varia* Gmelin, 1790, nom. praeocc., nec Olivier, 1789; *Anthidium regulare* Eversmann, 1852; *A. mosaicum* Costa, 1863; *A. meridionale* Glraud, 1863; *A. quadriseriatum* Kriechbaumer, 1873; *A. quadriseriatum* var. *circumcinctum* Kriechbaumer, 1873; *A. variegatum* var. *incisum* Friese, 1917). Russia: **EP** (CR), **UR**. – Europe (WE, SE, EE), Azerbaijan, Turkey, Syria, Lebanon, Israel, Iran, Turkmenistan, Kazakhstan.

**Anthidium (Anthidium) manicatum** (Linnaeus, 1758) [Apis] (?*Apis pervigil* Harris, 1776; *A. maculata* Fabricius, 1781; *A. fulvipes* Villers, 1789, nec Fabricius, 1793; *A. modesta* Christ, 1791; *A. amoenita* Christ, 1791; *A. uncata* Schrank, 1802; *Anthidium marginatum* Latreille, 1809; *A. obtusatum* Lepeletier de Saint-Fargeau, 1841; *A. manicatum* var. *nigrithorax* Dalla Torre, 1877; *A. manicatum* var. *fasciatum* Schirmer, 1915; *A. manicatum* var. *nasicolle* Friese, 1917). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (NS, KM, AL), **ES** (KS, TU, BR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Lebanon, Israel, Iran, Central Asia, Kazakhstan, China, N and S America (introduced), New Zealand (introduced).

**Anthidium (Anthidium) montanum** Morawitz, 1865 (*A. montanum* var. *flavomaculatum* Friese, 1897).

Russia: **EP** (CR). – Europe (WE, SE, EE), Tajikistan, Kyrgyzstan, China (NW, WP).

**Anthidium (Anthidium) punctatum** Latreille, 1809 (*A. minus* Nylander, 1848; *A. senile* Eversmann, 1852; *A. greyi* Radoszkowski, 1862; *A. albidulum* Chevrier, 1872; *A. nigrinum* Morawitz, 1893; *A. nitidulum* Morawitz, 1893; *A. mayeti* Pérez, 1895; *A. kohlii* Friese, 1897; *A. punctatum* var. *fulvipes* Friese, 1897; *A. punctatum* var. *albofasciatum* Friese, 1897; *A. punctatum* var. *bequaerti* Alfken, 1914; *A. amanusense* Dusmet, 1915; *A. punctatum* var. *ariasi* Dusmet, 1915; *A. kohlii* var. *nigritulum* Friese, 1917; *A. punctatum* var. *suecicum* Alfken, 1927). Russia: **EP** (C, E, NC), **UR**, **WS** (KM, AL), **ES** (KS, TU, KR, IR, YA, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Turkey, Syria, Israel, Iran, Uzbekistan, Kyrgyzstan, Kazakhstan, China (NW, NC).

**Anthidium (Anthidium) septemspinosum** Lepeletier de Saint-Fargeau, 1841 (*A. nigripes* Eversmann, 1852; *A. nigriceps* Smith, 1854; *A. septemspinosum* var. *flavoguttatum* Friese, 1917; *A. dinurum* Cockerell, 1928). Russia: **EP** (C, E, S, CR), **UR**, **WS** (NS, KM, AL), **ES** (KS, TU, KR, IR, BR), **FE** (AM, KH, PR). – Europe (WE, SE, EE), Turkey, Afghanistan, Kazakhstan, Mongolia, China (CC, SW, SE), Korean Peninsula, Japan (Hon).

**Anthidium (Proanthidium) fulviventre** Friese, 1917. Russia: **ES** (IR). This species was even not mentioned since description and requires the revision.

**Anthidium (Proanthidium) oblongatum** (Illiger, 1806) [Anthophora] (*A. trochantericum* Morawitz, 1893; *A. oblongatum* var. *nigrum* Friese, 1897; *A. oblongatum xanthurum* Cockerell, 1925; *A. oblongatum australe* Alfken, 1937; *A. oblongatum* var. *flavens* Moczar, 1956; *Proanthidium tornense* Tkalců, 1966). Russia: **EP** (C, NC, CR), **UR**, **ES** (TU). – Europe (WE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Iran, Turkmenistan, Tajikistan, Kyrgyzstan, Kazakhstan, N America (introduced).

**BATHANTHIDIUM** Mavromoustakis, 1953 (*Dianthidium*: Romankova, 1995a; *Lasanthidium* Romanova, 1995). Type species *Dianthidium bifoveolatum* Alfken, 1937. The genus is distributed in the Palaearctic and Oriental regions. Number of species: World – 13; Palaearctic – 11; Russia – 2.

**Bathanthidium (Stenanthidiellum) malaisei** (Popov, 1941) [Stelis]. Russia: **FE** (PR). – Korean Peninsula.

**Bathanthidium (Stenanthidiellum) sibiricum** (Eversmann, 1852) [Anthidium]. Russia: **UR**, **WS** (KM, AL), **ES** (BR, ZB), **FE** (AM, KH, PR). – Korean Peninsula, China (NE, NC, CC, SW).

**EOANTHIDIUM** Popov, 1950 (*Eoanthidiellum* Pasteels, 1969). Type species *Anthidium insulare* Morawitz, 1873. The genus is distributed in the Palaearctic, Oriental, and African regions. Number of species: World – 17; Palaearctic – 5; Russia – 1.

**Eoanthidium (Eoanthidium) clypeare** (Morawitz, 1874) [Anthidium] (*Anthidium elongatum* Friese, 1897; *Dianthidium hoplostomum* Mavromoustakis, 1945). Russia: **EP** (NC). – Europe (SE), Turkey, Syria, Jordan, Lebanon.

**ICTERANTHIDIUM** Michener, 1948. Type species *Anthidium limbiferum* Morawitz, 1875. The genus is distributed in the Palaearctic, Oriental, and African regions. Number of species: World – 24; Palaearctic – 20; Russia – 3.

**Icteranthidium fedtschenkoi** (Morawitz, 1875) [Anthidium] (*Anthidium transcaspicum* Lebedev, 1923). Russia: **ES** (TU). – Turkey, Israel, Iran, Pakistan, Central Asia, Kazakhstan.

**Icteranthidium grohmanni** (Spinola, 1838) [Anthidium] (*Anthidium latreillii* Lepeletier de Saint-Fargeau, 1841; *A. rubiginosum* Lepeletier de Saint-Fargeau, 1841; *A. provinciale* Lepeletier de Saint-Fargeau, 1841; *A. comptum* Lepeletier de Saint-Fargeau, 1841; *A. numida* Lepeletier de Saint-Fargeau, 1841; *A. lepeletieri* Fonscolombe, 1846; *A. klugi* Lucas, 1849; *A. coronatum* Smith, 1854; *A. latreillei* var. *obscurum* Dusmet, 1908; *Icteranthidium tergalae* Pasteels, 1969). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Armenia, Turkey, Syria, Lebanon, Israel, Iran, Kyrgyzstan.

**Icteranthidium laterale** (Latreille, 1809) [Anthidium] (*Anthidium quadrilobum* Lepeletier de Saint-Fargeau, 1841; *A. auripes* Eversmann, 1852; *A. annulare* Schenck, 1870; *A. sexmaculatum* Chevrier, 1872; *A. perrisii* Dours, 1873). Russia: **EP** (C, S, CR), **UR**, **WS** (NS, AL), **ES** (TU, KR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Iran, Turkmenistan, Kyrgyzstan, Kazakhstan, China (NW).

**PSEUDOANTHIDIUM** Friese, 1898 (*Paranthidiellum* Michener, 1948; *Paraanthidiellum* (!): Pasteels, 1969; *Carinellum* Pasteels, 1969; *Orientotrachusa* Gupta, 1993). Type species *Anthidium alpinum*

Morawitz, 1874. The genus is distributed in the Palaearctic, Oriental, and African regions. Number of species: World – 36; Palaearctic – 20; Russia – 8.

**Pseudoanthidium (Pseudoanthidium) alpinum** (Morawitz, 1874) [Anthidium] (*Anthidium alpinum* Morawitz, 1874; *A. barbatum* Mocsáry, 1884; *A. serraticeps* Friese, 1917; *Pseudoanthidium alpinum gregoriense* Nobile, 1990). Russia: **EP** (NC). – Europe (SE, EE), Turkey.

**Pseudoanthidium (Pseudoanthidium) eversmanni** (Radoszkowski, 1886) [Anthidium]. Russia: **UR**. This species requires the revision; it was previously synonymized with “*Anthidium lituratum*” (Warncke, 1980) which is actually an unclear complex of different species (Aguib et al., 2010).

**Pseudoanthidium (Pseudoanthidium) floripetum** (Eversmann, 1852) [Anthidium]. Russia: **UR**. This species requires the revision; it was previously synonymized with “*Anthidium lituratum*” (Warncke, 1980) which is actually an unclear complex of different species (Aguib et al., 2010).

**Pseudoanthidium (Pseudoanthidium) nanum** (Mocsáry, 1881) [Anthidium] (*Apis liturata* Panzer, 1801, nom. praeocc., nec Gmelin, 1790; ?*Anthidium sinuatum* Lepeletier de Saint-Fargeau, 1841). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), Caucasus, Turkey, Israel, Iran, Pakistan, N America (introduced).

**Pseudoanthidium (Pseudoanthidium) reptans** (Eversmann, 1852) [Anthidium]. Russia: **UR**. This species requires the revision; it was previously synonymized with “*Anthidium lituratum*” (Warncke, 1980) which is actually an unclear complex of different species (Aguib et al., 2010).

**Pseudoanthidium (Pseudoanthidium) tenellum** (Mocsáry, 1881) [Anthidium]. Russia: **EP** (CR). – Europe (WE, EE), N Africa.

**Pseudoanthidium (Royanthidium) melanurum** (Klug, 1832) [Anthidium] (*Anthidium nigricolle* Morawitz, 1876; *A. dilobum* Pérez, 1895; *A. moricei* Friese, 1911; *A. royoi* Dusmet, 1915; *A. nigricolle* var. *flaviventre* Friese, 1917; *A. nigricolle* var. *flavicolle* Friese, 1917). Russia: **EP** (NC). – Europe (WE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Syria, Lebanon, Israel, Iran.

**Pseudoanthidium (Royanthidium) reticulatum** (Mocsáry, 1884) [Anthidium] (*Anthidium tegulare* Morawitz, 1886; *A. moscaryi* Friese, 1897; *A. reticulatum kindenmani* Mavromoustakis, 1954). Russia:

**EP** (CR). – Europe (WE, SE, EE), N Africa, Azerbaijan, Turkey, Lebanon, Israel, Iran.

**STELIS** Panzer, 1806 (*Gyrodroma* Klug, 1807; *Gymnus* Spinola, 1808; *Ceraplastes* Gistel, 1848; *Ghelynia* Provancher, 1888; *Melanostelis* Ashmead, 1898; *Stelidium* Robertson, 1902; *Microstelis* Robertson, 1903; *Pavostelis* Sladen, 1916; *Stelidina* Timberlake, 1941; *Stelidiella* (!): Timberlake, 1941; *Leucostelis* Noskiewicz, 1961). Type species *Apis aterrima* Panzer, 1798. Cleptoparasites of *Megachile*, *Osmia*, *Chelostoma*, *Heriades*, *Anthidium*, *Anthidiellum*, *Trachusa* (Megachilidae), *Ceratina*, *Anthophora* (*Chisodon*) (Apidae). The genus is distributed worldwide except Australia. Number of species: World – 118; Palaearctic – 30; Russia – 14.

**Stelis (Heterostelis) annulata** (Lepeletier de Saint-Fargeau, 1841) [Anthidium] (*S. freygessneri* Friese, 1885; *S. hispanica* Dusmet, 1921; ?*S. hungarica* Noskiewicz, 1962). Russia: **EP** (CR). – Europe (WE, SE, EE), N Africa, Turkey, Lebanon.

**Stelis (Protostelis) signata** (Latreille, 1809) [Anthidium] (*Anthidium parvulum* Lepeletier de Saint-Fargeau, 1841; *Stelis strigata* Kriechbaumer, 1874; *S. signata flavescens* Friese, 1925). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Armenia, Azerbaijan, Turkey, Syria, Lebanon, Israel, Iraq, Iran, Kazakhstan.

**Stelis (Stelidomorpha) nasuta** (Latreille, 1809) [Anthidium] (*Anthidium nasale* Latreille, 1809). Russia: **EP** (S, CR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Syria, Lebanon, Israel, Iraq, Iran, Tajikistan, Uzbekistan, Kazakhstan.

**Stelis (Stelis) aculeata** Morawitz, 1880. Russia: **EP** (CR), **ES** (TU, BR). – Turkey, Central Asia, Kazakhstan, Mongolia, China (NE, NW).

**Stelis (Stelis) breviscula** (Nylander, 1848) [Heriades] (*S. pygmaea* Schenck, 1853; *Heriades paxillorum* Chevrier, 1872). Russia: **EP** (NW, C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Turkmenistan, China (NW, WP).

**Stelis (Stelis) melanura** Cockerell, 1924. Russia: **ES** (IR, BR), **FE** (KH, PR). – Mongolia, China (NC, NW, WP), Korean Peninsula.

**Stelis (Stelis) odontopyga** Noskiewicz, 1926. Russia: **EP** (CR). – Europe (WE, SE, EE), Azerbaijan, Turkey.

**Stelis (Stelis) ornatula** (Klug, 1807) [*Gyrodroma*] (*Trachusa sexpunctata* Stschegloff, 1826; *Stelis octomaculata* Smith, 1843; *S. sexsignata* Costa, 1858;

*S. ornatula* var. *immaculata* Noskiewicz, 1926). Russia: **EP** (NW, C, E, NC, CR), **UR**, **WS** (KM), **ES** (KR, IR, YA), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), N Africa, Turkey, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.

**Stelis (Stelis) phaeoptera** (Kirby, 1802) [Apis] (*Apis stigma* Christ, 1791; *A. aterrima* Christ, 1791, nom. praeocc., nec Panzer, 1798). Russia: **EP** (NW, C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iran, Uzbekistan, Kyrgyzstan, Kazakhstan.

**Stelis (Stelis) punctulatissima** (Kirby, 1802) [Apis] (*Apis aterrima* Panzer, 1798, nom. praeocc., nec Christ, 1791; *Stelis moravica* Tkalců, 1971). Russia: **EP** (NW, C, E, NC, CR), **UR**, **WS** (NS, KM, AL). – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey, Syria, Kazakhstan.

**Stelis (Stelis) scutellaris** Morawitz, 1894 (*S. scutellaris inamoena* Popov, 1933). Russia: **EP** (S, NC). – Europe (EE), Armenia, Azerbaijan, Turkey, Iran, Pakistan, Central Asia, Kazakhstan, Mongolia, China (NE, NC, CC).

**Stelis (Stelis) simillima** Morawitz, 1876 (*S. cognata* Kohl, 1892; *S. genalis* Pasteels, 1969). Russia: **EP** (CR), **UR**, **WS** (TK, KM). – Europe (WE, SE, EE), N Africa, Armenia, Azerbaijan, Turkey, Syria, Israel, Iran, Turkmenistan.

**Stelis (Pseudostelis) minima** Schenck, 1861 (*S. minima* f. *unicolor* Alfken, 1944). Russia: **EP** (NW, C, NC), **UR**. – Europe (WE, NE, EE).

**Stelis (Pseudostelis) minuta** Lepeletier de Saint-Fargeau et Audinet-Serville, 1825 (*S. nana* Schenck, 1853). Russia: **EP** (N, NW, C, E, NC), **UR**. – Europe (WE, NE, SE, EE), N Africa, Armenia, Azerbaijan, Turkey, Lebanon.

**TRACHUSA** Panzer, 1804 (*Diphysis* Lepeletier de Saint-Fargeau, 1841; *Megachileoides* Radoszkowski, 1874; *Megachiloides* (!): de Saussure, 1890). Type species *Trachusa serratulae* Panzer, 1804. The genus is distributed worldwide except Australia. Number of species: World – 48; Palaeartic – 12; Russia – 3.

**Trachusa (Archanthidium) pubescens** (Morawitz, 1872) [Anthidium] (*Anthidium pubescens* var. *maximum* Friese, 1931; *Archanthidium pubescens verhoeffi* Mavromoustakis, 1955). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Georgia, Turkey, Syria, Lebanon, Israel, Iran, Turkmenistan.

**Trachusa (Paraanthidium) interrupta** (Fabricius, 1781) [Apis] (*Apis rufipes* Fabricius, 1787, nom.

praeocc., nec Fabricius, 1781; *A. varia* Olivier, 1789, nom. praeocc., nec Gmelin, 1790; *A. erythrops* Gmelin, 1790; *A. fulvipes* Fabricius, 1793, nom. praeocc., nec Villers, 1789; *Anthidium flavilabre* Latreille, 1809; *A. luteipes* Lepeletier de Saint-Fargeau, 1841; *A. dufourii* Lepeletier de Saint-Fargeau, 1841; *A. integrum* Eversmann, 1852; *A. curvipes* Schmid, 1872; *A. melanostomum* Costa, 1884; *A. foliivolor* Fertton, 1921). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), N Africa, Azerbaijan, Turkey, Syria.

**Trachusa (Trachusa) byssina** (Panzer, 1798) [Apis] (*T. serratulae* Panzer, 1805; *Diphysis pyrenaica* Lepeletier de Saint-Fargeau, 1841; *Megachile resinana* Schilling, 1849; *M. rotundiventris* Perris, 1852; *Osmia bluethgeni* Maidl, 1922; *Trachusa byssina* var. *seitzi* Cockerell, 1925; *Megachile kythacensis* Cockerell, 1928). Russia: **EP** (C, E, NC, ?CR), **UR**, **WS** (TK, KM), **ES** (KS, TU, KR, IR, ZB), **FE** (AM, KH). – Europe (WE, NE, SE, EE), Georgia, Armenia, Turkey, Mongolia.

#### Tribe DIOXYINI

**AGLAOAPIS** Cameron, 1901 (*Dioxoides* Popov, 1947). Type species *Aglaoapis brevipennis* Cameron, 1901. Cleptoparasites of *Hoplitis*, *Osmia*, and *Megachile* (Megachilidae). The distribution of the genus is disjunct: Europe and western Asia, western India, and South Africa. Number of species: World – 3; Palaeartic – 1; Russia – 1.

**Aglaoapis tridentata** (Nylander, 1848) [Coelioxys] (*Dioxys fasciata* Schenck, 1861; *D. kuntzei* Noskiewicz, 1940; *Dioxoides tridentata limassolica* Mavromoustakis, 1949). Russia: **EP** (C, E, S, CR), **UR**, **WS** (KM), **ES** (KS, TU, IR, BR, ZB), **FE** (KH, PR). – Europe (WE, NE, SE, EE), Azerbaijan, Turkey, Kyrgyzstan, Kazakhstan.

**DIOXYS** Lepeletier de Saint-Fargeau and Audinet-Serville, 1825 (*Hoploparasites* Ashmead, 1898; *Chrysopheon* Titus, 1901). Type species *Trachusa cincta* Jurine, 1807. Cleptoparasites of *Hoplitis*, *Osmia*, and *Megachile* (Megachilidae). The genus is distributed in the Holarctic region. Number of species: World – 18; Palaeartic – 12; Russia – 1.

**Dioxys cinctus** (Jurine, 1807) [Trachusa] (*D. pyrenaica* Lepeletier de Saint-Fargeau, 1841; *D. maura* Lepeletier de Saint-Fargeau, 1841; *D. cruenta* Gerstaecker, 1869; *D. spinigera* Pérez, 1884; *D. cincta jucunda* Mocsáry, 1894; *D. cincta* ab. *friederikae* Mader,



1933). Russia: **EP** (CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Israel, ?Central Asia.

#### Tribe MEGACHILINI

**COELIOXYS** Latreille, 1809 (*Paracoelioxys* Gribodo, 1884). Type species *Apis conica* Linnaeus, 1758. Cleptoparasites of *Hoplitis*, *Osmia*, and *Megachile* (Megachilidae), *Anthophora* (Apidae). The genus is distributed worldwide except Australia. Number of species: World – 474; Palaearctic – 150; Russia – 23.

**Coelioxys (Allocoelioxys) afer** Lepeletier de Saint-Fargeau, 1841 (*C. coronata* Förster, 1853; *C. mandibularis* Chevrfür, 1872, nom. praeocc., nec Nylander, 1848; *C. afra* var. *tunensis* Gribodo, 1894). Russia: **EP** (S, NC, CR), **WS** (KM), **ES** (BR), **FE** (KH). – Europe (WE, NE, SE, EE), N and S Africa, Georgia, Armenia, Turkey, Israel, Saudi Arabia, Iran, Turkmenistan, Kyrgyzstan, Kazakhstan, China (NE, NC, NW, CC, SE), Indonesia.

**Coelioxys (Allocoelioxys) brevis** Eversmann, 1852 (*C. erythropyga* Förster, 1853; *C. erythropyga* var. *rubida* Gribodo, 1894; *C. inflatus* Alfken, 1933; *C. brevis armeniaca* Hedicke, 1938). Russia: **EP** (NC, CR), **UR**, **ES** (TU). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Israel, Tajikistan, Uzbekistan, Kazakhstan, China (NC, NW, CC, SW), Japan (Hon).

**Coelioxys (Allocoelioxys) caudatus** Spinola, 1838 (*C. foersteri* Morawitz, 1871). Russia: **EP** (S, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iran, Central Asia, China (NW).

**Coelioxys (Allocoelioxys) conspersus** Morawitz, 1874. Russia: **EP** (NC).

**Coelioxys (Allocoelioxys) echinatus** Förster, 1853. Russia: **EP** (C, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Iraq, Iran.

**Coelioxys (Allocoelioxys) elsei** Schwarz, 2001. Russia: **EP** (CR). – Europe (SE, EE), Turkey, Jordan.

**Coelioxys (Allocoelioxys) emarginatus** Förster, 1853 (*C. minuta* Gistel, 1857; *C. robusta* Morawitz, 1875). Russia: **EP** (S, CR), **UR**, **WS** (NS, KM), **ES** (TU, BR), **FE** (AM, PR). – Europe (WE, SE, EE), N Africa, Armenia, Turkey, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan, China (NC, CC, SE), India.

**Coelioxys (Allocoelioxys) formosicola** Strand, 1913 (*C. taiwanensis* Cockerell, 1927; *C. manchurica*

Proshchalykin et Lelej, 2004). Russia: **FE** (PR). – China (SE), Japan (Hon, Kyu), Sri Lanka.

**Coelioxys (Allocoelioxys) haemorrhoea** Förster, 1853 (*C. pulchella* Morawitz, 1874). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Israel, Pakistan, Central Asia, China (NE), Korean Peninsula, India.

**Coelioxys (Allocoelioxys) obtusus** Pérez, 1884. Russia: **EP** (S, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Iraq, Iran, Turkmenistan.

**Coelioxys (Allocoelioxys) polycentris** Förster, 1853 (*C. conspersa* Morawitz, 1874; *C. orientalis* Friese, 1925). Russia: **EP** (CR), **ES** (BR). – Europe (WE, SE, EE), Turkey, Iran, Pakistan, China (NC).

**Coelioxys (Boreocoelioxys) alatus** Förster, 1853 (*C. montandoni* Gribodo, 1884). Russia: **EP** (C, E), **UR**, **WS** (KM), **ES** (IR, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), Turkey, China (NE), Japan (Hok, Hon).

**Coelioxys (Boreocoelioxys) inermis** (Kirby, 1802) [Apis] (*C. acuminata* Nylander, 1852, nom. praeocc., nec Gmelin, 1790; *C. divergens* Förster, 1853; *C. microdonta* Förster, 1853). Russia: **EP** (NW, N, C, E, S, CR), **UR**, **WS** (TM, OM, TK, KM), **ES** (BR, ZB), **FE** (AM, KH, PR, SA). – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey, Kyrgyzstan, China (NE, NC), Japan (Hok, Hon).

**Coelioxys (Boreocoelioxys) mandibularis** Nylander, 1848 (*C. mandibularis olgae* Cockerell, 1924; *C. mandibularis jeholensis* Yasumatsu, 1935). Russia: **EP** (C, E, CR), **UR**, **WS** (KM, AL), **ES** (KS, TU, KR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU). – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey, Kyrgyzstan, Mongolia, China (NE).

**Coelioxys (Boreocoelioxys) rufescens** Lepeletier de Saint-Fargeau et Audinet-Serville, 1825 (*C. umbrina* Smith, 1843; *C. hebescens* Nylander, 1848; *C. apiculata* Nylander, 1848; *C. trinacria* Förster, 1853; *C. diglypha* Förster, 1853; *C. carinata* Schenck, 1855, nom. praeocc., nec Smith, 1854; *C. longiuscula* Schenck, 1855; *C. obtusata* Schenck, 1855, nom. praeocc., nec Magretti, 1895; *C. parvula* Schenck, 1855; *C. fallax* Mocsáry, 1881; *C. rufescens* var. *agona* Alfken, 1912; *C. rufescens nigrescens* Cockerell, 1924; *C. rufescens* var. *turanica* Friese, 1925; *C. rufescens* var. *gigantea* Friese, 1925, nom. praeocc., nec Friese, 1922). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (KM), **ES** (KR, IR, YA, ZB), **FE** (AM, KH, PR, KU). – Europe (WE, NE, SE, EE), N Africa, Georgia, Armenia, Azerbaijan,

- Turkey, Iran, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NW), Japan (Hon).
- Coelioxys (Coelioxys) aurolimbatus** Förster, 1853 (*C. apiculata* Förster, 1853, nom. praeocc., nec Nylander, 1848; *C. recurva* Schenck, 1853; *C. reflexa* Schenck, 1855; *C. ogivalis* Pérez, 1895; *C. aurolimbata* var. *algeriensis* Friese, 1895). Russia: **EP** (C, NC, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Georgia, Armenia, Turkey, Lebanon, Iran, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NW).
- Coelioxys (Coelioxys) conoideus** (Illiger, 1806) [Anthophora] (*C. vectis* Curtis, 1831; *C. decempunctata* Spinola, 1838; *C. punctata* Lepeletier de Saint-Fargeau, 1841; *C. temporalis* Nylander, 1848; *C. ambigua* Schenck, 1855; *C. aegyptiaca* Radoszkowski, 1876; *C. spissicauda* Pasteels, 1968). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (KM, AL), **ES** (TU, KR, BR), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey.
- Coelioxys (Coelioxys) elongatus** Lepeletier de Saint-Fargeau, 1841 (*C. simplex* Nylander, 1852, nom. praeocc., nec Gmelin, 1790; *C. tricuspadata* Förster, 1853; *C. denticulata* Schenck, 1855; *C. stigmatica* Schenck, 1855; *C. distincta* Schenck, 1855; *C. sponsa* Smith, 1855; *C. tridenticulata* Schenck, 1861; *C. gracilis* Schenck, 1861; *C. obscura* Schenck, 1861; *C. claripennis* Schenck, 1870; *C. kudiana* Cockerell, 1924; *C. popovici* Friese, 1925). Russia: **EP** (C, E, CR), **UR**, **WS** (KM, AL), **ES** (BR, ZB), **FE** (AM, KH, PR, SA). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Iran.
- Coelioxys (Coelioxys) lanceolatus** Nylander, 1852 (*C. patula* Pérez, 1884). Russia: **EP** (N, C), **ES** (IR, BR, YA, ZB), **WS** (KM), **FE** (AM, KA). – Europe (WE, NE, SE, EE).
- Coelioxys (Coelioxys) quadridentatus** (Linnaeus, 1758) [Apis] (*Apis conica* Linnaeus, 1758; ?*A. agilis* Harris, 1776; *A. acuminata* Gmelin, 1790; *A. bidentata* Panzer, 1798; *Coelioxys acuta* Nylander, 1848; *C. fissidens* Förster, 1853; *C. fraterna* Förster, 1853; *C. convergens* Schenck, 1855; *C. truncata* Höppner, 1901). Russia: **EP** (C, E, CR), **UR**, **WS** (KM), **ES** (BR, YA, ZB), **FE** (AM, KH, PR, SA, KA, MG). – Europe (WE, NE, SE, EE), Turkey, Iran, China (NE, NW).
- Coelioxys (uncertain) obtusispina** Thomson, 1872. Russia: **FE** (AM, PR). – Europe (NE).
- Coelioxys (uncertain) pielianus** Friese, 1935. Russia: **ES** (BR), **FE** (AM, PR). – China (CC).
- Coelioxys (uncertain) ruficinctus** Cockerell, 1931 (*C. rufocincta* (!): Romankova, 1995a). Russia: **FE** (KH, PR). – China (CC).
- MEGACHILE** Latreille, 1802 (*Eumegachile* Friese, 1898; *Megalochila* Schulz, 1906; *Anthemois* Robertson, 1903; *Cyphopyga* Robertson, 1903; *Grosapis* Mitchell, 1980). Type species *Apis centuncularis* Linnaeus, 1758. The genus is distributed worldwide. Number of species: World – 1500; Palaearctic – 300; Russia – 45.
- Megachile (Aethomegachile) remota** Smith, 1879. Russia: **FE** (KH, PR). – China (NE, CC), Korean Peninsula, Japan (Hon, Kyu).
- Megachile (Chalicodoma) desertorum** Morawitz, 1875. Russia: **ES** (TU, BR). – Turkmenistan, Uzbekistan, Kazakhstan, Mongolia, China (NC).
- Megachile (Chalicodoma) lefebvrei** (Lepeletier de Saint-Fargeau, 1841) [Chalicodoma] (*Chalicodoma luctuosa* Dours, 1873; *Megachile lefebvrei* var. *albida* Prez, 1897; *M. lefebvrei* var. *albomaculata* Friese, 1898; *M. muraria* var. *variabilis* Friese, 1920). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Georgia, Iran.
- Megachile (Chalicodoma) parietina** (Geoffroy, 1785) [Apis] (*Apis muraria* Olivier, 1789, nom. praeocc., nec Retzius, 1783; ?*A. picea* Christ, 1791; *A. varians* Rossi, 1792; *Megachile nestorea* Brülle, 1832; *M. affnis* Brülle, 1832; *M. aegyptica* Lepeletier de Saint-Fargeau, 1841; *Chalicodoma leueopogonata* Dours, 1873; *Megachile savignyi* Radoszkowski, 1874; *Chalicodoma valesina* Alfken, 1931; *Megachile transitoria* Benoist, 1934; *Chalicodoma parietina carpathia* Tkalců, 1992). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Syria, Jordan, Israel, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan.
- Megachile (Creightonella) albisecta** (Klug, 1817) [Anthophora] (*M. sericans* Fonscolombe, 1832; *M. caucasica* Lepeletier de Saint-Fargeau, 1841; *M. dufouri* Lepeletier de Saint-Fargeau, 1841; *M. odontura* Smith, 1849; *M. carinulata* Costa, 1882; *M. gerszabiensis* Radoszkowski, 1886; *M. germabensis* Radoszkowski, 1893). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Syria, Israel, Iran, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan.
- Megachile (Eutricharaea) apicalis** Spinola, 1808 (*M. mixta* Costa, 1863; *M. dimidiativentris* Dours, 1873; *M. massiliensis* Pérez, 1902). Russia: **EP** (C, S, NC, CR). – Europe (WE, NE, SE, EE), N Africa,

- Georgia, Azerbaijan, Turkey, Israel, Iran, Pakistan, Tajikistan, Uzbekistan, Kazakhstan, China (NW), N America (introduced).
- Megachile (Eutricharaea) deceptoria** Pérez, 1890 (*M. mogadorensis* Benoist, 1934). Russia: **EP** (S, CR), **ES** (YA). – Europe (WE, SE, EE), N Africa, Azerbaijan, Turkey, Pakistan, Turkmenistan, Kazakhstan.
- Megachile (Eutricharaea) giraudi** Gerstäcker, 1869 (*M. vicina* Morawitz, 1894, nom. praeocc., nec Mocsáry, 1879; *M. intermixta* Gerstäcker, 1869; *M. bicoloriventris* Mocsáry, 1878; *M. giraudi erzurumensis* Tkalců, 1980; *Chalicodoma atropyga* van der Zanden, 1995). Russia: **EP** (CR). – Europe (WE, SE, EE), Armenia, Turkey, Uzbekistan.
- Megachile (Eutricharaea) leachella** Curtis, 1828 (*M. dorsalis* Pérez, 1879; *M. argentata* var. *fossoria* Ferton, 1909; *M. leachella maadiensis* van der Zanden, 1986; *M. argentata* auct.). Russia: **EP** (S, NC, CR), **UR**, **WS** (KM), **ES** (BR, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Iran, China (NC, NW).
- Megachile (Eutricharaea) leucomalla** Gerstäcker, 1869 (*M. excellens* Morawitz, 1872; *M. laevifrons* Morawitz, 1878; *M. sedilloti* Pérez, 1895; *M. leucomalla* var. *panzeri* Friese, 1899). Russia: **EP** (CR). – Europe (WE, SE, EE), N Africa, Georgia, Turkey, Jordan, Kazakhstan.
- Megachile (Eutricharaea) marginata** Smith, 1853 (*M. picicornis* Morawitz, 1877; *M. albocineta* Pérez, 1879, nom. praeocc., nec Radoszkowski, 1874; *M. perezi* Mocsáry, 1887; *M. provincialis* Pérez, 1890; *Stelis megachiloides* Alfken, 1942). Russia: **EP** (CR). – Europe (WE, SE), N Africa, Azerbaijan, Turkey, Iraq, Iran, Afghanistan, Pakistan, Tajikistan, Kyrgyzstan.
- Megachile (Eutricharaea) melanogaster** Eversmann, 1852 (*M. sexmaculata* Alfken, 1942; *M. sexmaculata thracia* Tkalců, 1979; *M. pilicrus flavida* van der Zanden, 1998). Russia: **EP** (CR), **UR**. – Europe (WE, SE, EE), N Africa, Turkey, Kazakhstan.
- Megachile (Eutricharaea) pilidens** Alfken, 1924 (*M. argyrea* Cockerell, 1931). Russia: **EP** (C, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Georgia, Armenia, Turkey, Jordan, Kazakhstan.
- Megachile (Eutricharaea) rotundata** (Fabricius, 1787) [Apis] (*Apis pacifica* Panzer, 1798; *Megachile imbecilla* Gerstäcker, 1869; ?*M. nadia* Nurse, 1903). Russia: **EP** (C, S, NC, CR), **UR**, **WS** (KM), **ES** (KR, BR, YA, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Israel, Iran, Pakistan, Turkmenistan, Kazakhstan, Mongolia, China (NE, NW), Japan (Hok), India, Africa, N and S America (introduced), Australia (introduced), New Zealand (introduced).
- Megachile (Eutricharaea) rubrimana** Morawitz, 1893. Russia: **FE** (PR). – Europe (SE, EE), Turkey, Tajikistan.
- Megachile (Eutricharaea) semicircularis** auct., nec van der Zanden, 1996. Russia: **EP** (CR). – Europe (SE), Turkey, Iran. The description of *M. semicircularis* by van der Zanden clearly points to this species, however the type series is composed of several taxa and the male holotype does not belong to this species but belongs to *M. apicalis* (Kuhlmann et al., 2017; C. Praz, in litt.).
- Megachile (Megachile) alpicola** Alfken, 1924 (*M. rubtzeni* Cockerell, 1928; *M. alpicola loeckemiana* Tkalců, 1977). Russia: **EP** (NW, C, E), **WS** (NS, KM), **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR, SA). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Kazakhstan, Korean Peninsula.
- Megachile (Megachile) bombycina** Radoszkowski, 1874 (*M. maxillosa* Eversmann, 1852, nom. praeocc., nec Guerin, 1845). Russia: **EP** (C, E, S), **UR**, **WS** (TK, NS, KM, AL), **ES** (KS, BR, ZB), **FE** (AM, KH). – Europe (WE, NE, SE, EE), Georgia, China (NW).
- Megachile (Megachile) centuncularis** (Linnaeus, 1758) [Apis] (*M. parvula* Lepeletier de Saint-Fargeau, 1841; *M. appia* Nurse, 1903; *M. centuncularis theryi* Cockerell, 1931; *M. centuncularis nesiotica* Mavromoustakis, 1953). Russia: **EP** (N, C, E, S, NC, CR), **UR**, **WS** (KM), **ES** (BR, ZB), **FE** (AM, KH, PR, SA, MG). – Europe (WE, NE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Israel, Iran, Kazakhstan, China (NE, NC), Japan (Hok), India, Malaysia, N America.
- Megachile (Megachile) dacica** Mocsáry, 1879. Russia: **ES** (BR). – Europe (EE). The status of this species remains in doubt, it may be a subspecies of *M. lapponica* (Praz, 2017).
- Megachile (Megachile) genalis** Morawitz, 1880 (*M. villosa* Henschel, 1888, nom. praeocc., nec Fabricius, 1775, nec Schenck, 1853; *M. buyssoni* Pérez, 1890; *M. henschelii* Dalla Torre, 1896; *M. genalis tortumensis* Tkalců, 1980). Russia: **EP** (C, E, S, NC, CR), **WS** (KM), **FE** (AM, PR, SA). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Tajikistan, Kazakhstan, Mongolia, China (NW), Japan (Hok).

- Megachile (Megachile) lapponica** Thomson, 1872 (*M. melanopyga amaguella* Cockerell, 1924; *M. lapponica baicalica* Cockerell, 1928, nom. praeocc., nec *M. baicalica* Kokujev, 1927; *M. lapponica* var. *kurbati* Cockerell, 1928; *M. lapponica fuscifrons* Cockerell, 1930; *M. lapponica ishikawa* Hirashima, 1974). Russia: **EP** (N, C, E), **UR, WS** (TM, OM, NS, KM, AL), **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, KA, MG). – Europe (WE, NE, SE, EE), Kazakhstan, Korean Peninsula, Japan (Hok), N America.
- Megachile (Megachile) ligniseca** (Kirby, 1802) [Apis] (*M. lignisecula* Cockerell, 1924; *M. ligniseca* var. *borealis* Niemelä, 1936). Russia: **EP** (N, C, E, NC, CR), **UR, WS** (KM), **ES** (IR, YA), **FE** (AM, KH, PR, SA, KU, KA). – Europe (WE, NE, SE, EE), Caucasus, Turkey, China (WP), Japan (Hok, Hon).
- Megachile (Megachile) manipula** Romankova, 1983. Russia: **FE** (KH, PR).
- Megachile (Megachile) melanopyga** Costa, 1863 (*M. vestita* Giraud, 1863, nom. praeocc., nec Smith, 1853; *M. hymenaea* Gerstäcker, 1869; *M. melanopyga vulpecolor* Hedicke, 1938; *M. melanopyga zakakica* Mavromoustakis, 1957). Russia: **EP** (NC, CR), **WS** (KM), **ES** (BR). – Europe (WE, SE, EE), Azerbaijan, Turkey, Jordan, Israel, China, Korean Peninsula, Japan.
- Megachile (Megachile) nipponica** Cockerell, 1914. Russia: **FE** (AM, KH, PR). – China (NE, NC), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Megachile (Megachile) octosignata** Nylander, 1852. Russia: **EP** (CR). – Europe (WE, SE, EE), Georgia, Turkey.
- Megachile (Megachile) pilicrus** Morawitz, 1877. Russia: **EP** (NC, CR). – Europe (WE, SE, EE), Georgia, Turkey, Iran, Kyrgyzstan, China (NW).
- Megachile (Megachile) versicolor** Smith, 1844 (*M. rufiventris* Schenck, 1851; *M. distincta* Pérez, 1897; *M. semipleata* Cockerell, 1921; *M. versicolor* var. *hiberniae* Perkins, 1925; *M. pilicruriformis* Cockerell, 1928). Russia: **EP** (N, C, S, NC, CR), **UR, WS** (TM, KM), **ES** (YA, ZB), **FE** (AM, KH, PR, KA). – Europe (WE, NE, SE, EE), Azerbaijan, Turkey, Kazakhstan, Mongolia.
- Megachile (Pseudomegachile) ericetorum** Lepeletier de Saint-Fargeau, 1841 (*M. cristata* Dufour, 1841; *M. fasciata* Smith, 1844; *M. rufitarsis* Smith, 1844; *M. pyrina* Nylander, 1852, nom. praeocc., nec Lepeletier de Saint-Fargeau, 1841; *M. senex* Smith, 1853; *M. tsingtauensis* Strand, 1915; *M. ericetorum euroa* Tkalčú, 1988; *M. ericetorum oraniensis* van der Zanden, 1989; *M. ericetorum melaleuca* van der Zanden, 1989). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Armenia, Turkey, Syria, Kazakhstan, China (NW, CC, SE), N America (introduced).
- Megachile (Pseudomegachile) saussurei** Radoszkowski, 1874 (*M. multispinosa* Morawitz, 1875). Russia: **EP** (E, S). – Europe (SE), Turkey, Central Asia, Kazakhstan.
- Megachile (Xanthosarus) analis** Nylander, 1852 (*M. albicilla* Eversmann, 1852; *M. obscura* Eversmann, 1852; *M. kuennemanni* Alfken, 1897; *M. kuennemanni* var. *obscura* Alfken, 1897, nom. praeocc., nec *M. obscura* Eversmann, 1852; *M. analis* var. *albida* Friese, 1898; *M. analis chionura* Cockerell, 1924; *M. angarensis* Cockerell, 1928; *M. analis cana* Alfken, 1930; *M. analis* var. *holsatica* Alfken, 1936; *M. analis ulangomensis* Tkalčú, 1988; *M. analis turgensis* Tkalčú, 1988; *M. analis batsumerensis* Tkalčú, 1988). Russia: **EP** (N, C, E, NC), **UR, WS** (KM), **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KA, MG). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Turkmenistan, Tajikistan, Mongolia, China (NC, NW, CC, WP), Korean Peninsula.
- Megachile (Xanthosarus) circumcincta** (Kirby, 1802) [Apis] (*M. circumcincta* var. *griseohirta* Alfken, 1929; *M. circumcincta* var. *fennica* Niemelä, 1936; *M. circumcincta* var. *insidiosa* Benoist, 1940; *M. circumcincta ozbeki* Tkalčú, 1977; *M. circumcincta numidica* Tkalčú, 1988; *M. circumcincta etnaensis* van der Zanden, 1989). Russia: **EP** (C, E, S, NC, CR), **UR, WS** (KM), **ES** (IR, BR, YA, ZB), **FE** (KH, PR, SA, KU, KA, MG). – Europe (WE, NE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Iran, N America.
- Megachile (Xanthosarus) fulvimana** Eversmann, 1852 (*M. baicalica* Kokujev, 1927; *M. dybowski* Cockerell, 1928). Russia: **ES** (KS, KR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KA). – Europe (EE), Kazakhstan, Mongolia.
- Megachile (Xanthosarus) lagopoda** (Linnaeus, 1761) [Apis] (*M. pyrina* Lepeletier de Saint-Fargeau, 1841, nom. praeocc., nec Nylander, 1852; *M. lagopoda* var. *nigricans* Alfken, 1914; *M. baleina* Cockerell, 1928; *M. lagopoda albohirta* Alfken, 1930; *M. lagopoda pieli* Cockerell, 1931; *M. lagopoda* var. *fulvohirta* Alfken, 1935, nom. praeocc., nec Alfken, 1926; *M. furukawai* Yasumatsu, 1938; *M. lagopoda aljkeni* van der Zanden, 1988). Russia: **EP** (C, E, S, NC, CR), **UR, WS** (NS, KM, AL), **ES** (KS, KR,

- BR, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Turkey, Israel, Iran, Tajikistan, Kyrgyzstan, Kazakhstan, China (NW, CC, WP, SE), Korean Peninsula, Japan (Hok, Hon).
- Megachile (Xanthosarus) maackii** Radoszkowski, 1874. Russia: **EP** (N), **ES** (IR, BR, YA), **WS** (KM), **FE** (AM, KH, PR, MG). – Europe (WE, EE), Mongolia. The status of this species remains in doubt, it may be a subspecies of *M. nigriventris* (Praz, 2017).
- Megachile (Xanthosarus) maritima** (Kirby, 1802) [Apis] (*M. flaviventris* Schenck, 1853; *M. fuhescens* Smith, 1853, nom. praeocc., nec Walker, 1871; *Phyllotoma manicata* Dumeril, 1860, nom. praeocc., nec Giraud, 1861; *M. kashgarensis* Cockerell, 1913; *M. maritima continentalis* Hedicke, 1938). Russia: **EP** (C, S, NC, CR), **WS** (NS), **ES** (BR), **FE** (AM, KH, PR, CH). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Iran, Kyrgyzstan, Kazakhstan, China (CC), Korean Peninsula.
- Megachile (Xanthosarus) nigriventris** Schenck, 1870 (*M. curvicrus* Thomson, 1872; *M. hasticornis* Cockerell, 1924). Russia: **EP** (N), **UR**, **WS** (TU), **FE** (AM, MG). – Europe (WE, NE, SE, EE), Iran.
- Megachile (Xanthosarus) willughbiella** (Kirby, 1802) [Apis] (*M. atriventris* Schenck, 1853; *M. willughbiella kudiensis* Cockerell, 1924; *M. willughbiella provecta* Cockerell, 1924; *M. willughbiella* var. *hibernica* Perkins, 1925; *M. centuncularis* var. *janssoni* Alfken, 1926; *M. korotnevi* Cockerell, 1928; *M. willughbiella munakatai* Hlrashima, 1974; *M. willughbiella zeraldae* Tkalčú, 1988). Russia: **EP** (N, C, E, S, NC, CR), **UR**, **WS** (TM, KM), **ES** (IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, MG). – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey, Israel, Kyrgyzstan, China (NE, NC, NW), Japan (Hok, Hon).
- Megachile (?) epovae** Cockerell, 1928. Russia: **ES** (IR). This species was even not mentioned since description and requires the revision.
- Megachile (?) ferritincta** Cockerell, 1924. Russia: **FE** (PR). This species was even not mentioned since description and requires the revision.
- Megachile (?) lucidula** Mocsáry, 1901. Russia: **ES** (KR). This species was even not mentioned since description and requires the revision.
- Megachile (?) scheviakovi** Cockerell, 1928. Russia: **ES** (IR). This species was even not mentioned since description and requires the revision.
- Megachile (?) sichotana** Cockerell, 1924. Russia: **FE** (PR). This species was even not mentioned since description and requires the revision.
- Megachile (?) polita** Cockerell, 1924. Russia: **FE** (PR). This species was even not mentioned since description and requires the revision.

## 78. FAMILY APIDAE

T.V. LEVCHENKO, A.M. BYVALTSEV  
AND M.YU. PROSHCHALYKIN

The most widespread family of bees, presenting by *Bombus* species even in Arctic island. Apidae includes many parasitic and nesting bees, both solitary (*Anthophora*, singly or in aggregations), communal (some *Eucera*) and social from primitive (*Ceratina*) to eusocial (*Apis*). Nests are builded mostly in ground, rare in stems, wood, empty holes or on open surface. Solitary species have one generation per year, cleptoparasites (*Nomada* and many other) have one or two generations depend on host life cycle. Larva of single nest parasites (*Melecta*) eats host egg and than host provision. Social parasites (*Psithyrus*) female drives out host queen and lives in her nest with workers. The family is the most reach represented in New World, especially parasitic tribes. Many species are important orchard and crop pollinators. Beekeeping products of stingless bees (Meliponini) and honey bees (Apini) take significant role in human life and culture. Number of taxa: World – 176 genera, 5614 species; Palaearctic – 33/1358 species; Russia – 25/385 species.

References. Eversmann, 1852; Morawitz, 1874; Radoszkowski, 1888, 1893; Friese, 1895, 1896, 1897, 1901; Mocsáry, Szépliget, 1901; Maidl, 1912; Kerenkij, 1919; Skorikov, 1922, 1931; Alfken, 1927, 1931; Lavrov, 1927; Wnukowski, 1927; Bischoff, 1930; Gurvich, 1931; Popov, 1931, 1933a, 1947, 1948, 1950, 1951, 1954, 1956, 1958a, 1967a, b; Popov, Yasumatsu, 1935; Möschler, 1938; Stöckhert, 1944; Panfilov, 1951, 1956, 1957; 1981, 1982, 1984; Lith, 1956; Priesner, 1957; Iuga, 1958; Panfilov et al., 1961; Popov, Ponomareva, 1961; Schwarz, 1965, 1967a, b, 1980, 1981; Ponomareva, 1966, 1967; Elfving, 1968; Lieftinck, 1968, 1974, 1980; Løken, 1973; Pesenko, 1974; Tkalčú, 1961, 1974a, b; 1978, 1979, 1984a, b; Marikovskaya, 1979, 1982, 2001; Warncke, 1979, 1982b, 1983; Dathe, 1980b, 2009; Skhirtladze, 1981; Shumakova et al., 1982; Daly, 1983; Banaszak, 1984; Løken, 1984; Ito, 1985; Brooks, 1988; Pesenko, Sitdikov, 1988; Sitdikov, 1986, 1988; Sitdikov, Pesenko, 1988; Kuznetsova, 1990; Williams, 1991, 1998; Banaszak, Ortiz-Sánchez, 1993; Alexander, Schwarz, 1994; Blagoveshchenskaya, Popova, 1994; Pagliano, 1994; Celary, 1995; Monsevičius, 1995; Rasmont, 1995; Rasmont et al., 1995; Terzo, Rasmont, 1997, 2004; Gogala, 1999; Kholodov, 1999; Risch, 1999, 2001; Konusova, Yanushkin, 2000; Lykov, 2000; Wu, 2000; Gusenleitner,

Schwarz, 2001; Schwarz, Gusenleitner, 2001, 2013, 2015, 2017; Davydova, Pesenko, 2002; Filatov, 2003, 2006, 2013, 2015; Iwata, 2003; Proshchalykin, 2004, 2007e, 2012a, b, 2013a; Sapaev, 2004; Chenikalova, 2005; Lopatin, Dobrynin, 2005; Proshchalykin, Kupianskaya, 2005, 2009; Ban-Calefariu, 2006; Danilov, 2006; Filatov et al., 2006; Amiet et al., 2007; Filatov, Ivanov, 2007; Michener, 2007; Ortiz-Sánchez, Roberts, 2007; Standfuss, Schwarz, 2007; Straka et al., 2007; Byvaltsev, 2008, 2013; Engel, 2008, 2009; Mitai, Tadauchi, 2008; Rightmyer, 2008; Schaefer, Renner, 2008; Scheuchl, 2008; Sidorov, Eremeeva, 2008; Williams et al., 2008, 2009, 2011, 2012, 2013, 2015, 2016; Ivanov et al., 2009, 2011; Quest, 2009; Sung et al., 2009; Aliev, Qamarli, 2010; Eardley, Urban, 2010; Grace, 2010; Konovalova, 2010; Proshchalykin, Lelej, 2010, 2013, 2014; Aliev, 2011; An et al., 2011; Ebmer, 2011; Lecocq et al., 2011, 2013, 2014, 2015; Levchenko, 2011, 2013; Szentgyörgyi et al., 2011; Guerschon, Ionescu-Hirsch, 2012; Long et al., 2012; Shibaev, Polumordvinov, 2012; Straka, Rozen, 2012; Byvaltsev et al., 2013, 2016; Levchenko, Yuferev, 2013; Danilov, Byvaltsev, 2014; Kupianskaya et al., 2014; Levchenko, Tomkovich, 2014; Maharramov, Bayramov, 2014; Proshchalykin et al., 2014, 2017b; Tadauchi, Muraio, 2014; Polumordvinov, Shibaev, 2015; Rasmont et al., 2015, 2017; Proshchalykin, Schwarz, 2017; Levchenko et al., 2017.

## Subfamily XYLOCOPINAE

## Tribe XYLOCOPINI

**XYLOCOPA** Latreille, 1802 (*Xilocopa* Latreille, 1802). Type species *Apis violacea* Linnaeus, 1758. Polylectic bees, borrowing nests in ground or wood, mostly tropical species. Number of taxa: World – 469; Palaearctic – 49; Russia – 6.

**Xylocopa (Alloxylocopa) appendiculata** Smith, 1852 (*Coptorthsoma appendiculata*: Popov, Ponomareva, 1961). Russia: **FE** (PR). – China (NE, NC, CC, SW, WP, SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

**Xylocopa (Copoxylo) iris** (Christ, 1791) [*Apis*] (?*Apis nasuta* Christ, 1791; *Xylocopa cyanescens* Brülle, 1832; *X. minuta* Lepeletier de Saint-Fargeau, 1841; *X. canuta* Rondani, 1874). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Syria, Lebanon, Israel, Jordan, Iran, Afghanistan, Turkmenistan, Tajikistan, Kazakhstan.

- Xylocopa (Proxylocopa) olivieri** Lepeletier de Saint-Fargeau, 1841 (*X. binominata* Gribodo, 1894; *X. fuscata* Smith, 1854; *X. hellenica* Spinola, 1843; *X. lanata* Smith, 1854; *X. lunata* Klug, 1807). Russia: **EP** (S, NC). – Europe (SE, EE), N Africa, Armenia, Azerbaijan, Turkey, Cyprus, Syria, Iraq, Iran, Turkmenistan.
- Xylocopa (Proxylocopa) altaica** Popov, 1947 (*X. nitidiventris altaica* Popov, 1947). Russia: **WS** (AL). – China (NC, NW).
- Xylocopa (Xylocopa) valga** Gerstäcker, 1872 (*X. ramulorum* Rondani, 1874; *X. convexa* Smith, 1878). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (KM, AL), **ES** (KS, TU, KR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Iraq, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, Mongolia, China (NW, WP).
- Xylocopa (Xylocopa) violacea** (Linnaeus, 1758) [Apis] (*Apis insubrica* Müller, 1766; *Xylocopa femorata* Fabricius, 1804; *X. violacea* ab. *heteropennis* Vicidomini, 2003). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Lebanon, Syria, Iraq, Iran, Turkmenistan.

#### Tribe CERATININI

- CERATINA** Latreille, 1802 (*Clavicera* Latreille, 1802; *Ceratinidia* Cockerell et Porter, 1899). Type species *Hylaeus albilabris* Fabricius, 1793. Polylectic bees, nesting in pithy dead stems or twigs, mostly tropic and subtropic species. Number of taxa: World – 199; Palaearctic – 67; Russia – 14.
- Ceratina (Ceratina) cucurbitina** (Rossi, 1792) [Apis] (*Hylaeus albilabris* Fabricius, 1793; *Ceratina decolorans* Brullé, 1832). Russia: **EP** (C, NC, CR). – Europe (WE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Israel, Jordan, China (CC).
- Ceratina (Ceratina) satoi** Yasumatsu, 1936. Russia: **ES** (ZB), **FE** (AM, PR). – China (NC), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu, Ryu).
- Ceratina (Ceratinidia) flavipes** Smith, 1879 (*C. flavovaria* Gussakovskij, 1932; *Ceratinidia flavipes*: Romankova, 1995b). Russia: **FE** (KH, AM, PR, SA). – China (NE, NC, CC, SW), Japan (Hok, Hon, Shi, Kyu).
- Ceratina (Euceratina) acuta** Friese, 1896. Russia: **EP** (S, CR), **UR**. – Europe (WE, SE, EE), Georgia, Azerbaijan, Turkey, Israel, Iran, Kazakhstan.
- Ceratina (Euceratina) cyanea** (Kirby, 1802) [Apis] (*C. nitidula* Spinola, 1806; *C. coerulea* Chevrier,

1872, nom. praeocc., nec Villers, 1789; *C. chevrieri* Tournier, 1876; *C. cyanea* var. *imitatrix* Markowsky, 1938). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (NS, KM), **ES** (KR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Cyprus, Iran, Turkmenistan, Kazakhstan, China (NW).

- Ceratina (Euceratina) chalcites** Germar, 1839 (*C. aenea* Brülle, 1832, nom. praeocc., nec Fabricius, 1798; *C. egregia* Gerstäcker, 1869). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Caucasus, Turkey, Iran, Turkmenistan.
- Ceratina (Euceratina) chalybea** Chevrier, 1872 (*C. hungarica* Mocsáry, 1881; *C. callosa algeriensis* Friese, 1896; *C. c. cephalica* Cockerell, 1931; *C. callosa* auct., nec Fabricius, 1794). Russia: **EP** (C, E, S, NC, CR). – Europe (WE, SE, EE), N Africa, Abkhazia, Georgia, Azerbaijan, Turkey, Jordan, Kazakhstan.
- Ceratina (Euceratina) chrysomalla** Gerstäcker, 1869. Russia: **EP** (S). – Europe (SE), Azerbaijan, Turkey, Cyprus, Iran.
- Ceratina (Euceratina) dallatorreana** Friese, 1896. Russia: **EP** (CR). – Europe (WE, SE, EE), N Africa, Abkhazia, Turkey, Syria, Palestine, Israel, Central Asia, introduced into N America (California).
- Ceratina (Euceratina) gravidula** Gerstäcker, 1869. Russia: **EP** (CR). – Europe (WE, SE, EE), Georgia, Azerbaijan.
- Ceratina (Euceratina) laevifrons** Morawitz, 1894. Russia: **UR**. – Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan.
- Ceratina (Euceratina) nigroaenea** Gerstäcker, 1869. Russia: **EP** (S, NC, CR). – Europe (SE), Azerbaijan, Turkey, Israel.
- Ceratina (Euceratina) nigrolabiata** Friese, 1896. Russia: **EP** (CR). – Europe (WE, SE, EE), Azerbaijan, Turkey, Syria, Lebanon, Israel.
- Ceratina (Euceratina) zwakhalsi** Terzo et Rasmont, 1997. Russia: **EP** (NC). – Azerbaijan, Turkey, Iran, Turkmenistan, Kazakhstan.

#### Subfamily NOMADINAE

##### Tribe NOMADINI

- NOMADA** Scopoli, 1770 (*Hypochrotaenia* Holmberg, 1886; *Nomadita* Mocsáry, 1894; *Lamproapis* Cameron, 1902; *Centrias* Robertson, 1903; *Cephen* Robertson, 1903; *Gnathias* Robertson, 1903; *Holonomada* Robertson, 1903; *Xanthidium* Robertson,

1903; *Phor* Robertson, 1903; *Nomadosoma* Rohwer, 1911; *Polybiapis* Cockerell, 1916; *Acanthonomada* Schwarz, 1966). Type species *Apis ruficornis* Linnaeus, 1758. Cleptoparasites of *Andrena*, rarely *Panurgus* (Andrenidae), *Halictus*, *Lasioglossum* (Halictidae), *Eucera* (Apidae), *Melitta* (Melitidae) and *Colletes* (Colletidae). The only genus of Nomadini with the greatest diversity presented in Holarctic. Number of taxa: World – more than 800, Palaearctic – 280; Russia – 116.

- Nomada albidemaculata** Łoziński, 1922. Russia: **ES** (IR, BR, ZB).
- Nomada alboguttata** Herrich-Schäffer, 1839 (*N. ochrostoma* Zetterstedt, 1838, nom. praeocc., nec Kirby, 1802; *N. baccata* Smith, 1844; *N. quinquespinosa* Thomson, 1870; *N. laeta* Thomson, 1870; *N. alboguttata* var. *liburnica* Friese, 1921; *N. alboguttata* var. *suerinensis* Friese, 1921). Cleptoparasite of *Andrena argentata* Sm., *A. barbilabris* (Kby.) and probably of *A. ventralis* Imh. (Andrenidae). Russia: **EP** (N, NW, C, E, S, CR), **UR**, **ES** (KR), **FE** (KA). – Europe (WE, NE, SE, EE), Georgia, Azerbaijan, Japan (Hok, Hon, Kyu).
- Nomada amurensis** Radoszkowski, 1876 (*N. esakii* Yasumatsu et Hirashima, 1953; *N. sudai* Tsuneki, 1976). Russia: **WS** (AL), **ES** (KS, IR), **FE** (PR). – Kazakhstan, Japan (Hok, Hon, Shi, Kyu).
- Nomada argentata** Herrich-Schäffer, 1839 (*N. atrata* Smith, 1846; *N. brevicornis* Schmiedeknecht, 1882). Cleptoparasite of *Andrena argentata* (H.-Sch.) (Andrenidae). Russia: **EP** (NW, C). – Europe (WE, NE, SE, EE).
- Nomada armata** Herrich-Schäffer, 1839 (*N. rostrata* Lepeletier de Saint-Fargeau, 1841, nom. praeocc., nec Herrich-Schäffer, 1839; *N. lanceolata* Lepeletier de Saint-Fargeau, 1841; *N. compta* Lepeletier de Saint-Fargeau, 1841; *N. kirbyella* Stephens, 1846; *N. cineticornis* Nylander, 1848). Cleptoparasite of *Andrena hattofiana* (F.) (Andrenidae). Russia: **EP** (N, NW, C, E, CR), **UR**. – Europe (WE, NE, SE, EE), Georgia, Azerbaijan.
- Nomada arrogans** Schmiedeknecht, 1882. Russia: **EP** (CR). – Europe (EE, SE), Turkey, Israel, Tajikistan.
- Nomada atroscutellaris** Strand, 1921. Cleptoparasite of *Andrena viridescens* Vier. (Andrenidae). Russia: **EP** (C, CR). – Europe (WE, SE, EE), Turkey.
- Nomada basalis** Herrich-Schäffer, 1839 (*N. rubra* Smith, 1849; *N. flavomaculata* Lucas, 1849; *N. bimaculata* Eversmann, 1852, nom. praeocc., nec Schilling, 1849; *N. regalis* Morawitz, 1870; *N. tripunetata* Morawitz, 1872; *N. andalusica* Schmiedeknecht, 1882; *N. astarte* Pérez, 1895; *N. emendata* Schulz, 1906; *N. flavomaculata* var. *carnica* Friese, 1921; *N. grossa* Friese, 1921; *N. regalis* var. *inderskiana* Łoziński, 1922). Cleptoparasite of *Andrena truncatilabris* Mor. (Andrenidae). Russia: **EP** (S, CR), **UR**, **WS** (NS). – Europe (WE, SE, EE), N Africa, Armenia, Turkey, Syria, Palestine, Israel, Iraq, Iran, Turkmenistan, Kazakhstan.
- Nomada bifasciata** Olivier, 1811 (*N. zonata* Panzer in Lepeletier de Saint-Fargeau, 1841; *N. lepeletieri* Pérez, 1884; *N. navasi* Dusmet, 1913; *N. pusilla* auct., nec Lepeletier de Saint-Fargeau, 1841). Cleptoparasite of *Andrena gravida* Imh. (Andrenidae). Russia: **EP** (CR). – Europe (WE, SE, EE), N Africa, Turkey.
- Nomada bispinosa** Mocsáry, 1883 (*N. excisa* Pérez, 1890). Probably cleptoparasite of *Andrena hypopolia* Schmied. (Andrenidae). Russia: **EP** (CR). – Europe (WE, SE, EE), Azerbaijan, Turkey.
- Nomada blepharipes** Schmiedeknecht, 1882. Russia: **UR**, **ES** (IR). – Europe (WE, SE, EE), Turkey, Kazakhstan.
- Nomada bluethgeni** Stoeckert, 1944. Cleptoparasite of *Lasioglossum marginellum* (Schck.) (Halictidae). Russia: **EP** (C, S, NC, CR). – Europe (WE, SE, EE), Azerbaijan.
- Nomada braunsiana** Schmiedeknecht, 1882. Cleptoparasite of *Andrena pandellei* (Pér.) and probably of *A. curvungula* Thoms. (Andrenidae). Russia: **EP** (C, S, NC, CR). – Europe (WE, SE, EE), Turkey, Jordan.
- Nomada calimorpha** Schmiedeknecht, 1882 (*N. copeitica* Morawitz, 1894). Russia: **EP** (E, S, CR). – Europe (WE, SE, EE), Turkey.
- Nomada castellana** Dusmet, 1913 (*N. baeri* E. Stoeckert, 1930). Probably cleptoparasite of *Andrena semilaevis* Pér. (Andrenidae). Russia: **EP** (C, E, S), **ES** (IR). – Europe (WE, NE, SE, EE), Azerbaijan, Kazakhstan.
- Nomada comparata** Cockerell, 1911 (*N. maculifrons* var. *comparata* Cockerell, 1911). Probably cleptoparasite of *Andrena mikado* Strand et Yasumatsu and *A. richardsi* Hirashima (Andrenidae). Russia: **FE** (PR). – Japan (Hok, Hon, Shi, Kyu).
- Nomada conjungens** Herrich-Schäffer, 1839 (*N. dailatorreana* Schmiedeknecht, 1882; *N. bipunetis* Pérez, 1902). Cleptoparasite of *Andrena proxima* (Kby.) (Andrenidae). Russia: **EP** (NW, C, E, S). – Europe (WE, SE, EE), N Africa, Turkey, Kazakhstan.



- Nomada corcyraea** Schmiedeknecht, 1882 (*N. transitoria* Schmiedeknecht, 1882). Russia: **EP** (S). – Europe (SE, EE), Azerbaijan, Turkey.
- Nomada coxalis** Morawitz, 1877. Russia: **EP** (CR), **UR**. – Europe (SE), Azerbaijan, Turkey, Israel, Iran, Turkmenistan.
- Nomada cruenta** Schmiedeknecht, 1882 (*N. sexspinosa* Friese, 1921; *N. chrysopyga* var. *rubescens* Lozinski, 1922). Cleptoparasite of *Andrena scita* Ev. (Andrenidae). Russia: **EP** (S, CR). – Europe (WE, SE, EE), Azerbaijan, Turkey.
- Nomada diacantha** Schwarz, 1981. Russia: **EP** (S, CR). – Europe (SE, EE), Turkey, Syria.
- Nomada distinguenda** Morawitz, 1874 (*N. rugithorax* Pépez, 1902). Cleptoparasite of *Lasioglossum villosulum* (Kby.) and probably of *L. parvulum* (Schck.) (Halictidae). Russia: **EP** (C, S, NC, CR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Syria, Afghanistan, Turkmenistan.
- Nomada dybovskij** Radoszkowski, 1876. Russia: **ES** (IR).
- Nomada ecarinata** Morawitz, 1888 (*N. munakatai* Tsuneki, 1973). Russia: **EP** (C), **UR**, **WS** (TK, AL), **ES** (KS, KR, IR, BR, ZB), **FE** (PR). – Mongolia, China (NE), Japan (Hok, Hon).
- Nomada emarginata** Morawitz, 1877. Cleptoparasite of *Melitta haemorrhoidalis* (F.) (Melittidae). Russia: **EP** (C, S, NC), **UR**. – Europe (WE, NE, SE, EE), Georgia, Azerbaijan.
- Nomada errans** Lepeletier de Saint-Fargeau, 1841 (*N. errans* var. *korleviciana* Friese, 1921; *N. errans* var. *sibirica* Friese, 1921; *N. transsylvatica* Zilahi-Kiss, 1927). Cleptoparasite of *Andrena nitidiuscula* Schck. and *A. pallitarsis* Pér. (Andrenidae). Russia: **EP** (C, E), **UR**, **ES** (IR). – Europe (WE, SE, EE), Kazakhstan.
- Nomada erythrocephala** Morawitz, 1871. Russia: **EP** (S, NC). – Europe (WE, SE, EE), Armenia, Turkey, Cyprus.
- Nomada esana** Tsuneki, 1973. Russia: **FE** (AM, KH, PR). – Korean Peninsula, Japan (Hok, Hon).
- Nomada fabriciana** (Linnaeus, 1767) [Apis] (*N. germanica* Panzer, 1799, nom. praeocc., nec Fabricius, 1804; *Apis fabriciella* Kirby, 1802; *A. quadri-notata* Kirby, 1802; *Nomada nigricornis* Olivier, 1811; *N. nigrita* Schenck, 1861, nom. praeocc., nec Fabricius, 1775, nec Panzer, 1800, nec Pérez, 1895; *N. fabriciana* var. *aestivalis* Friese, 1921; *N. fabriciana* var. *ruficrus* E. Stoeckhert, 1930). Cleptoparasite of *Andrena bicolor* F., *A. chrysosceles* (Kby.), *A. angustior* (Kby.) and probably of *A. nigroaenea* (Kby.) (Andrenidae). Russia: **EP** (NW, C, E, CR), **UR**, **WS** (TK), **ES** (KS, IR). – Europe (WE, NE, SE, EE), Azerbaijan.
- Nomada facilis** Schwarz, 1967. Probably cleptoparasite of *Andrena humilis* Imh. (Andrenidae). Russia: **EP** (C). – Europe (WE, NE, SE, EE), Azerbaijan, Kazakhstan.
- Nomada femoralis** Morawitz, 1869 (*N. dentipes* Rudow, 1879; *N. femoralis* var. *flavopunctata* Friese, 1921). Cleptoparasite of *Andrena humilis* Imh. (Andrenidae). Russia: **EP** (C, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Turkey, Syria, Palestine, Iran.
- Nomada ferruginata** (Linnaeus, 1767) [Apis] (*Apis xanthosticta* Kirby, 1802; *Nomada lateralis* Panzer, 1804; *N. bridgmaniana* Smith, 1876; *N. lateralis* var. *blancoburgensis* Schmiedeknecht, 1882; *N. lateralis* var. *megapolitana* Schmiedeknecht, 1882). Cleptoparasite of *Andrena praecox* (Scop.) (Andrenidae). Russia: **EP** (NW, C, E, S), **UR**. – Europe (WE, NE, SE, EE), Caucasus, Uzbekistan.
- Nomada flava** Panzer, 1798 (*N. intermedia* Imhoff, 1834; *N. proteus* Lepeletier de Saint-Fargeau, 1841; *N. hirsuta* Verhoeff, 1890). Cleptoparasite of *Andrena carantonica* (Pér.), *A. nitida* (Müll.), *A. fulva* (Müll.) and probably of *A. nigroaenea* Kby. (Andrenidae). Russia: **EP** (C, E, S), **UR**. – Europe (WE, NE, SE, EE), Caucasus, Kazakhstan.
- Nomada flavoguttata** (Kirby, 1802) [Apis] (*Apis rufocincta* Kirby, 1802; *Nomada minuta* Fabricius, 1804, nom. praeocc., nec Swenk, 1913; *N. nana* Schenck, 1874; *N. pygmaea* Schenck, 1874, nom. praeocc., nec Cresson, 1863; *N. flavoguttata* var. *serotina* Schmiedeknecht, 1882; *N. flavoguttata* var. *hoepfneri* Alfken, 1898; *N. aljkeni* Cockerell, 1907, nom. praeocc., nec Gaunitz, 1935, nec Noskiewicz, 1939; *N. kurilensis* Yasumatsu, 1939; *N. flavoguttata japonensis* Tsuneki, 1973; *N. tridentata* Tsuneki, 1986). Cleptoparasite of *Andrena minutula* (Kirby), *A. minutuloides* Perkins, *A. falsifica* Perkins, *A. subopaca* Nylander and *A. semilaevis* Pérez (Andrenidae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, TK, AL), **ES** (KS, TU, IR, YA), **FE** (PR, KU). – Europe (WE, NE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Iran, Turkmenistan, Tajikistan, Kazakhstan, China (SE), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu), India.
- Nomada flavopicta** (Kirby, 1802) [Apis] (*N. jacobaeae* var. *miranda* Schmiedeknecht, 1882; *N. jacobaeae*

- var. *haematodes* Schmiedeknecht, 1882; *N. jacobaeae* var. *konowiana* Friese, 1921; *N. jacobaeae* var. *parva* Friese, 1921, nom. praeocc., nec Robertson, 1900; *N. jasnitskii* Cockerell, 1928). Cleptoparasite of *Melitta leporina* (Pz.), *M. haemorrhoidalis* (F.), *M. tricineta* Kby. and probably of *M. nigricans* Alf. (Melittidae). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (OM, TK, AL), **ES** (KS, TU, KR, IR, BR, ZB). – Europe (WE, NE, SE, EE), Georgia, Azerbaijan, Tajikistan, Uzbekistan, Kazakhstan.
- Nomada fucata** Panzer, 1798 (*N. varia* Panzer, 1798; *N. fucata* var. *taeniata* Gribodo, 1894; *N. f.* var. *iberica* Dalla Torre et Friese, 1894; *N. f.* var. *pretiosa* Friese, 1921; *N. f.* var. *flavescens* Friese, 1921, nom. praeocc., nec Friese, 1916; *N. f.* var. *caucasica* Lozinski, 1922). Cleptoparasite of *Andrena flavipes* Pz. (Andrenidae). Russia: **EP** (NW, C, S, NC, CR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Iraq, Afghanistan, Pakistan, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan.
- Nomada fulvicornis** Fabricius, 1793 (*N. lineola* Panzer, 1798; *Apis sexcincta* Kirby, 1802, nom. praeocc., nec Fabricius, 1775; *A. capreae* Kirby, 1802; *A. cornigera* Kirby, 1802, nom. praeocc., nec Rossi, 1790; *A. subcornuta* Kirby, 1802; *Nomada ventralis* Imhoff, 1834; *N. rubra* Eversmann, 1852, nom. praeocc., nec Geoffrey, 1785, nom. praeocc., nec Provancher, 1888, nec Smith, 1849; *N. robusta* Morawitz, 1871; *N. aurantiaca* Morawitz, 1875; *N. schmiedeknechti* Schmiedeknecht, 1882; *N. lineola* var. *aurigena* Schmiedeknecht, 1882; *N. l.* var. *melanothorax* Schmiedeknecht, 1882; *N. l.* var. *meridionalis* Schmiedeknecht, 1882; *N. l.* var. *flavolimbata* Schmiedeknecht, 1882; *N. l.* var. *latistriga* Schmiedeknecht, 1882; *N. l.* var. *rossica* Schmiedeknecht, 1882; *N. l.* var. *sagemehli* Schmiedeknecht, 1882; *N. pallidenotata* Schmiedeknecht, 1882; *N. l.* var. *diluta* Gribodo, 1893, nom. praeocc., nec Pérez, 1884; *N. l.* var. *melanocera* Gribodo, 1893; *N. l.* var. *sagemehlii* Dallatorre, 1896; *N. lineola* var. *sibirica* Mocsáry, 1901; *N. l.* var. *bremensis* Alfken, 1913; *N. l.* var. *erubescens* Friese, 1921; *N. rakosiensis* Friese, 1921; *N. lineola* var. *nigrina* Lozinski, 1922; *N. l.* var. *aurolimbata* Lozinski, 1922; *N. l.* var. *brunneofasciata* Lozinski, 1922; *N. l.* var. *rufomaculata* Lozinski, 1922; *N. l.* var. *quadrivittata* Lozinski, 1922; *N. l.* var. *eversmanni* Lozinski, 1922; *N. belikovi* Cockerell, 1928; *N. lineola* var. *decorata* Markowsky, 1939, nom. praeocc., nec Smith, 1854). Cleptoparasite of *Andrena tibialis* (Kby.), *A. agilissima* (Scop.), *A. pilipes* F., *A. bimaculata* (Kby.) and *A. thoracica* (F.) (Andrenidae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (OM, TK, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (PR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, UAE, Pakistan, Turkmenistan, Uzbekistan, Japan (Hon, Hok).
- Nomada furva** Panzer, 1798. Cleptoparasite of *Lasioglossum leucopus* (Kby.), *L. morio* (F.), *L. punctatissimum* (Schck.) (Halictidae). Russia: **EP** (C, E, S, NC), **UR**, **WS** (TK), **FE** (PR). – Europe (WE, SE, EE), N Africa, Georgia, Turkey, Turkmenistan, Uzbekistan, Kazakhstan.
- Nomada furvoides** Stoechert, 1944. Cleptoparasite of *Lasioglossum politum* (Schck.) and probably of *L. semilucens* (Alfk.) (Halictidae). Russia: **EP** (S). – Europe (WE, SE, EE), Turkey.
- Nomada fusca** Schwarz, 1986. Russia: **EP** (NW, C), **WS** (AL), **ES** (KS, IR, YA), **FE** (KH, PR). – Europe (NE), Japan (Hok, Hon).
- Nomada fuscicornis** Nylander, 1848 (*N. megacephala* Schenck, 1874). Cleptoparasite of *Panurgus calceatus* (Scop.) (Andrenidae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (TK, AL). – Europe (WE, NE, SE, EE).
- Nomada ginran** Tsuneki, 1973 (*N. yasha* Tsuneki, 1986). Russia: **FE** (PR). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Nomada glaberrima** Schmiedeknecht, 1882 (*N. graja* Mocsáry, 1883). Russia: **EP** (C, S, CR). – Europe (SE), Turkey, Lebanon, Syria.
- Nomada glaucopsis** Pérez, 1890. Russia: **UR**. – Europe (WE, SE, EE), N Africa, Israel, Kazakhstan.
- Nomada goodeniana** (Kirby, 1802) [*Apis*] (*Apis alternata* Kirby, 1802; *Nomada Integra* Imhoff, 1834, nom. praeocc., nec Brülle, 1832, nec Robertson, 1893; *N. cineta* Herrich-Schäffer, 1839, nom. praeocc., nec Rossi, 1792, nec Lepeletier de Saint-Fargeau, 1841; *Nomada batava* Vollenhoven, 1858; *N. succineta* var. *lineolata* Friese, 1921; *N. scheviakovi* Cockerell, 1928; *N. goodeniana danuvia* Pittioni, 1951). Cleptoparasite of *Andrena nitida* (Müll.), *A. nigroaenea* (Kby.), *A. cineraria* (L.), *A. tibialis* (Kby.) and *A. thoracica* (F.) (Andrenidae). Russia: **EP** (N, NW, C, E, S, CR), **UR**, **WS** (TM, AL), **ES** (IR). – Europe (WE, NE, SE, EE), Azerbaijan, Turkey, Kyrgyzstan, Kazakhstan.
- Nomada guttulata** Schenck, 1861 (*N. rufilabris* Thomson, 1870; *N. mishimana* Tsuneki, 1976). Cleptoparasite of *Andrena labiata* F. and probably of *A. potentillae* Pz. (Andrenidae). Russia: **EP** (C, E, S), **UR**,

- ES** (KS), **FE** (PR). – Europe (WE, NE, SE, EE), Kazakhstan, Japan (Hon, Kyu).
- Nomada hakusana** Tsuneki, 1973. Russia: **FE** (KH, SA, KU). – Japan (Hok, Hon).
- Nomada hammarstroemi** Morawitz, 1888. Russia: **WS** (AL), **ES** (KR, IR, BR).
- Nomada hera** Schwarz, 1965. Russia: **EP** (NC). – Europe (SE), Turkey.
- Nomada hungarica** Dalla Torre et Friese, 1894 (*N. scita* Schmiedeknecht, 1882, nom. praeocc., nec Cresson, 1878; *N. lagrecai* Nobile, 1990). Russia: **EP** (S), **UR**. – Europe (SE, EE), Turkey.
- Nomada immaculata** Morawitz, 1874. Russia: **EP** (S, NC). – Europe (SE, EE), Armenia, Cyprus, Afghanistan, Pakistan.
- Nomada imperialis** Schmiedeknecht, 1882. Probably cleptoparasite of *Eucera pannonica* Mocs. (Apidae). Russia: **EP** (NC, CR). – Europe (SE), Turkey.
- Nomada incisa** Schmiedeknecht, 1882. Russia: **EP** (S). – Europe (WE, SE, EE), Cyprus.
- Nomada integra** Brülle, 1832 (*N. germanica* Fabricius, 1804, nom. praeocc., nec Panzer, 1799; *N. ferruginata* var. *cinctiventris* Friese, 1921; *N. stigma* auct., nec Fabricius, 1805; *N. ferruginata* auct., nec Linnaeus, 1767). Cleptoparasite of *Andrena humilis* Imh. and *A. taraxaci* Gir. (Andrenidae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **ES** (KR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Cyprus, Israel, Kazakhstan.
- Nomada irkutskiensis** Proshchalykin et Schwarz, 2017. Russia: **ES** (IR, BR).
- Nomada italica** Dalla Torre et Friese, 1894. Cleptoparasite of *Andrena assimilis* Rad. (Andrenidae). Russia: **EP** (C), **UR**, **WS** (AL), **ES** (KS, KR, BR). – Europe (WE, SE, EE), Azerbaijan, Turkey, Kazakhstan.
- Nomada issikii** Yasumatsu, 1939. Russia: **FE** (AM, KH, PR, SA, KU). – Japan (Hok, Hon, Kyu, Shi).
- Nomada japonica** Smith, 1873. Cleptoparasite of *Eucera spurcatipes* Pér., *E. nipponensis* Pér., *E. longicornis* (L.) (Apidae). Russia: **FE** (PR). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Nomada kohli** Schmiedeknecht, 1882 (*N. hipponensis* Saunders, 1908). Cleptoparasite of *Lasioglossum puncticolle* (Mor.) (Halictidae). Russia: **EP** (C, S, NC, CR). – Europe (WE, SE, EE) N Africa.
- Nomada koikensis** Tsuneki, 1973 (*N. buyoo* Tsuneki, 1976). Russia: **FE** (PR). – Japan (Hok, Hon).
- Nomada lathburiana** (Kirby, 1802) [Apis] (*Apis rufiventris* Kirby, 1802). Cleptoparasite of *Andrena vaga* Pz. and *A. cineraria* (L.) (Andrenidae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (TM, TK, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB). – Europe (WE, NE, SE, EE), Caucasus, Kazakhstan.
- Nomada laticrus** Mocsáry, 1883 (*N. erythrosoma* Mocsáry, 1883). Russia: **EP** (S). – Turkey.
- Nomada leucophthalma** (Kirby, 1802) [Apis] (*N. borealis* Zetterstedt, 1838; *N. inquilina* Smith, 1844; *N. kuro* Tsuneki, 1986; *N. muinensis* Tsuneki, 1986). Cleptoparasite of *Andrena nycthemera* Imh., *A. apicata* Sm., *A. clarckella* (Kby.) (Andrenidae). Russia: **EP** (N, NW, C, E, S), **WS** (TK), **ES** (YA), **FE** (PR, KA). – Europe (WE, NE, SE, EE), Kazakhstan, Mongolia, Japan (Hok, Hon, Kyu).
- Nomada lutea** Eversmann, 1852 (*N. rubricosa* Eversmann, 1982; *N. fasciculata* Morawitz, 1888). Russia: **EP** (CR), **UR**. – Kazakhstan.
- Nomada maculifrons** Smith, 1869. Russia: **FE** (SA, KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Nomada margelanica** Schwarz, 1987. Russia: **ES** (KS, BR, YA). – Uzbekistan, Kazakhstan.
- Nomada marshamella** (Kirby, 1802) [Apis] (*N. marshamella* var. *dubia* Schmiedeknecht, 1882; *N. m.* var. *modesta* Schmiedeknecht, 1882, nom. praeocc., nec Cresson, 1863, nec Herrich-Schäffer, 1839). Cleptoparasite of *Andrena carantonica* Pér., *A. nigroaenea* (Kby.), *A. trimmerana* (Kby.), *A. rosae* Pz., *A. ferox* Sm. or probably *A. nitida* (Müll.) (Andrenidae). Russia: **EP** (N, NW, C, E, CR), **UR**. – Europe (WE, NE, SE, EE), Azerbaijan, Kazakhstan.
- Nomada mauritanica** Lapeletier de Saint-Fargeau, 1841 (*N. chrysopyga* Morawitz, 1872; *N. mephisto* Schmiedeknecht, 1882; *N. speciosissima* Schmiedeknecht, 1882; *N. superba* Pérez, 1902, nom. praeocc., nec Cresson, 1863; *N. sericultorum* Schulz, 1906; *N. syriaca* Friese, 1921). Cleptoparasite of *Andrena fuscata* Erichson and probably of *A. pilipes* F. Russia: **EP** (S, CR), **ES** (TU, BR). – Europe (WE, SE, EE), N Africa, Azerbaijan, Turkey, Cyprus, Syria, Israel, Iraq, UAE.
- Nomada mitaii** Proshchalykin, 2010. Russia: **ES** (KS, IR, ZB), **FE** (AM, KH, PR). – Mongolia.
- Nomada mocsaryi** Schmiedeknecht, 1882. Russia: **EP** (CR). – Europe (SE, EE), Turkey, Iran.
- Nomada moeschleri** Alfken, 1913. Russia: **EP** (NW, C, E), **UR**, **ES** (KR, IR, ZB). – Europe (WE, NE, EE), Azerbaijan, Uzbekistan, Kazakhstan.
- Nomada mutabilis** Morawitz, 1871 (*N. mutabilis* var. *lucifera* Schmiedeknecht, 1882; *N. antigana*

- Pérez, 1895). Cleptoparasite of *Andrena chrysopteryga* Schck. and probably of *A. labialis* (Kby.) (Andrenidae). Russia: **EP** (C, E, S, CR), **UR**, **ES** (KS, IR). – Europe (WE, NE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Iran, Turkmenistan, Kyrgyzstan, Kazakhstan, Nepal, India.
- Nomada mutica** Morawitz, 1872. Cleptoparasite of *Andrena ferox* Sm. (Andrenidae). Russia: **EP** (NC). – Europe (WE, SE, EE), Turkey, Azerbaijan.
- Nomada nobilis** Herrich-Schäffer, 1839 (*N. aberrans* Eversmann, 1852; *N. calabra* Morawitz, 1872; *N. nobilis* var. *magrettiana* Schmiedeknecht, 1882). Cleptoparasite of *Andrena nasuta* Gir. (Andrenidae). Russia: **EP** (C, S, CR), **UR**. – Europe (WE, SE, EE), N Africa, Armenia, Azerbaijan, Turkey, Israel.
- Nomada noskiewiczzi** Schwarz, 1966 (*N. aljkeni* Noskiewicz, 1939, nom. praeocc., nec Cockerell, 1907, nec Gaunitz, 1935). Russia: **EP** (E, NC). – Europe (WE, EE).
- Nomada obscura** Zetterstedt, 1838 (*N. obscura* var. *bitineta* Alfken, 1924; *N. o.* var. *alfkeni* Gaunitz, 1935, nom. praeocc., nec Cockerell, 1907, nec Noskiewicz, 1939). Cleptoparasite of *Andrena ruficrus* Nyl. (Andrenidae). Russia: **EP** (N, NW, C, E), **UR**, **WS** (TK), **ES** (IR, BR, ZB), **FE** (PR). – Europe (WE, NE, EE).
- Nomada obscuriceps** Schwarz et Levchenko, 2017. Russia: **EP** (E), **ES** (IR).
- Nomada obtusifrons** Nylander, 1848 (*N. mistura* Smith, 1851; *N. robertjeotiana* var. *alpina* Morawitz, 1867). Cleptoparasite of *Andrena coitana* (Kby.) and probably of *A. tarsata* Nyl. (Andrenidae). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (AL), **ES** (IR). – Europe (WE, NE, SE, EE), Kazakhstan.
- Nomada oculata** Friese, 1821. Russia: **EP** (NC, CR). – Europe (SE), Azerbaijan, Turkey, Syria, Israel.
- Nomada okamotonis** Matsumura, 1912 (*N. okamotonis kaiensis* Tsuneki, 1976). Cleptoparasite of *Andrena valeriana* Hirashima (Andrenidae). Russia: **FE** (AM, PR). – Japan (Hok, Hon, Kyu).
- Nomada opaca** Alfken, 1913. Cleptoparasite of *Andrena fulvida* Schck. (Andrenidae). Russia: **EP** (N, NW), **ES** (IR), **FE** (PR). – Europe (WE, NE, EE).
- Nomada pacifica** Tsuneki, 1973. Russia: **FE** (PR). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Nomada pallispinosa** Schwarz, 1967. Russia: **EP** (NC). – Europe (SE), Turkey, Cyprus, Israel.
- Nomada palmeni** Morawitz, 1888. Russia: **ES** (KR, IR), **FE** (KH).
- Nomada panzeri** Lepelletier de Saint-Fargeau, 1841 (*N. glabella* Thomson, 1870; *N. ruficornis* var. *phoenicia* Schmiedeknecht, 1882; *N. ruficornis* var. *incompleta* Schmiedeknecht, 1882; *N. ruficornis* var. *hybrida* Schmiedeknecht, 1882; *N. diluta* Pérez, 1884, nom. praeocc., nec Gribodo, 1893; *N. ruficornis* var. *fasciata* Friese, 1921). Cleptoparasite of *Andrena helvola* (L.), *A. synadelpha* Perk., *A. lapponica* Zett., *A. varians* (Kby.), *A. fucata* Sm. and *A. lapponica* Zett. (Andrenidae). Russia: **EP** (N, NW, C, E, S), **UR**, **WS** (TM, TK, AL), **ES** (TU, IR, BR, YA, ZB), **FE** (AM, PR, SA, KU, KA, MG). – Europe (WE, NE, SE, EE), N Africa, Japan (Hok, Hon, Shi, Kyu), Korean Peninsula.
- Nomada pastoralis** Eversmann, 1852. Russia: **UR**. – Europe (SE), Turkey.
- Nomada pectoralis** Morawitz, 1877 (*N. difficilis* Friese, 1921; *N. pectoralis* var. *atroflava* Friese, 1921). Russia: **EP** (C, S, NC), **UR**. – Azerbaijan, Turkmenistan.
- Nomada piliventris** Morawitz, 1877. Russia: **EP** (NC). – Azerbaijan, Turkey.
- Nomada pilosa** Schwarz et Gusenleitner, 2017. Russia: **EP** (S, CR). – Turkey.
- Nomada piccioliana** Magretti, 1883 (*N. piccioliana* Magretti, 1883; *N. novioregensis* Pérez, 1902; *N. piccioliana jurassica* E. Stoeckert, 1941). Cleptoparasite of *Andrena combinata* Christ (Andrenidae). Russia: **EP** (C, CR). – Europe (WE, SE, EE).
- Nomada posthuma** Blüthgen, 1949 (*N. mixtella* Noskiewicz, 1959). Cleptoparasite of *Lasioglossum glabriusculum* (Mor.) (Halictidae). Russia: **EP** (C), **ES** (IR), **FE** (PR). – Europe (WE, EE), Nepal.
- Nomada pulchra** Arnold, 1888 (*N. olhae* Cockerell, 1928). Probably cleptoparasite of *Melitta melanura* Nyl. (Melittidae). Russia: **EP** (C), **UR**, **WS** (AL), **ES** (TU, IR, ZB). – Europe (WE, NE, EE), Kazakhstan.
- Nomada pygidialis** Schwarz, 1981. Russia: **EP** (S). – Europe (SE, EE), Georgia, Turkey.
- Nomada radoszkowskii** Łoziński, 1922. Russia: **EP** (NC), **ES** (BR). – Europe (SE), Turkey, Armenia, Azerbaijan.
- Nomada rhenana** Morawitz, 1872 (*N. rufipes* Schenck, 1870, nom. praeocc., nec Fabricius, 1793). Cleptoparasite of *Andrena ovatula* (Kby.) (Andrenidae). Russia: **EP** (C, S), **UR**. – Europe (WE, NE, SE, EE), N Africa.
- Nomada roberjeotiana** Panzer, 1799 (*N. panzeriana* Walckenaer, 1802; *N. neglecta* Herrich-Schäffer, 1839; *Nomadita montana* Mocsáry, 1894, nom. praeocc., nec Scopoli, 1763; *Nomada roberjeotiana tormentillae* Alfken, 1901). Cleptoparasite of *Andrena*

- tarsata* Nyl., and probably of *A. fuscipes* (Kby.) and *A. coitana* (Kby.) (Andrenidae). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (TK, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, EE), Azerbaijan, Kyrgyzstan, Mongolia, Japan (Hok, Hon).
- Nomada rubricollis** Schwarz, 1966. Russia: **EP** (NC). – Europe (SE), Turkey, Syria, Jordan, Israel.
- Nomada rubricosa** Eversmann, 1852. Russia: **EP** (S), **UR**. – Kazakhstan.
- Nomada ruficornis** (Linnaeus, 1758) [Apis] (*N. bifida* Thomson, 1872; *N. bifida orenburgensis* Łoziński, 1922). Cleptoparasite of *Andrena haemorrhoea* F. (Andrenidae). Russia: **EP** (N, NW, C, E, S, CR), **UR**, **WS** (TK, AL), **ES** (KR, IR, BR, YA), **FE** (AM, SA, KU). – Europe (WE, NE, SE, EE), Azerbaijan, Turkey, Uzbekistan, Kazakhstan.
- Nomada rufipes** Fabricius, 1793 (*N. vaga* Panzer, 1798; *N. solidaginis* Panzer, 1799; *Apis picta* Kirby, 1802; *A. rufopicta* Kirby, 1802; *Nomada solidaginis* var. *punctulifera* Friese, 1921; *N. s.* var. *minutula* Friese, 1921; *N. fennica* Alfken, 1924; *N. rufipes nigriventris* Alfken, 1926). Cleptoparasite of *Andrena denticulata* (Kby.), *A. fuscipes* (Kby.), probably of *A. nigriceps* (Kby.) (Andrenidae) and *Colletes cinicularius* (L.) (Colletidae). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (AL), **ES** (KS, YA), **FE** (AM). – Europe (WE, NE, SE, EE), N Africa, Kazakhstan.
- Nomada setteri** Proshchalykin, 2010. Russia: **ES** (IR), **FE** (PR).
- Nomada sexfasciata** Panzer, 1799 (*Apis connexa* Kirby, 1802; *A. schaefferella* Kirby, 1802). Cleptoparasite of *Eucera longicornis* (L.) and *E. nigrescens* Pér. (Apidae). Russia: **EP** (C, E, NC, CR), **UR**, **WS** (TK, AL), **ES** (KS, IR, BR, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Israel, Iran, Turkmenistan, Kazakhstan, Korean Peninsula.
- Nomada sheppardana** (Kirby, 1802) [Apis] (*N. dali* Curtis, 1832; *N. minuscula* Noskiewicz, 1930; *N. microstieta* Cockerell, 1931). Cleptoparasite of *LasioGLOSSUM nitidiusculum* (Kby.) and *L. sexstrigatum* (Schck.) (Halictidae). Russia: **EP** (C, E, S). – Europe (WE, NE, SE, EE), N Africa.
- Nomada silvicola** Tsuneki, 1973 (*N. hangani* Tsuneki, 1973; *N. diervillae* Tsuneki, 1973). Russia: **FE** (PR). – Japan (Hok, Hon).
- Nomada stigma** Fabricius, 1804 (*N. stigma* Fabricius, 1804; *N. cinnaberina* Morawitz, 1871; *N. cinnabarina* Morawitz, 1872; *N. austriaca* Schmiedeknecht, 1882; *N. stigma villipes* Stoeckhert, 1930; *N. cinnabarina* var. *slovakica* Mavromoustakis, 1955). Cleptoparasite of *Andrena labialis* (Kby.), *A. schencki* Mor. and *A. decipiens* Schck. (Andrenidae). Russia: **EP** (N, C, E, S, NC, CR), **UR**, **WS** (TK, AL), **ES** (KR, IR, YA). – Europe (WE, NE, SE, EE), N Africa, Armenia, Azerbaijan, Turkey, Cyprus, Uzbekistan, Kazakhstan.
- Nomada striata** Fabricius, 1793 (*Apis hillana* Kirby, 1802; *A. ochrostoma* Kirby, 1802, nom. praeocc., nec Zetterstedt, 1838; *Nomada vidua* Smith, 1844; *N. punetiscuta* Thomson, 1870; *N. simillima* Pérez, 1913; *N. dzieduszyckii* Noskiewicz, 1924). Cleptoparasite of *Andrena wilkella* (Kby.), *A. aberrans* Ev., *A. similis* Sm., *A. gelriae* van der Vecht and probably of *A. pandellei* Pér., *A. intermedia* Thoms. (Andrenidae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TK, AL), **ES** (BR, YA, ZB), **FE** (PR). – Europe (WE, NE, SE, EE), Cyprus, Kazakhstan.
- Nomada stoeckherti** Pittioni, 1951. Russia: **EP** (S, CR). – Europe (WE, EE), Afghanistan.
- Nomada succincta** Panzer, 1798 (*N. succineta* var. *mixta* Dalla Torre, 1877; *N. succineta* var. *rufula* Friese, 1921; *N. fidvicornis* auct., nec Fabricius, 1793). Cleptoparasite of *Andrena nigroaenea* (Kby.), *A. nitida* (Müll.), *A. cineraria* (L.), *A. tibialis* (Kby.), *A. thoracica* (F.) or probably *A. carantonica* Pér. (Andrenidae). Russia: **FE** (PR). – Europe (WE, NE, SE, EE), N Africa, Azerbaijan, Turkey, Jordan.
- Nomada sybarita** Schmiedeknecht, 1882. Russia: **UR**, **WS** (TK). – Europe (WE, SE, EE), Azerbaijan.
- Nomada tenella** Mocsáry, 1883. Russia: **EP** (E, S, NC, CR), **UR**, **ES** (BR, YA). – Azerbaijan, Iran, Turkmenistan, Kazakhstan.
- Nomada thersites** Schmiedeknecht, 1882. Russia: **EP** (S). – Europe (EE), Cyprus, Israel, Kyrgyzstan, Kazakhstan.
- Nomada trapeziformis** Schmiedeknecht, 1882 (*N. ruficornis* var. *auctumnalis* Ducke, 1900). Probably cleptoparasite of *Andrena nitida limata* Sm. (Andrenidae). Russia: **EP** (C, E), **WS** (TK), **ES** (KS, KR, IR, BR). – Europe (WE, NE, EE).
- Nomada tridentirostris** Dours, 1873 (*N. cyphognatha* Pérez, 1884; *N. amblystoma* Pérez, 1884). Russia: **EP** (NC). – Europe (WE, SE, EE), N Africa, Turkey, Israel.
- Nomada trispinosa** Schmiedeknecht, 1882. Cleptoparasite of *Andrena taraxaci* Gir. (Andrenidae).

Russia: **EP** (CR). – Europe (WE, SE, EE), Cyprus, Azerbaijan.

**Nomada yarrowi** Schwarz, 1981. Russia: **EP** (S). – Turkey.

**Nomada zonata** Panzer, 1798 (*N. bofillana* Pérez, 1913; *N. banatica* Zilahi-Kiss, 1915; *N. zonata sarmatica* Stoeckert, 1941). Cleptoparasite of *Andrena congruens* Schmied. and *A. dorsata* (Kby.) (Andrenidae). Russia: **EP** (C, E, S), **UR**, **ES** (KS, IR). – Europe (WE, NE, SE, EE), N Africa, Armenia, Azerbaijan, Turkey, Iran, Turkmenistan, Uzbekistan, Kazakhstan.

#### Tribe EPEOLINI

**EPEOLUS** Latreille, 1802 (*Trophocleptria* Holmberg, 1886; *Pyrrhomelecta* Ashmead, 1899; *Argyrosele-nis* Robertson, 1903; *Oxybiastes* Mavromoustakis, 1854). Type species *Apis variegata* Linnaeus, 1758. Species with known biology are nest parasites of *Colletes* (Colletidae). Number of taxa: World – 109, absent in Australasia; Palaearctic – 35; Russia – 12.

**Epeolus alpinus** Friese, 1893 (*E. glacialis* Alfken, 1913; *E. montanus* Bischoff, 1930; *E. pilosus* Bischoff, 1930; *E. alpinus* Bischoff, 1930). Cleptoparasite of *Colletes floralis* Ev. and *C. impunctatus* Nyl. (Colletidae). Russia: **EP** (N, NW, C), **ES** (IR). – Europe (WE, NE, SE).

**Epeolus coreanus** Yasumatsu, 1933. Russia: **FE** (PR, SA). – Korean Peninsula, Japan (Hon, Kyu).

**Epeolus cruciger** (Panzer, 1799) [Nomada] (*E. rufipes* Thomson, 1870; *E. similis* Höppner, 1899; *E. cruciger* var. *elegans* Müller, 1921; *E. c.* var. *rufiventris* Müller, 1921, nom. praecoc., nec Friese, 1908; *E. laevifrons* Bischoff, 1930; *E. marginatus* Bischoff, 1930). Cleptoparasite of *Colletes marginatus* Sm. and *C. succinctus* (L.) (Colletidae). Russia: **EP** (NW, C, E, S), **WS** (NS, TK, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (SA). – Europe (WE, NE, SE, EE), Iran.

**Epeolus fasciatus** Friese, 1895. Cleptoparasite of *Colletes punctatus* Mocs. (Colletidae). Russia: **EP** (S, CR). – Europe (WE, SE, EE), Caucasus, Turkey.

**Epeolus julliani** Pérez, 1884. Russia: **EP** (S). – Europe (WE, SE), Georgia.

**Epeolus laticauda** Bischoff, 1930. Probably cleptoparasite of *Colletes anceps* Rad. (Colletidae). Russia: **ES** (BR). – Turkmenistan, Uzbekistan, Tajikistan.

**Epeolus melectiformis** Yasumatsu, 1938. Cleptoparasite of *Colletes esakii* Hirashima (Colletidae). Russia: **ES** (BR), **FE** (PR). – Japan (Hok, Hon, Shi, Kyu, Ryu).

**Epeolus productulus** Bischoff, 1930. Russia: **EP** (S). – Europe (WE, SE), Turkey, Syria.

**Epeolus schummeli** Schilling, 1849 (*E. ruthenicus* Radoszkowski, 1891). Cleptoparasite of *Colletes nasutus* Sm. (Colletidae). Russia: **EP** (S). – Europe (WE, SE, EE), Turkey.

**Epeolus tarsalis** Morawitz, 1874 (*E. praeustus* Pérez, 1884; *E. rozenburgensis* van Lith, 1949; *E. tarsalis tirolensis* van Lith, 1956). Cleptoparasite of *Colletes collaris* Dours and probably of *C. halophilus* Verhoeff (Colletidae). Russia: **EP** (S, NC), **ES** (ZB, BR), **FE** (AM, KH, PR). – Europe (WE, EE), Mongolia, Korean Peninsula, Japan (Hon, Shi).

**Epeolus transitorius** Eversmann, 1852 (*E. transitorius* var. *seraxensis* Radoszkowski, 1893). Russia: **EP** (S), **UR**. – Europe (SE), Georgia, Iran, Turkmenistan, Uzbekistan, Kazakhstan.

**Epeolus variegatus** (Linnaeus, 1758) [Apis] (*Apis muscaria* Christ, 1791; *Epeolus pictus* Nylander, 1848; *E. productus* Thomson, 1870; *Apis murcaria* Christ, 1791 in Friese, 1895; *Epeolus variegatus* var. *rossicus* Friese, 1925). Cleptoparasite of *Colletes daviesanus* Sm., *C. fodiens* (Geoffr.), *C. similis* Schck. and *C. halophilus* Verhoeff (Colletidae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (TK, KM), **ES** (IR, YA). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Central Asia.

**TRIEPEOLUS** Robertson, 1901 (*Doeringiella* Holmberg, 1886). Type species *Epeolus concavus* Cresson, 1878. American cleptoparasitic genus with only 2 Old World species. Hosts – various Apiformes, especially Eucerini (Apidae). Number of taxa: World – 103; Palaearctic – 2; Russia – 2.

**Triepeolus tristis** (Smith, 1854) [Epeolus] (*Epeolus luctuosus* Eversmann, 1852, nom. praecoc., nec Spinola, 1851; *E. speciosus* Gerstäcker, 1869). Probably cleptoparasite of *Tetralonia malvae* (Rossi) and *Tetraloniella nana* (Mor.) (Apidae). Russia: **EP** (C, E, S), **UR**, **WS** (AL). – Europe (WE, SE, EE), Turkey, Kazakhstan.

**Triepeolus ventralis** (Meade-Waldo, 1913) [Epeolus] (*T. signatus* Hedicke, 1940). Cleptoparasite of *Tetraloniella mitsukurii* (Cock.) (Apidae). Russia: **WS** (AL), **ES** (BR), **FE** (AM, KH, PR). – China (NE, NC, CC, SE), Japan (Hon, Kyu, Shi).

## Tribe AMMOBATOIDINI

**AMMOBATOIDES** Radoszkowski, 1867 (*Phiarus* Gerstäcker, 1869; *Euglages* Gerstäcker, 1869; *Paidia* Radoszkowski, 1872; *Paedia* Dalla Torre, 1891). Type species *Phileremus abdominalis* Eversmann, 1852. Cleptoparasites in nests of *Melitturga* and *Melitturgula* (Andrenidae). Number of taxa: World – 8, includes 1 in S Africa; Palaearctic – 7; Russia – 2.

**Ammobatoides abdominalis** (Eversmann, 1852) [*Phileremus*] (*Phileremus hirsutilus* Eversmann, 1852; *Ammobates extraneus* Förster, 1855; *A. rufitarsis* Smith, 1879; *Phiarus abdominalis* var. *sanguineus* Friese, 1911; *Ph. a.* var. *rufus* Friese, 1911; *Ph. angarensis* Cockerell, 1928; *Ammobatoides abdominalis* ssp. *marchicus* Bischoff, 1952; *A. lebanensis* Mavromoustakis, 1959). Cleptoparasite of *Melitturga clavicornis* (Latr.), *M. praestans* Gir. and *M. pictipes* Mor. (Andrenidae). Russia: **EP** (C, E, S, CR), **UR**, **WS** (OM, NS, TK, KM, AL), **ES** (KS, TU, KR, IR). – Europe (WE, SE, EE), Caucasus, Turkey, Syria, Lebanon, Iran, Central Asia, Kazakhstan, China (NW).

**Ammobatoides radoszkowskii** Proshchalykin et Lelej, 2014. Probably cleptoparasite of *Melitturga mongolica* Alfken (Andrenidae). Russia: **ES** (BR), **FE** (AM, PR). – China (NC).

## Tribe BIASTINI

**BIASTES** Panzer, 1806 (*Rhineta* Illiger, 1807; *Melittoxena* Morawitz, 1873; *Biastoides* Schenck, 1874). Type species *Tiphia brevicornis* Panzer, 1798. Parasites in nests of *Dufourea*, *Rophites* and *Systropha* (Halictidae). Number of taxa: World – 5 Palaearctic species, including 1 Eastern Palaearctic and 1 Transpalaearctic species; Russia – 4.

**Biastes brevicornis** (Panzer, 1798) [*Tiphia*] (*Nomada atrata* Fabricius, 1804; *N. schottii* Fabricius, 1804; *Pasites unicolor* Jurine, 1807; *P. ater* Spinola, 1808; *Stelis aberrans* Eversmann, 1852; *Pasites fasciatus* Eversmann, 1852). Cleptoparasite of *Systropha curvicornis* (Scop.) and *S. planidens* Gir. (Halictidae). Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, SE, EE), Armenia, Azerbaijan, Turkey, Syria, Iran, Kazakhstan.

**Biastes emarginatus** (Schenck, 1853) [*Phileremus*] (*Phileremus nasutus* Gerstäcker, 1869; *Pasites*

*punctatus* Schenck, 1870). Cleptoparasite of *Rophites algirus* Pér. and *R. quinquespinosus* (Halictidae). Russia: **EP** (C, E, S, CR), **UR**, **WS** (KM), **ES** (KR, IR). – Europe (WE, NE, SE, EE), Armenia, Azerbaijan, Turkey, Kazakhstan.

**Biastes popovi** Proshchalykin et Lelej, 2004. Probably cleptoparasite of *Dufourea carinata* Popov and *D. inermis* (Nyl.) (Halictidae). Russia: **FE** (AM, KH).

**Biastes truncatus** (Nylander, 1848) [Nomada] (*Phileremus punetatus* Gerstäcker, 1869; *Pasites rostralis* Zilahi-Kiss, 1927). Cleptoparasite of *Dufourea inermis* (Nyl.) and *D. dentiventris* (Nyl.) (Halictidae). Russia: **EP** (NW, C), **WS** (NS, AL), **ES** (KR, ZB), **FE** (PR). – Europe (WE, NE, SE, EE), Turkey.

## Tribe AMMOBATINI

**AMMOBATES** Latreille, 1809 (*Phileremus* Latreille, 1809; *Ammobatoides* Schenck, 1869, nom. praec., nec Radoszkowski, 1867). Type species *Ammobates rufiventris* Latreille, 1809. Cleptoparasites of *Tetraloniella*, *Anthophora* and, with high probability, *Ancyla*. Number of taxa: World – 50, including 1 Afrotropic and 1 Oriental species; Palaearctic – 48; Russia – 4.

**Ammobates (Ammobates) opacus** Popov, 1951 (*A. armeniacus*: Popov, 1951). Russia: **EP** (S). – Europe (EE), Azerbaijan, Kazakhstan.

**Ammobates (Ammobates) punctatus** (Fabricius, 1804) [Epeolus] (*Epeolus kirbienus* Latreille, 1805; *Phileremus dufourii* Latreille, 1809; *Ammobates bicolor* Lepeletier de Saint-Fargeau, 1825; *A. apunctatus* var. *atratus* Mocsáry, 1894). Cleptoparasite of *Anthophora bimaculata* (Pz.) (Apidae). Russia: **EP** (C), **UR**. – Europe (WE, SE, EE), N Africa.

**Ammobates (Ammobates) vinctus** Gerstäcker, 1869 (*A. setosus* Morawitz, 1870). Cleptoparasite of *Tetraloniella dentata* (Germ.) and *T. ruficornis* (F.) (Apidae). Russia: **EP** (C, S, CR), **UR**. – Europe (WE, SE, EE), N Africa, Turkey, Kazakhstan.

**Ammobates (Euphileremus) oraniensis** (Lepeletier de Saint-Fargeau, 1841) [*Phileremus*] (*Phileremus melectoides* Smith, 1854; *Ammobates oraniensis* var. *manni* Friese, 1895; *A. o. tenuicornis* Popov, 1951; *Pasites oraniensis anatolicus* Warncke, 1983). Cleptoparasite of *Eucera armeniaca* (Mor.) (Apidae). Russia: **EP** (CR). – Europe (SE, EE), N Africa, Armenia, Turkey, Jordan, Israel, Turkmenistan.

**PARAMMOBATODES** Popov, 1951. Type species *Phiarus minutus* Mocsáry, 1878(=*Ammobates rufiventris* Latreille, 1809). Cleptoparasites of *Camptopoeum* (Andrenidae) and probably of *Nomioides* (Halictidae). Number of taxa: World – 6, including 1 Oriental species; Palaeartic – 5 Westpalaeartic species; Russia – 1.

**Parammobatodes minutus** (Mocsáry, 1878) [*Phiarus*] (*Parammobatodes schmidti* Alfken, 1936). Cleptoparasite of *Camptopoeum friesei* Mocs. and *C. frontale* (F.) (Andrenidae). Russia: **EP** (NC). – Europe (WE, SE, EE), Turkey.

**PASITES** Jurine, 1807 (*Morgania* Smith, 1854; *Omachthes* Gerstäcker, 1869; *Homachthes* Dalla Torre, 1896; *Pasitomachthes* Bischoff, 1923). Type species *Pasites maculata* Jurine, 1807. Species with known biology are cleptoparasites of *Pseudapis* and *Nomiapis* (Halictidae). Number of taxa: World – 29 in Old World, including 23 Afrotropic species; Palaeartic – 2; Russia – 2.

**Pasites esakii** Popov et Yasumatsu, 1935 (*P. maculatus esakii* Popov, Yasumatsu, 1935). Cleptoparasite of *Nomiapis mandschurica* (Hedicke) (Halictidae). Russia: **FE** (PR). – China (NE), Korean Peninsula, Japan (Kyu).

**Pasites maculatus** Jurine, 1807 (*Phileremus kirbyanus* Latreille, 1809; *Nomada albomaculatus* Lucas, 1849; *Pasites schottii* Eversmann, 1852; *Ammobates variegatus* Smith, 1854; *Phileremus rufiventris* Förster, 1855, nom. praeocc., nec Latreille, 1809; *Phiarus maculatus* var. *pusillus* Radoszkowski, 1872; *Pasites maculatus* var. *aschabadensis* Radoszkowski, 1893; *P. maculatus* var. *brunneus* Friese, 1895; *Pasites comptus* Alfken, 1929). Cleptoparasite of *Pseudapis bispinosa* (Brull.), *P. femoralis* (Pall.) and *P. diversipes* Latr. (Halictidae). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL), **ES** (KS, IR, BR, ZB), **FE** (AM). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Cyprus, Israel, Iraq, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, Mongolia, China (NE, NC, NW).

#### Subfamily APINAE

##### Tribe OSIRINI

**EPEOLOIDES** Giraud, 1863 (*Viereckella* Swenk, 1907). Type species *Epeoloides ambiguus* Giraud, 1863

= *Apis coecutiens* Fabricius, 1775. Cleptoparasites of *Macropis* (Melittidae). Number of taxa: World – 2 Holarctic species; Palaeartic – 1; Russia – 1.

**Epeoloides coecutiens** (Fabricius, 1775) [*Apis*] (*Saropoda fulva* Eversmann, 1852; *Epeoloides ambiguus* Giraud, 1863; *E. fulviventris* Schenck, 1866). Cleptoparasite of *Macropis europaea* Warncke and *M. fulvipes* (F.) (Melittidae). Russia: **EP** (NW, C, E, CR), **UR**, **WS** (KM), **ES** (KR). – Europe (WE, NE, SE, EE), Kazakhstan.

##### Tribe ANCYLINI

**ANCYLA** Lepeletier de Saint-Fargeau, 1841 (*Plistotrichia* Morawitz, 1873). Type species *Ancyla oraniensis* Lepeletier de Saint-Fargeau, 1841. Ground nesting summer oligolects, possible hosts of *Ammobates* (Apidae). Number of taxa: World – 8 West Palaeartic species; Russia – 1.

**Ancyla asiatica** Friese, 1922 (*Plistotrichia flavilabris*: Morawitz, 1874). Oligolect on *Daucus* (Apiaceae). Russia: **EP** (NC). – Turkey, Lebanon.

##### Tribe CTENOPLECTRINI

**CTENOPLECTRA** Kirby, 1826. Type species *Ctenoplectra chalybea* Smith, 1857. Wood holes nesting and oil-collecting oligolects on Cucurbitaceae. Number of taxa: World – 24 in the Old World, mostly Afrotropic and Oriental species; Palaeartic – 2 East Palaeartic; Russia – 1.

**Ctenoplectra davidi** Vachal, 1903 (*Scapter simpliciceps* Strand, 1913). Russia: **FE** (PR). – China (NE, NC, SW, SE).

##### Tribe EUCERINI

**CUBITALIA** Friese, 1911. Type species *Eucera breviceps* Friese, 1911. Summer or spring-summer oligo- and polylect species. Nesting unknown. Number of taxa: World – 8 West Palaeartic species; Russia – 3.

**Cubitalia (Cubitalia) morio** (Friese, 1911) [*Eucera*]. Oligolect on *Onosma* (Boraginaceae). Russia: **EP** (NC, CR). – Europe (SE), Turkey.

**Cubitalia (Cubitalia) tristis** (Morawitz, 1876) [*Eucera*]. Russia: **EP** (NC, CR). – Georgia, Turkey.



- Cubitalia (Pseudoeucera) parvicornis** (Mocsáry, 1878) [Eucera]. Polylect, prefer Boraginaceae. Russia: **EP** (NC). – Europe (WE, SE, EE).
- EUCERA** Scopoli, 1770 (*Tetralonia* Spinola, 1839, part.). Type species *Apis longicornis* Linnaeus, 1758. Summer or spring-summer oligo- and polylect ground nesting species. Number of taxa: World – 223, overwhelming majority in Holarctic; Palaearctic – 173; Russia – 34.
- Eucera (Eucera) chrysopyga** Pérez, 1879 (*E. pollinosa* Smith, 1854, nom. praeocc., nec Lepeletier de Saint-Fargeau, 1841; *E. favosa* Mocsáry, 1879; *E. polonica* Ruszkowski, 1994). Oligolect on Fabaceae. Russia: **EP** (S, CR), **UR**. – Europe (WE, SE, EE), N Africa, Caucasus, Iran, Kazakhstan, China (NC).
- Eucera (Eucera) dalmatica** Lepeletier de Saint-Fargeau, 1841 (*E. robusta* Baer, 1850; *E. echii* Mocsáry, 1878; *E. flabellifera* Mocsáry, 1879). Polylect, prefer Boraginaceae. Russia: **EP** (NC, CR). – Europe (WE, SE, EE), Azerbaijan, Armenia, Turkey, Cyprus, Iran.
- Eucera (Eucera) interrupta** Baer, 1850 (*E. semistri-gosa* Dours, 1873; *E. confusa* Gribodo, 1881). Oligolect on Fabaceae. Russia: **EP** (C, E, S, CR), **UR**, **WS** (AL). – Europe (WE, SE, EE), Caucasus, Turkey, China (NC, NW).
- Eucera (Eucera) kullenbergi** Tkalčú, 1984. Polylect, prefer Boraginaceae. Russia: **EP** (CR). – Europe (SE, EE), Azerbaijan, Turkey, Iran.
- Eucera (Eucera) longicornis** (Linnaeus, 1758) [Apis] (*Apis linguaria* Fabricius, 1775; *A. tuberculata* Fabricius, 1793; *Eucera difficilis* Pérez in Friese, 1896; *E. atricollis* Friese, 1922; *E. pillichii* Alfken, 1932). Oligolect on Fabaceae. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (OM, TK, KM), **ES** (IR, BR, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Kazakhstan, China (NE, NC, SW).
- Eucera (Eucera) nigrescens** Pérez, 1879 (*E. tuberculata* auct., nec Fabricius, 1793). Oligolect on Fabaceae. Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Caucasus, Turkey, Jordan, Iran, Turkmenistan.
- Eucera (Eucera) nigrilabris** Lepeletier de Saint-Fargeau, 1841 (*E. melanostoma* Morawitz, 1875; *E. terminalis* Smith, 1879; *Macrocera grisea*: Eversmann, 1852; *Eucera nigrilabris rufitarsis* Tkalčú, 1984; *E. n. orientalis* Tkalčú, 1984). Russia: **EP** (NC), **UR**. – Europe (WE, SE, EE), N Africa, Azerbaijan, Turkey, Israel, Palestine, Iran, Turkmenistan, Uzbekistan, Tajikistan, Kazakhstan.
- Eucera (Eucera) proxima** Morawitz, 1875 (*E. graeca* Radoszkowski, 1876; *E. nitidiventris* Mocsáry, 1879; *E. bipartita* Pérez, 1911). Russia: **EP** (E, S, NC, CR), **UR**. – Europe (WE, SE, EE), Azerbaijan, Turkey, Syria, Iran, Tajikistan.
- Eucera (Eucera) rufipes** Smith, 1879 (*E. platyrhina* Pérez, 1902). Oligolect on Fabaceae. Russia: **EP** (C, S, CR), **UR**, **WS** (KM, AL), **ES** (KR, YA). – Europe (EE), Kazakhstan, Mongolia, China (NC).
- Eucera (Eucera) sociabilis** Smith, 1873 (*E. andreae* Friese, 1910). Oligolect on Fabaceae. Russia: **FE** (PR). – China (NC, SW, SE), Japan (Hon, Hok).
- Eucera (Heteroeucera) atriceps** Morawitz, 1878. Russia: **EP** (CR). – Armenia, Kazakhstan.
- Eucera (Heteroeucera) caspica** Morawitz, 1874 (*E. al-bopunctata* Dours, 1873; *E. frivaldskyyi* Mocsáry, 1877; *E. perézi* Mocsáry, 1878; *E. amplitarsis* Mocsáry, 1878; *E. caspica* var. *pallida* Kerenskij, 1919). Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), Azerbaijan, Turkey.
- Eucera (Heteroeucera) cineraria** Eversmann, 1852 (?*E. cinerea* Lepeletier de Saint-Fargeau, 1841 (patrie inconnue); ?*E. cana* Baer, 1850; ?*E. cantatrix* Baer, 1850; ?*E. crinita* Baer, 1850, nom. praeocc., nec Klug, 1845; *E. concinna* Gribodo, 1873; ?*E. consimilis* Dours, 1873; *E. nigrifrons* Smith, 1879; *Tetralonia tarsata* Mocsáry, 1879). Polylect, prefers Fabaceae. Russia: **EP** (S, NC, CR), **UR**. – Europe (WE, SE, EE), Caucasus, Turkey, Iran, Afghanistan, China (NE).
- Eucera (Heteroeucera) clypeata** Erichson, 1835 (*E. clypeata* Erichson, 1835; *E. similis* Lepeletier de Saint-Fargeau, 1841; *E. punctilabris* Lepeletier de Saint-Fargeau, 1841; *E. coarcata* Eversmann, 1852; *E. medusa* Nurse, 1904). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL). – Europe (WE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Syria, Israel, Palestine, Jordan, Iraq, Iran, Afghanistan, Pakistan, Turkmenistan, Uzbekistan, Tajikistan, Kazakhstan.
- Eucera (Heteroeucera) curvitaris** Mocsáry, 1879. Russia: **EP** (S, CR). – Europe (SE, EE), Turkey.
- Eucera (Heteroeucera) excisa** Mocsáry, 1879. Russia: **EP** (E, NC). – Europe (SE), Azerbaijan, Turkey.
- Eucera (Heteroeucera) ferghanica** Morawitz, 1875 (*E. tomentosa* Morawitz, 1875). Russia: **EP** (S). – Iran, Uzbekistan.
- Eucera (Heteroeucera) nigrita** Friese, 1895 (?*E. nigra* Lepeletier de Saint-Fargeau, 1841, nom. praeocc., nec Lepeletier de Saint-Fargeau, 1841; *E. caspica* var. *nigrita* Friese, 1895; *E. albofasciata* Friese, 1895).

- Russia: **EP** (S, NC, CR). – Europe (SE), N Africa, Azerbaijan, Turkey, Syria, Lebanon, Jordan, Israel.
- Eucera (Heterocera) pannonica** Mocsáry, 1878. Russia: **EP** (CR). – Europe (EE).
- Eucera (Heterocera) paraclypeata** Sitdikov, 1988. Russia: **EP** (NC, CR). – Europe (SE), Turkey, Syria, Israel, Jordan.
- Eucera (Heterocera) taurica** Morawitz, 1870 (?*E. pulveracea* Dours, 1873; *E. spectabilis* Mocsáry, 1881; *E. asiatica* Alfken, 1936; *E. hispana* auct., nec Lepeletier de Saint-Fargeau, 1841). Russia: **EP** (S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Iran, China (NW).
- Eucera (Heterocera) seminuda** Brülle, 1832 (*E. trivittata* Brülle, 1832; *E. paradoxa* Mocsáry, 1878). Russia: **EP** (C, S, CR). – Europe (WE, SE, EE), N Africa, Azerbaijan, Turkey.
- Eucera (Heterocera) sogdiana** Morawitz, 1875 (*E. kouchkiana* Radoszkowski, 1886; *E. melanosoma* Morawitz, 1875). Russia: **EP** (S). – Europe (SE), Turkey, Turkmenistan, Uzbekistan, Tajikistan, Afghanistan.
- Eucera (Heterocera) vittulata** Noskiewicz, 1936 (*E. parvula* Friese, 1895; *E. cineraria* Eversmann, 1852). Russia: **EP** (C, S, NC). – Europe (WE, SE, EE), Azerbaijan, Armenia, Turkey.
- Eucera (Pteneucera) eucnemidea** Dours, 1873. Russia: **EP** (S, NC). – Europe (SE), N Africa, Armenia, Turkey, Syria, Kazakhstan.
- Eucera (Pteneucera) nigrifacies** Lepeletier de Saint-Fargeau, 1841 (*E. caucasica* Morawitz, 1874; *E. sedula* Mocsáry, 1879; *E. cornuta* Stefani, 1882). Russia: **EP** (S, NC, CR), **WS** (AL). – Europe (WE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Syria, Israel, Jordan, Iran, Uzbekistan, Tajikistan, Kazakhstan.
- Eucera (Synhalonia) alborufa** (Radoszkowski, 1871) [Tetralonia] (*Tetralonia amoena* Walker, 1871; *T. rufescens* Morawitz, 1875; *T. radoszkowskii* Morawitz, 1875; *Macrocera clypeata* Radoszkowski, 1893; *Eucera sarachensis* Dalla Torre, 1896; *E. turcestanica* Dalla Torre, 1895). Russia: **EP** (E, S). – N Africa, Azerbaijan, Iran, Turkmenistan, Uzbekistan, Kazakhstan.
- Eucera (Synhalonia) alternans** Brullé, 1832 [Macrocer] Russia: **EP** (S, CR). – Europe (WE, SE, EE), N Africa, Azerbaijan, Turkey, Iran, Kazakhstan.
- Eucera (Synhalonia) armeniaca** (Morawitz, 1877) [Tetralonia]. Russia: **EP** (C, S, CR). – Europe (EE), Armenia, Turkmenistan.
- Eucera (Synhalonia) chinensis** (Smith, 1854) [Tetralonia]. Russia: **FE** (PR). – China (NE, NC, CC, SW, SE), Japan (Ryu), N Vietnam.
- Eucera (Synhalonia) hungarica** Friese, 1895. Polylect, prefer Fabaceae. Russia: **EP** (C, E, S, CR), **UR**. – Europe (WE, SE, EE), N Africa, Armenia, Kazakhstan.
- Eucera (Synhalonia) ruficollis** (Brullé, 1832) [Macrocer] (*E. atricornis*: Eversmann, 1852). Russia: **EP** (S, NC), **UR**. – Europe (SE, EE), N Africa, Caucasus, Turkey, Syria, Iran, Turkmenistan, Uzbekistan, Tajikistan, Kazakhstan.
- Eucera (Synhalonia) tricineta** Erichson, 1835. Russia: **EP** (S, NC, CR). – Europe (WE, SE, EE), N Africa, Azerbaijan, Israel, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.
- Eucera (Synhalonia) velutina** (Morawitz, 1874) [Tetralonia]. Visit Rindera tetraspis (Boraginaceae). Russia: **EP** (S, NC), **UR**. – Turkey, Israel.
- TETRALONIA** Spinola, 1839 (*Macrocera* Latreille, 1810, nom. praeocc., nec Meigen, 1803). Type species *Apis malvae* Rossi, 1790. Oligolect ground-nesting bees. Number of taxa: World – 18, mostly Afrotropic species; Palaearctic – 1; Russia – 1.
- Tetralonia malvae** (Rossi, 1790) [*Eucera*] (*Eucera antennata* Fabricius, 1793; *E. macroglossa* Illiger, 1806). Oligolect on Malvaceae. Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (AL). – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey, Syria, Iran, Uzbekistan, Tajikistan, Kazakhstan, China (NW).
- TETRALONIELLA** Ashmead, 1899 (*Xenoglossodes* Ashmead, 1899; *Melissina* Cockerell, 1911; *Tetralonia* part.: Proshchalykin, 2007e). Type species *Macrocera graja* Eversmann, 1852. Oligolect or polylect ground-nesting bees. Number of taxa: World – 137, mostly in Old World; Palaearctic – 50; Russia – 14 species of subgenus *Tetraloniella* s. str.
- Tetraloniella alticineta** (Lepeletier de Saint-Fargeau, 1841) [Macrocer]. Russia: **EP** (CR). – Europe (WE, SE, EE).
- Tetraloniella dentata** (Germar, 1839) [*Eucera*] (*Tetralonia dentata* Klug, 1835; *Macrocera tricineta* Lepeletier de Saint-Fargeau, 1841; *M. nigricornis* Lepeletier de Saint-Fargeau, 1841). Oligolect on Asteraceae. Russia: **EP** (NW, C, E, S, NC), **UR**, **WS** (OM). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Syria, Iran, Uzbekistan, Kazakhstan, China (NW, NC).

**Tetraloniella fulvescens** (Giraud, 1863) [Tetralonia] (*Tetralonia acutangula* Morawitz, 1876; *Macrocera dufouri* Pérez, 1879). Oligolect on *Inula* (Asteraceae). Russia: **EP** (C, S, NC), **UR**, **WS** (KM). – Europe (WE, SE, EE), N Africa, Turkey, Azerbaijan, Kazakhstan, China (NE, NC, NW).

**Tetraloniella graja** (Eversmann, 1852) [Macrocera] (*Macrocera ruficornis* Lepeletier de Saint-Fargeau, 1841, nom. praeocc., nec Fabricius, 1804). Polylect, prefer Asteraceae. Russia: **EP** (C, S, NC, CR), **UR**. – Europe (WE, SE, EE), Azerbaijan, Turkey, Syria, Iran, Kazakhstan.

**Tetraloniella inulae** (Tkalců, 1979) [Tetralonia]. Oligolect on *Inula* (Asteraceae). Russia: **EP** (S, NC, CR), **UR**. – Europe (WE, SE, EE), Cyprus, Iran.

**Tetraloniella julliani** (Pérez, 1879) [Tetralonia] (*Tetralonia julliani biroj* Mocsáry, 1879). Russia: **EP** (S, CR). – Europe (WE, SE, EE), Turkey, Iran, Turkmenistan.

**Tetraloniella lyncea** Mocsáry, 1879 (*Tetralonia lyncea*: Chenikalova, 2005). Russia: **EP** (S, NC, CR). – Europe (SE, EE).

**Tetraloniella mitsukurii** (Cockerell, 1911) [Tetralonia]. Oligolect on Fabaceae. Russia: **FE** (AM, KH, PR). – China (NE, NC, CC), Korean Peninsula, Japan (Hon, Shi, Kyu.).

**Tetraloniella nana** (Morawitz, 1874) [Tetralonia] (*Macrocera griseola* Pérez, 1879; *Tetralonia tenella* Mocsáry, 1879). Russia: **EP** (C, S, NC), **UR**. – Europe (WE, SE, EE), Azerbaijan, Turkmenistan, Kazakhstan.

**Tetraloniella pollinosa** (Lepeletier de Saint-Fargeau, 1841) [Macrocera] (*Macrocera mediocris* Eversmann, 1853; *Eucera canescens* Dours, 1873; *Tetralonia fossulata* Morawitz, 1874; *T. adusta* Mocsáry, 1877). Russia: **EP** (C, S, NC), **UR**. – Europe (WE, SE, EE), N Africa, Georgia, Armenia.

**Tetraloniella salicariae** (Lepeletier de Saint-Fargeau, 1841) [Macrocera] (*Macrocera meridiana* Dufour, 1841; *Tetralonia lythri* Schenck, 1870; *T. basalis* Morawitz, 1871; *T. salicariae* var. *albiclypeata* Dalla Torre, 1877; *T. s.* var. *flavichlypeata* Dalla Torre, 1877). Collect polen exclusively on *Lythrum* (Lythraceae) and *Melilotus* (Fabaceae). Russia: **EP** (C, E, S, NC), **UR**. – Europe (WE, SE, EE), N Africa, Caucasus, Uzbekistan, Kazakhstan.

**Tetraloniella scabiosae** (Mocsáry, 1881) [Eucera]. Possible oligolect on Dipsacaceae. Russia: **EP** (S). – Europe (WE, SE, EE).

**Tetraloniella strigata** (Lepeletier de Saint-Fargeau, 1841) [Macrocera]. Russia: **EP** (S). – Europe (WE, SE).

**Tetraloniella vicina** (Morawitz, 1876) [Tetralonia]. Russia: **EP** (S). – Europe (WE, EE), Georgia.

#### Tribe ANTHOPHORINI

**AMEGILLA** Friese, 1897 (*Alfkenella* Börner, 1919; *Asaropoda* Cockerell, 1926). Type species *Apis quadrifasciata* Villers, 1789. Mostly polylects, fly at summer in temperate zone. Number of taxa: World – 253 Old World species, mostly Afrotropic and Oriental; Palaearctic – 47; Russia – 9.

**Amegilla (Amegilla) garrula** (Rossi, 1790) [Apis]. Russia: **EP** (NC). – Europe (WE, SE, EE), Abkhasia, Georgia, Iran, Turkmenistan, Kazakhstan.

**Amegilla (Amegilla) ochroleuca** (Pérez, 1879) [Anthophora]. Russia: **EP** (S, CR). – Europe (WE, SE, EE), N Africa.

**Amegilla (Amegilla) quadrifasciata** (de Villers, 1789) [Apis] (*Apis nidulans* Fabricius, 1793; *Anthophora quadrifasciata* var. *albescens* Dours, 1869; *A. q.* var. *nana* Radoszkowski, 1869; *A. maderae* Sichel, 1868; *A. mervensis* Radoszkowski, 1893; *A. mediterranea* Alfken, 1927; *A. quadrifasciata* var. *teneriffensis* Cockerell, 1930; *A. klugi* Priesner, 1957; *A. litorana* Priesner, 1957). Russia: **EP** (C, E, S, CR), **UR**, **FE** (PR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Cyprus, Syria, Lebanon, Iran, Central Asia, Kazakhstan, Mongolia, China (NC, NW), Japan (Hon, Shi, Kyu), India.

**Amegilla (Glossamegilla) florea** (Smith, 1879) [Anthophora] (*Anthophora tushimensis* Cockerell, 1926). Russia: **FE** (PR). – China (NC, CC, SE), Korean Peninsula, Japan (Hon, Shi, Kyu).

**Amegilla (Micramegilla) nigricornis** (Morawitz, 1872) [Anthophora] (*Anthophora picicornis* Fedtschenko, 1875). Probably polylect, prefer Alhagi (Fabaceae). Russia: **EP** (S, NC). – N Africa, Azerbaijan, Iran, Turkmenistan, Uzbekistan, Tajikistan, Mongolia, China (NC, NW).

**Amegilla (Micramegilla) velocissima** (Fedtschenko, 1875) [Anthophora]. Russia: **EP** (S). – Europe (EE), Armenia, Azerbaijan, Iran, Pakistan, Turkmenistan, Uzbekistan, Tajikistan, Kazakhstan, Mongolia, China (NC, NW, WP).

**Amegilla (Zebramegilla) albigena** (Lepeletier de Saint-Fargeau, 1841) [Anthophora] (*Anthophora*

- binotata* Lepeletier de Saint-Fargeau, 1841; *A. albigena* var. *albida* Dours, 1869; *A. quadrifasciata* var. *nana* Radoszkowski, 1870; *Podalirhis albigena* var. *nigrithorax* Dalla Torre, 1877; *P. pyramidalis* Kirby, 1900; *Anthophora albigena quadrata* Cockerell, 1911; *A. a. afra* Priesner, 1957). Polylect, prefer Lamiaceae and Fabaceae. Russia: **EP** (C, S, NC, CR). – Europe (WE, SE, EE), N Africa, Georgia, Armenia, Turkey, Cyprus, Syria, Jordan, Iran, Central Asia, Kazakhstan, China (NC, NW), India.
- Amegilla (Zebramegilla) magnilabris** (Fedtschenko, 1875) [Anthophora]. Russia: **EP** (S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Turkey, Syria, Turkmenistan, Uzbekistan.
- Amegilla (Zebramegilla) salviae** (Morawitz, 1876) [Anthophora] (*Anthophora pipiens* Mocsáry, 1879). Russia: **EP** (NC, CR). – Europe (SE, EE), N Africa, Armenia, Cyprus, Turkey, Iran, China (NC, NW).
- ANTHOPHORA** Latreille, 1803 (*Podalirius* Latreille, 1802; *Lasius* Panzer, 1804; *Megilla* Fabricius, 1804). Type species *Apis pilipes* Fabricius, 1775. Polylects or olicolects, fly at spring or summer in temperate zone. Nests in ground or rotten wood (*Clisodon*). Number of taxa: World – 348, mostly Holarctic species; Palaearctic – 203; Russia – 42.
- Anthophora (Anthomegilla) arctica** Morawitz, 1883. Russia: **ES** (YA, ZB), **FE** (AM). – Tajikistan, China (NW).
- Anthophora (Anthophora) fulvitaris** Brullé, 1832 (*Megilla personata* Erichson, 1835; *Anthophora nasuta* Lepeletier de Saint-Fargeau, 1841; *A. personata* var. *euris* Dours, 1870; *A. arietina* Dours, 1870). Russia: **EP** (S, NC), **UR**, **WS** (TK, KM). – Europe (WE, SE, EE), N Africa, Georgia, Turkey, Israel, Kazakhstan, China (NC, WP).
- Anthophora (Anthophora) plumipes** (Pallas, 1772) [Apis] (*Apis pilipes* Fabricius, 1775; *Andrena hirsuta* Fabricius, 1787; *Apis rufipes* Christ, 1791, nom. praecoc., nec Fabricius, 1781, nec Christ, 1791; *A. cochlearipes* Christ, 1791; *A. palmipes* Rossi, 1792; *Anthophora pennata* Lepeletier de Saint-Fargeau, 1841; *A. nigrofulva* Lepeletier de Saint-Fargeau, 1841; *A. sicula* Smith, 1854; *A. villosula* Smith, 1854; *A. personata* var. *squalens* Dours, 1869; *Podalirius acervorum* var. *niger* Friese, 1896; *P. a.* var. *nigripes* Friese, 1896; *P. acervorum* var. *albipes* Friese, 1896; *Anthophora soror* Pérez, 1905; *A. acervorum* var. *dimidiata* Alfken, 1913; *A. pingshiangensis* Strand, 1913; *A. acervorum* var. *intermixta* Alfken, 1913; *A. a.* var. *varians* Friese, 1922; *A. a.* var. *lisbonensis* Cockerell, 1922; *A. a. palestinensis* Hedicke, 1936; *A. a. cypriaca* Mavromoustakis, 1957; *Apis acervorum* auct., nec Linnaeus, 1758). Russia: **EP** (N, NW, C, E, S, NC, CR), **FE** (PR). – Europe (WE, NE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Israel, Iran, Kazakhstan, China (NE, NC, NW, CC, SW, WP, SE), Japan (Hon, Shi, Kyu).
- Anthophora (Anthophora) salviae** (Panzer, 1804) [Lasius] (*A. senescens* Lepeletier de Saint-Fargeau, 1841; *A. ephippium* Lepeletier de Saint-Fargeau, 1841; *A. crinipes* Smith, 1854). Russia: **EP** (NC). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iran, China (CC).
- Anthophora (Caranthophora) dufourii** Lepeletier de Saint-Fargeau, 1841. Russia: **EP** (S, CR). – Europe (SE), Georgia, Turkey, Syria, Israel, Iran, Turkmenistan.
- Anthophora (Caranthophora) pubescens** (Fabricius, 1781) [Apis] (*A. flabellifera* Lepeletier de Saint-Fargeau, 1841). Russia: **EP** (S). – Europe (WE, SE, EE), N Africa, Israel, China (NW).
- Anthophora (Clisodon) furcata** (Panzer, 1798) [Apis] (*Apis dumetorum* Panzer, 1798; *Megilla furcata* var. *norvegica* Nylander, 1852; *Podalirius furcata* var. *caucasicus* Friese, 1897, nom. praecoc., nec Radoszkowski, 1874; *P. furcatus montislinguarum* Schulz, 1906; *Anthophora furcata* f. *atrata* Hedicke, 1929; *A. f. caucasicola* Hedicke, 1929; *A. f.* var. *obscurcula* Alfken, 1926). Oligolect on Lamiaceae. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TK, KM, AL), **ES** (TU, IR, BR, YA). – Europe (WE, NE, SE, EE), Abkhasia, Georgia, Turkey, Iran, Kazakhstan, China (NE, NC, CC, SW, WP).
- Anthophora (Clisodon) terminalis** Cresson, 1869. Prefer Lamiaceae. Russia: **UR**, **WS** (KM), **ES** (TU, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA). – Mongolia, China (NE, NC, CC, SW, WP), N America.
- Anthophora (Dasymegilla) quadrimaculata** (Panzer, 1798) [Apis] (*Apis vulpina* Panzer, 1798, nom. praecoc., nec Christ, 1791; *A. subglobosa* Kirby, 1802; *Anthophora vara* Lepeletier de Saint-Fargeau, 1841; *A. mixta* Lepeletier de Saint-Fargeau, 1841; *A. segusina* Gribodo, 1873; *A. vulpina paehypoda* Cockerell, 1924; *A. v. alticola* Hedicke, 1931). Oligolect on Lamiaceae. Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (OM). – Europe (WE, NE, SE, EE), Georgia, Turkey, Tajikistan, Kazakhstan, China (NC, CC).
- Anthophora (Heliophila) bimaculata** (Panzer, 1798) [Apis] (*Apis rotundata* Panzer, 1798, nom. praecoc.,

- nec Fabricius, 1787; *Anthophora saropoda* Lamarck, 1817; *A. squalida* Lepeletier de Saint-Fargeau, 1841; *A. albifrons* Eversmann, 1852). Polylect, prefer Asteraceae. Russia: **EP** (NW, C, E, S). – Europe (WE, NE, SE, EE), Georgia, Turkey, Iran, Uzbekistan, Tajikistan, Kazakhstan, China (NW).
- Anthophora (Lophanthophora) affinis** Brullé, 1832 (*A. biciliata* Lepeletier de Saint-Fargeau, 1841; *A. caucasica* Radoszkowski, 1874; *A. morawitzi* Alfken et Blüthgen, 1937). Polylect, prefer Fabaceae. Russia: **EP** (CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Israel, Iran, Uzbekistan, Kazakhstan, China (NW).
- Anthophora (Lophanthophora) atricilla** Eversmann, 1846 (*A. atricilla aegyptorum* Priesner, 1957). Russia: **EP** (E, S, NC, CR). – N Africa, Caucasus, Turkey, Pakistan, Turkmenistan, Tajikistan, Kazakhstan, China (NW).
- Anthophora (Lophanthophora) robusta** (Klug, 1845) [Megilla] (*Megilla caliginosa* Klug, 1845; *Anthophora nigromaculata* Lucas, 1846; *A. oxygona* Dours, 1870; *A. atroferruginea* Dours, 1870; *A. robusta atra* Friese, 1919; *A. r. atratula* Friese, 1919; *A. r. atrosopacea* Friese, 1919; *A. fuliginosa pamirica* Hedicke, 1931). Russia: **EP** (NC, CR). – Europe (WE, SE, EE), Georgia, Azerbaijan, Turkey, Syria, Israel, Iran, Turkmenistan.
- Anthophora (Lophanthophora) rutilans** Dour, 1870 (*A. moderna* Morawitz, 1877). Russia: **EP** (NC). – Europe (SE), Armenia, Turkey, Cyprus, Israel, Palestine.
- Anthophora (Melea) plagiata** (Illiger, 1806) [Megilla] (*Apis parietina* Fabricius, 1793, nom. praeocc., nec Fourcroy, 1785; *Anthophora villosa* Herrich-Schffer, 1840; *A. parietina* var. *fulvocinerea* Dours, 1870; *A. turanica* Fedtschenko, 1875; *A. parietina* var. *schenkii* Dalla Torre, 1877; *A. simplicipes* Morawitz, 1880; *A. mlokosewitzi* Radoszkowski, 1884; *A. nigripes* Morawitz, 1887, nom. praeocc., nec Pérez, 1879; *Podalirius simplicipes semiater* Friese, 1896; *Anthophora pulcherrima* Bingham, 1897; *Podalirius parietinus nigrescens* Friese, 1897; *Anthophora filchnerae* Friese, 1908; *A. khambana* Cockerell, 1910; *A. khambana* var. *atramentata* Cockerell, 1911; *A. pilosella* Friese, 1919; *A. semenovi* Kuznetzov-Ugamsky, 1927; *A. parietina pamiricola* Hedicke, 1931; *A. khambana* f. *chodjana* Hedicke, 1938; *A. parietina balistanica* Hedicke, 1940; *A. parietina ladakhana* Hedicke, 1940; *A. pulcherrima himalayaensis* Wu, 1982). Polylect, prefer Lamiaceae. Russia: **EP** (NC),
- UR**. – Europe (WE, NE, SE, EE), N Africa, Georgia, Turkey, Iran, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, China (NE, NC, NW, CC, SW, WP).
- Anthophora (Mystacanthophora) borealis** Morawitz, 1865. Russia: **EP** (NW, C, E), **UR**, **WS** (OM, KM, AL), **ES** (IR, BU, YA, ZB), **FE** (AM, KH). – Europe (WE, SE, EE), Armenia, Turkey, Tajikistan, Kazakhstan, Mongolia, China (NE).
- Anthophora (Paramegilla) aeneiventris** Hedicke, 1931. Prefer Fabaceae. Russia: **FE** (PR). – Kazakhstan, Mongolia, China (NW, NC).
- Anthophora (Paramegilla) astragali** Morawitz, 1878. Russia: **EP** (S). – Georgia, Armenia.
- Anthophora (Paramegilla) balassogloi** (Radoszkowski, 1877) [Habropoda] (*A. christofi* Morawitz, 1880). Russia: **EP** (E, NC), **UR**. – Armenia, Turkmenistan.
- Anthophora (Paramegilla) deserticola** Morawitz, 1872. Russia: **EP** (E, S), **UR**, **WS** (TK), **ES** (KS, KR, ZB, BR). – Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China (NW, NC).
- Anthophora (Paramegilla) dubia** Eversmann, 1852 (*A. albomaculata* Radoszkowski, 1874; *A. saussurei* Fedtschenko, 1875; *A. semperi* Fedtschenko, 1875; *A. carbonaria* Morawitz, 1876; *A. faddei* Radoszkowski, 1882; *A. semperi cerberus* Friese, 1919). Probably polylect, prefer Fabaceae. Russia: **EP** (NC), **UR**. – Armenia, Azerbaijan, Turkey, Iran, Central Asia, Kazakhstan, Mongolia, China (NE, NC, NW, WP).
- Anthophora (Paramegilla) fulvipes** Eversmann, 1846 (*Podalirius larvata* Giraud, 1863; *Anthophora croceipes* Morawitz, 1876). Russia: **EP** (C, E, S), **UR**. – Europe (SE, EE), Armenia, Turkey, China (NW, NC).
- Anthophora (Paramegilla) gracilipes** Morawitz, 1872. Russia: **EP** (S, NC). – Caucasus, Iran, Turkmenistan, Uzbekistan, Tajikistan, Kazakhstan, Mongolia, China (NW).
- Anthophora (Paramegilla) ireos** (Pallas, 1773) [Apis] (*A. lepida* Pallas, 1773). Oligolect on Phlomis tuberosa (Lamiaceae). Russia: **EP** (S), **UR**. – Iran, Kazakhstan.
- Anthophora (Paramegilla) podagra** Lepeletier de Saint-Fargeau, 1841 (*A. rufa* Lepeletier de Saint-Fargeau, 1841; *A. segnis* Eversmann, 1852; *A. cinerea* Eversmann, 1852; *A. tomentosa* Mocsáry, 1878; *A. taurica* Friese, 1922). Polylect, prefer Asteraceae. Russia: **EP** (C, E, S, CR), **UR**. – Europe (WE, SE,

- EE), Armenia, Turkey, Iran, Turkmenistan, Tajikistan, Kazakhstan, China (NC, NW).
- Anthophora (Paramegilla) ponomarevae** Brooks, 1988 (*A. morawitzi* Ponomareva, 1966, nom. praeocc., nec Alfken et Blüthgen, 1937). Russia: **EP** (S, CR). – Israel, Turkmenistan.
- Anthophora (Paramegilla) prshewalskii** Morawitz, 1880 (*A. pilosa* Morawitz, 1880; *A. przewalskii*: Osytsnjuk et al., 1978). Russia: **EP** (CR). – Turkey, Turkmenistan, Kazakhstan, China (NW, SW).
- Anthophora (Paramegilla) raddei** Morawitz, 1876. Russia: **EP** (NC). – Europe (EE), Armenia, Iran.
- Anthophora (Petalosternon) crassipes** Lepeletier de Saint-Fargeau, 1841 (*A. quadristrigata* Dours, 1870; *A. denticrus* Morawitz, 1872; *A. perplexa* Radoszkowski, 1884). Russia: **UR**. – Europe (WE, SE, EE), N Africa, Turkey, Israel.
- Anthophora (Petalosternon) hanseni** Morawitz, 1883. Russia: **ES** (IR).
- Anthophora (Petalosternon) radoszkowskyi** Fedtschenko, 1875. Russia: **EP** (E, S, CR). – Caucasus, Tajikistan, Kyrgyzstan, Kazakhstan.
- Anthophora (Pyganthophora) aestivalis** (Panzer, 1801) [Apis] (*A. intermedia* Lepeletier de Saint-Fargeau, 1841). Russia: **EP** (C, E), **UR**, **ES** (ZB). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Israel, Jordan, Iran.
- Anthophora (Pyganthophora) altaica** Radoszkowski, 1882 (*Megilla tersa* Erichson, 1849). Russia: **UR**, **WS** (AL). – Mongolia, China (NC).
- Anthophora (Pyganthophora) cinereus** (Friese, 1896) [Podalirius] (*Podalirius cinereus* Friese, 1897). Russia: **EP** (S, NC), **UR**. – Caucasus, Kazakhstan, Turkmenistan.
- Anthophora (Pyganthophora) erschowi** Fedtschenko, 1875. Russia: **EP** (S, NC, CR), **UR**. – Europe (EE), N Africa, Georgia, Azerbaijan, Turkey, Israel, Iran, Turkmenistan, Uzbekistan, Tajikistan, Kazakhstan, China (NC, NW).
- Anthophora (Pyganthophora) nigriceps** Morawitz, 1886. Russia: **EP** (NC). – Azerbaijan, Syria, Lebanon, Israel.
- Anthophora (Pyganthophora) orientalis** Morawitz, 1878. Russia: **EP** (S, NC). – Europe (SE), N Africa, Caucasus, Turkey, Syria, Israel.
- Anthophora (Pyganthophora) pedata** Eversmann, 1852. Polylect, prefer Astragalus (Fabaceae). Russia: **EP** (S, NC), **UR**. – Azerbaijan, Turkey, Uzbekistan, Kazakhstan, China (NW).
- Anthophora (Pyganthophora) retusa** (Linnaeus, 1758) [Apis] (*Apis haworthana* Kirby, 1802; *A. pennipes* Kirby, 1802; *Anthophora intermedia* Lepeletier de Saint-Fargeau, 1841, part.; *Megilla monacha* Erichson, 1849; *Anthophora hispanica*: Eversmann, 1852; *A. ruthenica* Morawitz, 1870; *A. retusa* var. *meridionalis* Pérez, 1879; *Podalirius retusus sareptanus* Friese, 1896; *Anthophora retusifformis* Cockerell, 1911; *A. retusa fasciata* Alfken, 1913; *A. aestivalis baicalensis* Hedicke, 1929; *A. retusa seminigra* Benoist, 1930; *A. aestivalis alaica* Hedicke, 1931; *A. monacha tschelcarica* Ponomareva, 1967; *A. rudolphae* Romankova, 2003). Polylect, prefer Lamiaceae. Russia: **EP** (C, E, S), **UR**, **WS** (TK, AL), **ES** (KR, IR, BR, YA), **FE** (AM, PR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Central Asia, Kazakhstan, Mongolia, China (NC, NW).
- Anthophora (Pyganthophora) sichelii** Radoszkowski, 1869. Russia: **EP** (S). – Europe (WE, SE), N Africa, Caucasus, Turkmenistan, Uzbekistan.
- Anthophora (Pyganthophora) testaceipes** Morawitz, 1888. Oligolect on Fabaceae. Russia: **UR**, **ES** (BR). – Uzbekistan, Kazakhstan.
- Anthophora (Pyganthophora) vernalis** Morawitz, 1877 (*A. atricilla*: Eversmann, 1852). Russia: **EP** (NC), **UR**. – Israel, Uzbekistan, Kazakhstan.
- HABROPODA** Smith, 1854 (*Habrophora* Smith, 1854, nom. praeocc., nec Erichson, 1846; *Emphoropsis* Ashmead, 1899; *Meliturgopsis* Ashmead, 1899). Type species *Habropoda ezonata* Smith, 1854 = *Tetralonia tarsata* Spinola, 1838. Early summer, summer or autumn species, probably polylects, nests in borrows in soil. Number of taxa: World – 50; Palaeartic – 17; Russia – 1.
- Habropoda zonatula** Smith, 1854. Russia: **EP** (NC, CR). – Europe (WE, SE, EE), Azerbaijan, Turkey, Syria.

## Tribe MELECTINI

- MELECTA** Latreille, 1802 (*Symmorpha* Klug, 1807; *Bombomelecta* Patton, 1879). Type species *Apis punctata* Fabricius, 1775. Cleptoparasites of *Anthophora* and *Habropoda* (Apidae). Number of taxa: World – 59 in Holarctic; Palaeartic – 54; Russia – 11.
- Melecta (Melecta) albifrons** (Förster, 1771) [Apis] (*Apis punctata* Fabricius, 1775; *Andrena armata*

- Panzer, 1799; *Melecta nigra* Spinola, 1806; *M. fasciculata* Spinola, 1806; *Crocisa atra* Jurine, 1807; *Melecta tisiphone* Newman, 1835; *M. alecto* Newman, 1835; *M. clotho* Newman, 1835; *M. megaera* Newman, 1835; *M. albovaria* Erichson, 1841; *M. bipunctata* Lepeletier de Saint-Fargeau, 1841; *M. atcrrima* Lepeletier de Saint-Fargeau, 1841; *M. calabrina* Radoszkowski, 1876; *M. pseudoarmata* Radoszkowski, 1893; *M. armata* var. *mediterranea* Gribodo, 1893; *M. novellai* Dusmet, 1915; *M. armata* var. *gigantea* Friese, 1925; *M. luctuosa* var. *minima* Friese, 1925). Cleptoparasite of *Anthophora plumipes* (Pall.), *A. plagiata* (Ill.) and *A. fulvitaris* Brull. (Apidae). Russia: **EP** (NW, C, E, CR), **UR**. – Europe (NE, SE, EE), N Africa, Caucasus, Turkey, Cyprus, Syria, Lebanon, Palestine, Israel, Iran.
- Melecta (Melecta) amanda** Lieftinck, 1980. Russia: **EP** (S). – Kazakhstan.
- Melecta (Melecta) baerii** (Radoszkowski, 1865) [Pseudomelecta]. Russia: **UR**, **WS** (AL). – Caucasus, Kazakhstan.
- Melecta (Melecta) diacantha** Eversmann, 1852. Russia: **EP** (C), **UR**.
- Melecta (Melecta) duodecimmaculata** (Rossi, 1790) [Nomada] (*M. plurinotata* Brullé, 1832; *M. quatuordecimpunctata* Fischer de Waldheim, 1843; *M. soederbomi* Alfken, 1936; *M. jakovlewii* Radoszkowski, 1877). Russia: **EP** (S, CR), **UR**, **ES** (KR). – Europe (WE, SE, EE), N Africa, Turkey, Iraq, Iran, Central Asia, Kazakhstan, China (NE, NC, NW).
- Melecta (Melecta) eversmanni** Radoszkowski, 1893. Russia: **EP** (S), **UR**. – Uzbekistan.
- Melecta (Melecta) festiva** Lieftinck, 1980. Russia: **EP** (NC, CR). – Europe (WE, SE, EE), Georgia, Armenia, Turkey, Palestine, Israel, Turkmenistan, Uzbekistan.
- Melecta (Melecta) luctuosa** (Scopoli, 1770) [Apis] (*M. lachesis* Newman, 1835; *M. atropos* Newman, 1835; *M. fasciculata* Fischer de Waldheim, 1843, nom. praeocc., nec Spinola, 1806; *M. eversmanni* Radoszkowski, 1893; *M. eczmiadzini* Radoszkowski, 1893). Cleptoparasite of *Anthophora aestivalis* (Pz.), *A. retusa* (L.), *A. plagiata* Ill. and *A. crinipes* Sm. (Apidae). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (OM, TK, KM, AL), **ES** (TU, IR, BR, YA, ZB), **FE** (AM). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Cyprus, Lebanon, Israel, Jordan, Iraq, Iran, Turkmenistan, Uzbekistan, Tajikistan, Kazakhstan.
- Melecta (Melecta) mundula** Lieftinck, 1983 (*M. megaera* sensu Lieftinck, 1980, non Newman, 1835; *M. cypriaca* Schwarz, 1999). Russia: **EP** (S). – Europe (SE), Turkey, Palestine, Israel, Iran.
- Melecta (Melecta) sibirica** Radoszkowski, 1891. Russia: **ES** (IR). – Afghanistan, Turkmenistan, Tajikistan, Kyrgyzstan.
- Melecta (Melecta) tuberculata** Lieftinck, 1980. Russia: **EP** (NC). – Europe (WE, SE, EE), Turkey, Cyprus, Lebanon, Israel.
- THYREOMELECTA** Rightmyer et Engel, 2003. Type species *Thyreomelecta kirghisia* Rightmyer et Engel, 2003. Nest parasites of *Anthophora* (Apidae). Number of taxa: World – 7 Palaeartic species; Russia – 2.
- Thyreomelecta propinqua** (Lieftinck, 1968) [Thyreus]. Russia: **ES** (TU, BR), **FE** (PR). – China (NE), Korean Peninsula.
- Thyreomelecta sibirica** (Radoszkowski, 1893) [Crocisa] (*Thyreus sibirica*: Romankova, 1995b). Russia: **ES** (IR, KR, BR, YA, ZB), **FE** (AM, MG). – Armenia, China (NE).
- THYREUS** Panzer, 1806 (*Crocisa* Jurine, 1807). Type species *Nomada scutellaris* Fabricius, 1781. Cleptoparasites of *Amegilla*, some species of *Anthophora* and *Eucera* subgen. *Synchalonia* (Apidae). Number of taxa: World – 123 species in Old World, mostly Indo-Australian; Palaeartic – 40; Russia – 10.
- Thyreus aberrans** (Morawitz, 1875) [Crocisa]. Russia: **EP** (S). – Uzbekistan, Tajikistan.
- Thyreus affinis** (Morawitz, 1874) [Crocisa] (*Crocisa portchinski* Radoszkowski, 1893; *C. transcaspica* Radoszkowski, 1893; *C. tunensis* Pérez, 1895; *C. affinis* var. *villosa* Meyer, 1921). Cleptoparasite of *Amegilla salvia* (Mor.) (Apidae). Russia: **EP** (C, S, NC, CR), **UR**. – Europe (WE, SE, EE), N Africa, Azerbaijan, Armenia, Turkey, Cyprus, Pakistan, Iran, Uzbekistan, Kyrgyzstan, Kazakhstan.
- Thyreus altaicus** (Radoszkowski, 1893) [Crocisa]. Russia: **WS** (AL), **ES** (KS, KR, BR, ZB), **FE** (PR). – Kazakhstan, Mongolia, China (NE, NC).
- Thyreus decorus** (Smith, 1852) [Crocisa] (*Crocisa japonica* Friese, 1905; *C. kanshireana* Cockerell, 1911; *C. pallescens* Cockerell, 1927). Russia: **FE** (PR). – China (SE), Korean Peninsula, Japan (Hon, Shi, Kyu), Thailand, Malaysia.

- Thyreus hirtus** (de Beaumont, 1940) [Crocisa]. Russia: **EP** (S). – Europe (WE, SE), N Africa, Turkey.
- Thyreus histrionicus** (Illiger, 1806) [Melecta] (*Crocisa major* Morawitz, 1875; *C. divisa* Pérez, 1905; *C. histrionica* var. *alboscuteolata* Meyer, 1921; *C. rimosiscutum* Alfken, 1927). Cleptoparasite of *Amegilla quadrifasciata* (de Villers) (Apidae). Russia: **EP** (C, E, S, CR), **UR**, **WS** (KM). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Cyprus, Yemen, Iran, Central Asia, Kazakhstan, China (NW).
- Thyreus orbatus** (Lepeletier de Saint-Fargeau, 1841) [Crocisa] (*Crocisa scutellaris* auct., nec Fabricius, 1781). Cleptoparasite of *Anthophora parietina* Mor. and *A. quadrimaculata* (Pz.) (Apidae). Russia: **EP** (S). – Europe (WE, SE, EE), N Africa, Turkey.
- Thyreus ramosus** (Lepeletier de Saint-Fargeau, 1841) [Crocisa] (*Crocisa rufa* Radoszkowski, 1886; *C. ashabadensis* Radoszkowski, 1893; *C. caucasica* Radoszkowski, 1893; *C. ramosa* var. *albociliata* Meyer, 1921; *C. affinis* var. *minor* Friese, 1925; *C. circulata* Alfken, 1927). Cleptoparasite of *Amegilla albigena* (Lep.) and possible of *Anthophora pubescens* (F.) (Apidae). Russia: **EP** (C, E, S, CR). – Europe (WE, SE, EE), N Africa, Caucasus, Turkey, Cyprus, Syria, Palestine, Israel, Iraq, Saudi Arabia, Yemen, Iran, Afghanistan, Turkmenistan, Uzbekistan, Kazakhstan, China (NE, NC, WP).
- Thyreus scutellaris** (Fabricius, 1781) [Nomada] (*Crocisa crassicornis* Morawitz, 1890). Cleptoparasite of *Anthophora borealis* Mor. (Apidae). Russia: **EP** (C, S, NC), **UR**, **WS** (TK, KM), **ES** (ZB), **FE** (AM, PR). – Europe (SE, EE), N Africa, Armenia, Turkey, Syria, Iran, Afghanistan, Turkmenistan, Kazakhstan, China (NC).
- Thyreus truncatus** (Pérez, 1883) [Crocisa] (*Crocisa ramosa* var. *mucoarea* Friese, 1925; *C. nadigi* Alfken, 1933; *C. curviscutum* Alfken, 1934). Cleptoparasite of *Amegilla garrula* (Rossi) (Apidae). Russia: **EP** (C, CR), **UR**. – Europe (WE, SE, EE), N Africa, Georgia, Azerbaijan, Turkey, Palestine, Kuwait, Iran, Tajikistan.

#### Tribe BOMBINI

- BOMBUS** Latreille, 1802 (*Psithyrus* Lepeletier de Saint-Fargeau, 1833). Type species *Apis terrestris* Linnaeus, 1758. Almost worldwide distributed genus, absent in Afrotropics and Oceania and most reachly represented in highland Palaearctic. Some species were introduced into New Zealand and Australia. Most species are social insects with annual colonies, some species are cleptoparasitic, including subgenus *Psithyrus*. Number of taxa: World – 264 species, Palaearctic – 121 species, Russia – 90.
- Bombus (Alpigenobombus) wurflenii** Radoszkowski, 1859. Russia: **EP** (NC), **UR**. – Europe (WE, NE, SE, EE), Caucasus, Turkey.
- Bombus (Alpinobombus) alpinus** (Linnaeus, 1758) [Apis]. Russia: **EP** (N). – Europe (WE, NE, SE, EE).
- Bombus (Alpinobombus) balteatus** Dahlbom, 1832 (*B. balteatus lysholmi* Friese, 1905; *B. kirbyellus friesei* Skorikov, 1908; *Alpinobombus kirbyellus gmelini* Skorikov, 1914; *A. k. subbalteatus* Skorikov, 1914; *A. k. subcollaris* Skorikov, 1914; *A. k. appropinquans* Skorikov, 1914). Russia: **EP** (N), **WS** (TM), **ES** (KR, YA), **FE** (KH, KU, KA, MG, CH). – Europe (NE), Mongolia.
- Bombus (Alpinobombus) hyperboreus** Schönherr, 1809. Facultative inquiline in nests *Bombus pyrrhopygus* Friese and *B. jonellus* (Kirby) (Apidae). Russia: **EP** (N), **WS** (TM), **ES** (KR, YA), **FE** (KA, MG, CH). – Europe (NE).
- Bombus (Alpinobombus) pyrrhopygus** Friese, 1902 (*B. polaris* auct., nec Curtis, 1835). Russia: **EP** (N), **WS** (TM), **ES** (KR, YA), **FE** (KA, CH). – Europe (NE).
- Bombus (Bombias) confusus confusus** Schenck, 1859. Russia: **EP** (NW, C, E, S), **UR**. – Europe (WE, NE, SE, EE).
- Bombus (Bombias) confusus paradoxus** Dalla Torre, 1882. Russia: **EP** (C, E, S), **UR**, **WS** (OM, TK, NS, KM, AL), **ES** (KS, KR). – Europe (WE, NE, SE, EE), Kazakhstan.
- Bombus (Bombus) cryptarum** (Fabricius, 1775) [Apis] (*B. lucorum albocinctus* Smith, 1854; *B. florilegus* Panfilov, 1956). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (TM, NS, AL), **ES** (KS, KR, IR, BR, ZB), **FE** (AM, KH, PR, SA, KU, KA, MG, CH). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Kyrgyzstan, Kazakhstan, Mongolia, China (NW, NC), Japan (Hok), India, Nepal, N America.
- Bombus (Bombus) hypocrita** Pérez, 1905 (*B. sapporoensis* Cockerell, 1911; *B. jesoensis* Matsumura, 1911; *B. ikonnikovi* Skorikov, 1914; *B. i. mariae* Skorikov, 1914; *B. i. catagraphus* Skorikov, 1914; *B. i. invitabilis* Skorikov, 1914; *B. i. vanus* Skorikov, 1914). Russia: **FE** (KH, PR, SA, KU). – Korean Peninsula, Japan (Hok, Hon, Shi).

**BOMBUS** Latreille, 1802 (*Psithyrus* Lepeletier de Saint-Fargeau, 1833). Type species *Apis terrestris* Linnaeus, 1758. Almost worldwide distributed genus, absent in Afrotropics and Oceania and most reachly represented in highland Palaearctic. Some species were introduced into New Zealand



- Bombus (Bombus) ignitus** Smith, 1869 (*B. ignitus subcollaris* Skorikov, 1914). Russia: **FE** (PR, SA). – China (NE, NC, NW, SW, WP), Korean Peninsula, Japan (Hon, Kyu).
- Bombus (Bombus) lucorum** (Linnaeus, 1761) [Apis]. Russia: **EP** (N, NW, C, E, S, NC), **UR, WS** (NS, AL), **ES** (KS, YA, ZB). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Kyrgyzstan, Mongolia, China (NE, NW, NC).
- Bombus (Bombus) magnus** Vogt, 1911. Russia: **EP** (N, NW, C). – Europe (WE, NE, SE, EE).
- Bombus (Bombus) patagiatus** Nylander, 1848. Russia: **EP** (N, NW, C, E), **UR, WS** (TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, MG). – Europe (NE), Mongolia, China (NE, NC, CC, WP), Korean Peninsula.
- Bombus (Bombus) sporadicus** Nylander, 1848 (*B. terrestris czerskianus* Vogt, 1911; *Terrestribombus terrestris malaisei* Bischoff, 1930; *Bombus sporadicus sachalinensis* Krüger, 1956). Russia: **EP** (N, NW, C), **UR, WS** (TM, TK, NS, KM, AL), **ES** (TU, KR, IR, BR, YA, ZB), **FE** (KH, PR, SA, KA, MG). – Europe (NE), Mongolia, China (NC, NW, WP), Korean Peninsula.
- Bombus (Bombus) terrestris** (Linnaeus, 1758) [Apis]. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR, WS** (OM, NS, AL). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Syria, Jordan, Lebanon, Israel, Iraq, Iran, Central Asia, Kazakhstan, China (NW), Japan (introduced), N and S America (introduced), Australia (introduced), New Zealand (introduced).
- Bombus (Cullumanobombus) cullumanus apollineus** Skorikov, 1910. Russia: **EP** (NC). – Caucasus, Turkey, Iran.
- Bombus (Cullumanobombus) cullumanus serrisquama** Morawitz, 1888 (*B. silantjewi* Morawitz, 1891; *B. praemarinus* Panfilov, 1951). Russia: **EP** (C, E, S, NC), **UR, WS** (TM, OM, NS, KM, AL), **ES** (KS, KR, IR), **FE** (PR). – Europe (WE, SE, EE), Caucasus, Turkey, Iran, Afghanistan, Central Asia, Kazakhstan, China (NW).
- Bombus (Cullumanobombus) semenoviellus** Skorikov, 1910. Russia: **EP** (N, NW, C, E), **UR, WS** (TM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB). – Europe (WE, NE, SE, EE), Kazakhstan.
- Bombus (Cullumanobombus) unicus** Morawitz, 1883 (*B. jankowskii* Radoszkowski, 1888; *B. controversus* Skorikov, 1910). Russia: **FE** (AM, KH, PR).
- Bombus (Kallobombus) soroensis** (Fabricius, 1777) [Apis] (*B. proteus* Gerstcker, 1869). Russia: **EP** (N, NW, C, E, S, NC), **UR, WS** (OM, TK, NS, KM, AL), **ES** (KS, TU, KR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Syria, Iraq, Iran, Central Asia, Kazakhstan, Mongolia.
- Bombus (Megabombus) argillaceus** (Scopoli, 1763) [Apis]. Russia: **EP** (C, E, S, NC, CR). – Europe (WE, SE, EE), Turkey, Lebanon, Iraq, Iran, Turkmenistan.
- Bombus (Megabombus) consobrinus** Dahlbom, 1832 (*Hortobombus consobrinus wittenburgi* Vogt, 1911, *H. consobrinus subvinogradovi* Vogt, 1911; *H. c. nigroventralis* Vogt, 1911; *Bombus solowiyofkae* Matsumura, 1911; *Hortobombus consobrinus ochroleucus* Skorikov, 1914; *H. c. submonochromos* Skorikov, 1914; *H. c. derzhavini* Skorikov, 1914; *H. c. nigrociliatus* Skorikov, 1914; *H. c. albociliatus* Skorikov, 1914; *H. c. bianchii* Skorikov, 1914; *H. c. diana* Skorikov, 1914; *H. c. ferrugineociliatus* Skorikov, 1914; *Bombus yezoensis* Matsumura, 1932). Russia: **EP** (N, NW, C, E), **UR, WS** (TM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, KA, MG). – Europe (NE), Kazakhstan, Mongolia, China (NW, WP, N), Korean Peninsula, Japan (Hon).
- Bombus (Megabombus) czerskii** Skorikov, 1910 (*B. czerskii suberiophoroides* Skorikov, 1915). Russia: **ES** (BR), **FE** (PR). – Mongolia, China (NC, NW), Korean Peninsula.
- Bombus (Megabombus) diversus** Smith, 1869 (*B. ussurensis atrocaudatus* Vogt, 1911). Russia: **FE** (PR, SA, KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Bombus (Megabombus) gerstaeckeri** Morawitz, 1881. Russia: **EP** (NC). – Europe (WE, SE, EE), Georgia.
- Bombus (Megabombus) hortorum** (Linnaeus, 1761) [Apis]. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR, WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA), **FE** (PR). – Europe (WE, NE, SE, EE), Turkey, Iran, Central Asia, Kazakhstan, Mongolia, New Zealand (introduced).
- Bombus (Megabombus) portchinsky** Radoszkowski, 1883. Russia: **EP** (NC). – Caucasus, Turkey, Iran.
- Bombus (Megabombus) ruderatus** (Scopoli, 1763) [Apis]. Russia: **EP** (NW, C, E, S, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, S America (introduced).
- Bombus (Megabombus) saltuarius** (Skorikov, 1931) [Hortobombus]. Russia: **EP** (N), **WS** (TM, NS), **ES** (KS, KR, TU), **FE** (MG).
- Bombus (Megabombus) tichenkoi** (Skorikov, 1926) [Hortobombus] (*Hortobombus tichenkoi*

- pseudoligusticus* Skorikov, 1926; *Bombus tersatus kurilensis* Sakagami, 1954). Russia: **FE** (KU, KA).
- Bombus (Megabombus) ussurensis** Radoszkowski, 1877 (*Diversobombus ussuriensis postzonatus* Skorikov, 1915; *D. u. olivaceus* Skorikov, 1915). Russia: **FE** (AM, KH, PR, SA). – China (NE, NC), Korean Peninsula, Japan (Hon).
- Bombus (Melanobombus) eriophorus** Klug, 1807 (?*B. caucasicus* Radoszkowski, 1860). Russia: **EP** (NC). – Caucasus, Turkey.
- Bombus (Melanobombus) keriensis** Morawitz, 1887 (*B. alagesianus* Reinig, 1930). Russia: **EP** (NC), **WS** (AL), **ES** (TU). – Caucasus, Turkey, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, Mongolia, China (NC, NW, SW, WP), India.
- Bombus (Melanobombus) lapidarius** (Linnaeus, 1758) [Apis]. Russia: **EP** (N, NW, C, E, S, CR), **UR**. – Europe (WE, NE, SE, EE), N Africa, Turkey, New Zealand (introduced).
- Bombus (Melanobombus) sichelii** Radoszkowski, 1860 (*Lapidariobombus sicheli czerskiae* Vogt, 1911). Russia: **EP** (N, C, E, NC), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, KA, MG). – Europe (WE, SE, EE), Caucasus, Turkey, Kazakhstan, Mongolia, China (NE, NC, NW, WP), Korean Peninsula.
- Bombus (Mendacibombus) margreiteri** Skorikov, 1910 (*B. altaicus* Skorikov, 1910). Russia: **WS** (AL), **ES** (TU, IR, BR, ZB), **FE** (KA). – Kyrgyzstan, Kazakhstan, Mongolia, China (NW, WP).
- Bombus (Mendacibombus) handlirschianus** Vogt, 1909 (*B. shaposhnikovii* Skorikov, 1910). Russia: **EP** (NC). – Caucasus, Turkey, Iraq, Iran.
- Bombus (Psithyrus) barbutellus** (Kirby, 1802) [Apis] (*B. maxillosus* Klug, 1817). Parasite in nests of *Bombus hortorum* (L.) and *B. hypnorum* (L.) (Apidae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, BR, YA, ZB), **FE** (PR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Kyrgyzstan, Kazakhstan, Mongolia, China (NC).
- Bombus (Psithyrus) bohemicus** Seidl, 1837 (*Psithyrus distinctus* Pérez, 1884; *P. vestalis* auct., nec Fourcroy, 1785; *Bombus naiptchianus* Matsumura, 1911). Parasite in nests of *Bombus lucorum* (L.) (Apidae). Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, KA, CH). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Central Asia, Kazakhstan, Mongolia, China (NW, NC, NE, SE), India, N America.
- Bombus (Psithyrus) branickii** (Radoszkowski, 1893) [Psithyrus] (*Apathus chloronotus* Morawitz, 1893; *Psithyrus rupestris eriophoroides* Reinig, 1930; *P. r. elisabethae* Reinig, 1940). Host is unknown. Russia: **WS** (AL), **ES** (ZB). – Afghanistan, Pakistan, Central Asia, Mongolia, China (NC, NW, SW, WP), Korean Peninsula, India.
- Bombus (Psithyrus) campestris** (Panzer, 1801) [Apis]. Parasite in nests of *Bombus pascuorum* (Scop.), *B. humilis* Illiger, *B. pomorum* (Panz.) and *B. pratorum* (L.) (Apidae). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA), **FE** (AM, PR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Uzbekistan, Kazakhstan, Mongolia, China (NW, NC).
- Bombus (Psithyrus) flavidus** Eversmann, 1852 (*Psithyrus flavidus frisoni* Popov, 1931). Parasite in nests of *Bombus jonellus* (Kirby) (Apidae). Russia: **EP** (N, NW), **WS** (TM), **ES** (KS, KR, BR, YA), **FE** (SA, KU, KA, MG). – Europe (WE, NE, SE, EE), N America.
- Bombus (Psithyrus) norvegicus** (Sparre-Schneider, 1918) [Psithyrus]. Parasite in nests of *Bombus hypnorum* (L.) (Apidae). Russia: **EP** (N, NW, C, E), **UR**, **WS** (TM, TK, NS, KM, AL), **ES** (KS, KR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KA). – Europe (WE, NE, SE, EE), Kazakhstan, Mongolia, China (NC, NE, SE), Japan (Hok, Hon), N America.
- Bombus (Psithyrus) quadricolor** (Lepelletier de Saint-Fargeau, 1832) [Psithyrus]. Parasite in nests of *Bombus soroensis* (F.) (Apidae). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (TM, TK, NS, KM, AL), **ES** (KR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran.
- Bombus (Psithyrus) rupestris** (Fabricius, 1793) [Apis] (*Psithyrus rupestris buyssoni* Vogt, 1911). Parasite in nests of *Bombus lapidarius* (L.), *B. sichelii* Rad., *B. sylvarum* (L.) and *B. pascuorum* (Scop.) (Apidae). Russia: **EP** (N, NW, C, E, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, MG). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Mongolia, China (NW, NC, NE, SE).
- Bombus (Psithyrus) sylvestris** (Lepelletier de Saint-Fargeau, 1832) [Psithyrus]. Parasite in nests of *Bombus pratorum* (L.), *B. jonellus* (Kirby) and *B. schrencki* Mor. (Apidae). Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (TM, TK, NS, KM, AL), **ES** (KS,

- KR, YA), **FE** (AM, KH, PR, SA, MG). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Kazakhstan, Mongolia, China (NC, NE), Korean Peninsula.
- Bombus (Psithyrus) vestalis** (Fourcroy, 1785) [Apis]. Parasite in nests of *Bombus terrestris* (L.) (Apidae). Russia: **EP** (N, C, E, NC, CR). – Europe (WE, NE, SE, EE), N Africa, Caucasus, Turkey, Iran.
- Bombus (Pyrobombus) ardens** Smith, 1879 (*B. ardens sakagami* Tkalčú, 1962). Russia: **FE** (SA, KU). – Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).
- Bombus (Pyrobombus) beaticola** (Tkalčú, 1968) [Pyrobombus] (*B. beaticola moshkarareppus* Sakagami et Ishikawa, 1969; *B. b. shikotanensis* Ito et Sakagami, 1980). Russia: **FE** (SA, KU). – Japan (Hok, Hon).
- Bombus (Pyrobombus) biroi** Vogt, 1911. Russia: **WS** (AL). – Afghanistan, Central Asia, Kazakhstan, Mongolia, India.
- Bombus (Pyrobombus) brodmannicus** Vogt, 1909. Russia: **EP** (NC). – Europe (WE, SE), Caucasus, Turkey.
- Bombus (Pyrobombus) cingulatus** Wahlberg, 1854 (*B. hypnorum tilingi* Morawitz, 1881; *B. cingulatus pseudocalidus* Reinig, 1936). Russia: **EP** (N), **UR**, **WS** (TM), **ES** (KS, KR, YA), **FE** (KH, PR, SA, KU, KA, CH, MG). – Europe (NE).
- Bombus (Pyrobombus) glacialis** Friese, 1902 (*B. glacialis* Sparre-Schneider, 1909). Russia: **EP** (N), **FE** (KA).
- Bombus (Pyrobombus) haematurus** Kriechbaumer, 1870. Russia: **EP** (NC, CR). – Europe (SE, EE), Azerbaijan, Turkey, Iran, Turkmenistan.
- Bombus (Pyrobombus) hypnorum** (Linnaeus, 1758) [Apis] (*B. calidus* Erichson, 1851; *Pratobombus hypnorum klutschianis* Bischoff, 1930; *Bombus koropokkrus* Sakagami and Ishikawa, 1972). Russia: **EP** (N, NW, C, E, NC, CR), **UR**, **WS** (TM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (KH, PR, SA, KU, KA, MG, CH). – Europe (WE, NE, SE, EE), Georgia, Kazakhstan, Mongolia, China (NE, NC, NW, CC, SW, WP, SE), Korean Peninsula, Japan (Hok), Nepal, Myanmar, India.
- Bombus (Pyrobombus) jonellus** (Kirby, 1802) [Apis]. Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (TM, TK, NS, AL), **ES** (TU, KR, IR, BR, YA, ZB), **FE** (KH, SA, KA, MG, CH). – Europe (WE, NE, SE, EE), Georgia, Mongolia, N America.
- Bombus (Pyrobombus) lapponicus** (Fabricius, 1793) [Apis] (*B. lapponicus kamtshaticus* Skorikov, 1912; *B. l. obscurus* Skorikov, 1912; *B. l. occultodistinctus* Skorikov, 1912; *B. l. rarior* Skorikov, 1912; *B. l. karaginus* Skorikov, 1912; *B. l. commutabilis* Skorikov, 1912; *B. l. virgatus* Skorikov, 1912; *B. l. korjak* Skorikov, 1912; *B. l. ceciliae* Skorikov, 1912; *B. l. pallidocaudatus* Skorikov, 1912; *B. l. cecilioides* Skorikov, 1912; *B. l. simius* Skorikov, 1912). Russia: **EP** (N), **WS** (TM, AL), **ES** (KR, BR, YA), **FE** (KH, KA, MG, CH). – Europe (NE), Kyrgyzstan.
- Bombus (Pyrobombus) modestus** Eversmann, 1852 (*B. nymphae* Skorikov, 1910; *Pratobombus modestus krylovi* Skorikov, 1915). Russia: **EP** (N, C, E), **UR**, **WS** (TM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KA, MG). – Kazakhstan, Mongolia, China (NC), Korean Peninsula.
- Bombus (Pyrobombus) monticola** Smith, 1849. Russia: **EP** (N). – Europe (WE, SE, NE).
- Bombus (Pyrobombus) oceanicus** Friese, 1909. Russia: **FE** (KU).
- Bombus (Pyrobombus) pratorum** (Linnaeus, 1761) [Apis]. Russia: **EP** (N, NW, C, E, NC, CR), **UR**, **WS** (TM, TK, KM, AL), **ES** (KR, YA). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Australia (introduced).
- Bombus (Sibiricobombus) asiaticus** Morawitz, 1875. Russia: **WS** (AL), **ES** (TU). – Afghanistan, Pakistan, Central Asia, Mongolia, China (NW, NC, WP), India, Nepal.
- Bombus (Sibiricobombus) niveatus** Kriechbaumer, 1870. Russia: **EP** (NC). – Europe (SE, EE), Turkey, Syria, Lebanon, Iran, Turkmenistan.
- Bombus (Sibiricobombus) sibiricus** (Fabricius, 1781) [Apis]. Russia: **ES** (KS, TU, KR, IR, BR, ZB). – Kazakhstan, Mongolia, China (NE, NC, NW, WP), Korean Peninsula.
- Bombus (Subterraneobombus) amurensis** Radozkowski, 1862 (*B. fragrans mongol* Skorikov, 1931). Russia: **ES** (KS, KR, BR, ZB). – Kazakhstan, Mongolia, China (NC, NW).
- Bombus (Subterraneobombus) distinguendus** Morawitz, 1869. Russia: **EP** (N, NW, C, E, S, NC), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (KH, PR, SA, KA, MG). – Europe (WE, NE, SE, EE), Uzbekistan, Kazakhstan, Mongolia, N America.
- Bombus (Subterraneobombus) fragrans** (Pallas, 1771) [Apis]. Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (OM, NS, AL), **ES** (KS, TU, KR, BR). – Europe (WE, SE, EE), Caucasus, Turkey, Iran, Kyrgyzstan, Kazakhstan, China (NW).

- Bombus (Subterraneobombus) melanurus** Lepeletier de Saint-Fargeau, 1836. Russia: **WS** (AL), **ES** (TU). – Caucasus, Turkey, Lebanon, Iran, Afghanistan, Central Asia, Mongolia, China (NC, NW, WP), India, Nepal.
- Bombus (Subterraneobombus) subterraneus** (Linnaeus, 1758) [Apis]. Russia: **EP** (N, NW, C, E, NC, CR), **UR**, **WS** (OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, ZB). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Kyrgyzstan, Kazakhstan, Mongolia, China (NC, NW), New Zeland (introduced).
- Bombus (Subterraneobombus) tshitscherini** Radoszkowski, 1862. Russia: **WS** (AL), **ES** (TU, BR, ZB). – Mongolia, China (NC, NW).
- Bombus (Thoracobombus) anachoreta** (Skorikov, 1914) [Agrobombus] (*Agrobombus anachoreta czer-skiellus* Skorikov, 1914). Russia: **FE** (PR). – China (NE, NC), Korean Peninsula.
- Bombus (Thoracobombus) armeniacus** Radoszkowski, 1877 (*B. dumoucheli* auct., nec Radoszkowski, 1884; *Fervidobombus scythes* Skorikov, 1925). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (OM, NS, KM, AL), **ES** (KS, TU, KR). – Europe (SE, EE), Caucasus, Turkey, Iraq, Iran, Central Asia, Kazakhstan, China (WP).
- Bombus (Thoracobombus) deuteronymus** Schulz, 1906 (*B. subbaicalensis* auct., nec. Vogt, 1911; *B. humilis* Illiger, 1806; *Agrobombus superequester* Skorikov, 1926). Russia: **EP** (NW, C, E), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KR, IR, BR, YA, ZB), **FE** (AM, PR, SA). – Europe (SE, EE), Kazakhstan, Mongolia, China (NE, NC, WP), Korean Peninsula, Japan (Hok).
- Bombus (Thoracobombus) exil** Skorikov, 1922 (*B. nymphae* Skorikov, 1910). Russia: **ES** (TU, IR, YA, ZB). – Mongolia, China (NC).
- Bombus (Thoracobombus) filchnerae** Vogt, 1908 (*Agrobombus adventor* Skorikov, 1914; *A. a. ermola-jevi* Skorikov, 1914; *A. a. napalkovi* Skorikov, 1914). Russia: **WS** (AL), **ES** (KS, TU, KR). – Mongolia, China (N).
- Bombus (Thoracobombus) humilis** Illiger, 1806 (*B. solstitialis* Panzer, 1806; *B. helferanus* Seidl, 1838; *B. tristis* Seidl, 1838; *B. variabilis* Schmiedeknecht, 1878; *B. helferanus subbaicalensis* Vogt, 1911). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Kazakhstan, Mongolia, China (NW, NC, NE, SE), Korean Peninsula.
- Bombus (Thoracobombus) laesus** Morawitz, 1875 (*B. laesus ferrugifer* Skorikov, 1909). Russia: **EP** (C, E, S, NC, CR), **UR**, **WS** (OM, NS, AL), **ES** (KR). – Europe (WE, SE, EE), Caucasus, Turkey, Iran, Central Asia, Kazakhstan.
- Bombus (Thoracobombus) mesomelas** Gerstäcker, 1869. Russia: **EP** (NC, CR). – Europe (WE, SE, EE), Caucasus, Turkey, Iran.
- Bombus (Thoracobombus) mlokosievitzii** Radoszkowski, 1877. Russia: **EP** (NC). – Europe (SE), Caucasus, Turkey, Iran.
- Bombus (Thoracobombus) mocsaryi** Kriechbaumer, 1877 (*B. mocsaryi sidemii* Radoszkowski, 1888; *Agrobombus maculidorsis* Skorikov, 1922; *Bombus maculidorsis angarensis* Panfilov, 1956). Russia: **EP** (N, NW, C, E), **UR**, **WS** (TM, OM, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, ZB), **FE** (PR). – Europe (WE, NE, SE, EE), N Africa Kazakhstan, Mongolia, China (NE, NC, SE), Korean Peninsula.
- Bombus (Thoracobombus) muscorum** (Linnaeus, 1758) [Apis]. Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Kyrgyzstan, Kazakhstan, Mongolia, China (NE, NC).
- Bombus (Thoracobombus) pascuorum** (Scopoli, 1763) [Apis] (*Apis agrorum* Fabricius, 1787; *Bombus agrorum flavobarbatus* sensu Skorikov, 1915). Russia: **EP** (N, NW, C, E, S, NC, CR), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA), **FE** (AM, KH, PR, SA, KA, MG). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Syria, Iran, Kazakhstan, Mongolia, China (NC, NW), Korean Peninsula.
- Bombus (Thoracobombus) persicus** Radoszkowski, 1881. Russia: **EP** (NC). – Caucasus, Turkey, Iran.
- Bombus (Thoracobombus) pomorum** (Panzer, 1805) [Bremus]. Russia: **EP** (C, E, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), Caucasus, Turkey.
- Bombus (Thoracobombus) pseudobaicalensis** Vogt, 1911 (*Agrobombus gilvus* Skorikov, 1925). Russia: **WS** (TM, TK, NS, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU). – Mongolia, China (N), Korean Peninsula, Japan (Hok, Hon).
- Bombus (Thoracobombus) ruderarius** (Müller, 1776) [Apis]. Russia: **EP** (N, NW, C, E, NC), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR, BR, YA, ZB). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Iran, Central Asia, Kazakhstan.
- Bombus (Thoracobombus) schrencki** Morawitz, 1881 (*Agrobombus schrencki mironowianus* Vogt, 1911;

*A. schrencki albidopleuralis* Skorikov, 1915; *Bombus konakovi* Panfilov, 1956; *B. schrencki kuwayamai* Sakagami et Ishikawa, 1969). Russia: **EP** (N, NW, C, E), **UR**, **WS** (TM, OM, TK, NS, KM, AL), **ES** (KS, TU, KR, BR, YA, ZB), **FE** (AM, KH, PR, SA, KU, KA, MG). – Europe (NE, EE), Kazakhstan, China (NC), Korean Peninsula, Japan (Hok).

**Bombus (Thoracobombus) sylvarum** (Linnaeus, 1761) [Apis] (*B. daghestanicus* Radoszkowski, 1877). Russia: **EP** (NW, C, E, S, NC, CR), **UR**, **WS** (OM, NS, AL). – Europe (WE, NE, SE, EE), Caucasus, Turkey, Syria, Iran, Kazakhstan.

**Bombus (Thoracobombus) tricornis** Radoszkowski, 1888 (*B. tricornis biciliatus* Skorikov, 1915; *B. t. triciliatus* Skorikov, 1915). Russia: **FE** (AM, KH, PR). – China (NE, NC), Korean Peninsula.

**Bombus (Thoracobombus) velox** (Skorikov, 1914) [Agrobombus]. Russia: **EP** (NC). – Turkey.

**Bombus (Thoracobombus) veteranus** (Fabricius, 1793) [Apis] (*B. equestris* auct., nec Fabricius, 1793). Russia: **EP** (N, NW, C, E), **UR**, **WS** (OM, TK, NS, KM, AL), **ES** (KS, TU, KR, IR). – Europe (WE, NE, SE, EE), Central Asia, Kazakhstan, Mongolia.

**Bombus (Thoracobombus) zonatus** Smith, 1854. Russia: **EP** (S, NC, CR). – Europe (SE, EE), Caucasus, Turkey, Iran.

#### Tribe APINI

**APIS** Linnaeus, 1758 (*Apicula* Rafineque, 1814; *Apiarus* Rafineque, 1815; *Megapis* Ashmead, 1904; *Hauffapis* Armbruster, 1938). Type species *Apis mellifera* Linnaeus, 1761. Live in huge family in wax nest with honey reserve. Number of taxa: World – 11 originally Old World and mostly Oriental species; Palaearctic – 3; Russia – 2.

**Apis cerana** Fabricius, 1793 (*A. indica* Fabricius, 1798; *A. sinensis* Smith, 1865; *A. mellifera* var. *japonica* Radoszkowski, 1887; *A. johni* Skorikov, 1929; *A. indica sinensis ussuriensis* Goetze, 1964). Russia: **FE** (KH, AM, PR). – Afghanistan, Pakistan, India, Sri-Lanka, Nepal, China, Korean Peninsula, Japan, N Vietnam, Thailand, Philippines, Malaysia, Indonesia.

**Apis mellifera** Linnaeus, 1758. Cosmopolitan all-world cultivated species.

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## INDEX OF LATIN NAMES OF HYMENOPTERA

(**bold** is given for family-group names, *italic* for: synonyms, nomina nuda, wrong names, and generic names, when current combination is different from original combination).

- 14-notatus*, Oxybelus 243  
*2-cincta*, Tenthredo 97  
*3-cincta*, Tenthredo 97  
*4-cincta*, Tenthredo 97  
*4-fasciata*, Tenthredo 30  
*4-maculata*, Vespa 196  
*4-notatus*, Oxybelus 243  
*4punctatus*, Crabro 230  
*5 maculatus*, Blepharipus 227  
*5-macutatus*, Crabro 230  
*6-maculatus*, Crabro 232  
*8 maculata*, Crabro 231  
*8-notatus*, Solenius 232
- aaliensis, Tenthredo, *Pachyprotasis* 91  
 abbreviata, Pristiphora, *Nematus* 70  
 abdominalis, Ammobatoides, *Phileremus* 318  
*abdominalis*, Cimbex femorata 29  
 abdominalis, Dolerus 40  
*abdominalis*, Hylaeus 282  
 abdominalis, Lipotriches 291  
 abdominalis, Monostegia, *Tenthredo* 43  
 abdominalis, Tenthredo, *Tenthredopsis* 97  
*abdominalis*, Tiphia 218  
 abdominis, Taxonus 43  
 abeillei, Chrysis 142  
 abeillei, Ponera 209  
 aberrans, Andrena 274  
 aberrans, Anoplius 172  
*aberrans*, Anoplius 172  
*aberrans*, Crabro 234  
*aberrans*, Nomada 315  
*aberrans*, Stelis 318  
*aberrans*, Stizus 224  
 aberrans, Thyreus, *Crocisa* 326  
 Abia 28  
 abieticola, Gilpinia, *Lophyrus* 33  
*abietina*, Lyda 102  
 abietina, Pristiphora, *Tenthredo* 70  
*abietina*, Tenthredo 70  
*abietinus*, Nematus 70  
 abietinus, Orussus, *Sphex* 117  
 abietis, Cephalcia, *Tenthredo* 102  
*abietis*, Lophyrus 33  
*abietum*, Tenthredo 70  
**Abiinae** 28  
*abjecta*, Tenthredo 93  
*ablatus*, Tachysphex 239  
 Ablepharipus 227  
 abnormis, Arachnospila, *Pompilus* 168  
 abnormis, Euura, *Nematus* 55  
 abnormis, Odontocrabro 235  
 abnormis, Polemistus, *Passaloecus* 249  
 abnormis, Sierolomorpha, *Tiphia* 151  
*abnormis*, Strongylogaster 39  
*aborigenica*, Myrmica 205  
 aborigensis, Euura, *Eupontania* 55  
 aborigensis, Hylaeus 259  
*abortiva*, Euura 56  
 Abrupta subg. 259  
 absens, Fenusa 48  
**Absentia** 90  
*absimilis*, Pteronidea 57  
*absoluta*, Andrena marginata var. 268  
*abyssinicus*, Sphexodes hispanicus 289  
*Acanthocnema* 101  
 Acanthocrabro 227  
*Acantholepis* 202  
 Acantholyda 101  
 Acantholyda subg. 101  
*Acanthonomada* 311  
 acanthophorus, Crossocerus, *Crabro* 231  
*Acanthoptenos* 22  
*Acarepipona* 178  
*accola*, Cerckeris 255  
*accuratus*, Loderus 79  
*Aceratosmia* 297  
 acerbum, Lasioglossum, *Halictus* obscuratum 285  
*acerbus*, Loderus 77  
 aceris, Heterarthrus, *Phyllotoma* 49  
*aceris*, Phyllotoma 49  
*aceris*, Pteronidea 64  
 aceroides, Heterarthrus, *Phyllotoma* 49  
*Aceropales* 160  
*acerosus*, Nematus 64  
*acerrima*, Tenthredo 96  
*acervolum*, Lasioglossum 281  
*acervorum*, Apis auct. 323  
 acervorum, Formica 204  
 acervorum, Leptothorax, *Formica* 204  
*Achaetoprion* 77  
 Achaetoprion subg. 77  
*achaeus*, Leptochilus limbiferus 185  
*Achrysis* 141  
 Aciandrena subg. 263  
 aciculata, Andrena 263  
*aciculatus*, Crabro 233  
*aciculatus*, Halictus brevicornis 282  
 aciculatus, Messor, *Aphaenogaster* 204  
*Aclastocera* 145  
*Acolpus* 256  
 Acrepyris 123  
*acriculus*, Loderus 78  
*acris*, Apis 267  
*acrobates*, Tachytes 238  
*Acrodontochelys* 120  
*Actenopoda* 166  
**Aculeata** 118  
 aculeata, Stelis 302  
*acuminata*, Apis 305  
*acuminata*, Coelioxys 304  
*acuminata*, Euura 64  
 acuminatus, Nematinus, *Nematus* 68  
 acuta, Ceratina 310  
*acuta*, Coelioxys 305  
 acuta, Euura, *Amauronematus* 55  
*acutangula*, Tetrалonia 322  
 acuticornis, Hoplitis, *Osmia* 296  
*acuticornis*, Oxybelus 243  
*acuticrista*, Lasioglossum 281  
 acutidens, Pristiphora 70  
 acutifoliae, Euura, *Pontania* 55  
*acutinodis*, Leptothorax tuberum 208  
 acutiserra, Euura, *Pontania* 56  
 Acutopterocheilus subg. 187  
 adamantis, Metallus 50  
*Adamas* 40  
 adelpha, Ammophila 212  
 adelpha, Cerckeris 252  
*adelungi*, Pristiphora 72  
 ademonia, Myrmica 205  
*adi*, Camponotus fedtschenkoi var. 199  
*Adipogon* 164  
*Adirostes* 161  
*Adirus* 110  
 adjikenticus, Halictus 277  
 Adonta subg. 161  
 adulterina, Dolichovespula, *Vespa* 194  
*adumbrata*, Tenthredo 45  
 adunca, Hoplitis, *Apis* 297  
*aduncoides*, Osmia 297  
 aduncta, Apis 296  
*Adungia* 89  
*adusta*, Amasis obscura 32  
*adusta*, Lyda 102  
 adusta, Tenthredo 91  
*adusta*, Tetrалonia 322  
*adustus*, Microdynerus timidus 186  
 adventicium, Hedychridium 128  
*adventor*, Agrobombus 331  
 adversa, Dasylabris 153  
 adversa, Dasylabris italica var. 153  
*adzhariicum*, Trypoxylon 245  
 aeger, Euura, *Amauronematus* 56  
*aeginus*, Halictus 284  
*aegra*, Tenthredo 96  
*aegyptiaca*, Coelioxys 305  
*aegyptiaca*, Vespa 194  
*aegyptiaca*, Vespa orientalis var. 194  
*aegyptiacus*, Halictus quadricinctus 277  
*aegyptica*, Megachile 305  
*aegypticola*, Halictus 277  
 aegyptiellum, Lasioglossum, *Halictus* 280  
 aegyptius, Lindenius, *Crabro* 234  
*aegyptorum*, Anthophora atricilla 324  
 aello, Chrysis 133  
*aemula*, Andrena 269

- aemula*, *Dolerus tremulus* 77  
*aemulans*, *Hoplammophila*,  
*Ammophila* 213  
*aemulus*, *Amauronematus* 65  
*aemulus*, *Hylaeus* 261  
*Aenandrena* subg. 263  
*aenea*, *Abia*, *Cimbex* 28  
*aenea*, *Apis* 298  
*aenea*, *Ceratina* 310  
*aenea*, *Chrysis* 131  
*aeneidorsum*, *Halictus* 285  
*aeneipennis*, *Vespa* 179  
*aeneiventris*, *Andrena* 263  
*aeneiventris*, *Anthophora* 324  
*aeneopaca*, *Chrysis longula* 136  
*aeneovarius*, *Pachycephus* 110  
*aeneoviridescens*, *Arge dimidiata* 23  
*aenescens*, *Cataglyphis*, *Formica* 199  
*aenescens*, *Crabro* 234  
*aenescens*, *Hylotoma* 23  
*aenescens*, *Nomioides* 279  
*aenescens*, *Rhogastera* 93  
*aenescens*, *Trichosoma* 30  
*aeneus*, *Cladius* 54  
*aeneus*, *Dolerus* 79  
*aeneus*, *Omalus*, *Chrysis* 131  
*Aenoabia* 28  
*aequalis*, *Cladius* 54  
*aequisculptus*, *Stenodynerus*  
*inaequisculptus* 189  
*aequisculptus*, *Stenodynerus*,  
*Odynerus* 189  
*aerarius*, *Halictus* 278  
*aeratum*, *Lasioglossum*, *Melitta* 282  
*aereum*, *Hedychrum simile* 130  
*aericeps*, *Dolerus* 77  
*aerosus*, *Cleptes aerosus* 126  
*aeruginosus*, *Anoplius*, *Pompilus* 172  
*aestiva*, *Andrena* 267  
*aestiva*, *Chrysis* 133  
*aestivalis*, *Andrena nitida* var. 269  
*aestivalis*, *Anthophora*, *Apis* 325  
*aestivalis*, *Nomada fabriciana* var. 312  
*aestivus*, *Nematus* 64  
*aethiops*, *Andrena* 270  
*aethiops*, *Camponotus*, *Formica* 199  
*aethiops*, *Endelomyia*, *Tenthredo* 46  
*Aethomegachile* subg. 305  
*afasciata*, *Smicromyrme orientalis* f. 156  
*afér*, *Cleptes* 142  
*afér*, *Coelioxys* 304  
*afér*, *Sphex* 216  
*affine*, *Lasioglossum*, *Halictus* 282  
*affinis*, *Anthophora* 324  
*affinis*, *Cephus* 110  
*affinis*, *Crabro* 227  
*affinis*, *Crossocerus* 227, 229  
*affinis*, *Halidamia*, *Hylotoma* 48  
*affinis*, *Harpactus*, *Gorytes* 223  
*affinis*, *Hartigia* 111  
*affinis*, *Hylaeus* 260, 284  
*affinis*, *Hylotoma* 48  
*affinis*, *Lasius* 201  
*affinis*, *Lasius* auct. 201  
*affinis*, *Melitta* 268  
*affinis*, *Odynerus* 179  
*affinis*, *Osmia* 298  
*affinis*, *Oxybelus* 242  
*affinis*, *Pachynematus* 58  
*affinis*, *Palarus* 243  
*affinis*, *Podalonia*, *Ammophila* 213  
*affinis*, *Pompilus* 161, 173  
*affinis*, *Pristiphora*, *Lygaeonematus* 70  
*affinis*, *Psen* 251  
*affinis*, *Sphecodes* 288  
*affinis*, *Temnothorax*, *Leptothorax* 208  
*affinis*, *Thyreus*, *Crocisa* 326  
*affinissimus*, *Eumenes* 181  
*affinis*, *Megachile* 305  
*afghaniensis*, *Sphex* 215  
*afra*, *Anthophora albigena* 323  
*africana*, *Empria* 41  
*africanus*, *Holepyris* 123  
*africanus*, *Metrionotus* 124  
*africanus*, *Sphecodes* 287  
*africanus*, *Tachysphex julliani* 238  
*Afrisobrachium* 123  
*afromontana*, *Pseudepipona*  
*herrichii* 188  
*afzeliella*, *Melitta* 274  
*agelastum*, *Lasioglossum* 280  
*Agenia* 164  
*agenia*, *Priocnemis*, *Salix* 163  
**Ageniellina** 165  
**Ageniellini** 165  
*Agenioideus* 167  
*Agenioideus* subg. 167  
*Agenioxenus* 160  
*Agenocimbex* 29  
*Agenioideus* 167  
*agilis*, *Apis* 305  
*agilis*, *Astata* 218  
*agilis*, *Nematus* 70  
*agilis*, *Phyllocus*, *Cephus* 110  
*agilis*, *Priocnemis*, *Pompilus* 163  
*agilis*, *Tenthredo* 38, 39  
*agilis*, *Tiphia* 150  
*aglaia*, *Acantholyda aglaia* 101  
*Aglaopis* 303  
*Aglaostigma* 83  
*Aglaostigma* subg. 83  
*agnani*, *Macrophya albicincta* 84  
*agnolii*, *Elampus* 127  
*agnolii*, *Pseudomalus* 132  
*Agnosicrabro* 225  
*agona*, *Coelioxys rufescens* var. 304  
*Agonatopoides* 120  
*Agonatopus* 120  
*Agraptus* 224  
*agraria*, *Andrena bicolor* ssp. 267  
*agrestis*, *Crabro* 232  
*agrestis*, *Tenthredo* 104  
*agrimoniae*, *Fenella* 48  
*agrimoniae*, *Macrocephus* 110  
*agrorum*, *Apis* 331  
*agrorum*, *Taxonus*, *Tenthredo* 43  
*agyo*, *Crossocerus dimidiatus* 230  
*aheneum*, *Hedychridium*,  
*Hedychrum* 128  
*ahngeri*, *Athalia* 44  
*ahngeri*, *Myrmica scabrinodis* var. 206  
*aihinoensis*, *Heterarthrus* 49  
*aino*, *Andrena* 263  
*aino*, *Anoplolyda viriditibialis* 105  
*aino*, *Crabro* 227  
*aino*, *Gorytes* 222  
*aino*, *Sphecodes* 289  
*Ainocrabro* 227  
*ainu*, *Arachnospila* 169  
*aiunensis*, *Gastrosericus* 236  
*ajnu*, *Paramasaakia* 51  
*akazui*, *Xiphidria* 115  
*akitonus*, *Sphecodes* 289  
*aksuense*, *Lasioglossum* 280  
*alabastripes*, *Eriocampa* 39  
*alagesianus*, *Bombus* 329  
*alaica*, *Anthophora aestivalis* 325  
*alaicus*, *Leptothorax tuberum* 208  
*alamannicus*, *Evagetes*, *Pompilus* 170  
*alashanica*, *Cephalcia*, *Cephaleia* 102  
*alaskana*, *Tenthredo*, *Allantus* 96  
*Alastor* 178  
*Alastor* subg. 178  
*Alastorellus* subg. 178  
*alastoroides*, *Microdynerus* 186  
*Alastorynerus* subg. 186  
*alata*, *Lestica*, *Crabro* 234  
*alatus*, *Crabro* 232  
*alatus*, *Coelioxys* 304  
*albamacula*, *Tenthredo* 85  
*albanica*, *Chrysis* 133  
*albanica*, *Chrysis succincta* var. 133  
*albarius*, *Halictus* 277  
*albata*, *Tenthredo* 91  
*albata*, *Tenthredopsis* 100  
*albata*, *Tenthredopsis austriaca* 99  
*albellus*, *Polistes* 192  
*albellus*, *Polistes foederatus* 192  
*albeola*, *Mutilla* 153  
*albertii*, *Dolerus* 79  
*albescens*, *Anthophora*  
*quadrifasciata* var. 322  
*albibarbis*, *Andrena* 273  
*albicans*, *Apis* auct. 275  
*albicarpus*, *Nematus* 63  
*albicaudata*, *Andrena* 265  
*albiceps*, *Stromboceros delicatulus* 82  
*albicilla*, *Andrena flavobila* ssp. 271  
*albicilla*, *Megachile* 307  
*albicincta*, *Ceropales*, *Evania*  
*albicincta* 160  
*albicincta*, *Macrophya*, *Tenthredo* 84  
*albicincta*, *Tarpa* 107  
*albicinctus*, *Allantus*, *Dolerus* 38  
*albiclypeata*, *Deuteragenia*,  
*Dipogon* 164  
*albiclypeata*, *Tetralonia*  
*salicariae* var. 322  
*albicollis*, *Andrena ephippium* var. 269

- albicolon*, *Tenthredo coryli* 95  
*albicolor*, *Cerceris* 252  
*albicornis*, *Siobla ruficornis* 89  
*albicornis*, *Tenthredo* 91, 95  
*albicruris*, *Hylotoma* 24  
*albicrus*, *Melitta* 268  
*albida*, *Anthophora albigena* var. 323  
*albida*, *Megachile analis* var. 307  
*albida*, *Megachile lefebvrei* var. 305  
*albida*, *Periclista*, *Tenthredo* 51  
*albidemaculata*, *Nomada* 311  
*albidicollis*, *Anteon* 118  
*albidopleuralis*, *Agrobombus schrencki* 332  
*albidulum*, *Anthidium* 301  
*albidulus*, *Gorytes*, *Hoplisis* 222  
*albidus*, *Euodynerus disconotatus* 183  
*albidus*, *Neogonatopus* auct. 121  
*albidus*, *Polistes atrimandibularis* 192  
*albifrons*, *Anthophora* 324  
*albifrons*, *Apis* 267  
*albifrons*, *Auplopus*, *Pompilus* 165  
*albifrons*, *Dolerus*, *Dosytheus gilvipes* 79  
*albifrons*, *Lyda* 103  
*albifrons*, *Melecta*, *Apis* 325  
*albigena*, *Amegilla*, *Anthophora* 322  
*albilabris*, *Apis* 272  
*albilabris*, *Crabro* 234  
*albilabris*, *Euspongus* 222  
*albilabris*, *Hylaeus* 310  
*albilabris*, *Lindeni*, *Crabro* 234  
*albilabris*, *Nematus* 70  
*albilabris*, *Pristiphora*, *Nematus* 70  
*albilabris*, *Sphecodes*, *Nomada* 287  
*albilabris*, *Tenthredo* 85  
*albimacula*, *Macrophya* 85  
*albimacula*, *Tenthredella balteata* 94  
*albimana*, *Tenthredo* 86  
*albinasata*, *Prosopis* 262  
*albipalpis*, *Tenthredo* 84  
*albipennis*, *Elampus*, *Ellampus* 127  
*albipennis*, *Euura*, *Nematus* 56  
*albipennis*, *Periclista*, *Selandria* 51  
*albipes*, *Ametastegia*, *Taxonus* 39  
*albipes*, *Andrena* 267  
*albipes*, *Aphelopus* 118  
*albipes*, *Armitarsus* 84  
*albipes*, *Ceraphron* 118  
*albipes*, *Cladius* 54  
*albipes*, *Eriocampa* 42  
*albipes*, *Lasioglossum*, *Apis albipes* 282  
*albipes*, *Metallus*, *Phaenusa* 50  
*albipes*, *Podalirius acervorum* var. 323  
*albipes*, *Tenthredo* 50  
*albipes*, *Tenthredo* 50, 54, 76, 84  
*albipleuris*, *Tenthredopsis* 100  
*albipuncta*, *Macrophya*, *Tenthredo* 84  
*albisca*, *Osmia fulviventris* 298  
*albisecta*, *Megachile*, *Anthophora* 305  
*albisectus*, *Sphex* 215  
*albisternus*, *Emphytus* 43  
*albitarsis*, *Hylaeus* 283  
*albitarsis*, *Macrophya* 87  
*albitarsis*, *Macrophya sanguinolenta* 86  
*albitibia*, *Pristiphora*, *Nematus* 70  
*albiventre*, *Anthidium* 300  
*albiventris*, *Tenthredo*, *Allantus albiventris* 96  
*alboannulata*, *Tenthredo*, *Tenthredella* 93  
*albiciliata*, *Crocisa ramosa* var. 327  
*albiciliatus*, *Hortobombus consobrinus* 328  
*albicincta*, *Andrena* 268  
*albicincta*, *Nomia* 291  
*albicinctus*, *Bombus lucorum* 327  
*albicineta*, *Megachile* 306  
*alboclypea*, *Filixungulia* 42  
*albofasciata*, *Andrena* 274  
*albofasciata*, *Cerceris*, *Vespa* 252  
*albofasciata*, *Eucera* 320  
*albofasciata*, *Melitta* 294  
*albofasciatum*, *Anthidium punctatum* var. 301  
*albofimbriata*, *Andrena* 274  
*alboguttata*, *Nomada* 311  
*albohirta*, *Megachile lagopoda* 307  
*albolapidaria*, *Macrophya* 85  
*albomaculata*, *Anthophora* 324  
*albomaculata*, *Megachile lefebvrei* var. 305  
*albomaculata*, *Poecilotiphia* 150  
*albomaculatus*, *Colletes*, *Halictus* 257  
*albomaculatus*, *Nomada* 319  
*albomaculatus*, *Tenthredopsis* 99  
*albonotata*, *Cerceris* 254  
*albonotata*, *Tenthredopsis stigma* 100  
*albonotatum*, *Episyrion*, *Pompilus* 166  
*albopicta*, *Euura*, *Pontania* 56  
*albopicta*, *Tenthredo* 93  
*albopictus*, *Odynerus* 187  
*albopictus*, *Pamphilus*, *Lyda* 104  
*albopilosum*, *Trichosoma* 30  
*albopilosus*, *Psen* 250  
*alboplagiata*, *Tenthredella cunyi* 94  
*alboplagiata*, *Tenthredopsis tessellata* 100  
*albopunctata*, *Andrena*, *Apis* 268  
*albopunctata*, *Eucera* 320  
*albopunctata*, *Tenthredo* 98  
*albopunctatus*, *Oryssus* 117  
*alborufa*, *Eucera*, *Tetralonia* 321  
*alborufa*, *Osmia* 298  
*alboscutellata*, *Crocisa histrionica* var. 327  
*albotricinctus*, *Odynerus* 179  
*albovaria*, *Ametastegia*, *Emphytina* 39  
*albovaria*, *Melecta* 326  
*albrechti*, *Dryinus*, *Richardsidryinus* 120  
*albufeirus*, *Miscophus* 240  
*alces*, *Tenthredo* 54  
*alchymista*, *Tremex* 113  
*Alcidamea* subg. 296  
*aldrichi*, *Odynerus* 188  
*alecto*, *Melecta* 326  
*alector*, *Empria* 40  
*alemannia*, *Andrena pectoralis* var. 269  
*Alepidaspis* 242  
*alexandrina*, *Andrena flavipes* ssp. 275  
*alexii*, *Hedychrum* 130  
*alexoides*, *Halictus* 278  
*Alfiera* 180  
*Alfkenella* 322  
*alfkenella*, *Andrena* 270  
*alfkeni*, *Andrena rosae* var. 267  
*alfkeni*, *Nomada obscura* var. 315  
*alfkeni*, *Schizocera* 26  
*alga*, *Andrena minutula* ssp. 270  
*algerica*, *Amasis crassicornis* 32  
*algerica*, *Fertonella* 297  
*algericoellus*, *Halictus* 285  
*algeriensis*, *Andrena nitida* var. 269  
*algeriensis*, *Ceratina callosa* 310  
*algeriensis*, *Coelioxys aurolimbata* var. 305  
*algeriensis*, *Odynerus* 184  
*algeriensis*, *Sphecodes reticulatus* 287  
*algira*, *Andrena lucens* var. 271  
*algira*, *Ferreola* 166  
*algira*, *Tachysphex* 239  
*algius*, *Sphecodes pellucidus* 289  
*Alicrabro* 227  
*alienatus*, *Hylaeus* 259  
*alienatus*, *Nematus* 60  
*alienonigra*, *Lasius niger* var. 202  
*alienus*, *Lasius*, *Formica* 202  
*alienus*, *Pompilus* 225  
*alinae*, *Temnothorax*, *Leptothorax* 208  
*alinae*, *Tracheliodes* 236  
*alinense*, *Lasioglossum*, *Halictus* 280  
*alini*, *Colletes* 257  
*alius*, *Epyris* 123  
*alius*, *Odynerus* 179  
*aljkeni*, *Megachile lagopoda* 307  
*aljkeni*, *Nomada* 312, 315  
*Allanteon* 118  
*allantiformis*, *Leptocimbex*, *Clavellaria* 30  
**Allantinae** 37, 43  
*Allantus* 37  
*Allantus* 89  
*Allantus* subg. 37  
*allegrus*, *Ancistrocerus antilope* 178  
*Allepyris* 123  
*alhiaria*, *Andrena* 273  
*Alliognathus* 235  
*allobrogus*, *Symmorphus*, *Odynerus* 190  
*Allocimbex* 29  
*Allocoelioxys* subg. 304  
*allodalum*, *Lasioglossum* 282  
*Allodynerus* 178  
*Allogonatopus* 120  
*Allomutilla* 153  
*Alloridestus* 167  
*allosa*, *Andrena* 267  
*Alloscenia* 22  
*Allosmia* subg. 297



- Alloesopula* 195  
 Alloxylocopa subg. 309  
*almasyana*, Haba, *Holopyga* 128  
*almasyana*, *Holopyga* 128  
*almasyanus*, Allantus 97  
*alneti*, Tenthredo 69, 99  
*alni*, Psen 105  
*alni*, Tenthredo 67, 69  
*alniastri*, Nematius, *Tenthredo* 69  
*alnicola*, Nematius 70  
*alnicola*, Pamphilius 104  
*alnicola*, Tenthredo 70  
*alnina*, Tenthredo 68  
*alnivaga*, Tenthredo 29  
*alnivora*, Xiphodria 115  
*alnivorus*, Heterarthrus 49  
*alnivorus*, Nematius 70  
*alnivorus*, Pamphilius 104  
**Alocandreninae** 263  
*Alocochrysis* 141  
*alpestris*, Halictus 280  
*alpestris*, Leptochilus, *Odynerus* 185  
*alpestris*, Myrmica lobicornis 206  
*alpestris*, Pristiphora, *Pachynematus* 70  
*alpestris*, Sphecodes rufescens 288  
*Alpha* 181  
*Alphadryinus* 120  
 Alphastromboceros 75  
*alpicola*, Andrena gallica ssp. 269  
*alpicola*, Euura, *Amauronematus* 56  
*alpicola*, Halictus alipes 282  
*alpicola*, Lygaeonematus 72  
*alpicola*, Megachile 306  
*alpicola*, Odynerus parvulus var. 180  
*alpigena*, Allantus arcuatus 96  
*Alpigenixyela* 20  
 Alpigenobombus subg. 327  
*alpina*, Andrena 264, 268  
*alpina*, Athalia 44  
*alpina*, Cephalcia, *Lyda* 102  
*alpina*, Empria 40  
*alpina*, Hoplocampa, *Tenthredo* 67  
*alpina*, Nomada robertjeotiana var. 315  
*alpina*, Perineura 83  
*alpina*, Podalonia, *Ammophila* 213  
*alpina*, Synairema 82  
*alpina*, Tenthredo velox 96  
*Alpinematus* 55  
*alpinobalticus*, Anoplius 172  
*alpinum*, Anthidium 301  
*alpinum*, Anthidium 302  
*alpinum*, Pseudoanthidium,  
*Anthidium* 302  
*alpinus*, Bombus, *Apis* 327  
*alpinus*, Colletes 258  
*alpinus*, Crabro 226  
*alpinus*, Epeolus 317  
*alpinus*, Nematius 71  
*alpinus*, Odynerus 186  
*alpinus*, Odynerus spinipes var. 186  
*alpinus*, Temnothorax, *Leptothorax* 208  
*alpinum*, Polistes biglumis 192  
*alpotanini*, Panurginus 276  
*alsia*, Messa 48  
*alsius*, *Amauronematus* 64  
*altaica*, Chrysis 143  
*altaica*, Andrena 273  
*altaica*, Anthophora 325  
*altaica*, Arge 22  
*altaica*, Arge 25  
*altaica*, Camponotus  
 herculeanus var. 198  
*altaica*, Tenthredo providus 98  
*altaica*, Vespa crabro var. 194  
*altaica*, Xylocopa 310  
*altaica*, Xylocopa nitidiventris 310  
*altaicum*, Camptopeum 276  
*altaicus*, Bombus 329  
*altaicus*, Crabro 226  
*altaicus*, Halictus 278  
*altaicus*, Hylaeus 259  
*altaicus*, Lindenius 235  
*altaicus*, Pamphilius 104  
*altaicus*, Passaloecus 248  
*altaicus*, Thyreus, *Crocisa* 326  
*altaiensis*, Podalonia, *Ammophila* 213  
*altercator*, Apis 293  
*altercator*, Dasypoda auct. 293  
*alternans*, Eucera, *Macrocera* 321  
*alternans*, Tenthredo 82  
*alternanus*, Odynerus 191  
*alternata*, Apis 313  
*alternatus*, Pompilus 162  
*alternatus*, Sphecodes 287  
*alternipes*, Clarendonia, *Tenthredo* 46  
*alticincta*, Tetralonella, *Macrocera* 321  
*alticinctus*, Loderus 77  
*alticola*, Anthophora vulpina 323  
*alticola*, Chrysuria, *Chrysis* 139  
*alticola*, Cilissa 294  
*alticola*, Pachynematus 57, 71  
*alticola*, Psen 251  
*alticolus*, Panurginus 276  
*alutacea*, Andrena 273  
*alutus*, Discolia 148  
*alvarabnormis*, Arachnospila,  
*Pompilus* 168  
*Alyson* 219  
*Alysson* 219  
*Alysson* 219  
**Alyssontini** 219  
*amabilis*, Scolia 148  
*amaculatus*, Platycampus 70  
*amadanensis*, Eustenancistrocerus,  
*Odynerus* 184  
*amaguella*, Megachile melanopyga 307  
*amaguensis*, Andrena 271  
*amaguensis*, Osmia 297  
*amakusensis*, Sphecodes 288  
*amala*, Senoclidea 53  
*amanda*, Melecta 326  
*amaniensis*, Andrena furcata var. 267  
*amanusense*, Anthidium 301  
*amasia*, Andrena 264  
*Amasis* 31  
*amaura*, Tenthredo 49  
*Amauronematus* 55  
*ambidens*, Tachytes 240  
*ambigua*, Andrena 272  
*ambigua*, Chrysis 133  
*ambigua*, Coelioxys 305  
*ambigua*, Sierola 151  
*ambigua*, Smicromyrme 155  
*ambigua*, Tenthredo 73, 99  
*ambiguum*, Tapinoma auct. 198  
*ambiguum*, Tapinoma erraticum 198  
*ambiguum*, Trypoxylon 244  
*ambiguus*, Crabro 227  
*ambiguus*, Elampus 128  
*ambiguus*, Epeoloides 319  
*ambiguus*, Epeoloides 319  
*ambiguus*, Gorytes 222  
*ambiguus*, Nematius 62  
*ambiguus*, Oxybelus 243  
*ambiguus*, Psen 252  
*Amblyellus* 168  
*Amblys* 297  
*amblystoma*, Nomada 316  
*amedei*, Eumenes 184  
 Amegilla 322  
 Amegilla subg. 322  
*amelanchieris*, *Amauronematus* 72  
*amentivora*, Pontania 56  
*amentorum*, Euura, *Nematius* 56  
*americana*, Dineura 67  
*americana*, Synairema 87  
*amerinae*, Euura, *Cynips* 56  
*amerinae*, Pseudoclavellaria,  
*Tenthredo* 30  
*amerinae*, Tenthredo 30  
 Ametastegia 39  
 Ametastegia subg. 39  
*amethistina*, Hylotoma 23  
 Ammatomus 220  
 Ammobates 318  
 Ammobates subg. 318  
**Ammobatini** 318  
 Ammobatoides 318  
**Ammobatoidini** 318  
 Ammophila 212  
**Ammophilinae** 212  
*ammophiloides*, Trypoxylon 245  
 Ammoplanellus 246  
 Ammoplanus 246  
*Ammosphecidium* 241  
 Ammosphex subg. 168  
*amneris*, Chrysis 133  
*amoena*, Chrysis 140  
*amoena*, Corynis, *Cimbex* 31  
*amoena*, Pentachrysis, *Chrysis* 140  
*amoena*, Tenthredo 93  
*amoena*, Tenthredo 97  
*amoena*, Tetralonella 321  
*Amoeniformis* 31  
*amoenita*, Apis 300  
*amoenula*, *Holopyga* 131  
*amoenula*, *Holopyga* amoenula 131  
*amoenus*, Pompilus 174  
*amoorense*, Aglaostigma, *Tenthredo* 83

- amphibola, *Pristiphora*, *Nematus* 70  
 amphybolia, *Euxiphodria* 115  
 ampla, *Euura*, *Amauronematus* 56  
*amplificapitata*, *Tenthredo* 95  
*amplitarsis*, *Eucera* 320  
*Ampulex* 211  
**Ampulicidae** 211  
**Ampulicinae** 211  
*Ampulicomorpha* 122  
 amurense, *Lasioglossum*, *Halictus* 282  
 amurensis, *Agenioideus*,  
     *Psammochares* 167  
*amurensis*, *Andrena* 271  
 amurensis, *Anthidium* 300  
 amurensis, *Arachnospila*, *Pompilus* 170  
 amurensis, *Bombus* 330  
*amurensis*, *Calameuta* 108  
 amurensis, *Chrysis* 133  
 amurensis, *Cimbex* 29  
 amurensis, *Crossocerus*, *Crabro* 231  
 amurensis, *Euura*, *Pontania* 56  
*amurensis*, *Hoplomerus spinipes* 187  
 amurensis, *Macropis dimidiata* 293  
*amurensis*, *Macropis fulvipes* 293  
 amurensis, *Nomada* 311  
 amurensis, *Nysson* 220  
 amurensis, *Platycampus* 70  
 amurensis, *Priocnemis* 163  
*amurensis*, *Tenthredo* 83, 93  
 amurensis, *Xiphidriola* 116  
*amurica*, *Andrena* 271  
 amurica, *Tenthredo* 93  
*Anachoreta* 33  
 anachoreta, *Bombus*, *Agrobombus* 331  
*anachoreta*, *Lophyrus* 33  
*Anafenus* 45  
*analis*, *Allantus* 93  
*analis*, *Amauronematus* 65  
*analis*, *Andrena* 267  
*analis*, *Astabus* 108  
*analis*, *Athalia lineolata* 44  
*analis*, *Chrysis analis* 133  
*analis*, *Crabro* 230  
*analis*, *Dolerus* 80  
*analis*, *Halictus* 282  
*analis*, *Lithurgus* 295  
*analis*, *Megachile* 307  
*analis*, *Oxybelus* 242  
*analis*, *Periclista pubescens* 51  
*analis*, *Philanthus* 262  
*analis*, *Pontopristia* 59  
*analis*, *Selandria* 76  
*analis*, *Tenthredo* 99  
*analis*, *Vespa* 193  
 anastasiae, *Bothriomyrmex* 197  
 anathema, *Larra*, *Sphex* 236  
 anathema, *Sphex* 236  
*anatoliae*, *Odontodynerus*  
     *ephippium* 188  
 anatolica, *Andrena* 271  
*anatolica*, *Clavellaria amerinae* 30  
 anatolica, *Eoferreola* 174  
*anatolica*, *Halictus euboensis* 283  
 anatolica, *Pseudapis*, *Nomia* 292  
*anatolica*, *Systropha planidens* 291  
*anatolicus*, *Colletes tuberculatus* 259  
*anatolicus*, *Eumenes mediterraneus* 182  
*anatolicus*, *Heterarthrus vagans* 49  
*anatolicus*, *Leptochilus limbiferus* 185  
*anatolicus*, *Pasites oraniensis* 318  
*anatolicus*, *Sphex* 214  
 anatolii, *Dolerus* 79  
 anceps, *Arachnospila*, *Pompilus* 168  
 anceps, *Colletes* 257  
*anceps*, *Hoplilus* 223  
*anceps*, *Hylotoma* 25  
*anceps*, *Nematus* 64  
*ancilla*, *Athalia* 44  
*ancilla*, *Athalia ancilla* 44  
*ancilla*, *Pontania* 55  
*Ancistrocerus* 178  
*Ancistromma* 236  
*ancisus*, *Loderus* 77  
*Ancyla* 319  
**Ancylini** 319  
*andalusica*, *Nomada* 311  
*anderschi*, *Nematus* 73  
*andinus*, *Halictus* 285  
*andreae*, *Cephus* 109  
*andreae*, *Eucera* 320  
*andrei*, *Monoctenus* 35  
*andrei*, *Tenthredo* 92  
*Andrena* 263  
*Andrena* subg. 263  
**Andrenidae** 263  
**Andreninae** 263  
 andrenoides, *Osmia* 298  
*Andreas* subg. 149  
 anellum, *Lasioglossum*, *Halictus* 282  
 anemones, *Endophytus*, *Pelmatopus* 55  
 anemones, *Pelmatopus* 55  
*Anemphytus* 37  
*Anergates* 203  
*Aneugmenus* 75  
 angarensis, *Andrena* 274  
*angarensis*, *Bombus maculidorsis* 331  
*angarensis*, *Megachile* 307  
*angarensis*, *Miscophus* 241  
*angarensis*, *Phiarus* 318  
*angarensis*, *Sphcodes* 288  
*angarica*, *Acantholyda* 101  
 angaricum, *Lasioglossum*, *Halictus* 282  
 angelica, *Cerceris* 252  
*anglica*, *Andrena* 267  
*anglica*, *Hylotoma* 24  
*anglica*, *Vespa* 195  
*anglica*, *Vespa crabro* var. 194  
*anglicus*, *Nematus* 64  
 angolensis, *Chrysis* 133  
*angularis*, *Blennocampa subcana* 46  
*angularis*, *Pemphredon* 249  
*angularis*, *Tachysphex* 239  
*angulata*, *Osmia* 299  
 angulata, *Pristiphora* 70  
*angulata*, *Prosopis* 261  
*angulata*, *Vespa* 179  
*angulicollis*, *Psen* 250  
 angulinodis, *Myrmica* 205  
*angulinodis*, *Myrmica scabrinodis* 205  
*angulosa*, *Melitta* 264  
*angusta*, *Tenthredo* 80  
 angustata, *Caliroa* 45  
 angustata, *Ephutomma*,  
     *Smicromyrme* 155  
*angustata*, *Tenthredo* 38  
 angustata, *Thrinax*, *Hemitaxonus* 83  
 angustatus, *Hylaeus*, *Prosopis* 259  
*angustatus*, *Pachynematus* 65  
 angustatus, *Symmorphus*, *Odynerus* 191  
 angustatus, *Tachysphex* 237  
 angustifrons, *Chrysis angustifrons* 134  
*angustifrons*, *Philanthus* 255  
*angustipes*, *Andrena* 268  
 angustirostris, *Cerceris* 252  
*angustula*, *Anthophora* 299  
 angustula, *Chrysis angustula* 134  
*angustula*, *Tenthredo* 39  
*angustus*, *Nematus* 56  
*angustus*, *Passaloecus* 247  
*anhinga*, *Andrena florea* ssp. 273  
*Anisoneura* 40  
*anivskiensis*, *Pristiphora* 71  
*ankarae*, *Andrena* 270  
*Annosmia* 296  
*annulare*, *Anthidium* 301  
*annularis*, *Melitta* 260  
*annularis*, *Strongylogaster* 82  
*annularis*, *Tenthredo* 91, 95  
 annulata, *Euura*, *Nematus* 56  
*annulata*, *Lyda* 102  
 annulata, *Macrophya*, *Tenthredo* 84  
 annulata, *Prosopis* 259  
 annulata, *Sphex* 161  
*annulata*, *Sphex* 261  
 annulata, *Stelis*, *Anthidium* 302  
*annulata*, *Tenthredo* 44, 90  
*annulatus*, *Crabro* 29  
*annulatus*, *Crossocerus* 229  
 annulatus, *Crossocerus elongatulus* 229  
 annulatus, *Cryptocheilus*, *Sphex* 162  
*annulatus*, *Dolerus* 80  
 annulatus, *Harpactus* 223  
 annulatus, *Hylaeus*, *Apis* 259  
 annulatus, *Stizus*, *Larra* 225  
*annulatus*, *Urocera* 116  
 annulicornis, *Macrophya* 85  
 annuligera, *Tenthredopsis*, *Tenthredo* 98  
 annulipes, *Caliroa*, *Tenthredo* 45  
 annulipes, *Crossocerus*, *Blepharipus*  
     *annulipes* 227  
*annulipes*, *Dolerus* 77  
 annulipes, *Lasioglossum*, *Halictus* 282  
 annulitarsis, *Birka*, *Selandria* 76  
 annulitibia, *Macrophya* 85  
 annulitibia, *Xiphidria* 115  
*annulus*, *Crabro* 228  
 anomala, *Pseudapis* 292  
*anomala*, *Tenthredo* 43  
*anomalipes*, *Halictus* 277

- anomalopectera, Euura, *Nematus* 56  
 anomoneuræ, Psenulus,  
     *Nipponopsen* 252  
**Anopliini** 172  
*Anoplinellus* 172  
*Anoplius* 164  
*Anoplius* 172  
*Anoplius* subg. 172  
*Anoplochares* subg. 168  
*Anoplolyda* 104  
*Anoplonyx* 53  
*Anopompilus* 168  
*Anospilus* 168  
*Anospilus* subg. 168  
*Anothyreus* 226  
*Anoxus* 125  
*Anoxybelus* 242  
*Antalastor* 178  
*Antaphelopus* 118  
*antennalis*, *Belomicrus* 242  
*antennalis*, *Pedinomma*  
     *rufescens* var. 122  
*antennalis*, *Polistes biglumis* var. 192  
*antennalis*, *Selandria flavens* 76  
*antennata*, *Eucera* 321  
*antennata*, *Pachyprotasis*, *Tenthredo* 87  
*antennata*, *Prosopis* 259  
*antennata*, *Sciapteryx laeta* 89  
*antennatus*, *Sphecius*, *Larra* 224  
*antennatus*, *Urocerus*, *Sirex* 113  
*Anteon* 118  
**Anteoninae** 118  
*Antepipona* 180  
*Anthemois* 305  
*Anthidiellum* 300  
*Anthidiellum* subg. 300  
**Anthidiini** 300  
*Anthidium* 300  
*Anthidium* subg. 300  
*Anthocopa* subg. 297  
*anthocopoides*, *Hoplitis*, *Osmia* 297  
*Anthomegilla* subg. 323  
*Anthophilus* 255  
*anthophilus*, *Nematus* 56  
*Anthophora* 323  
**Anthophorini** 322  
*anthracinum*, *Trichiosoma* 30  
*anthracinus*, *Ceratophorus* 247  
*anthracinus*, *Dolerus*, *Tenthredo* 79  
*anticus*, *Dolerus*, *Tenthredo* *anticus* 77  
*antigae*, *Sphecodes* 287  
*antigana*, *Nomada* 314  
*antilope*, *Ancistrocerus*, *Vespa* 178  
*antipoda*, *Monostegia* 45  
*antoniae*, *Megalodontes* 107  
*Antroniis* 249  
*antropovi*, *Dipogon* 164  
*antropovi*, *Laelius* 124  
*antropovi*, *Odontocrabro* 235  
*anxious*, *Crabro* 229  
*Aomodictium* 39  
*Aoplopus* 165  
*apakensis*, *Cerceris* 252  
*apakensis*, *Megalodontes* 107  
*Apareophora* 45  
*apatellatus*, *Halictus* 278  
*Apericlista* 51  
*aperta*, *Corymbas*, *Siobloides* 84  
*aperta*, *Tenthredo* 76  
*Apethymus* 40  
*Aphadnurus* 48  
*Aphaenogaster* 203  
*Aphanilopterus* subg. 192  
*Aphanisus* 51  
*aphantoneura*, *Pristiphora*, *Nematus* 70  
**Aphelopinae** 118  
*Aphelopus* 118  
*aphidum*, *Crossocerus* 229  
*Aphiloctenus* 172  
*Apiarus* 332  
*apicalis*, *Ammophila* 213  
*apicalis*, *Anoplonyx*, *Leptopus* 53  
*apicalis*, *Apethymus*, *Tenthredo* 40  
*apicalis*, *Eutomostethus*,  
     *Monophadnus* 47  
*apicalis*, *Haplogonatopus* 121  
*apicalis*, *Hylaeus* 284  
*apicalis*, *Lindenius* 234  
*apicalis*, *Macrophya* 85  
*apicalis*, *Megachile* 305, 306  
*apicalis*, *Nematus* 55, 61  
*apicalis*, *Parna*, *Blennocampa* 51  
*apicalis*, *Sciopteryx* 82  
*apicalis*, *Sphex* 215  
*apicalis*, *Tenthredo* 99  
*apicalis*, *Tremex* 113  
*apicalis*, *Trypoxylon* 244  
*apicata*, *Andrena* 263  
*apicata*, *Osmia* 299  
*apicatus*, *Sphecodes* 288  
*Apicerceris* 252  
*apicicornis*, *Monoplopus* 109  
*apicifrons*, *Pontania* 58  
*apiciornatus*, *Symmorphus*,  
     *Ancistrocerus* 191  
*apiciscerra*, *Amauronematus*  
     *viduatinus* 66  
*Apicula* 332  
*apiculata*, *Coelioxys* 304, 305  
**Apidae** 309  
**Apiformes** 257  
*apiformis*, *Masaris* 176  
*apilinguaria*, *Vespa* 222  
**Apinae** 319  
**Apini** 332  
*Apiraptrix* 252  
*Apis* 332  
*Apius* 244  
*Apobembex* 221  
*Apocrabro* 227  
**Apocrita** 118  
*Apoctemnius* 231  
**Apoidea** 211  
*Apoides* 227  
*apollineus*, *Bombus cullumanus* 328  
*Aporhopalum* 235  
*Aporia* 250  
**Aporina** 166  
*Aporina* 250  
*Aporinellus* 168  
*Aporinellus* subg. 168  
**Aporini** 166  
*Aporinus* 166  
*Aporoideus* 167  
*Aporus* 166  
*Aporus* subg. 166  
*apostata*, *Astata* 218  
*Apoxiphia* 115  
*appendiculata*, *Ceropales pygmaea* 160  
*appendiculata*, *Pristiphora*, *Nematus* 70  
*appendiculata*, *Xylocopa* 309  
*appia*, *Megachile* 306  
*appropinqua*, *Myrmilla* 154  
*appropinquans*, *Alpinobombus*  
     *kirbyellus* 327  
*appropinquans*, *Halictus* 282  
*approximatus*, *Nematus* 61  
*apricaria*, *Andrena bicolor* ssp. 267  
*apricoti*, *Pristiphora* 71  
*apricus*, *Dolerus*, *Dosytheus* 77  
*aprilina*, *Andrena* 269  
*apristum*, *Lasioglossum*, *Halictus* 282  
*Aproceros* 25  
*Aprosthemata* 25  
*aptera*, *Apis* 157  
*Apterodryinus* 120  
*Apterogyna* 159  
**Apterogyninae** 159  
*apterus*, *Mystrophorus* 119  
*apunctata*, *Smicromyrme*  
     *hasanensis* f. 156  
*Apyncnemia* 212  
*aquilegiae*, *Nematus* 74  
*aquilonia*, *Formica* 199  
*aquilonius*, *Eumenes* 181  
*aquilonius*, *Eumenes rubronotatus* 181  
*aquilus*, *Megalodontes* 107  
*aquisgranensis*, *Prosopis* 261  
*arabica*, *Vespa orientalis* 194  
*Arachnodaictor* 172  
*Arachnophila* 172  
*Arachnoproctonus* subg. 172  
*Arachnospila* 168  
*Arachnospila* subg. 168  
*Arachnotheutes* 173  
*aragonensis*, *Spatidiella hyalinata* 262  
*arapahonum*, *Pteronus* 64  
*Arapatka* 149  
*arborea*, *Vespa* 195  
*arbusculæ*, *Euura*, *Pontania* 56  
*Arbusia* 82  
*arbustorum*, *Hylaeus* 277  
*arbustorum*, *Katamenes*, *Vespa* 184  
*arbustorum*, *Tenthredo* 84  
*arbuti*, *Lyda* 105  
*Arcesilas* 224  
*archanensis*, *Andrena* 265  
*archanensis*, *Osmia* 296  
*archangelskii*, *Empria* 41

- Archarpactus* 221  
*Archanthidium* subg. 303  
*archiducalis*, *Pamphilus* 104  
*arctica*, *Anthophora* 323  
*arctica*, *Euura* 56  
*arctica*, *Mesoneura* 72  
*arctica*, *Rhogogaster* 91  
*arctica*, *Tenthredo* 91  
*arctica*, *Tenthredo*, *Eniscia* 96  
*arctica*, *Trichiosoma* 30  
*arctica*, *Vespa saxonica* var. 195  
*arctica*, *Amauronematus* 64  
*arctica*, *Dolerus* 78  
*arctica*, *Lygaeonematus* 71  
*arctica*, *Nematus* 64  
*arcticornis*, *Euura*, *Pontania* 56  
*arcticum*, *Trichiosoma* 30  
*arcticus*, *Dolerus* 78  
*arcticus*, *Emphytus* 39  
*arcticus*, *Nematus* 64, 66  
*arcticus*, *Odynerus* 191  
*Arctochrysis* 139  
*arcuata*, *Tenthredo* 96  
*arcuatoides*, *Tenthredo* 96  
*arcuatum*, *Anteon* 118  
*ardens*, *Andrena* 273  
*ardens*, *Bombus* 330  
*ardens*, *Hedychridium* 128  
*ardens*, *Hedychridium*, *Chrysis*  
*ardens* 128  
*ardens*, *Nematus* 67  
*Ardenthidium* 300  
*ardeola*, *Andrena humilis* ssp. 265  
*Ardis* 45  
*arduinoi*, *Polistes bimaculatus* var. 192  
*arenaria* *Psammophila* 214  
*arenaria*, *Cerceris*, *Sphex* 253  
*arenaria*, *Mutilla* 153  
*arenarius*, *Mellinus* 223  
*arenarius*, *Panurginus* 276  
*arenarum*, *Pheidole pallidula* var. 207  
*arenicola*, *Formica sanguinea* 200  
*arenosus*, *Halictus leucaheneus* 279  
*arensi*, *Hedychridium* 128  
*Argalictus* subg. 277  
*Arge* 22  
*argentata*, *Andrena* 268  
*argentata*, *Dasylabris maura*  
*nostras* var. 153  
*argentata*, *Dasyopoda* 293  
*argentata*, *Enodia* 215  
*argentata*, *Megachile* auct. 306  
*argentata*, *Nomada* 311  
*argentata*, *Tachytes* 240  
*argentatus*, *Oxybelus* 242  
*argentatus*, *Tachyagetes* 174  
*argentatus*, *Tachysphex* 237  
*argenteofasciata*, *Mutilla* 153  
*argenteus*, *Crabro* 233  
*argenteus*, *Dicyrtomellus* 170  
*argentifrons*, *Cerceris* 253  
**Argidae** 22  
*argillaceus*, *Bombus*, *Apis* 328  
**Arginae** 22  
*argiola*, *Pyramica* auct. 207  
*argiola*, *Strumigenys*, *Epitritus* 207  
*argivus*, *Odynerus rufospinosus* var. 187  
*Argogorytes* 221  
*argonautarum*, *Urocerus*, *Sirex* 113  
*Argus*, *Sphex* *Cribraria* 226  
*Argyramphila* 212  
*argyrauxa*, *Dasylabris maura*  
*nostras* var. 153  
*argyrea*, *Larrada* 240  
*argyrea*, *Megachile* 306  
*argyreus*, *Tachytes*, *Larrada* 240  
*argyrius*, *Chilosphex*, *sphex* 214  
*argyrius*, *Sphex* 214  
*argyropyga*, *Notogonia* 237  
*Argyroselenis* 317  
*argyrotrichus*, *Tachysphex* 239  
*ariadne*, *Chrysis* 138  
*ariadne*, *Chrysis* *scutellaris* var. 138  
*ariasi*, *Anthidium punctatum* var. 301  
*Aridopompilus* 168  
*arietina*, *Andrena* 267  
*arietina*, *Anthophora* 323  
*armata*, *Ammophila* 213  
*armata*, *Andrena* 325  
*armata*, *Nomada* 311  
*armata*, *Nomiapis*, *Nomia* 291  
*armata*, *Onycholyda*, *Pamphilus* 103  
*armata*, *Pristiphora*, *Nematus* 71  
*armata*, *Vespa* 222  
*armatus*, *Sphex* 213  
*armeniaca*, *Coelioxys brevis* 304  
*armeniaca*, *Dasylabris*, *Mutilla*  
*maura* 154  
*armeniaca*, *Eucera*, *Tetralonia* 321  
*armeniaca*, *Myrmilla calva* 154  
*armeniacus*, *Bombus* 331  
*armeniacus*, *Hoplomerus* 187  
*armeniacus*, *Pamphilus* 104  
*armenica*, *Formica cinerea* var. 200  
*armenius*, *Ateuchopus* 111  
*armifera*, *Pristocera* 123  
*armiger*, *Oxybelus* 242  
*armillatus*, *Dolerus* 77  
*armipes*, *Crabro* 230  
*Armitarsus* 84  
*arnaudi*, *Ammophila* 212  
*arnoldi*, *Halictus* 284, 285  
*arnoldii*, *Chrysis* 133  
*arnoldii*, *Myrmica* 205  
*arnoldii*, *Pachygonatopus* 121  
*arnoldii*, *Strongylognathus* 207  
*arnoldii*, *Temnothorax* 208  
*Arpactus* 222, 223  
*arpactus*, *Mellinus* 221  
*arrectus*, *Katamenes dimidiatus* 185  
*arrogans*, *Episyron*, *Pompilus* 166  
*arrogans*, *Nomada* 311  
*arrogans*, *Tenthredopsis* 98  
*arsenievi*, *Panurginus* 276  
*arsenjevi*, *Colletes* 257  
*articulata*, *Andrena* 272  
*articulata*, *Methocha*, *Mutilla* 149  
*articulata*, *Mutilla* 149  
*Artiepyris* 123  
*Artiotilla* 157  
*arundinis*, *Cephus* 108  
*arvenica*, *Sapyga*  
*quinquepunctata* var. 145  
*arvensis*, *Cephalcia* 102  
*arvensis*, *Mellinus*, *Vespa* 246  
*arvensis*, *Miscus* 212  
*arvensis*, *Vespa* 246  
*arzhakanensis*, *Euodynerus egregius* 191  
*asachalinense*, *Trichiosoma* 30  
*Asaconoton* 244  
*asahi*, *Arge simillima* 25  
*asakura*, *Sphex* *codes* 290  
*Asaropoda* 322  
*aschabadensis*, *Andrena*  
*lepeletieri* var. 270  
*aschabadensis*, *Eumenes* 181  
*aschabadensis*, *Psites*  
*maculatus* var. 319  
*asensioi*, *Hoplitis tridentata* 297  
*asericae*, *Tiphia* 150  
*ashabadensis*, *Crocisa* 327  
*ashmeadi*, *Sierola* 125  
*asiaeminoris*, *Halictus* 277  
*asianum*, *Hedychridium* 128  
*asianum*, *Hedychridium integrum* 128  
*Asiapterocheilus* subg. 187  
*asiatica*, *Ammophila* 212  
*asiatica*, *Ancyla* 319  
*asiatica*, *Bembix* 222  
*asiatica*, *Chrysis rutilans* var. 135  
*asiatica*, *Dolichovespula* 194  
*asiatica*, *Eucera* 321  
*asiatica*, *Holopyga generosa* 131  
*asiatica*, *Holopyga gloriosa* var. 131  
*asiatica*, *Larropsis*, *Ancistromma* 236  
*asiatica*, *Podalonia* 213  
*asiaticum*, *Diplolectron* 218  
*asiaticus*, *Bombus* 330  
*asiaticus*, *Crossocerus* 230  
*asiaticus*, *Pompiloides sexmaculatus* 168  
*Asiemphtus* 40  
*asioboreus*, *Eumenes* 182  
*Asitrichiosoma* 30  
*askhabadensis*, *Meria* 149  
*asper*, *Dolerus* 79  
*asperatus*, *Tachysphex* 239  
*aspericeps*, *Pristiphora* 73  
*asperlatus*, *Pristiphora* 74  
*aspersa*, *Myrmica* 205  
*asperula*, *Andrena* 267  
*asperulus*, *Halictus* 279  
*aspidiphorus*, *Crabro* 233  
*assamensis*, *Elampus*, *Ellampus* 127  
*assiduus*, *Apis* 269  
*assimilis*, *Blennocampa* 48  
*assimilis*, *Chrysis* 133  
*assimilis*, *Crossocerus*, *Crabro* 227  
*assimilis*, *Hylotoma* 24  
*associa*, *Cerceris* 252

- associa*, Polistes 192  
*associus*, Polistes 192  
*astarte*, Nomada 311  
*Astata* 218  
**Astatinae** 218  
*Astatus* 109, 111, 218  
*asterabadiæ*, Andrena 269  
*Asthenoctenidia* 170  
*Asthenoctenus* 170  
*Asticta* 42  
*Astochus* 83  
*Astochus* subg. 83  
*Astomyrme* subg. 156  
*astrachanensis*, Euodynerus  
   *caspicus* 183  
*astragali*, Anthophora 324  
*astragalina*, Andrena 272  
*astrictus*, Leptochilus 185  
*astutus*, Nematus 71  
*asunica*, Andrena 265  
*asuniensis*, Andrena 270  
*atcrima*, Melecta 326  
*Atelosphex* 237  
*ater*, Alyson 244  
*ater*, Bethylus 150  
*ater*, Crabro 227  
*ater*, Crabro 251  
*ater*, Miscophus 240  
*ater*, Pasites 318  
*ater*, Psen, *Crabro* 251  
*ater*, Spheg 251  
*ater*, Stigmus 250  
*ater*, Philanthus 276  
*aterrima*, Andrena 272  
*aterrima*, Apis 302  
*aterrima*, Apis 303  
*aterrima*, Camponotus  
   *herculeanus* var. 198  
*aterrima*, Cataglyphis *aenescens* 199  
*aterrima*, Osmia 298  
*aterrima*, Phymatocera, *Tenthredo* 52  
*aterrima*, Pristiphora 70  
*aterrima*, Tenthredo 52  
*aterrimum*, Diprion *pallipes* 34  
*aterrimus*, Allantus 95  
*aterrimus*, Camponotus 198  
*aterrimus*, Crabro 228  
*aterrimus*, Dolerus *germanicus* 78  
*aterrimus*, Nematinus 68  
*ateuchopus* 111  
*athalassæ*, Andrena *morio* var. 269  
*Athalia* 43  
**Athaliinae** 43  
*athalioides*, Eurhadinoceraea,  
   *Monophadnus* 47  
*athalioides*, Poppia 81  
*athenensis*, Andrena 271  
*athyrii*, Thrinax, *Hemitaxonus* 83  
*atlantica*, Osmia 299  
*atlantidis*, Paururus 112  
*Atomostethus* 47  
*Atoposelandria* 75  
*Atopostigmus* 249  
*atra*, Andrena 272  
*atra*, Anthophora *robusta* 324  
*atra*, Apis 268, 272  
*atra*, Bembix 222  
*atra*, Blasticotoma 27  
*atra*, Crocisa 326  
*atra*, Euura, *Pteronus* 56  
*atra*, Myrmosa 152  
*atra*, Myrmosa *atra* 152  
*atra*, Osmia 298  
*atra*, Pontania 56  
*atra*, Selandria 45  
*atra*, Tenthredo 93  
*atracornus*, Monophadnus 50  
*atramentaria*, Tenthredella  
   *mesomelas* 91  
*atramentaria*, Tenthredopsis *parvula* 99  
*atramentarium*, Diprion *virens* 34  
*atramentata*, Anthophora  
   *khambana* var. 324  
*atrata*, Andrena 271  
*atrata*, Anthophora *furcata* f. 323  
*atrata*, Calameuta 108  
*atrata*, Hylotoma 23  
*atrata*, Larra 237  
*atrata*, Neurotoma 103  
*atrata*, Nomada 311, 318  
*atrata*, Pristiphora 72  
*atrata*, Prosopis 260  
*atrata*, Tenthredo 24  
*atratilobis*, Tenthredopsis *hungarica* 99  
*atratina*, Mimumesa, *Mimesa* 251  
*atratinus*, Dicyrtomellus 168  
*atratula*, Anthophora *robusta* 324  
*atratula*, Eriocampa 46  
*atratula*, Myrmosa 203  
*atratula*, Tenthredo 46  
*atratulus*, Anergates, *Myrmica* 203  
*atratulus*, Evageles 171  
*atratulus*, Hylaeus 259, 286  
*atratum*, Trypoxylon 252  
*atratulus*, Allantus 91  
*atratulus*, Amauronematus 60  
*atratulus*, Ammobates *apunctatus* var. 318  
*atratulus*, Aphelopus, *Dryinus* 118  
*atratulus*, Dolerus *dubius* 78  
*atratulus*, Dryinus 118  
*atratulus*, Haplogonatopus 121  
*atratulus*, Liris, *Larra* 237  
*atratulus*, Psen 251  
*atrescens*, Sphecodes 287  
*atricallousa*, Prosopis *morice* f. 260  
*atricapillus*, Dolerus 79  
*atriceps*, Eucera 320  
*atriceps*, Melitta 272  
*atricilla*, Anthophora 324  
*atricollaris*, Tenthredella *maculata* 92  
*atricollis*, Eucera 320  
*atricolor*, Camponotus, *Formica* 198  
*atricornis*, Emphytus *viennensis* 38  
*atricornis*, Eumenes 181  
*atricornis*, Halictus 286  
*atricornis*, Monophadnus 50  
*atricornis*, Sirex 112  
*atricornis*, Tenthredo 82  
*atricula*, Andrena 270  
*atريفacialis*, Prosopis *sinuata* var. 262  
*atريفemoribus*, Tenthredopsis *parvula* 99  
*atrilobis*, Tenthredopsis *parvula* 99  
*atrimandibularis*, Polistes 192  
*atripes*, Cephus 108  
*atripes*, Discoelium *dufourii* 181  
*atripes*, Euodynerus *quadrifasciatus* 183  
*atripes*, Pelopoeus 214  
*atriveuris*, Tenthredopsis *parvula* 99  
*atriscutis*, Tenthredopsis *excisa* 99  
*atriveuris*, Megachile 308  
*atriveuris*, Osmia 298  
*atriveuris*, Tenthredopsis *sordida* 100  
*atroapicalis*, Tenthredo *maculata* 92  
*atrocaerulea*, Osmia 299  
*atrocaudatus*, Bombus *ussurensis* 328  
*atroclypeata*, Tenthredo 97  
*atrocoerulea*, Andrena 270  
*atrocoerulea*, Hylotoma 23  
*atrocyanea*, Podalonia,  
   *Psammophila* 213  
*atrofasciata*, Tenthredo 93  
*atroferruginea*, Anthophora 324  
*atroflava*, Nomada *pectoralis* var. 315  
*atrohirtus*, Spheg 215  
*atromicans*, Hylaeus 261  
*atrontata*, Tenthredopsis *andrei* 100  
*Atropancistrocerus* 189  
*atropilosus*, Spheg 215  
*atropis*, Halictus 283  
*atropos*, Alastor 178  
*atropos*, Melecta 326  
*atropos*, Odynerus 189  
*atropos*, Sierolomorpha 151  
*atropyga*, Chalicodoma 306  
*atrorubricata*, Andrena 272  
*atrosopacea*, Anthophora *robusta* 324  
*atroscutellaris*, Nomada 311  
*atroscutellatum*, Diprion *simile* 33  
*atrum*, Pison *Alyson* 244  
*attelaboidea*, Formica 197  
*attenuatum*, Trypoxylon 244  
*attila*, Camponotus 199  
*auberti*, Pontania 61  
*auctummalis*, Nomada *ruficornis* var. 316  
*auctus*, Ancistrocerus, *Vespa* 178  
*aucupariae*, Aglaostigma, *Tenthredo* 83  
*aucupariae*, Pamphilus 104  
*augusta*, Pseudepipona, *Odynerus* 188  
*aulatus*, Amauronematus 55  
*aulica*, Andrena 272  
*aulica*, Tenthredo 90  
**Auplopodina** 165  
*Auplopus* 165  
*auraneus*, Dolerus *elderi* 78  
*aurantiaca*, Meria, *Myzine* 149  
*aurantiaca*, Nomada 313  
*aurantiacus*, Nematus 57  
*aurantiacus*, Odynerus 188  
*aurantiacus*, Oxybelus 242

- aurantifer*, *Heriades crenulatus* 296  
*aurata*, *Abia*, *Zaraea* 28  
*aurata*, *Arge*, *Hylotoma* 22  
*aurata*, *Dasygaster* 293  
*auratus*, *Crabro* 232  
*auratus*, *Nysson* 219  
*auratus*, *Pseudomalus*, *Sphex*  
*auratus* 132  
*auratus*, *Sphex* 237  
*aureatensis*, *Tenthredo* 86  
*aureicolle*, *Hedychrum* 130  
*aureicollis*, *Pseudochrysis*, *Chrysis* 140  
*aureocincta*, *Nomia* 291  
*aureomaculata*, *Mutilla* 158  
*aureopectus*, *Nematus* 58  
*auriceps*, *Chrysis* 134  
*auricomus*, *Crabro* 233  
*auriculata*, *Tenthredopsis*, *Perineura* 98  
*aurifrons*, *Psen* 251  
*aurifrons*, *Tachytes* 239  
*aurigena*, *Nomada lineola* var. 313  
*auriginosus*, *Palarus* 243  
*aurilabris*, *Crabro* 231  
*auripennis*, *Arge* 22  
*auripes*, *Anthidium* 301  
*aurita*, *Cerceris* 253  
*aurita*, *Lyda* 104  
*auritae*, *Euura* 56  
*Auroabia* 28  
*aurolimbata*, *Nomada lineola* var. 313  
*aurolimbatus*, *Coelioxys* 305  
*aurora*, *Andrena* 274  
*autotecta*, *Chrysis* 143  
*aurulenta*, *Osmia*, *Apis* 298  
*aurulenta*, *Vespa orbata* var. 196  
*aurulentus*, *Sphex* 237  
*ausa*, *Arachnospila*, *Pompilus* 168  
*ausonius*, *Smicromyrme* 156  
*auster*, *Symmorphus mutinensis* 191  
*austerus*, *Dolerus* 77  
*australe*, *Anthidium oblongatum* 301  
*australis*, *Hemichroa*, *Tenthredo* 67  
*australis*, *Sirex* 112  
*australis*, *Tenthredo* 67  
*austriaca*, *Andrena* 273  
*austriaca*, *Andrena* auct. 267  
*austriaca*, *Chrysis* 139  
*austriaca*, *Chrysis* 140  
*austriaca*, *Chrysura*, *Chrysis* 139  
*austriaca*, *Mutilla* 153  
*austriaca*, *Nomada* 316  
*austriaca*, *Pemphredon*, *Diphlebius* 248  
*austriaca*, *Tenthredopsis* 100  
*austriaca*, *Vespa* 195  
*austriaca*, *Vespula*, *Vespa* 195  
*austriacum*, *Aprosthemata*, *Schizocera* 26  
*austriacum*, *Lasioglossum*  
*subfulvicorne* 286  
*austriacum*, *Rhopalum*, *Crabro* 236  
*austrialis*, *Holopyga* 131  
*austrinus*, *Sphecodes subovalis* 290  
*Austrolasius* subg. 201  
*Austronomia* subg. 291  
*autumnalis*, *Andrena*  
*carbonaria* var. 272  
*autumnalis*, *Emphytus* 40  
*Avodyrinus* 120  
*awaensis*, *Sphecodes* 289  
*axillare*, *Aprosthemata*, *Schizocera* 26  
*azalearum*, *Andrena* 270  
*azhendarovensis*, *Arge* 22  
*babuganicus*, *Leptothorax*  
*pithyusae* 208  
*baccarum*, *Nematus* 63  
*baccata*, *Nomada* 311  
*Bacconematus* 55  
*bacillus*, *Osmia* 299  
*backi*, *Trypoxylon* 245  
*bactriana*, *Didineis* 219  
*bactriana*, *Solierella* 241  
*Bactroceros* 104  
*baeri*, *Chrysis* 139  
*baeri*, *Nomada* 311  
*baerii*, *Eumenes* 185  
*baerii*, *Melecta*, *Pseudomelecta* 326  
*baeticus*, *Gonatopus*, *Mercetia* 120  
*baguenai*, *Notogonidea* 237  
*Baguenai* subg. 174  
*baicalensis*, *Andrena* 274  
*baicalensis*, *Anthophora aestivalis* 325  
*baicalensis*, *Eumenes*  
*arborum* var. 185  
*baicalensis*, *Osmia* 298  
*baicalica*, *Andrena* 265  
*baicalica*, *Megachile* 307  
*baicalica*, *Megachile lapponica* 307  
*baicaliella*, *Andrena* 265  
*baigacuma*, *Smicromyrme* 155  
*baikalensis*, *Myrmica* 205  
*baikalensis*, *Strongylogaster* 82  
*baikalica*, *Cephalcia* 102  
*Baissobius* 122  
*baja*, *Tenthredo* 90  
*bajulus*, *Dolerus* 77  
*bakurianica*, *Myrmica* 205  
*bakurianica*, *Myrmica piloscapus* 205  
*balassagloi*, *Pteronus* 64  
*balassagloi*, *Anthophora*,  
*Habropoda* 324  
*balcanicus*, *Eumenes lunulatus* var. 181  
*balcanicus*, *Oplomerus reniformis* 187  
*balcanicus*, *Sphecodes subovalis*  
*austrinus* 290  
*baldensis*, *Perineura scutellaris* 100  
*balearicus*, *Cephus* 110  
*baleicum*, *Lasioglossum*, *Halictus*  
*baleicum* 282  
*baleina*, *Andrena* 267  
*baleina*, *Megachile* 307  
*ballioni*, *Mutilla* 157  
*ballioni*, *Odynerus* 180  
*ballioni*, *Taxonus* 43  
*balneorum*, *Lasioglossum* 284  
*balteata*, *Tenthredo* 94  
*balteatus*, *Bombus* 327  
*balteatus*, *Colletes* 259  
*balteatus*, *Pamphilus*, *Lyda* 104  
*baltica*, *Andrena nitida* 269  
*baltica*, *Empria* 41  
*baltica*, *Eumenes papillarius* var. 182  
*baltica*, *Eupontania acutifoliae* 55  
*baltica*, *Odynerus crassicornis* var. 191  
*baltica*, *Pemphredon* 248  
*balticus*, *Colletes* 257  
*balticus*, *Halictus* 284  
*Baltilla* subg. 153  
*baltistanica*, *Anthophora parietina* 324  
*baluchistanensis*, *Plesia* 149  
*banatica*, *Nomada* 317  
*bantaizana*, *Abia* 28  
*baratonis*, *Sphecodes* 288  
*barbara*, *Formica* 204  
*barbareae*, *Andrena* auct. 268  
*barbarum*, *Trypoxylon figulus* 244  
*barbarus*, *Euodynerus egregius* 191  
*barbata*, *Melitta* 274  
*barbatula*, *Andrena* 268  
*barbatula*, *Melitta* 274  
*barbatulum*, *Monomorium* 205  
*barbatulus*, *Eumenes pomiformis* 181  
*barbatum*, *Anthidium* 302  
*barbatus*, *Hylaeus* 259  
*barbilabris*, *Andrena*, *Melitta* 268  
*barbipes*, *Crossocerus* 227  
*barbiventris*, *Bembix* 221  
*barbouri*, *Vespa analis* var. 193  
*barbutellus*, *Bombus*, *Apis* 329  
*barchanica*, *Myrmica bergi* var. 205  
*barkensis*, *Halictus* 287  
*basalicincta*, *Nomia* 292  
*basalis*, *Allantus*, *Tenthredo basalis* 38  
*basalis*, *Andrena* 274  
*basalis*, *Andrena parviceps* var. 268  
*basalis*, *Crabro* 234  
*basalis*, *Empria* 41  
*basalis*, *Halictus morio* 284  
*basalis*, *Lophyrus* 34  
*basalis*, *Nematus fulvus* 61  
*basalis*, *Nomada* 311  
*basalis*, *Nomia* 291  
*basalis*, *Odynerus* 188  
*basalis*, *Psen* 250  
*basalis*, *Sphecodes fuscipennis* 287  
*basalis*, *Tetralonia* 322  
*basicirus*, *Halictus* 281  
*basilaris*, *Andrena* 268  
*basilinea*, *Andrena* 274  
*basimacula*, *Apis* 283  
*basimacula*, *Tenthredo* 98  
*basirufa*, *Mimesa* 250  
*basizonata*, *Tenthredo* 94  
*batai*, *Dasylabris italica* f. 154  
*batava*, *Andrena* 263  
*batava*, *Nomada* 313  
*bateiae*, *Andrena* 269  
*batesiae*, *Andrena* 269  
*Bathanthidium* 301  
*Bathyblepta* 22

- Batozonellus 166  
*batsumerensis*, Megachile analis 307  
*batumicum*, Trypoxylon 244  
*bavarica*, Vespa 195  
 beata, Spilomena 249  
*beaticola*, Bombus, *Pyrobombus* 330  
*beaumonti*, Andrena 274  
*beaumonti*, Eopsis 42  
*beaumonti*, Mimumesa, *Psen* 251  
*beaumonti*, Palarus 243  
*beaumonti*, Tenthredo 97  
*beaumonti*, Trypoxylon 244  
 beckeri, Arge 22  
 beckeri, Metallus, *Entodecta* 50  
 beckeri, Mimesa 250  
 beckeri, Pseudepipona, *Odynerus* 188  
 beckeri, Pseudotiphia, *Tiphia* 150  
*bekkeri*, Metrionotus 125  
*Belalastor* 178  
 Beleses 40  
*Belesidea* 40  
*belgica*, Mimesa 251  
*belgicus*, Arpactus 223  
*belicovi*, Andrena 274  
*belikovii*, Nomada 313  
*beljgovskii*, Myrmilla sarmatica var. 154  
*bellicosus*, Oxybelus 242  
*bellieri*, Cephus 109  
*bellina*, Andrena labiata ssp. 272  
*bellona*, Vespa 194  
*bellus*, Nematus 63  
*bellus*, Oxybelus 243  
*belokobylskii*, Arachnospila 168  
*belokobylskii*, Priocnemis 163  
*belokobylskijii*, Hedychridium 128  
*belokobylskiyi*, Pseudisobrachium 123  
 Belomicrus 241  
*bembeciformis*, Hemipterochilus,  
*Odynerus* 184  
 Bembecinus 221  
*Bembex* 221  
**Bembicinae** 219  
**Bembicini** 220  
 Bembix 221  
*benefica*, Andrena 263  
*bengasinus*, Eumenes mediterraneus 182  
 bennetti, Aphelopus 118  
*bensoni*, Metallus 50  
*bensoni*, Rhadinoceraea 52  
*bequaerti*, Anthidium  
 punctatum var. 301  
*berberiana*, Chrysis mediata 143  
*berberidis*, Arge 22  
*Berberidisiformis* 22  
*berberus*, Halictus 287  
*berberus*, Sphecodes monilicornis 289  
*berezovskii*, Omalus, *Ellampus* 131  
*berezowskii*, Abia 28  
 bergi, Chrysis 134  
*bergi*, Dasylabris 153  
 bergi, Myrmica 205  
 bergi, Pseudomalus, *Ellampus* 132  
*bergiellus*, *Ellampus* 132  
*bergmani*, Euura, *Amauronematus* 56  
*bergmani*, Siobla sibirica 89  
 bergmanni, Euura, *Nematus* 56  
*bergrothi*, Conaspidia 43  
*berlandi*, Bethylus 125  
*Berlandi*, Crabro elongatulus 229  
*berlandi*, Dolerus germanicus 78  
*berlandi*, Macrophyta albicincta 84  
*berlandi*, Prosopis 262  
*bernardi*, Tenthredo 91  
*bernardiformis*, Tenthredella stulta 92  
*berolinensis*, Halictus 286  
 bertilpoppii, Euura 57  
*bertolinii*, Macrophyta 86  
**Bethylidae** 123  
**Bethylinae** 125  
 Bethylus 125  
 bettoh, *Psen* 251  
*betulae*, Cimbex 29  
*betulae*, Cynips 31  
*betulae*, Euura, *Amauronematus* 57  
*betulae*, Fenusa 52  
*betulae*, Lasioglossum fratellum 283  
*betulae*, Leptothorax muscorum var. 204  
*betulae*, Nematus 74  
*betulae*, Pamphilius, *Tenthredo* 104  
*betulae*, Tenthredo 74  
*betulae*, Xiphidria,  
*Pseudoxiphydria* 115  
*betularius*, Nematus 74  
*betuleti*, Cimbex 31  
*betuleti*, Scolioneura, *Tenthredo* 52  
*betuleti*, Tenthredo 52  
*betulinus*, Nematus 74  
*beuthini*, Andrena 267  
*beybienkoi*, Nematus 64  
*bezzii*, Pterochilus 189  
*biaccinctus*, Omalus, *Ellampus* 131  
 bianchii, Chrysis 134  
*bianchii*, Hortobombus consobrinus 328  
*biannulatus*, Nematus 62  
*biarcuatus*, Odynerus 180  
*biareolatus*, Hylaeus 262  
 Biastes 318  
**Biastrini** 318  
*Biastoides* 318  
*biblicus*, Eumenes sichelii var. 185  
 bicallosum, Lasioglossum, *Halictus* 280  
*bicarinata*, Andrena auct. 271  
*bicarinata*, Tiphia 150  
*biciliata*, Anthophora 324  
*biciliatus*, Bombus tricornis 332  
 bicincta, CERCERIS 253  
*bicincta*, Tenthredo 93, 97  
*bicinctus*, Allantus 98  
*bicinctus*, Crabro 221  
*bicinctus*, Crabro 224  
*bicinctus*, Halictus 280  
*bicinctus*, Lestiphorus, *Crabro* 224  
*bicinctus*, Pamphilius hortorum 104  
*bicolor*, Ammobates 318  
*bicolor*, Andrena 267  
*bicolor*, Aporus 166  
*bicolor*, Athalia 44  
*bicolor*, Bembix 221  
*bicolor*, Blennocampa 51  
*bicolor*, Chrysis 134  
*bicolor*, Dasylabris, *Mutilla* 153  
*bicolor*, Dolichurus 211  
*bicolor*, Eremiasphecium  
*Shestakovia* 246  
*bicolor*, Euura, *Amauronematus* 57  
*bicolor*, Evagetes 170  
*bicolor*, Gonatopus, *Dryinus* 120  
*bicolor*, Larra 238  
*bicolor*, Lyda 105  
*bicolor*, Microphadnus 173  
*bicolor*, Mimesa, *Psen* 250  
*bicolor*, Miscophus 240  
*bicolor*, Miscophus 241  
*bicolor*, Myrmica 205  
*bicolor*, Myrmosa 152  
*bicolor*, Osmia, *Apis* 299  
*bicolor*, Oxybelus 242  
*bicolor*, Tachytes 238  
*bicolor*, Tenthredo 23, 39  
*bicolor*, Tenthredopsis litterata 99  
*bicoloripes*, Ceropales bicoloripes 160  
*bicoloriventris*, Megachile 306  
 bicornis, Calameuta 108  
 bicornis, *Apis* 297  
 bicornis, Lasius, *Formica* 201  
 bicornis, Osmia, *Apis* 299  
*bicornuta*, CERCERIS 254  
*bidens*, Crabro 228  
*bidens*, Elampus, *Notozus* 127  
*bidens*, Lestodryinus 120  
*bidens*, Osmia 298  
*bidens*, Tachytes 240  
*bidens*, Vespa 220  
*bidentata*, *Apis* 305  
*bidentata*, Bembix 221  
*bidentata*, Chrysis 143  
*bidentata*, Osmia 298  
*bidentatus*, *Psen* 250  
*bidenticulata*, Heriades 296  
*bidenticulatus*, Odynerus 180  
*bidenticulatus*, Smicromyrme 156  
*bidentulus*, Philoctetes, *Hedychrum* 132  
*biegelebeni*, Alastor 178  
 bifasciata, Deuteragenia,  
*Ichneumon* 164  
*bifasciata*, Larra 225  
 bifasciata, Nomada 311  
*bifasciata*, Tenthredo 90, 97  
*bifasciatus*, Halictus 281  
*bifasciatus*, Symmorphus, *Vespa* 191  
*bifida*, Abia 28  
*bifida*, Nomada 316  
 Bifidoceropales subg. 160  
 bifidum, Aprosthema, *Hylotoma* 26  
*bifidus*, Halictus 278  
*bifidus*, Microdynerus 186  
*bifidus*, Pompilus 172  
 bifoveolatum, Dianthidium 301  
*bifoveolatus*, Rhophites 291

- bifrons*, Janus 110  
*bifurcata*, Aprosthema, *Hylotoma* 26  
*bifurcata*, Konowia 116  
*bigallae*, Euura, *Pontania* 57  
*bigemmis*, Tenthredo 95  
*bigens*, Abia 28  
*biglumis*, Polistes, *Vespa* 192  
*biguetina*, Cimbex 29  
*biguttata*, Artiotilla, *Mutilla* 157  
*biguttata*, *Mutilla* 157  
*biguttata*, Tenthredo 95  
*biguttata*, Tenthredopsis dorsalis 99  
*biguttatus*, Crabro 226  
*biguttatus*, Dolerus 84  
*bihamata*, Chrysis 143  
*bilineata*, Trichiosoma 31  
*bilineatus*, Anoplonyx 53  
*bilineatus*, Nematinus, *Tenthredo* 68  
*bilineatus*, Philanthus 262  
*biloba*, Selandria 68  
*biloba*, *Vespa* 195  
*bilobata*, Chrysis 134  
*bilumatus*, Pompilus 167  
*bilunulatus*, Lestiphorus 224  
*bilunulatus*, Lestiphorus  
    *bilunulatus* 224  
*bimacula*, *Vespa* 192  
*bimaculata*, Andrena, *Melitta* 272  
*bimaculata*, Anthophora, *Apis* 323  
*bimaculata*, Lyda 101  
*bimaculata*, *Mutilla* 155  
*bimaculata*, Nomada 311  
*bimaculata*, Selandria 76  
*bimaculata*, Tenthredo 94  
*bimaculata*, *Vespa* 192  
*bimaculatus*, Allantus 95  
*bimaculatus*, Crossocerus 230  
*bimaculatus*, Dolerus, *Tenthredo* 77  
*bimaculatus*, Eumenes 182  
*bimaculatus*, Spheg 219  
*binghami*, *Vespa* 193  
*binominata*, Xylocopa 310  
*binominatus*, Nannodynerus 180  
*binotata*, Anthophora 323  
*binotata*, Thomsonia excisa 99  
*binotatus*, Crossocerus 230  
*bipartior*, Pemphredon 249  
*bipartita*, Andrena 269  
*bipartita*, Eucera 320  
*bipartita*, Euura, *Nematus* 57  
*bipartita*, Tenthredo 51  
*bipartitus*, *Nematus* 57  
*bipicta*, Pteronidea 60  
*bipilosa*, Formica cinerea var. 201  
*bipunctata*, Bembix 221  
*bipunctata*, Hartigia draconis 110  
*bipunctata*, Melecta 326  
*bipunctata*, Tenthredo 45  
*bipunctata*, Tenthredo 45, 73, 95  
*bipunctata*, *Vespa* 262  
*bipunctatus*, Crabro 232, 246  
*bipunctatus*, Hylaeus 282  
*bipunctatus*, Mellinus 262  
*bipunctatus*, Monophadnus 50  
*bipunctatus*, Oxybelus 242  
*bipunctatus*, Stizus, *Larra* 225  
*bipunctatus*, Tachysphex 238  
*bipunctis*, Eumenes 182  
*bipunctula*, Tenthredo bipunctula 94  
*bipunetis*, Nomada 311  
*bipustulata*, Andrena 271  
    Birka 76  
    Birka subg. 76  
    *Birkmania* 276  
    biroi, Bombus 330  
    biroi, *Vespa* parallela var. 193  
    biroj, Tetralonia julliani 322  
    birulae, *Pontania* 63  
    birulai, Pseudovespa 196  
    birulai, *Vespa* crabro var. 194  
    bisbimaculatus, Hylaeus 283  
    bisbistrigatus, Hylaeus 280  
    biscalis, Pristiphora, *Nematus* 71  
    bischoffi, Chrysis ignita 143  
    bischoffi, Polistes 192  
    bisexmaculatus, Crabro 232  
    bisignata, Tenthredo velox 96  
    bisinuatus, Hylaeus 260  
    bison, Crabro 228  
    bison, Crossocerus 228  
    bispinosa, Nomada 311  
    bispinosa, Nomiapis, *Nomia* 291  
    bispinosa, Rophites 290  
    bisstrigatus, Odynerus 183  
    bistillatus, Oxybelus pugnax 243  
    bistriatus, Allantus 98  
    bistriatus, *Nematus* 73  
    bistrispinosus, Rophites 291  
    bisulcata, Andrena 263  
    bitineta, Nomada obscura var. 315  
    bituberculata, Tenthredella 94  
    bituberculatus, Sphecodes 289  
    Bivena 83  
    Bivena subg. 83  
    biverrucatum, Trichiosoma 31  
    bivinctus, Halictus 277  
    bivittatus, Odynerus 186  
    bizonata, Tenthredo 39  
    bizonatus, Sialus 162  
    blakistoni, Lasioglossum 280  
    blanchardi, Athalia 44  
    blanchardianus, Odynerus 184  
    blancoburgensis, Nomada  
        lateralis var. 312  
    blanda, Macrophyta, Tenthredo 85  
    blandus, Hylaeus 261  
    blanki, Dolerus 79  
    Blankia 90  
    Blasticotoma 27  
**Blasticotomidae** 27  
    blattivorus, Tachysphex 237  
    Blennocampa 45  
**Blennocampinae** 45  
    blepharipes, Nomada 311  
    Blepharipus 227  
    bleusei, Arge fuscipes 23  
    bleusei, Schizocera 26  
    bleyli, Amasis 32  
    blidahensis, Halictus 286  
    bluethgeni, Lasioglossum, *Halictus* 282  
    bluethgeni, Nomada 311  
    bluethgeni, Osmia 303  
    bluethgeni, Rophites 291  
    bluethgeni, Stenodynerus 189  
    blüthgeni, Andrena 272  
    Bnunius 227  
**Bocchinae** 119  
    Bocchoides 120  
    bofillana, Nomada 317  
    bogdanovi, Cardiocondyla 203  
    bogdanovii, Ceropales bogdanovii 160  
    bogdanovii, Philoctetes, *Holopyga* 132  
    Bohea 27  
    bohemani, Euura, *Nematus* 57  
    bohemani, Odynerus 191  
    bohemanni, Tenthredo 39  
    bohemica, Rhogogastera olivacea 92  
    bohemicus, Bombus 329  
    bohemicus, Nysson 220  
    bojus, Crabro 227  
    bokhaica, Deuteragenia, *Dipogon* 164  
    bolivari, Athalia 44  
    Bombias subg. 327  
    bombiforme, Trichiosoma 30  
**Bombini** 327  
    Bombomelecta 325  
    Bombus 327  
    Bombus subg. 327  
    bombycina, Megachile 306  
    bonivuri, Andrena 274  
    boops, Astatata, *Spheg* boops 218  
    boops, Spheg 218  
    borea, Pristiphora, *Lygaonematus* 71  
    borea, Tenthredo 94  
    boreale, Trichiosoma 31  
    borealis, Anthophora 324  
    borealis, Belomicrus 242  
    borealis, Chrysis 134  
    borealis, Crabro 232  
    borealis, Cyrtogonatopoides 121  
    borealis, Dolichovespula 195  
    borealis, Ectemnius, *Crabro* 232  
    borealis, Formica fusca var. 200  
    borealis, Gonatopus 120  
    borealis, Macrophyta sanguinolenta 86  
    borealis, Megachile ligniseca var. 307  
    borealis, *Melitta* 294  
    borealis, Mimesa 251  
    borealis, Nitela 241  
    borealis, Nomada 314  
    borealis, Passaloeocus 247  
    borealis, Tachysphex ibericus 239  
    borealis, Tarpa 107  
    borealis, Tenthredo 71  
    borealis, *Vespa* 195  
    borealis, *Vespa* 195  
    borealis, *Vespa* crabro var. 193  
    Boreocoelioxys subg. 304  
    boreoibericus, Pterochelilus  
        phaleratus 189



- boreophila, Euura, *Pteronidea* 57  
*Boreopompilus* 168  
*Boreovespula* 194  
 borisi, Euura, *Eupontania* 57  
 borisi, Pamphilius 104  
*borodini*, Ellampus 133  
*Bothriomyrmex* 197  
*bothriorhina*, Andrena 267  
*boulderensis*, Pachynematus 62  
 braccata, Dasypoda 293  
*braccata*, Tenthredo 40  
*brachyacanthus*, Nematius 57  
 Brachyandrena subg. 264  
*Brachycephalapis* 294  
 brachycephalum, Lasioglossum,  
*Halictus* 282  
*brachycera*, Pteronidea 57  
 brachycera, Tenthredo, *Allantus* 93  
*brachycera*, Tomostethus 47  
 brachycercus, Cephus 109  
*brachycercus*, Nematius 59  
 brachycercus, Pseudocephaleia 106  
*brachyceros*, Osmia 297  
 brachycerum, Anteon, *Dryinus* 118  
*brachycerus*, Colletes 258  
*Brachycoluma* 55  
*Brachycolus* 55  
*brachygaster*, Dolerus 79  
*Brachymerus* 236  
*Brachyocampa* 42  
 Brachyodynerus 180  
*brachyotus*, Nematius 66  
 Brachypipona 180  
 Brachyponera 209  
*brachypterus*, Cephus 111  
 Brachystegus 219  
 Brachythops 76  
*brachytomus*, Odynerus dantici 183  
 bracteata, Cerceris 253  
**Bradynobaenidae** 159  
**Bradynobaninae** 159  
*branensis*, Allantus scrophulariae 97  
 branickii, Bombus, *Psithyrus* 329  
*brassicae*, Andrena 271  
*brauneri*, Temnothorax  
   erviculus var. 208  
 brauneri, Temnothorax,  
   *Leptothorax* 208  
 braunsiana, Andrena 271  
 braunsiana, Nomada 311  
*braunsii*, Camponiscus 53  
*braunsii*, Thomsonia 98  
 breadalbanensis, Pristiphora,  
   *Nematius* 71  
*bremensis*, Andrena 266  
*bremensis*, Nomada lineola var. 313  
*breve*, Tapinoma 198  
 brevicauda, Poecilotiphia, *Meria*  
   brevicauda 150  
*breviceps*, Cyrtuchridium 129  
 breviceps, Eucera 319  
*breviceps*, Prosopis auct. 259  
 brevicera, Euura 57  
*brevicypeatus*, Sphecodes 289  
 brevicorne, Aprosthema, *Hylotoma* 26  
 brevicorne, Lasioglossum, *Halictus*  
   brevicorne 282  
 brevicornis, Biastes, *Tiphia* 318  
 brevicornis, Claremontia,  
   *Blennocampa* 46  
*brevicornis*, Colletes 258  
*brevicornis*, Cryptocampus 66  
*brevicornis*, Dolerus 77  
*brevicornis*, Dolerus 79  
*brevicornis*, Gonatopus 119  
*brevicornis*, Hylaeus 259  
 brevicornis, Hylotoma 26  
*brevicornis*, Macrophyta blanda 85  
*brevicornis*, Nematius 72  
*brevicornis*, Nomada 311  
 brevicornis, Osmia, *Eucera* 299  
 brevicornis, Pamphilius brevicornis 104  
*brevicornis*, Passaloeus 248  
*brevicornis*, Sphecodes 289  
*brevicornis*, Tenthredo 53  
 brevicornis, Tenthredo, *Allantus* 96  
 brevicornis, Tiphia 318  
*brevicuneatus*, Hylaeus 261  
*brevigena*, Pompilus 170  
 brevihirtiscopa, Andrena 263  
 brevilabris, Diodontus 247  
*brevilabris*, Macrophyta 87  
 brevilabris, Passaloeus 247  
*brevimaculata*,  
   Prosopis variegata var. 262  
*breviniger*, Allantus amaenus 97  
*brevipalpis*, Hylaeus 259  
 brevipennis, Aglaopis 303  
 brevipennis, Tachysphex 237  
 brevipennis, Tiphia 150  
*brevipetiolata*, Pemphredon 248  
 brevis, Coelioxys 304  
*brevis*, Crabro 229  
 brevis, Crabro 234  
*brevis*, Dolerus 79  
 brevis, Entomognathus, *Crabro* 234  
 brevis, Hoplocampa, *Tenthredo* 67  
*brevis*, Mimesa 250  
*brevis*, Pachycephus 110  
*brevis*, Sphecodes 290  
 brevis, Tenthredo 67  
*breviscapus*, Pompilus 173  
 breviseta, Euura, *Pteronidea* 57  
*brevispina*, Cimex 30  
*brevispina*, Perineura 99  
*brevispinis*, Nematius 57  
*brevispinosus*, Mesitius 124  
*brevitarsis*, Andrena 292  
 brevitarsis, Astarta 218  
 brevitarsis, Chrysis 134  
*brevitarsis*, Psenulus 252  
*brevitarsis*, Dolerus 80  
*brevithorax*, Halictus 286  
 breviuscula, Stelis, *Heriades* 302  
*breviuscula*, Tenthredo 88  
*breviusculus*, Nematius 61  
 brevivalva, Euura, *Nematius* 57  
*breviventris*, Allantus 91  
 breviventris, Mimesa 250  
*bridgmaniana*, Nomada 312  
 bridgmanii, Euura, *Nematius* 57  
 brischkei, Nematius 69  
 briseis, Lasioglossum briseis 282  
*britannica*, Vespa 195  
*Brodiei*, Oxybelus 243  
 brodmannicus, Bombus 330  
*bruesi*, Myrmica laevinodis var. 206  
*Brugmoia* 140  
 brullei, Cladius, *Priophorus* 54  
*Brulléi*, Tachytes 238  
 brullii, Tachysphex, *Tachytes* 238  
*Brullii*, Tachytes 238  
*bruneipes*, Macrophyta 87  
*brunnea*, Tenthredo 68  
 brunneipes, Liris 218  
 brunneipicta, Euura,  
   *Amauronematus* 57  
*brunneofasciata*, Nomada  
   lineola var. 313  
*brunneonitida*, Formica 199  
 brunnescens, Halictus, *Hylaeus* 277  
*brunnescens*, Tenthredopsis  
   coqueberti 98  
*brunneus*, Aneugmenus 81  
 brunneus, Lasius, *Formica* 202  
 brunneus, Pasites maculatus var. 319  
*brunni*, Camponotus marginatus 198  
*brunniapex*, Pristiphora 74  
*brunnicornis*, Nematius 63  
 brunnipipes, Macrophyta 87  
 brunnipipes, Paramyrmica, *Myrmica* 153  
*brunniventris*, Tenthredo 45  
 brutia, Mutilla 157  
 brutia, Ronisia, *Mutilla* brutia 157  
 bruxellensis, Mimesa 250  
*bubulca*, Andrena niveata ssp. 270  
*bubulcus*, Halictus 284  
 buccale, Lasioglossum, *Halictus* 282  
*buccatus*, Nematius 56  
*Bucephalus*, Sphecx scutellata 233  
*Bucerceris* 252  
*bucharensis*, Polistes 193  
 bucharica, Didineis 219  
*bucoda*, Pristiphora 72  
 buda, Chrysis 134  
 budashkini, Melitta 294  
 budensis, Melitta, *Cilissa* 294  
 budrisi, Stigmatodipogon 165  
 bufo, Pristiphora, *Nematius* 71  
*bulgarica*, Athalia glabricollis 44  
 bulgarica, Prosopigastra 237  
*bulgaricus*, Odynerus 192  
 bulgariensis, Andrena 263  
*Bulsanensis*, Crabro 233  
*bulsanensis*, Leptochilus alpestris  
   alpestris var. 185  
 bupresticida, Cerceris 253  
*burlinii*, Eumenes arbustorum var. 184  
*bursakovi*, Tetramorium 209

- busaei*, Dolerus 77  
 Busarbidea 76  
*butovitschi*, Diprion 33  
*butuani*, Ectemnius 233  
*buyoo*, Nomada 314  
*buyssoni*, Chrysis 141  
*buyssoni*, Dolerus germanicus 78  
*buyssoni*, Megachile 306  
*buyssoni*, Odynerus 185  
*buyssoni*, Psithyrus rupestris 329  
*buyssoni*, Tenthredopsis nassata 99  
*buyssoni*, Xiphidria 115  
*Buzatlana* 147  
 byssina, Anthidium, *Apis* 303  
*Bytinskia* 296
- cabreræ*, Macrophyta militaris 86  
*Cabreræi*, Tachysphex 238  
 cadderensis, Euura, *Nematus* 57  
*cadusa*, Myrmica 205  
 caeca, Ctenotilla, *Mutilla* 155  
 caeca, Mutilla 155  
*caementaria*, Osmia 297  
 caementarium, Sceliphron, *Sphex* 214  
 Caenocephus 108  
*Caenolarra* 236  
 Caenolyda 102  
*Caenoneura* 36  
*Caenopsen* 251  
 caeruleocarpa, Euura 57  
*caeruleocephala*, Dufourea 290  
 caerulescens, Osmia, *Apis* 298  
 caeruleum, Chalybion 214  
 caeruleus, Elampus 127  
 caeruleus, Sphex 214  
 caespitum, Formica 209  
 caespitum, Tetramorium, *Formica* 209  
*caja*, Tenthredo persa 90  
*calabra*, Andrena 267  
*calabra*, Nomada 315  
 calabricus, Eumenes 182  
*calabricus*, Odynerus 185  
*calabrina*, Melecta 326  
*Calagenia* 165  
 Calameuta 108  
 Calameuta subg. 108  
*calandra*, Chrysis soror 138  
*Calarge* 22  
 calcarata, *Apis* 276  
*calcaratus*, Allantus 97  
*calcaratus*, Hoplomerus 187  
*calcaratus*, Panurgus, *Apis* 276  
 calceatum, Lasioglossum, *Apis* 282  
 calceatus, Allantus, *Tenthredo* 38  
*calceatus*, Crabro 223  
*calceatus*, Crabro 235  
*calceolata*, Hoplocampa 50  
 Calceorhopalum 235  
*calderoni*, Harpiphorus 41  
 caledonicus, Nematius, *Nematus* 68  
*calendarum*, *Apis* 259  
 calens, Chrysis 141  
 calens, Stilbum, *Chrysis* 141
- Caliadurgus 162  
*Calicurgus* 161, 162  
*calidus*, Bombus 330  
*californicus*, Gymnonychus 70  
*californicus*, Pelopeus 214  
 caligator, Tenthredo 97  
*caligatus*, Emphytus 40  
*caliginosa*, Megilla 324  
*caliginosa*, Tenthredo 99  
 caliginosum, Lasioglossum 282  
 calimorpha, Chrysis calimorpha 134  
 calimorpha, Nomada 311  
*Caliosysphinga* 48  
 Caliroa 45  
 calliblepharus, Allantus, *Emphytus* 37  
*callicerus*, Nematus 75  
 callopyrrha, Andrena 274  
*callosa*, Ceratina auct. 310  
*callosum*, Hedychrum 128  
*callosus*, Odynerus 179  
 Calomelissa subg. 264  
*calopteryx*, Astarta 219  
*calopteryx*, Tachysphex 239  
*Calosphex* 215  
*Calotachytes* 240  
 calvaria, Tenthredo 96  
*Calyzoa* 123  
*Calyzella* 123  
*calypso*, Chrysis 135  
 camelinus, Gonatopus 120  
*camelogigas*, Sirex 113  
 camelus, Ichneumon 115  
 camelus, Lestica, *Crabro* 234  
 camelus, Xiphidria, *Ichneumon* 115  
 cameroni, Alysson 219  
*cameroni*, Amauronematus 65  
*cameroni*, Anteon 119  
*cameroni*, Mutilla 156  
*cameronii*, Nematus 63  
 Cameronitus 231  
*camilla*, Tenthredo 90  
*campanaria*, Vespa 195  
 campanularum, Chelostoma, *Apis* 295  
 campestris, Ammophila 212  
*campestris*, Andrena 280  
 campestris, Bombus, *Apis* 329  
*campestris*, Gonatopus 120  
 campestris, Tenthredo 91  
*campestris*, Vespa 221  
*Camponiscus* 69  
 Camponotus 198  
 Camponotus subg. 198  
**Campsomerini** 147  
*Campsoscolia* 147  
 Camptopoeum 275  
 Camptopoeum subg. 276  
 Campylogaster subg. 264  
*Campylonyx* 119  
 camtschatcalis, Cephus 109  
*camtschatcalis*, Dolerus pratensis 78  
 camtschatcalis, Euura,  
     *Amauronematus* 57  
*camtschatcalis*, Loderus gilvipes 79
- camtschatcalis*, Micronematus 73  
 camtschatcalis, Tenthredo,  
     *Tenthredella* 94  
*camtschatcalis*, Tenthredopsis 98  
*camtschatica*, Athalia lugens 44  
 camtschatica, Empria 41  
 camtschatica, Euura, *Pontania* 57  
*camtschatica*, Tenthredo maculigera 91  
*camtschatica*, Tenthredopsis  
     auriculata 98  
 camus, Aphelopus 118  
*cana*, Eucera 320  
*cana*, Megachile analis 307  
 cana, Rophites 291  
*canadensis*, Emphytus 39  
*canaliculatus*, Nematus 71  
*canariensis*, Andrena 270  
*canariensis*, Tachysphex costai 238  
 candens, Abia 28  
*candens*, Andrena 273  
*candiae*, Andrena 269  
 candida, Formica 200  
*candida*, Tenthredopsis austriaca 99  
 candidata, Empria, *Tenthredo* 41  
*candidata*, Macrophyta albicincta 84  
 candiotum, Episyron 167  
*canescens*, Andrena 274  
 canescens, Bembix, *Apis* 221  
*canescens*, Dasypoda 293  
*canescens*, Eucera 322  
*canescens*, Tenthredo 80  
*canigica*, Andrena allosa ssp. 267  
*caninae*, Eriocampa 46  
 cannabis, Cladius, *Trichiocampus* 54  
*Canonarea* 83  
*Canonniades* 76  
*canonota*, Dasylabris mauropsis var. 153  
*cantabrica*, Heriades 296  
*cantatrix*, Eucera 320  
*canus*, *Apis* 257  
 canus, Rophitoides, *Rophites* 291  
*canuta*, Xylocopa 309  
*caocinnus*, Psen 251  
 capillosa, Andrena 267  
*capitalis*, Andrena 275  
*capitata*, Cerceris 254  
*capitata*, Spilomena 249  
*capitatus*, Acanthomyops  
     fuliginosus 201  
 capitatus, Lasius, *Acanthomyops* 201  
*Capito*, Crabro 227  
 capito, Euura, *Pteronus* 57  
 capitosus, Crossocerus, *Crabro* 228  
*capra*, Odynerus 178  
*caprae*, *Apis* 313  
*caprae*, Cimbex 30  
*caprae*, Cynips salicis 64  
*caprae*, Tenthredo 64  
*caprifolii*, Psen 103  
 caprimulga, Andrena 268  
*capta*, Andrena decipiens ssp. 267  
 captiva, Arge, *Hylotoma* 22  
 caputaureum, Hedychridium 128

- caputaureum*, Hedychridium  
 roseum var. 128  
*capverdensis*, Sphecodes 289  
*Carabro* 225  
*caraimica*, *Andrena similis* ssp. 274  
*Carandrena* subg. 264  
*Caranthophora* subg. 323  
*carantonica*, *Andrena* 267  
*carbo*, *Aglaostigma*, *Macrophyopsis* 83  
*carbonaria*, *Anthophora* 324  
*carbonaria*, *Apis* auct. 272  
*carbonaria*, *Macrophya* 85  
*carbonaria*, *Mimesa* 250, 251  
*carbonaria*, *Neocimbex taukushi* 29  
*carbonaria*, *Tenthredo* 99  
*carbonarium*, *Poecilosoma* 41  
*carbonarius*, *Auplopus carbonarius*,  
*Sphex* 165  
*carbonarius*, *Cephus* 109  
*carbonarius*, *Crabro* 228  
*carbonarius*, *Dolerus* 81  
*carbonarius*, *Gorytes* 221  
*carbonarius*, *Halictus* 281  
*carbonarius*, *Taxonus* 43  
*carbonatus*, *Halictus* 281  
*Carbonelis* subg. 147  
*carbonicolor*, *Anospilus*,  
*Psammochares* 168  
*carceli*, *Arpactus* 223  
*carcelii*, *Gerbekas*, *Mesitius* 124  
*carcelii*, *Mesitius* 124  
*cardinalis*, *Lionotus* 183  
*cardinalis*, *Pompilus* 173  
*Cardiocondyla* 203  
*cardioscapus*, *Hylaeus* 259  
*carelica*, *Euura*, *Nematus* 57  
*carinaeventris*, *Halictus* 279  
*carinata*, *Coelioxys* 304  
*carinata*, *Dasygaster* 293  
*carinata*, *Dufourea*, *Halictoides* 290  
*carinata*, *Pemphredon* 247  
*carinata*, *Pristiphora*, *Nematus* 71  
*carinata*, *Tenthredo* 82  
*carinata*, *Tenthredopsis carinata* 98  
*carinatus*, *Pompilus* 169  
*carinatus*, *Anteon* 119  
*carinatus*, *Dolerus* 80  
*carinatus*, *Psen* 250  
*Carinellum* 301  
*Carinevagetes* 170  
*carinifrons*, *Aneugmenus*, *Selandria* 76  
*carinifrons*, *Arge* 23  
*carinifrons*, *Psenulus*, *Psen* 252  
*cariniventris*, *Halictus pollinosus* 279  
*Carinoscolia* 147  
*Carinostigmus* 246  
*carinthiaca*, *Macrophya*, *Tenthredo* 85  
*carinthiacus*, *Camponiscus* 53  
*carinula*, *Andrena* 275  
*carinulata*, *Megachile* 305  
*carinulatus*, *Cimbex* 29  
*carnea*, *Nomada flavomaculata* var. 311  
*carnea*, *Andrena rutila* ab. 270  
*carnea*, *Chrysis* 142  
*carneiventris*, *Osmia* 298  
*carnifex*, *Chrysis* 134  
*carniolica*, *Osmia* 298  
*carniolicus*, *Lasius* 201  
*carpathia*, *Chalicodoma parietina* 305  
*carpatica*, *Tenthredo* 88  
*carpentieri*, *Aprosthemata* 26  
*carpentieri*, *Pseudisobranchium* 123  
*carpinata*, *Tenthredo* 93  
*carpini*, *Ametastegia*, *Emphytus* 39  
*carpini*, *Lyda* 104  
*carpini*, *Tenthredo* 95  
*casia*, *Tenthredopsis* 98  
*Casipteryx* 90  
*caspia*, *Cerceris* 255  
*caspia*, *Tenthredo*, *Allantus* 90  
*caspia*, *Amasis* 31  
*caspia*, *Andrena* 273  
*caspia*, *Cerceris* 253  
*caspia*, *Crematogaster*  
*sordidula* var. 204  
*caspia*, *Eucera* 320  
*caspia*, *Eumenes sesquicinctus*  
*viratus* var. 185  
*caspia*, *Mutilla* 153  
*caspia*, *Sterictiphora* 26  
*caspia*, *Tenthredo* 92  
*caspia*, *Vespa crabro* var. 194  
*caspicum*, *Lasioglossum*, *Halictus* 280  
*caspicus*, *Colletes* 257  
*caspicus*, *Crabro*, *Blepharipus* 226  
*caspicus*, *Euodynerus*, *Leionotus* 183  
*caspicus*, *Jucancistrocerus* 184  
*caspicus*, *Mesitius* 124  
*caspicus*, *Pachycephus* 110  
*caspicus*, *Polistes* 193  
*caspiensis*, *Chrysis* 134  
*caspius*, *Myrmecocystus cursor* var. 199  
*castanea*, *Cimbex* 29  
*castanea*, *Macrophya* 89  
*castellana*, *Nomada* 311  
*castigata*, *Chrysis* 134  
*castilianus*, *Sphecodes* 288  
*castiliensis*, *Macrophya rufipes* 86  
*casularum*, *Heriades* 296  
*catachloris*, *Nematus* 65  
*Cataglyphis* 199  
*cataglyphus*, *Bombus ikonnikovi* 327  
*catanensis*, *Trogaspidia*, *Mutilla* 157  
*catellata*, *Birka*, *Selandria* 76  
*cathoraticus*, *Nematus* 70  
*catocala*, *Gilpinia*, *Lophyrus* 33  
*catulus*, *Nematus* 73  
*caucasia*, *Poecilotiphia* 150  
*caucasica*, *Anthophora* 324  
*caucasica*, *Arge* 23  
*caucasica*, *Cerceris* 253  
*caucasica*, *Chrysis* 138  
*caucasica*, *Chrysis analis* var. 134  
*caucasica*, *Coryniscus*, *Amasis* 31  
*caucasica*, *Crocisa* 327  
*caucasica*, *Empria* 42  
*caucasica*, *Eucera* 321  
*caucasica*, *Euura*, *Pachynematus* 57  
*caucasica*, *Ferreola* 173  
*caucasica*, *Macrophya* 85  
*caucasica*, *Macrophya*, *Allantus* 85  
*caucasica*, *Megachile* 305  
*caucasica*, *Melitturga* 276  
*caucasica*, *Mimesa* 250  
*caucasica*, *Myrmica rugulosa* 205  
*caucasica*, *Myrmilla meda* 154  
*caucasica*, *Myrmilla*, *Mutilla* 154  
*caucasica*, *Nomada fucata* var. 313  
*caucasica*, *Podalonia*, *Psammophila* 213  
*caucasica*, *Pseudotiphia*, *Tiphia* 150  
*caucasica*, *Rhadinoceraea* 52  
*caucasica*, *Sciapteryx* 89  
*caucasica*, *Tenthredo caucasica* 90  
*caucasica*, *Xiphydria* 116  
*causasicola*, *Anthophora furcata* 323  
*causasicola*, *Cataglyphis nodus* 199  
*causasicola*, *Chrysis* 134  
*causasicola*, *Chrysis analis* 134  
*causasicola*, *Hoplitis* 297  
*causasicola*, *Macrophya hamata* 85  
*causasicum*, *Anthidium* 300  
*causasicum*, *Anthidium*  
*diadema* var. 300  
*causasicum*, *Hedychridium* 129  
*causasicum*, *Stenamamma* 207  
*causasicus*, *Allantus* 90  
*causasicus*, *Ancistrocerus oiventris* 179  
*causasicus*, *Bombus* 329  
*causasicus*, *Camponotus*  
*herculeanus* 198  
*causasicus*, *Cleptes* 127  
*causasicus*, *Harpactus* 223  
*causasicus*, *Pamphilius* 104  
*causasicus*, *Podalirius furcata* var. 323  
*causasicus*, *Rophites* 291  
*causasicus*, *Strongylogaster* 82  
*causasicus*, *Tachytes* 240  
*causasiensis*, *Chrysis analis* 134  
*causasicum*, *Hedychridium*  
*sculpturatum* var. 129  
*caudalis*, *Euura*, *Nematus* 57  
*caudatus*, *Coelioxys* 304  
*caudatus*, *Halictus aeratus* 282  
*caularis*, *Hoplitis*, *Osmia* 296  
*caulicola*, *Apis* 296  
*Cautolasius* subg. 201  
*cavata*, *Empria* 39  
*cavifrons*, *Ectemnius*, *Crabro* 231  
*caviventris*, *Anoplius*, *Pompilus* 172  
*Ceballosia* 246  
*cebrionicornis*, *Nematus* 75  
*ceciliae*, *Bombus lapponicus* 330  
*cecilioides*, *Bombus lapponicus* 330  
*cecrops*, *Colletes* 258  
*cedens*, *Halictus alfenellus* 278  
*cedri*, *Lasioglossum leucozonium* 281  
*Celia* 249  
*cellularis*, *Nematus* 70  
*Celonites* 176

- celsia*, Tenthredella 92  
*celtica*, Mimesa 251  
*celtica*, Tenthredo 93  
*celticus*, Colletes cunicularius 257  
*Cemonus* 248  
*cenchrus*, Dolerus 80  
*centaureae*, Melitta 294  
*centifoliae*, Tenthredo 44  
*Centrias* 310  
*centronigrata*, Tenthredopsis flavomaculata 100  
*centuncularis*, Apis 305  
*centuncularis*, Megachile, *Apis* 306  
*Cepha* 111  
*Cephalcia* 102  
**Cephalcinae** 101  
*Cephaledo* 89  
*Cephaledo* subg. 90  
*Cephalia* 102  
*cephalica*, Ceratina callosa 310  
*cephalica*, Mutilla 154  
*Cephalictoides* subg. 290  
*cephalicus*, Euodynerus 183  
*cephalicus*, Halictus 278  
*Cephaloderma* 124  
*Cephalonomia* 124  
**Cephalonomiini** 124  
*cephalotes*, Allantus 98  
*cephalotes*, Bethylus, *Perisemus* 125  
*cephalotes*, Crabro 233  
*cephalotes*, Ectemnius, *Crabro* 233  
*cephalotes*, Ephippionotus 110  
*cephalotes*, Megalodontes, *Tenthredo* 107  
*cephalotes*, Osmia 299  
*cephalotes*, Sphecodes 289  
*cephalotes*, Tenthredo 107  
*cephalotiformis*, Sphecodes quadratus 289  
*Cephen* 310  
**Cephidae** 108  
**Cephinae** 108  
**Cephoidea** 108  
*Cephosoma* 110  
*Cephus* 109  
*cerana*, Apis 332  
*Ceraplastes* 302  
*cerasi*, Caliroa, *Tenthredo* 45  
*cerasorum*, Tenthredo 76  
*cerastes*, Chrysis 134  
*Ceratina* 310  
*Ceratina* subg. 310  
*Ceratimidia* 310  
*Ceratinidia* subg. 310  
**Ceratinini** 310  
*Ceratocnemis* 162  
*Ceratocolus* 234  
*Ceratocrabro* 231  
*Ceratopales* 160  
*Ceratophorus* 247  
*Ceratopompilus* 168  
*Ceratostmia* 297  
*ceraunius*, Crabro 245  
*cerberus*, Anthophora semperi 324  
**Cercerini** 252  
*Cerceris* 252  
*cereipes*, Selandria 76  
*Cerianthidium* 300  
*cerinthidis*, Osmia 299  
*Cerobactrus* 110  
*Ceropales* 160  
*Ceropales* subg. 160  
**Ceropalinae** 160  
*cervicornis*, Prosopis 260  
*cetaria*, Empria 39  
*cetii*, Apis 268  
*cetratus*, Crossocerus, Crabro 228  
*Ceylalictus* 292  
*Ceylalictus* subg. 292  
*ceylonica*, Tachytes 239  
*ceylonicus*, Oxybelus  
*chaharensis*, Halictus 277  
*chalcites*, Ceratina 310  
*chalcites*, Spinolia, *Chrysis* 141  
*Chalcogonatopus* 120  
*Chalcolamprus* 234  
*Chalepoxenus* 203  
*Chalicodoma* subg. 305  
*chalybaeum*, Hedychrum 130  
*chalybea*, Ceratina 310  
*chalybea*, Ctenoplectra 319  
*chalybea*, Podalonia, *Ammophila* 213  
*Chalybion* 214  
*chambersi*, Pachynematus 59  
*changaiensis*, Diodontus 247  
*chappelli*, Dolerus 77  
*Characopygus* 110  
*Charitandrena* subg. 264  
*charusini*, Cerceris 253  
*chasanensis*, Prosopis 259  
*chasanicus*, Epyris 123  
*chatkalensis*, Cataglyphis aenescens 199  
*chefketi*, Tetramorium 209  
*chefketi*, Tetramorium caespitum var. 209  
*cheilon*, Nematus 72  
*Chelogyms* 118  
*Chelostoma* 295  
*Chelostoma* subg. 295  
*chelostomae*, Sapyga 146  
*Chelothelium* 119  
*chengtehensis*, Colletes 257  
*chersona*, Andrena 263  
*chersonensis*, Gonatopus 120  
*chevrieranus*, Pterochilus 189  
*chevrieranus*, Stenodynerus, *Odynerus* 190  
*chevieri*, Ceratina 310  
*chevieri*, Psenulus, *Psen* 252  
*Chevrieria* 248  
*chevrolatii*, Formila 122  
*chibaensis*, Sphecodes 288  
*chichibuensis*, Sphecodes 290  
*chichibuus*, Sphecodes 290  
*chikuzenensis*, Andrena taraxaci ssp. 265  
*Chilochares* 161  
*Chilosphex* 214  
*chimaera*, Andrena 270  
*chinensis*, Brachyponera, *Ponera* 209  
*chinensis*, Chrysis 134  
*chinensis*, Eucera, *Tetralonia* 321  
*chinensis*, Odynerus 189  
*chinensis*, Polistes, *Vespa* 192  
*chinensis*, *Ponera nigrita* 209  
*chinensis*, *Vespa crabro* 194  
*Chionopompilus* 171  
*Chionoapterus* 173  
*chionospilus*, Sphecodes 289  
*chionura*, Megachile analis 307  
*chipsani*, Crabro 231  
*chittendenii*, Anoxus 124  
*chlapovskii*, Halictus 281  
*Chlorampulex* 211  
*Chlorandrena* subg. 265  
*Chlorocheilus* 161  
*Chlorodryinus* 119  
*Chlorodynerus* 180  
*chlorogaster*, Nematus 60  
*chloronotus*, Apathus 329  
*chloropus*, Lasioglossum, *Halictus* 280  
*chloropygum*, Hedychridium chloropygum 129  
*chlorosoma*, Rhogogaster, *Tenthredo* 88  
*chloroticus*, Odynerus 180  
*chobauti*, Colletes 258  
*chodjana*, Anthophora khambana f. 324  
*cholodkovskii*, Hedychrum 130  
*chongar*, Trypoxylon frigidum 244  
*chorasmius*, Ammoplanellus, *Ammoplanus* 246  
*chorasmius*, Ammoplanus 246  
*chosenensis*, Chrysis 134  
*chosenensis*, Chrysis nitidula 134  
*chosensensis*, Crossocerus palmipes 229  
*chosensis*, Tiphia 150  
*chosrovicus*, Harpactus 224  
*chotanensis*, Halictus 284  
*christofi*, Anthophora 324  
*christophi*, Strongylognathus 207  
*christophi*, Tapinoma 198  
*chromata*, Pristiphora 71  
*Chrysellampus* 127  
*Chrysidea* 133  
**Chrysididae** 126  
**Chrysidinae** 127  
**Chrysidini** 133  
**Chrysidioidea** 118  
*Chrysis* 133  
*chrysites*, Ectemnius, *Crabro* 233  
*Chrysocleptes* 126  
*Chrysogona* 133  
*Chrysolarra* 237  
*Chrysolyda* 102  
*chrysomalla*, Ceratina 310  
*chrysomelina*, Osmia 299  
*chrysonota*, Holopyga, *Ellampus* chrysonota 131  
*Chrysopheon* 303

- chrysoprasina, *Chrysis* 134  
 chrysopus, *Andrena* 267  
 chrysopyga, *Andrena* 275  
 chrysopyga, *Eucera* 320  
*chrysopyga*, *Nomada* 314  
 chrysorrhoea, *Hoplocampa*,  
     *Tenthredo* 67  
 chrysosceles, *Andrena*, *Melitta* 271  
 chrysostigma, *Chrysis* 134  
*chrysostomus*, *Crabro* 231  
*Chrysura* 139  
 chrysura, *Macrophya*, *Tenthredo* 85  
*chrysura*, *Melitta* 294  
*chrysura*, *Systropha* 291  
 chrysurus, *Lithurgus* 295  
*Chthonolasius* subg. 201  
*churchevillei*, *Tenthredopsis* 100  
*Chyphonocheilus* 161  
*Chyphonocheilus* subg. 161  
**Chyphotinae** 159  
*chyzeri*, *Tenthredo* 94  
 cicatrix, *Holopyga* 132  
*cicum*, *Pontania* 66  
*Ciliaporus* 174  
 ciliaris, *Arge*, *Tenthredo* 23  
*ciliata*, *Andrena* 268  
*ciliata*, *Apis* 272  
*ciliata*, *Formica pratensis* var. 200  
*ciliata*, *Mutilla* 154  
 ciliata, *Poecilotiphia*, *Meria* 150  
*ciliata*, *Prosopis* 259  
*ciliatula*, *Andrena* 268  
 ciliatus, *Agenioideus*, *Pompilus* 167  
 ciliatus, *Dolerus* 79  
*Cilissa* 294  
*cilix*, *Allantus kietteri* 90  
*Cimbex* 29  
**Cimbicidae** 28  
**Cimbicinae** 29  
*Cimbicisoma* 30  
*cinclus*, *Halictus* 286  
 cincreus, *Anthophora*, *Podalirius* 325  
*cincta*, *Andrena* 265  
*cincta*, *Dimorpha* 219  
*cincta*, *Osmia* 298  
*cincta*, *Pristiphora* 71  
*cincta*, *Trachusa* 303  
*cinctella*, *Bembix cinctella* 221  
*cinctellus*, *Agenioideus*, *Pompilus* 167  
*cinctipes*, *Blepharipus* 228  
*cinctipes*, *Emphytus* 38  
*cinctipleuris*, *Tenthredo*, *Allantus* 92  
*cinctitarsis*, *Stenocrabro* 228  
*cinctivoentris*, *Nomada*  
     *ferruginata* var. 314  
*cinctus*, *Allantus*, *Tenthredo* 38  
*cinctus*, *Crabro* 221, 231  
*cinctus*, *Dioxys*, *Trachusa* 303  
*cinctus*, *Dolerus* 38  
*cinctus*, *Nematus* 69  
 cineraria, *Andrena*, *Apis* 268  
 cineraria, *Eucera* 320  
*cineraria*, *Eucera* 321  
*cinerascens*, *Andrena* 265, 275  
 cinerascens, *Colletes* 257  
*cinerascens*, *Dasypoda argentata* 293  
*cinerea*, *Anthophora* 324  
*cinerea*, *Apis* 257  
*cinerea*, *Eucera* 320  
*cinerea*, *Formica* 200  
*cinerea*, *Euura* 56  
*cinereae*, *Nematus* 64  
*cinereipes*, *Birka*, *Tenthredo* 76  
*cinereipes*, *Tenthredo* 76  
*cinereofusca*, *Formica* 200  
*cinereofusca*, *Formica cinerea* var. 200  
*cinereophila*, *Andrena* 265  
*cinereus*, *Nematus* 75  
*cinereus*, *Podalirius* 325  
*cinereus*, *Pompilus*, *Sphex* 171  
*cineta*, *Nomada* 313  
*cineticornis*, *Nomada* 311  
 cingillipes, *Allantus*, *Emphytus* 38  
 cingillum, *Allantus*, *Tenthredo* 38  
*cingulata*, *Allantus* 96  
*cingulata*, *Andrena* auct. 272  
*cingulata*, *Holopyga* 131  
*cingulata*, *Monostegia*, *Poecilosoma* 43  
*cingulata*, *Nomada* 268  
*cingulata*, *Physetopoda*, *Mutilla* 155  
*cingulata*, *Sphex* 170  
*cingulatum*, *Anthidium* 300  
*cingulatus*, *Allantus*, *Tenthredo* 38  
*cingulatus*, *Bombus* 330  
*cingulatus*, *Dolerus* 38  
*cingulatus*, *Pamphilus* 104  
*cingulicornis*, *Chrysis cingulicornis* 134  
*cingulifer*, *Tenthredo*, *Allantus* 97  
*cingulum*, *Tenthredo* 38, 97  
*cinnabarina*, *Arge* 23  
*cinnabarina*, *Nomada* 316  
*cinxia*, *Caliroa*, *Tenthredo* 46  
*cinxius*, *Crossocerus*, *Crabro* 228  
*circassica*, *Sciapteryx* 89  
*circe*, *Chrysis* 134  
*circensis*, *Pterochilus*  
     *bembeciformis* var. 184  
*circularis*, *Athalia*, *Tenthredo*  
     *circularis* 44  
*circularis*, *Cerceris*, *Phylanthus* 253  
*circularis*, *Pristiphora* 74  
*circulata*, *Crocisa* 327  
*circumcincta*, *Megachile*, *Apis* 307  
*circumcinctum*, *Anthidium*  
     *quadriseriatum* var. 300  
*circumscriptus*, *Nematus* 59  
*cirrhosomus*, *Nematus* 73  
*cirrhozonius*, *Halictus* 281  
*cirsii*, *Sabulicola* 287  
*ciscaspica*, *Andrena eversmanni* ssp. 272  
*ciscaucasicus*, *Leptothorax*  
     *tuberosum* 208  
*citreipes*, *Tenthredo* 86  
*citreus*, *Nematus* 63  
*citrine*, *Lasius bicornis* var. 201  
*citrinus*, *Lasius* 201  
*Cladardis* 46  
*Cladius* 53  
*Cladius* subg. 54  
*clara*, *Tenthredella livida* 95  
*Claremontia* 46  
*clarescens*, *Kokujewia ectrapela* 25  
*clarinicollis*, *Chrysis* 134  
*clarinicollis*, *Chrysis ignita* var. 134  
*clarior*, *Formica rufibarbis*  
     *subpilosa* var. 200  
*clarior*, *Formica sanguinea* var. 200  
*clarior*, *Paravespa rex* var. 188  
*claripennis*, *Ancistrocerus* 179  
*claripennis*, *Andrena*  
     *carbonaria* var. 272  
*claripennis*, *Bethylus* 125  
*claripennis*, *Coelioxys* 305  
*claripennis*, *Dolerus germanicus* 78  
*claripennis*, *Goniozus*, *Bethylus* 125  
*claripennis*, *Hylaeus* 261  
*claripennis*, *Hylotoma* 25  
*clarissima*, *Formica* 200  
*clarissima*, *Formica rufibarbis* var. 200  
*claristernis*, *Diprion simile* 33  
*claristernis*, *Pachynematus*  
     *imperfectus* 60  
*clarivoentris*, *Chrysis chosonenis* f. 134  
*clarkella*, *Andrena*, *Melitta* 263  
*clarkii*, *Cephaleia* 102  
*clarum*, *Zarudnidium* 129  
*clathratus*, *Hylaeus* 261  
*Clavellaria* 29  
*Clavellarius* 29  
*Clavicerca* 310  
*clavicerum*, *Trypoxylon* 244  
*clavicornis*, *Eucera* 276  
*clavicornis*, *Melitturga*, *Eucera* 276  
*clavicornis*, *Monospayga*, *Apis* 145  
*clavimana*, *Didineis* 219  
*clavipes*, *Andrena florea* var. 272  
*clavipes*, *Gonatopus*, *Gelis* 120  
*clavipes*, *Pompilus* 211  
*clavipes*, *Rhopalum*, *Sphex* 236  
*claviventris*, *Hoplitis*, *Osmia* 296  
*clematidis*, *Pseudodineura*,  
     *Pelmatopus* 75  
*clémenti*, *Priocnemis* 164  
*cleopatra*, *Andrena ephippium* var. 270  
*Cleptes* 126  
**Cleptinae** 126  
*clericalis*, *Arachnoispila*, *Pompilus* 170  
*clibrichella*, *Euura*, *Nematus* 57  
*clipeata*, *Vespa* 222  
*Clisodon* subg. 323  
*clitellata*, *Euura*, *Nematus* 57  
*clitellatus*, *Nematus* 57  
*clivorum*, *Messor* auct. 204  
*clivorum*, *Messor structor* var. 204  
*cloëvorax*, *Crabro* 229  
*clotho*, *Melecta* 326  
*clusius*, *Halictus leucozonius* 281  
*Clydostomus* 89  
*clypealis*, *Allantus* 96

- clypealis*, Cephus 109  
*clypealis*, Odynerus 183  
*clypealis*, Passaloecus 247  
*clypeare*, Eoanthidium, *Anthidium* 301  
*clypeare*, Lasioglossum, *Hylaeus* 282  
*clypearia*, SpheX 234  
*clypearis*, Andrena 264  
*clypearis*, Crabro 229  
*clypearis*, Hylaeus, *Prosopis* 261  
*clypeata*, Andrena 264, 265  
*clypeata*, Apis 234  
*clypeata*, Ceratophorus,  
*Pemphredon* 247  
*clypeata*, Eucera 320  
*clypeata*, Euura, *Amauronematus* 58  
*clypeata*, Formicapis 297  
*clypeata*, Lestica, *Apis* 234  
*clypeata*, Lyda 103  
*clypeata*, Macrocera 321  
*clypeatus*, Crabro 226  
*clypeatus*, Halictus 283  
*clypeatus*, Panurgus 276  
*clypeatus*, Philanthus 234  
*clypeatus*, Temnothorax, *Myrmica* 208  
*Clypeocrabro* 234  
*clypeopictus*, Stenodynerus,  
*Odynerus* 190  
Clytochrysus 231  
Clytrovorus 124  
Cnemidandrena subg. 265  
coactifrons, Machaerotherix 165  
coactula, Pristiphora, *Nematus* 71  
*coangustata*, Vespa 180  
*coarctata*, Eucera 320  
*coarctata*, Andrena 267  
*coarctata*, Formica 209  
*coarctata*, Ponera, *Formica* 209  
*coarctata*, Vespa 181  
*coarctatum*, Rhopalum, *SpheX* 235  
*coarctatus*, Emmatomus, *Gorytes* 220  
*coarctatus*, Eumenes, *Vespa* 181  
*coarctatus*, Gorytes 220  
*cochleareitarsis*, Halictus 277  
*cochlearipes*, Apis 323  
*cochlearitarsis*, Halictus, *Lucasius* 277  
cockerelli, Tenthredo, *Tenthredella* 94  
coecutiens, Apis 319  
coecutiens, Epeoloides, *Apis* 319  
*coelebs*, Sphecodes 289  
*coelestimontana*, Eumenes 181  
coelestinum, Hedychridium 142  
Coelioxys 304  
Coelioxys subg. 305  
*Coelocrabro* 227  
*Coeloecus* 247  
*coerulans*, Mutilla 157  
*coerulea*, Ceratina 310  
*coerulea*, Hylotoma 23  
*coeruleipennis*, Tenthredo 23  
coeruleocephala, Dufourea 290  
*coerulescens*, Dolerus 80  
*coerulescens*, Tenthredo 23  
coeruleus, *Nematus* 69  
*cogens*, Cerceris 253  
*cognata*, Andrena 273  
*cognata*, Macrophyta 86  
*cognata*, Myrmosa 153  
*cognata*, Pteronidea 61  
*cognata*, Stelis 303  
*cognata*, Tenthredo 85  
*cognatus*, Odynerus 184  
*cohaesus*, Dolerus 78  
coitana, Andrena, *Melitta* 271  
colchica, Nylanderia, *Paratrechina* 202  
*colchica*, Ponera coarctata  
coarctata 209  
*colchica*, Vespa norvegica saxonica  
natio 194  
colchicum, Lasioglossum littorale 284  
*colibri*, Tenthredo 44  
collectanea, Euura, *Nematus* 58  
*collare*, Hedychrum 130  
*collaris*, Allantus 83  
*collaris*, Andrena 269  
*collaris*, Colletes 257  
*collaris*, Diodontus 247  
*collaris*, Hartigia draconis 110  
*collaris*, Lestica, *Crabro* 234  
*collaris*, Monophadnoides 50  
*collaris*, Nematus 70  
*collaris*, Priophorus padi 54  
*collaris*, Profenus 52  
*collaris*, Sphecodes 289  
*collaris*, Tachysphex 239  
*collaris*, Tenthredo 80  
*collaris*, Tenthredo maculata 92  
*collariiventris*, Odynerus 183  
Colletes 257  
**Colletidae** 257  
colletiformis, Andrena 264  
**Colletinae** 257  
collina, Tapinoma 197  
*collinsonana*, Melitta 273  
*collinus*, Nematus 66  
*Colloliris* 237  
Colobopsis 199  
colon, Tenthredo 94  
colonialis, Andrena 265  
*colonoides*, Tenthredella velox 96  
*Coloplitis* 296  
*Coloptera* 212  
*coloradensis*, Pristiphora 71  
*colorata*, Prosopis 262  
*coloratus*, Dolerus pullulus 78  
coloratus, Elampus 127  
*coloratus*, Halictus 284  
Colpa 147  
Colpa subg. 147  
Colpopyga 127  
*Colposelandria* 75  
colpostoma, Arachnosipila, *Pompilus* 168  
*columbiae*, Blepharipus 228  
*columna*, Empria 39  
coma, Sapyga 145  
*comari*, Cladius 54  
*comata*, Andrena nigriceps ssp. 265  
*comatum*, Anthidium 300  
combaella, Andrena 275  
combinata, Andrena, *Apis* 273  
*combinata*, Hoplomerus  
melanocephalus var. 187  
*combinatus*, Sphecodes 290  
*comma*, Tenthredo 86  
commarginata, Myrmica 205  
*commixtus*, Halictus 286  
communis, Hylaeus 259  
*communis*, Vespa 196  
communista, Bothriomyrmex 197  
*communista*, Bothriomyrmex  
meridionalis var. 197  
*commutabilis*, Bombus lapponicus 330  
compacta, Euura, *Amauronematus* 58  
*compactus*, Mellinus 246  
*compar*, Hylaeus 260  
*comparata*, Andrena 272  
*comparata*, Chrysis 134  
*comparata*, Nomada 311  
*comparata*, Nomada  
maculifrons var. 311  
compedita, Solierella, *Silaon* 241  
*compeditus*, Silaon 241  
compressa, Pristiphora, *Nematus* 71  
compressicornis, Cladius, *Tenthredo* 54  
*compressicornis*, Pelopoeus 251  
compressum, Chlorion, *SpheX* 211  
compressus, Halictus, *Andrena*  
compressus 278  
compressus, Janus, *Sirex* 110  
*compressus*, Strongylogaster 82  
*compta*, Nomada 311  
*comptum*, Anthidium 301  
*comptus*, Crabro 231  
*comptus*, Pasites 319  
comta, Andrena 268  
comta, Chrysis 134  
Conaspidia 84  
*Concavixyela* 20  
*concessus*, Monophadnoides 50  
*concinna*, Amasis 32  
*concinna*, Eucera 320  
concinus, Anoplius, *Pompilus* 172  
concinus, Entomericus 246  
concinus, Entomosericus 246  
concinus, Hylaeus 261  
concinus, Oryttus, *SpheX*  
concinus 224  
concinus, SpheX 224  
*concolor*, Andrena atrorubricata var. 272  
*concolor*, Andrena helvola var. 264  
*concolor*, Chrysis fulgida var. 135  
*concolor*, Miscophus 241  
*concolor*, Pemphredon 249  
*concolor*, Psenulus, *Psen* 252  
*concolor*, Stizus 225  
*concolor*, Tenthredo providus 98  
*concolor*, Tenthredopsis thomsoni 99  
*concolora*, Mutilla 154  
*concreta*, Andrena tibialis ssp. 272  
condei, Pristiphora 71

- conductus*, *Nematus* 62  
*confinis*, *Allantus* 91  
*confinis*, *Andrena* 273  
*confinis*, *Cryptocheilus* 161  
*confinis*, *Ectemnius*, *Crabro* 232  
*confinis*, *Hylaeus* 259  
*confinis*, *Tetramorium* 209  
*confluens*, *Halictus* 278  
*conformis*, *Phyllotoma* 46  
*confusa*, *Ampulicomorpha* 122  
*confusa*, *Blennocampa* 46  
*confusa*, *Eucera* 320  
*confusa*, *Heriades* 296  
*confusa*, *Hylotoma* 23  
*confusa*, *Larra* 237  
*confusa*, *Mutilla* 157  
*confusa*, *Osmia* 298  
*confusa*, *Pristiphora* 71  
*confusor*, *Priocnemis* 163  
*confusus*, *Bombus confusus* 327  
*confusus*, *Crabro* 230  
*confusus*, *Dolerus sanguinicollis* 80  
*confusus*, *Hylaeus* 261  
*confusus*, *Nematus* 57  
*congener*, *Crossocerus*, *Crabro* 227  
*congener*, *Nematus* 71  
*congerens*, *Formica* 199  
*Congodryinus* 121  
*congruens*, *Andrena* 273  
*congruus*, *Stigmus* 247  
*congruus*, *Temnothorax*,  
*Leptothorax* 208  
*conica*, *Apis* 304  
*conica*, *Apis* 305  
*conica*, *Cerceris* 253  
*coniceps*, *Pristiphora* 74  
*conicus*, *Sphecius*, *Stizus conicus* 225  
*coniensis*, *Tenthredo* 90  
*conifer*, *Philoctetes*, *Ellampus* 132  
*conigera*, *Cerceris* 253  
*conjugata*, *Pristiphora*, *Nematus* 71  
*conjungens*, *Dolichovespula*  
*media* var. 195  
*conjuncta*, *Andrena* 272  
*conjungens*, *Andrena varians* var. 264  
*conjungens*, *Halictus* 278  
*conjungens*, *Nomada* 311  
*conjungens*, *Tenthredopsis* 98  
*connata*, *Pontania leucapsis* 63  
*connatus*, *Cimbex*, *Tenthredo*  
*connatus* 29  
*connectens*, *Janus* 110  
*connectens*, *Melitta* 271  
*connexa*, *Andrena* 273  
*connexa*, *Apis* 316  
*connexus*, *Symmorphus*, *Odynerus* 191  
*conoideus*, *Coelioxys*, *Anthophora* 305  
*consanguinea*, *Chrysis*  
*consanguinea* 134  
*consanguineus*, *Gorytes* 224  
*consimilis*, *Andrena* 267, 269  
*consimilis*, *Cleptes* 127  
*consimilis*, *Eucera* 320  
*consimilis*, *Tachyagetes* 174  
*consimilis*, *Tachysphex* 239  
*consobrina*, *Andrena* 272, 274  
*consobrina*, *Arachnospila*, *Pompilus* 168  
*consobrina*, *Prosopis* 260  
*consobrina*, *Sciapteryx*, *Tenthredo* 89  
*consobrinus*, *Bombus* 328  
*consobrinus*, *Crabro* 230  
*consobrinus*, *Monophadnoides* 50  
*consobrinus*, *Nematus* 61  
*consobrinus*, *Sphecodes* 289  
*consocius*, *Tachysphex* 238  
*consonus*, *Monophadnoides* 50  
*conspersa*, *Coelioxys* 304  
*conspersus*, *Coelioxys* 304  
*conspersus*, *Monophadnoides* 50  
*conspersus*, *Nematus* 71  
*conspicua*, *Tenthredo* 94  
*conspicuus*, *Monophadnoides* 50  
*constans*, *Odynerus* 179  
*constitutus*, *Monophadnoides* 50  
*constricta*, *Lestica* 234  
*constrictiventris*, *Pseudepipona* 189  
*constrictus*, *Andrena* 265  
*constrictus*, *Elampus*, *Notozus* 127  
*constructor*, *Auplopus*, *Agenia* 165  
*consueta*, *Dasylabris maura*  
*nostras* var. 153  
*consularis*, *Euchroeus purpuratus* 144  
*Contemptevagates* 170  
*contemptus*, *Pompilus* 171  
*contigua*, *Melitta* 275  
*contigua*, *Thrinax* 83  
*contiguus*, *Crabro* 231  
*continentalis*, *Halictus* 285  
*continentalis*, *Megachile maritima* 308  
*continuus*, *Ectemnius*, *Crabro* 232  
*continuus*, *Nematus* 67  
*contractus*, *Nematus* 75  
*contrario*, *Osmia adunca* 297  
*controversus*, *Bombus* 328  
*contusa*, *Andrena* 267  
*contusa*, *Tenthredo*, *Tenthredella* 94  
*convergenata*, *Tenthredo*,  
*Tenthredella* 91  
*convergens*, *Coelioxys* 305  
*convergens*, *Rhogogaster* 88  
*convergens*, *Sphecodes* 288  
*convergens*, *Stigmus* 250  
*conversa*, *Smicromyrme variabilis* f. 155  
*convexa*, *Andrena* 274  
*convexa*, *Apis* 275  
*convexa*, *Xylocopa* 310  
*convexiscutellaris*, *Macrophya* 85  
*convexiuscula*, *Melitta* 274  
*convexiusculum*, *Lasioglossum*,  
*Hylaeus* 282  
*convexus*, *Hylaeus* 284  
*convexus*, *Pamphilus* 104  
*convexus*, *Tachysphex* 238  
*convolvuli*, *Tenthredo* 291  
*copetica*, *Heriades* 296  
*copetica*, *Nomada* 311  
*Copidoceros* 25  
*Copoxyla* subg. 309  
*coptis*, *Sphecodes* 290  
*Coptoformica* subg. 199  
*coquebertii*, *Tenthredopsis*,  
*Tenthredo* 98  
*cora*, *Macrophya* 85  
*coracina*, *Pemphredon* 248  
*coracinus*, *Dolerus*, *Tenthredo* 79  
*coracinus*, *Monophadnoides* 50  
*coracinus*, *Smicromyrme* 156  
*corallina*, *Arge* 23  
*corallipes*, *Tenthredo* 85  
*coranicus*, *Katamenes sichelii* 185  
*corcyraea*, *Nomada* 312  
*Cordandrena* subg. 267  
*cordata*, *Athalia* 44  
*cordata*, *Tenthredo* 99  
*cordatoides*, *Athalia* 44  
*cordialis*, *Andrena* 267  
*cordigera*, *Tenthredo* 38  
*cordivalvata*, *Priocnemis* 163  
*coreana*, *Abia* 28  
*coreana*, *Apareophora* 45  
*coreana*, *Cimbex femorata* 30  
*coreana*, *Tenthredo* 96  
*coreanus*, *Dolerus* 80  
*coreanus*, *Epeolus* 317  
*coreanus*, *Orussus* 117  
*coreanus*, *Pamphilus* 104  
*coreanus*, *Phyllococcus*, *Hartigia* 110  
*corensis*, *Cerceris* 253  
*corensis*, *Megalodontes* 107  
*Corenius* 247  
*Corenocrabro* 227  
*coriacea*, *Arge* 25  
*coriacea*, *Priocnemis* 163  
*coriacea*, *Prosopis* 262  
*coriacea*, *Tachytes* 238  
*coriaceum*, *Hedychridium*, *Hedychrum*  
*coriaceum* 129  
*coriaceus*, *Nematus* 60  
*coriaceus*, *Tachysphex* 238  
*coriaceus*, *Tachysphex*, *Tachytes* 238  
*coriarius*, *Hylaeus* 284  
*corniculata*, *Mutilla* 154  
*corniculus*, *Dolichurus*, *Pompilus* 211  
*corniculus*, *Pompilus* 211  
*cornifrons*, *Osmia*, *Clalicodoma* 299  
*corniger*, *Belomicrus* 242  
*corniger*, *Cladius* 54  
*corniger*, *Passaloecus* 248  
*cornigera*, *Apis* 313  
*cornubiae*, *Athalia* 44  
*Cornuchrysis* 133  
*cornuta*, *Andrena* 295  
*cornuta*, *Cerceris* 253  
*cornuta*, *Eucera* 321  
*cornuta*, *Euura*, *Amauronematus* 58  
*cornuta*, *Osmia*, *Megachile* 299  
*cornutum*, *Trypoxylon* 244  
*cornutum*, *Trypoxylon frigidum* 244  
*cornutus*, *Hylaeus* 259

- cornutus*, Lithurgus auct. 295  
*cornutus*, Lithurgus, *Andrena* 295  
*coronata*, Blennocampa 47  
*coronata*, Coelioxys 304  
*coronata*, Ephutomma, *Eremomyrme* 155  
*coronata*, Mutilla 155  
*coronata*, Tarpa 107  
*coronata*, Tenthredo 75  
*coronatum*, Anthidium 301  
*coronatus*, Aneugmenus, *Tenthredo* 76  
*coronatus*, Eumenes, *Vespa* 181  
*coronatus*, Oryssus 117  
*coronatus*, Philanthus 255  
*coronatus*, Philanthus, *Sphex* 255  
*coronatus*, Sphex 255  
*Corporaalinus* 50  
*corporica*, Pseudoscolia 256  
*corpulentus*, Lygaeonematus 71  
*corructus*, Eumenes coronatus 181  
*corsa*, *Andrena nigroaenea* 269  
*corsica*, *Andrena florea* ssp. 273  
*corsica*, Bothriomyrmex  
    *meridionalis* var. 197  
*corsicus*, Bothriomyrmex 197  
*corsicus*, Eumenes coarctatus 181  
*corticalis*, Osmia 298  
*corticalis*, Temnothorax, *Myrmica* 208  
*corticus*, Pachynematus 66  
*corusca*, Hylotoma 23  
*coruscans*, Dolerus 80  
*corvina*, *Andrena tibialis* ssp. 272  
*corvinum*, Lasioglossum, *Halictus* 283  
*corvinus*, Hylaeus 262  
*coryli*, Platycampus 70  
*coryli*, Rhogogaster 88  
*coryli*, Tenthredo 95  
*Corymbas* 84  
*Coryna* 76  
*Corynia* 22  
**Corynidae** 31  
*Corynis* 31  
*Corynopus* 235  
*corytus*, Monophadnoides 50  
*Cosmiaporus* subg. 166  
*costae*, *Astata costae* 218  
*costae*, Bothriomyrmex 197  
*costae*, Cryptocheilus, *Salix* 161  
*costae*, Mimesa 250  
*costae*, Odynerus 185  
*costae*, Phyllotoma 49  
*costae*, Pontania 67  
*costae*, Tachysphex, *Tachytes* 238  
*Costae*, *Tachytes* 238  
*costalis*, Allanthus 97  
*costalis*, Monophadnoides 50  
*costalis*, Sciapteryx, *Tenthredo*  
    *costalis* 89  
*costalis*, Tenthredo 89  
*costaniana*, Osmia 298  
*costata*, Tenthredo 90  
*costatus*, Monophadnoides 50  
*costiferellus*, Halictus 284  
*costulatum*, Lasioglossum, *Halictus* 280  
*cothurnatus*, Dolerus 77  
*coxalis*, Macrophyta, *Dolerus* 87  
*coxalis*, Nomada 312  
*coxalis*, Pterocheilus 187  
*coxalis*, Tenthredo 39  
*Crabro* 29  
*Crabro* 225  
*Crabro* subg. 226  
*crabro*, *Vespa* 193  
*crabroneus*, Mellinus, *Sphex* 246  
**Crabronidae** 217  
*crabroniformis*, Masaris 145  
*crabroniformis*, Onychopterocheilus,  
    *Odynerus* 187  
*crabroniformis*, *Vespa* 193  
**Crabroninae** 225  
**Crabronini** 225  
*Craesus* 69  
*crasecundus*, Temnothorax 208  
*Craspedopyga* subg. 153  
*crassa*, Hylotoma 23  
*crassa*, Tenthredo 91  
*crassa*, *Vespa* 195  
*crassepuncta*, Holopyga 131  
*crassepunctatum*, Lasioglossum,  
    *Halictus* 283  
*crassicapitis*, Priocnemis 163  
*crassicauda*, Pachynematus 71  
*crassicornis*, Cladius 54  
*crassicornis*, Corynis, *Tenthredo* 32  
*crassicornis*, Crocisa 327  
*crassicornis*, Didineis 219  
*crassicornis*, Ectemnius, *Crabro* 233  
*crassicornis*, Eriocampa 46  
*crassicornis*, Evagetes, *Pompilus*  
    *crassicornis* 170  
*crassicornis*, Hoplisus 224  
*crassicornis*, Nematus 54, 71  
*crassicornis*, Sphecodes 288  
*crassicornis*, Stizoides, *Tiphia* 225  
*crassicornis*, Symmorpus, *Vespa* 191  
*crassidens*, Euura, *Amauronematus* 58  
*crassipes*, Anthophora 325  
*crassipes*, *Crabro* 235, 243  
*crassipes*, Euura, *Nematus* 58  
*crassipes*, Mimesa 250  
*crassipunctatus*, Eumenes  
    *subpomiformis* 182  
*crassispina*, Euura, *Nematus* 58  
*crassispina*, Temnothorax  
    *nylanderi* var. 208  
*crassispinus*, Temnothorax,  
    *Leptothorax* 208  
*crassiventris*, Nematus 74  
*crassula*, Macrophyta, *Tenthredo* 85  
*crassuliformis*, Macrophyta 87  
*crassulus*, Nematus 61  
*crassum*, Trichiosoma 30  
*crassus*, Dolerus 80  
*crassus*, Monophadnoides 50  
*crassus*, Sphecodes 287  
*crataegi*, Cimex 31  
*crataegi*, Hoplocampa, *Tenthredo* 67  
*crataegi*, Nematus 71  
*crataegi*, Priophorus 54  
*crataegi*, Tenthredo 31  
*craterus*, Halictus 281  
*Cratolarra* 236  
*craverii*, Hoplisoides, *Hoplisus*  
    *craverii* 224  
*craverii*, *Hoplisus* 224  
*craverii*, Laurentia 83  
*crawfordi*, Panurginus 276  
*Creightonella* subg. 305  
*Crematogaster* 204  
*crenata*, Tenthredo, *Tenthredella* 94  
*crenulata*, Heriades 296  
*creperus*, Taxonus 43  
*cressoni*, Pemphredon 249  
*cretanus*, Sphecodes puncticeps 289  
*Cretemboleum* 122  
*cretensis*, Stenodynerus  
    *aequisculptus* 189  
*cretensis*, Strongylogaster 82  
*creticola*, Halictus carinaeiventris 279  
*creticola*, Prosopis 261  
*cribraria*, Sphex quatuorcinctus 231  
*cribraria*, *Vespa* 226  
*cribrarius*, *Crabro*, *Vespa* 226  
*cribrata*, Antepipona, *Lionotus* 180  
*cribrata*, Cerceris 252  
*cribrata*, Ceropales cribrata 161  
*cribrosa*, Sphecodes 291  
*crimeae*, Mutilla 157  
*crimensis*, Eumenes 181  
*crimensis*, Eumenes dubius 181  
*crinipes*, Anthophora 323  
*crinita*, Eucera 320  
*Crioscolia* subg. 147  
*crippae*, Perineura 84  
*crispus*, Amauronematus 67  
*cristata*, Bembix 221  
*cristata*, Megachile 307  
*cristatus*, *Crabro* 232  
*cristatus*, Sphecodes 287  
*Cristiger* 33  
*cristula*, Lasioglossum, *Halictus* 280  
*croatica*, *Andrena* 267  
*croatica*, Macrophyta erythropus 86  
*croaticus*, Dolerus 80  
*croaticus*, Sphecodes 287  
*crocea*, Hemichroa, *Tenthredo* 67  
*crocea*, *Ponera japonica* var. 209  
*crocea*, Tenthredo 63  
*croceicornis*, Euponera 209  
*croceipes*, Anthophora 324  
*croceipes*, Blennocampa 53  
*croceipes*, Gorytes 221  
*croceiventris*, *Andrena* 274  
*croceiventris*, Tenthredo 51  
*croceus*, Pamphilus 104  
*crocipennis*, Tenthredo 25  
*Crocisa* 326  
*Crossocerus* 227  
*Crossocerus* subg. 227  
*cruciata*, Tenthredo 99



- cruciatus*, Phyllocerus 111  
*cruciger*, Epeolus, *Nomada* 317  
*crudelis*, Ammoplanus 246  
*crudelis*, Andrena combinata ssp. 273  
*cruenta*, Chrysis 135  
*cruenta*, Dioxys 303  
*cruenta*, Nomada 312  
*cruentatus*, Pachycephus, *Cephus*  
*cruentatus* 110  
*cruentus*, Spheg 223  
Cryptandrena subg. 267  
*cryptarum*, Bombus, *Apis* 327  
*Cryptocampus* 55  
Cryptocheilus 161  
Cryptocheilus subg. 161  
*Cryptochilus* 161  
Cryptopone 209  
*Cryptus* 22  
*csikiana*, Anthrena 268  
*csikiana*, Chrysis fouqueti 135  
**Ctenocerinae** 160  
Ctenonomia subg. 280  
ctenophorus, Tachysphex 238  
Ctenoplectra 319  
**Ctenoplectrini** 319  
Ctenopriocnemis 162  
*Ctenosmia* 296  
Ctenotilla 155  
**Ctenotillini** 154  
*cubiceps*, Crabro 232  
Cubitalia 319  
Cubitalia subg. 319  
*Cubitella* 81  
*cucullata*, Andrena humilis ssp. 265  
*cucullata*, Tenthredella 94  
*cucurbitina*, Ceratina, *Apis* 310  
Cullumanobombus subg. 328  
*culmorum*, Chelostoma 295  
*cultrarius*, Cephus 109  
*cultratus*, Cephus 109  
*Cuneala* 89  
*cuneiformis*, Odynerus 187  
*cunicularia*, Cercheris 254  
*cunicularia*, Formica 200  
*cunicularius*, Colletes, *Apis* 257  
*cunyi*, Tenthredo 94  
*cupes*, Cercheris 253  
Cuphopteris 227  
*cupraria*, Andrena 298  
*cupratum*, Hedychridium 142  
*cupratus*, Ellampus auratus 132  
*cupratus*, Pseudomalus, *Ellampus* 132  
*cuprea*, *Apis* 298  
*cuprea*, Chrysura, *Chrysis* 139  
*cupreum*, Hedychridium,  
*Hedychrum* 129  
*cupreus*, Odynerus pubescens var. 183  
*curinthicus*, Leptopus 53  
*curiosus*, Monophadnoides 50  
*curonica*, Andrena paucisquama ssp. 268  
*curruca*, Spilomena, *Celia* 249  
*cursor*, Spheg 180  
*curticornis*, Nematus 63  
*curtispina*, Nematus 56  
*curtispinis*, Pteronus 56  
*curtivalvis*, Andrena 265  
*curtiventris*, Omalus 132  
*curtulus*, Nysson 220  
*curtus*, Fenusa 48  
*curvatum*, Sceliphron, *Pelopaeus* 214  
*curvicornis*, Eucera 291  
*curvicornis*, Systropha, *Eucera* 291  
*curvicrus*, Megachile 308  
*curvipes*, Anthidium 303  
*curvipes*, Tenthredo 85  
*curviscapa*, Prosopis 259  
*curviscutum*, Crocisa 327  
*curvitaris*, Eucera 320  
*curvithorax*, Myrmica 206  
*curvungula*, Andrena 268  
*cussariensis*, Andrena 268  
*cyanea*, Ceratina, *Apis* 310  
*cyanea*, Chrysis japonica var. 136  
*cyanea*, Lyda 101  
*cyanea*, Mutilla 157  
*cyanea*, Spheg 141  
*cyanea*, Trichrysis, *Spheg* 141  
*cyaneata*, Chrysis 134  
*cyanella*, Hylotoma 23  
*cyanescens*, Osmia 298  
*cyanescens*, Xylocopa 309  
*cyaneum*, Hedychrum 130  
*cyaneus*, Spheg 214  
*cyanocrocea*, Arge, *Tenthredo* 23  
*cyanura*, Chrysis 140  
*cyanurum*, Stilbum, *Chrysis* 141  
*Cyclostoma* 192  
*cylindrica*, Chrysis 134  
*cylindrica*, Meria 149  
*cylindrica*, Perineura 100  
*cylindrica*, Tenthredo 85  
*cylindrica*, Tenthredo, *Tenthredina* 96  
*cylindricornis*, Schizocera 26  
*cylindricum*, Polochrum 146  
*cylindricus*, Hylaeus 282  
*cylindricus*, Nematus 61  
*cylindricus*, Phyllocerus 111  
*Cymura* 130  
*cynips*, Euura 65  
*cynosbati*, Janus, *Tenthredo* 110  
*cynthiae*, Philoctetes 132  
*Cyperolerus* 77  
Cyperolerus subg. 77  
*cyphognatha*, Nomada 316  
*Cyphona* 26  
*cyphonota*, Priocnemis 162  
*Cyphopyga* 305  
*cypria*, Strongylogaster lineata 82  
*cypriaca*, Anthophora acervorum 323  
*cypriaca*, Melecta 326  
*cypriacum*, Anthidium florentinum 300  
*cypriacus*, Mischopus 241  
*cypriacus*, Odynerus  
*melanocephalus* 187  
*cyprica*, Andrena 270  
*cypricus*, Eumenes mediterraneus 182  
*cyprisina*, Andrena ocreata ssp. 274  
*cyprius*, Tachysphex panzeri 239  
*cyrenaicus*, Euodynerus, notatus 183  
*cyrenaicus*, Tachysphex 239  
*cyrnea*, Pontania 56  
*Cyrteuchridium* 128  
*Cyrtogonatopoides* 120  
*Cyrtogonatopus* 120  
Cystomutilla 153  
*cythica*, Pemphredon 249  
*Cytisodaster* 88  
*czekelii*, Halictus 284  
*czerskiae*, Lapidariobombus sicheli 329  
*czerskianus*, Bombus terrestris 328  
*czerskiellus*, Agrobombus  
*anachoreta* 331  
*czerskii*, Bombus 328  
*czerskii*, Myrmosa 153  
*dacica*, Cercheris 253  
*dacica*, Megachile 306  
*daedala*, Pontania 63  
*daetekensis*, Tenthredo 93  
*dagestanica*, Andrena 270  
*dagestanica*, Chrysis indigotea var. 136  
*dagestanicum*, Tapinoma  
*emeryanum* 198  
*daghestanica*, Physetopoda, *Mutilla* 155  
*daghestanicus*, Bombus 332  
*daghestanicus*, Cephus,  
*Pseudocephus* 109  
*dagmarae*, Myrmica moravica var. 205  
*dahlbomi*, Diodontus 247  
*dahlbomi*, Heptamelus, *Caenoneura* 36  
*dahlbomi*, Mimumesa, *Mimesa* 251  
*Dahlbomia* 251  
*dahlbomii*, Dolichurus 211  
*dahli*, Xyela 20  
*dahlia*, Pleroneura, *Xyela* 20  
*dahlia*, Tenthredo 90  
*dailatorreana*, Nomada 311  
*daisetsuzanus*, Crabro pubescens 228  
*daisetsuzanus*, Evagetes 171  
*daisetusana*, Gilpinia 33  
*daisi*, Sphecodes 290  
*dalanicus*, Parodontodynerus  
*ephippium* 188  
*dalecarlicus*, Amauronematus 56  
*dalii*, Nomada 316  
*dallatorreana*, Ceratina 310  
*Dallatorreanus*, Crabro kollari 233  
*dallatorrei*, Andrena 273  
*dalmatica*, Bembix 221  
*dalmatica*, Eucera 320  
*dalmatica*, Mutilla 157  
*dalmaticum*, Lasioglossum  
*aegyptiellum* 280  
*dalmatina*, Macrophyta 85  
*dalmatina*, Smicromyrme  
*curtiventris* var. 156  
*damascena*, Hylotoma syriaca 23  
*damascenum*, Lasioglossum,  
*Halictus* 283

- dantici, Euodynerus, *Vespa* 183  
 dantici, *Vespa* 183  
*danuvia*, *Andrena* 268  
*danuvia*, *Nomada goodeniana* 313  
 daphne, *Chrysis* 134  
 daphnis, *Chrysis daphnis* 135  
*daphnoides*, *Pontania acutifoliae* 55  
 dasiphorae, *Pristiphora*, *Pristicampus* 71  
*Dasyagetes* 173  
**Dasylabrinae** 153  
**Dasylabrini** 153  
*Dasylabris* 153  
*Dasylabris* subg. 153  
*Dasymegilla* subg. 323  
*Dasygoda* 293  
**Dasypodainae** 293  
**Dasypodaini** 293  
 dathei, *Dolerus* 79  
 dauriana, *Chrysis* 135  
*daurica*, *Chrysis* 136  
 daurica, *Hoplitis*, *Osmia* 297  
 dauriensis, *Cleptes* 126  
 davei, *Tianmuthredo* 100  
 davidi, *Ctenoplectra* 319  
*davidsoni*, *Crabro* 227  
 daviesanus, *Colletes* 257  
 davisi, *Plenoculus* 241  
 daw, *Odynerus* 187  
*dawsoni*, *Pristiphora* 71  
*dealbata*, *Tenthredo* 91  
*dealbata*, *Tenthredo* 91  
*deandrenalis*, *Andrena*  
   hattorfiana ab. 265  
*deaurata*, *Tenthredella* 91  
 debile, *Stenamma*, *Myrmica* 207  
*debilis*, *Ammophila* 212  
*debilis*, *Arge* 24  
*debilis*, *Tachysphex* 240  
 debilitatus, *Symmorphus*, *Odynerus* 191  
*Decanematus* 55  
*Decatria* 49  
 decemguttata, *Sapyga* 146  
 decemguttata, *Sapygina*, *Sapyga* 146  
*decemguttatus*, *Pompilus* 161  
 decemmaculatus, *Nysson* 220  
 decemmaculatus, *Philanthus* 255  
*decempunctata*, *Coelioxys* 305  
 decens, *Symmorphus*, *Odynerus* 191  
 decens, *Tenthredo* 94  
*deceptoria*, *Andrena* 267  
*deceptoria*, *Megachile* 306  
 deceptorium, *Trypoxylon* 244  
*decimmaculata*, *Vespa* 242, 243  
*decipiens*, *Allantus* 96  
*decipiens*, *Allantus carpini* 39  
*decipiens*, *Andrena* 267  
*decipiens*, *Halictus* 280  
*decipiens*, *Hylaeus* 262  
*decipiens*, *Macrophya albicincta* 84  
*decipiens*, *Nematus* 62  
*decipiens*, *Pristiphora*,  
   *Lygaeonematus* 71  
*decipiens*, *Sapyga* 145  
*decipiens*, *Trichosoma tibiale* 31  
*declinatus*, *Nematus* 59  
*decolor*, *Entodecta* 50  
*decolorans*, *Ceratina* 310  
*decolorata*, *Selandria* 76  
*decora*, *Chrysis splendidula* 143  
*decora*, *Chrysis* 135  
*decora*, *Dasygoda* 293  
*decorata*, *Andrena* 272  
*decorata*, *Athalia* 44  
*decorata*, *Nomada lineola* var. 313  
*decorata*, *Scolia* auct. 148  
*decoratum*, *Anthidium* 300  
*decorus*, *Tachysphex* 239  
*decorus*, *Thyreus*, *Crocisa* 326  
*dediticus*, *Hemitaxonus* 39  
 dedzcli, *Spilomena* 249  
*deficiens*, *Nematus* 58  
 deflenda, *Antepipona*, *Ancistrocerus* 180  
 deforme, *Sceliphron*, *Pelopaeus* 214  
 degeeri, *Tenthredo* 55  
*degener*, *Apis* 267  
*degener*, *Tenthredo* 117  
*deiphobus*, *Halictus* 281  
 deirambo, *Evagetes* 171  
*dejeani*, *Scolia* 148  
*dejeanii*, *Dufourea* 290  
*dejectus*, *Allantus* 84  
*delagrangei*, *Allantus flaveola* 90  
*delagrangei*, *Clavellaria amerinae* 30  
*delicatula*, *Pontania* 56  
*delicatula*, *Tenthredo* 88  
*delicatus*, *Stromboceros*, *Tenthredo* 82  
*delicatus*, *Tenthredo* 82  
*delicatus*, *Halictus* 285  
 dellei, *Asiemphtus*, *Macremphytus* 40  
 dellei, *Priophorus* 54  
*delmasi*, *Halictus* 286  
 delphinalis, *Allodynerus*, *Odynerus* 178  
*delphinalis*, *Halictus gavarnicus* 279  
*Delphinaloides* 178  
 Delta 180  
 delumbis, *Taxonus* 43  
*deminuta*, *Pontania* 56  
*Dendrolasius* subg. 201  
 densepilosellus, *Ancistrocerus* 179  
 densopilosum, *Tetramorium* 209  
 dentata, *Andrena* 267  
 dentata, *Euura*, *Pachynematus* 58  
*dentata*, *Teralonia* 321  
 dentata, *Tetraloniella*, *Eucera* 321  
*Dentathalia* 43  
*dentatus*, *Cemonus* 248  
 denticolle, *Lasioglossum*, *Halictus* 280  
*denticornis*, *Andrena* 269  
*denticornis*, *Crabro* 229  
 denticoxa, *Crossocerus*, *Crabro* 229  
*denticrus*, *Anthophora* 325  
 denticrus, *Crossocerus* 229  
 denticulata, *Andrena*, *Melitta* 265  
*denticulata*, *Coelioxys* 305  
*denticulata*, *Apis* 276  
*denticulatus*, *Crabro* 231  
 denticulatus, *Messor* 204  
*denticulatus*, *Messor barbarus*  
   meridionalis var. 204  
 dentifer, *Entomognathus*, *Crabro* 234  
*dentifer*, *Odynerus* 187  
*Dentigera* subg. 259  
*dentina*, *Tenthredella* 94  
*dentipes*, *Crabro* 226  
*dentipes*, *Nomada* 312  
*dentipes*, *Pterocheilus* 186  
 dentiventris, *Andrena* 272  
 dentiventris, *Dufourea*, *Halictoides* 290  
*dentiventris*, *Osmia* 296  
*dentsukanus*, *Crossocerus* 228  
*denudata*, *Pristiphora pallidiventris* 73  
*denudatus*, *Nematus* 71  
*deplanata*, *Myrmica* 205  
*deplanata*, *Myrmica lobicornis* var. 205  
 depressa, *Bethylus* 123  
 depressa, *Pristocera*, *Bethylus* 123  
 depressa, *Tenthredo* 105  
*depressata*, *Strongylogasteroidea* 39  
*depressus*, *Nematus* 74  
*depressus*, *Odynerus* 187  
*derasus*, *Hylaeus* 281  
 derbentina, *Andrena* 275  
*Dermasothus* 149  
*dernaensis*, *Eumenes pomiformis* 181  
*derufata*, *Pseudepipona*  
   herrichii var. 188  
 derzavini, *Dolerus* 79  
*derzhavini*, *Hortobombus*  
   consobrinus 328  
*desantisi*, *Nematus* 62  
*desbrochersi*, *Strongylogaster* 82  
*deserta*, *Tenthredo* 78  
*deserti*, *Miscophus* 241  
 deserticola, *Ammophila* 212  
 deserticola, *Anthophora* 324  
*deserticola*, *Diplorhoptrum* auct. 207  
 deserticola, *Solenopsis*,  
   *Diplorhoptrum* 207  
*Desertixyela* 20  
*Desertodynerus* 180  
 desertorum, *Chrysuria*, *Chrysis* 139  
 desertorum, *Eremiasphecium*  
   *Shestakovia* 246  
 desertorum, *Megachile* 305  
 desertorum, *Philanthus* 255  
*desertorum*, *Salius* 161  
*desertorum*, *Sphex* 215  
*desertus*, *Sphecodes* 289  
*despecta*, *Dineura* 75  
 destillatorium, *Sceliphron*, *Pepsis* 214  
*dstricta*, *Pontania* 58  
 destructor, *Anoplonyx* 53  
*detonsus*, *Eumenes coarctatus* 181  
*detorta*, *Andrena braunsiana* ssp. 271  
 Deuteragenia 164  
**Deuterageniini** 164  
 Deuterepipona subg. 188  
*Deuterocimbex* 29  
 deuteronymus, *Bombus* 331

- deutziae, *Macremphytus* 40  
 devia, *Tenthredo*, *Allantus* 96  
*devoidatus*, *Halictus tumulorum* 279  
*dexter*, *Halictus zonulus* 281  
*diacantha*, *Chrysis diacantha* 135  
*diacantha*, *Melecta* 326  
*diacantha*, *Nomada* 312  
*diacanthus*, *Crabro* 229  
*diadema*, *Anthidium* 300  
*diadema*, *Vespa* 193  
*diakonovi*, *Polistes* 192  
*dialeucus*, *Allantus* 92  
*diana*, *Hortobombus consobrinus* 328  
*diaphanus*, *Nematus* 57  
*dibowskii*, *Macrophya* 87  
*Dichodynerus* 180  
*dichroa*, *Apis* 294  
*dichroa*, *Chrysura*, *Chrysis* 139  
*dichropsis*, *Chrysura* 143  
*Dichrysis* 133  
*Dicondylus* 120  
*Dicrodolerus* 77  
*Dicrodolerus* subg. 77  
*Dicrogenium* 123  
*Dicrostema* 51  
*Dictenus* 132  
*Dictyolyda* 102  
*Dicyrtomellus* 170  
*Didineis* 219  
*Didocha* 22  
*Didonia* subg. 267  
*didymus*, *Allantus*, *Tenthredo*  
   *didymus* 38  
*Dienoplus* 223  
*Diepyris* 123  
*diervillae*, *Nomada* 316  
*differens*, *Odynerus* 183  
*differens*, *Spilomena* 249  
*difficilis*, *Eucera* 320  
*difficilis*, *Nomada* 315  
*difficilis*, *Odynerus* 190  
*difficilis*, *Osmia* 298  
*diffinis*, *Ferreola*, *Anoplius* 166  
*difformis*, *Hylaeus*, *Prosopis* 261  
*difformis*, *Lasius* 292  
*difformis*, *Tenthredo* 54  
*digitalis*, *Melitta* 273  
*diglypha*, *Coelioxys* 304  
*Digonatopus* 120  
*digoniensis*, *Allantus amaenus* 97  
*Digoniozus* 125  
*dilatatus*, *Crabro* 228  
*dilatatus*, *Hylaeus*, *Melitta* 260  
*dilecta*, *Andrena* 270  
*dilobum*, *Anthidium* 302  
*diluta*, *Myrmica* 206  
*diluta*, *Nomada* 315  
*diluta*, *Nomada lineola* var. 313  
*diluta*, *Tenthredopsis dorsalis* 99  
*dilutus*, *Nematus* 59  
*dimidiata*, *Andrena* 265  
*dimidiata*, *Anthophora*  
   *acervorum* var. 323  
*dimidiata*, *Arge*, *Hylotoma* 23  
*dimidiata*, *Athalia* 44  
*dimidiata*, *Hoplocampa flava* 68  
*dimidiata*, *Hylotoma* 24, 25  
*dimidiata*, *Melitta* 294  
*dimidiata*, *Osmia* 298  
*dimidiata*, *Tenthredo* 99  
*dimidiaticlypeus*, *Eumenes* 182  
*dimidiativentris*, *Megachile* 305  
*dimidiatus*, *Crossocerus*, *Crabro*  
   *dimidiatus* 230  
*dimidiatus*, *Dolerus* 77  
*dimidiatus*, *Katamenes*, *Eumenes* 185  
*dimidiatus*, *Nematus* 64  
*dimidiatus*, *Nysson* 220  
*dimidiatus*, *Pamphilus* 103  
*dimidiatus*, *Sphecodes* 288  
*Dimorpha* 145, 218  
*Dinax* 40  
**Dinetinae** 245  
*Dinetomorpha* 236  
*Dinetus* 245  
*Dineura* 55  
*Dineuridea* 70  
*Dineurus* 248  
*Dinevra* 55  
*dinurum*, *Anthidium* 301  
*diocrioides*, *Tenthredo*, *Allantus*  
   *maculiger* 91  
*Diodontus* 247  
*Dioxoides* 303  
**Dioxyini** 303  
*Dioxys* 303  
*Diphadnus* 70  
**Diphaglossinae** 257  
*Diphlebus* 248  
*Diphysis* 303  
*Diploplectron* 218  
*Diplorhoptrum* 207  
*Diplorrhous* 132  
*Diprion* 33  
**Diprionidae** 33  
**Diprioninae** 33  
*Dipteromorpha* 89  
*discipennis*, *Nematus* 71  
*disclusa*, *Chrysidea*, *Chrysis*  
   *disclusa* 133  
*disclusa*, *Chrysis pumila* 133  
*Discoelius* 181  
*discoidalis*, *Mutilla* 157  
*discoidalis*, *Nematus* 71  
*Discolia* subg. 147  
*discolor*, *Allantus* 90  
*discolor*, *Cryptocheilus*, *Sphex* 162  
*discolor*, *Pristiphora* 73  
*discolor*, *Tachytes* 239  
*discoloratus*, *Temnothorax*,  
   *Leptothorax* 208  
*disconotatus*, *Euodynerus*,  
   *Odynerus* 183  
*discophora*, *Tenthredo* 95  
*discors*, *Priophorus* 54  
*discosignatus*, *Odynerus*  
   *egregius* var. 191  
*discrepans*, *Cladius* 54  
*discrepans*, *Halictus* 281  
*discrepans*, *Prosopis* 260  
*discrepans*, *Tenthredopsis* 98  
*discreta*, *Macrophya* 87  
*discretus*, *Hylaeus* 259  
*discum*, *Lasioglossum*, *Halictus* 280  
*discus*, *Hylotoma* 24  
*discussa*, *Meria* 149  
*disjuncta*, *Osmia* 298  
*dispar*, *Euura*, *Nematus* 58  
*dispar*, *Monophadnus* 50  
*dispar*, *Pompilus* 172  
*dispar*, *Psen* 250  
*dispar*, *Tenthredo* 90, 93  
*disparilis*, *Arge*, *Hylotoma* 23  
*disparilis*, *Camptopoeum friesei* var. 276  
*displicentia*, *Myrmica* 205  
*dissecta*, *Bembix* 222  
*dissectum*, *Anthidium* 300  
*dissectus*, *Mellinus* 220, 222  
*dissectus*, *Oxybelus dissectus* 242  
*dissidens*, *Andrena* 264  
*dissimilis*, *Emphytus* 38  
*dissimilis*, *Monophadnus* 45  
*dissimulans*, *Tenthredo* 92  
*distans*, *Hylaeus* 260  
*distigmus*, *Goniozus* 125  
*distincta*, *Andrena* 267, 274  
*distincta*, *Chrysis distincta* 135  
*distincta*, *Ferreola* 173  
*distincta*, *Megachile* 307  
*distincta*, *Mutilla* 154  
*distinctum*, *Chelostoma*, *Eriades* 296  
*distinctus*, *Cryptocampa* 70  
*distinctus*, *Gonatopus* 120  
*distinctus*, *Psen* 252  
*distinctus*, *Psithyrus* 329  
*distineta*, *Coelioxys* 305  
*distinguenda*, *Chrysis* 143  
*distinguenda*, *Andrena* 267  
*distinguenda*, *Euura*,  
   *Amauronematus* 58  
*distinguenda*, *Hylotoma* 25  
*distinguenda*, *Lasius umbrata* 201  
*distinguenda*, *Nomada* 312  
*distinguendus*, *Bombus* 331  
*distinguendus*, *Crossocerus*, *Crabro* 229  
*distinguendus*, *Gonatopus* 120  
*distinguendus*, *Hoplisoides*, *Gorytes*  
   *gazagnairei* 224  
*distinguendus*, *Lasius*, *Formicina* 201  
*distinguendus*, *Nysson* 220  
*distinguendus*, *Pompilus* 172  
*distinguendus*, *Priophorus* 55  
*distinguendus*, *Rhopitoides* 291  
*distinguendus*, *Sphecodes* 290  
*distinguendus*, *Stizus* 225  
*divergens*, *Andrena* 271  
*divergens*, *Coelioxys* 304  
*divergens*, *Halictus* 280

- divergens, Myrmica 205  
*divergens*, Myrmica bergi var. 205  
*diveri*, Strongylognathus 207  
*diversereducta*, Macrophyta rufipes 86  
*diversicolor*, Hylotoma rosae 24  
*diversicornis*, Pseudoscolia,  
*Philanthus* 256  
*diversipennis*, Tenthredo, *Allantus*  
*bifasciata* 90  
*diversipes*, Bembix 221  
*diversipes*, Cephus 108  
*diversipes*, Crossocerus 228  
*diversipes*, Janus luteipes 110  
*diversipes*, Macrophyta, *Tenthredo* 85  
*diversipes*, Nomia 291  
*diversipes*, Nomia, *Nomia* 292  
*diversus*, Bombus 328  
*dives*, Ammophila 213  
*dives*, Ectemnius, *Solenius* 232  
*dives*, Eremochares 213  
*dives*, Solenius 232  
*divisa*, Andrena 272  
*divisa*, Blennocampa 46  
*divisa*, Crocisa 327  
*divisa*, Melitta 287  
*divisus*, Crabro 232  
*divisus*, Sphecodes 287  
*divitoides*, Crabro 232  
*dluskyi*, Formica 199  
*dluskyi*, Temnothorax 208  
*dmirijewi*, Halictus 280  
*dmirijewii*, Halictus 280  
*dobrowlanensis*, Andrena 267  
*dochmocera*, Pristiphora, *Nematus* 71  
*Dociliris* 237  
*docilus*, Dolerus 79  
*Doderia* 50  
*doderleini*, Phoenusa 48  
*doderoi*, Andrena 263  
*Doeringiella* 317  
*dohrni*, Megachile 295  
*dohrnii*, Fenusa, *Kaliosysphinga* 48  
*dolens*, Tenthredo 85  
*Dolerus* 77  
*Dolerus* subg. 77  
*dolichocephalus*, Hylaeus 260  
*Dolichocheilus* 120  
*Dolichocrabro* 227  
**Dolichoderinae** 197  
*Dolichoderus* 197  
*Dolichovespula* 194  
*dolichura*, Euura, *Nematus* 58  
*Dolichurus* 211  
*dolorosa*, Andrena 272  
*dolosa*, Tenthredo 46  
*Dolus* 123  
*domestica*, Sphecx 179  
*domesticus*, Sclerodermus 124  
*dominiqui*, Corynis 32  
*dominula*, Formica 200  
*dominula*, Polistes, *Vespa* 193  
*donatus*, Halictus cristula 280  
*dongarica*, Halictus limbellus 284  
*Donisthorpina* 120  
*Dorhettenyx* 90  
*Dorhettenyx* subg. 90  
*doriae*, Eremochares 213  
*dorni*, Ceropales bicoloripes 160  
*dorni*, Hylaeus 260  
*dorpatica*, Eriocampa 42  
*dorsalis*, Abia 29  
*dorsalis*, Andrena 270  
*dorsalis*, Cerckeris 253  
*dorsalis*, Cerckeris 254  
*dorsalis*, Dineura 68  
*dorsalis*, Dineura virididorsata 55  
*dorsalis*, Megachile 306  
*dorsalis*, Meria, *Bethylus* 149  
*dorsalis*, Nematus 61  
*dorsalis*, Schizocera scutellaris 26  
*dorsalis*, Selandria 81  
*dorsalis*, Tenthredo 100  
*dorsata*, Andrena, *Melitta* 273  
*dorsata*, Tenthredo 33  
*dorsata*, Tenthredopsis raddatzi 99  
*dorsatula*, Andrena 270  
*dorsigera*, Tenthredo 84  
*dorsivittatus*, Nematus 62  
*dorsivittatus*, Tenthredopsis 99  
*Dositheus* 77  
*dossuarius*, Pteronus 59  
*Dosytheus* 77  
*dournovii*, Spinolia, *Chrysis* 141  
*doynari*, Sciapteryx 89  
*draconis*, Hartigia 110  
*dragana*, Andrena 267  
*dreweeni*, Cladius 55  
*dromedarius*, Sirex 116  
*Druida* 49  
*drupacearum*, Lyda 103  
*dryas*, Tenthredo 89  
**Dryinidae** 118  
**Dryiniinae** 119  
*Dryinopsis* subg. 149  
*Dryinus* 119  
*Dryphus* 235  
*Dryudella* 218  
*dschingis*, Arachnospila 169  
*dualis*, Perineura 43  
*dubia*, Anthophora 324  
*dubia*, Bembix 221  
*dubia*, Hylotoma 24  
*dubia*, Larra 24  
*dubia*, Nomada marshamella var. 314  
*dubia*, Polistes 192  
*dubia*, Sirex 112  
*dubia*, Tenthredo 47, 78, 95  
*dubia*, Tenthredopsis 100  
*dubiosa*, Abia, *Orientabia* 28  
*dubiosa*, Dufourea, *Rophites* graeca 291  
*dubiosus*, Clytochrysus 233  
*dubious*, Sphecodes gibbus  
*ephippium* 289  
*dubitabilis*, Halictus 283  
*dubitata*, Andrena 273  
*dubius*, Aporus 170  
*dubius*, Emphytus 45  
*dubius*, Eumenes 181  
*dubius*, Evagetes, *Aporus* 171  
*dubius*, Gastrosericus maracandicus 236  
*dubius*, Nysson 220  
*dubius*, Odynerus 188  
*dubius*, Oxybelus 242  
*dubius*, Panurginus 276  
*dubius*, Tachytes 238  
*dubowskii*, Halictus 283  
*ducalis*, Vespa 194  
*duckeii*, Lasioglossum, *Halictus*  
*duckeii* 283  
*dudai*, Hoplocampa minuta 68  
*dudichi*, Tachyagetes 174  
*Dufourea* 290  
*Dufourea* subg. 290  
*dufourii*, Macrocera 322  
*dufourii*, Megachile 305  
*dufourii*, Nysson 219  
*dufourii*, Oxybelus 242  
*dufourii*, Psen 252  
*dufourianum*, Nysson 219  
*dufourianus*, Odynerus 190  
*dufourii*, Anthidium 303  
*dufourii*, Anthophora 323  
*dufourii*, Discoelius 181  
*dufourii*, Nysson 219  
*dufourii*, Odynerus 187  
*dufourii*, Philereus 318  
*dumetorum*, Apis 323  
*dumetorum*, Sphecx 180  
*dumetorum*, Tenthredo 86  
*dumoucheli*, Bombus auct. 331  
*duodecimguttatus*, Crabro 231  
*duodecimmaculata*, Melecta,  
*Nomada* 326  
*duodecimpunctata*, Macrophyta, *Ten-*  
*thredo* duodecimpunctata 85  
*duplex*, Euura, *Pristiphora* 58  
*duplex*, Pristiphora 58  
*duplex*, Tenthredo 87  
*duplicata*, Tenthredo 94  
*duplicolor*, Dasylabris 154  
*duplipunctatus*, Chrysellampus 127  
*duplipunctatus*, Sphecodes 289  
*duskei*, Odynerus 186  
*dusmeti*, Andrena limbata ssp. 273  
*dusmetiolus*, Ancistrocerus,  
*Odynerus* 179  
*dux*, Sirex, *Paururus* cyaneus 112  
*dyari*, Hemichroa 67  
*dybovskij*, Nomada 312  
*dybowskii*, Lasioglossum, *Halictus* 283  
*dybowskii*, Megachile 307  
*dybowskii*, Vespa 194  
*dyozanheanus*, Sphecodes 287  
*Dyscolocrabro* 225  
*Dyscolocrabro* 226  
*dzhingis* Dienoplus 223  
*dzieduszyckii*, Nomada 316  
*dziuroo*, Diodontus 247  
*dzyannanica*, Andrena 272

- Ebba* 89  
*ebenina*, Podalonia, *Ammophila* 213  
*ebeninus*, Hylaeus 259  
*ebetsuense*, Rhopalum 236  
*ebmeri*, Colletes 257  
*ebmeri*, Hoplitis 297  
*Ebolia* 98  
*eborata*, Xiphodria 115  
*eborina*, Tenthredo 82  
*eburata*, Tenthredo 94  
*eburnea*, Bembix 221  
*eburneifrons*, Tenthredo 94  
*eburneiguttatum*, Aglaostigma 83  
*eburneofasciatus*, Oxybelus 242  
*eburneofasciatus*, Oxybelus  
dissectus 242  
*eburneopictus*, Eumenes 182  
*eburneus*, Phyllocus 110  
*eburnus*, Euodynerus  
quadrifasciatus 183  
*ebusiana*, Bembix 222  
*ecaphosus*, Halictus 277  
*ecarinata*, Nomada 312  
*echii*, Eucera 320  
*Echinanthidium* 300  
*echinatus*, Coelioxys 304  
*echinulata*, Andrena 263  
*Echthrodolphax* 120  
*eckloni*, Onychopterocheilus,  
*Pterochilus* 187  
*ectemiformis*, Corenocrabro 227  
*Ectemnius* 231  
*Ectemnius* subg. 231  
*ectrapela*, Kokujewia 25  
*eczmiadzini*, Melecta 326  
*Edapholigon* 123  
*edentata*, Andrena 265  
*edentata*, Euura, *Pachynematus* 58  
*edenticulata*, Euura, *Amauronematus* 58  
*eduardi*, Hypoponera, *Ponera* 209  
*eduardi*, Tenthredo, *Tenthredella* 92  
*effasciata*, Prosopis 262  
*effossus*, Crabro 231  
*egeria*, Pteronidea 60  
*Eggysomma* 167  
*eglanteriae*, Tenthredo 78  
*egregia*, Abia 28  
*egregia*, Ceratina 310  
*egregia*, Tenthredo reitteri 96  
*egregius*, Cryptocheilus, *Calicurgus* 161  
*egregius*, Euodynerus egregior 191  
*egregius*, Nematus 69  
*egregius*, Odynerus 191  
*egregius*, Syneuodynerus, *Odynerus* 191  
*ehnbergi*, Andrena 274  
*eichleri*, Aglaostigma langei 83  
*eidmanni*, Myrmica 205  
**Eidopompilini** 173  
*einersbergensis*, Nematus 57  
*eisa*, Vespa analis 193  
*eisukei*, Arachnospila, *Pompilus* 170  
*eiteli*, Euura, *Amauronematus* 58  
*Eitelius* 55  
*elaeagnocola*, Euura, *Pontania* 58  
**Elampini** 127  
*Elampus* 127  
*Elaphrosyrus* 174  
*elbrus*, Euura 58  
*elbrusi*, Myrmica 205  
*elbursa*, Prosopis annularis 260  
*elderi*, Dolerus elderi 78  
*elegans*, Andrena 275  
*elegans*, Anthophilus 255  
*elegans*, Cardiocondyla 203  
*elegans*, Cardiocondyla auct. 203  
*elegans*, Cardiocondyla schkaffi 203  
*elegans*, Cerceris 253  
*elegans*, Chrysis 135  
*elegans*, Cleptes 127  
*elegans*, Cryptocheilus, *Pompilus* 161  
*elegans*, Emphytus 38  
*elegans*, Epeolus cruciger var. 317  
*elegans*, Gorytes 222  
*elegans*, Harpactus, *Arpactus*  
*elegans* 223  
*elegans*, Lasioglossum, *Halictus* 283  
*elegans*, Nematus 62  
*elegans*, Odynerus 190  
*elegans*, Odynerus 191  
*elegans*, Oxybelus dissectus 242  
*elegans*, Pachyprotasis 87  
*elegans*, Thomsonia 99  
*elegantissima*, Pseudapis, *Nomia* 292  
*elegantula*, Tenthredo 88  
*elegantulum*, Hedychridium 129  
*elegantulus*, Oxybelus 242  
*elelea*, Pteronidea 62  
*eleonorae*, Andrena lepida ssp. 273  
*Elinopsis* 89  
*Elinora* 89  
*Elinora* subg. 90  
*elisabethae*, Psithyrus rupestris 329  
*elisabethae*, Tenthredo 92  
*Ellampus* 127  
*elliptica*, Prosopis 259  
*ellipticeps*, Lasioglossum, *Halictus* 283  
*elongata*, *Ammophila* 212  
*elongata*, Andrena 265, 272  
*elongata*, Mutilla 155  
*elongata*, Skorikovia, *Mutilla* 155  
*elongatula*, Cladardis, *Tenthredo* 46  
*elongatula*, Tenthredo 46  
*elongatulus*, Crossocerus, *Crabro*  
*elongatulus* 229  
*elongatulus*, Lophyrus 34  
*elongatum*, Anthidium 301  
*elongatus*, Cephus 108  
*elongatus*, Coelioxys 305  
*elongatus*, Dolerus 79  
*elongatus*, Evagetes, *Anoplius* 171  
*elsei*, Coelioxys 304  
*elysium*, Lasioglossum zonulum 281  
*emanuelis*, Pseudoryssus 117  
*emarginata*, Apis 281  
*emarginata*, Blennocampa 50  
*emarginata*, Cerceris 254  
*emarginata*, Nomada 312  
*emarginata*, Vespa 179  
*emarginatus*, Biastes, *Phileremus* 318  
*emarginatus*, Coelioxys 304  
*emarginatus*, Crossocerus, *Crabro* 229  
*emarginatus*, Lasius, *Formica* 202  
*emarginatus*, Myrmus 207  
*emarginatus*, Nematus 59  
*emarginatus*, Sirex 114  
*emarginatus*, Spheg 214  
**Embolemidae** 122  
*Embolemopsis* 122  
*Embolemus* 122  
*emelianoffi*, Halictus 281  
*emendata*, Nomada 311  
*emeryanum*, Tapinoma 88  
*emesianus*, Halictus 280  
*emichi*, Cephus 110  
*Emphoropsis* 325  
*emphytiformis*, Tenthredo 97  
*Emphytina* 39  
*Emphytus* 37  
*Emphytus* subg. 38  
*empoascae*, Aphelopus 118  
*Empria* 40  
*empriaeformis*, Strongylogaster,  
*Thrinax* 82  
*Encarsioneura* 89  
*Endelomyia* 46  
*Endemyolia* 46  
*Endophytus* 55  
*Endotethryx* 90  
*Endotethryx* subg. 91  
*enervis*, Nematus 70  
*Engages* 67  
*engelhardtii*, Anoplolyda 105  
*Eniscia* 89  
*Enodia* 215  
*enodis*, Arge, *Tenthredo* 23  
*enodis*, Tenthredo 22  
*ensicornis*, Nematus 71  
*enslinella*, Andrena 270  
*enslini*, Aprosthema 26  
*enslini*, Pemphredon, *Dineurus* 248  
*enslini*, Pontania 58  
*enslini*, Priocnemis 163  
*enslini*, Pseudodineura, *Pelmatopus* 75  
*enslini*, Spilomena 249  
*enslini*, Tenthredella 92  
*Entodecta* 50  
*Entomognathus* 234  
*Entomognathus* subg. 234  
**Entomosericini** 246  
*Entomosericus* 246  
*eo*, Smicromyrme 155  
*eoabnormis*, Arachnospila 169  
*Eoanthidellum* 301  
*Eoanthidium* 301  
*Eoanthidium* subg. 301  
*Eoferreola* 173  
*eomontanum*, Lasioglossum briseis 282  
*Eopompilus* 162  
*Eopsemulus* 251

- Eopsis 42  
 eos, Lasioglossum 280  
 eos, Myrmosa 153  
 eos, Taimyrmosa, *Myrmosa* 153  
*Eosirex* 113  
*Eotillinae* 159  
 eoum, Polochridium 145  
 eous, Agenocimbex 29  
 eous, Colletes 258  
 eous, Gorytes 223  
*Epagetes* 173  
*Eparmatostethus* 236  
 epeoliformis, Nysson epeoliformis 220  
**Epeolini** 317  
 Epeoloides 319  
 Epeolus 317  
*Ephemerocephus* 108  
 Ephemerocephus subg. 109  
*ephippiata*, Apis 267  
 ephippiata, Hoplocampa 67  
 ephippiata, Osmia 298  
 ephippiatus, Dolerus 80  
 ephippiger, Anteon, *Gonatopus* 118  
*ephippiger*, Nematus 73  
*Ephippionotus* 110  
*ephippium*, Andrena 270  
*ephippium*, Anthophora 323  
 ephippium, Eumenes 188  
 ephippium, Eutomostethus, *Tenthredo*  
     ephippium 47  
*ephippium*, Mutilla 155, 156  
 ephippium, Parodontodynerus,  
     *Eumenes* 188  
 ephippium, Sphecodes, *Sphecx* 287  
 Ephutomma 155  
*Epibembex* 221  
*Epicenematus* 55  
*Epicnemius* 192  
 Epicrossocerus 227  
*Epigonatopoides* 120  
 epilosa, Euura, *Pteronidea* 58  
*epimelaena*, Andrena 265  
*Epimyrmica* 207  
 epinotalis, Proformica 203  
 epiphron, Lasioglossum 283  
*Epipone* 186  
*Episemus* 125  
 Episyron 166  
**Episyronini** 166  
*Epitactus* 55  
*Epitaxonus* 83  
*Epitritus* 207  
*Epizuron* 166  
 epovae, Megachile 308  
**Epyrinae** 123  
**Epyrini** 123  
 Epyris 123  
*equatia*, *Pteronidea* 64  
*eques*, *Tenthredo* 33  
 equestre, *Trypoxylon* 250  
*equestris*, Andrena 265  
*equestris*, Bombus auct. 332  
*equestris*, Chrysis 135  
*equestris*, Mimesa, *Trypoxylon* 250  
*equestris*, *Tenthredo* 92  
*Equidolerus* 77  
 Equidolerus subg. 78  
*equiseti*, *Ametastegia*, *Tenthredo* 39  
*equiseti*, *Tenthredo* 79  
*eradiatus*, Cladius 55  
*erasa*, *Tenthredo* 96  
*erasina*, *Tenthredo* 96  
*Erasmusinus* 69  
*erberi*, Andrena 264  
*erberi*, Cephus 108  
*erebia*, *Tenthredo*, *Tenthredella* 97  
*erecta*, Euura, *Amauronematus* 58  
**Eremiasphecinae** 245  
 Eremiasphecium 245  
*eremita*, Lophyrus 33  
*eremita*, Passalococcus 248  
*eremocanus*, Xenaporus 174  
*Eremochares* 213  
*Eremodynerus* subg. 184  
*Eremomyrme* 155  
*Eremotilla* subg. 156  
*ergenicus*, *Leptochilus*, *Odynerus* 185  
*Eriades* 296  
*ericetorum*, Megachile 307  
*erichsoni*, Empria 41  
*erichsonii*, *Pristiphora*, *Nematus* 72  
*Erimyrme* subg. 156  
*Erinys* 180  
*Eriocampa* 42  
*Eriocampoides* 45  
*Eriocampopsis* 42  
*eriophoroides*, *Psithyrus rupestris* 329  
*eriophorus*, Bombus 329  
*Eriops* 276  
 eriphyle, Lasioglossum 283  
 ermak, Dinax, *Adamas* 40  
 ermak, *Hedychrum rutilans* 130  
 ermak, Sirex, *Paururus* 112  
*Ermilia* 43  
*ermolajevi*, *Agrobombus adventor* 331  
 ermolenkoi, Euura, *Nematus* 58  
 ermolenkoi, *Kuriloagenia* 164  
*errans*, *Nomada* 312  
*errans*, Stizus 221  
*errans*, Stizus tridens 221  
*errata*, *Cerceris* 253  
*erratica*, *Pachyprotasis erratica* 87  
*erratica*, *Tenthredo* 91  
*erraticum*, *Tapinoma* 197  
*erraticum*, *Tapinoma*, *Formica* 198  
*erschovi*, *Hedychridium*,  
     *Hedychrum* 129  
*erschowi*, *Anthophora* 325  
*erubescens*, *Nomada lineola* var. 313  
*erucarus*, *Odontopyris*, *Parasierola* 125  
*erudita*, *Tenthredo*, *Tenthredella* 94  
*eruditus*, *Halictus* 278  
*erythropus*, Apis 303  
*eryngii*, *Cerceris* 253  
*erythraea*, *Eoferreola*, *Sphecx* 173  
*erythraeus*, *Tachysphex* 239  
*erythrocephala*, *Acantholyda*,  
     *Tenthredo* 101  
*erythrocephala*, *Mutilla* 153  
*erythrocephala*, *Nomada* 312  
*erythrocephala*, *Tenthredo* 101  
*erythrocerus*, *Epyris* 123  
*erythrocnema*, *Macrophya* 85  
*erythrocnemis*, *Andrena* 271  
*erythrocoele*, *Tenthredopsis arrogans* 98  
*erythrogaster*, *Cephalcia*, *Lyda* 102  
*erythrogaster*, *Nematus* 74  
*erythrogastera*, *Tachytes* 238  
*erythrogona*, *Tenthredo* 79  
*erythromelas*, *Chrysis viridula* var. 134  
*erythropareus*, *Nematus* 59  
*erythropoda*, *Ceropales* 160  
*erythropus*, *Dolerus aericeps* 77  
*erythropus*, Euura, *Amauronematus* 58  
*erythropus*, *Tachysphex*, *Lyrops* 238  
*erythropus*, *Tenthredo* 86, 87  
*erythropyga*, *Coelioxys* 304  
*Erythrosmia* subg. 298  
*erythrosoma*, *Nomada* 314  
*erzurumensis*, *Megachile giraudi* 306  
*esakii*, *Anoplius* 172  
*esakii*, Anteon 119  
*esakii*, *Macrophya*, *Pachyprotasis* 87  
*esakii*, *Nomada* 311  
*esakii*, *Pasites* 319  
*esakii*, *Pasites maculatus* 319  
*esakii*, *Sphecodes* 290  
*esakii*, *Vespa* 194  
*esana*, *Nomada* 312  
*esoense*, *Lasioglossum* 280  
*espagnoli*, *Euodynerus* 183  
*espanola*, *Andrena*  
     *truncatilabris* ssp. 275  
*etizenensis*, *Crossocerus* 228  
*etizenensis*, *Sphecodes* 289  
*etnaensis*, *Megachile circumcincta* 307  
*etorofensis*, *Phyllococcus*, *Hartigia* 110  
*Etrusca*, *Andrena* 240  
*etrusca*, *Smicromyrme ausonia* var. 156  
*etruscus*, *Tachytes*, *Andrena*  
     *etruscus* 240  
*etzhmiadzini*, *Myrmilla*, *Mutilla* 154  
*Eualastor* 178  
*Euancistrocerus* 178  
*Euandrena* subg. 267  
*euboense*, *Lasioglossum*, *Halictus* 283  
*Eucera* 320  
*Eucera* subg. 320  
*eucera*, Cladius 54  
*Euceratina* subg. 310  
**Eucerini** 319  
*euchreiformis*, *Osmia* 298  
*Euchridium* 128  
*Euchroeus* 140  
*Euchrum* 128  
*Euclavellaria* 30  
*eucnemidea*, *Eucera* 321  
*eudokiae*, *Camponotus*  
     *herculeanus* var. 198

- Eudryas* 54  
*Euepipona* 186  
*eugeniae*, Stizus 225  
*Euglages* 318  
*Eugonatopus* 120  
*Euleptochilus* subg. 185  
*Eumegachile* 305  
*Eumenes* 181  
*Eumenes* subg. 181  
*Eumenidion* 181  
**Eumeninae** 178  
*Eumetabolus* 111  
*Eunomioides* 292  
*Euodynerus* 183  
*Euodynerus* subg. 183  
*Euoxybelus* 242  
*Eupareophora* 47  
*Euphileremus* subg. 318  
*eupidus*, Sphecodes longulus 288  
*Eupililis* 235  
*eupodius*, Nematius 59  
*Eupolistes* 192  
*Eupompiloides* 168  
*Eupontania* 55  
*eurasiaticus*, Stigmus 250  
*Eurhadinoceraea* 47  
*euris*, Anthophora personata var. 323  
*euroa*, Megachile ericetorum 307  
*Eurogaster* 89  
*Eurogaster* subg. 91  
*euronotum*, Lasioglossum zonulum 281  
*europaea*, Ampulex 211  
*europaea*, Cephalcia alashanica 102  
*europaea*, Cimbex 29  
*europaea*, Macropis 293  
*europaea*, Mutilla 156  
*europaea*, Sysphingta 210  
*europaea*, Tachytes 240  
*europaeum*, Rygchium 189  
*europaeus*, Agenioideus 173  
*europaeus*, Stigmus 250  
*europa*, Myrmica laevinodis var. 206  
*Eurrhynchium* 189  
**Euryglossinae** 257  
*Eurygnathilla* subg. 154  
*eurygnathopsis*, Halictus 278  
*eurygnathus*, Halictus 278  
*euryscapus*, Hylaeus 260  
*Euspongus* 222  
*Eustenancistrocerus* 184  
*Eustenancistrocerus* subg. 184  
*Eutenthredopsis* 98  
*Eutomostethus* 47  
*Eutricharaea* subg. 305  
*eutropis*, Dolerus 80  
*Euura* 55  
*euxinicum*, Lasioglossum  
*euxinicum* 280  
*Euxiphydria* 115  
*Euzonia* 222  
*Evagetes* 170  
*Evagethes* 170  
*evansi*, Platanoxus 124  
*evecta*, Cerceris 255  
*evenensis*, Euura, *Nematius* 58  
*eversmanni*, Andrena 272  
*eversmanni*, Cerceris 253  
*eversmanni*, Dolerus eversmanni 79  
*eversmanni*, Elampus, *Ellampus* 128  
*eversmanni*, Megalodontes 107  
*eversmanni*, Megalodontes, *Tarpa* 107  
*eversmanni*, Melecta 326  
*eversmanni*, Nematius 59  
*eversmanni*, Nomada lineola var. 313  
*eversmanni*, Pseudarge 25  
*eversmanni*, Pseudoanthidium,  
*Anthidium* 302  
*eversmanni*, Stizus 225  
*eversmanni*, Tenthredo 91  
*eversmanniana*, Andrena 268  
*Evodia* 257  
*Evura* 55  
*Evylaeus* subg. 282  
*ewaldi*, Fenusa 48  
*exacutus*, Lasius umbratus var. 201  
*Exagetes* 173  
*exalbida*, Tenthredo 86  
*exaltata*, Priocnemis, *Sphex* 163  
*exaltata*, Sphex 162  
*exannulata*, Pachyprotasis antennata 87  
*exannulata*, Tenthredopsis  
*fischbeini* 100  
*exaratus*, Pseneo, *Mimesa* 251  
*exarenaria*, Dasylabris 154  
*exarmata*, Blennocampa 47  
*exarmata*, Eupareophora,  
*Blennocampa* 47  
*excavata*, Cerceris 253  
*excavata*, Euura, *Pontania* 58  
*excavatus*, Gonatopus 120  
*excellens*, Amauronematus 63  
*excellens*, Megachile 306  
*excellens*, Sphecodes 289  
*excellens*, Tenthredella 98  
*excellens*, Tenthredo, *Allantus* 90  
*excelsa*, Myrmica 205  
*excelsus*, Tachysphex 238  
*excerptus*, Tachysphex filicornis 238  
*excisa*, Empria, *Poecilosoma* 41  
*excisa*, Eucera 320  
*excisa*, Euura, *Nematius* 58  
*excisa*, Fenusa 49  
*excisa*, Nomada 311  
*excisa*, Perineura 99  
*excisa*, Prosopis 261  
*excisa*, Selandria 81  
*excisus*, Agenioideus, *Pompilus* 167  
*excisus*, Cephus, *Pseudocephus* 109  
*excisus*, Odynerus 179  
*excurrens*, Hylaeus communis 260  
*exigua*, Chrysis distincta 143  
*exiguum*, Anteon, *Chelogyms* 119  
*exiguum*, Trypoxylon clavicerum 244  
*exiguum*, Trypoxylon exiguum 244  
*exiguus*, Crossocherus, *Crabro* 229  
*exil*, Bombus 331  
*exiliceps*, Lasioglossum, *Halictus* 280  
*exilis*, Cephus 110  
*exilis*, Hylaeus 284  
*exilis*, Macrophyta 87  
*exilis*, Microdynerus, *Odynerus* 186  
*exilis*, Odynerus 185  
*eximia*, Macrophyta 85  
*eximia*, Nannodynerus  
*chevrieanus* var. 190  
*eximius*, Philanthus 255  
*exoleta*, Nematius fulvus 61  
*exoletus*, Nematius 67  
*exorientis*, Psen 251  
*exornata*, Sapyga 145  
*exornata*, *Tarpa* 107  
*expansa*, Arge, *Hylotoma* 23  
*explanata*, Tenthredo 91  
*exsecta*, Formica 199  
*exsectus*, Pseudohemitaxonus 81  
*expectata*, Spilomena 249  
*extensicornis*, Euura, *Nematius* 58  
*extranea*, Chrysis rutilans 137  
*extraneus*, Ammobates 318  
*extremus*, Nematius 72  
*Eyagates* 170  
*ezoana*, Melitta 294  
*ezoensis*, Alysson monticola 219  
*ezoensis*, Andrena 274  
*ezonata*, Habropoda 325  
*fabriciana*, Nomada, *Apis* 312  
*fabriciella*, *Apis* 312  
*fabricii*, Cryptocheilus, *Pompilus* 161  
*fabricii*, Hoplocampa 68  
*fabricii*, Megalodontes, *Tarpa* 107  
*fabricii*, Pemphredon, *Cemonus* 248  
*fabricii*, Selandria 81  
*facetus*, Pamphilus 105  
*facialis*, Cerobacterus 111  
*facialis*, Euura, *Pteronidea* 58  
*facigera*, Tenthredo 94  
*facilis*, Nomada 312  
*faddei*, Anthophora 324  
*fagi*, Leptothorax muscorum var. 204  
*fagi*, Tenthredo 94  
*fahraei*, Euura, *Nematius* 58  
*fahringeri*, Pseudochrysis 140  
*fairchildii*, Echthrodelphax 120  
*fairmairei*, Cataglyphis 199  
*falcata*, Osmia 298  
*falcifera*, Cerceris 253  
*fallaciosus*, *Pompilus* 167  
*fallax*, Agenia 165  
*fallax*, Allodynerus delphinalis 178  
*fallax*, Ammophila 212  
*fallax*, Andrena 271  
*fallax*, Camponotus, *Formica* 198  
*fallax*, Chrysis subsinuata 138  
*fallax*, Cleptes 127  
*fallax*, Coelioxys 304  
*fallax*, Cryptocheilus 161  
*fallax*, Euura, *Nematius* 58  
*fallax*, Gorytes 222

- fallax*, *Lasioglossum*, *Halictus*  
*fallax* 280  
*fallax*, *Lyda* 104  
*fallax*, *Nematus* 58  
*fallax*, *Nitela* 241  
*fallax*, *Oxybelus* 243  
*fallax*, *Priocnemis* 163  
*fallax*, *Scolia fallax* 148  
*fallax*, *Tenthredo* 67, 95  
*fallenii*, *Lyda* 102  
*falsa*, *Macrophya militaris* 86  
*falsifica*, *Andrena* 270  
*falsificissima*, *Andrena* 270  
*famelica*, *Aphaenogaster*,  
*Ischnomyrmex* 203  
*famosa*, *Fenella* 48  
*fantoma*, *Urocerus*, *Sirex* 113  
*fargeii*, *Argogorytes*, *Gorytes* 221  
*Fargeii*, *Crabro* 233  
*fasciale*, *Anteon*, *Chelogyms* 119  
*fasciata*, *Abia*, *Tenthredo* 28  
*fasciata*, *Ampulex* 211  
*fasciata*, *Andrena* 272, 275  
*fasciata*, *Anthophora retusa* 325  
*fasciata*, *Chrysis* 135  
*fasciata*, *Chrysis* 141  
*fasciata*, *Dioxys* 303  
*fasciata*, *Discolia* 147  
*fasciata*, *Euura*, *Amauronematus* 59  
*fasciata*, *Hylotoma* 23  
*fasciata*, *Larra* 225  
*fasciata*, *Lyda* 103  
*fasciata*, *Megachile* 307  
*fasciata*, *Nomada ruficornis* var. 315  
*fasciata*, *Tenthredo* 97  
*fasciata*, *Xyphidria* 116  
*fasciatella*, *Andrena* 267  
*fasciatellus*, *Caliadurgus*, *Pompilus* 162  
*fasciatellus*, *Halictus* 284  
*fasciatellus*, *Pompilus* 162  
*fasciatipennis*, *Lyda* 103  
*fasciatum*, *Anthidium*  
*manicatum* var. 300  
*fasciatum*, *Pison Pseudonysson* 244  
*fasciatus*, *Aporus* 168  
*fasciatus*, *Asiemphtus*,  
*Macremphytus* 40  
*fasciatus*, *Ceratocolus* 233  
*fasciatus*, *Crabro vagabundus* 227  
*fasciatus*, *Dolerus* 38  
*fasciatus*, *Epeolus* 317  
*fasciatus*, *Halictus* 279  
*fasciatus*, *Heterarthrus*, *Phyllotoma* 49  
*fasciatus*, *Nomioides* 292  
*fasciatus*, *Oxybelus* 242  
*fasciatus*, *Panurgus* 276  
*fasciatus*, *Pasites* 318  
*fasciatus*, *Pompilus* 173  
*fasciatus*, *Sphecodes* 288  
*fasciatus*, *Stizus*, *Bembex* 225  
*fasciculata*, *Andrena*  
*nigroaenea* var. 269  
*fasciculata*, *Melecta* 326  
*fasciculata*, *Nomada* 314  
*fasciipennis*, *Tachysphex* 239  
*fascinata*, *Scolia* 147  
*fastidiosissimus*, *Eumenes* 182  
*fastidiosissimus*, *Stenodynerus*  
*rufescens* 190  
*fastidiosissimus*, *Stenodynerus*,  
*Odynerus* 190  
*fastidiosus*, *Euodynerus*, *Odynerus* 183  
*fastigiata*, *Priocnemis* 163  
*fastosus*, *Pteronys* 59  
*faunus*, *Phyllocerus* 110  
*fausta*, *Neurotoma*, *Lyda* 103  
*faustus*, *Allantus* 90  
*faustus*, *Sirex* 113  
*favosa*, *Andrena* 267  
*favosa*, *Eucera* 320  
*favosa*, *Eucera* 320  
*fedtschenkoi*, *Camponotus* 199  
*fedtschenkoi*, *Icteranthidium*,  
*Anthidium* 301  
*feisthamelei*, *Urocerus* 112  
*feminina*, *Macrophya diversipes* 85  
*feminina*, *Pteronidea ribesii* 64  
*femoralis*, *Aporus* 166  
*femoralis*, *Belomicrus* 242  
*femoralis*, *Bembix* 221  
*femoralis*, *Cleptes* 126  
*femoralis*, *Crabro* 226  
*femoralis*, *Elampus* 127  
*femoralis*, *Hylotoma* 24  
*femoralis*, *Laelius*, *Bethylus* 124  
*femoralis*, *Lygaeonematus pallipes* 72  
*femoralis*, *Nematus* 58  
*femoralis*, *Nomada* 312  
*femoralis*, *Nomiapis*, *Apis* 292  
*femoralis*, *Pompilus* 163  
*femoralis*, *Strongylogaster* 82  
*femoralis*, *Tenthredo* 85, 99  
*femorata*, *Cimbex* 230  
*femorata*, *Macrophya* 87  
*femorata*, *Tiphia* 150  
*femorata*, *Xylocopa* 310  
*femoratum*, *Hedychridium*,  
*Hedychrum* 129  
*femoratus*, *Cephus* 110  
*femoratus*, *Cimbex*, *Tenthredo* 29  
*femoratus*, *Dolerus* 79  
*femoratus*, *Odynerus* 186  
*femoratus*, *Pompilus* 165  
*femurrubrum*, *Dolerus* 77  
*Fenella* 47  
*fenestrata*, *Priocnemis*, *Salix* 163  
*fenestrata*, *Tenthredopsis* 99  
*fenestratum*, *Diprion laricis* 34  
*fenestratus*, *Emphytus* 41  
*fennica*, *Formica* 199  
*fennica*, *Gilpinia*, *Diprion* 33  
*fennica*, *Megachile*  
*circumcincta* var. 307  
*fennica*, *Nomada* 316  
*fennica*, *Pemphredon* 248  
*fennica*, *Priocnemis* 163  
*fennicum*, *Trichiosoma* 31  
*fennicus*, *Dolerus* 78  
*fennicus*, *Nematus* 70  
*fennicus*, *Pontopristia* 61  
*fenniensis*, *Chrysis mediata* 138  
*Fentis* 227  
*fentoni*, *Tenthredo* 92  
*Fenusa* 48  
*Fenusa* subg. 48  
*Fenusella* 48  
*fera*, *Podalonia* 213  
*fera*, *Tenthredo* 85  
*ferganensis*, *Camponotus* 199  
*ferghanica*, *Eucera* 320  
*feriata*, *Selandria* 50  
*ferina*, *Prosopis lineolata* 261  
*ferox*, *Andrena* 267  
*ferox*, *Oxybelus* 242  
*ferox*, *Siobla*, *Macrophya* 89  
*ferox*, *Tetramorium* 209  
*ferox*, *Tetramorium caespitum* var. 209  
*feroxoides*, *Tetramorium* 209  
*Ferreola* 166  
**Ferreolina** 166  
*Ferreoloides* 168  
*ferrer*, *Cerceris* 253  
*ferripennis*, *Halictus tumulorum* 279  
*ferritincta*, *Megachile* 308  
*ferrugatus*, *Dolerus* 77  
*ferrugifer*, *Bombus laesus* 331  
*ferruginata*, *Andrena* 272  
*ferruginata*, *Nomada* auct. 314  
*ferruginata*, *Nomada*, *Apis* 312  
*ferruginatus*, *Sphecodes* 288  
*ferruginea*, *Andrena* 288  
*ferruginea*, *Euura*, *Nematus* 59  
*ferruginea*, *Hylotoma* 68  
*ferruginea*, *Larra* 225  
*ferruginea*, *Tenthredo* 94  
*ferrugineipes*, *Halictus* 285  
*ferrugineitarsis*, *Odynerus* 190  
*ferrugineociliatus*, *Hortobombus*  
*consobrinus* 328  
*ferrugineus*, *Allantus* 68  
*ferrugineus*, *Tachysphex* 238  
*ferruginosa*, *Tenthredo* 38  
*fertoni*, *Halictus* 280  
*fertoni*, *Smicromyrme* 157  
*fertoni*, *Tachysphex costai* 238  
*Fertonius* 236  
*fervida*, *Andrena* 267  
*fervida*, *Holopyga*, *Chrysis fervida* 131  
*fervida*, *Pheidole* 207  
*festiva*, *Melecta* 326  
*festiva*, *Tenthredopsis* 98  
*festivus*, *Alysson* 219  
*festivus*, *Amauronematus* 65  
*festivus*, *Nematus* 63  
*festivus*, *Pamphilius* 104  
*festivus*, *Priocnemis* 163  
*Fethalia* 89  
*fialai*, *Sysphingta* 210  
*fidvicornis*, *Nomada* auct. 316  
*fiuzeti*, *Trypoxylon* 244



- figulus*, Sphex 244  
*figulus*, Trypoxylon, *Sphex* 244  
*figurata*, Andrena 272  
*Fiharbuxa* 147  
*filamentosa*, Tenthredo 94  
*filchnerae*, Anthophora 324  
*filchnerae*, Bombus 331  
*filiceti*, Blasticotoma 27  
*filiceti*, Blasticotoma filiceti 27  
*filicis*, Stromboceros 75  
*filicis*, Strongylogaster, *Tenthredo* 82  
*filicornis*, Ctenopriocnemis 162  
*filicornis*, Evagetes 173  
*filicornis*, Nematius 73  
*filicornis*, Tachyagetes, *Evagetes* 174  
*filicornis*, Tachysphex 237, 238  
*filiformis*, Apethymus, *Tenthredo* 40  
*filiformis*, Calameuta, *Cephus* 108  
*filiformis*, Cephus 108  
*filiformis*, Chrysura, *Chrysis* 139  
*filiformis*, Euura, *Pachynematus* 59  
*filippovi*, Carinostigmus, *Stigmus* 247  
*filippovi*, Cephus 109  
*Filixungulia* 42  
*filum*, Calameuta, *Cephus* 108  
*fimbriata*, Cerceris, *Crabro* 253  
*finitima*, Blennocampa 46  
*finitima*, Orientabia 28  
*finitimus*, Crabro 232  
*finschi*, Tenthredo finschi 93  
*firssovi*, Leptothorax nassonovi 208  
*fischeri*, Andrena 265  
*fischeri*, Cryptocheilus, *Pompilus* 161  
*fischeri*, Nycteridium 35  
*fissidens*, Coelioxys 305  
*fissus*, Dolerus 80  
*fissus*, Oxybelus 243  
*flabellata*, Tarpa 107  
*flabellicornis*, Megalodontes, *Tarpa* 107  
*flabellifera*, Anthophora 323  
*flabellifera*, Eucera 320  
*flammula*, Athalia scutellariae 45  
*flaucicornis*, Tenthredo 91  
*flauipes*, Crabro 243  
*flava*, Cerceris 254  
*flava*, Hoplocampa, *Tenthredo* 67  
*flava*, Hylotoma 24  
*flava*, Nomada 312  
*flava*, Tenthredo 91  
*flava*, Tenthredo bicincta 97  
*flavata*, Vespa mongolica var. 194  
*flavater*, Lygaeonematus ambiguus 73  
*flavellus*, Eustenancistrocerus lobatus 184  
*flavens*, Anthidium oblongatum var. 301  
*flavens*, Brachythops, *Tenthredo* 76  
*flaveola*, Dineura 55  
*flaveola*, Tenthredo 90  
*flavescens*, Andrena 264  
*flavescens*, Cerceris 253  
*flavescens*, Euura, *Nematius* 59  
*flavescens*, Nomada fucata var. 313  
*flavescens*, Selandria 76  
*flavescens*, Stelis signata 302  
*flavicans*, Nematius 68  
*flaviceps*, Acantholyda, *Tenthredo* 101  
*flaviceps*, Scolia 148  
*flaviceps*, Vespa, *Vespa* 196  
*flavicincta*, Vespa 195  
*flavicincta*, Vespa 221  
*flavicylpeata*, Tetralonia salicariae var. 322  
*flavicylpeatus*, Odynerus 183  
*flavicollaris*, Stethomostus, *Atomostethus* 53  
*flavicolle*, Anthidium nigricolle var. 302  
*flavicollis*, Blennocampa 50  
*flavicollis*, Crabro 232  
*flavicollis*, Heterarthrus, *Phyllotoma* 49  
*flavicollis*, Hylotoma 22  
*flavicollis*, Myzinella, *Meria* 149  
*flavicomus*, Nematius 73  
*flavicorne*, Anteon, *Gonatopus* 119  
*flavicornis*, Cerceris 253  
*flavicornis*, Dufourea 291  
*flavicornis*, Euodynerus notatus 183  
*flavicornis*, Flavodufourea, *Dufourea* 291  
*flavicornis*, Hylaeus 285  
*flavicornis*, Megalodontes, *Tarpa* 107  
*flavida*, Megachile pilicrus 306  
*flavida*, Podalonia, *Ammophila* 213  
*flavida*, Tenthredo 91  
*flavidula*, Myrmica 207  
*flavidus*, Bombus 329  
*flavifasciata*, Tenthredo 86  
*flavifrons*, Pamphilius 105  
*flavifrons*, Scolia 147  
*flavigularis*, Eumenes arbustorum 185  
*flavigularis*, Katamenes, *Eumenes* 185  
*flavilabre*, Anthidium 303  
*flavilabris*, Andrena 267  
*flavilabris*, Cerceris, *Hylaeus* 253  
*flavilabris*, Tenthredo 95  
*flavinervus*, Odontopyris 125  
*flavior*, Selandria flavens 76  
*flavior*, Vespa vulgaris var. 196  
*flavipectus*, Tenthredo, *Allantus* 93  
*flavipennis*, Andrena ephippium var. 270  
*flavipennis*, Macrophyta 86  
*flavipennis*, Nematius 56  
*flavipennis*, Sphex 215  
*flavipennis*, Tenthredo 97  
*flavipes*, Andrena 275  
*flavipes*, Apis 278, 279  
*flavipes*, Aprosthema terebralis 26  
*flavipes*, Ceratina 310  
*flavipes*, Colpopygga, *Hedychrum* 127  
*flavipes*, Crabro 231  
*flavipes*, Eutomostethus, *Tomostethus* 47  
*flavipes*, Euura 63  
*flavipes*, Hedychrum 127  
*flavipes*, Holcoeneme 66  
*flavipes*, Hylaeus 260  
*flavipes*, Lyda 105  
*flavipes*, Macrophyta 84, 85  
*flavipes*, Nematius 64, 70  
*flavipes*, Nylanderia, *Tapinoma* 202  
*flavipes*, Odynerus 179  
*flavipes*, Schizocera 26  
*flavipes*, Tenthredo 25, 45, 71, 90, 99  
*flavipes*, Tiphia 243  
*flavipicta*, Pristiphora 73  
*flavipleuris*, Tenthredo 96  
*flaviscapus*, Odynerus spinipes ab. 187  
*flavissimus*, Crossocerus 231  
*flavissimus*, Pachynematus clitellatus 58  
*flavisternum*, Cephus 109  
*flavistigma*, Cephalcia 102  
*flavistigma*, Pemphredon 248  
*flavistigma*, Selandria 76  
*flavitaris*, Hylaeus 285  
*flavitarus*, Crossocerus, *Crabro* 231  
*flavitibia*, Dolerus gonager 79  
*flaviventre*, Anthidium nigricolle var. 302  
*flaviventris*, Cephus 110  
*flaviventris*, Hylotoma 24  
*flaviventris*, Megachile 308  
*flaviventris*, Nematius 57  
*flaviventris*, Tenthredo 103  
*flaviventris*, Tenthredo 66  
*flavobarbatus*, Bombus agrorum 331  
*flavobila*, Andrena 271  
*Flavodufourea* 291  
*flavofasciata*, Vespa 194  
*flavogeniculatus*, Tachytes 238  
*flavoguttata*, Nomada, *Apis* 312  
*flavoguttata*, Perineura scutellaris 99  
*flavoguttatum*, Anthidium septemspiniosum var. 301  
*flavolimbata*, Nomada lineola var. 313  
*flavomaculata*, Nomada 311  
*flavomaculatum*, Anthidium montanum var. 300  
*flavomaculatus*, Tenthredopsis 100  
*flavomandibulata*, Tenthredo, *Tenthredopsis* 98  
*flavomarginatum*, Diprion laricis 34  
*flavomixta*, Arge, *Hylotoma* 23  
*flavopicta*, Andrena 292  
*flavopicta*, Nomada, *Apis* 312  
*flavopleura*, Pristiphora 73  
*flavopunctata*, Nomada femoralis var. 312  
*flavoscutellaris*, Tenthredella mesomelas 91  
*flavoscutellata*, Athalia lugens 44  
*flavoscutellata*, Tenthredo moniliata 95  
*flavoscutellatus*, Stenodynerus tokyanus 190  
*flavotectus*, Halictus carinae ventris 279  
*flavovaria*, Ceratina 310  
*flavoventralis*, Macrophyta 87  
*flavus*, Cryptocheilus, *Priocnemis* 161  
*flavus*, Lasius, *Formica* 201  
*flavus*, Nematius 68  
*fletcheri*, Dimorpha 218  
*fletcheri*, Empria, *Poecilosoma* 41

- fletcheri*, Nematus 71  
*fletcheri*, Nomia 291  
*fletcheri*, Taxonus 39  
*fletcheri*, Tenthredo providus 98  
*floralis*, Astatus 108  
*floralis*, Colletes 258  
*floralis*, Crabro 233  
*floralis*, Hylaeus, *Prosopis* 261  
*florea*, Amegilla, *Anthophora* 322  
*florea*, Andrena 273  
*florentinum*, Anthidium, *Apis* 300  
*floricola*, Allodynerus, *Odynerus* 178  
*floricola*, Andrena 270  
*floricola*, Hylaeus 261  
*floricola*, Odynerus 178  
*floricola*, Tenthredo 87  
*florilegus*, Bombus 327  
*floripetum*, Pseudoanthidium 302  
*florisomne*, Chelostoma auct. 295  
*florisomne*, Chelostoma, *Apis* 295  
*florivaga*, Andrena 268  
*Florkinus* 234  
*florum*, *Apis* 265  
*fluctuans*, Eumenes 185  
*fluminensis*, Macrophyta erythropus 86  
*fluvicornis*, Taxonus 43  
*fodiens*, Cercheris 253  
*fodiens*, Colletes, *Apis* 258  
*foederata*, Polistes 193  
*foersteri*, Cephus 110  
*foersteri*, Coelioxys 304  
*foersteri*, Laelius 124  
*foersteri*, *Prosopis* 259  
*foetidae*, Euura, *Pontania* 59  
*folii*, Tenthredo grossulariae 64  
*foliivolutor*, Anthidium 303  
*Fongiba* 149  
*fonscolombe*, Scleroderma 124  
*fonscolombii*, Andrena 267  
*forcipata*, Myrmica 205  
*foreli*, Formica 199  
*foreli*, Formica exsecta  
    pressilabris var. 199  
*forficula*, Arge 25  
*Forficulotarpa* 107  
*Formica* 199  
*Formica* subg. 199  
*formicaeformis*, Mystrophorus 119  
*Formicapis* subg. 297  
*formicaria*, Mutilla 149  
*formicarius*, Dryinus 120  
*formicarius*, Gonatopus 120  
*formicarius*, Gonatopus 121  
**Formicidae** 197  
*formiciformis*, Cephalonomia 124  
**Formicinae** 198  
*formicinus*, Gonatopus 121  
**Formicoidea** 197  
*Formicoxenus* 204  
*Formila* 122  
*formosa*, Pachyprotasis 87  
*formosana*, Thrinax, *Hemitaxonus* 83  
*formosella*, Blennocampa 48  
*formosicola*, Coelioxys 304  
*formosus*, Arpactus 223  
*formosus*, Harpactus, *Arpactus*  
    formosus 223  
*formosus*, Janus, *Cephus* 110  
*formosus*, Pterochilus 189  
*Forsia* 47  
*forsii*, Osmia 298  
*forsii*, Tenthredo 95  
*forsiusi*, Pontania 64  
*forsiusi*, Pristiphora conjugata 71  
*forsslundi*, Formica 199  
*forsythiae*, Apareophora 45  
*forticarinatus*, Oxybelus 242  
*fortior*, Myrmica bergi var. 205  
*fortipes*, Andrena 294  
*fortis*, *Apis* 269  
*fortistriolatus*, Palarus 243  
*fortunatus*, Tachysphex panzeri 239  
*fosorius*, *Apis* 258  
*fossilabris*, Formica 199  
*fossoria*, Megachile argentata var. 306  
*fossoria*, Spheg 233  
*fossorius*, Ectemnius 230  
*fossorius*, Ectemnius, *Spheg* 233  
*fossilata*, Tetralonia 322  
*Fossilucephus* 109  
*foveatus*, Elampus, *Ellampus* 128  
*foveifrons*, Amauronematus tillbergi 65  
*foveivaginat*, Priophorus 54  
*foveolata*, Osmia 296  
*foveolatum*, Chelostoma, *Heriades* 296  
*foveolatus*, Gorytes foveolatus 222  
*foveolatus*, Halictus 286  
*foveolatus*, Pachynematus 57  
*foveolatus*, Psen 251  
*foveolatus*, Symmorphus 191  
*Foveosmia* subg. 295  
*fovieifrons*, Selandria 76  
*fragosa*, Cercheris 253  
*fragrans*, Bombus, *Apis* 331  
*franclemonti*, Xylocelia 247  
*franconica*, Andrena 271  
*frankenbergeri*, Chrysis 135  
*franki*, Tenthredopsis 100  
*fratellum*, Lasioglossum, *Halictus*  
    fratellum 283  
*fratellus*, Anoplius, *Pompilus* 172  
*frater*, Halictus 278  
*fratercula*, Andrena 271  
*fraterculus*, Eumenes 182  
*fraterculus*, Nysson 220  
*fraterna*, Coelioxys 305  
*fraterna*, Eumenes 182  
*fraterna*, Mutilla 154  
*fraternus*, Nematus 70  
*frauenfeldi*, Stenodynerus,  
    *Odynerus* 190  
*fraxini*, Nematus 74  
*fraxini*, Tenthredo 53  
*frenalis*, Euura, *Nematus* 59  
*freya*, Andrena 265  
*freygessneri*, Cryptocheilus,  
    *Priocnemis* 161  
*freygessneri*, Halictus 283  
*freygessneri*, Stelis 302  
*freygessneri*, Tachytes 240  
*Frey-Gessneri*, Tachytes 240  
*freyi*, Pachynematus 56  
*freyja*, Euura 59  
*friederikae*, Dioxys cincta ab. 303  
*friesei*, Bombus kirbyellus 327  
*friesei*, Camptopoeum 276  
*friesei*, Colletes 258  
*friesei*, Diodontus 247  
*friesei*, Nysson 220  
*friesei*, Pristiphora, *Lygaeonematus* 72  
*friesei*, Schizocera 26  
*friesei*, Tenthredopsis, *Thomsonia* 98  
*frigida*, Pristiphora, *Nematus* 72  
*frigida*, Siobla, *Encarsioneura* 89  
*frigidus*, Colletes 257  
*frisoni*, Psithyrus flavidus 329  
*frivaldskii*, Aclostocera 145  
*frivaldskii*, Eucera 320  
*frivaldskii*, Allantus 97  
*frivaldskii*, Arge, *Hylotoma* 23  
*frivaldskii*, Chrysis frivaldskii 135  
*frivaldskii*, Eumenes 184  
*Frivaldskiiiformis* 22  
*frontale*, Camptopoeum, *Prosopis* 276  
*frontalis*, Andrena 268  
*frontalis*, *Prosopis* 275  
*frontalis*, Tenthredella ferruginea 94  
*frontalis*, Vespa 195  
*fronticalis*, Pseudoscolia 256  
*fronticorne*, Trypoxylon fronticorne 245  
*frontimacula*, Anoplolyda 104  
*frontina*, Corynina, *Amasis* 32  
*frontosa*, Aphaenogaster famelica 203  
*fruhstorferi*, Lipotriches, *Nomia* 291  
*frutetorum*, Gilpinia, *Tenthredo* 33  
*fruticum*, Nematus 75  
*fucata*, Andrena 264  
*fucata*, Nomada 313  
*fuciformis*, Osmia 299  
*fuciformis*, Scolia, *Spheg* 148  
*fucosus*, Halictus 277  
*fudakowskii*, Halictus 285  
*fudzi*, Sphecodes 290  
*fuerstenbergensis*, Aneugmenus,  
    *Selandria* 76  
*fugax*, Diplorhoptrum auct. 207  
*fugax*, Nomia, *Nomia* 292  
*fugax*, Solenopsis, *Formica* 207  
*fugax*, Tachysphex *Tachytes* 238  
*fuhescens*, Megachile 308  
*fujii*, Lasius 201  
*fujiiense*, Euura, *Pikonema* 59  
*fukaii*, Monophadnus 53  
*fukaii*, Rhynchium 189  
*Fukpokta* 149  
*fukuiana*, Andrena 267  
*fukuensis*, Sphecodes 290  
*fukuokensis*, Andrena 272  
*fulgens*, Abia 28  
*fulgida*, Chrysis 135

- fulgidipennis*, Monophadnus 50  
*fuliginata*, Arge 24  
*fuliginipennis*, Monophadnus 50  
*fuliginosa*, Apis 267, 296  
*fuliginosa*, Fenusa 48  
*fuliginosa*, Tenthredo 53  
*fuliginosus*, Lasius, *Formica* 201  
*fuliginosus*, Pompilus 166  
*fuliginosus*, Stethomostus, *Tenthredo* 53  
*fulminatrix*, Chrysura 143  
*fulva*, Andrena 268  
*fulva*, Eumenes 185  
*fulva*, Eumenes var.  $\beta$  185  
*fulva*, Hoplitis, *Osmia* 296  
*fulva*, Saropoda 319  
*fulva*, Tenthredo 91, 104  
*fulvago*, Andrena, *Apis* 265  
*fulvescens*, Andrena 265  
*fulvescens*, Euura, *Pteronidea* 59  
*fulvescens*, Tetraloniella, *Tetralonia* 322  
*fulviceps*, Tenthredo 99  
*fulvicollis*, Selandria 51  
*fulvicorne*, Lasioglossum, *Melitta*  
*fulvicorne* 283  
*fulvicornis*, Andrena 271  
*fulvicornis*, Colletes 258  
*fulvicornis*, Hoplocampa, *Tenthredo* 68  
*fulvicornis*, Hylaeus 285  
*fulvicornis*, Mellinus 246  
*fulvicornis*, Nomada 313  
*fulvicornis*, Psenulus, *Psen* 252  
*fulvicornis*, Spinarge, *Arge* 25  
*fulvicornis*, Tenthredo 94  
*fulvicrus*, Andrena 275  
*fulvicrus*, Hylaeus 281  
*fulvicrus*, Melitta 275  
*fulvida*, Andrena 267  
*fulvimana*, Megachile 307  
*fulvipennis*, Pseudotiphia, *Tiphia* 150  
*fulvipes*, Aglaostigma, *Tenthredo*  
*fulvipes* 83  
*fulvipes*, Ametastegia 39  
*fulvipes*, Andrena 267  
*fulvipes*, Anthidium punctatum var. 301  
*fulvipes*, Anthophora 324  
*fulvipes*, Apis 300, 303  
*fulvipes*, Cercheris 253  
*fulvipes*, Macropis, *Megilla* 294  
*fulvipes*, *Megilla* 293  
*fulvipes*, Nysson 220  
*fulvipes*, Stizus 225  
*fulvipes*, Tenthredo 38, 70, 105  
*fulvitaris*, Andrena 272  
*fulvitaris*, Andrena 275  
*fulvitaris*, Anthophora 323  
*fulvitaris*, Odynerus, *Hoplomerus* 187  
*fulvitaris*, Perineura 92  
*fulvitaris*, Psen 251  
*fulvitaris*, Tachysphex, *Tachytes* 238  
*fulvitaris*, *Tachytes* 238  
*fulvitegularis*, Andrena gallica ssp. 269  
*fulviventre*, Anteon, *Dryinus* 119  
*fulviventre*, Anthidium 301  
*fulvoiventris*, Apis 298  
*fulvoiventris*, Epeoloides 319  
*fulviventris*, Nysson 220  
*fulvoiventris*, Planiceps 166  
*fulvoiventris*, Tenthredo 94  
*fulvocincta*, Melitta 282  
*fulvocincta*, Phymatoceropsis 52  
*fulvocinerea*, Anthophora  
*parietina* var. 324  
*fulvo-crustatus*, Campylogaster 264  
*fulvogastra*, Mutilla rufipes var. 156  
*fulvohirta*, Megachile lagopoda var. 307  
*fulvohirta*, *Osmia* 297  
*fulvooides*, Eumenes sichelii var. 185  
*fulvuleja*, Pterocheilus sibiricus var. 189  
*fulvum*, Aprosthema 26  
*fulvus*, Nematius 61  
*fumipennis*, Arachnospila, *Pompilus* 170  
*fumipennis*, Cephus 109  
*fumipennis*, Crabro 233  
*fumipennis*, Hylaeus 259  
*fumipennis*, Nematius 68  
*fumipennis*, Pamphilus, *Lyda* 104  
*fumipennis*, Phyllotoma 49  
*fumosus*, Dolerus 79, 81  
*funebri*, Andrena 268  
*funebri*, Athalia proxima 44  
*funebri*, Stenodynerus, *Odynerus* 190  
*funeraria*, Mutilla 153  
*funerarius*, Palarus 243  
*funerarius*, Spheg 215  
*funerea*, Cercheris 254  
*funereipes*, Pompilus 166  
*funereus*, Allantus 90  
*funereus*, Stethomostus, *Tenthredo* 53  
*funerula*, Dasylabris kaszabi 153  
*funerulus*, Nematius 72  
*fur*, Nematius 60  
*furcata*, Andrena 267  
*furcata*, Anthophora, *Apis* 323  
*furcata*, Sterictiphora, *Tenthredo* 26  
*furcata*, Tenthredo 26  
*furcatus*, Halictus 278  
*furcatus*, Oxybelus 243  
*furnasensis*, Halictus 283  
*furukawai*, Megachile 307  
*furva*, Nomada 313  
*furvescens*, Nematius 73  
*furvoides*, Nomada 313  
*furvus*, Monophadnus 50  
*fusca*, Andrena 267  
*fusca*, Apis 299  
*fusca*, Formica 200  
*fusca*, Nematius 74  
*fusca*, Nomada 313  
*fusca*, Nomioides minutissima 292  
*fusca*, *Osmia* 299  
*fusca*, *Schizocera* 26  
*fusca*, Tenthredo 53  
*fusca*, Vespa crabro 194  
*fuscarima*, Pteronidea 65  
*fuscata*, Andrena gelrae karelica f. 274  
*fuscata*, Melitta 274  
*fuscata*, Tenthredo 63, 90  
*fuscata*, Xylocopa 310  
*fuscatus*, Diphlebus 248  
*fuscorne*, Aprosthema, *Schizocera* 26  
*fuscornis*, Apis 264  
*fuscornis*, Bethylus, *Omalus* 125  
*fuscornis*, Mesitius 124  
*fuscornis*, Nematius 70  
*fuscornis*, Nomada 313  
*fuscornis*, Omalus 125  
*fuscornis*, Sirex 113  
*fuscornis*, Tenthredo 95  
*fuscornis*, Tremex, *Sirex* 113  
*fuscifrons*, Megachile lapponica 307  
*fuscinervis*, Arge 23  
*fuscipennis*, Arge, *Hylotoma* 23  
*fuscipennis*, Bethylus 125  
*fuscipennis*, Decatria 49  
*fuscipennis*, Dichroa 287  
*fuscipennis*, Dolerus germanicus 78  
*fuscipennis*, Microdiprion, *Diprion* 34  
*fuscipennis*, Nematius, *Nematius* 68  
*fuscipennis*, Nematius 68  
*fuscipennis*, Pemphredon 249  
*fuscipennis*, Phyllotoma 47  
*fuscipennis*, Psen 251  
*fuscipennis*, Psenulus *Psen* 252  
*fuscipennis*, Solenius 233  
*fuscipennis*, Tarpa 107  
*fuscipennis*, Tenthredo 47  
*fuscipennis*, Tenthredo, *Allantus*  
*marginella* 96  
*fuscipes*, Andrena, *Melitta* 265  
*fuscipes*, Arge, *Hylotoma* fuscipes 23  
*fuscipes*, Astata 218  
*fuscipes*, Formica sanguinea var. 200  
*fuscipes*, Psenulus 252  
*fuscipes*, Symmorphus, *Odynerus* 191  
*fuscipes*, Tenthredo 93  
*fuscitarsis*, Crabro 232  
*fuscitarsis*, Hylaeus immarginatus 285  
*fuscitarsis*, Selandria serva 81  
*fuscitarsis*, Tenthredo 39  
*Fuscitarsus*, Crabro 232  
*fusciventris*, Apis 272  
*fuscocostalis*, Tenthredo 96  
*fuscohirta*, Andrena 267  
*fuscooides*, Formica cunicularia 200  
*fuscooides*, Lasius flavus var. 201  
*fuscomaculata*, Euura, *Nematius* 59  
*fuscomarginata*, Arachnospila,  
*Pompilus* 169  
*Fuscopolistes* 192  
*fuscospa*, Andrena 270  
*fuscoterminata*, Tenthredo 92  
*fuscula*, Pseudodineura, *Tenthredo* 75  
*fusca*, Cryptocampus 75  
*fuseipennis*, Lithurgus 295  
*gabriellae*, Hedychridium 129  
*gaditana*, Vespa 225  
*gaetula*, Andrena 272  
*gagates*, Formica 200

- gagathinus, Eutomostethus, *Tenthredo* 47  
 gagatoides, Formica 200  
*gagatoides*, Formica fusca var. 200  
*Galactopterus* 167  
*galactopterus*, Pompilus 173  
 galbula, Colpa, *Vespa* 147  
*galbula*, Scolia 148  
 galbula, Vespa 147  
*galeatus*, Leptothorax 208  
*galericulatae*, Dentathalia 45  
*galiciensis*, Allantus 90  
*galileus*, Halictus 278  
 gallae, Euura 55  
*gallarum*, Nematus 64  
*gallarum*, Osmia 299  
*gallarum*, Tenthredo 56  
*gallica*, Amasis crassicornis 32  
 gallica, Andrena 269  
*gallica*, Bembix 222  
 gallica, Polistes 192  
*gallica*, Vespa 192  
 gallicola, Goniozus, *Parasierola* 125  
*gallicola*, Nematus 63  
*gallicola*, Pontania 63  
 gallicum, Episyron, *Pompilus* 167  
*gallicus*, Bothriomyrmex 197  
*gallicus*, Miscophus 241  
*gallicus*, Odynerus 185  
 gallicus, Polistes, *Vespa* 193  
 gallienii, Myrmica 205  
 galloisi, Chrysis, *Tetrachrysis* 135  
*gandzhensis*, Andrena  
   colletiformis ab. 264  
*ganglbaueri*, Bembix 222  
*garbigliettii*, Trichiocampus 54  
 garrula, Amegilla, *Apis* 322  
 garrula, Scolia 148  
*gascheti*, Andrena 271  
*Gastrargyron* 236  
*gastricus*, Monophadnus 51  
 Gastrosericus 236  
*Gastrophaeria* 215  
 gaullei, Anteon 119  
*gaunitzi*, Pristiphora 74  
 gavarnicus, Halictus 279  
 gazella, Ancistrocerus, *Vespa* 179  
*geerii*, Vespa 195  
*gegen*, Ammophila 213  
 gegen, Ammoplanus 246  
*gegen*, Bembix oculata 222  
 gegen, Diodontus 247  
 gegensumus, Miscophus 241  
 gehrsi, Euura, *Pachynematus* 59  
*gei*, Fenusa 50  
 gelida, Empria, *Tenthredo* 41  
*gelida*, Pristiphora 72  
*gelidus*, Nematus 66  
 gelriae, Andrena 274  
*gemellus*, Nematus 73  
*gemina*, Pemphredon 248  
 geminata, Sterictiphora, *Tenthredo* 26  
*geminatus*, Halictus 279  
*geminatus*, Hoplisus 223  
*geminus*, Hylaeus 283  
*gemma*, Chrysis bidentata var. 139  
*gemmarum*, Cryptocampus 62  
*Gemmura* 55  
*genalis*, Hylaeus 261, 262  
 genalis, Megachile 306  
*genalis*, Stelis 303  
 genata, Endemyolia 46  
 generosa, Holopyga, *Ellampus*  
   generosa 131  
*genevensis*, Andrena 273  
*genevensis*, Halictus puncticollis 283  
 gengiskhan, Pseudochrysis 140  
*geniculata*, Lyrops 238  
 geniculata, Meria, *Myzine* 149  
 geniculata, Pristiphora, *Nematus* 72  
*geniculata*, Schizocera 26  
*geniculata*, Selandria 53  
*geniculata*, Strongylogaster 82  
*geniculata*, Tachytes panzeri 238  
*geniculata*, Tenthredo 50, 79  
*geniculatus*, Crabro 226, 229, 233  
*geniculatus*, Nysson 220  
*genimaculata*, Prosopis  
   clypearis var. 261  
 genistae, Rhogogaster 88  
*gentianae*, Andrena 274  
*genualis*, Tenthredopsis stigma 100  
 genucinctus, Dolerus 77  
 geoffrellus, Sphecodes, *Melitta* 288  
*geoffroyanus*, Odynerus 179  
*geoffroyi*, Cladius 54  
*geoffroyi*, Lyda 110  
*geoffroyi*, Polistes 192  
*georgica*, Cataglyphis aenesens 199  
 georgiense, Aprosthema staudingeri 26  
 georgii, Stenamma 207  
 geranii, Ametastegia, *Emphytina* 40  
 Gerbekas 124  
*germabensis*, Megachile 305  
*germabensis*, Tachytes 237  
*germabica*, Andrena 272  
*germabicus*, Odynerus 183  
*germana*, Vespa crabro 193  
*germanica*, Andrena 265  
*germanica*, Dasypoda 293  
*germanica*, Eumenes dubius  
   sareptanus var. 182  
*germanica*, Nomada 312, 314  
 germanica, Vespula, *Vespa* 196  
 germanicus, Dolerus, *Tenthredo*  
   germanicus 78  
*germanicus*, Nematus 73  
*germanicus*, Odynerus 190  
 germari, Chrysis germari 135  
 gerstaeckeri, Bombus 328  
 gerstaeckeri, Hedychrum  
   gerstaeckeri 130  
*gerstaeckeri*, Prosopis 260  
 gerstaeckeriformes, Hedychrum 142  
*gerszabiensis*, Megachile 305  
 gertabi, Chrysis 135  
*gertrudis*, Passaloecus 248  
 gerula, Pristiphora, *Lygaeonematus* 72  
 gessneri, Dolerus 78  
 Gestrodynerus subg. 188  
*Ghelynia* 302  
 Ghilarocheilus subg. 187  
 ghilarovi, Priocnemis 163  
 ghilarovi, Psenulus 252  
 ghilarovi, Tracheliodes 236  
*ghilianii*, Dryudella 218, 219  
*ghilianii*, Nematus 71  
*gibba*, Andrena 274  
*gibba*, Mutilla 156  
 gibba, Nomada 287, 288  
 gibba, Sphecx 287  
*gibba*, Tachysphex latalvalvis 238  
*gibberosa*, Tenthredopsis 99  
 gibbomima, Arachnospila,  
   *Psammochares* 169  
 gibbosa, Aphaenogaster, *Formica* 203  
*gibbosa*, Apis 288  
 gibbosum, Aglaostigma, *Tenthredo* 83  
 gibbosus, Dolerus 79  
 gibbulus, Evagetes, *Pompilus* 171  
*gibbus*, Bothriomyrmex 197  
 gibbus, Hylaeus 261  
 gibbus, Sphecodes, *Sphex* 288  
 gibbus, Tachysphex 238  
*giffardi*, Solenius 232  
*gifuensis*, Tenthredo 94  
 gifui, Tenthredo 94  
*gigantea*, Coelioxys rufescens var. 304  
 gigantea, Megaxyela 20  
*gigantea*, Melecta armata var. 326  
 gigas, Ichneumon 113  
*gigas*, Tenthredo mesomelas 91  
 gigas, Urocerus, *Ichneumon* gigas 113  
 gilanum, Lasioglossum, *Halictus* 283  
*Gilbertella* 166  
*Gilbertellana* 166  
*gillettei*, Blennocampa 50  
 Gilpinia 33  
*gilvifrons*, Andrena 270  
 gilvipes, Dolerus, *Tenthredo* gilvipes 79  
*gilvus*, Agrobombus 331  
 ginran, Nomada 313  
 giraudi, Megachile 306  
*giraudi*, Osmia 299  
*giraudi*, Phyllaenus 111  
*giraudii*, Halictus 283  
*glabella*, Nomada 315  
*glabellifer*, Cephus 111  
*glaber*, Camponotus aethiops var. 199  
 glaber, Philanthus 255  
 glaberrima, Nomada 313  
*glabra*, Apis 288  
 glabrata, Ametastegia, *Tenthredo* 39  
 glabrata, Myrmilla, *Mutilla* 154  
 glabrata, Pachyprotasis 87  
*glabricollis*, Athalia 44  
 glabrifrons, Euura, *Pontania* 59  
 glabriusculum, Lasioglossum, *Halictus*  
   glabriusculum 283

- glabriventris, *Andrena* 267  
 glacialis, *Bombus* 330  
 glacialis, *Dolerus konowi* 78  
 glacialis, *Epeolus* 317  
 glacialis, *Eumenes* 182  
 glacialis, *Euura*, *Amauronematus* 59  
 glasunovi, *Chrysis* 135  
 glasunovi, *Halictus morbillosus* r. 280  
 glasunowi, *Parnopes* 142  
 glauca, *Formica* 200  
 glauca, *Formica rufibarbis* var. 200  
 glauca, *Pristiphora* 72  
 glaucae, *Euura*, *Pontania* 59  
 glaucopis, *Fesunella*, *Phoenusa* 48  
 glaucopis, *Nomada* 313  
 glaucopis, *Tenthredo* 67  
 glenelgensis, *Nematus* 60  
 glesicornis, *Allantus* 93  
 glesipennis, *Pachynematus* 57  
 glinka, *Pontania* 64  
 globiceps, *Prosopigastra*,  
     *Tachysphex* 237  
 globosa, *Osmia* 298  
 globosa, *Smicromyrme* 156  
 globosiformis, *Osmia* 298  
 globulilabris, *Andrena* 273  
 globulus, *Hylaeus*, *Prosopis* 261  
 gloriosa, *Holopyga* 142  
 Glossamegilla subg. 322  
*Glossomyrme* 157  
 glottianus, *Nematus* 59  
 glottianus, *Taxonus* 39  
 glutinans, *Apis* 259  
 glutinosae, *Nematus* 67  
 glutinosus, *Heriades* 299  
 glycybromifer, *Halictus* 280  
 gmelini, *Alpinobombus kirbyellus* 327  
*Gnathias* 310  
 gobicola, *Dasylabris* 153  
 gobicola, *Pseudomyrmosa* 152  
 gobiensis, *Bembix* 222  
 gobiensis, *Diodontus major* 247  
 gobiensis, *Podalonia*, *Ammophila* 213  
 gobiensis, *Sphex* 215  
 gobiensis, *Stizus* 225  
 goesswaldi, *Epimyrra* 207  
 golosejevi, *Stenamma* 207  
 gonager, *Crossoceros* 227  
 gonager, *Dolerus*, *Tenthredo* 79  
*Gonagerformis* 77  
**Gonatopodinae** 120  
*Gonatopus* 120  
*gongshanensis*, *Vespula* 196  
*Gongylocorsia* 103  
*Gonioxybelus* 242  
*Goniozus* 125  
*Gonius* 243  
*Gonodontochrysis* 133  
*Gonostigmus* 249  
*gonymelas*, *Nematus* 71  
 goodeniana, *Nomada*, *Apis* 313  
 gordiagini, *Myrmoxenus* 207  
 gorge, *Lasioglossum* 283  
*gorkaensis*, *Athalia lineolata* 44  
*gorkiensis*, *Halictus* 280  
*Gorystizus* 221  
*Gorytes* 222  
*gossypina*, *Tenthredo* 42  
*gotarus*, *Pachynematus* 57  
 gracile, *Rhopalum* 235  
 gracilentia, *Tenthredo* 95  
 gracilentus, *Leptocimbex*,  
     *Clavellaria* 30  
 gracilicornis, *Arge*, *Hylotoma* 23  
 gracilicornis, *Cladius* 54  
 gracilicornis, *Clameuta*, *Cephus* 108  
 gracilicornis, *Hylaeus*, *Prosopis* 260  
 gracilicornis, *Paracharactus*,  
     *Selandria* 51  
 gracilicornis, *Prosopis*  
     *luteifrons* var. 260  
 gracilicornis, *Pteronidea* 63  
 gracilidentata, *Euura*, *Pteronidea* 59  
 gracilior, *Sphecodes* 287, 288  
 gracilipes, *Anthophora* 324  
 gracilipes, *Stizus* 225  
 gracilis, *Chrysis angustula* 143  
 gracilis, *Andrena* 264  
 gracilis, *Astatus* 218  
 gracilis, *Bembix* 221  
 gracilis, *Cephus* 109  
 gracilis, *Coelioxys* 305  
 gracilis, *Crabro* 229  
 gracilis, *Dolerus* 79  
 gracilis, *Halictus* 284  
 gracilis, *Mesitius* 124  
 gracilis, *Neostromboceros* 81  
 gracilis, *Palarus* 243  
 gracilis, *Passaloceros*, *Diodontus* 248  
 gracilis, *Priocnemis*, *Salius* 163  
 gracilis, *Smicromyrme* 155  
 gracilis, *Symmorphus*, *Odynerus* 191  
 gracilis, *Tenthredo* 39  
 gracilis, *Tenthredo*, *Tenthredella* 98  
 gracilis, *Tenthredopsis* 99  
 gracilissimus, *Crabro* 231  
 gracillima, *Ammophila* 212  
 gracillima, *Chrysis gracillima* 135  
*graeca*, *Chrysis* 137  
*graeca*, *Eucera* 320  
*graeca*, *Mutilla* 157  
*graeca*, *Myzine* 149  
*graeca*, *Pseudomeria* 149  
*Graecandrena* subg. 266, 267  
*graecus*, *Allantus* 90  
*graecus*, *Gonatopus* 121  
*graecus*, *Halictus* 278  
*graeffei*, *Hylotoma* 22  
*graeffei*, *Osmia* 300  
*graelsii*, *Chrysis graelsii* 135  
*grahami*, *Polistes rothneyi* 192  
*grahami*, *Vespula rufa* 196  
*graja*, *Macrocera* 321  
*graja*, *Nomada* 313  
*graja*, *Tetraloniella*, *Macrocera* 322  
*gramineus*, *Halictus* 279  
*graminicola*, *Myrmecina*, *Formica* 205  
*graminis*, *Cephus* 109  
*graminis*, *Nematus* 62  
*grandiceps*, *Tenthredo* 98  
*grandii*, *Leptochilus alpestris* var. 185  
*grandii*, *Mimesa* 250  
*grandii*, *Tachysphex* 238  
*grandimargo*, *Systropha* 291  
*grandior*, *Parnopes* 142  
*grandior*, *Parnopes*, *Chrysis* 142  
*grandis*, *Argogorytes*, *Gorytes*  
     *mystaceus* 221  
*grandis*, *Cladius*, *Nematus* 54  
*grandis*, *Dineura* 68  
*grandis*, *Hedychrum* 130  
*grandis*, *Hylaeus* 277  
*grandis*, *Lophopompilus*, *Pompilus* 173  
*grandis*, *Megadineura*, *Dineura* 68  
*grandis*, *Nematus* 54  
*grandis*, *Osmia* 296  
*grandis*, *Pompilus* 173  
*grandis*, *Pseudomalus*, *Ellampus* 132  
*grandis*, *Salius* 173  
*grandis*, *Selandria* 81  
*grandis*, *Siobla* 89  
*grandis*, *Solenius* 233  
*grandis*, *Sphecodes* 287  
*grandis*, *Tachyagetes*, *Evagetes* 174  
*grandis*, *Tachytes* 236  
*grangeoni*, *Acantholyda* 101  
*granulatus*, *Crabro* 232  
*granulosus*, *Halictus* 283, 285  
*granulosus*, *Tachysphex* 239  
*graphicus*, *Odynerus* 183  
*grata*, *Tenthredo* 90  
*gratiosus*, *Tachyagetes*, *Aporus* 174  
*gratus*, *Aneugmenus* 76  
*gravenhorstii*, *Nematus* 68  
*gravida*, *Andrena* 265  
*gravidula*, *Ceratina* 310  
*gredan*, *Andrena gelrae* 274  
*gredleri*, *Hylaeus* 259  
*gredleri*, *Leptothorax* 204  
*Gredleri*, *Lindenius* 232  
*Greeleyella* 276  
*gregori*, *Lestodryinus* 120  
*gregoriense*,  
     *Pseudoanthidium alpinum* 302  
*gregory*, *Smicromyrme pusilla*  
     *septentrionalis* f. 156  
*gressitti*, *Polistes rothneyi* 192  
*greyi*, *Anthidium* 301  
*gribodoi*, *Chrysis* 143  
*gribodoi*, *Chalepoxenus* 203  
*gribodoi*, *Halictus* 284  
*gribodoi*, *Tenthredo* 95  
*gribodoi*, *Vespa crabro* var. 194  
*griffinii*, *Cimbex* 30  
*grisea*, *Apis* 275  
*grisea*, *Scolia* 147  
*griseipennis*, *Halictus* 283  
*griseithorax*, *Dasypoda argentata* 293

- griseohirta*, Megachile  
 circumcincta var. 307  
*griseola*, Andrena 273  
*griseola*, Macrocera 322  
*griseolum*, Lasioglossum, *Halictus*  
*griseolum* 283  
*grisescens*, Halictus 285  
*grisescens*, Troidotilla, *Mutilla* 157  
*griseus*, Nematus 57  
 groenblomi, Pristiphora,  
*Lygaonematus* 72  
*groenblomi*, Trichiosoma 31  
 groenlandica, Euura,  
*Amauronematus* 59  
 grohmanni, Chrysis grohmanni 143  
 grohmanni, Icteranthidium,  
*Anthidium* 301  
*Grosapis* 305  
*grossa*, Nomada 311  
*grossa*, Siobla 89  
*grossa*, Tiphia 147  
 gresseseratum, Aglaostigma,  
*Macrophyopsis* 83  
*grossulariae*, Nematus 64  
*grossulariae*, Pristiphora 70  
*grossulariae*, Tenthredo 39, 64  
 gruenwaldti, Rophites 291  
 grumorum, Chrysis 135  
*guentheri*, Pompilus 169  
*gueruensis*, Leptochilus signatus 185  
*guichardi*, Leptochilus 185  
*guichardi*, Nysson 220  
*Gunnea* 52  
*guntionensis*, Konowia 115  
*gusenleitneri*, Antepipona 180  
*gusenleitneri*, Halictus 278  
 gussakovskii, Abia 28  
 gussakovskii, Andrena 269  
*gussakovskii*, Empria 42  
 gussakovskii, Lindenius 235  
 gussakovskii, Priocnemis 163  
*gussakovskii*, Sapyga 145  
 gussakovskii, Scolia 148  
 gussakovskii, Tachysphex 238  
*gussakovskij*, Psenulus 252  
 gussakovskij, Trypoxylon exiguum 244  
 gussakovskij, Mimesa 250  
 gussakovskij, Miscophus 241  
*gussakovskij*, Trypoxylon  
 clavicerum 244  
 gussakovskij, Priocnemis 163  
*guttata*, Conaspidia, *Eriocampa* 84  
*guttata*, Poecilosoma 41  
*guttata*, Tenthredo 41  
*guttator*, Allantus brachycerus 93  
*guttatus*, Crabro 231  
*guttatus*, Dolerus aericeps 77  
*guttatus*, Ectemnius 231  
*guttatus*, Ectemnius, *Crabro* 232  
*guttatus*, Nysson 220  
*guttatus*, Sphex 245  
*guttulata*, Nomada 313  
*guttulatus*, Cryptocheilus,  
*Priocnemis* 161  
*gwynana*, Melitta 267  
 gyllenhali, Pamphilus, *Lyda* 104  
*Gymnaphelopus* 118  
*Gymnochaes* 167  
 Gymnomerus 184  
*Gymnonychus* 70  
*Gymnus* 302  
*gynandromorpha*, Tenthredo 94  
 gyrifrons, Cryptocheilus, *Salius* 161  
*Gyrodroma* 302  
 Gyrodromella subg. 296  
 Gyrostoma subg. 192  
  
 Haba 128  
*Habrophora* 325  
 Habropoda 325  
 haematodes, Dolerus, *Tenthredo* 80  
*haematodes*, Nomada jacobaeae var. 313  
*haematopoda*, Apis 298  
*haematopus*, Tenthredo 85  
 haematopygia, Hemichroa 67  
 haematurus, Bombus 330  
 haemorrhoea, Andrena, *Apis* 275  
*haemorrhoea*, Apis 275  
 haemorrhoea, Coelioxys 304  
*haemorrhoea*, Lyrops 239  
*haemorrhoidalis*, Apis 275  
 haemorrhoidalis, Calameuta,  
*Tenthredo* 108  
*haemorrhoidalis*, Lithurgus 295  
 haemorrhoidalis, Melitta, *Andrena* 294  
*haemorrhoidalis*, Nematus 59  
 haemorrhoidalis, Oxybelus 242  
*haemorrhoidalis*, Pristiphora  
 pallidiventris 73  
*haemorrhoidalis*, Psen 252  
*haemorrhoidalis*, Scolia 147  
*haemorrhoidalis*, Tenthredo 68  
*haemorrhoidula*, Andrena 265  
 haemorrhous, Dolichurus 211  
*haemorroidalis*, Trachelus 108  
*haesitans*, Halictus 280  
*Hahiya* 149  
*hainanensis*, Polistes rothneyi 192  
*hainanensis*, Vespula 196  
*hakiensis*, Tenthredopsis 92  
 hakkari, Colletes 258  
*hakkarius*, Halictus kessleri 279  
 hakodadi, Pompilus 167  
*hakonensis*, Tenthredella 96  
 hakusana, Hinatara 49  
 hakusana, Nomada 314  
 hakusanus, Aproceros 25  
 hakusanus, Crossocerus 230  
*hakusanus*, Psen 251  
*hakutozanus*, Gorytes 223  
*hakutozanus*, Symmorphus 191  
 haladai, Ammophila 212  
 halensis, Physetopoda, *Mutilla* 155  
*halensis*, Tenthredo 85  
*halesus*, Emphytus 39  
*haliartus*, Emphytus 39  
**Halictidae** 277  
**Halictinae** 277  
**Halictini** 277  
 Halictoides subg. 290  
 halictoides, Andrena 274  
 halictula, Dufourea, *Rhophites* 290  
 Halictus 277, 287  
 Halictus subg. 277  
 Halidamia 48  
*halidayellus*, Mesitius 124  
*halinae*, Arge 23  
*halinae*, Cleptes 126  
*haloga*, Andrena niveata ssp. 270  
*hamata*, Osmia 297  
*Hamatodentiden* 77  
 hammarstroemi, Nomada 314  
 hammeri, Neotrogaspidia,  
*Trogaspidia* 157  
 hammi, Cephalonomia 124  
*handlirschi*, Ammoplanus 246  
*handlirschi*, Diodontus 247  
*handlirschi*, Gorytes 220  
*handlirschi*, Nysson 220  
*handlirschianus*, Bombus 329  
*hanedai*, Sphecodes 288  
 hangaicus, Ancistrocerus 179  
*hangani*, Nomada 316  
 hankoi, Priocnemis 163  
*hannibalis*, Trypoxylon 244  
*Hannonis*, Crabro 232  
 hanseni, Anthophora 325  
*hanuman*, Sphecodes 289  
*Haplocephus* 108  
 Haplogonatopus 121  
*harbecki*, Pemphredon 249  
*harbinensis*, Alysson 219  
*harbinensis*, Gorytes 223  
*harbinensis*, Lindenius 235  
 harmandi, Lasioglossum, *Halictus* 280  
*Harpactes* 223  
*Harpactopus* 215  
 Harpactus 223  
 Harpagoxenus 204  
 harpicola, Euura, *Amauronematus* 59  
 Harpiphorus 42  
*Harpophorus* 42  
*harrisoni*, Pontania 64  
 hartigi, Cladardis 46  
 hartigi, Euura, *Amauronematus* 59  
*Hartigia* 110  
 hartigii, Cephalcia, *Lyda* 102  
*hartigii*, Dineura 55  
*hartigii*, Dolerus 80  
*hartigii*, Macrophyta 90  
*hartigii*, Nematus 74  
 hartmanni, Rophites 291  
 harukawai, Dolerus 80  
 harveyi, Nysson 220  
 harwoodi, Dolerus 80  
*hasanensis*, Smicromyrme 156  
 hasdrubal, Amblyellus, *Pompilus* 168  
 hasdrubal, Pompilus 168  
 hasegawae, Arge 23  
*haslauica*, Andrena florea f. 273

- hasshanus*, Sphecodes 289  
*hastatae*, Euura 59  
*hastatae*, Pontania 59  
*hastatavora*, Euura 59  
*hasticornis*, Megachile 308  
*hatogayuus*, Sphecodes 290  
*hattorfiana*, Andrena, *Nomada* 264  
*haueri*, Cerceris 253  
*Hauffapis* 332  
*haupti*, Agenioideus 167  
*haustus*, Emphytus 39  
*haworthana*, Apis 325  
*hayashi*, Lasius 202  
*healaei*, Camponiscus 70  
*healyi*, Heterarthrus 49  
*hebes*, Andrena 267  
*hebes*, Euura, *Amauronematus* 59  
*hebescens*, Coelioxys 304  
*hebraeus*, Stizus 225  
*hederae*, Colletes 258  
*hedgreni*, Crabro 228  
*hedickei*, Arachnospila,  
*Psammochares* 169  
*hedikae*, Andrena 263  
*hedini*, Halictus hedini 278  
*hedstroemi*, Euura, *Amauronematus* 59  
*Hedychridium* 128  
*Hedychrum* 130  
*heecheonparki*, Pamphilus 104  
*hekouensis*, Vespa 193  
*helenae*, Olgia 224  
*helferanus*, Bombus 331  
*heliaca*, Prosopis 260  
*helicinus*, Nematus 66  
*Helicosmia* subg. 298  
*Heliophila* subg. 323  
*heliophilus*, Tachysphex 239  
*heliopolis*, Andrena afzeliella var. 274  
*heliopolites*, Tachysphex 238  
*helleni*, Euura, *Amauronematus* 59  
*helleni*, Gonatopus, *Dicondylus* 121  
*hellenica*, Myrmica 205  
*hellenica*, Myrmica rugulosa var. 205  
*hellenica*, Xylocopa 310  
*helleniensis*, Chrysis purpureifrons 139  
*Helleri*, Ammosphedidium 241  
*hellmanni*, Philanthus, *Anthophilus* 255  
*hellmanni*, Salius 173  
*Hellus* 145  
*helvetica*, Amasis 32  
*helvetica*, Ceropales helvetica 160  
*helvetica*, Mimesa 250  
*helveticae*, Euura, *Pontania* 59  
*helveticus*, Cryptocampus 56  
*helveticus*, Miscophus 241  
*helveticus*, Polistes 192  
*helveticus*, Tachysphex 238  
*helveticus*, Odynerus 186  
*helvola*, Andrena, *Apis* 264  
*helvola*, Apis 263  
*Hemibeleses* 42  
*Hemibia* 28  
*Hemiceropaes* subg. 160  
*Hemichalybion* 214  
*Hemichroa* 67  
*Hemiosmia* subg. 298  
*Hemipogonius* 162  
*Hemipterochilus* 184  
*Hemisalius* 166  
*Hemistenancistrocerus* subg. 184  
*Hemitaxonus* 83  
*Hemithyreopus* 226  
*henschelii*, Megachile 306  
*henschi*, Pristiphora 74  
*henschii*, Oryssus 117  
*henschii*, Pseudoryssus, *Oryssus* 117  
*henschii*, Xyela 21  
*Hensenia* 214  
*hepaticae*, Dineura 75  
*hepatimaculae*, Pontania viminalis 56  
**Heptamelidae** 36  
*Heptamelus* 36  
*heptapotamiensis*, Gorytes 222  
*Heptapotamius* 42  
*hera*, *Nomada* 314  
*heraclei*, Allantus 96  
*heraclei*, Crabro 232  
*herbaceae*, Euura, *Nematus* 59  
*herculeanus*, Camponotus, *Formica* 198  
*hercyniae*, *Amauronematus* 61  
*hercyniae*, Gilpinia, *Lophyrus* 33  
*heri*, Eumenis mediterranea var. 182  
*Heriades* 296  
*Heriades* subg. 296  
*heringi*, Pseudodineura, *Permatopus* 75  
*Heroecus* 247  
*heroicus*, Emphytus 39  
*heros*, Ellampus 127  
*heros*, *Lestica*, *Crabro* 234  
*herrichianus*, Odynerus 191  
*herrichii*, Odynerus 188  
*herrichii*, Pseudepipona, *Odynerus* 188  
*herzi*, Panurginus 276  
*herzi*, Panurgus montanus 276  
*hesperia*, Andrena 265  
*Hesperodryinus* 120  
**Heterarthrinae** 45  
*Heterarthrus* 49  
*Heterelis* subg. 147  
*Hetereucera* subg. 320  
*heterochromus*, Tachysphex 238  
*Heterodasypoda* 293  
*heterodoxa*, Andrena 267  
*heteropennis*, Xylocopa violacea ab. 310  
*Heterostelis* subg. 302  
*hethiticus*, Rophites algeris 291  
*hethiticus*, Sphecodes rufiventris 290  
*Hexachrysis* 133  
*Hexataenites* subg. 277  
*heydeni*, *Ammophila* 212  
*heydeni*, Crossocerus 228  
*heydeni*, Rhadinoceraea 52  
*hiaticula*, Andrena humilis ssp. 265  
*hiatus*, Emphytus 39  
*hiberniae*, Megachile versicolor var. 307  
*hibernica*, Megachile  
*willughbiella* var. 308  
*hibernica*, Odynerus pictus var. 179  
*hibernicus*, Nematus 73  
*hiberus*, Apis 275  
*hieroglyphica*, *Acantholyda*,  
*Tenthredo* 101  
*hierosolomita*, *Heriades* 296  
*higashi*, Halictus tumulorum 279  
*hikense*, Anteon 119  
*hikosana*, Andrena 270  
*hilaris*, Pamphilus, *Lyda* 104  
*hillana*, Apis 316  
*hilleckeii*, Thomsonia 100  
*himalaiensis*, *Busarbidea* 76  
*himalayaensis*, *Anthophora*  
*pulcherrima* 324  
*Hinatara* 49  
*hinganicus*, *Passaloecus* 248  
*hipponensis*, *Nomada* 314  
*hirashimai*, *Poecilagenia*,  
*Poecilageniella* 165  
*hircanus*, *Pompilus* 164  
*hirowatarii*, Euura, *Pachynematus* 59  
*hirsuta*, Andrena 323  
*hirsuta*, *Chrysura*, *Chrysis* 139  
*hirsuta*, *Myrmica* 205  
*hirsuta*, *Nomada* 312  
*hirsuta*, *Podalonia*, *Sphex* 213  
*hirsutaffinis*, *Podalonia*, *Ammophila* 214  
*hirsutifrons*, *Pompilus* 169  
*hirsutilus*, *Phileremus* 318  
*hirsutulus*, *Astatus* 218  
*hirsutus*, *Sirex* 112  
*hirta*, Apis 293, 298  
*hirta*, *Scolia*, *Apis* 148  
*Hirtanteon* 118  
*hirtella*, Andrena morawitzi var. 272  
*hirtellum*, *Trichiosoma* 30  
*hirtellus*, Halictus 287  
*hirticeps*, Andrena 274  
*hirtipes*, Andrena 293  
*hirtipes*, *Crabro* 227  
*hirtipes*, *Dasypoda* minor 293  
*hirtipes*, *Dasypoda*, *Andrena* 293  
*hirtipes*, *Holopyga* 132  
*hirtiventris*, Halictus 282  
*hirtula*, *Myrmica* 204  
*hirtula*, *Stenamamma westwoodi* var. 207  
*hirtus*, Colletes 257  
*hirtus*, *Thyreus*, *Crocisa* 327  
*hirundinaria*, Apis 299  
*hispana*, *Eucera* auct. 321  
*hispanica*, Andrena nigriceps var. 265  
*hispanica*, Andrena nitida var. 269  
*hispanica*, Apis 240  
*hispanica*, *Bembix* 222  
*hispanica*, *Prosopis difformis* 261  
*hispanica*, *Stelis* 302  
*hispanicum*, *Anthidium*  
*florentinum* var. 300  
*hispanicus*, *Allodynerus* 180  
*hispanicus*, Colletes fodiens 258  
*hispanicus*, *Katamenes sichelii* 185  
*hispanicus*, *Oxybelus* 243

- hispanicus*, Tropicoddynerus interruptus 192  
*hispaniola*, *Andrena nitida* ssp. 269  
*Hissaroccephus* 110  
*histrion*, *Euura*, *Nematus* 60  
*histrion*, *Nematus* 60  
*histrion*, *Pamphilius* 104  
*histrion*, Tenthredo 100  
*histrionica*, *Andrena sillata* ssp. 271  
*histrionica*, *Macrophya* 86  
*histrionica*, *Scolia*, *Tiphia* 148  
*histrionicus*, *Thyreus*, *Melecta* 327  
*hoberlandti*, *Eustenancistrocerus* transitorius 184  
*hoepfneri*, *Nomada* flavoguttata var. 312  
*hoffmanni*, *Lasioglossum*, *Halictus* 283  
*Hogardia* 224  
*hohlbecki*, *Cerceris* 253  
*hohlbecki*, *Omalus*, *Ellampus* 132  
*hokkaidensis*, *Pompilus* 170  
*hokkaidoensis*, *Crossocerus* annulipes 227  
*hokkaidoensis*, *Gilpinia* 34  
*hokkaidonis*, Tenthredo, *Allantus* 93  
*Holandrena* subg. 267  
*Holarctopompilus* 168  
*Holcocleptes* 126  
*Holcocnema* 55  
*Holcocneme* 55  
*Holcocnemis* 55  
*Holepyris* 123  
*hollandi*, *Halictus* 284  
*holochlora*, *Pedinomma* rufescens var. 122  
*Holochrysis* 139  
*Hologambrus* 237  
*holomelana*, *Andrena* 269  
*holomelas*, *Aphelopus* 118  
*Holonomada* 310  
*Holopedina* 124  
*Holopyga* 130  
*holosericea*, *Andrena* 274  
*Holotachytes* 240  
*holsatica*, *Megachile analis* var. 307  
*holsatica*, *Vespa* 195  
*holtzi*, *Halictus* 277  
*Homachthes* 319  
*Homoeoneura* 83  
*Homogambrus* 237  
*Homoglenus* 123  
**Homonotina** 166  
*Homonotus* 161  
*Homonotus* 166  
*Homotus* 166  
*hondoica*, *Andrena* 264  
*hoodi*, *Pristiphora* 71  
*hookeri*, *Hylaeus* 262  
*Hoplammophila* 213  
*Hoplandrena* subg. 267  
*Hoplisoides* 224  
*Hoplisis* 222  
*Hoplitis* 296  
*Hoplitis* subg. 297  
*Hoplocampa* 67  
*Hoplocampoides* 49  
*Hoplocrabro* 227  
*Hoplocrabron* 246  
*Hoplopassites* 303  
*Hoplosmia* subg. 298  
*hoplostomum*, *Dianthidium* 301  
*Horaia* 155  
*horni*, *Halictus* 292  
*hortensis*, *Apis* 277  
*hortensis*, *Nematus* 65  
*hortivaga*, *Cerceris* 253  
*hortorum*, *Bombus*, *Apis* 328  
*hortorum*, *Pamphilius*, *Lyda* 104  
*hortorum*, Tenthredo 78  
*hortulana*, *Fesunella*, *Tenthredo* 48  
*horvathi*, *Gonatopus* 121  
*horvathi*, *Mesitius* 124  
*horvathi*, *Philoctetes*, *Ellampus* 132  
*hospes*, *Odynerus* 178, 191  
*hospitans*, *Odynerus* 191  
*hospitus*, *Emphytus* 39  
*hostia*, Tenthredo albiventris 96  
*houskai*, *Eumenes* 182  
*hoverlaensis*, *Pristiphora* 72  
*huberti*, *Eumenes* 180  
*hudsonicus*, *Monophadnus* 50  
*hulteni*, *Euura*, *Amauronematus* 60  
*humboldti*, *Chrysura* 140  
*humboldti*, *Pseudochrysis*, *Chrysura* 140  
*humboldtii*, *Cimbex* 29  
*humeralis*, *Andrena* 292  
*humeralis*, *Euura*, *Nematus* 60  
*humeralis*, *Hylotoma* 23  
*humeralis*, *Nematus* 60  
*humeralis*, *Pseudotaxonus secundus* 82  
*humeralis*, *Selandria* 46  
*humeralis*, Tenthredo 65  
*humeratum*, *Aprosthemata*, *Schizocera* 26  
*humilis*, *Andrena* 265  
*humilis*, *Bombus* 331  
*humilis*, *Pompilus* 167  
*hungaria*, *Cilissa dimidiata* var. 294  
*hungarica*, *Ammophila* 212  
*hungarica*, *Astata* 218  
*hungarica*, *Ceratina* 310  
*hungarica*, *Empria*, *Poecilosoma* 41  
*hungarica*, *Eucera* 321  
*hungarica*, *Mutilla* 157  
*hungarica*, *Nomada* 314  
*hungarica*, *Nomia* 292  
*hungarica*, *Pontania* 67  
*hungarica*, *Stelis* 302  
*hungarica*, Tenthredo 100  
*hungarica*, Tenthredopsis, *Tenthredo* 99  
*hungarica*, *Tetramorium caespitum* 209  
*hungaricum*, *Tetramorium* 209  
*hungaricus*, *Bembecinus*, *Larra* hungaricus 221  
*hungaricus*, *Hylaeus*, *Prosopis* 260  
*hungaricus*, *Mesitius* 124  
*hungaricus*, *Nannodynerus* 190  
*hungaricus*, *Sirex* 113  
*hungaricus*, *Sphecodes* 289  
*hyacinthus*, *Emphytus* 39  
*hyalina*, *Conaspidia* 84  
*hyalina*, *Messa* 63  
*hyalina*, Tenthredo 48  
*hyalinalis*, *Dosytheus* 78  
*hyalinata*, *Priocnemis*, *Sphex* 163  
*hyalinatus*, *Cephus* 109  
*hyalinatus*, *Hylaeus* 262  
*hyalinatus*, *Sphecodes* 288  
*hyalinella*, *Andrena* 268  
*hyalinipennis*, *Odynerus* 188  
*hyalinipennis*, *Oryssus* 117  
*hyalinipennis*, *Osmia* 297  
*hyalinoptera*, *Aprosthemata* 26  
*hyalinopterus*, *Cladius* 54  
*hyalinus*, *Crabro* 229  
*hyalinus*, *Eutomostethus* 47  
*hyalinus*, *Pteronus* 63  
*hyalipennis*, *Diodontus* 247  
*hyalopterus*, *Cladius*, *Priophorus* 54  
*Hybonotus* 115  
*hybrida*, *Andrena* 272  
*hybrida*, *Lasius* 201  
*hybrida*, *Nomada ruficornis* var. 315  
*hybrida*, *Osmia* 297  
*hybrida*, Tenthredo 41  
*hybridus*, *Crabro* 233  
*hybridus*, *Sphecodes pellucidus* 289  
*hyemala*, *Andrena* 266  
*hylaeformis*, *Colletes* 258  
**Hylaeinae** 257  
**Hylaeinae** 259  
*Hylaeus* 257, 259  
*Hylaeus* subg. 259  
*Hylocrabro* 231  
*Hylotoma* 22  
*hylotomoides*, Tenthredo 68  
*hymenaea*, *Megachile* 307  
*Hypargyricus* 52  
*hyperborea*, *Ischyroceraea* 96  
*hyperborea*, *Osmia* 298  
*hyperborea*, *Pristiphora* 74  
*hyperboreus*, *Bombus* 327  
*hypnorum*, *Bombus*, *Apis* 330  
*hypobalius*, *Nematus* 70  
*hypochlora*, *Pedinomma* rufescens var. 122  
*Hypochrotaenia* 310  
*Hypoclinea* 197  
*Hypocrabro* 231  
*hypocrita*, *Bombus* 327  
*hypogastricus*, *Nematus* 69  
*hypogastricus*, *Nematus* 70  
*Hypolaepus* 69  
*hypoleucus*, *Nematus* 66  
*hypoleucus*, *Pontania* 67  
*Hypomellinus* 224  
*Hypomiscophus* 240  
*hypopolia*, *Andrena* 274  
*Hypoponera* 209  
*Hypotaxonus* 43



- hypotheticus*, *Crabro cribrarius* 226  
*hypothrophica*, *Lyda* 102  
*Hypothyreus* 234  
*hypoxantha*, *Euura*, *Nematus* 60  
*Hypsae*, *Crabro* 232  
*hypsae*, *Ectemnius*, *Crabro* 232  
*Hypsiceræus* 160  
*hyrcanius*, *Hylæus* 261  
*hyrcanus*, *Dolerus* 80  
*hystrix*, *Andrena* 263  
  
*ianthe*, *Fenusa* 42  
*iberica*, *Andrena gallica* ssp. 269  
*iberica*, *Dasylabris maura*  
    *nostras* var. 153  
*iberica*, *Mutilla* 157  
*iberica*, *Nomada fucata* var. 313  
*ibericum*, *Hedychridium* 142  
*ibericus*, *Eumenes coarctatus* 181  
*ibericus*, *Gorytes* 224  
*ibericus*, *Tachytes* 239  
*iberobarbarus*, *Leptochilus alpestris* 185  
*iberogallicus*, *Ancistrocerus scoticus* 179  
*iberogallicus*, *Euodynerus dantici* 183  
*ibex*, *Halictus* 278  
*ibex*, *Lindenius* 235  
*ibizensis*, *Andrena flavipes* ssp. 275  
*Icalantica* 159  
*Ichneumocheilus* 161  
*Ichneumocheilus* subg. 161  
*ichneumonea*, *Apis* 277  
*ichneumonides*, *Methoca* 149  
*ichneumonideus*, *Ancistrocerus*,  
    *Vespa* 179  
*ichneumoniformis*, *Larra* 236  
*ichneumonoides*, *Cryptocheilus*,  
    *Priocnemis* 162  
*ichneumonoides*, *Methocha auct.* 149  
*iconionus*, *Evagetes* 171  
*Icronatha* 150  
*Icteranthidium* 301  
*icterica*, *Apis* 267  
*icterica*, *Tenthredo* 95  
*Icuma* 224  
*idaei*, *Tenthredo rubi* 26  
*identidem*, *Pristiphora* 71  
*idiota*, *Pristiphora* 71  
*idiotiformis*, *Pristiphora* 71  
*Idologonatopus* 120  
*idolon*, *Calameuta*, *Ichneumon* 109  
*idriensis*, *Tenthredo* 85  
*ignava*, *Macrophya* 87  
*ignicollis*, *Holopyga* 131  
*ignicollis*, *Holopyga ovata* var. 131  
*ignifrons*, *Chrysura*, *Chrysis* 139  
*ignita*, *Chrysis*, *Sphex ignita* 135  
*ignita*, *Sphex* 133  
*ignitus*, *Bombus* 328  
*ignitus*, *Cleptes*, *Ichneumon* 127  
*iiyamai*, *Symmorphus* 191  
*ikonnikovi*, *Bombus* 327  
*iliensis*, *Andrena carbonaria* var. 272  
*iliensis*, *Bembix* 221  
  
*ilinei*, *Solenopsis* 207  
*illegalis*, *Dasypoda* 293  
*illigeri*, *Chrysis* 136  
*Illoswia* 149  
*illyricum*, *Lasioglossum* 286  
*illyricus*, *Colletes* 258  
*imamiana*, *Andrena carbonaria* var. 272  
*imayoshii*, *Trypoxylon* 245  
*imbecilla*, *Megachile* 306  
*imbecillus*, *Omalus* 142  
*imitans*, *Crabro* 229  
*imitans*, *Formica* 200  
*imitator*, *Macrophya* 85  
*imitatrix*, *Ceratina cyanea* var. 310  
*imitatrix*, *Paraselandria* 81  
*immaculata*, *Athalia rosae* 44  
*immaculata*, *Chrysis* 136  
*immaculata*, *Nomada* 314  
*immaculata*, *Odynerus floricola* ab. 178  
*immaculata*, *Stelis ornatula* var. 303  
*immaculata*, *Tenthredo lachlaniana* 95  
*immaculatus*, *Cephus* 109  
*immaculatus*, *Hylæus* 261  
*immaculatus*, *Nematus* 64  
*immaculatus*, *Oxybelus nigripes* 243  
*immaculatus*, *Sirex antennatus* 113  
*immaculiventris*, *Macrophya*  
    *haemotopus* 85  
*immaculosa*, *Tenthredo moniliata* 95  
*immarginata*, *Deuteragenia* 164  
*immarginatus*, *Hylæus* 285  
*immersa*, *Empria*, *Tenthredo* 41  
*immundus*, *Nematus* 65  
*immunis*, *Cladius* 54  
*impatiens*, *Oxybelus* 243  
*imperator*, *Hylotoma* 25  
*imperatrix*, *Chrysis* 143  
*impercepta*, *Cerceris* 254  
*imperfecta*, *Euura*, *Nematus* 60  
*imperfectus*, *Tachysphex* 238  
*imperialis*, *Nomada* 314  
*implicatus*, *Ceropales* 160  
*impressa*, *Chrysis* 136  
*impressa*, *Tenthredo* 41  
*impressifrons*, *Prosopis* 262  
*impressus*, *Sphex* 224  
*impropria*, *Anafenus*, *Entodecta* 45  
*impropria*, *Entodecta* 45  
*impunctata*, *Andrena* 267  
*impunctatus*, *Colletes* 258  
*impunctatus*, *Nematus* 56  
*impunctatus*, *Sphex* 288  
*impura*, *Tenthredo* 91  
*impurum*, *Tetramorium*, *Myrmica* 209  
*inaequalis*, *Allodynerus floricola* 178  
*inaequalis*, *Chrysis inaequalis* 136  
*inaequalis*, *Hylæus* 261  
*inaequalis*, *Schizocera* 26  
*inaequipunctata*, *Chrysis* 136  
*inaffectata*, *Tenthredo vespa* 97  
*inamoena*, *Stelis scutellaris* 303  
*inanitus*, *Pamphilus*, *Tenthredo* 104  
*Inbaltilla* subg. 153  
  
*incana*, *Andrena poupillieri* ssp. 274  
*incanus*, *Nematus* 60  
*incerta*, *Andrena* 264  
*incerta*, *Chrysis analis* var. 135  
*incerta*, *Colletes* 257  
*incerta*, *Mutilla* 155  
*incerta*, *Osmia* 298  
*incerta*, *Tachytes* 238  
*incertus*, *Dolerus* 79  
*incertus*, *Nematus* 59  
*incertus*, *Palarus* 243  
*incertus*, *Sphex* *gibbus*  
    *ephippium* 289  
*incertus*, *Tachysphex*, *Tachytes* 238  
*incinctus*, *Allantus* 91  
*incisa*, *Andrena* 264  
*incisa*, *Nomada* 314  
*incisoides*, *Odynerus parietum* var. 179  
*incisum*, *Anthidium variegatum* var. 300  
*incisus*, *Odynerus parietum* var. 179  
*incisus*, *Pachynematus* 72  
*Incolepipona* subg. 183  
*incolorata*, *Tenthredo* 23  
*incompleta*, *Dasylabris siberica* var. 154  
*incompleta*, *Euura*, *Nematus* 60  
*incompleta*, *Nomada ruficornis* var. 315  
*incompleta*, *Prosopis* 260  
*incompletus*, *Cephus pilosulus* 110  
*incompta*, *Andrena austriaca* var. 267  
*incomptus*, *Oxybelus* 242  
*incongruus*, *Hylæus* 262  
*inconspicua*, *Andrena* 274  
*inconspicuus*, *Nematus* 66  
*inconsueta*, *Chrysis* 136  
*incrassata*, *Pseudochrysis*, *Chrysis* 140  
*incurvata*, *Myrmica* 205  
*inderskiana*, *Nomada regalis* var. 311  
*indica*, *Apis* 332  
*indica*, *Scolia* 148  
*indicus*, *Mesitius* 124  
*indicus*, *Parvoculus*, *Mesitius* 124  
*indigena*, *Andrena humilis* ssp. 265  
*indigena*, *Mutilla* 157  
*indigotea*, *Chrysis* 136  
*indobonensis*, *Andrena* 272  
*indocilis*, *Tenthredopsis raddatzi* 99  
*inermis*, *Chelostoma* 296  
*inermis*, *Tetramorium* 209  
*inermis*, *Aporus* 174  
*inermis*, *Coelioxys*, *Apis* 304  
*inermis*, *Crabro* 228  
*inermis*, *Dufourea*, *Halictoides* 291  
*inermis*, *Osmia*, *Anthophora* 298  
*inermis*, *Telostegus*, *Aporus* 174  
*inermis*, *Tetramorium*  
    *caespitum* var. 209  
*inexpectata*, *Andrena hedikae* ssp. 263  
*inexpectatus*, *Colletes* 258  
*infasciatus*, *Emphytus* 38  
*infectum*, *Anteon*, *Dryinus* 119  
*inferentia*, *Poecilostoma* 43  
*infernalis*, *Cephus* 108  
*infesta*, *Ammophila* 212

- infida*, Lyda 105  
*infima*, Tiphia 150  
*inflammata*, Holopyga, *Ellampus*  
*inflammata* 131  
*inflammatus*, Omalus  
*sareptanus* var. 132  
*inflatus*, Coelioxys 304  
*inflatus*, Nematus 64  
*inflexum*, Sceliphron 214  
*infumata*, Athalia, *Phyllotoma* 44  
*infumata*, Macrophyta 85  
*infumatus*, Pachynematus 57  
*infundibuliformis*, Sphex 180  
*infuscata*, Dasylabris maura  
*nostras* var. 154  
*infuscatus*, Anoplius, *Pompilus* 172  
*infuscatus*, Cephus 109  
*infuscatus*, Colletes cunicularius 257  
*infuscatus*, Emphytus 81  
*ingrica*, Vespa 195  
*ingrica*, Vespa norvegica saxonica  
*morpha* 195  
*ingricus*, Crabro, *Thyreopus* 226  
*inhabilis*, Selandria 47  
*inimicus*, Vespa 221  
*ininterrupta*, Sapyga 145  
*innominatus*, Taxonus 39  
*innumerabilis*, Odynerus 183  
*inocreata*, Pristiphora 73  
*inopinatum*, Trypoxylon 245  
*inopinatus*, Liris 237  
*inornata*, Pemphredon 248  
*inornata*, Tenthredopsis raddatzi 99  
*inornatus*, Crabro 228  
*inornatus*, Crabro cribrarius 226  
*inornatus*, Nematus, *Holcocneme* 69  
*inornatus*, Tenthredopsis 99  
*inplana*, Formica fusca picea var. 200  
*inquilina*, Nomada 314  
*inquilinus*, Monopladnus 51  
*insepultus*, Polistes 193  
*insidiosa*, Megachile  
*circumcincta* var. 307  
*insidiosus*, Cleptes 127  
*insidiosus*, Diodontus 247  
*insignata*, Dasylabris siberica var. 154  
*insigne*, Euura, *Nematus* 60  
*insigne*, Pison 244  
*insignicornis*, Ussurinus 100  
*insignis*, Hylaenus 262  
*insignis*, Passaloecus, *Pemphredon* 248  
*insignis*, Pemphredon 247  
*insignis*, Rhadinoceraea 47  
*insolata*, Eumenes pomiformis f. 182  
*insolens*, Vespa 178  
*insolita*, Andrena 267  
*insperata*, Chrysis 136  
*instabilis*, Tenthredo 99  
*instratum*, Aprosthema, *Schizocera*  
*instratum* 26  
*insubrica*, Apis 310  
*insubrica*, Scolia 148  
*insubrica*, Sphex 147, 148  
*insubricus*, Nematus 57  
*insueta*, Mutilla marginata f. 157  
*insulana*, Andrena colletiformis ssp. 264  
*insulare*, Anthidium 301  
*insularis*, Euura 62  
*insularis*, Odynerus 190  
*insularis*, Pachynematus 72  
*insularis*, Physetopoda 155  
*insularis*, Pristiphora 72  
*insularis*, Vespa 193  
*insulicola*, Odynerus 190  
*insulicolum*, Lasioglossum, *Evyllaenus*  
*baleicum* 282  
*integer*, Nematus ruficornis 74  
*integer*, Philanthus 255  
*integra*, Andrena 275  
*integra*, Bembex 225  
*integra*, Bembix 221  
*integra*, Euura, *Pontania* 60  
*integra*, Heriades 298  
*integra*, Nomada 314  
*integrella*, Chrysis 140  
*integrum*, Anthidium 303  
*intercincta*, Tenthredo, *Allantus* 98  
*interdichroa*, Chrysura 143  
*interjecta*, Chrysis interjecta 136  
*interjecta*, Tenthredo 90  
*interjectus*, Camponotus 198  
*intermedia*, Pemphredon 247  
*intermedia*, Agenia 164  
*intermedia*, Andrena 272  
*intermedia*, Andrena 274  
*intermedia*, Anthophora 325  
*intermedia*, Astata 218  
*intermedia*, Blennocampa 46  
*intermedia*, Cephalcia 102  
*intermedia*, Dasylabris 153  
*intermedia*, Dolichovespula,  
*Vespa* 194  
*intermedia*, Fenusa 48  
*intermedia*, Nomada 312  
*intermedia*, Tenthredo 95  
*intermedia*, Tenthredopsis nassata 100  
*intermedia*, Thrinax 82  
*intermedia*, Vespa sylvestris var. 194  
*intermedium*, Aprosthema,  
*Schizocera* 26  
*intermedium*, Lasioglossum,  
*Halictus* 283  
*intermedius*, Amauronematus 62  
*intermedius*, Camptopoeum  
*friesei* var. 276  
*intermedius*, Crabro 233  
*intermedius*, Dolerus 80  
*intermedius*, Monocentenus obscuratus 35  
*intermedius*, Nomioides fasciatus 292  
*intermedius*, Pachynematus 72  
*intermedius*, Psen 252  
*intermedius*, Sphecodes 288  
*intermixta*, Anthophora  
*acervorum* var. 323  
*intermixta*, Megachile 306  
*internalis*, Eopompilus, *Sialus* 162  
*internalis*, Sialus 162  
*interrogationis*, Andrena 274  
*interrupta*, Andrena 274, 275  
*interrupta*, Cerckeris, *Philanthus* 254  
*interrupta*, Eucera 320  
*interrupta*, Osmia 296  
*interrupta*, Polistes 191  
*interrupta*, Scolia 147  
*interrupta*, Trachusa, *Apis* 303  
*interrupte-fasciata*, Sphex 231  
*interruptula*, Andrena 275  
*interruptulus*, Crabro 226  
*interruptum*, Lasioglossum, *Hylaenus*  
*interruptum* 283  
*interruptus*, Crabro 226, 233  
*interruptus*, Halictus 279  
*interruptus*, Megalodontes 107  
*interruptus*, Nematus 62  
*interruptus*, Nysson 219  
*interruptus*, Nysson, *Mellinus* 220  
*interruptus*, Oxybelus 243  
*interruptus*, Polistes pamirensis var. 192  
*interruptus*, Pterocheilus 189, 192  
*interruptus*, Temnothorax, *Myrmica* 208  
*interruptus*, Thyreopus 226  
*interruptus*, Tropidodynerus,  
*Polistes* 192  
*interstinctus*, Crabro 231  
*interstitiali*, Selandria serva 81  
*interstitialis*, Nematus 66  
*interstitialis*, Selandria 81  
*intricans*, Hoplisoides 224  
*intricatus*, Crabro 230  
*inulae*, Tetraloniella, *Tetralonia* 322  
*inventus*, Tachysphex 238  
*inversus*, Allantus 97  
*investiganda*, Meria 149  
*investigator*, Halictus 282  
*investigatoris*, Halictus 282  
*invitabilis*, Bombus ikonnikovi 327  
*invitus*, Celonites abbreviatus 178  
*io*, Chrysis 136  
*ione*, Allantus 86  
*irakensis*, Polistes nimpha 193  
*iranensis*, Ancistrocerus 184  
*ireos*, Anthophora, *Apis* 324  
*iridescens*, Neurotoma, *Lyda* 103  
*iridifrons*, Ectemnius, *Crabro* 233  
*iridipennis*, Larra 237  
*iridipennis*, Strongylogaster 82  
*iridis*, Monopladnus 52  
*iris*, Chrysis 136  
*iris*, Elis 147  
*iris*, Xylocopa, *Apis* 309  
*irkutensis*, Allantus 93  
*irkutensis*, Pteronotus 75  
*irkutskiensis*, Nomada 314  
*irradians*, Euchroeus, *Pseudochrysis*  
*purpuratus* 140  
*irritans*, Macrophyta 84  
*irrogata*, Selandria 45  
*irrorata*, Lyda 102  
*ischiadica*, Tenthredo 100

- Ischioceras* 152  
*Ischnolythrus* 227  
*Ischyroceraea* 89  
 ishiharai, *Andrena* 264  
*ishikawa*, *Megachile lapponica* 307  
*ishikawai*, *Conaspidia* 84  
*ishikawai*, *Evagetes* 171  
*ishikawai*, *Symmorphus* 191  
*islandica*, *Pontania* 63  
*Isodontia* 215  
*Isodyctium* 51  
*isomera*, *Cladius* 54  
*Isonotus* 166  
 issikii, *Nomada* 314  
*italica*, *Dasyopoda* 293  
*italica*, *Mutilla* 157  
*italica*, *Nomada* 314  
*italica*, *Polistes* 193  
*italica*, *Spinolia* 149  
*italicus*, *Belomicrus* 241  
*itelmna*, *Empria* 41  
*itelmna*, *Euura*, *Pontopristia* 60  
 itoi, *Euura*, *Pachynematus* 60  
 itoi, *Pamphilius* 105  
*Itycorgia* 101  
*Itycorgia* subg. 101  
*iucunda*, *Holopyga* 129  
*iuncea*, *Vespa* 179  
*Ivazuga* 149  
 iwatai, *Anoplius* 172  
 iwatai, *Dipogon* 164  
 iwatai, *Homonotus* 166  
*iwatai*, *Passaloecus* 248  
*iwatai*, *Pison* 244  
*iwatai*, *Polistes rothneyi* 192  
*iwatai*, *Symmorphus* 191  
 Iwataia 231  
*izumindus*, *Sphecodes* 288  
  
*jacobi*, *Andrena* 267  
*jacobsoni*, *Cerceris* 254  
*jacobsoni*, *Myrmica* 205  
*jacoti*, *Tetramorium caespitum* 209  
*jaculator*, *Astata* 218  
*jacutensis*, *Tenthredo*, *Allantus* 96  
*jacutica*, *Camponotus*  
     *herculeanus* var. 198  
*jacutica*, *Pristiphora* 72  
*jagnobensis*, *Andrena* 265  
*jailensis*, *Temnothorax*, *Leptothorax* 208  
*jakobsoni*, *Hoplomerus* 188  
*jakobsoni*, *Myrmecocystus*  
     *altisquamis* var. 199  
*jakowleffi*, *Trichiosoma* 30  
*jakowlevi*, *Hartigia* 111  
*jakowlevi*, *Hoplitis*, *Pseudosmia* 297  
*jakowlevi*, *Trichiosoma* 30  
*jakowlevi*, *Xiphydria* 116  
*Jakovleviella* 89  
*jakowlewii*, *Melecta* 326  
*jakowleffi*, *Caenocephus* 108  
*jakowleffi*, *Caenocephus* 108  
*jakowleffi*, *Cerceris* 254  
  
*jakowleffi*, *Dinax* 40  
*jakowleffi*, *Nematus*, *Holcocneme* 69  
*jakowleffi*, *Tenthredopsis* 99  
*jakowlevi*, *Messor rufitarsis* 204  
*jakowlewi*, *Pristiphora*,  
     *Lygaeonematus* 72  
*jankowskii*, *Bombus* 328  
*jankowskii*, *Parabatozonus*,  
     *Pompilus* 167  
*jankowskii*, *Pompilus* 167  
*jankowskyi*, *Colletes* 258  
*janssoni*, *Megachile*  
     *centuncularis* var. 308  
 Janus 110  
*janus*, *Pseudomalus* 132  
*japonensis*, *Athalia spinarum* 44  
*japonense*, *Trypoxylon fronticorne* 245  
*japonensis*, *Dienoplus* 224  
*japonensis*, *Nomada flavoguttata* 312  
*japonibia*, *Andrena haemorrhoea* ssp. 275  
*japonica*, *Abia* 28  
*japonica*, *Aphaenogaster* 203  
*japonica*, *Aphaenogaster schmitzi* 203  
*japonica*, *Apis mellifera* var. 332  
*japonica*, *Athalia*, *Tenthredo* 44  
*japonica*, *Cephalcia lariciphila* 102  
*japonica*, *Chrysis* 136  
*japonica*, *Crocisa* 326  
*japonica*, *Dasyopoda* 293  
*japonica*, *Formica* 200  
*japonica*, *Formica fusca* var. 200  
*japonica*, *Hylotoma* 23  
*japonica*, *Jermakia* 98  
*japonica*, *Lyroda* 240  
*japonica*, *Lyroda nigra* 240  
*japonica*, *Melitta* 294  
*japonica*, *Mutilla* 156  
*japonica*, *Neosyrista* 111  
*japonica*, *Nomada* 314  
*japonica*, *Pemphredon* 248  
*japonica*, *Perineura* 88  
*japonica*, *Ponera* 209  
*japonica*, *Priocnemis* 164  
*japonica*, *Selandria* 82  
*japonica*, *Solenopsis* 207  
*japonica*, *Solenopsis fugax* var. 207  
*japonica*, *Tenthredo*, *Allantus* 93  
*japonica*, *Tenthredopsis carinata* 98  
*japonica*, *Vespa* 193, 194, 196  
*japonicola*, *Halictus* 281  
*japonicum*, *Chalybion*, *Pelopaeus* 214  
*japonicus*, *Ancistrocerus*, *Odynerus* 179  
*japonicus*, *Aneugmenus* 76  
*japonicus*, *Camponotus* 198  
*japonicus*, *Cimbex connatus* 29  
*japonicus*, *Crabro alatus* 234  
*japonicus*, *Discoelius* 181  
*japonicus*, *Emphytus* 87  
*japonicus*, *Goniozus* 125  
*japonicus*, *Lasius* 202  
*japonicus*, *Lasius emarginatus* var. 202  
*japonicus*, *Lophyrus* 34  
*japonicus*, *Macrocephus* 111  
  
*japonicus*, *Monoplopus* 109  
*japonicus*, *Nematus*, *Croesus* 69  
*japonicus*, *Nesodiprion*, *Lophyrus* 35  
*japonicus*, *Odynerus* 190  
*japonicus*, *Paracharactus*,  
     *Neotomostethus* 51  
*japonicus*, *Sphecodes* 290  
*japonicus*, *Stigmus* 250  
*japonicus*, *Stromboceros* 82  
*japonicus*, *Tachysphex* 239  
*jarkandensis*, *Halictus* 278  
*jaroslavensis*, *Alysson fuscatus* 219  
*jaroslavensis*, *Amauronematus* 61  
*Jaroszewskyi*, *Crabro* 226  
*jasnitskii*, *Nomada* 313  
*jasnitskii*, *Andrena* 267  
*jasonia*, *Myrmilla* 154  
*jaxartis*, *Chrysis* 136  
*jaxartis*, *Chrysis sybarita* var. 136  
*Jaynesia* subg. 150  
*jeholensis*, *Coelioxys mandibularis* 304  
*jemilleri*, *Nematus* 61  
*jennyae*, *Myrmica* 205  
*jensi*, *Lasius* 201  
*Jermakia* 89  
*jesoensis*, *Bombus* 327  
*jesoensis*, *Dolerus* 81  
*jessonicum*, *Rhopalum*, *Crabro* 236  
*jezoensis*, *Xiphydria* 116  
*joannis*, *Allantus scrophulariae* 97  
*joergenseni*, *Pontania* 56  
*johanna*, *Agonatotoides* 121  
*johni*, *Apis* 332  
*johni*, *Miscophus* 241  
*johnsoni*, *Andrena jacobii* var. 267  
*johnsonii*, *Calameuta* 111  
*jonasi*, *Arge*, *Hylotoma* 23  
*jonellus*, *Bombus*, *Apis* 330  
*josephi*, *Thomsonia* 99  
*jozana*, *Tenthredo*, *Tenthredopsis* 90  
*jozana*, *Xiphydria* 115  
*jozankeanum*, *Trichiosoma* 31  
*Jucancistrocerus* 184  
*Jucancistrocerus* subg. 184  
*jucunda*, *Andrena* 270  
*jucunda*, *Astata* 218  
*jucunda*, *Dioxys cincta* 303  
*jucunda*, *Nomioides* 292  
*jucunda*, *Osmia* 298  
*jucunda*, *Siobla*, *Encarsioneura* 89  
*jucundum*, *Hedychridium*, *Holopyga* 129  
*jucundus*, *Odynerus* 184  
*jucundus*, *Pamphilius* 105  
*jucundus*, *Pamphilius*, *Lyda* 105  
*judaica*, *Apterogeton* 159  
*judaicus*, *Stenodynerus difficilis* 190  
*jugalis*, *Allantus* 92  
*jugicola*, *Euura*, *Nematus* 60  
*juglans*, *Tomostethus* 53  
*Jugurthae*, *Larra* 237  
*juliae*, *Solenopsis*, *Diplorhoptrum* 207  
*julii*, *Xyela*, *Pinicola* 21  
*julliani*, *Epeolus* 317

- julliani, Tachysphex 238  
 julliani, Tetralonella, *Tetralonia* 322  
 junci, Dositheus 77  
*Juncilerus* 77  
*juncivorus*, Tomostethus 47  
*junipereti*, Leptothorax 208  
 juniperi, Monoctenus, *Tenthredo* 35  
 juniperi, *Tenthredo* 35  
*jurassica*, *Nomada piccioliana* 315  
*jurinae*, *Cimex* 32  
 jurineanum, *Anteon* 118, 119  
 jurinei, *Holopyga* 131  
*jurinei*, *Vespa* 194  
 Jurini, *Pison* 244  
*jurinii*, *Larra* 240  
*Jurja* 149  
*juvenculus*, *Colletes* 258  
 juvencus, *Ichneumon* 112  
 juvencus, *Sirex*, *Ichneumon* juvencus 112  
*juvenilis*, *Tenthredo* 83
- kabyliana*, *Macrophya rustica* 86  
*kaiensis*, *Nomada okamotonis* 315  
*kaiensis*, *Sphecodes* 289  
*Kaliofenusa* 48  
*Kaliofenusa* subg. 48  
*Kaliosysphinga* 48  
*kallipygus*, *Tachysphex incertus* 238  
*Kallobombus* subg. 328  
*kamafuse*, *Sphecodes* 290  
*kamensis*, *Camponotus marginatus* var. 198  
*kamikochensis*, *Pamphilus* 105  
*kamikochiana*, *Andrena* 271  
*kamtchatica*, *Phyllotoma* 49  
*kamtchatica*, *Pontopristia* 56  
*kamtchatica*, *Pristiphora* 72  
*kamtchatica*, *Pteronidea* 56  
*kamtchatica*, *Thrinax*, *Hemitaxonus* 83  
*kamtchaticus*, *Dolerus* 78  
*kamtchaticus*, *Nematinus* 68  
*kamtchaticus*, *Taxonus* 43  
*kamtschatica*, *Ammophila sabulosa* 212  
*kamtschatica*, *Andrena apicata* var. 263  
*kamtschatica*, *Myrmica* 205  
*kamtschaticus*, *Leptothorax acervorum* 204  
*kamtschatkaensis*, *Andrena* 264  
*kamtschatkensis*, *Dolichovespula saxonica* 195  
*kamtshatica*, *Xyela* 21  
*kamtshaticus*, *Bombus lapponicus* 330  
*kamyschiensis*, *Myrmica* 205  
 kankaucharis, *Lasioglossum*, *Halictus* 283  
*kanoi*, *Tenthredella alboannulata* 93  
*kanshireana*, *Crocisa* 326  
 kansuense, *Lasioglossum*, *Halictus* 280  
*kantarae*, *Halictus pallens* 281  
 karafutonis, *Chrysis* 136  
*karafutonis*, *Emphytus* 37  
*karafutonis*, *Eumenes* 182  
*karafutonis*, *Pompilus* 167
- karaginus*, *Bombus lapponicus* 330  
 karavajevi, *Myrmica*, *Symbiomyrma* 206  
*karavajevi*, *Sifolinia* 206  
 karawajewi, *Plagiolepis* 202  
 karawajewi, *Strongylognathus* 207  
*kareli*, *Allantus* 90  
*karelica*, *Andrena gelrae* 274  
*karelicus*, *Symmorphus* 191  
*karenkona*, *Vespa* 196  
*karvoneni*, *Lygaeonematus* 70  
*karvoneni*, *Pteronidea* 60  
 kasakorum, *Messor* 204  
*kaschiriensis*, *Mutilla* 157  
 kasczenkoi, *Myrmica* 206  
*kasczenkoi*, *Myrmica scabrinodis* 206  
*kashgarensis*, *Megachile* 308  
*kashmirensis*, *Astata kashmirensis* 218  
 kaspanyani, *Arachnospila* 169  
 kaspanyani, *Holepyris* 123  
*kaspanyani*, *Lasioglossum* 280  
 kastsheevi, *Xiphidria* 116  
 kaszabi, *Ammophila* 246  
*kaszabi*, *Ancistrocerus ichneumonideus* 179  
 kaszabi, *Arachnospila* 169  
 kaszabi, *Cerceris* 254  
 kaszabi, *Colletes* 258  
*kaszabi*, *Dasylabris* 153  
 kaszabi, *Diodontus* 247  
*kaszabi*, *Lindenus* 235  
 kaszabi, *Oryttus* 224  
 kaszabi, *Parapiagetia* 237  
*kaszabi*, *Philanthus* 255  
 kaszabi, *Poecilotiphia*, *Meria brevicauda* 150  
*kaszabi*, *Polistes missus* 193  
*kaszabi*, *Pterocheilus phaleratus* 189  
*kaszabi*, *Rhogogaster* 91  
*kaszabi*, *Stizus* 225  
 kaszabi, *Temnothorax*, *Leptothorax* 208  
*kaszabi*, *Tenthredo* 91  
*Katamenes* 184  
*Kathepyris* 123  
*katkovi*, *Alysson* 219  
*katuniensis*, *Formica rufibarbis* var. 200  
*Kaufmannia* 224  
 kawabatai, *Rhopalum* 235  
*kawakamii*, *Xiphidria* 115  
*kazakhstanicus*, *Odynerus albopictus* 187  
 kazbekianus, *Ancistrocerus*, *Odynerus* 179  
*kazenasi*, *Cerceris* 253  
*Kelidoptera* 103  
*kengracensis*, *Andrena* 275  
*kenmedii*, *Alyson* 219  
 keriensis, *Bombus* 329  
*kerketa*, *Tenthredo* 96  
 kerriae, *Andrena* 273  
*kervilleanus*, *Halictus* 284  
*kerzhneri*, *Lasioglossum* 280  
 kessleri, *Halictus* 279  
 khabarovi, *Andrena* 267
- khambana*, *Anthophora* 324  
*khangmarensis*, *Eumenes septentrionalis* 182  
 khankensis, *Andrena* 265  
*khasanensis*, *Colletes cunicularius* 257  
 khasania, *Andrena* 272  
*khasianus*, *Crabro* 233  
 kiangsuensis, *Eumenes* 182  
 kiautschouense, *Lasioglossum*, *Halictus* 283  
 kichizoi, *Masaakia* 49  
*kiefferi*, *Allantus* 90  
*Kiesenwetteri*, *Crabro* 235  
 kinburni, *Tapinoma* 198  
*kincaidi*, *Monophadnoides* 50  
*Kincaidia* 83  
*kindenmani*, *Anthidium reticulatum* 302  
 kiotonis, *Aneugmenus* 76  
*kirbienus*, *Epeolus* 318  
 kirbii, *Ammophila* 215  
 kirbii, *Prionyx*, *Ammophila* 215  
*Kirbya* 294  
*kirbyanus*, *Phileremus* 319  
*kirbyella*, *Nomada* 311  
*kirbyi*, *Andrena* 267  
*kirbyi*, *Nematus* 57  
*kirchneri*, *Pontania* 57  
 kirghisia, *Thyreomelecta* 326  
*kirgisica*, *Ammophila* 213  
*kirgisica*, *Bembix* 222  
*kirgisica*, *Colletes* 258  
*kirgisica*, *Myrmica rugosa* var. 205  
 kirgicum, *Lasioglossum* 284  
*kirillovi*, *Leptothorax tuberum* 208  
 kirishimensis, *Ametastegia* 39  
 kiritschenkoii, *Amblyellus*, *Sophropompilus* 168  
*kiritschenkoii*, *Myrmilla* 154  
*kiritschenkoae*, *Smicromyrme* 156  
*kirschbaumi*, *Halictus* 283  
*kirschbaumi*, *Hylaeus* 261  
*kissi*, *Anthidium florentinum* var. 300  
*kitamius*, *Sphecodes* 288  
*kizilkumi*, *Philanthus* 255  
*kizilkumii*, *Dicyrtomellus*, *Pompilus* 170  
*kizilkumii*, *Stizus* 225  
*Kjellia* 40  
 klausnitzeri, *Monophadnoides*, *Monophadnus* 50  
*klugi*, *Anthidium* 301  
*klugi*, *Anthophora* 322  
*klugi*, *Diprion pini* 33  
*klugi*, *Macrophya* 86  
*klugi*, *Nematus* 64  
 klugii, *Colpa*, *Scolia* 147  
*klugii*, *Emphytus* 40  
*klugii*, *Hylotoma* 24  
*klugii*, *Lyda* 102  
*klugii*, *Macrophya* 85  
*klugii*, *Nematus* 61  
*klugii*, *Pterocheilus* 189  
*klugii*, *Selandria* 41  
*klugii*, *Tarpa* 107

- klutchianus, Dolerus 78  
*klutschianis*, Pratobombus  
   hypnorum 330  
 knipovitschi, Temnothorax,  
   *Leptothorax* 208  
*knipovitschi*, Leptothorax tuberum 208  
 kobayashii, Arge 23  
*kobensis*, Colletes 258  
*kodorica*, Camponotus vagus var. 198  
 koebelei, Cephalcia, *Cephaleia* 102  
*koebelei*, Pteronus 62  
 koebelei, Stromboceros 82  
 koehlerii, Tenthredo 90  
*koenigi*, Tenthredo 95  
*kohatensis*, Andrena  
   cussariensis var. 268  
*kohli*, Allantus 93  
 kohli, Crossocerus, Crabro 229  
 kohli, Diodontus 247  
*kohli*, Mimesa 251  
 kohli, Nomada 314  
*kohli*, Polistes 192  
*kohli*, Psen 251  
 kohlii, Agenioideus, *Pompilus* 167  
*kohlü*, Anthidium 301  
 kohlii, Gorytes 222  
 kohlii, Psen 251  
 koikense, Trypoxylon 245  
 koikensis, Nomada 314  
*koikensis*, Sphecodes 288  
*Kokarevta* 147  
*kokpeticus*, Odynerus 183  
 kokuewi, Tenthredopsis 99  
*kokujevi*, Myrmilla 154  
 kokujewi, Dolerus 80  
 Kokujewia 25  
 kolazyi, Chrysis 136  
 kolazyi, Trypoxylon 245  
*Kolazyi*, Trypoxylon 245  
*Kollari*, Crabro 233  
*kolthoffi*, Arge 22  
 kolymensis, Euura, *Nematus*  
   olfaciens 62  
 koma, Chrysura, *Chrysis* 139  
 koma, Trypoxylon 245  
*koma*, Trypoxylon figulus 245  
*komarovi*, Stizus 225  
 komarowii, Paravespa 187  
*konakovi*, Bombus 332  
 kongauana, Tenthredo 93  
*kongauensis*, Arge 23  
 kongosana, Macrophyta 85  
 konoï, Selandria 81  
 konosuene, Trypoxylon 245  
 konowi, Alphasstromboceros,  
   *Strongylogaster* 75  
*konowi*, Amauronematus 67  
*Konowi*, Crabro 233  
*konowi*, Empria 42  
*konowi*, Lyda 105  
 konowi, *Nematus*, *Pteronus* 75  
*konowi*, Pelmatopus mentiens 75  
*konowi*, Perineura 100  
*konowi*, Pteronidea ribesii 64  
 konowi, Strongylogaster 75  
*konowi*, Tenthredo 93  
*konowi*, Tenthredopsis 99  
*Konowia* 115  
*konowiana*, Nomada jacobaeae var. 313  
*kontkaneni*, Pachynematus 73  
*Kontuniemiana* 55  
 kontuniemii, Pamphilius 105  
*Koptodynerus* 190  
 Koptogaster subg. 260  
 korabica, Tenthredo 96  
 koraiensis, Xyela 21  
 korbi, Lasioglossum, *Halictus* 280  
 koreana, Birka, *Nesoselandria* 76  
 koreana, Corymbas 84  
 koreana, Macrophyta 86  
 koreana, Mesoneura 68  
 koreana, Myrmica 206  
 koreana, Nitela 241  
 koreana, Senoclidea, *Monophadnus* 53  
*koreanum*, Lasioglossum 281  
*koreanum*, Polochridium 145  
 koreanum, Trypoxylon 245  
 koreanus, Diprion 33  
 koreanus, Gorytes laticinctus 222  
 koreanus, Lasius 202  
 koreanus, Passaloecus 248  
*koreanus*, Polistes rothneyi 192  
 koreanus, Psen 251  
 koreense, Pison, *Paraceramius* 244  
 koreensis, Vespula, *Vespa* 196  
*korjak*, Bombus lapponicus 330  
*korlevici*, Tenthredopsis 98  
*korleviciana*, Nomada errans var. 312  
*koropokkrus*, Bombus 330  
*korotnevi*, Megachile 308  
*kosensis*, Halictus 284  
 koshevníkovi, Cardiocondyla 203  
*koshevníkovi*, Pheidole pallidula 207  
*kostjuki*, Gorytes 224  
*kostylevi*, Ancistrocerus trifasciatus 180  
*kostylevi*, Eumenes 182  
 kostylevi, Trypoxylon 245  
*kotenkoi*, Lonchodryinus 119  
 kotenkoi, Tenthredo 98  
 kotokui, Myrmica 206  
*kotokui*, Myrmica rubra 206  
*kotschyi*, Andrena thoracica ssp. 269  
*kozchkiana*, Eucera 321  
 Koxinga 234  
 kozakorum, Myrmica 206  
*kozarowi*, Andrena 264  
 kozhantshikovi, Hedychrum 130  
*kozantshikovi*, Psiliglossa  
   odyneroides 188  
*kozhevnikovi*, Didineis 219  
*kozlovi*, Andrena callopyrrha ssp. 274  
 kozlovi, Colletes 258  
 kozlovi, Dasylabris 153  
*kozlovi*, Gorytes 222  
 kozlovi, Lasioglossum, *Halictus* 284  
 krajniki, Hedychridium krajniki 129  
*kraloffi*, Halictus 281  
 krausi, Euura, *Amauronematus* 60  
*kraussei*, Andrena 275  
*kriechbaumeri*, Hylaeus 261  
*kriegeri*, Halictus 284  
*kriegeri*, Pteronus 57  
 krkiana, Chrysis grohmanni 135  
 Krombeinella 152  
*krombeini*, Incertusulcus 124  
 krombeini, Pemphredon 248  
*Krombeiniellum* 244  
 kropotkini, Panurginus 276  
*krylovi*, Pratoobombus modestus 330  
*kuangsiana*, Vespa analis var. 193  
*kubesi*, Pachynematus 61  
*kuccharonis*, Xiphidria 116  
**Kudakrumiini** 152  
 kudiana, Andrena 267  
*kudiana*, Coelioxys 305  
 kudiana, Tenthredo 93  
*kudianus*, Rhogogaster 88  
*kudiensis*, Colletes 258  
*kudiensis*, Megachile willughbiella 308  
*kuehlhorni*, Alastor 178  
*kuehlhorni*, Smicromyrme 156  
*kuennemanni*, Megachile 307  
 kullenbergi, Eucera 320  
 kumamotonis, Onycholyda, *Lyda* 103  
 kunashirensis, Priocnemis 163  
 kunasirensis, Euura, *Nematus* 60  
*kuntzei*, Dioxys 303  
 kunugi, Apethymus 40  
 kupyanskayae, Formica 199  
*kuramaensis*, Crabro reiteri 234  
*kurbati*, Megachile lapponica var. 307  
*kurdica*, Aphaenogaster 203  
*kurdica*, Aphaenogaster  
   subterranea var. 203  
*kurdistanica*, Andrena 271  
 kurentzovi, Arachnospila 169  
*kurentzovi*, Symmorphus 191  
 kuri, Apethymus 40  
*kurilarum*, Pachyprotasis longicornis 87  
 kurilense, Episyron 167  
 kurilense, Stenamma 207  
*kurilensis*, Bombus tersatus 329  
 kurilensis, Nipponodipogon,  
   *Dipogon* 164  
*kurilensis*, Nomada 312  
 kurilensis, Temnothorax,  
   *Leptothorax* 208  
 kurilensis, Tenthredo, *Tenthredella* 94  
 Kuriloaenia 164  
*kurisuei*, Okomotoniuss 30  
*kuro*, Nomada 314  
*kuroiwaie*, Athalia colibri 44  
 kurokii, Myrmica 206  
*kurokii*, Myrmica rubra 206  
 kuroo, Diodontus 247  
 kurzenkoi, Arachnospila 169  
 kurzenkoi, Epyris 123  
 kurzenkoi, Mimesa 250  
*kusdasi*, Myrmilla capitata 154

- kushkia*, *Andrena hyemala* ssp. 264  
*kussariensis*, *Lasioglossum*, *Halictus* 280  
*kussariensis*, *Allantus* 96  
*kuwayamai*, *Arachnospila*, *Pompilus* 169  
*kuwayamai*, *Bombus schrencki* 332  
*kuwayamai*, *Rhopalum* 236  
*kuzini*, *Calameuta* 109  
*kuznetsovi*, *Philoctetes*, *Ellampus* 132  
*kuznetzovi*, *Cerceris* 254  
*kuznetzovi*, *Chrysis* 141  
*kuznetzovi*, *Empria* 41  
*kuznetzovi*, *Smicromyrme* 155  
*kuznetzovorum*, *Pristiphora*,  
*Lygaonematus* 72  
*kychtacensis*, *Megachile* 303  
*kyutekparki*, *Pamphilus* 105
- Labeo* 120  
*Labeola* 120  
*Laberinus* 120  
*Laberius* 120  
*labialis*, *Andrena* 265  
*labialis*, *Andrena*, *Melitta* 267  
*labialis*, *Selandria* 41  
*labiata*, *Andrena* 271  
*labiata*, *Andrena* 272  
*labiata*, *Apis* 287  
*labiata*, *Cerceris* 254  
*labiata*, *Macropis* auct. 293  
*labiata*, *Megilla* 293  
*labiata*, *Tenthredo* 85, 98  
*labiatarum*, *Nomioides* 292  
*labiatula*, *Andrena* 267  
*labiatus*, *Mellinus* 262  
*labiatus*, *Panurginus*, *Panurgus* 276  
*Labidia* 89  
*labiosus*, *Dolerus* 78  
*laborans*, *Odynerus* 190  
*laboriosa*, *Hoplitis*, *Osmia* 296  
*labratus*, *Nematus pallicornis* 70  
*labrosa*, *Andrena* 291  
*labrosus*, *Halictus* 283  
*lacerticida*, *Parabatozonus*, *Sphex* 167  
*lachesis*, *Melecta* 326  
*lachlaniana*, *Tenthredo* 95  
*lacinata*, *Caliroa* 45  
*lacordairei*, *Hoplisis* 223  
*lacrymosa*, *Tenthredo* 85  
*lacrymosa*, *Tenthredo* 85  
*lactarius*, *Thyreopus* 226  
*lacteipennis*, *Pachynematus* 56  
*lacteore*, *Aglaostigma aucupariae* 83  
*lacteus*, *Nematus* 63  
*lactiflua*, *Tenthredopsis*, *Tenthredo* 99  
*lactipennis*, *Panurginus* 276  
*lactipennis*, *Sphecodes* 288  
*ladakhana*, *Anthophora parietina* 324  
*Laelius* 123  
*laesus*, *Bombus* 331  
*laeta*, *Euura*, *Cryptocampus* 60  
*laeta*, *Nomada* 311  
*laeta*, *Sciapteryx* 89  
*laeta*, *Scolia* 148
- laeta*, *Scolioneura* 48  
*laeta*, *Tenthredo* 32, 92  
*laetum*, *Pararhynchium paradoxum* 187  
*laetus*, *Amauronematus viduatus* 66  
*laetus*, *Crabro* 232  
*laetus*, *Nematus* 70  
*laetus*, *Pterocheilus* 188  
*laeve*, *Lasioglossum*, *Melitta* 284  
*laeviceps*, *Crabro* 228  
*laeviceps*, *Pachyprotasis* 87  
*laeviceps*, *Pemphredon* 249  
*laeviceps*, *Tenthredo rossica* 90  
*laevicollis*, *Pachyprotasis* 88  
*laevifrons*, *Ceratina* 310  
*laevifrons*, *Colletes* 258  
*laevifrons*, *Epeolus* 317  
*laevifrons*, *Halictus* 280  
*laevifrons*, *Hoplitis*, *Osmia* 297  
*laevifrons*, *Megachile* 306  
*laevifrons*, *Osmia* 296  
*laevifrons*, *Priophorus* 55  
*laevigata*, *Chrysuria*, *Chrysis* 139  
*laevigata*, *Prosopis* 260  
*laevigatum*, *Lasioglossum*, *Melitta* 280  
*laevigatus*, *Ectemnius* 232  
*laevigatus*, *Nematus* 56  
*laevigatus*, *Oxybelus* 242  
*laevigatus*, *Psenulus*, *Psen* 252  
*Laevigorytes* 222  
*laevinodis*, *Myrmica* 206  
*laevipes*, *Gymnomerus*, *Odynerus* 184  
*laevipes*, *Odynerus* 184  
*laevis*, *Harpactus*, *Mutilla laevis* 223  
*laevis*, *Lindenius* 235  
*laevis*, *Nematus* 66  
*laeviuscula*, *Andrena* 267  
*laeviuscula*, *Formicoxenus* 204  
*laeviusculus*, *Hylaeus* 283  
*laeviventris*, *Odynerus* 191  
*laevoides*, *Lasioglossum* 284  
*Lagidina* 84  
*lagodechii*, *Chrysis* 134  
*Lagonis* 49  
*lagopoda*, *Megachile*, *Apis* 307  
*lagostae*, *Odynerus dantici* var. 183  
*lagrecai*, *Nomada* 314  
*lama*, *Bembix* 221  
*Lambdopsis* subg. 260  
*lamellatus*, *Oxybelus* 242  
*laminata*, *Cerceris* 253  
*lampadam*, *Hedychridium* 142  
*lamprechtii*, *Dolerus* 77  
*Lamproapis* 310  
*lamprosoma*, *Spinolia* 141  
*lamprosoma*, *Spinolia*, *Chrysis* 141  
*lanata*, *Chrysis* 136  
*lanata*, *Xylocopa* 310  
*lanatae*, *Euura* 60  
*lanatus*, *Tachysphex* 239  
*lanceata*, *Euura*, *Amauronematus* 60  
*lanceolata*, *Chrysis* 136  
*lanceolata*, *Nomada* 311  
*lanceolatus*, *Coelioxys* 305
- lanceolatus*, *Metallus*, *Blennocampa* 50  
*langei*, *Aglaostigma*, *Rhogogastera* 83  
*languida*, *Tenthredopsis*, *Tenthredo* 99  
*laniensis*, *Euodynerus disconotatus* 183  
*lanifica*, *Pristiphora*, *Nematus* 72  
*lanifrons*, *Melitta* 265  
*laniger*, *Apis* 293  
*lanigera*, *Mesoneura* 68  
*lanionis*, *Chelogyne* 119  
*lanuginosus*, *Gastrosericus* 236  
*lapicida*, *Sphex* 180  
*lapidarius*, *Bombus*, *Apis* 329  
*lapidarius*, *Crabro* 234  
*lapidarius*, *Ectemnius*, *Crabro* 231  
*laportei*, *Crabro* 232  
*lappo*, *Euura* 60  
*laponica*, *Andrena* 264  
*laponica*, *Eumenes*  
*pedunculatus* var. 182  
*laponica*, *Euura* 56  
*laponica*, *Megachile* 306, 307  
*laponica*, *Pontania* 58  
*laponica*, *Rhogogaster viridis* 88  
*laponica*, *Tenthredo* 39, 73  
*laponicola*, *Pontania* 58  
*laponicus*, *Bombus*, *Apis* 330  
*laponicus*, *Crabro* 226  
*laponicus*, *Pachynematus* 71  
*Lara* 236  
*Larandrena* subg. 267  
*largipes*, *Tenthredo* 69  
*laricicola*, *Pristiphora* 71  
*lariciphagus*, *Anoplonyx*, *Nematus* 53  
*lariciphagus*, *Nematus* 53  
*lariciphila*, *Cephalcia*, *Cephaleia*  
*lariciphila* 102  
*laricis*, *Acantholyda*, *Lyda* 101  
*laricis*, *Gilpinia*, *Pteronus* 34  
*laricis*, *Pristiphora*, *Nematus* 72  
*lariciovorus*, *Nematus* 72  
*lariciovorus*, *Pachynematus* 72  
*Larinematus* 55  
*Larra* 236  
*Larra* subg. 236  
*Larrada* 236  
*Larrana* 236  
*Larraxena* 236  
**Larrini** 236  
*Larropsis* 236  
*Larropsis* subg. 236  
*larvata*, *Podalirius* 324  
*larvatus*, *Crabro* 232  
*Lasanthidium* 301  
*laserpitii*, *Tenthredo* 86  
*Lasianteon* 118  
*Lasioglossum* 279, 287  
*Lasioglossum* subg. 280  
*Lasius* 201  
*Lasius* 323  
*Lasius* subg. 202  
*latebrosus*, *Crabro* 235  
*lateuteus*, *Allantus amaenus* 97  
*lateniger*, *Allantus amaenus* 97

- laterale*, Icteranthidium, *Anthidium* 301  
*lateralis*, Allantus 96  
*lateralis*, Amauronematus 65  
*lateralis*, Camponotus, *Formica* 198  
*lateralis*, Corynisi, *Amasis* 32  
*lateralis*, Dolerus 78  
*lateralis*, Nematus 71  
*lateralis*, Nomada 312  
*lateralis*, Tenthredo 94  
*Lateralisiformis* 31  
*laterater*, Dolerus pratensis 78  
*laterimaculatus*, Cephus gracilis 109  
*lateritia*, Andrena hystrix var. 263  
*lateritia*, Apterogyna 159  
*lateritia*, Tenthredo 77  
*lathamana*, Melitta 265  
*lathburiana*, Nomada, *Apis* 314  
*lathyri*, Andrena 274  
*latialis*, Tarpa plagioccephala 107  
*laticarpus*, Macrophyta 83  
*laticauda*, Epeolus 317  
*laticaudatus*, Sphecodes 288  
*laticeps*, Brachytipona, *Odynerus* 180  
*laticeps*, Lasioglossum, *Halictus*  
*laticeps* 284  
*laticeps*, Osmia 298  
*laticeps*, Pseudisobranchium 123  
*laticeps*, Tachysphex 238  
*laticeps*, Thomsonia 98  
*laticincta*, Halictus rubicundus 278  
*laticincta*, Osmia 298  
*laticinctus*, Allantus 76, 94  
*laticinctus*, Gorytes, *Euspongus*  
*laticinctus* 223  
*laticorne*, Rhopalum, *Crabro* 235  
*laticrus*, Nematus 69  
*laticrus*, Nomada 314  
*latidens*, Oxybelus 243  
*latifrons*, Hoplisoides, *Gorytes* 224  
*latifrons*, Pamphilius, *Lyda* 105  
*latifrons*, Prosopigastra 237  
*latifrons*, Tachysphex 239  
*latifrons*, Tachytes 240  
*latilineata*, Vespa magnifica var. 194  
*latipalpis*, Pterocheilus 187  
*latipes*, Eumenes 185  
*latipes*, Nematus 69  
*latiserra*, Euura, *Pontopristia* 60  
*latisstriga*, Nomada lineola var. 313  
*latisulcata*, Euura, *Amauronematus* 60  
*latitarsis*, Lindenius 235  
*lativalvis*, Tachytes 239  
*lativentris*, Lasioglossum, *Hylaeus* 280  
*lativentris*, Pristiphora, *Nematus* 72  
*lativentris*, Tiphia 150  
*latizona*, Tenthredo 92  
*latreillei*, Sphecodes 287  
*latreillii*, Anthidium 301  
*latreillii*, Bembix 222  
*latreillii*, Myrmecina 205  
*latreillii*, Trichiosoma 30  
*latro*, Oxybelus 242  
*latroides*, Solenopsis orbula var. 207  
*latronis*, Melitta 294  
*latronum*, Rhopalum, *Crabro* 236  
*Latrorhopalum* 235  
*Latroxylus* 242  
*latus*, Monophadnus 53  
*latus*, Odynerus melanocephalus 187  
*latus*, Taxoblenus, *Taxonus* 43  
*laudata*, Caliroa 45  
*Laurentia* 83  
*Laurentina* 83  
*Lautara* 241  
*lautus*, Allantus 97  
*lavandulae*, Andrena 267  
*Lavia* 221  
*lavrushini*, Hylaeus 261  
*lazoiana*, Andrena 270  
*leachella*, Megachile 306  
*Leachia* 55  
*leachii*, Chrysis 136  
*leachii*, Hylotoma 24  
*leachii*, Nematus 72  
*leaiana*, Osmia, *Apis* 298  
*lebanensis*, Ammobatoides 318  
*lebedewi*, Colletes 258  
*lecana*, Andrena niveata ssp. 270  
*lecerfi*, Andrena 274  
*leclercqi*, Crossocerus 231  
*lecontei*, Ancistrocerus 178  
*lecontei*, Lophyrus 34  
*lederi*, Allantus 96  
*lederi*, Andrena 268  
*lefebvre*, Urocerus 113  
*lefebvrei*, Crossocerus 227  
*lefebvrei*, Megachile, *Chalicodoma* 305  
*lefebvrei*, Polistes gallica var. 193  
*legirupus*, Polyvynematus 56  
*lehri*, Bifidoceropales 160  
*lehri*, Deuteragenia 164  
*Leiocleptes* 126  
*Leiogorytes* 222  
*leionota*, Euura, *Pteronidea* 60  
*leleji*, Ancistrocerus 179  
*leleji*, Andrena 272  
*leleji*, Epyris 123  
*leleji*, Halictus, *Seladonia* 279  
*leleji*, Hedychridium 129  
*leleji*, Hylaeus 260  
*leleji*, Pamphilius 105  
*leleji*, Tenthredo 95  
*Lelejola* 125  
*lemanii*, Formica 200  
*lenensis*, Dolerus scoticus 78  
*lenis*, Andrena 270  
*lenis*, Aphanus 50  
*lentus*, Pachynematus 57  
*Leocrabro* 231  
*leoninus*, Halictus 282  
*Leonomyrma* 203  
*lepeletieri*, Andrena 269, 270  
*lepeletieri*, Anthidium 301  
*Lepeletieri*, Crabro 230  
*lepeletieri*, Macrophyta 86  
*lepeletieri*, Nomada 311  
*lepeletieri*, Odontodynerus  
*deflendus* 180  
*lepida*, Andrena 273  
*lepida*, Anthophora 324  
*lepida*, Tenthredo 42  
*lepida*, Tenthredo 81  
*Lepidandrena* subg. 268  
*lepidotus*, Nematus 66  
*lepidula*, Chrysis sardarica 137  
*lepidulus*, Hylaeus 260  
*lepidus*, Harpiphorus, *Tenthredo* 42  
*lepidus*, Nematus 62  
*Lepisiota* 202  
*leporina*, Melitta, *Apis* 294  
*Leptepipona* 188  
*lepticus*, Strongylogaster  
*desbrochersi* 82  
*leptocephala*, Euura, *Nematus* 60  
*leptocephalus*, Hylaeus, *Prosopis* 260  
*Leptocerca* 67  
*Leptocercus* 67  
*leptocerus*, Nematus 66  
*Leptochilus* 185  
*Leptochilus* subg. 185  
*Leptocimbex* 30  
*Leptolarra* 237  
*leptomandibularis*, Chrysis 136  
*Leptopolistes* 192  
*Leptopriocnemis* subg. 162  
*Leptopus* 69  
*Leptothorax* 204  
*lerouxi*, Halictus 278  
*leseleuci*, Sirex 112  
*leskii*, Cephus 109  
*Lestica* 234  
*Lestiphorus* 224  
*Lestodryinus* 120  
*Lestophorus* 224  
*lethe*, Euura 60  
*lethierryi*, Pamphilius, *Lyda* 105  
*lethifer*, Pempfredon, *Cemonus* 248  
*leucaheneus*, Halictus leucaheneus 279  
*Leucandrena* subg. 268  
*leucapsis*, Euura, *Nematus* 60  
*leucaspis*, Tenthredella ferruginea 94  
*Leucempria* 40  
*Leuchimon* 170  
*leucobasis*, Dolerus 80  
*leucocarpus*, Nematus 57  
*leucocarpus*, Nematus 57  
*leucocephala*, Chrysolyda,  
*Pamphilius* 103  
*leucocephalus*, Pamphilius 102  
*leucocera*, Tenthredo 94  
*leucocnemis*, Nematus 72  
*leucodous*, Nematus 61  
*leucogaster*, Nematus 66  
*leucognathus*, Halictus 278  
*leucogona*, Tenthredo 42  
*leucolena*, Euura, *Nematus* 60  
*leucomalla*, Megachile 306  
*leucomelana*, Hoplitis auct. 296  
*leucomelana*, Hoplitis, *Osmia* 296

- leucomelas*, Tenthredo 87  
*leuconotus*, Sphex 215  
*leuconotus*, Sphex 216  
*leucophthalma*, Nomada, *Apis* 314  
*leucopoda*, Aproceros 25  
*leucopoda*, Macrophyta 84  
*leucopoda*, Phyllotoma 49  
*leucopodia*, Pristiphora, *Nematus* 72  
*leucopodus*, Dolerus 39  
*leucopogon*, Halictus 278  
*leucopterus*, Dolerus 80  
*leucopum*, Lasioglossum, *Melitta* 284  
*leucopus*, Pristiphora, *Nematus* 72  
*leucopus*, Tenthredo 86  
*leucopyga*, Euura, *Amauronematus* 60  
*leucopygus*, Halictus 283  
*leucorhina*, Andrena auct. 275  
*leucorhinum*, Dianthidium 300  
*Leucostelis* 302  
*leucosternus*, Allantus 93  
*leucosticta*, Euura, *Nematus* 61  
*leucostoma*, *Apis* 281  
*leucostoma*, Athalia 44  
*leucostoma*, Crabro 228  
*leucostoma*, Crossocerus, *Sphex* 228  
*leucostoma*, Lygaeonematus 73  
*leucostoma*, Tenthredo 95  
*leucostomoides*, Coelocrabro 228  
*leucostomus*, Emphytus 38  
*leucostomus*, Gonatopus 121  
*leucotrocha*, Euura, *Nematus* 61  
*leucozonias*, Tenthredo 43  
*leucozonica*, Cerceris 253  
*leucozonium*, Lasioglossum, *Apis* 281  
*leucurus*, Pompilus 173  
*leucopogonata*, Chalicodoma 305  
*leueoura*, Dasypoda 293  
*levigatus*, Halictus 280  
*levilabris*, Andrena 275  
*levipes*, Crabro 230  
*levis*, Halictus 284  
*lewinella*, Melitta 273  
*lewisii*, Smicromyrme 156  
*lewisii*, Abia 28  
*lewisii*, Dolerus 81  
*lezginica*, Myrmilla, *Mutilla* 154  
*libanensis*, Trachelus, *Cephus* 111  
*libanicus*, Eumenes  
    unguiculatus var. 181  
*libanicus*, Symmorphus elegans 191  
*liberta*, Athalia, *Tenthredo* 44  
*liburnica*, Nomada alboguttata var. 311  
*lichata*, Andrena bimaculata ssp. 272  
*lichtwardti*, Euura, *Pachynematus* 61  
*lichtwardti*, Tenthredo 94  
*liciata*, Macrophyta 84  
*lidmiliae*, Smicromyrme rufipes f. 156  
*lienterica*, Euura, *Nematus* 61  
*ligata*, Tenthredopsis 99  
*ligeris*, Croesus varus 69  
*ligniperda*, Camponotus, *Formica* 198  
*ligniperda*, Formica 198  
*ligniseca*, Megachile, *Apis* 307  
*lignisecula*, Megachile 307  
*ligustrina*, Tenthredo 85  
*lilliput*, Halictus 284  
*lilliputianus*, Tachysphex 237  
*limacina*, Tenthredo 45  
*limanica*, Myrmica rugulosa 205  
*limassolica*, Dioxoides tridentata 303  
*limata*, Andrena 269  
*limbata*, Andrena 273  
*limbata*, Tenthredo 43, 95  
*limbatus*, Euchroeus limbatus 140  
*limbellum*, Lasioglossum, *Halictus* 284  
*limbiferum*, Anthidium 301  
*limbiferus*, Allantus 92  
*limbiferus*, Leptochilus, *Odynerus* 185  
*limbilabris*, Tenthredopsis 98  
*limbonotatus*, Odynerus 190  
*limissicus*, Eumenes pomiformis 181  
*limissicus*, Halictus pollinosus 279  
*limitaris*, Pachyprotasis 87  
*limonii*, Andrena 264  
*lindbergi*, Sphecodes alternatus 287  
*lindenii*, Odynerus 183  
*Lindenius* 234  
*Lindenius*, Crabro 233  
*lindqvisti*, Euura, *Amauronematus* 61  
*Lindqvistia* 55  
*linearis*, Phylloecus, *Tenthredo* 110  
*linearis*, Tenthredo 82  
*lineare*, Lasioglossum, *Halictus* 284  
*lineata*, Dryudella 218  
*lineata*, Meria auct. 149  
*lineata*, Nomada 242  
*lineata*, Smicromyrme variabilis f. 155  
*lineata*, Tenthredo 82  
*lineatotarsis*, Crabro 231  
*lineatus*, Oxybelus, *Nomada* 242  
*lineicoxis*, Pachyprotasis 87  
*Lineobirka* 76  
*Lineobirka* subg. 76  
*lineola*, Nomada 313  
*lineola*, Osmia 297  
*lineolata*, Athalia 44  
*lineolata*, Nomada succineta var. 313  
*lineolata*, Periclista, *Tenthredo* 51  
*lineolata*, Tenthredo 51  
*lineolata*, Vespa media var. 195  
*lineolatus*, Halictus 281  
*lineolatus*, Hylaeus, *Prosopis* 261  
*lineolatus*, Nysson 220  
*lineolellus*, Hylaeus 261  
*linguaria*, *Apis* 320  
*linnaeella*, *Apis* 276  
*Linsleyixyela* 20  
*liogaster*, Dolerus liogaster 80  
*Liolyda* 102  
*Liometopum* 197  
*Lionotulus* subg. 185  
*lioparea*, Blennocampa 46  
*Lipotriches* 291  
*lippulum*, Stenamma, *Myrmica* 207  
*Liris* 236  
*Liris* subg. 237  
*Liris* 236  
*Lirosphex* 237  
*lisbonensis*, Anthophora  
    acervorum var. 323  
*Lisconeura* 68  
*Lisoca* 147  
*lissonotum*, Lasioglossum, *Halictus* 284  
*listerella*, Melitta 265  
*litatus*, Dicyrtomellus, *Pompilus* 170  
*Lithoryssus* 48  
*Lithracia* 87  
*Lithurge* 295  
**Lithurgini** 295  
*Lithurgus* 295  
*Lithurgus* subg. 295  
*litoralis*, Mutilla 157  
*litoralis*, Tropidotilla, *Mutilla* 157  
*litorana*, Anthophora 322  
*litterata*, Tenthredopsis, *Tenthredo* 99  
*littoralis*, Diphlebus 248  
*littoralis*, Evageles, *Pompilus* 171  
*littoralis*, Mimumesa *Mimesa* 251  
*littoralis*, Myrmica lobicornis 205  
*litturata*, *Apis* 302  
*litturata*, Empria, *Tenthredo* 41  
*litturata*, Tenthredo, *Allantus* 96  
*litturata*, Tenthredopsis lactiflua 99  
*litturatum*, Anthidium 302  
*litturatus*, Crabro 233  
*litturatus*, Ectemnius, *Crabro* 233  
*Liturgus* 295  
*livida*, Tenthredo 95  
*lividiventris*, Tenthredo 88  
*lividiventris*, Tenthredopsis 99  
*lividocinctus*, Prionyx, *Enodia* 215  
*livonensis*, Eriocampa 46  
*lixivia*, Mimesa 250  
*lobata*, Andrena 276  
*lobatus*, Odynerus 184  
*lobatus*, Okutanius 51  
*lobatus*, Pamphilus 105  
*lobicornis*, Myrmica 206  
*ocularoides*, Andrena 263  
*Loderus* 77  
*Loderus* subg. 79  
*loebischii*, Scolia 148  
*loekeniana*, Megachile alpicola 306  
*loekena*, Dolichovespula 195  
*loewi*, Crabro 226  
*loewii*, Tarpa 107  
*loktini*, Empria 41  
*loktionovi*, Hedychridium 129  
*lombardica*, Andrena 267  
*lonae*, Myrmica 206  
*lonae*, Myrmica scabrinodis 206  
*Lonchodryinus* 119  
*longa*, Sphex cribraria 226  
*longicauda*, Euura, *Nematus* 61  
*longiceps*, Formica 199  
*longiceps*, Halictus 285  
*longiceps*, Lasius 201  
*longiceps*, Osmia 299  
*longiceps*, Passaloecus 248



- longicolle*, *Hedychrum* 130  
*longicollis*, *Ammophila* 212  
*longicollis*, *Krombeinella*, *Myrmosa* 152  
*longicollis*, *Microdynerus* 186  
*longicollis*, *Xiphidria*, *Tenthredo* 116  
*longicornis*, *Amauronematus* 56  
*longicornis*, *Ametastegia*, *Emphytina* 40  
*longicornis*, *Apis* 320  
*longicornis*, *Arge* 23  
*longicornis*, *Dolerus* 79  
*longicornis*, *Empria*, *Poecilosoma* 41  
*longicornis*, *Eucera*, *Apis* 320  
*longicornis*, *Pachyprotasis* 87  
*longicornis*, *Pristiphora*,  
*Pachynematus* 72  
*longicornis*, *Prosopis* 262  
*longicornis*, *Pteronus* 64  
*longicornis*, *Sphex* 221  
*longicornis*, *Taxoblenus* 43  
*longicornis*, *Tenthredo* 50  
*longidens*, *Amauronematus* 66  
*longifacies*, *Lasioglossum*  
*sulcatulum* 286  
*longifoliae*, *Athalia* 44  
*longiforceps*, *Anteon* 119  
*longigena*, *Hedychridium* 129  
*longigenae*, *Halictus gavaricus* 279  
*longipalpis*, *Crabro* 231  
*longipennis*, *Rocalia* 81  
*longipennis*, *Tenthredo*, *Allantus* 98  
*longipes*, *Tenthredo*, *Allantus* 90  
*longiscapus*, *Myrmica* 206  
*longiserra*, *Decanematus* 61  
*longiserra*, *Euura*, *Nematus* 61  
*longispinis*, *Nematus* 66  
*longispinus*, *Sulcomesitius* 124  
*longiuscula*, *Coelioxys* 304  
*longivaginata*, *Masaakia* 49, 50  
*longula*, *Andrena* 264  
*longula*, *Chrysis ignita* var. 136  
*longula*, *Chrysis longula* 136  
*longula*, *Mimesa* 251  
*longula*, *Xyela* 21  
*longuloides*, *Halictus* 284  
*longulus*, *Halictus* 284  
*longulus*, *Psen* 252  
*longulus*, *Sphex* 288  
*lonicerae*, *Nematus*, *Pachynematus* 69  
*lochooensis*, *Vespa tropica* 194  
*Lophagenia* 165  
*Lophanthophora* subg. 324  
*Lophocrabro* 231  
*Lophopompilus* 173  
*Lophyrus* 33  
*Loresomorpha* 151  
*Lorrhoeum* 211  
*loti*, *Anthidium* 300  
*lubricus*, *Psenulus*, *Psen* 252  
*lucens*, *Andrena* 271  
*lucens*, *Dolerus* 80  
*lucens*, *Nematus*, *Pteronidea* 69  
*lucens*, *Nitela* 241  
*lucens*, *Symmorphus*, *Odynerus* 191  
*lucens*, *Tenthredopsis camtschatcalis* 98  
*lucida*, *Andrena* 267, 269  
*lucida*, *Holopyga*, *Hedychrum* 131  
*lucida*, *Mesoneura opaca* 68  
*lucida*, *Onycholyda*, *Pamphilus* 103  
*lucida*, *Ponera coarctata* var. 209  
*lucida*, *Tenthredo* 69  
*lucidellus*, *Halictus* 284  
*lucidicollis*, *Halictus* 282  
*lucidiventre*, *Hedychridium* 129  
*lucidula*, *Chrysis* 130  
*lucidula*, *Megachile* 308  
*lucidulum*, *Lasioglossum*, *Hylaeus* 284  
*lucidus*, *Dolerus* 79  
*lucidus*, *Halictus* 286  
*lucidus*, *Nematus*, *Tenthredo* 69  
*lucifera*, *Nomada mutabilis* var. 314  
*lucorum*, *Bombus*, *Apis* 328  
*lucorum*, *Lyda* 103  
*lucorum*, *Tenthredo* 30  
*lucorum*, *Trichiosoma*, *Tenthredo* 31  
*Lucorumiformis* 30  
*luctatus*, *Dolerus* 77  
*luctifer*, *Allantus*, *Macrophya* *luctifer* 38  
*luctuosa*, *Cerceris* 252  
*luctuosa*, *Chalicodoma* 305  
*luctuosa*, *Melecta*, *Apis* 326  
*luctuosa*, *Pemphredon* 249  
*luctuosa*, *Pteronidea curtispina* 56  
*luctuosa*, *Tenthredo* 67, 84, 87  
*luctuosus*, *Dolerus* 39  
*luctuosus*, *Epeolus* 317  
*luctuosus*, *Nematus* 66  
*luctuosus*, *Pompilus* 170  
*ludens*, *Nematus* 73  
*Ludita* 150  
*Luea* 55  
*luffii*, *Podalonia*, *Ammophila* 214  
*luganicus*, *Halictus* 277  
*lugdunensis*, *Nematus* 66  
*lugens*, *Amauronematus viduatus* 66  
*lugens*, *Athalia*, *Tenthredo* 44  
*lugens*, *Diprion laricis* 34  
*lugens*, *Pemphredon* 249  
*lugubrata*, *Tenthredo kiefferi* 90  
*lugubrescens*, *Andrena* 268  
*lugubris*, *Andrena* 268, 269  
*lugubris*, *Atelosphe* 237  
*lugubris*, *Crabro* 248  
*lugubris*, *Dolerus* 77  
*lugubris*, *Formica* 199  
*lugubris*, *Melitta* 280  
*lugubris*, *Pemphredon*, *Crabro* 249  
*lugubris*, *Pontania viminalis* 58  
*lugubris*, *Prosopis hyalinata* var. 262  
*lugubris*, *Tenthredo* 84, 85  
*lugubris*, *Vespula media media* var. 195  
*luminosus*, *Allantus* 97  
*lunata*, *Cerceris* 254  
*lunata*, *Sphex* 226  
*lunata*, *Xylocopa* 310  
*lunatus*, *Gonatopus* 121  
*lunatus*, *Harpactus*, *Larra* 223  
*lundbladi*, *Crossocerus*, *Crabro* 229  
*lundbohmi*, *Amauronematus* 64  
*lunicornis*, *Pompilus* 219  
*lunicornis*, *Alyson* 219  
*lunicornis*, *Didineis*, *Pompilus* 219  
*luniger*, *Stizus* 225  
*lunulata*, *Eumenes* 181  
*lunulatus*, *Caenoccephus*, *Cephus* 108  
*lunulatus*, *Crabro* 29  
*luperus*, *Diodontus* 247  
*lupinelli*, *Halictus* 278  
*lurida*, *Tenthredo* 95  
*luridicarpa*, *Macrophya* 85  
*luridiventris*, *Platycampus*, *Tenthredo* 70  
*luridiventris*, *Tenthredo* 51  
*luridus*, *Camponiscus* 53  
*luristanensis*, *Eumenes sichelii* var. 185  
*lusca*, *Trichrysis*, *Chrysis* 141  
*lusitanica*, *Perineura* 98  
*lussinicus*, *Halictus* 278  
*lustrans*, *Sphex* 288  
*lutaria*, *Mimesa*, *Sphex* 250  
*lutea*, *Tenthredo* 29  
*lutea*, *Nomada* 314  
*lutea*, *Tenthredo* 68  
*luteicornis*, *Cladius* 54  
*luteicornis*, *Tenthredo* 91  
*luteifasciatus*, *Stenodynerus pappi* 190  
*luteiformis*, *Nematus bilineatus* 68  
*luteipalpis*, *Crossocerus* 229  
*luteipennis*, *Tenthredo* 95  
*luteipes*, *Anthidium* 303  
*luteipes*, *Janus*, *Cephus* 110  
*luteipes*, *Pristiphora* 72  
*luteiscapus*, *Pterocheilus phaleratus* 189  
*luteiventris*, *Cladius* 54  
*luteiventris*, *Ephippionotus* 110  
*luteiventris*, *Eutomostethus*,  
*Tenthredo* 47  
*luteiventris*, *Pristiphora* 72  
*luteiventris*, *Tenthredo* 47  
*luteocincta*, *Tenthredo* 96  
*luteogaster*, *Nematus* 74  
*luteogaster*, *Urocerus gigas* 113  
*luteola*, *Arge pyrenaica* 24  
*luteola*, *Cimbex* 29  
*luteola*, *Myrmica* 206  
*luteola*, *Tenthredo* 42  
*luteola*, *Tenthredo* 43, 67  
*luteolum*, *Diprion frutetorum* 33  
*luteomaculata*, *Macrophya postica* 86  
*luteomarginatus*, *Cephus* 109  
*luteonotata*, *Macrophya rustica* 86  
*luteostigmatellus*, *Halictus* 285  
*lutescens*, *Andrena* 267  
*lutescens*, *Aulacomerus* 54  
*lutescens*, *Bembix* 221  
*lutescens*, *Cimbex betulae* 29  
*lutescens*, *Diprion frutetorum* 33  
*lutescens*, *Hoplomerus*  
*signaticollis* var. 187  
*lutescens*, *Smicromyrme rufipes* var. 156  
*lutescens*, *Tenthredo* 103

- luteus, Cimbex, *Tenthredo* 30  
 luteus, Eopompilus 162  
 luteus, Nematius, *Nematus* 68  
*lutulenta*, Apis 267  
*lutzenkoi*, Halictus 280  
*luxorius*, Odynerus magnificus 180  
*luxuriosa*, Hoplomerus melanocephalus  
   melanocephalus var. 187  
*luxuriosus*, Crabro 233  
*luxuriosus*, Leptochilus  
   membranaceus 185  
*luzonicus*, Anoplius 172  
*Lyda* 104  
 lyda, Chrysis 136  
 lydiae, Chrysura lydiae, *Chrysis* 139  
*Lygaeonematus* 70  
*Lygaeophora* 70  
*Lygaeotus* 70  
 lyncea, Tetraloniella 322  
 Lyroda 240  
*Lyrodon* 240  
*Lyrola* 25  
*Lyrops* 236, 240  
*lysholmi*, Bombus balteatus 327  
*Lyssepyris* 123  
*lythri*, Tetralonia 322  
 lyubae, Philoctetes 132  
  
*maadiensis*, Megachile leachella 306  
*macedonica*, Andrena 267  
*macedonica*, Eumenes dubius  
   dubius var. 182  
*Macgillivraya* 67  
*Macgillivrayella* 67  
*macgillivrayi*, Andrena 268  
 Machaerothrix 165  
*macilenta*, Andrena 268  
*macilentus*, Polemistus 249  
*macilentus*, Sirex 111  
*macrocephalus*, Panurgus  
   calcaratus var. 276  
*Macrocephus* 110  
*Macrocera* 321  
*macrocerus*, Nematus 64  
 Macrodiptirion 34  
*macrodonta*, Osmia 297  
*macroglossa*, Eucera 321  
*macroglossa*, Osmia 299  
 Macrophyta 84  
 Macrophyta subg. 84  
*Macrophyopsis* 83  
 Macrophyopsis subg. 83  
 Macropis 293  
 Macropis subg. 293  
 macrops, Arge 24  
*macroserata*, Pteronidea 57  
*macrostigmatus*, Dipogon 164  
*Macrovespa* 193  
**Macroxyelinae** 20  
*mactae*, Andrena 275  
 macula, Strongylogaster, *Tenthredo* 82  
*macularis*, Andrena 268  
*macularis*, Vespa 196  
  
*maculata*, Apis 300  
*maculata*, Athalia 45  
*maculata*, Ceropales, *Evania*  
   *maculata* 160  
*maculata*, Cimbex 29  
*maculata*, Evania 160  
*maculata*, Megascolia, *Sphex* 147  
*maculata*, Osmia 296  
*maculata*, Pasites 319  
*maculata*, Paururus juvenicus 112  
*maculata*, Pseudoscolia 256  
*maculata*, Smicromyrme  
   orientalis var. 156  
*maculata*, Smicromyrme variabilis f. 155  
*maculata*, Tenthredo 92  
*maculata*, Vespa 194  
*maculata*, Vespa 196  
*maculativentris*, Macrophyta  
   diversipes 85  
*maculatum*, Aprosthemata, *Cryptus*  
   *maculatum* 26  
*maculatus*, Allantus kareli 91  
*maculatus*, Crabro 29  
*maculatus*, Halictus maculatus 279  
*maculatus*, Odynerus 183  
*maculatus*, Pasites 319  
*maculatus*, Polistes 193  
*maculatus*, Sphecodes 289  
*maculatus*, Sphex 220  
*Maculedo* 89  
 Maculedo subg. 92  
*maculicornis*, Gorytes, *Hoplisus* 223  
*maculidorsis*, Agrobombus 331  
*maculifrons*, Loderus pratorum 79  
*maculifrons*, Lyda 103  
*maculifrons*, Nomada 314  
*maculiger*, Nematus 63  
*maculiger*, Tenthredo, *Allantus*  
   *maculiger* 91  
*Maculipennis* 162  
*maculipennis*, Hoplisus 224  
*maculipennis*, Kelidoptera, *Lyda* 103  
*maculipennis*, Lyda 103  
*maculipes*, Oxybelus 243  
*maculipes*, Psenulus 252  
*maculiscutum*, Prosopis 262  
*maculitibia*, Macrophyta 86  
*maculiventre*, Hedychridium 142  
*maculiventris*, Monophadnus nigripes 51  
*maculiventris*, Nematus 61  
*maculiventris*, Oxybelus 243  
*maculosa*, Apis 272  
*maculosa*, Lyda 105  
*maculosa*, Tenthredo 85  
*Maculosicleptes* 126  
*maculosus*, Nysson, *Sphex* 220  
*Madecagonatopus* 120  
*maderae*, Anthophora 322  
 maderi, Chrysis 136  
 madidus, Dolerus, *Tenthredo* 77  
 madraspatanum, Sceliphron, *Sphex* 214  
 maeklini, Crabro 226  
*maesta*, Mutilla 157  
  
*maesta*, Pristiphora, *Nematus* 72  
*maetai*, Andrena 265  
*maetai*, Sphecodes 289  
*maetoi*, Aphelopus 118  
*magadanensis*, Euura, *Pontania* 61  
*magna*, Andrena 269  
*magnicornis*, Dolerus 79  
*magnicornis*, Tenthredo 84  
*magnifica*, Ceropales 160  
*magnifica*, Spinolia 141  
*magnifica*, Vespa 194  
*magnificus*, Brachyodynerus,  
   *Odynerus* 180  
*magnificus*, Odynerus 180  
*magnilabris*, Amegilla, *Anthophora* 323  
*magnini*, Acantholida nemoralis 102  
*magniserrula*, Rhogogaster 88  
*Magnixyela* 20  
*magnocularis*, Heptamelus 36  
*magnus*, Bombus 328  
*magrettiana*, Andrena 272  
*magrettiana*, Nomada nobilis var. 315  
*magrettii*, Osmia 296  
*magrettii*, Pompilus 171  
*maguanensis*, Vespa 193  
*magunta*, Andrena 270  
*magus*, Tremex, *Sirex* magus 113  
*mahensis*, Notogonia 237  
*maidli*, Amauronematus 56  
*maidli*, Ammoplanus 246  
*maidli*, Colletes 258  
*maidli*, Xiphydria 115  
*majalis*, Emphytus 41  
*majalis*, Sphecodes 288  
*major*, Cladius 54  
*major*, Aporus 174  
*major*, Cephus 110  
*major*, Cerobactrus 110  
*major*, Crocisa 327  
*major*, Diodontus 247  
*major*, Dolerus pratensis 78  
*major*, Dryudella, *Astata stigma* 218  
*major*, Tiphia 150  
*major*, Trypoxylon figulus 244  
*major*, Vespa crabro 193  
*major*, Xyela 20  
*Mäklini*, Crabro 226  
*malachurellus*, Halictus 282  
*malachuroides*, Halictus 284  
 malachurum, Lasioglossum, *Melitta* 284  
*malaisei*, Agenocimbex 29  
*malaisei*, Aglaostigma, *Neurosiobla* 83  
*malaisei*, Andrena sericea var. 268  
*malaisei*, Bathanthidium, *Stelis* 301  
*malaisei*, Crossocerus, *Crabro* 227  
*malaisei*, Euura, *Amauronematus* 61  
*malaisei*, Nysson 220  
*malaisei*, Pristiphora, *Lygaeonematus* 72  
*malaisei*, Psammochares 170  
*malaisei*, Siobla 89  
*malaisei*, Tenthredo, *Tenthredella*  
   *bipunctula* 94  
*malaisei*, Terrestribombus terrestris 328

- malaisei, *Trichiosoma* 31  
malaisei, *Trypoxylon* 245  
malaisei, *Xeris* 114  
*Malaygorytes* 221  
mali, *Arge*, *Hylotoma* 24  
mali, *Hylotoma* 24  
mallochi, *Mimesa* 250  
malvae, *Apis* 321  
malvae, *Tetralonia*, *Eucera* 321  
malyshevi, *Crabro* 226  
mama, *Auplopus* 165  
manchu, *Formica* 199  
*manchu*, *Formica* exsecta var. 199  
manchuriana, *Cerceris* 254  
manchurianus, *Cryptocheilus* 161  
*manchurianus*, *Discoelius* 181  
*manchurianus*, *Eumenes*  
    *mediterraneus* 182  
*manchurica*, *Coelioxys* 304  
*manchuricus*, *Camponotus herculeanus*  
    *japonicus* var. 198  
mandarinia, *Vespa* 194  
*mandarinus*, *Halictus* 282  
manderstiernii, *Dasylabris*, *Mutilla*  
    *manderstiernii* 153  
mandibulare, *Lasioglossum*,  
    *Halictus* 284  
*mandibularis*, *Allantus persa* 90  
*mandibularis*, *Cephus* 111  
*mandibularis*, *Coelioxys* 304  
*mandibularis*, *Dolerus* 77  
*mandibularis*, *Hoplomerus* 192  
*mandibularis*, *Neurotoma*, *Lyda* 103  
*mandibularis*, *Oxybelus* 243  
*mandibularis*, *Pemphredon* 248  
*mandibularis*, *Psen* 251  
*mandibularis*, *Psenulus* 252  
*mandibularis*, *Solenopsis* 207  
*mandibularis*, *Strumigenys* 207  
*mandibularis*, *Tenthredo* 95  
*mandschurica*, *Nomiapis*, *Nomia* 292  
*mandschuricum*, *Lasioglossum*  
    *satschauense* 281  
mandschuricus, *Allodynerus* 178  
mandshurica, *Euura*, *Pontania* 61  
mandshuricus, *Auplopus* 165  
mandshuricus, *Nematus* 69  
manflava, *Cerceris* 254  
*Mangesia* 123  
mangichlakensis, *Scolia*  
    *quadricincta* 148  
Manica 204  
manicata, *Apis* 300  
manicata, *Hoplitis* 297  
*manicata*, *Phyllotoma* 308  
manicatum, *Anthidium*, *Apis* 300  
manipula, *Megachile* 307  
*manni*, *Ammobatoides oraniensis* var. 318  
*Manoxyela* 20  
manticata, *Eoferreola*, *Sphex* 173  
manticatus, *Dolerus* 78  
*mantivora*, *Tachysphex* 238  
*Maracandica*, *Tachytes* 238  
*maracandicum*, *Podium* 215  
*Maracandicus*, *Gastrosericus* 236  
marathroicus, *Ammoplanus*,  
    *Hoplocrabron* 246  
marcescens, *Andrena* 265  
marchica, *Andrena* 265  
marchicus, *Ammobatoides*  
    *abdominalis* ssp. 318  
Margandrena subg. 268  
margelanica, *Nomada* 314  
marginale, *Trichiosoma* 31  
marginalis, *Andrena* 267  
marginata, *Abia* 28  
marginata, *Andrena* 268  
marginata, *Andrena*  
    *hattorfiana* var. 265  
marginata, *Apis* 264  
marginata, *Chrysis marginata* 136  
marginata, *Clavellaria* 30  
marginata, *Eriocampa* 89  
marginata, *Hylotoma* 24  
marginata, *Lyda* 105  
marginata, *Macrophya* 86  
marginata, *Megachile* 306  
marginata, *Mutilla* 157  
marginata, *Tenthredo* 30, 91  
marginata, *Vespa* 195  
marginatum, *Anthidium* 300  
marginatum, *Lasioglossum*,  
    *Halictus* 284  
marginatus, *Camponotus* part. auct. 198  
marginatus, *Cephus* 108  
marginatus, *Colletes* 258  
marginatus, *Epeolus* 317  
marginatus, *Hylaeus* 259, 261  
marginatus, *Pamphilius*, *Lyda* 105  
marginella, *Apis* 268  
marginella, *Osmia* 298  
marginella, *Tenthredo marginella* 96  
marginellum, *Lasioglossum*,  
    *Halictus* 284  
margreiteri, *Bombus* 329  
mariae, *Bombus ikonnikovi* 327  
marianum, *Hedychrum* 130  
marinovi, *Tenthredo* 92  
maris, *Pompilus trivialis* var. 174  
marisca, *Sirex* 113  
maritima, *Osmia* 298  
maritima, *Athalia* 45  
maritima, *Hoplitis*, *Formicapis* 297  
maritima, *Megachile*, *Apis* 308  
maritimus, *Miscophus* 240  
maritimus, *Oxybelus* 243  
markewitschi, *Pseudoxiphidria* 115  
Marlattia 53  
maroccana, *Bembix* 222  
maroccana, *Tachysphex mocsaryi* 239  
maroccanus, *Eumenes coarctatus* 181  
maroccanus, *Odynerus* 190  
marqueti, *Halictus* 284  
marshakovi, *Pseudoscolia* 256  
marshalli, *Nematus* 73  
marshamella, *Nomada*, *Apis* 314  
*martialis*, *Macrophya rustica* 86  
*martialis*, *Tenthredopsis nassata* 99  
martinella, *Chrysis martinella* 136  
martini, *Monostegia* 43  
*Martjanowi*, *Crabro* 233  
martjanowi, *Ectemnius*, *Crabro* 233  
maruyamai, *Cryptocheilus* 161  
maruyamanus, *Sphecodes* 288  
marylandicus, *Nematus* 58  
Masaakia 49  
masao, *Pamphilius* 105  
**Masarinae** 176  
*mascula*, *Hylotoma serva* 81  
*mascula*, *Pontania piliserra* 63  
*masculina*, *Macrophya diversipes* 85  
*masculina*, *Tenthredo atra* 93  
*masculus*, *Emphytus basalis* 38  
Mashona 234  
masii, *Acrepyris*, *Pristocera* 123  
massiliensis, *Megachile* 305  
*Mastigocera* 20  
*Mastigocerus* 20  
masudai, *Arge* 25  
mathesoni, *Phlebotrophia* 49  
matsumurae, *Osmia* 299  
matsumurae, *Xoanon*, *Sirex* 113  
matsumurai, *Megacampsomeris*, *Campso-*  
    *meris grossa* 147  
matsumurai, *Vespa* 194  
matsumurai, *Zaraea lewisii* 28  
maura, *Dasylabris*, *Mutilla* maura 153  
maura, *Dioxys* 303  
maura, *Pontania* 56  
maura, *Tenthredo* 46, 95  
maura, *Tenthredopsis raddatzi* 99  
maura, *Thrinax* 82  
mauritanica, *Chrysis* 143  
mauritanica, *Andrena rutila* ssp. 270  
mauritanica, *Arge pyrenaica* 24  
mauritanica, *Cardiocondyla* 203  
mauritanica, *Cardiocondyla*  
    *nuda* var. 203  
mauritanica, *Nomada* 314  
mauritanicus, *Eumenes*  
    *unguiculatus* var. 181  
mauritanicus, *Pterochilus* 185  
mauritanienensis, *Eustenancistrocerus*  
    *transitorius* 184  
mauropsis, *Dasylabris* 153  
maurus, *Ceratocolus* 230  
mavromoustakisi, *Gorytes* 220  
maxillosa, *Apis* 295  
maxillosa, *Megachile* 306  
maxillosa, *Vespa* 180  
maxillosus, *Bombus* 329  
maxillosus, *Sphex* 215  
maxim, *Arachnospila* 169  
maxima, *Phyllotoma* 49  
maximum,  
    *Anthidium pubescens* var. 303  
maximus, *Halictus quadricinctus* 277  
maximus, *Lithurgus* 295  
maximus, *Pamphilius* 105

- mayacensis*, Halictus 283  
*mayeti*, Anthidium 301  
*mcluckieii*, Euura, *Amauronematus* 61  
*meda*, Myrmilla 154  
*medea*, Chrysura 139  
*media*, Andrena, *Cilissa* 271  
*media*, Cerckeris 254  
*media*, Dolichovespula, *Vespa* 194  
*mediadentata*, Chrysis 136  
*mediadentata*, Chrysis ignita var. 136  
*medialis*, Pamphilus stramineipes 105  
*mediata*, Chrysis ignita var. 137  
*mediata*, Chrysis mediata 137  
*mediata*, Hylotoma 23  
*mediater*, Dolerus pratensis 78  
*mediatra*, Tenthredopsis  
    puncticollis 100  
*mediatus*, Crabro 226  
*medinae*, Emphytus viennensis 38  
*medinai*, Halictus 287  
*mediobinotata*, Tenthredo maculata 92  
*mediocrate*, Hedychridium 129  
*mediocre*, Hedychridium 129  
*mediocris*, Macroceras 322  
*mediocris*, Tenthredo 55  
*mediocrum*, Hedychridium 129  
*mediomaculatus*, Allantus amaenus 97  
*medionotata*, Tenthredopsis  
    carbonaria 99  
*mediorufescens*, Tenthredella  
    mesomelas 91  
*mediterranea*, Anthophora 322  
*mediterranea*, Bembix 222  
*mediterranea*, Melecta armata var. 326  
*mediterranea*, Tachysphex 239  
*mediterraneus*, Eumenes, *Eumenis* 182  
*mediterraneus*, Tachysphex 239  
*medium*, Trypoxylon 245  
*medius*, Diodontus 247  
*medius*, Megalodontes 107  
*medius*, Vespa crabro 194  
*medon*, Mutilla 157  
*medullarius*, Nematius 56  
*medusa*, Eucera 320  
*medvedevi*, Holopyga 131  
*medvedevi*, Myrmica stangeana 206  
*Megabombus* subg. 328  
*Megacampsomeris* 147  
*megacephala*, Andrena 273  
*megacephala*, Nomada 313  
*megacephala*, Pontania 58  
*megacephala*, Tarpa 107  
*megacephalus*, Crossocerus, *Crabro* 228  
*megacephalus*, Halictus 285  
*Megachile* 305  
*Megachile* subg. 306  
*Megachileoides* 303  
**Megachilidae** 295  
**Megachilinae** 295  
**Megachilini** 304  
*megachiloides*, Stelis 306  
*Megadasypoda* 293  
*Megadineura* 68  
*megaera*, Melecta 326  
*Megagonatopus* 120  
*megala*, Andrena labialis ssp. 267  
*Megalastor* subg. 178  
*Megalochila* 305  
*Megalodontes* 107  
**Megalodontesidae** 107  
*Megalodus* 107  
*megalopterus*, Dolerus 80  
*Megalostizus* 225  
*Megaloxyla* 20  
*megalpina*, Pristiphora pallidiventris 73  
*Megapis* 332  
*Megapoliste* 192  
*megapolitana*, Nomada lateralis var. 312  
*megapolitana*, Xiphydria, *Konowia* 116  
*Megapterocheilus* subg. 189  
*megapteroides*, Dolerus asper 79  
*megapterus*, Dolerus 80  
*Megascolia* 147  
*Megascolia* subg. 147  
*Megasiobla* 89  
*Megastizus* 225  
*Megaxyela* 20  
*megerlei*, Bembix 222  
*megerlei*, Crabro 236  
*Megilla* 323  
*Mehelyella* 180  
*mehelyi*, Andrena 273  
*melaclena*, Smicromyrme  
    compacta f. 155  
*melaena*, Bembix 222  
*melaena*, Tenthredopsis litterata 99  
*melaensis*, Chrysis ignita 143  
*melaleuca*, Megachile ericetorum 307  
*melaleucus*, Aphelopus, *Gonatopus* 118  
*Melanapis* subg. 270  
*Melanaporus* 166  
*Melanaporus* 174  
*melanaria*, Mutilla 152  
*melanarius*, Allantus, *Tenthredo* 38  
*melanarius*, Cephus 110  
*melanarius*, Crabro 228  
*melanarius*, Hylaeus 261  
*melanarius*, Palmodes, *Sphex* 214  
*melanaspis*, Nematius 63  
*melanaspis*, Tenthredella fagi 94  
*melanaspis*, Tenthredopsis inornata 99  
*melancholicus*, Oxybelus 242  
*Melandrena* subg. 268  
*melandura*, Andrena 269  
*Melanoanthidium* 300  
*Melanobates* 48  
*Melanobombus* subg. 329  
*melanocarpa*, Pristiphora, *Nematius* 72  
*melanocephala*, Euura, *Nematius* 61  
*melanocephala*, Melitta 269  
*melanocephala*, Mutilla 152  
*melanocephala*, Osmia 299  
*melanocephala*, Tenthredo 51, 78  
*melanocephalum*, Tapinoma,  
    *Formica* 198  
*melanocephalus*, Odynerus, *Vespa* 186  
*melanocera*, Nomada lineola var. 313  
*melanoceraea*, Tenthredo ommissa 97  
*melanocerus*, Nematius 58  
*melanocerus*, Sirex 112  
*melanochra*, Arge, *Tenthredo* 24  
*melanochra*, Tenthredo 86  
*melanochra*, Vespa 187  
*Melanochroiformis* 22  
*Melanocleptes* 126  
*melanocorne*, Lasioglossum  
    fulvicorne 283  
*Melanocrabro* 231  
*melanodus*, Nematius 58  
*melanogaster*, Crossocerus 228  
*melanogaster*, Megachile 306  
*melanogaster*, Osmia 298  
*melanogaster*, Phymatoceropis 52  
*melanoleuca*, Osmia 297  
*melanoleuca*, Tenthredo 85  
*melanoleucus*, Nematius 67  
*melanomerus*, Tenthredo ommissa 97  
*melanomerus*, Allantus marginellus 96  
*melanomitratus*, Halictus 287  
*melanonota*, Rhogogaster viridis 88  
*melanopleura*, Dasyptoda 293  
*melanopoda*, Phaenus 48  
*melanoproctus*, Halictus 283  
*melanoptera*, Andrena  
    thoracica ssp. 269  
*melanoptera*, Aprosthema peletieri 26  
*melanoptera*, Athalia circularis 44  
*melanopteris*, Stizoides, *Stizus* 225  
*Melanopus* 107  
*melanopus*, Emphytus serotinus 40  
*melanopyga*, Megachile 307  
*melanopyga*, Tachytes 240  
*melanopyga*, Tenthredo 49  
*melanopygum*, Trichiosoma 31  
*melanorhoea*, Tenthredo 99  
*Melanoselandria* 52  
*Melanosmia* subg. 298  
*melanosoma*, Eucera 321  
*melanosoma*, Macrophya 84  
*Melanostelis* 302  
*melanosterna*, Selandria, *Tenthredo* 81  
*melanosterna*, Tenthredo 81  
*melanosternus*, Nematius 63  
*melanostigma*, Nematius 54  
*melanostoma*, Eucera 320  
*melanostoma*, Pteronidea 62  
*melanostomum*, Anthidium 303  
*melanostomus*, Nematius 71  
*melanothorax*, Nomada lineola var. 313  
*melanotica*, Crabro vagabundus 227  
*melanoxantha*, Dineura 55  
*Melanthidium* 300  
*melanura*, Andrena 272  
*melanura*, Bembix 222  
*melanura*, Melitta, *Kirbya* 294  
*melanura*, Stelis 302  
*melanurum*, Aprosthema, *Hylotoma* 26  
*melanurum*, Pseudoanthidium,  
    *Anthidium* 302

- melanurus, *Bombus* 331  
*melanurus*, *Nematus* 74  
*melanus*, *Dolerus* elderi 78  
*melas*, Nysson 220  
*melas*, *Tachysphex* 239  
*Melastola* 70  
*Melea* subg. 324  
*Melecta* 325  
*Melecta* subg. 325  
*melectiformis*, *Epeolus* 317  
**Melectini** 325  
*melectoides*, *Phileremus* 318  
*Melicerta* 36  
*meliloti*, *Andrena* 274  
*Melinia* 47  
 melinum, *Proceratium*, *Ponera* 210  
*Melisandra* 81  
*Melissina* 321  
*Melitta* 294  
**Melittidae** 293  
**Melittinae** 293  
*Melittoxena* 318  
*Melitturga* 276  
**Melitturgini** 276  
*Melitturgopsis* 325  
*mellifera*, *Apis* 332  
**Mellininae** 246  
*Mellinogastra* 224  
*Mellinus* 246  
*mellita*, *Phyllotoma* 48  
*melona*, *Andrena* albopunctata ssp. 268  
 membranaceus, *Leptochilus*,  
     *Odynerus* 185  
*Mendacibombus* subg. 329  
*mendax*, *Halictus* 284  
*mendicus*, *Nematus* 62  
*menetriesi*, *Scolia* 148  
*menetriesii*, *Tenthredo* 95  
*menozzii*, *Bothriomyrmex* 197  
*menozzii*, *Formica* truncorum var. 200  
*mentiens*, *Pseudodineura*,  
     *Blennocampa* 75  
*menyanthidis*, *Tenthredo* moniliata 95  
*mephisto*, *Nomada* 314  
*mequignoni*, *Allantus* vespa 97  
*meraca*, *Andrena* 274  
*Meragenia* 165  
*merceti*, *Polistes* 193  
*Mercetia* 120  
*Meria* 149  
*meridiana*, *Macrocera* 322  
*meridianus*, *Ancistrocerus* scoticus 179  
*meridianus*, *Dolerus* germanicus 78  
*meridionale*, *Anthidium* 300  
*meridionalis*, *Anthophora*  
     retusa var. 325  
*meridionalis*, *Bembecinus* 221  
*meridionalis*, *Crabro* 233  
*meridionalis*, *Ectemnius* irridifrons 233  
*meridionalis*, *Ectemnius*, *Crabro* 232  
*meridionalis*, *Eutomostethus*  
     gagathinus 47  
*meridionalis*, *Formica* rufa var. 200  
*meridionalis*, *Halictus* 279  
*meridionalis*, *Hylaeus* 262  
*meridionalis*, *Lasius*, *Formicina* 201  
*meridionalis*, *Melitta* 294  
*meridionalis*, *Nematus* 66  
*meridionalis*, *Nomada* lineola var. 313  
*meridionalis*, *Oxybelus* 243  
*meridionalis*, *Psenulus* 252  
*meridionalis*, *Vespa* crabro 194  
*merops*, *Dolerus* 80  
*Merospis* 231  
*merula*, *Camponotus* 198  
*mervensis*, *Ammophila* 213  
*mervensis*, *Anthophora* 322  
*mervensis*, *Mutilla* 157  
*Mesagenia* 164  
*mesasiatica*, *Chrysis* rutilans var. 135  
**Mesitiinae** 124  
*mesoclerus*, *Halictus* 284  
*Mesocrabro* 231  
*Mesodryinus* 120  
*mesoleus*, *Halictus* 280  
*mesomela*, *Tenthredo* 91  
*mesomelas*, *Bombus* 331  
*Mesoneura* 68  
*Mesonevra* 68  
*mesonotalis*, *Dolerus* variator 78  
*mesopleuralis*, *Dolerus* variator 78  
*mesopleuralis*, *Lindenius*, *Crabro* 235  
*mesopleuralis*, *Tenthredella*  
     mesomelas 91  
*Mesopora* 251  
*mesopyrrha*, *Andrena* 273  
*mesosclerum*, *Lasioglossum*,  
     *Halictus* 284  
*mesostenus*, *Ammatomus*, *Gorytes* 221  
*mesothoracica*, *Pteronidea*  
     melanocephala 61  
*mesoxantha*, *Andrena* 264  
*Mesoxyla* 20  
*messanensis*, *Hylotoma* cyanocrocea 23  
*Messor* 204  
*Metacrabro* 231  
*Metactemnius* 231  
*Metagonatopus* 120  
*metallescens*, *Andrena* 269  
*metallica*, *Abia* 28  
*metallica*, *Andrena* 269  
*metallica*, *Holopyga*, *Hedychrum* 131  
*metallica*, *Spinarge*, *Hylotoma* 25  
*metallica*, *Stromboceros* 81  
*metallicus*, *Eutomostethus*,  
     *Tomostethopsis* 47  
*metallicus*, *Miscophus* 241  
*Metallinella* subg. 299  
*Metallopeus* 89  
*Metallus* 50  
*metapleuris*, *Tenthredopsis* nassata 99  
*Metastenancistrocerus* 180  
*metatarsalis*, *Ammoplanus* 246  
*Metavespula* 194  
*Metepipona* 188  
*Methocha* 149  
*Methocha* 149  
*Methocha* subg. 149  
**Methochinae** 149  
*Metoca* auct. 149  
*Metocha* auct. 149  
*metopias*, *Halictus* 282  
*Metrionotus* 124  
*mexicana*, *Isodontia*, *Sphex* 215  
*meyeri*, *Nannodynerus* 189  
*micado*, *Eumenes* 182  
*micado*, *Vespa* 194  
*Micadophila* 213  
*micans*, *Dolerus* 80  
*micans*, *Larra* 237  
*micans*, *Leptochilus* 186  
*micans*, *Philoctetes* 132  
*micans*, *Rhadnoceraea*, *Tenthredo* 52  
*micans*, *Sphex* 215  
*micans*, *Tachysphex*, *Tachytes* 239  
*micans*, *Tenthredo* 52  
*micipsa*, *Psammophila* 213  
*Micramegila* subg. 322  
*Micrandrena* subg. 270  
*micraulius*, *Nematus* 66  
*microcellatus*, *Myrmoxenus* 207  
*microcephala*, *Formica* 197  
*microcephala*, *Tenthredo* 99  
*microcephalum*, *Liometopum*,  
     *Formica* 197  
*microcephalus*, *Heterarthrus*,  
     *Tenthredo* 49  
*Microcephus* 111  
*microcerus*, *Nematus* 62  
*Microcrabro* 227  
*Microdasypoda* 293  
*Microdiprion* 34  
*microdonta*, *Coelioxys* 304  
*Microdrapetes* 173  
*Microdynerus* 185  
*Microdynerus* subg. 186  
*microdynerus*, *Microdynerus*,  
     *Odynerus* 186  
*Microglossa* 249  
*Microglossella* 249  
*micromegas*, *Tachysphex* 238  
*micronematica*, *Pristiphora* 73  
*Micronematus* 70  
*Microphadnus* 173  
*microphyes*, *Euura*, *Nematus* 61  
*microps*, *Nematus* 57  
*microps*, *Tenthredo* 91  
*Micropterocheilus* subg. 189  
*micropunctata*, *Cerceris* 254  
*microrubra*, *Myrmica* 206  
*Microstelis* 302  
*microstictus*, *Crabro* 232  
*microsticta*, *Nomada* 316  
*microstigma*, *Andrena* 294  
*migrans*, *Andrena* erberi var. 264  
*mikado*, *Megaxyela* 20  
*mikado*, *Mutilla* 157  
*mikagei*, *Macrophya* 87  
*mikhno*, *Panurginus* 276

- miliaris, Euura, *Tenthredo* 61  
 militaris, Macrophyta, *Tenthredo* 86  
 militaris, Nysson 220  
*millefolii*, Meria 146  
*milliati*, Allantus stecki 90  
 miltonota, Euura, *Nematus* 61  
*mitotus*, Camponotus japonica var. 198  
 mimator, Euura 61  
 Mimesa 250  
*mimica*, Cephaleia 102  
 mimulus, Nysson 220  
 Mimumesa 250  
*mimus*, Amauronematus 61  
 mimus, Euura, *Pteronus* 61  
 minamikawai, Crossocerus 228  
*miniatus*, Nematus 62  
 miniatus, Sphecodes 288  
*minima*, Apis florissomnis 295  
*minima*, Fenusa 48  
*minima*, Melecta luctuosa var. 326  
 minima, Stelis 303  
*minimus*, Apis 287  
*minimus*, Mesitius 124  
 minimus, Metrionotus, *Mesitius* 124  
*minoensis*, Ronisia barbara 157  
 minomalis, Onycholyda, *Pamphilus* 103  
 minor, Andrena, *Cilissa* 271  
 minor, Astata 218  
*minor*, Crocisa affinis var. 327  
*minor*, Dasyptoda 293  
 minor, Eopompilus 162  
 minor, Halictus 278  
*minor*, Lophyrus 34  
*minor*, Mesitius 124  
*minor*, Trypoxylon figulus 245  
*Minorixyela* 20  
*minos*, Prosopis hyalinata 262  
 minuma, Holopyga 131  
*minus*, Anthidium 301  
 minus, Trypoxylon 245  
*minuscula*, Nomada 316  
*minusculum*, Anthidium 300  
*minusculus*, Dolerus 79  
*minuta*, Andrena 287  
*minuta*, Coelioxys 304  
*minuta*, Dufourea 290  
*minuta*, Dufourea auct. 290  
*minuta*, Fenella, *Phyllostoma* 47  
*minuta*, Hoplocampa, *Tenthredo* 68  
*minuta*, Nomada 312  
*minuta*, Osmia 298  
*minuta*, Priocnemis, *Pompilus* 163  
*minuta*, Pseudomyrmosa, *Myrmosa* 152  
*minuta*, Stelis 303  
*minuta*, Tenthredo 75,94  
*minuta*, Tiphia 150  
*minuta*, Vespa 186, 259  
*minuta*, Xylocopa 309  
 minutepunctatus, Jucancistrocerus 184  
 minutissima, Andrena 270  
 minutissima, Apis 292  
 minutissima, Macrophyta 87  
*minutissima*, Melinia 48  
 minutissimum, Lasioglossum,  
*Melitta* 284  
 minutissimus, Nomioides, *Apis*  
 minutissimus 292  
*minutissimus*, Stigmus 249  
*minutula*, Andrena, *Melitta* 270  
*minutula*, Arachnospila, *Pompilus* 169  
*minutula*, Nomada solidaginis var. 316  
 minutuloides, Andrena 270  
 minutuloides, Lasioglossum 284  
*minutulus*, Tachysphex 238  
 minutum, Hedychrum 128  
 minutum, Monomorium 205  
 minutus, Armitarsus 84  
 minutus, Diodontus, *Crabro* 247  
*minutus*, Diphlebus 248  
*minutus*, Dolerus 75  
*minutus*, Elampus 133  
*minutus*, Halictus 285  
*minutus*, Hoplisus 224  
 minutus, Parammatobates, *Phiarus* 319  
 minutus, Phiarus 319  
*minutus*, Pompilus 169  
*minutus*, Psen 252  
*minutus*, Tachysphex 237  
*minutus*, Taxonus 39  
*Miocephala* 22  
*mioceras*, Tenthredo 91  
 mioceras, Tenthredo, *Tenthredella* 91  
*miogramma*, Dasylabris italica var. 154  
*mirabilis*, Cercheris 253  
 mirabilis, Chrysis 137  
 mirabilis, Euura, *Pontania* 61  
*miranda*, Nomada jacobaeae var. 312  
 mirandus, Microdynerus,  
*Leptocheilus* 186  
*miricolor*, Dolerus thomsoni 77  
*mironowianus*, Agrobombus  
 schrencki 331  
*miscellus*, Hylaeus 262  
*miscisis*, Smicromyrmex oratoria 155  
**Miscophini** 240  
*Miscophinus* 240  
*miscophoides*, Atelosphex 237  
 miscophoides, Solierella 241  
 Miscophus 240  
*Miscus* 212  
*misellus*, Halictus 283  
*Misepyrus* 123  
*miserabilis*, Bembix 222  
*mishimana*, Nomada 313  
*mistura*, Nomada 315  
 mitaii, Nomada 314  
 mitakensis, Andrena 271  
 mitakensis, Priocnemis 163  
 mitis, Andrena 264  
 mitis, Hoplitis, *Osmia* 296  
*mitjaevi*, Gorytes 220  
*mitratolus*, Halictus melanomitratatus 287  
 mitsuhashii, Tenthredo, *Macrophyta* 98  
 mitsukurii, Eriocampa 42  
 mitsukurii, Tetraloniella, *Tetralonia* 322  
*mittrei*, Cephus 109  
*mixta*, Andrena 264  
*mixta*, Anthophora 323  
*mixta*, Blennocampa 46  
*mixta*, Cercheris 253  
*mixta*, Dasyptoda 293  
*mixta*, Megachile 305  
*mixta*, Nomada succineta var. 316  
*mixta*, Prosopis 261  
*mixta*, Strongylogaster, *Tenthredo* 82  
*mixta*, Vespa 196  
*mixtella*, Nomada 315  
*mixtura*, Andrena limata ssp. 269  
 mixtus, Lasius, *Formica* 201  
 miyabei, Lasioglossum 284  
 miyagino, Psen 251  
 miyamotoi, Andrena 267  
*mizuho*, Crabro nigritarsus 231  
*mizuho*, Ectemnius 231  
 mizuhonis, Symmorphus 191  
 mlokosevitzii, Apterogyna 159  
*mlokosevitzii*, Anthophora 324  
*mlokosevitzii*, Dasylabris 154  
 mlokosievitzii, Bombus 331  
 mlokosievitzii, Holopyga,  
*Hedychrum* 131  
 mlokosiewicz, Colletes 258  
*mlokosiewiczii*, Dasyptoda 293  
 mocsaryi, Alastor, *Odynerus* 178  
*mocsaryi*, Allantus 90  
*mocsaryi*, Ammophila 213  
*mocsaryi*, Athalia rufoscutellata 45  
 mocsaryi, Bombus 331  
*mocsaryi*, Cephus 111  
 mocsaryi, Chelostoma 295  
 mocsaryi, Cleptes 142  
 mocsaryi, Crabro 226  
*mocsaryi*, Dolerus 77  
 mocsaryi, Hoplitis, *Osmia* 297  
*mocsaryi*, Metrionotus 124  
 mocsaryi, Nomada 314  
 mocsaryi, Prionyx, *Sphex* viduatus 215  
 mocsaryi, Spilomena 249  
 mocsaryi, Spintharina, *Spintharis* 141  
 mocsaryi, Tachysphex 239  
*mocsaryi*, Tenthredo 95  
 Moczarellus subg. 162  
 moczari, Arachnospila 169  
 moczari, Sulcomesitius 125  
 moczari, Tachysphex 239  
*moderna*, Anthophora 324  
*modesta*, Apis 300  
*modesta*, Arge 24  
*modesta*, Nomada marshamella var. 314  
*modesta*, Olga 224  
*modestius*, Priophorus 54  
*modestum*, Rhopalum 235  
 modestus, Bombus 330  
 modestus, Bothriomyrmex 197  
 modestus, Characopygus 110  
*modestus*, Dolerus liogaster 80  
*moeschleri*, Ancistrocerus  
 trifasciatus var. 180  
 moeschleri, Nomada 314

- moeschleri*, Rophites 291  
*moestus*, Allantus 90  
*moestus*, Aporinellus, *Pompilus* 168  
*mogadorensis*, Megachile 306  
*Mogerus* 51  
*moiwana*, Strongylogaster 82  
*moiwasanus*, Allantus 91  
*mokrousovi*, Chrysis 137  
*molhusina*, Andrena 268  
*mollesonae*, Formica sanguinea var. 200  
*mollis*, Nematius 73  
*mollis*, Pristiphora, *Nematius* 73  
*moltonii*, Polistes nimpha var. 193  
*moltrechti*, Halictus 281  
*momidziyama*, Smicromyrme 156  
*monacha*, Megilla 325  
*monachus*, Oxybelus 242  
*Monardis* 50  
*mondaensis*, Andrena  
    bimaculata var. 272  
*mondaensis*, Halictus, *Seladonia* 279  
*Monepyris* 123  
*monetiensis*, Allantus *vespa* 97  
*mongol*, Bombus fragrans 330  
*mongolensis*, Ammophila 212  
*mongolensis*, Ammoplanus 246  
*mongolensis*, Argogorytes 221  
*mongolensis*, Crabro yasumatsui 230  
*mongolensis*, Ephutomma,  
    *Smicromyrme* 155  
*mongolensis*, Halictus rubicundus 278  
*mongoliana*, Chrysis 135  
*mongolica*, Arachnospila 169  
*mongolica*, Bembix oculata 222  
*mongolica*, Chrysis 135  
*mongolica*, Dasylabris, *Mutilla* 154  
*mongolica*, Empria, *Poecilosoma* 41  
*mongolica*, Melitturga 276  
*mongolica*, Proformica, *Formica* 203  
*mongolica*, Pseudepipona variegata 188  
*mongolica*, Scolia 147  
*mongolica*, Taimyrmosa, *Myrmosa* 153  
*mongolica*, Tenthredo, *Allantus* 96  
*mongolica*, Vespa 194  
*mongolicum*, Anteon 119  
*mongolicus*, Ancistrocerus,  
    *Odynerus* 179  
*mongolicus*, Colletes 258  
*mongolicus*, Diodontus 247  
*mongolicus*, Dolerus, *Loderus* 77  
*mongolicus*, Euchroeus 140  
*mongolicus*, Eumenes 182  
*mongolicus*, Eumenes  
    coarctatus var. 182  
*mongolicus*, Gorytes sulcifrons 223  
*mongolicus*, Halictus 279  
*mongolicus*, Leptothorax servicus 208  
*mongolicus*, Lindenius panzeri 235  
*mongolicus*, Passaloeocus 248  
*mongolicus*, Philoctetes  
    horvathi var. 132  
*mongolicus*, Philoctetes, *Ellampus* 132  
*mongolicus*, Polistes gallicus var. 193  
*mongolicus*, Stizus 225  
*mongolicus*, Temnothorax,  
    *Leptothorax* 208  
*mongolina*, Discolia 148  
*mongolinfuscatus*, Anoplus  
    infuscatus 172  
*mongoloexigua*, Pristiphora 73  
*mongolofausta*, Pristiphora 73  
*mongololaricis*, Pristiphora 72  
*mongolominutula*, Arachnospila  
    minutula 169  
*mongolopinata*, Arachnospila 169  
*mongoloproximus*, Evagetes  
    proximus 171  
*mongolorufa*, Arachnospila 170  
*mongolorum*, Sirex, *Paururus* 112  
*mongolospissa*, Arachnospila 169  
*Monia* 257  
*Monidia* 257  
*Monilapis* subg. 277  
*moniliata*, Tenthredo 95  
*moniliatus*, Hylaeus 261  
*monilicornis*, Fenella, *Phyllotoma* 48  
*monilicornis*, Passaloeocus 248  
*monilicornis*, Sphecodes, *Melitta* 289  
*monoceros*, Megachile 295  
*monochroum*, Hedychridium 129  
*Monochrysis* 139  
**Monocteninae** 35  
*Monoctenus* 35  
*Monogonatopus* 121  
*monogyniae*, Pristiphora, *Nematius* 73  
*Monomatium* 236  
*Monomorium* 205  
*monomorium*, *Monomorium* 205  
*Monophadnoides* 50  
*Monophadnus* 50  
*Monoplomerus* subg. 186  
*Monoplopus* 108  
*monopunctata*, Smicromyrme  
    hasanensis f. 156  
*Monosapyga* 145  
*Monosmia* 297  
*Monosoma* 43  
*monostega*, Arge 25  
*Monostegia* 42  
*monostictus*, Hylaeus 261  
*monozonus*, Dolerus madidus 77  
*monozonus*, Tenthredo, *Allantus* 92  
*Monsoma* 43  
*monspeliensis*, *Mutilla* 157  
*monstrificum*, Lasioglossum,  
    *Halictus* 284  
*monstrosa*, Nomia 291  
*monstrosus*, Crabro 230  
*montana*, Ametastegia 39  
*montana*, Camponotus  
    herculeanus var. 198  
*montana*, Colletes 258  
*montana*, Eumenes 185  
*montana*, Euura, *Nematius* 61  
*montana*, Larrada 238  
*montana*, Macrophyta, *Tenthredo*  
    montana 86  
*montana*, *Mutilla* 155  
*montana*, *Nomadita* 315  
*montana*, Pemphredon 249  
*montana*, Rhogogaster viridis 92  
*montana*, Sciapteryx 89  
*montana*, Sirex gigas 113  
*montana*, Tenthredo 29  
*montana*, Tenthredo 84  
*montana*, Tenthredo mesomelas 91  
*montandoni*, Coelioxys 304  
*montanum*, Anthidium 300  
*montanus*, Crabro 232, 233  
*montanus*, Epeolus 317  
*montanus*, Oxybelus quadrinotatus 243  
*montanus*, Pison 244  
*montanus*, Priophorus 54  
*montanus*, Psen 252  
*montanus*, Rophites algerus 291  
*montanus*, Tachytes 238  
*montebovensis*, Spatiariella  
    hyalinata 262  
*monticola*, Bombus 330  
*monticola*, Diodontus 247  
*monticola*, Eumenes papillarius 182  
*monticola*, Euura, *Nematius* 61  
*monticola*, Hylaeus 261  
*monticola*, Monophadnus, *Tenthredo* 50  
*monticola*, Tachytes 238  
*monticola*, Trypoxylon 245  
*monticola*, *Vespula* norvegica saxonica  
    morpha 195  
*montislinguarum*, Podalirius  
    furcatus 323  
*montivaga*, Osmia 296  
*montivaga*, Vespa adulterina 194  
*montivagans*, Crabro 232  
*montivagus*, Hylaeus 260  
*mooreana*, Siobla 89  
*mopsus*, Nysson 220  
*moravica*, Allantus sabariensis 91  
*moravica*, Aprosthema maculata 26  
*moravica*, Myrmica 205  
*moravica*, Pristiphora 74  
*moravica*, Smicromyrme montata f. 155  
*moravica*, Stelis 303  
*moravicum*, Tetramorium 209  
*moravicus*, Gorytes 223  
*moravicus*, Miscophus 241  
*morawitsi*, Amauronematus 60  
*morawitzi*, Allantus 91  
*morawitzi*, Ammophila 213  
*morawitzi*, Andrena 272  
*morawitzi*, Anthophora 324, 325  
*morawitzi*, Dasypoda 293  
*morawitzi*, Harpactus 223  
*morawitzi*, Odynerus 180  
*morawitzi*, Prosopis 260  
*morawitzi*, Sapyga 145  
*morawitzi*, Tenthredo 97  
*morawitzi*, *Mutilla* 157  
*morawitzi*, Spinolia, *Chrysis* 141  
*morbillosus*, Halictus 280  
*mordax*, Heriades 296

- moreana*, *Scolia* 148  
*Morgania* 319  
*moricei*, *Amauronematus* 59  
*moricei*, *Anthidium* 302  
*moricei*, *Characopygus* 110  
*moricei*, *Hedychridium* 129  
*moricei*, *Hylaeus*, *Prosopis* 260  
*moricella*, *Andrena* 270  
*moricella*, *Prosopis* 260  
*morio*, *Andrena* 269  
*morio*, *Ceratophorus*, *Pemphredon* 247  
*morio*, *Cladius* 54  
*morio*, *Crossocerus* 229  
*morio*, *Cubitalia*, *Eucera* 319  
*morio*, *Lasioglossum*, *Hylaeus* 284  
*morio*, *Nesoselandria*, *Tenthredo* 81  
*morio*, *Pemphredon* 247  
*morio*, *Pemphredon* 249  
*morio*, *Tenthredo* 46  
*morio*, *Tiphia* auct. 150  
*morianellus*, *Nematus* 63  
*morisitai*, *Lasius* 201  
*Morphanthidium* 300  
*Morphota* 240  
*mortifer*, *Pemphredon* 249  
*morvandica*, *Macrophya* *ribis* 86  
*morvandicus*, *Allantus* *scrophulariae* 97  
*Morysmula* 152  
*mosaicum*, *Anthidium* 300  
*moscaryi*, *Anthidium* 302  
*moscovita*, *Tenthredopsis*, *Perineura* 99  
*moshkarareppus*, *Bombus* *beaticola* 330  
*mosquense*, *Monosoma* 42  
*mosquense*, *Nycteridium* 35  
*Motes* 237  
*mouffetella*, *Melitta* 272  
*mochowense*, *Trypoxylon* 245  
*muchei*, *Polistes* *gallicus* 193  
*muchei*, *Tenthredo* *sulphuripes* 97  
*mucorea*, *Crocisa* *ramosa* var. 327  
*mucoreus*, *Halictus*, *Hylaeus* 279  
*mucronata*, *Euura*, *Nematus* 62  
*mucronata*, *Tenthredo* 91  
*mucronatus*, *Crabro* 229  
*mucronatus*, *Oxybelus*, *Crabro* 243  
*Muellerella* 123  
*muinensis*, *Nomada* 314  
*muliebris*, *Allantus* *cingulatus* 38  
*muliebris*, *Dolerus* *haematodes* 80  
*muliebris*, *Macrophya* *rufipes* 86  
*muliebris*, *Nematinus* *bilineatus* 68  
*mulleolus*, *Osmia* *veridata* 299  
*multicincta*, *Tarpa* 107  
*multicinctus*, *Allantus* 97  
*multicolor*, *Tenthredo* 86  
*Multidentiden* 77  
*multifasciata*, *Strongylogaster*,  
*Tenthredo* 82  
*multifasciata*, *Tenthredo* 82  
*multifasciatus*, *Allantus* 97  
*multiluteus*, *Allantus* *amaenus* 97  
*multiplex*, *Nematus* 61  
*multispinosa*, *Megachile* 307  
*munakatai*, *Megachile* *willughbiella* 308  
*munakatai*, *Nomada* 312  
*munakatai*, *Stigmus* 250  
*munditus*, *Priophorus* 54  
*mundula*, *Melecta* 326  
*mundus*, *Euura*, *Amauronematus* 62  
*muraria*, *Apis* 298, 305  
*murarius*, *Symmorphus*, *Vespa* 191  
*muraviuvi*, *Panurginus* 276  
*murcaria*, *Apis* 317  
*Murciana* 90  
*murgabensis*, *Plenoculus*,  
*Ptygosphex* 241  
*murithianus*, *Sphecodes* 288  
*murorum*, *Crabro* 230  
*murotai*, *Conaspidia* 84  
*murotai*, *Crossocerus* 228  
*murotai*, *Rhynchium*  
*quinquecinctum* 189  
*murotai*, *Sphecodes* 289  
*muscaria*, *Apis* 317  
*muschtaidica*, *Aphaenogaster*  
*gibbosa* 203  
*muscorum*, *Bombus*, *Apis* 331  
*muscorum*, *Leptothorax*, *Myrmica* 204  
*mushaense*, *Rhopalum* 236  
*mustelina*, *Osmia* 299  
*mutabilis*, *Andrena* 267  
*mutabilis*, *Chrysis* *mutabilis* 137  
*mutabilis*, *Corynis*, *Abia* 32  
*mutabilis*, *Nomada* 314  
*mutata*, *Vespa* *dybowskii* 194  
*mutica*, *Abia* 28  
*mutica*, *Mutilla* *erythrocephala* var. 154  
*mutica*, *Myrmica* 204  
*mutica*, *Myrmilla*, *Mutilla* 154  
*mutica*, *Nomada* 315  
*muticus*, *Odynerus* 187  
*mutilata*, *Tenthredo* 79  
*Mutilla* 156  
*mutillaria*, *Methoca* 149  
*mutillarius*, *Gonatopus* 149  
**Mutillidae** 152  
**Mutillinae** 154  
**Mutillini** 156  
*mutilloides*, *Clytrovorus*,  
*Sclerodermus* 124  
*mutilloides*, *Sclerodermus* 124  
*mutinensis*, *Odynerus* *sinuatus* var. 191  
*mutini*, *Andrena* 267  
*mutsu*, *Sphecodes* 290  
*mutsuoides*, *Sphecodes* 289  
*myosotidis*, *Euura*, *Tenthredo* 62  
*myosotidis*, *Pteronus* *fallaciosus* 62  
*Myrmecina* 205  
*Myrmecomorphus* 122  
*myrmecophila*, *Myrmica* 206  
*myrmecophilus*, *Parvoculus* 124  
*Myrmecosalia* 162  
*Myrmentoma* subg. 198  
*Myrmica* 205  
**Myrmicinae** 203  
*Myrmilla* 154  
*Myrmilla* subg. 154  
**Myrmillinae** 154  
*Myrmosa* 152  
*myrmosina*, *Mutilla* 152  
**Myrmosinae** 152  
**Myrmosini** 152  
*Myrmoxenus* 207  
*myrsiniticola*, *Euura*, *Pontania* 62  
*myrtilli*, *Eriocampa* 45  
*myrtilloidica*, *Euura*, *Pontania* 62  
*mysta*, *Chrysis* 137  
*mysta*, *Xoanon* 113  
*Mystacanthophora* subg. 324  
*mystacea*, *Andrena* 272  
*mystaceus*, *Argogorytes*, *Sphex*  
*mystaceus* 221  
*mysticalis*, *Chrysis* 137  
*mysticus*, *Nematus* 64  
*mysticus*, *Tachysphex* 238  
*Mystrophorus* 119  
*Myzinella* 149  
**Myzininae** 149  
*nadezhdae*, *Messor* *kasakorum* 204  
*nadia*, *Megachile* 306  
*nadigi*, *Crocisa* 327  
*nagasakiensis*, *Halictus* 282  
*nagasei*, *Pompilus* 169  
*nagatomii*, *Vespa* *analisis* 193  
*nagyi*, *Mesitius* 124  
*nahariensis*, *Euodynerus* *posticus*  
*punctatissimus* var. 183  
*naiptchianus*, *Bombus* 329  
*nakabusensis*, *Stenemphytus*,  
*Allantus* 43  
*nakayamai*, *Neurotoma* 103  
*nambui*, *Crabro* 230  
*nambui*, *Rhynchium*  
*quinquecinctum* 189  
*nana*, *Andrena*, *Melitta* 270  
*nana*, *Anthophora*  
*quadrifasciata* var. 322  
*nana*, *Anthophora*  
*quadrifasciata* var. 323  
*nana*, *Fenusella*, *Tenthredo* 48  
*nana*, *Larra* 237  
*nana*, *Nomada* 312  
*nana*, *Osmia* 299  
*nana*, *Pontopristia* 61  
*nana*, *Prosopis* *minuta* var. 261  
*nana*, *Stelis* 303  
*nana*, *Tetraloniella*, *Tetralonia* 322  
*nanae*, *Trichiosoma* 31  
*nanaeformis*, *Andrena* 270  
*nanana*, *Andrena* 264  
*Nannaporus* 174  
*Nannodynerus* 189  
*Nannopompilus* 170  
*Nannopterochilus* 189  
*Nanopompilus* 170  
*nansetsurei*, *Symmorphus* 191  
*nanula*, *Andrena* 270  
*nanulus*, *Hylaeus* 285



- nanum, Pseudoanthidium,  
*Anthidium* 302  
*nanus*, *Nematus* 73  
*nanus*, *Sirex* 114  
*napalkovi*, *Agrobombus* adventor 331  
*napata*, *Tenthredo* 99  
*naryschkini*, *Discoelius* 181  
*nasale*, *Anthidium* 302  
*nasalis*, *Andrena* 265  
*nasalis*, *Macrocera* 276  
*nasicolle*, *Anthidium*  
*manicatum* var. 300  
*Nasoxiphia* 115  
*nassata*, *Tenthredopsis*, *Tenthredo* 99  
*nassonovi*, *Temnothorax*,  
*Leptothorax* 208  
*nasuta*, *Anthophora* 323  
*nasuta*, *Apis* 309  
*nasuta*, *Cerceris* 254  
*nasuta*, *Formica* 203  
*nasuta*, *Stelis*, *Anthidium* 302  
*nasutum*, *Trypoxylon* varipes 245  
*nasutus*, *Colletes* 258  
*nasutus*, *Homonotus* 166  
*nasutus*, *Lindenius* 234  
*nasutus*, *Lithurgus* 295  
*nasutus*, *Phileremus* 318  
*navajo*, *Ancistrocerus* 178  
*navasi*, *Nomada* 311  
*navitatis*, *Cerceris* 252  
*nawai*, *Andrena* 264  
*nearctica*, *Monostegia* 43  
*nearcticus*, *Ancistrocerus* 178  
*Neateuchopus* 111  
*nebrascensis*, *Mimesa* 250  
*nebulosa*, *Apis* 275  
*nebulosa*, *Tenthredo* 91  
*nebulosum*, *Aglaostigma*, *Macrophya* 83  
*nebulosus*, *Halictus* kessleri 279  
*nebulosus*, *Nematus* 68  
*neesii*, *Eumenis* mediterranea var. 181  
*negativa*, *Endemyolia*, *Caliroa* 47  
*neglecta*, *Bembix* 222  
*neglecta*, *Euura*, *Nematus* 62  
*neglecta*, *Nomada* 315  
*neglecta*, *Pseudochrysis*, *Chrysis* 140  
*neglecta*, *Tenthredo* 84, 99  
*neglectus*, *Diphlebus* 248  
*neglectus*, *Emphytus* 38  
*neglectus*, *Gorytes* 223  
*neglectus*, *Lasius* 202  
*neglectus*, *Sirex* 112  
*negoroi*, *Hylaeus* chasanensis 259  
*negotiosus*, *Dolerus* 78  
**Nematinae** 53  
*Nematinus* 68  
*Nematoceros* 42  
*Nematus* 69  
*nemesis*, *Macrophya* 86  
*Nemka* 155  
*nemorae*, *Lasioglossum* 282  
*nemoralis*, *Dasyopoda* 293  
*nemoralis*, *Formica* 199  
*nemoralis*, *Lophyrus* 34  
*nemoralis*, *Macrodipteron*, *Lophyrus* 34  
*nemoralis*, *Mutilla* 156  
*nemoralis*, *Neurotoma*, *Tenthredo* 103  
*nemoratus*, *Heterarthrus*, *Hylotoma* 49  
*nemosus*, *Dolerus* 78  
*nemorum*, *Cephalcia* 105  
*nemorum*, *Tenthredo* 34  
*neobesa*, *Tenthredo* 90  
*Neoblepharipus* 227  
*neobule*, *Chrysis* 137  
*Neobusarbia* 81  
*Neocharactus* 51  
*Neocharactus* subg. 51  
*Neochelogenus* 118  
*Neocimbex* 29  
*Neocleptes* 126  
*Neoclista* 51  
*Neodicrogenium* 123  
*Neodiodontus* 247  
*Neodiprion* 34  
*Neodolerus* 77  
*Neodolerus* subg. 79  
*Neofoxia* 251  
*Neogonatopoides* 120  
*Neogonatopus* 120  
*Neoleptochilus* subg. 185  
*Neopareophora* 70  
*Neopelmatopus* 55  
*Neopristocera* 123  
*Neopterocheilus* subg. 187  
*Neopus* 83  
*Neoscleroderma* 124  
*Neosmia* subg. 299  
*Neospinolia* 140  
*Neostromboceros* 81  
*Neosyrista* 111  
*Neotomostethus* 70  
*Neotrogaspidia* 157  
*Neoxeris* 114  
*Neoxyela* 20  
*nepalensis*, *Gonatopus*,  
*Pseudogonatopus* 121  
*Nephridia* 244  
*Nepionema* 70  
*nescia*, *Pemphredon* 248  
*nesiotica*, *Megachile* centuncularis 306  
*nesiotis*, *Halictus* rubicundus 278  
*Nesocrabro* 231  
*Nesodiprion* 34  
*Nesohylaeus* subg. 261  
*Nesoprosopis* subg. 261  
*Nesoselandria* 81  
*nestor*, *Pristiphora*, *Nematus* 73  
*nestorea*, *Megachile* 305  
*Neurepyris* 123  
*Neuropachys* 112  
*Neurosiobla* 83  
*Neurosiobla* subg. 83  
*Neurotoma* 103  
*neuter*, *Halictus* 278  
*nevadensis*, *Selandria* 49  
*nevskiana*, *Chrysis* 137  
*nidulans*, *Apis* 322  
*nidulans*, *Halictus* 278  
*nidulator*, *Odynerus* 191  
*Nielsenii*, *Crabro* 232  
*niemelai*, *Hedychrum* 130  
*nievesii*, *Pristiphora* 74  
*niezabitowskii*, *Athalia* lineolata 44  
*nigella*, *Isodontia*, *Sphex* 215  
*nigella*, *Pristiphora*, *Nematus* 73  
*nigella*, *Selandria* 50  
*nigella*, *Tenthredopsis* 99  
*nigellata*, *Andrena* 271  
*niger*, *Allantus* arcuatus 97  
*niger*, *Cephus* 110  
*niger*, *Crabro* 228  
*niger*, *Crossocerus* 228  
*niger*, *Dinetus* 236  
*niger*, *Dolerus* dubius 78  
*niger*, *Dolerus*, *Tenthredo* 80  
*niger*, *Epyris* 123  
*niger*, *Eumenes* coarctatus var. 181  
*niger*, *Halictus* auct. 283  
*niger*, *Hylaeus* 261  
*niger*, *Lasius*, *Formica* 202  
*niger*, *Liris*, *Sphex* 237  
*niger*, *Miscophus* 241  
*niger*, *Nysson* niger 220  
*niger*, *Panurginus* 276  
*niger*, *Phyllocerus*, *Sirex* 110  
*niger*, *Podalirius* acervorum var. 323  
*niger*, *Psen* 250  
*niger*, *Sphecodes* 289  
*niger*, *Tachybulus* 244  
*Nigerformis* 77  
*nigerrima*, *Mesoneura* opaca 68  
*nigerrima*, *Sphecodes* monilicornis 289  
*nigerrima*, *Sphex* 172  
*nigerrima*, *Tenthredella* fagi 93  
*nigerrima*, *Tenthredo* 53  
*nigerrima*, *Tenthredopsis* nassata 99  
*nigerrimus*, *Anoplius*, *Sphex* 172  
*nigerrimus*, *Halictus* 286  
*nigerrimus*, *Polyergus* 202  
*Nigliris* 237  
*nigra*, *Alysson* pertheesi 219  
*nigra*, *Andrena* scita var. 273  
*nigra*, *Apterogyna* 159  
*nigra*, *Cimbex* betulae 29  
*nigra*, *Dineura* 55  
*nigra*, *Euura* 320  
*nigra*, *Euura* 56  
*nigra*, *Formica* 201  
*nigra*, *Macrophya* 87  
*nigra*, *Macrophya* neglecta 84  
*nigra*, *Macrophya* quadrimaculata 86  
*nigra*, *Melecta* 326  
*nigra*, *Mutilla* 156  
*nigra*, *Myrmosa* 152  
*nigra*, *Pachyprotasis* 87  
*nigra*, *Sapyga* 146  
*nigra*, *Sphex* 237  
*nigra*, *Vespa* crabro 194  
*nigra*, *Vespa* parietum  $\beta$  179

- nigra*, *Cilissa* 294  
*nigrans*, *Dasygaster* 293  
*nigrans*, *Vespa* 193  
*nigrata*, *Formica* 199  
*nigrata*, *Tenthredo* 63  
*nigrata*, *Tenthredopsis coqueberti* 98  
*nigratilobis*, *Tenthredopsis tessellata* 100  
*nigratileuris*, *Tenthredopsis tessellata* 100  
*nigraticutis*, *Tenthredopsis tessellata* 100  
*nigratus*, *Dolerus*, *Tenthredo* 80  
*nigratus*, *Psene* 252  
*nigrescens*, *Andrena marginata* var. 268  
*nigrescens*, *Coelioxys rufescens* 304  
*nigrescens*, *Dasygaster plumipes* 293  
*nigrescens*, *Dolichovespula saxonica* 195  
*nigrescens*, *Eucera* 320  
*nigrescens*, *Leptothorax acervorum* var. 204  
*nigrescens*, *Mutilla europaea* f. 157  
*nigrescens*, *Odynerus dantici* 183  
*nigrescens*, *Phyllotoma* 49  
*nigrescens*, *Podalirius parietinus* 324  
*nigrescens*, *Pontania bella* 63  
*nigrescens*, *Sphecodes gibbus ephippium* 289  
*nigrescens*, *Tachysphex* 239  
*nigrescens*, *Tenthredopsis* 99  
*nigricans*, *Dasygaster argentata* 293  
*nigricans*, *Larrada* 239  
*nigricans*, *Liris*, *Larrada* 237  
*nigricans*, *Lyda* 103  
*nigricans*, *Macrophya superba* 86  
*nigricans*, *Megachile lagopoda* var. 307  
*nigricans*, *Melitta* 294  
*nigricans*, *Priocnemis* 163  
*nigricans*, *Pristiphora*, *Nematus* 73  
*nigricans*, *Tenthredo* 52, 55  
*nigricarpa*, *Periclista* 51  
*nigricephala*, *Leptothorax tuberum* var. 208  
*nigriceps*, *Andrena*, *Melitta* 265  
*nigriceps*, *Anthidium* 301  
*nigriceps*, *Anthophora* 325  
*nigriceps*, *Dolerus* 78  
*nigriceps*, *Hemibeles* 42  
*nigriceps*, *Hylaeus* 261  
*nigriceps*, *Leptocercus* 67  
*nigriceps*, *Myzine* 149  
*nigriceps*, *Pristiphora*, *Nematus* 73  
*nigriceps*, *Smicromyrme* 156  
*nigriceps*, *Tenthredopsis* 99  
*nigrilypeatus*, *Halictus vulpinus* 285  
*nigrilypeatus*, *Odynerus* 190  
*nigricollaris*, *Smicromyrme rufipes* var. 156  
*nigricolle*, *Anthidium* 302  
*nigricolle*, *Poecilosoma* 46  
*nigricollis*, *Nematus* 71  
*nigricollis*, *Tenthredo* 94  
*nigricollis*, *Tenthredopsis* 98  
*nigricolor*, *Camponotus maculatus quadrinotatus* var. 198  
*nigricolor*, *Larra* 239  
*nigricolor*, *Tachysphex*, *Larra* 239  
*nigricoma*, *Trichiosoma* 31  
*nigricornis*, *Amegilla*, *Anthophora* 322  
*nigricornis*, *Ancistrocerus*, *Odynerus* 179  
*nigricornis*, *Antepipona*, *Lionotus* 180  
*nigricornis*, *Blepharipus* 228  
*nigricornis*, *Euura*, *Nematus* 62  
*nigricornis*, *Heriades* 296  
*nigricornis*, *Hylaeus* 259, 284  
*nigricornis*, *Macrocera* 321  
*nigricornis*, *Nematus* 62, 73  
*nigricornis*, *Nomada* 312  
*nigricornis*, *Oxybelus* 242  
*nigricornis*, *Psene* 252  
*nigricornis*, *Panurgus calcaratus* var. 276  
*nigricorpus*, *Pachynematus* 72  
*nigricoxae*, *Cephalcia*, *Lyda* 102  
*nigricoxis*, *Emphytus viennensis* 38  
*nigracula*, *Smicromyrme lewisi* 156  
*nigridens*, *Crabro* 234  
*nigridorsis*, *Amauronematus* 75  
*nigrifacies*, *Prosopis lineolata* var. 261  
*nigrifacies*, *Andrena cineraria* var. 268  
*nigrifacies*, *Eucera* 321  
*nigrifacies*, *Gorytes*, *Hoplisis* 223  
*nigrifacies*, *Prosopis* 260  
*nigrifacies*, *Prosopis annulata* var. 259  
*nigrifacies*, *Prosopis pratensis* var. 262  
*nigrifemur*, *Tenthredo atra* 92, 93  
*nigrifemur*, *Tenthredo limbata* 95  
*nigrifrons*, *Andrena* 267, 270  
*nigrifrons*, *Crabro* 231  
*nigrifrons*, *Eucera* 320  
*nigrifrons*, *Macrophya quadrimaculata* 86  
*nigrifrons*, *Pontania ischnoceros* 61  
*nigrigena*, *Meria* 149  
*nigrilabris*, *Polistes snelleni* f. 192  
*nigrilabris*, *Allantus* 97  
*nigrilabris*, *Eucera* 320  
*nigrilobis*, *Tenthredopsis parvula* 99  
*nigrina*, *Macrophya duodecimpunctata* 85  
*nigrina*, *Nomada lineola* var. 313  
*nigrina*, *Nysson* 220  
*nigrinotum*, *Athalia* 44  
*nigrinotum*, *Melitta leporina* var. 294  
*nigrinotum*, *Polistes bimaculatus* var. 192  
*nigrinum*, *Anthidium* 301  
*nigrinum*, *Rhopalum* 235  
*nigrinus*, *Cephus* 109  
*nigrinus*, *Crabro* 232, 235  
*nigrrior*, *Crabro* 228  
*nigrrior*, *Eumenes formosensis* 182  
*nigrrior*, *Tenthredo marginella* 96  
*nigripectus*, *Allantus* 93  
*nigripectus*, *Lophyrus pini* 33  
*nigripenne*, *Aprosthemum maculatum* 26  
*nigripennis*, *Cephus*, *Eumetabolus* 109  
*nigripennis*, *Sphecodes* 288  
*nigripennis*, *Tenthredo* 24  
*nigripes*, *Anthidium* 301  
*nigripes*, *Anthophora* 324  
*nigripes*, *Arge*, *Tenthredo nigripes* 24  
*nigripes*, *Arge pyrenaica* 24  
*nigripes*, *Dolerus pratensis* 78  
*nigripes*, *Hinatara*, *Fenusa* 49  
*nigripes*, *Lasioglossum*, *Halictus* 285  
*nigripes*, *Myrmica sulcinodis* var. 206  
*nigripes*, *Nysson* 220  
*nigripes*, *Odynerus* 183  
*nigripes*, *Oxybelus* 243  
*nigripes*, *Podalirius acervorum* var. 323  
*nigripes*, *Sphecodes* 287  
*nigripes*, *Sphex* 150  
*nigripes*, *Tenthredo* 51  
*nigripes*, *Tenthredo coreana* 96  
*nigripes*, *Tenthredopsis thomsoni* 99  
*nigripes*, *Trichiosoma* 31  
*nigripleuris*, *Macrophya postica* 86  
*nigripleuris*, *Pristiphora amentorum* 56  
*nigripleuris*, *Tenthredo velox* 96  
*nigripleuris*, *Tenthredo*, *Allantus* 96  
*nigriscutis*, *Macrophya militaris* 86  
*nigriscutum*, *Prosopis pictipes* var. 261  
*nigrisoma*, *Tenthredo* 39  
*nigristernis*, *Diprion pini* 33  
*nigrita*, *Blepharipus* 228  
*nigrita*, *Eucera* 320  
*nigrita*, *Eucera caspica* var. 320  
*nigrita*, *Fenella* 47, 48  
*nigrita*, *Hoplocampa chrysorrhoea* 67  
*nigrita*, *Macrophya* 87  
*nigrita*, *Mimesa* 250  
*nigrita*, *Mutilla* 156  
*nigrita*, *Nomada* 272, 312  
*nigrita*, *Nomioides variegata* 292  
*nigrita*, *Sirex* 113  
*nigrita*, *Tachytes* 237  
*nigrita*, *Tenthredo* 53  
*nigritarsis*, *Allantus* 90  
*nigritarsis*, *Cephus* 111  
*nigritarsis*, *Hylotoma* 23, 24  
*nigritarsis*, *Macrophya diversipes* 85  
*nigritarsis*, *Nematus* 66  
*nigritarsis*, *Tenthredo* 97  
*Nigritarsus*, *Crabro* 231  
*nigritarsus*, *Ectemnius Crabro* 231  
*nigritegulis*, *Athalia bicolor* 44  
*nigritegulis*, *Megalodontes* 107  
*nigrithorax*, *Anthidium manicatum* var. 300  
*nigrithorax*, *Podalirius albigena* var. 323  
*nigritibiis*, *Eriocampa ovata* 42  
*nigritulum*, *Anthidium kohlii* var. 301  
*nigritulus*, *Telostegus* 174  
*nigritus*, *Aphanisus* 50  
*nigritus*, *Blepharipus* 227  
*nigritus*, *Cephus* 111  
*nigritus*, *Crabro* 227

- nigritus*, Crossocerus, *Blepharipus* 228  
*nigritus*, Dolerus 39  
*nigritus*, Hylaeus, *Mellinus* 260  
*nigritus*, Tomostethus, *Tenthredo* 53  
*nigriventris*, Amasis crassicornis 32  
*nigriventris*, Ammophila 213  
*nigriventris*, Andrena 267  
*nigriventris*, Apis 269  
*nigriventris*, Dineura testaceipes 55  
*nigriventris*, Euura, *Nematus* 62  
*nigriventris*, Halictus 284  
*nigriventris*, Larra 237  
*nigriventris*, Megachile 308  
*nigriventris*, Nomada rufipes 316  
*nigriventris*, Nomioides variegata 292  
*nigriventris*, Osmia, *Anthophora* 298  
*nigriventris*, Oxybelus 243  
*nigriventris*, Rhogogaster 88  
*nigriventris*, Tenthredo colon 94  
nigroaenea, Andrena, *Melitta* 269  
nigroaenea, Ceratina 310  
nigroaeneus, Oxybelus 242  
nigrobarbata, Andrena 268  
nigrociliata, Dasylabris maura f. 153  
nigrociliatus, Hortobombus consobrinus 328  
nigroclypeata, Halictus vulpinus 285  
nigroclypeata, Onycholyda 103  
nigroclypeata, Tenthredo 93  
nigrocoerulea, Cephaleia 103  
nigrocuneatus, Hylaeus 261  
nigrodorsata, Tianmuthredo 100  
nigrodorsatus, Nematus 69  
nigroelypeata, Prosopis styriaca var. 261  
nigrofasciata, Andrena scita var. 273  
nigrofasciata, Tenthredo 87  
nigrofemorata, Tenthredo, *Tenthredella* velox 95  
nigroflava, Dineura 55  
nigrofulva, Anthophora 323  
nigrolabiata, Ceratina 310  
nigrolateralis, Tenthredo 92  
nigrolineata, Macrophyta 87  
nigrolineatus, Hylaeus 260  
nigrolineatus, Nematus 64  
nigrolineatus, Tenthredopsis sachalinensis 98  
nigromaculata, Anthophora 324  
nigromaculatus, Nematus 69  
nigromongolica, Pristiphora 73  
nigronodosa, Arge, *Hylotoma* 24  
nigronota, Pteronidea 60  
nigronotata, Pachyprotasis 87  
nigronotata, Pteronidea miliaris 61  
nigronotata, Tenthredopsis elegans 99  
nigronotatus, Tenthredopsis 99  
nigropicta, Tenthredo, *Macrophyta* 93  
nigropilosa, Andrena truncatilabris ssp. 275  
nigropuncticeps, Pristiphora 70  
nigror, Crabro 228  
nigroscutellata, Athalia rufoscutellata 45  
nigroscutellata, Macrophyta brevilabris 87  
nigroscutellata, Rhogogaster viridis 88  
nigroscutellata, Tenthredopsis 98  
nigroscutellatum, Diprion pini 33  
nigroscutellatus, Allantus marginellus 96  
nigrosericea, Andrena 269  
nigrospina, Andrena 272  
nigrosterna, Andrena 267  
nigrosternatus, Nematinus 68  
nigrosternum, Pachyprotasis rapae 87  
nigrostigmata, Mesoneura 69  
nigro-stincta, Andrena 267  
nigrotibia, Eumenes coarctatus ab. 181  
nigrotibialis, Halictus leucozonius 281  
nigrovaginata, Arge 24  
nigroventralis, Hortobombus consobrinus 328  
nigroviolacea, Cimbex variabilis 29  
nigrovittata, Tenthredella olivacea 92  
nigrum, Anthidium oblongatum var. 301  
nigrum, Lasioglossum auct. 283  
nikiforuki, Andrena verae ssp. 267  
nikitae, Leptothorax 208  
nikkoensis, Halictus 278  
nikkoensis, Psenulus 252  
nikkoensis, Spilomena 249  
nikolajevskii, Gorytes 221  
nikolaji, Chrysura 139  
nikolskajae, Heterocoelia 125  
nikolskayae, Halictus, *Seladomia* 279  
nilotica, Vespa 194  
nimbatus, Hylaeus 260  
nimpha, Polistes, *Vespa* 193  
nipanicus, Euodynerus, *Lionotus* 183  
nipanicus, Lionotus tomentosus var. 183  
niponica, Bembix 222  
nippon, Andrena 273  
nippon, Hylaeus 261  
nippon, Sphecodes 289  
nippon, Tenthredo viridatrix 92  
nipponense, Lasioglossum, *Halictus* 285  
nipponense, Arge 24  
nipponensis, Formica fusca var. 200  
nipponensis, Lasius 201  
nipponensis, Lasius fuliginosus var. 201  
nipponica, Ammophila sabulosa 213  
nipponica, Deuteragenia 164  
nipponica, Dolichovespula saxonica 195  
nipponica, Megachile 307  
nipponica, Myrmecina 205  
nipponica, Myrmecina graminicola 205  
nipponica, Nesoselandria 81  
nipponica, Phymatocera 52  
nipponica, Rhogogaster 93  
nipponicola, Lasioglossum 280  
nipponicola, Passaloecus 248  
nipponicus, *Alysson* sibiricus 219  
nipponicus, Hylaeus 260  
nipponicus, Monoctenus 35  
nipponicus, Neostromboceros 81  
nipponicus, Pamphilius zhelochovtsevi 106  
nipponicus, Pseudomalus, *Omalus* 133  
nipponicus, Tachytes 240  
nipponis, Argogorytes 221  
nipponis, Crossocerus heydeni 228  
Nipponodipogon 164  
Nippononysson 219  
Nipponopsis 251  
Nitela 241  
Nitela subg. 241  
Niteliopsis 241  
Nitelopterus 240  
nitens, Andrena 269  
nitens, Brachythops, *Selandria* 76  
nitens, Dolerus 80  
nitens, Nematus 64, 72  
nitens, Prenolepis, *Tapinoma* 203  
nitens, Tapinoma 202  
nitida, Andrena 281  
nitida, Andrena, *Apis* 269  
nitida, Deuteragenia 164  
nitida, Eriocampa 46  
nitida, Pemphredon 249  
nitida, Tenthredo 43  
nitidiceps, Tenthredo, *Tenthredella* 91  
nitidior, Allantus arcuatus 96  
nitidior, Tachysphex 239  
nitidipleuris, Euura, *Amauronematus* 62  
nitidiuscula, Andrena 271  
nitidiuscula, Prosopis 260  
nitidiusculum, Lasioglossum, *Melitta* nitidiusculum 285  
nitidiventrif, Andrena 269, 270  
nitidiventrif, Eucera 320  
nitidula, Ceratina 310  
nitidula, Chrysis 135  
nitidula, Hoplitis, *Osmia* 297  
nitidula, Meria 149  
nitidula, Myrmica 204  
nitidulum, Anthidium 301  
nitidulum, Lasioglossum, *Prosopis* nitidulum 285  
nitidulus, Cleptes, *Ichneumon* 127  
nitidulus, Formicoxenus, *Myrmica* 204  
nitidulus, Halictus 285  
nitidulus, Hylaeus 259  
nitidulus, Sphecodes 288  
nitidus, Megalodontes 107  
nitidus, Tachysphex, *Astata* 239  
nitobei, Clavellaria 30  
nivalabnormis, Arachnospila, *Pompilus* 169  
nivalis, Euura, *Pontania* 62  
nivalis, Nematus 58  
nivalis, Tenthredo 96  
niveata, Andrena 270  
niveata, Osmia, *Anthophora* 298  
niveatus, Bombus 330  
niveatus, Prionyx, *Sphex* 215  
niveatus, Sphecodes olivieri 289  
niveipennis, Sphecodes pellucidus 289  
niveocinctum, Lasioglossum, *Halictus* 281  
niveofasciatus, Colletes 257

- niveopicta, *Pseudepipona* 188  
*nivosa*, *Macrophya* 84  
 Nobandrena subg. 271  
 nobile, *Hedychrum* 130  
 nobile, *Hedychrum*, *Sphex* 130  
*nobiliforme*, *Hedychrum* 130  
 nobilis, *Andrena* 271  
*nobilis*, *Cerceris* 253  
*nobilis*, *Gorytes* 222  
*nobilis*, *Nematus* 60  
 nobilis, *Nomada* 315  
 nobilis, *Ussurinus* 100  
*nobilis*, *Vespa* *magnifica* var. 194  
 noctilio, *Sirex* 112  
 nodicorne, *Lasioglossum*, *Halictus* 285  
 nodicornis, *Rhadinoceraea* 52  
*nodicornis*, *Sphecodes* 287  
*Nodulodentida* 77  
 nodus, *Cataglyphis*, *Formica* 199  
*Nogatopus* 120  
*Nokbibula* 147  
 Nomada 310  
**Nomadinae** 310  
**Nomadini** 310  
*Nomadita* 310  
*Nomadosoma* 311  
 Nomiapis 291  
**Nomiinae** 277, 291  
*Nomineia* 123  
 Nomioides 292  
 Nomioides subg. 292  
**Nomioidinae** 277, 292  
 nomioidis, *Sphecodes* 289  
*nomurae*, *Cimbex* 29  
 nonultimus, *Dolerus* 80  
*nonveilleri*, *Apterogyna* 159  
*nonveilleri*, *Smicromyrme* 156  
 noomen, *Hylaeus* 261  
 nordenae, *Krombeinictus* 217  
 Norumbega 226  
*norvegica*, *Andrena* 264  
*norvegica*, *Megilla* *furcata* var. 323  
*norvegica*, *Pontania* 64  
*norvegica*, *Tentredella* *fuscicornis* 95  
 norvegicus, *Bombus*, *Psithyrus* 329  
*norvegicus*, *Halictus* 283  
 norwegica, *Dolichovespula*, *Vespa* 195  
*norwegica*, *Vespa* var. *adulterina* 194  
 noskiewiczzi, *Nomada* 315  
*nostras*, *Dasylabris* *maura* 153  
*notabilis*, *Nematus* 72  
*notabilis*, *Nysson* 220  
*notabilis*, *Odynerus* 178  
*notanda*, *Pteronidea* *pavida* 63  
 Notandrena subg. 271  
*notata*, *Bembix* 222  
*notata*, *Tenthredo* 64, 86  
*notatiformis*, *Euodynerus* *posticus*  
   *posticus* var. 183  
*notatus*, *Crabro* 230  
*notatus*, *Cryptocheilus*, *Sphex* 161  
*notatus*, *Euodynerus*, *Vespa* 183  
*notatus*, *Nematus* 66  
 notha, *Tenthredo* *notha* 97  
 Nothocrabro 227  
*Nothosphecus* 224  
**Notocyphinae** 160  
*Notoglossa* 242  
*Notogonia* 236  
*Notogonidea* 237  
*Notogonius* 236  
*notomelas*, *Mutilla* 157  
 notomelas, *Tenthredo* 93  
 Notorhopalum 235  
*Notozus* 127  
 nova, *Andrena* 264  
 novaki, *Smicromyrme* 156  
*novellai*, *Melecta* 326  
*novellus*, *Odynerus* 178  
*novemguttata*, *Macrophya* 85  
*novioregensis*, *Nomada* 315  
*novittola*, *Athalia* 44  
 novograbenovi, *Dolerus* 81  
*novograbenovi*, *Tenthredopsis* 83  
 nox, *Chrysis* 137  
 nubecula, *Agenioideus*, *Pompilus* 167  
 nubilus, *Cladius*, *Trichiocampus* 54  
*nucleolus*, *Halictus* *smeathmanellus* 285  
 nudatus, *Prionyx*, *Sphex* 215  
*nudigastra*, *Andrena* 265  
*nudigastroides*, *Andrena*  
   *nudigastra* ssp. 265  
 nudipectus, *Euura*, *Pontania* 62  
*nudipes*, *Priocnemis* 163  
*nudiuscula*, *Melitta* 273  
*nugaricus*, *Eumenes* *coarctatus* 181  
 nugdunensis, *Microdynerus*,  
   *Odynerus* 186  
*numida*, *Anthidium* 301  
*numidica*, *Megachile* *circumcincta* 307  
*nundius*, *Dolerus* 78  
 nuortevai, *Euura*, *Pteronidea* 62  
*nupricola*, *Lasioglossum* 283  
*nupta*, *Cerceris* 254  
 Nurmiya 149  
*nursei*, *Odynerus* 191  
*nursei*, *Palarus* 243  
*nutricius*, *Dolerus* 78  
*nyctea*, *Tenthredo* 85  
*nyctelius*, *Dolerus* 78  
 Nycteridium 35  
 nycthemera, *Andrena* 264  
*Nyctovespa* 193  
*nyemitawa*, *Arge* 24  
*Nygmopolistes* 192  
*nylanderi*, *Andrena* 271  
*nylanderi*, *Formica* *rufa* var. 199  
*nylanderi*, *Halictus* 285  
*nylanderi*, *Psen* 252  
 Nylanderia 202  
*nympphae*, *Bombus* 330, 331  
 Nysso 220  
 Nysson 219  
**Nyssonini** 219  
*Nyssonus* 220  
 Oar 130  
 obducta, *Euura*, *Nematus* 62  
*obenbergeri*,  
   *Smicromyrme* *variabilis* f. 155  
*obensis*, *Myrmica* *limanica* 205  
*oberthuri*, *Vespa* 194  
 obesa, *Arge* 24  
*obesa*, *Tenthredo* 43  
*obesus*, *Allantus* 90  
*obesus*, *Amauronematus* 64  
*obliquus*, *Crabro* 229  
 oblita, *Euura*, *Nematus* 62  
*oblita*, *Pristiphora* 55  
*oblitus*, *Nematus* 62  
 oblongatum, *Anthidium*,  
   *Anthophora* 301  
*oblongus*, *Dolerus* 79  
*oblongus*, *Nematus* 72  
*obnata*, *Macrophya* 87  
 obo, *Ammophila* 213  
 obo, *Diodontus* 247  
*obovata*, *Melitta* 282  
*obscura*, *Andrena* *floreana* var. 273  
*obscura*, *Apis* 268, 269, 287  
*obscura*, *Athalia* *rosae* 44  
*obscura*, *Coelioxys* 305  
*obscura*, *Corynis*, *Tenthredo* 32  
*obscura*, *Ctenotilla* *pectinifera* var. 155  
*obscura*, *Dolerus* *violaceus* 79  
*obscura*, *Emphytus* *perla* 39  
*obscura*, *Megachile* 307  
*obscura*, *Megachile*  
   *kuennemanni* var. 307  
*obscura*, *Mutilla* 157  
*obscura*, *Nomada* 315  
*obscura*, *Prosopis* *variegata* var. 262  
*obscura*, *Tenthredo* 31  
*obscura*, *Tenthredo* 93  
*obscura*, *Thomsonia* 99  
*obscura*, *Vespula* 196  
*obscuraria*, *Tenthredella* *luteipennis* 95  
*obscurata*, *Andrena* 267  
*obscurata*, *Athalia* *rufoscutellata* 45  
*obscurata*, *Lasius* *brunneus* var. 202  
*obscurata*, *Nomioides* *minutissima* 292  
*obscurata*, *Prosopis* 260  
*obscurata*, *Tenthredo* *atra* 97  
*obscurata*, *Tenthredopsis* *austriaca* 99  
*obscuratum*, *Lasioglossum*, *Halictus*  
   *obscuratum* 285  
*obscuratus*, *Lasius* 202  
*obscuratus*, *Monoctenus*, *Lophyrus* 35  
*obscuratus*, *Nematus* 56  
*obscuratus*, *Paracharactus* 51  
*obscurclla*, *Anthophora* *furcata* f. 323  
*obscuricanda*, *Andrena* 273  
*obscuricornis*, *Polistes*  
   *foederata* var. 193  
*Obscuriformis* 31  
*obscurior*, *Nematus* 73  
*obscurior*, *Paravespa* *rex* var. 188  
*obscurior*, *Pteronidea* *salicis* 64

- obscuripennis, Tachysphex,  
*Tachytes* 239  
*obscuripennis*, Tachytes 239  
*obscuripes*, Camponotus 198  
*obscuripes*, Camponotus herculeanus  
 ligniperdus var. 198  
*obscuripes*, Euura, *Nematus* 62  
*obscuriventris*, Mesoneura opaca 68  
*obscurum*, Anthidium diadema var. 300  
*obscurum*, Anthidium latreillei var. 301  
*obscurus*, Allantus 94  
*obscurus*, Allantus costatus 90  
*obscurus*, Amauronematus 65  
*obscurus*, Bombus lapponicus 330  
*obscurus*, Crabro 231  
*obscurus*, Lithurgus cornutus var. 295  
*obscurus*, Mellinus 246  
*obscurus*, Mesitius 125  
*obscurus*, Miscophus *cypriacus* 241  
*obscurus*, Nematus 73  
*obscurus*, Platycampus pectoralis 53  
*obscurus*, Ukayakos, *Mesitius* 125  
*obsidiana*, Aphaenogaster, *Atta* 203  
*Obsoleta*, Apis 240  
*obsoleta*, Neurotoma nemoralis 103  
*obsoleta*, Tenthredo 91  
*obsoletus*, Cleptes 127  
*obsoletus*, Halictus 285  
*obsoletus*, Tachytes, *Apis* 240  
*obstrictus*, Stenancistrocerus,  
*Odynerus* 189  
*obtusata*, Tenthredo 43  
*obtusalis*, *Empria* pulverata 43  
*obtusata*, Coelioxys 304  
*obtusatum*, Anthidium 300  
*Obtusaria* 51  
*obtusidens*, Chrysis 137  
*obtusidentatus*, Odynerus 185  
*obtusifrons*, Nomada, Nomada 315  
*obtusispina*, Coelioxys 305  
*obtusiventris*, Pompilus 163  
*obtusus*, Coelioxys 304  
*obtusus*, Pompiloides 168  
*obversus*, Paracharactus 50  
*occidens*, Lasioglossum, *Halictus* 281  
*occidentia*, Holopyga amoenula 131  
*occipitalis*, Ammophila 212  
*occipitalis*, Andrena 269  
*occipitalis*, Nematus 64  
*occipitalis*, Priocnemis 163  
*occipitosum*, Aglaostigma,  
*Macrophyopsis* 83  
*occitanicum*, Chlorion 214  
*occitanicus*, Palmodes, *Sphex* 214  
*occitanicus*, Sphex 214  
*occultodistinctus*, Bombus  
 lapponicus 330  
*occultus*, Nematus 73  
*oceanicus*, Bombus 330  
*oceanicus*, Leptothorax,  
*Mychothorax* 204  
*ocellaris*, Pemphredon 249  
*ocellata*, Bembix 222  
*ochlerus*, Odynerus 179  
*ochotica*, Abia, *Orientabia* 29  
*ochotica*, Lestica, *Crabro*  
 subterranea 234  
*ochoticus*, Crabro 234  
*ochracea*, Andrena 273  
*ochracea*, Cryptopone, *Ponera* 209  
*ochraceum*, Aglaostigma,  
*Macrophyopsis* 83  
*ochraceus*, Nematus 63  
*ochroleuca*, Amegilla, *Anthophora* 322  
*ochroleuca*, Melicerta 36  
*ochroleucus*, Heptamelus, *Melicerta* 36  
*ochroleucus*, Hortobombus  
 consobrinus 328  
*ochroneurus*, Dolerus 80  
*ochropoda*, Heterarthrus, *Tenthredo* 49  
*ochropoda*, Tenthredo 49  
*ochroptera*, Mimesa 250  
*ochroptera*, Tenthredo 25  
*ochropus*, Arge, *Tenthredo* 24  
*ochropus*, Nematus 57  
*Ochropusiformis* 22  
*ochropyga*, Andrena 270  
*ochrostoma*, Apis 316  
*ochrostoma*, Nomada 311  
*Ocla* 39  
*ocreata*, Apis 274  
*ocreata*, Tenthredo 85  
*octavonotatus*, Solenius 232  
*octoguttata*, Scolia 145  
*octomaculata*, Stelis 302  
*octomaculatus*, Cryptocheilus,  
*Sphex* 162  
*octopunctata*, Bembix 222  
*octosignata*, Megachile 307  
*octostrigata*, Andrena 274  
*oculata*, Bembix oculata 222  
*oculata*, Dimorpha 218  
*oculata*, Nomada 315  
*oculata*, Scolia, *Discolia* 148  
*oculata*, Solenopsis orbula var. 207  
*oculatus*, Hylaenus 260  
*Odontaporus* 166  
*Odontepyrus* 125  
*Odontocrabro* 235  
*Odontodynerus* 180  
*odontogastra*, Dufourea 290  
*Odontolarra* 240  
*odontophora*, Cerceris 254  
*odontophorus*, Belomicrus,  
*Oxybelus* 242  
*Odontophyes* 20  
*Odontopterochilus* 189  
*odontopyga*, Stelis 302  
*odontostoma*, Piagetia 237  
*odontura*, Megachile 305  
*odoratus*, Aphanisus 45  
*odoratus*, Lasius flavus 201  
*odyneroides*, Psiliglossa,  
*Raphiglossa* 188  
*odyneroides*, Raphiglossa 188  
*Odynerus* 186  
*Odynerus* subg. 186  
*oehlkei*, Hylaenus 260  
*oertzeni*, Aneugmenus, *Selandria* 76  
*ogasawarai*, Xiphydria 116  
*ogivalis*, Coelioxys 305  
*ogloblini*, Didineis 219  
*ogloblini*, Selandria 76  
*ogumae*, Pompilus 172  
*ogumae*, Sirex 113  
*ohdeyamanus*, Sphecodes 287  
*ohmonis*, Psen 251  
*ohtsukius*, Sphecodes 290  
*oishii*, Caliroa, *Eriocampoides* 46  
*okabei*, Crabro 226  
*okamotonis*, Nomada 315  
*Okamotonius* 30  
*okeanskajensis*, Dolerus 81  
*okeanskayanum*, Trypoxylon 245  
*Okutanius* 51  
*okuyetsu*, Sphecodes 289  
*olcesei*, Tiphia 150  
*olfaciens*, Euura, *Nematus* olfaciens 62  
*olgae*, Coelioxys mandibularis 304  
*olgae*, Ellampus 128  
*Olgia* 224  
*olhae*, Nomada 315  
*Oligonematus* 70  
*oligospila*, Euura, *Nematus* 62  
*oligotricha*, Andrena  
 bimaculata ssp. 272  
*olivacea*, Bembix olivacea 222  
*olivacea*, Lasius flavus var. 201  
*olivacea*, Tenthredo olivacea 92  
*Olivacedo* 89  
*Olivacedo* subg. 92  
*olivaceus*, Diversobombus  
 ussuriensis 329  
*olivaceus*, Nematus 62  
*olivieri*, Apterogyna 159  
*olivieri*, Cimbex 32  
*olivieri*, Eumenes 180  
*olivieri*, Sphecodes 289  
*olivieri*, Xylocopa 310  
*Olochrysis* 139  
*olympicum*, Lasioglossum, *Halictus*  
 bavarium 282  
*Omachthes* 319  
*Omalus* 131  
*omega*, Macrophyta 87  
*omega*, Tenthredo, *Tenthredella* 98  
*omissa*, Andrena pubescens ssp. 269  
*omissa*, Dolichovespula, *Vespa* 195  
*omissa*, Polistula 193  
*omissa*, Tenthredo, *Allantus* 97  
*omissoides*, Allantus 96  
*omissus*, Nysson 220  
*omnicincta*, Tenthredo vespa 97  
*Omphalius* 225  
*Onchopterocheilus* subg. 189  
*Oncodolerus* 77  
*Oncodolerus* subg. 79  
*oncoaster*, Stenocephus 111  
*Onerarius* 192

- onoides*, Osmia 299  
 Onycholyda 103  
 Onychopterocheilus 187  
 Onychopterocheilus subg. 187  
*opaca*, Andrena 273  
*opaca*, Mesoneura, *Tenthredo* 68  
*opaca*, Nomada 315  
*opaca*, Tenthredo 68  
*opacella*, Rhogogaster 92  
*opaciceps*, Tenthredo, *Tenthredella* 91  
*opacicollis*, Andrena 265  
*opacicollis*, Lagonis, *Rhadinoceraea* 49  
*opacifovea*, Andrena 274  
*opacifrons*, Halictus 283  
*opacifrons*, Sphecodes 288, 289  
*opacipleuris*, Tenthredopsis 100  
*opaciventris*, Andrena 263  
*opacomaculata*, Tenthredo 41  
*opacum*, Trichiosoma 31  
*opacus*, Ammobates 318  
*opacus*, Eumenes mediterraneus var. 182  
*opacus*, Hylaenus 261  
*opacus*, Odynerus 188  
*opacus*, Oxybelus 242  
*opaca*, Formica 199  
*opalina*, Scolia 147  
*opalipennis*, Cerceris 253  
*opalipennis*, Liris, *Notogonia* 237  
 Opandrena subg. 271  
*opima*, Osmia 299  
*opinabilis*, Polistes 193  
*opinata*, Arachnospila, *Pompilus* 169  
*Oplomerus* 186  
*Oplopus* 186  
*optata*, Andrena rufomaculata ssp. 275  
*optimellus*, Halictus 282  
*opulenta*, Eumenes coarctatus var. 181  
*opulenta*, Tenthredopsis 98  
*oralis*, Andrena 271  
*oraniense*, Anthidium 300  
*oraniensis*, Ammobates, *Phileremus* 318  
*oraniensis*, Ancyra 319  
*oraniensis*, Andrena 267  
*oraniensis*, Megachile ericetorum 307  
*Oraniensis*, Tachytes 239  
*oraria*, Tenthredo 95  
*orarius*, Pachynematus 73  
*oratoria*, Phytetopoda,  
*Smicromyrme* 155  
*oratorius*, Haplogonatopus,  
*Gonatopus* 121  
*orbatus*, Thyreus, *Crocisa* 327  
*orbiculatus*, Ammoplanus 246  
*orbitalis*, Antepipona, *Odynerus* 180  
*orbitalis*, Lionotus 190  
*orbitalis*, Nematus 60  
*orbitalis*, Odynerus 190  
*orbitalis*, Periclista albida 51  
*orbitalis*, Pompilus 168  
*orbitalis*, Tenthredella atra 93  
*orbitalis*, Tenthredo 99  
*orchonensis*, Dolerus 78  
*ordinaria*, Tiphia 150  
*ordubadensis* Cladius 54  
*ordubadensis*, Eumenes pomiformis 181  
*ordubadensis*, Polistes omissus var. 193  
*orenburgensis*, Andrena 268  
*orenburgensis*, Nomada bifida 316  
*orenburgensis*, Stenodynerus,  
*Odynerus* 190  
 Oreocrabro 231  
 Oreomelissa subg. 271  
*oresterus*, Psen 251  
*Orientabia* 28  
*orientale*, Liometopum 197  
*orientaliella*, Andrena 267  
*orientalis*, Allantus 90  
*orientalis*, Anthophora 325  
*orientalis*, Athalia spinarum 44  
*orientalis*, Cladius 111  
*orientalis*, Cladius 54  
*orientalis*, Coelioxys 304  
*orientalis*, Dolerus germanicus 78  
*orientalis*, Eopompilus 162  
*orientalis*, Eucera nigrilabris 320  
*orientalis*, Evages 171  
*orientalis*, Formica fusca picea 200  
*orientalis*, Formicoxenus 204  
*orientalis*, Halictus cylindricus 285  
*orientalis*, Hemichroa 67  
*orientalis*, Janus 110  
*orientalis*, Lasius 201  
*orientalis*, Lasius fuliginosus var. 201  
*orientalis*, Liometopum  
 microcephalum var. 197  
*orientalis*, Macrophyta rufipes 86  
*orientalis*, Mimesa 251  
*orientalis*, Mychothorax acervorum 204  
*orientalis*, Myrmica ruginodis 206  
*orientalis*, Odontepyrus, *Prosierola* 125  
*orientalis*, Odynerus 180  
*orientalis*, Odynerus trifasciatus 180  
*orientalis*, Osmia 298  
*orientalis*, Palmodes, *Sphex* 215  
*orientalis*, Priocnemis fuscus 164  
*orientalis*, Prosopigastra 237  
*orientalis*, Prosopigastra  
 punctatissima 237  
*orientalis*, Psen 251  
*orientalis*, Smicromyrme 156  
*orientalis*, Solenopsis fugax 207  
*orientalis*, Sphecodes 289  
*orientalis*, Sterictiphora, *Schizocera* 26  
*orientalis*, Thrinax contigua 82  
*orientalis*, Urocerus gigas 113  
*orientalis*, Vespa 194  
*orientausa*, Arachnospila 169  
*orienticola*, Andrena humilis var. 265  
*orientis*, Anoplonyx 53  
*orientis*, Euchroeus 144  
*orientis*, Halictus morbillosus r. 280  
*orientis*, Tachytes panzeri 240  
*Orientoheriades* 296  
*Orientosmia* 297  
*Orientotrachusa* 301  
*Orlovinga* 147  
*ormillatus*, Hylaenus 262  
*ornata*, Andrena 273  
*ornata*, Cerceris 254  
*ornata*, Cimbex 29  
*ornata*, Cimbex femorata 29  
*ornata*, Polistes 193  
*ornata*, Polistes gallica var. 193  
*ornata*, Tenthredo 99  
*ornata*, Tenthredo, *Allantus* 90  
*ornata*, Tenthredopsis, *Tenthredo* 99  
*ornatipennis*, Tachysphex 239  
*ornatrix*, Tenthredopsis 99  
*ornatula*, Stelis, *Gyrostroma* 302  
*ornatulus*, Loderus 79  
*ornatum*, Anthidium 300  
*ornatum*, Rhynchium 187  
*ornatus*, Anoplonyx 53  
*ornatus*, Crabro 233  
*ornatus*, Crossocerus 229  
*ornatus*, Philanthus 252  
*ornatus*, Stizus 225  
*Ornicrabro* 227  
*orontis*, Halictus 280  
*Orthocrabro* 227  
*Orthoxybelus* 242  
*ortinga*, Pristiphora 72  
**Orussidae** 117  
**Orussinae** 117  
**Orussoidea** 117  
**Orussomorpha** 117  
 Orussus 117  
 oryssoides, Tenthredo 95  
 Oryttus 224  
**Osirini** 319  
 Osmia 295, 297  
 Osmia subg. 299  
**Osmiini** 295  
*ossetica*, Proformica 203  
*ostiaria*, Pristiphora 73  
*osychniukae*, Andrena 275  
*osychniukae*, Andrena  
 abbreviata ssp. 275  
*osychniuki*, Andrena 275  
*osychniuki*, Andrena abbreviata ssp. 275  
 Othyreus 226  
*ottomana*, Macrophyta 86  
*ottomanus*, Hoplisus 224  
*ouchii*, Lasius 201  
*ouralensis*, Tenthredo, *Allantus* 93  
*ovalis*, Crossocerus 229  
*ovata*, Andrena 274  
*ovata*, Eriocampa, *Tenthredo* ovata 42  
*ovata*, Holopyga var. b 131  
*ovata*, Sphex clypeata 234  
*ovata*, Tenthredo 42  
*ovatula*, Andrena, *Melitta* 274  
*ovatus*, Anoplonyx, *Leptopus* 53  
*ovatus*, Crabro 229  
*ovicula*, Corynis 32  
*ovidorsalis*, Tiphia 150  
*ovina*, Andrena 269  
*ovinella*, Andrena 269  
*ovinigris*, Tiphia 150

- oviventris, Ancistrocerus, *Odynerus* 179  
**Oxaeninae** 263  
*oxalata*, Pseudoselandria 76  
*oxyacanthae*, Trichiosoma 31  
**Oxybelini** 241  
*Oxybeloides* 241  
*Oxybelus* 242  
*Oxybiastes* 317  
*Oxycleptes* 126  
*Oxycrabo* 227  
*oxygona*, Anthophora 324  
*ozbeki*, Megachile circumcincta 307  
  
*pacca*, Sirex 145  
*Pachycephus* 110  
*pachycerus*, Dolerus 77  
*pachycerus*, Nematus 62  
*Pachygonatopus* 120  
*Pachynematus* 55  
*Pachyosmia* 297  
*Pachyprotasis* 87  
*pachysoma*, Spheg 216  
*pachyvalvis*, Lygaeonematus 71  
*pacifica*, Apis 306  
*pacifica*, Arge ciliaris 23  
*pacifica*, Blasticotoma filiceti 27  
*pacifica*, Dolichovespula, *Vespula* 195  
*pacifica*, Macrophya 89  
*pacifica*, Nomada 315  
*pacifica*, Orientabia 28  
*pacifica*, Pemphredon 249  
*pacifica*, Polistes 193  
*pacifica*, Polistes gallica var. 193  
*pacifica*, Vespula norvegica 195  
*pacificum*, Trypoxylon 245  
*pacificus*, Agenioideus 167  
*pacificus*, Amauronematus 65  
*pacificus*, Auplopus 165  
*pacificus*, Crabro 229  
*pacificus*, Lestiphorus, Gorytes 224  
*pacificus*, Simplemphytus 39  
*pacis*, Leptothorax, *Doronomyrmex* 204  
*padi*, Aneugmenus, *Tenthredo* 76  
*paedemontana*, Mutilla 155  
*Paedia* 318  
*paedidus*, Lygaeonematus 72  
*paehypoda*, Anthophora vulpina 323  
*pagana*, Arge, *Tenthredo* pagana 24  
*paganettii*, Andrena fimbriata 267  
*Paganiformis* 22  
*paganiformis*, Arge 24  
*pahanganus*, Halictus 287  
*Paidia* 318  
*palaeanarctica*, Scolia 148  
*palaeanarctica*, Xiphodria 116  
*Palaeocimbex* 29  
*palaestinensis*, Eumenes dubius  
     dubius var. 181  
*palaestinus*, Cephus pygmaeus 109  
**Palarini** 243  
*Palarus* 243  
*palaestinensis*, Anthophora  
     acervorum 323  
  
*palaestinensis*, Apterogyna 159  
*palaestinensis*, Artiotilla biguttata f. 157  
*Palisotius* 192  
*paliuri*, Andrena 271  
 Pallandrena subg. 271  
*pallasi*, Elampus, *Notozus* 128  
*pallasii*, Onychopterocheilus,  
     *Pterocheilus* 187  
*pallens*, Cimbex 29  
*pallens*, Euura, *Pteronius* 62  
*pallens*, Lasioglossum, *Halictus* 281  
*pallens*, Lygaeonematus 56  
*palleola*, Dasypoda 293  
*pallescens*, Colletes 257  
*pallescens*, Crocisa 326  
*pallescens*, Euura, *Nematus* 62  
*pallescens*, Hylaeus 260  
*pallescens*, Monophadnus, *Tenthredo* 50  
*pallescens*, Plagiopsis 202  
*pallescens*, Vespa 222  
*palliatus*, Nematus 60  
*pallicarpus*, Nematus 56  
*palliceps*, Nematus 57  
*pallicornis*, Nematus 70  
*pallicoxa*, Pristiphora 73  
*pallida*, Bembix 222  
*pallida*, Cataglyphis 199  
*pallida*, Cimbex 29  
*pallida*, Dineura 67  
*pallida*, Eucera caspica var. 320  
*pallida*, Gilpinia, *Lophyrus* 34  
*pallida*, Pristiphora, *Lygaeonematus* 73  
*pallida*, Selandria 67  
*pallida*, Sirex augur 113  
*pallida*, Tenthredo 67  
*pallida*, Tenthredopsis 99  
*pallidenotata*, Nomada 313  
*pallidicarpus*, Nematus 56  
*pallidiceps*, Nematus 57  
*pallidicincta*, Apis 258  
*pallidicornis*, Aproceros, *Aprosthemata* 25  
*pallidicornis*, Hylaeus 259  
*pallididens*, Prosopis 261  
*pallidilabris*, Macrophya 85  
*pallidinervis*, Arge 24  
*pallidior*, Euura, *Amauronematus* 62  
*pallidipalpis*, Crossocerus 229  
*pallidipes*, Cephus 109  
*pallidipes*, Emphytus 39  
*pallidipes*, Halictus 286  
*pallidipes*, Hylotoma 22  
*pallidipes*, Lophyrus 34  
*pallidipes*, Pamphilius 105  
*palliditarsis*, Mimesa 251  
*palliditarsus*, Nematus  
     brachyacanthus 66  
*pallidiventralis*, Nematus 62  
*pallidiventris*, Pristiphora, *Tenthredo* 73  
*pallidiventris*, Tenthredo fulva 91  
*pallidocaudatus*, Bombus  
     lapponicus 330  
*pallidopicta*, Cerceris 253  
*pallidula*, Cephalcia, *Cephaleia* 102  
  
*pallidula*, Pheidole, *Myrmica* 207  
*pallidula*, Pristiphora 71  
*pallidula*, Tenthredo 96  
*pallidulus*, Sphecodes 282  
*pallidum*, Lasioglossum, *Nomioides* 285  
*pallidus*, Cimbex 29  
*pallidus*, Gonatopus, *Dicondylus* 121  
*pallidus*, Pamphilius 105  
*pallilomum*, Lasioglossum, *Halictus* 285  
*pallilomus*, Halictus 286  
*pallimacula*, Dolerus 40  
*pallimacula*, Dolerus 41  
*pallimacula*, Empria, *Dolerus* 41  
*pallimaculatus*, Emphytus 41  
*pallior*, Tenthredella flavicornis 91  
*pallipes*, Ametastegia, *Tenthredo* 39  
*pallipes*, Andrena ephippium var. 270  
*pallipes*, Ardis, *Dolerus* 45  
*pallipes*, Birka 76  
*pallipes*, Calameuta, *Astutus* 109  
*pallipes*, Cladius 54  
*pallipes*, Cleptes 127  
*pallipes*, Dineura 68  
*pallipes*, Dolerus 45  
*pallipes*, Emphytus 39  
*pallipes*, Halictus 285  
*pallipes*, Hylotoma 22  
*pallipes*, Hylotoma 34  
*pallipes*, Microdiprion, *Hylotoma* 34  
*pallipes*, Monsoma, *Poecilosoma* 43  
*pallipes*, Pamphilius, *Lyda* 105  
*pallipes*, Pristiphora 70  
*pallipes*, Psenulus, *Sphex* 252  
*pallipes*, Schizocera 26  
*pallipes*, Tenthredo 71  
*pallipes*, Trachelus 111  
*pallispinosa*, Nomada 315  
*pallitarsis*, Andrena 271  
*palliventris*, Nematus 62  
*palmaria*, Spheg 229  
*palmata*, Tenthredo 79  
*palmatus*, Crabro 226  
*palmatus*, Crossocerus 229  
*palmeni*, Nomada 315  
*palmicornis* Cladius 54  
*palmipes*, Apis 323  
*palmipes*, Crossocerus, *Sphex*  
     palmipes 229  
*palmipes*, Spheg 150  
*palmipes*, Spheg 227  
*Palmodes* 214  
*paludosa*, Isodontia, *Sphex* 215  
*palumboi*, Andrena 264  
*palumbula*, Larra 237  
*palustris*, Prosopis 261  
*palustris*, Tenthredo 77, 92  
*pamirensis*, Andrena nigriceps ssp. 265  
*pamirensis*, Polistes 192  
*pamirica*, Anthophora fuliginosa 324  
*pamiricola*, Anthophora parietina 324  
*pamiricus*, Euodynerus dantici 183  
*pammelas*, Crossocerus 227  
**Pamphiliidae** 101

- Pamphiliinae** 102  
**Pamphilioidea** 101  
*Pamphilius* 104  
*pamyrensis*, *Tenthredo* 97  
*annonica*, *Eucera* 321  
*annonica*, *Mimesa* 250  
*annonica*, *Osmia* 279  
*annonicus*, *Alastor biegelebeni* 178  
*annonicus*, *Halictus* 278  
*panurgimorpha*, *Andrena* 265  
**Panurginae** 263, 275  
**Panurgini** 275  
*Panurginus* 276  
*Panurgus* 276  
*panzeri*, *Bembix* 222  
*panzeri*, *Chrysis* 127  
*panzeri*, *Elampus*, *Chrysis* 128  
*panzeri*, *Emphytus* 40  
*panzeri*, *Hylaeus* 261  
*panzeri*, *Lindeni*, *Crabro* 235  
*Panzeri*, *Lyrops* 240  
*panzeri*, *Megachile leucomalla* var. 306  
*panzeri*, *Mutilla* 157  
*panzeri*, *Myzine* 146  
*panzeri*, *Nomada* 315  
*panzeri*, *Nysson* 220  
*panzeri*, *Osmia* 299  
*panzeri*, *Tachysphex*, *Tachytes* 239  
*panzeri*, *Tachytes* 240  
*panzeri*, *Tachytes*, *Lyrops panzeri* 240  
*panzeriana*, *Nomada* 315  
*papagorum*, *Crabro* 231  
*papaveris*, *Hoplitis*, *Apis* 297  
*papillarius*, *Eumenes*, *Sphex* 182  
*papillosa*, *Euura*, *Tenthredo* 63  
*pappi*, *Metrionotus* 124  
*pappi*, *Metrionotus* 124  
*pappi*, *Stenodynerus* 190  
*pappi*, *Tenthredo* 92  
*Papuacrabro* 231  
*par*, *Euchroeus*, *Spinolia* 140  
*Paraanthidium* subg. 303  
*Parabatozonus* 167  
*Parabia* 28  
*Paracalyzoa* 123  
*Paraceramius* 244  
*Paracharactus* 51  
*paraclypeata*, *Eucera* 321  
*Paracoelioxys* 304  
*Paradicondylus* 120  
*paradiformis*, *Hylaeus* 261  
*Paradirus* 110  
*paradoxa*, *Bembix* 222  
*paradoxa*, *Eucera* 321  
*paradoxa*, *Solierella* 241  
*paradoxum*, *Pararrhynchium*,  
*Odynerus* 187  
*paradoxus*, *Bombus confusus* 327  
*paradoxus*, *Pararhabdopyris* 124  
*Paradryinus* 119  
*Paraferreola* auct. 173  
*Paragonatopus* 120  
*Paragymnomerus* 187  
*Paralaelius* 123  
*parallela*, *Pristiphora*, *Nematus* 73  
*Paralolepsis* 236  
*paralienus*, *Lasius* 202  
*parallela*, *Vespa* 193  
*parallelus*, *Apethymus*, *Emphytus* 40  
*parallelus*, *Aphanisus* 45  
*parallelus*, *Nematus* 58  
*Paralloma* 83  
*Paramacrophya* 84  
*Paramacropis* subg. 294  
*Paramasaakia* 51  
*Paramegilla* subg. 324  
*Parammobatodes* 319  
*paramushirensis*, *Hemichroa* 67  
*Paramyrme* 155  
*Paramyrmosa* 152  
*Paramyrmosa* 152  
*paramythenis*, *Andrena* 275  
*Parandrenella* subg. 271  
*Paranematus* 69  
*Paranoplius* 172  
*Paranothyreus* 225, 226  
*Paranothyreus* 226  
*Paranteon* 118  
*Paranthidiellum* 301  
*Paraphyllotoma* 47  
*Parapiagetia* 237  
*Parapison* 244  
*Paraprosopis* subg. 261  
*Pararhabdopyris* 124  
*Pararrhynchium* 187  
*Paraselandria* 76  
*Parasierola* 125  
*Parasiobla* 43  
*Parasphex* 215  
*Parastalor* subg. 178  
*Parastatis* 89  
*Parastenancistrocerus* subg. 184  
*Parastromboceros* 75  
*Parasymmorphus* subg. 190  
*Parataxonus* 40  
*Paratenthredo* 90  
*Paratenthredo* subg. 92  
*parathoracica*, *Andrena* 269  
*Parathyreopus* 225, 226  
*Paratropancistrocerus* subg. 189  
*Paravespa* 187  
*Paravespa* subg. 188  
*Paravespula* 195  
*Paraxyela* 20  
*parcivalvis*, *Dineura*, *Pontania* 55  
*Pardesiya* 147  
*pardoii*, *Bembix* 222  
*Pareiaxenus* 173  
*Parellampus* 127  
*Pareophora* 51  
*Parepyris* 123  
*Pareuodynerus* subg. 183  
*Parhypodrynerus* 189  
*paria*, *Tenthredo moniliata* 95  
*parietina*, *Apis* 324  
*parietina*, *Megachile*, *Apis* 305  
*parietina*, *Osmia* 299  
*parietinus*, *Ancistrocerus*, *Vespa* 179  
*parietoides*, *Odynerus parietum* var. 179  
*parietum*, *Ancistrocerus*, *Vespa* 179  
*parietum*, *Vespa* 178  
*parietum*, *Vespa* 195  
*paripunctata*, *Mutilla* 157  
*parisiensis*, *Lyda* 103  
*parisinus*, *Crabro* 243  
*Parisobrachium* 123  
*parkanense*, *Hedychridium* 129  
*parkanensis*, *Crabro* 235  
*parkanensis*, *Lindeni*, *Crabro* 235  
*parkeri*, *Blepharipus* 227  
*parki*, *Acantholyda* 102  
*Parna* 51  
*parnasius*, *Allantus* 90  
*Parnopes* 142  
**Parnopini** 142  
*Parodontodynerus* 188  
*Paroxycrabro* 227  
*parreyssi*, *Cephus* 111  
*parreyssii*, *Syrista*, *Cephus* 111  
*parumcrinitus*, *Heriades* 295  
*parumpunctata*, *Andrena* 268  
*parumpunctatus*, *Halictus* 286  
*parva*, *Nomada jacobaeae* var. 313  
*parva*, *Pristiphora*, *Nematus* 73  
*parviceps*, *Allantus* 91  
*parviceps*, *Andrena* 268  
*parviceps*, *Fenusia* 49  
*parvicornis*, *Cubitalia*, *Eucera* 320  
*parvicornis*, *Nematus* 72  
*parvicorpus*, *Crossocerus wesmaeli* 230  
*Parvocolus* 124  
*paroula*, *Acantholyda* 101  
*paroula*, *Apis* 292  
*paroula*, *Coelioxys* 304  
*paroula*, *Colletes* 264  
*paroula*, *Empria*, *Poecilosoma* 41  
*paroula*, *Eucera* 321  
*paroula*, *Euura*, *Nematus* 63  
*paroula*, *Larrada* 239  
*paroula*, *Megachile* 306  
*paroula*, *Melitta* 270  
*paroula*, *Mutilla* 153  
*paroula*, *Osmia* 296  
*paroula*, *Priocnemis* 163  
*paroula*, *Pseudodineura*, *Tenthredo* 75  
*paroula*, *Tenthredo* 68  
*paroula*, *Tenthredo* 75  
*paroula*, *Tenthredopsis* 100  
*parouloides*, *Andrena* 270  
*parouulum*, *Anthidium* 302  
*parvulum*, *Lasioglossum*, *Hylaeus* 285  
*parvulus*, *Belomicrus*, *Oxybelus* 242  
*parouulus*, *Crabro* 232  
*parvulus*, *Diodontus*, *Passaloeocus* 247  
*parouulus*, *Hylaeus* 259  
*parvulus*, *Microdynerus*, *Odynerus* 186  
*parouulus*, *Odynerus* 180  
*parvulus*, *Temnothorax*, *Myrmica* 208  
*parvus*, *Cephus*, *Pseudocephus* 109



- parvus*, Cladius 54  
*parvus*, Pseudohemiteaxonus 81  
*pascuorum*, Bombus, *Apis* 331  
*Pasites* 319  
*Pasitomachthes* 319  
*Passaloecus* 247  
*passerinii*, Macrophyta diversipes 85  
*pastoralis*, Nomada 315  
*Patagiata* s.dubg. 261  
*patagiatus*, Bombus 328  
*patagiatus*, Odynerus 186  
*patellarius*, Spheg 226  
*patellata*, Prosopis 259  
*patellata*, Tenthredo 39  
*patellatus*, Colletes 258  
*patellatus*, Crabro 226  
*patellatus*, Halictus patellatus 278  
*patriarchalis*, Chrysis 141  
*patricius*, Dolerus 78  
*patrizii*, Myzinella 149  
*patula*, Coelioxys 305  
*patulum*, Lasioglossum, *Halictus*  
*pygmaeum* 285  
*paucipunctatus*, Thrinax,  
*Hemiteaxonus* 83  
*paucisquama*, Andrena 268  
*paula*, Andrena 267  
*pauli*, Odynerus 185  
*paulus*, Hylaeus 260  
*pauperata*, Andrena 268  
*pauperata*, Mutilla 155  
*pauperatulellus*, Halictus 287  
*pauperatus*, Blepharipus 230  
*pauperculum*, Anthidiellum 300  
*pauperculus*, Hylaeus 259  
*pauperior*, Tenthredella temula 93  
*Paururus* 112  
*pauxillum*, Lasioglossum, *Hylaeus* 285  
*pauxillus* Crabro 228  
*paveli*, Andrena 272  
*pavesii*, Chrysis 137  
*pavida*, Euura, *Nematus* 63  
*pavida*, Tenthredo 86  
*pavidus*, *Nematus* 63  
*Pavlovskia* 241  
*pavlovskii*, Crabro 231  
*pavlovskii*, Holopyga 131  
*Pavostelis* 302  
*paxillorum*, Heriades 302  
*pecki*, Embolemus 122  
*Pectinia* 52  
*pectinicornis*, Cladius, *Tenthredo* 54  
*pectinicornis*, Tarpa 107  
*pectinifera*, Mutilla 155  
*pectinipes*, Evagetes, *Sphex* 171  
*pectoralis*, Andrena 269  
*pectoralis*, Hylaeus 261  
*pectoralis*, Monophadnus spinolae 51  
*pectoralis*, *Nematus* 57  
*pectoralis*, Nomada 315  
*pectoralis*, Polistes 193  
*pectoraloides*, Andrena 269  
*peculiaris*, Pseudepipona,  
*Odynerus* 188  
*pedata*, Anthophora 325  
*pedatoria*, Pachyprotasis, *Macrophyta* 87  
*pedestris*, Gonatopus 121  
*pedestris*, Sapyga 145  
*pedestris*, Tenthredo 77  
*pedestris*, Tenthredo 78  
*pedetes*, Cerceris 254  
*pedicellaris*, Ectemnius, *Crabro* 232  
*pedicellaris*, Pompilus 171  
*pedicornis*, Osmia 299  
*Pedinomma* 122  
*pedunculatus*, Eumenes, *Vespa* 182  
*pedunculi*, Euura, *Nematus* 63  
*peineae*, Eriocampa 42  
*pektusanense*, Prenanteon 119  
*pelagius*, Halictus confusus 278  
*peletieri*, Aprosthema, *Schizocerus*  
*peletieri* 26  
*peletieri*, *Nematus* 70  
*pellucida*, Brugmoia 141  
*pellucida*, Chrysis 141  
*pellucida*, Tenthredo 94, 95  
*pellucida*, Trichrysis, *Chrysis* 141  
*pellucidus*, Euchroeus 141  
*pellucidus*, Sphecodes 289  
*Pelmatopus* 75  
*Pelopoes* 214  
*pelops*, Astatus 218  
*peltaria*, Spheg 226  
*peltarius*, Crabro, *Sphex* 226  
*Pemphilis* 225, 226  
*Pemphredon* 248  
**Pemphredoninae** 246  
**Pemphredonini** 246  
*pendelica*, Andrena potentillae ssp. 273  
*pendulus*, Stigmus 249, 250  
*penicillata*, Cerceris 253  
*peninsularis*, Cerceris 254  
*peninsularis*, Tenthredo 95  
*pennata*, Anthophora 323  
*penninum*, Tetramorium  
*caespitum* var. 209  
*pennipes*, *Apis* 325  
*Pentachrysis* 140  
*Pentadentosmia* subg. 297  
*pentandrae*, *Nematus* 56  
**Pepsinae** 160, 161  
**Pepsini** 161  
*percitus*, Miscophus 241  
*peregrinator*, Phymatoceroopsis,  
*Neotomostethus* 52  
*peregrinum*, Lasioglossum, *Halictus* 285  
*peregrinus*, Hylaeus 260  
*peregrinus*, Lamprocolletes 268  
*perézi*, Eucera 320  
*perezi*, Megachile 306  
*perfecta*, Meria 149  
*perforata*, Nomia 291  
*perforator*, Colletes 258  
*perforatus*, Odynerus 185  
*pergibbus*, Sphecodes 288  
*Periclista* 51  
*Periclista* subg. 51  
*Periclistoptera* 45  
*Perineura* 88  
*Perinevra* 88  
*Perisemus* 125  
*Perisierola* 125  
*Perissostigmus* 246  
*perkinsi*, Allantus 97  
*perkinsi*, Amauronematus 59  
*perkinsi*, Halictus confusus 278  
*perkioemaekii*, Pachynematus 61  
*perla*, Ametastegia, *Tenthredo* 39  
*perlata*, Tenthredo 99  
*perlautus*, Halictus villosulus 287  
*permicus*, Halictus 283  
*permixtus*, Entomognathus 234  
*pernotata*, Euodynerus notatus var. 183  
*Perodryinus* 120  
*Peronistilus* 109  
*perplexa*, Anthophora 325  
*perplexans*, Lasioglossum, *Halictus* 285  
*perplexus*, Trichomyrmex,  
*Monomorium* 209  
*perrini*, Chrysis 137  
*perrisi*, Ammoplanus 246  
*perrisi*, Chrysis analis var. 137  
*perrisi*, Stizus 225  
*perrisi*, Stizus perrisi 225  
*perrisii*, Anthidium 301  
*persa*, Allantus 90  
*persiana*, Myrmica bergi 205  
*persica*, Chrysidea 133  
*persica*, Tenthredo, *Allantus* 90  
*persicum*, Pamphilius 105  
*persicus*, Bombus 331  
*persicus*, Sphecodes 289  
*personata*, Megilla 323  
*perspicax*, Tetramorium 209  
*perspicax*, Tetramorium caespitum st.  
*ferox* var. 209  
*perspicillaris*, *Nematus* 61  
*pertheesi*, Alysson 219  
*perturbator*, Priocnemis, *Sphex* 164  
*peruana*, *Vespa* 195  
*perversus*, Sphecodes 290  
*pervigil*, *Apis* 300  
*pesenkoi*, Hylaeus 260  
*Petalosternon* subg. 325  
*petiolaris*, Anoplius 172  
*petiolaris*, Mutilla 154, 156  
*petiolata*, Dasylabris, *Mutilla* 154  
*petiolatus*, Solenius 233  
*petiolatus*, Stigmatodipogon,  
*Dipogon* 165  
*petri*, Elampus, *Notozus* 128  
*petrimagni*, Leptocimbex 30  
*petroselini*, Andrena 271  
*petrosus*, Halictus smeathmanellus 285  
*Peus* 89  
*pfankuchi*, Hylaeus, *Prosopis* 260  
*Phaenusa* 48  
*phaeoptera*, Andrena 269  
*phaeoptera*, Stelis, *Apis* 303  
*phaeopterus*, Crabro 226

- phaeopterus*, Priophorus 54  
*phalerata*, Vespa 189  
*phaleratus*, Pterocheilus, *Vespa* 189  
*phaneroleuca*, Andrena 264  
*phaneromelas*, Andrena 267  
*phantasma*, Xanthosirex 113  
*phantoma*, Hoplocampa 68  
*pharaonis*, Halictus 285  
*pharaonis*, Monomorium, *Formica* 205  
*pharaonum*, Notogonia 237  
*Phauloclavelia* 173  
*Pheidole* 207  
*Phi* 180  
*Phiarus* 318  
*philadelphica*, Isodontia 215  
*philadelphicus*, Sphex 215  
**Philanthinae** 252  
**Philanthini** 255  
*Philanthinus* 255  
*philanthoides*, Crabro 234  
*Philanthus* 255  
*Phileremus* 318  
*philippi*, Tachysphex 238  
*Philoctetes* 132  
*Philoponidea* 256  
*Philoponoides* 256  
*Philoponus* 256  
*Phlebotrophia* 49  
*phoenicia*, Nomada ruficornis var. 315  
*Phoenusa* 48  
*Phor* 311  
*phryne*, Chrysis phryne 137  
*phthiscus*, Cephus 109  
*phthisica*, Selandria 82  
*phylicifoliae*, Pontania 56  
*Phyllocolpa* 55  
*phyllocolpa*, Blennocampa 45  
*Phyllococcus* 110  
*Phyllopais* 75  
*Phyllotoma* 49  
*Phymatocera* 52  
*Phymatoceriola* 52  
*Phymatoceroopsis* 52  
*Phymatoceros* 52  
*Physetopoda* 155  
*Physoscelis* 235  
*Physoscelus* 235  
*piccioliana*, Nomada 315  
*picciolii*, Andrena 267  
*picea*, Apis 305  
*picea*, Formica 201  
*picea*, Formica auct. 200  
*picea*, Melitta 288  
*picea*, Tenthredo 86  
*piceae*, Lophyrus 34  
*piceae*, Nematus 72  
*piceae*, Pleroneura 20  
*piceanus*, Symmorphus 191  
*piceicornis*, Andrena 267  
*piceus*, Camponotus part. auct. 198  
*picicornis*, Megachile 306  
*picicornis*, Melitta 267  
*picicornis*, Mimesa 251  
*picicornis*, Sphex 214  
*picicornis*, Anthophora 322  
*picinus*, Dolerus 79  
*picipes*, Dolerus, *Tenthredo* 80  
*picipes*, Melitta 274  
*picipes*, Methocha, *Methoca* 149  
*picistigma*, Colletes 258  
*picta*, Apis 316  
*picta*, Rhogogaster, *Tenthredo* 88  
*picta*, Tenthredo 93  
*picta*, Tiphia 149  
*picta*, Xiphydria 116  
*picticeps*, Tenthredopsis 100  
*picticollis*, Bembix 222  
*picticollis*, Nematus 64  
*picticornis*, Dryudella, *Astatus* 218  
*picticornis*, Stizus 225  
*picticornis*, Tenthredo 98  
*picticus*, Stenodynerus, *Lionotus* 190  
*pictifrons*, Pamphilius 105  
*pictior*, Polistes 193  
*pictipes*, Ancistrocerus 179  
*pictipes*, Andrena 268  
*pictipes*, Crabro 232  
*pictipes*, Hylaeus 261  
*pictipes*, Oxybelus 243  
*pictipes*, Tenthredo 88  
*pictus*, Crabro 232  
*pictus*, Crabro 245  
*pictus*, Cryptocampus 62  
*pictus*, Dinetus, *Crabro* 245  
*pictus*, Epeolus 317  
*pictus*, Odynerus 178, 189  
*pictus*, Passalococcus 248  
*pieli*, Gorytes 223  
*pieli*, Megachile lagopoda 307  
*pieli*, Nematus 66  
*pielianus*, Coelioxys 305  
*pigeoti*, Tenthredo rossii 90  
*Pikonema* 55  
*pileata*, Andrena allosa ssp. 267  
*pilichi*, Rophites 291  
*pilicornis*, Cladius 54  
*pilicornis*, Crossocerus 228  
*pilicornis*, Hylotoma 23  
*pilicornis*, Osmia 299  
*pilicornis*, Sphecodes 288  
*pilicornis*, Tenthredo 25  
*pilicruriformis*, Megachile 307  
*pilicrus*, Megachile 307  
*pilidens*, Megachile 306  
*pilifrons*, Sphecodes 289  
*pilipennis*, Bethylus 150  
*pilipes*, Andrena 272  
*pilipes*, Apis 323  
*piliserra*, Amauronematus 65  
*piliserra*, Euura, *Nematus* 63  
*piliserra*, Xyela 21  
*piliventris*, Nomada 315  
*pillichii*, Andrena 270  
*pillichii*, Eucera 320  
*pillichii*, Priocnemis 164  
*pilosa*, Abia 28  
*pilosa*, Anthophora 325  
*pilosa*, Nomada 315  
*pilosella*, Anthophora 324  
*pilosella*, Vespa 195  
*pilosellus*, Pompilus pectinipes var. 171  
*pilosodorsata*, Andrena coitana var. 271  
*pilosula*, Melitta 267  
*pilosulus*, Cephus 109  
*pilosus*, Cenomus 249  
*pilosus*, Colletes 257  
*pilosus*, Epeolus 317  
*pilosus*, Nematus willigkiae 69  
*Pilpomus* 165  
*pineti*, Lophyrus 34  
*pineti*, Nematus 62  
*pineti*, Tenthredo 33  
*pingshiangensis*, Anthophora 323  
*pinguiculus*, Sphecodes 289  
*pinguis*, Dryudella, *Larra* 218  
*pinguis*, Larra 218  
*pinguis*, Phyllotoma 49  
*pini*, Diprion, *Tenthredo* 33  
*pini*, Tenthredo 33  
*pini*, Tenthredo 70  
*Pinicola* 20  
*Pinicolites* 20  
*pinirufa*, Tenthredo 34  
*pinivora*, Acantholyda posticalis 102  
*pionganensis*, Vespa japonica 196  
*pipiens*, Anthophora 323  
*pirica*, Acantholyda 102  
*Pironistilomorphus* 109  
*pisarskii*, Formica 199  
*pisarskii*, Myrmica 206  
*pisinna*, Tenthredopsis 100  
*Pison* 244  
*Pisonitus* 244  
*Pisonoides* 244  
*pisonoides*, Solierella, *Niteliopsis* 241  
*Pisum* 244  
*Pitaliris* 237  
*pithyusae*, Leptothorax 208  
*placida*, Andrena 268  
*placida*, Chrysis 137  
*plaga*, Tenthredopsis lactiflua 99  
*plagiata*, Anthophora, *Megilla* 324  
*plagiata*, Hoplocampa, *Tenthredo* 68  
*plagiata*, Pteronidea ferruginea 59  
*plagiatus*, Loderus ornatulus 79  
*plagiatus*, Monophadnus ruficruris 50  
*plagiocephalus*, Megalodontes, *Tarpa* 107  
*Plagioceps* 173  
*Plagiolepis* 202  
*plana*, Abia 28  
*plana*, Empria, *Poecilosoma* 41  
*plana*, Monardis, *Tenthredo* 50  
*plana*, Myrmica lobicornis var. 205  
*plana*, Tenthredo 50  
*planatus*, Dolerus 79  
*planiceps*, Gonatopus 121  
*planiceps*, Selandria 76  
*planidens*, Systropha 291

- planifrons*, Crabro 231  
*planifrons*, Pamphilius 105  
*planiventris*, Discoelius 181  
*plantaris*, Andrena 274  
*plantaris*, Hylaeus 259  
*Plastandrena* subg. 272  
*Plastanoxus* 124  
*Plastodryinus* 120  
*Platycampus* 69  
*platycera*, Osmia 297  
*platyceros*, Nematus 73  
*platyceros*, Tenthredo 84  
*platycerus*, Lagidina, *Tenthredo*  
*platycerus* 84  
*platycerus*, Nematus 75  
*platycerus*, Stauronematus, *Nematus* 75  
*platycestus*, Halictus auct. 280  
*Platyderes* 166  
*Platygonatopus* 120  
*Platyhalictus* subg. 278  
*platyodonta*, Osmia 296  
*platyrhina*, Eucera 320  
*platystigma*, Euura, *Pteronidea* 63  
*platythorax*, Lasius 202  
*Platyxiphidria* 115  
*plebeja*, Tenthredo 93  
*Plectrogonatopoides* 120  
*Plectrogonatopus* 120  
*Plenoculus* 241  
*Pleroneura* 20  
*plesius*, Priophorus 54  
*plesius*, Stenocrabro 229  
*pleuralis*, Athalia rufoscutellata 45  
*pleuralis*, Halictus 286  
*pleuralis*, Macrophyta rustica 86  
*pleuripunctatus*, Gorytes, *Hoplisis*  
*pleuripunctatus* 223  
*pleuris*, Hoplocampa rutilicornis 68  
*pleuritica*, Arge, *Hylotoma* 24  
*pleuritica*, Blennocampa affinis 48  
*pleuritica*, Platycampus luridiventris 70  
*pleuritica*, Tenthredella cunyi 94  
*pleuritica*, Tenthredopsis sordida 100  
*Pleuriticiformis* 22  
*pleuriticus*, Monophadnus 51  
*pleuronotata*, Tenthredo semenovi 95  
*pleurosternalis*, Tenthredopsis  
*nassata* 99  
*pleurostictus*, Nematus 62  
*plicatus*, Hedychrum gerstaeckeri 130  
*pliginskii*, Elampus, *Notozus* 128  
*pliginskiji*, Skorikovia,  
*Smicromyrme* 155  
*Plistotrichia* 319  
*plumbea*, Sphex 171  
*plumicornis*, Hylaeus 259  
*plumipes*, Andrena 293  
*plumipes*, Anthophora, *Apis* 323  
*plumipes*, Sphex 216  
*plumosa*, *Apis* 264  
*plurifasciata*, Prosopis 260  
*plurinotata*, Hoplomerus  
*armeniacus* var. 187  
*plurinotata*, Melecta 326  
*Pluschtschewskiy*, Crabro 234  
*pluschtschewskiy*, Lestica, *Crabro* 234  
*pluschtschewskii*, Stizus 225  
*pluto*, Lasioglossum matianense 284  
*Plutobethylus* 123  
*podagra*, Anthophora 324  
*podagrica*, Pemphredon 249  
*podagricus*, Crossocerus, *Crabro* 227  
*Podalirius* 323  
*Podalonia* 213  
*Podasys* 293  
*podkumokensis*, Rhogogaster  
*chlorosoma* 88  
*podolica*, Andrena 274  
*podolicum*, Lasioglossum, *Halictus*  
*podolicum* 285  
*poecila*, Tenthredo 95  
*Poecilagenia* 165  
*Poecilageniella* 165  
*Poecilandrena* subg. 272  
*poecilechroa*, Tenthredo 91  
*poecilonota*, Euura, *Nematus* 63  
*poecilopus*, Tenthredo 86  
*poecilopus*, Tenthredo 95  
*Poecilosoma* 40  
*Poecilostoma* 40  
*Poecilostomidea* 40  
*Poecilotiphia* 149  
*poecilus*, Odynerus 187  
*poggii*, Odynerus dantici 183  
*Pogonius* 164  
*polaris*, Bombus auct. 327  
*polaris*, Euura, *Nematus* 63  
*polaris*, Pontania 59  
*polaris*, Rhogogaster 88  
*Polemistus* 249  
*polevoiae*, Hylaeus 260  
*Policrabro* 231  
*Polistarchus* 192  
*Polistella* subg. 192  
*Polistes* 192  
*Polistes* subg. 192  
**Polistinae** 192  
*Polistoides* 192  
*Polistula* 192  
*polita*, Andrena 273  
*polita*, Cerceris 253  
*polita*, Euura, *Nematus* 63  
*polita*, Megachile 308  
*polita*, Myzine 149  
*polita*, Nomia 291  
*polita*, Psammophila 213  
*polita*, Tiphia 150  
*politum*, Lasioglossum, *Hylaeus*  
*politum* 285  
*politus*, Lophyrus 34  
*pollinosa*, Eucera 320  
*pollinosa*, Tetraloniella, *Macrocera* 322  
*pollux*, Aporus, *Pompilus* 166  
*Polochridium* 145  
*Polochrum* 145  
*polonica*, Ancistrocerus nigricornis 179  
*polonica*, Eucera 320  
*Polybates* 50  
*Polybiapis* 311  
*polycentris*, Coelioxys 304  
*polycytena*, Formica 200  
*Polyergus* 202  
*polygona*, Tenthredo 109  
*polygoni*, Ametastegia 40  
*Polynematus* 55  
*Polyodontus* 141  
*Polyplamus* 122  
*polypori*, Holopedina 124  
*Polyselandria* 75  
*polyspilus*, Pontania 67  
*Polystichophagus* 82  
*polytoma*, Gilpinia, *Lophyrus* 34  
*polytomus*, Lophyrus 33  
*pomiformis*, Eumenes, *Vespa* 182  
*pomorum*, Bombus, *Bremus* 331  
**Pompilidae** 160  
*pompiliformis*, Larra 237  
*pompiliformis*, Tachysphex, *Larra* 239  
**Pompilinae** 160, 166  
**Pompilini** 167  
*Pompilinus* 172  
*Pompiliodes* 172  
*Pompiloides* 172  
*Pompilogaster* 173  
*Pompilogastra* 173  
**Pompiloidea** 160  
*Pompilus* 171  
*Ponera* 209  
**Ponerinae** 209  
*ponojense*, Nematus fastosus 65  
*ponomarevae*, Anthophora 325  
*Pontania* 55  
*pontanioides*, Pteronidea 68  
*Pontanthidium* 300  
*pontica*, Astatia 218  
*pontica*, Lasius alienus var. 202  
*pontica*, Solenopsis fugax var. 207  
*ponticus*, Ancistrocerus claripennis 179  
*ponticus*, Halictus 278  
*ponticus*, Odynerus germanicus 190  
*pontomoravicus*, Evagetes,  
*Psammochares* 171  
*Pontoprastia* 55  
*Poodolerus* 77  
*Poodolerus* subg. 79  
*popilliavora*, Tiphia 150  
*popofiana*, Pontania 64  
*popovi*, Biastes 318  
*popovi*, Chrysis 137  
*popovi*, Gonatopus 121  
*popovi*, Xiphidria 116  
*popovici*, Coelioxys 305  
*popovii*, Parnopes 142  
*Poppia* 81  
*poppii*, Amauronematus 57  
*poppii*, Pontania 63  
*populi*, Cladius, *Trichiocampus* 54  
*populi*, Nematus 56  
*porcus*, Halictus 283, 285

- porosicus*, Colletes 258  
*porphyrea*, Chrysura, *Chrysis*  
   *oraniensis* 139  
*portchinski*, Crocisa 326  
*portchinskii*, Bembix 222  
*portchinsky*, Bombus 328  
*portschinskii*, Phytetopoda, *Mutilla* 155  
*porzana*, Andrena tibialis ssp. 272  
*posthuma*, Nomada 315  
*posthumus*, Halictus 278  
*postica*, Andrena 267  
*postica*, Macrophyta, *Tenthredo* 86  
*posticus*, Euodynerus, *Odynerus* 183  
*posticus*, Nematius 55  
*postscutellatus*, Odynerus 183  
*postumus*, Nematius 71  
*postzonatus*, Diversobombus  
   *ussuriensis* 329  
*potanini*, Arge 24  
*potanini*, Euxiphydria, *Xiphydria* 115  
*potanini*, Leptocimbex 30  
*potanini*, Macrophyta 86  
*potanini*, Scolia 148  
*potanini*, Xiphydria 115  
*potentillae*, Andrena 273  
*potulenta*, Strongylogastroidea 39  
*poupillieri*, Andrena 274  
*poutzilo*, Cerceris 254  
*pouzdranensis*, Smicromyrme 156  
*praecociformis*, Andrena 267  
*praecox*, Andrena, *Apis* 264  
*praecox*, Epitactus 57  
*praemarinus*, Bombus 328  
*praestans*, Hoplitis, *Osmia* 297  
*praestans*, Melitturga 276  
*praeteritorum*, Pseudocephaleia,  
   *Dictyolyda* 106  
*praetexta*, Andrena 272  
*praeustus*, Epeolus 317  
*prahenda*, Cerceris 253  
*Praia* 30  
*prasina*, Notozus spina ab. 128  
*prasinipes*, Macrophyta 85  
*prasinus*, Nematius 67  
*pratensis*, *Apis* 269  
*pratensis*, Dolerus, *Tenthredo* 78  
*pratensis*, Formica 200  
*pratensis*, Mellinus 246  
*pratensis*, *Tenthredo* 102  
*pratensis*, Vespa 193, 262  
*Pratensisformis* 77  
*pratorum*, Bombus, *Apis* 330  
*pratorum*, Dolerus, *Tenthredo* 79  
*pratostepposus*, Leptothorax 208  
*pravei*, Arge 23  
*pravei*, Cephus 109  
*pravei*, Empria 41  
*pravus*, Euura, *Amauronematus* 63  
*praeatermissus*, Liris, *Notogonia*  
   *festinans* 237  
*Prenanteon* 119  
*Prenolepis* 202  
*pressilabris*, Formica 199  
*pressilabris*, Formica exsecta 199  
*pretiosa*, Andrena 268  
*pretiosa*, Nomada fucata var. 313  
*pribaicalica*, Euura, *Amauronematus* 63  
*priesneri*, Discoelius 181  
*Priesnerius* 160  
*primorensis*, Cleptes 127  
*princeps*, Hoplitis, *Osmia* 297  
*princeps*, Nematius 69  
**Priocnemini** 162  
*Priocnemiocheilus* 161  
*Priocnemis* 162  
*Priocnemis* subg. 162  
*Priocnemissus* 162  
*Priocnemus* 162  
*Priocnocnemis* 162  
*Priocnocnemus* 162  
*Priononyx* 215  
*Prionophorus* 54  
**Prionychini** 214  
*Prionyx* 215  
*Priophorus* 53  
*Priophorus* subg. 54  
*prisca*, Cerceris 255  
*prisma*, Scolia 145  
*prismatica*, Megacampsomeris,  
   *Scolia* 147  
*Pristicampus* 70  
*Pristiphora* 70  
*pristiphorinus*, Amauronematus 59  
*pristiphoroides*, Euura,  
   *Amauronematus* 63  
*Pristis* 68  
*Pristocera* 123  
**Pristocerinae** 123  
*Pristogonatopus* 120  
*Pristola* 70  
*Proanthidium* subg. 301  
*proauriceps*, Chrysis 137  
*problematica*, Andrena 275  
*problematicum*, Lasioglossum,  
   *Hylaeus* 285  
*problematicus*, Sphecodes 288  
*procer*, Scolia 147  
*procera*, *Tenthredo* 95  
**Proceratiinae** 210  
*Proceratium* 210  
*procerus*, Allogonatopus 120  
*procerus*, Psen 252  
*procerus*, Synnevrus 220  
*Prochridium* 132  
*Procimbex* 28  
*procrustes*, Gorytes 223  
*prodichroa*, Chrysura 143  
*productulus*, Epeolus 317  
*productus*, Epeolus 317  
*Profenusa* 52  
*Proformica* 203  
*proformicarum*, Rossomyrmex 203  
*Progoniozus* 125  
*projectus*, Tachysphex 239  
*proletarius*, Crabro 232  
*prolongata*, Xiphydria, *Tenthredo* 116  
*Pronaeus* 211  
*propheta*, Tremex 113  
*propinqua*, Andrena 273  
*propinqua*, Tenthredo 97  
*propinqua*, Thyromelecta, *Thyreus* 326  
*propinquus*, Crabro 229  
*propinquus*, Hylaeus 260  
*propinquus*, Nematius 57  
*Propodea* 89  
*Propodea* subg. 92  
*propodeale*, Hedychridium 129  
*Prorhynchium* 187  
*Prosalus* 166  
*Prosanteon* 118  
*Prosceliphron* 214  
*Proscleroderma* 151  
*Prosecris* 40  
*proshchalykini*, Hedychridium 129  
*Prosopigastra* 237  
*Prosopsis* 259  
*Prosopsis* subg. 261  
*prospera*, *Tenthredo* 94  
*Protelostegus* 174  
*Protemphytus* 39  
*Protemphytus* subg. 39  
*protensus*, Nematius 70  
*proteus*, Bombus 328  
*proteus*, Nomada 312  
*Protoctemnius* 231  
*Protodynerus* 190  
*Prothalicus* subg. 278  
*Protosmia* 299  
*Protosmia* subg. 300  
*Protostelis* subg. 302  
*Prototaxonus* 82  
*Protothyreopus* 231  
*prototypus*, Nematius 63  
*provancheri*, Pemphredon 249  
*provecta*, Megachile willughbiella 308  
*provida*, *Tenthredo*, *Allantus* 98  
*providens*, Atta 207  
*providens*, *Tenthredo* 98  
*providentia*, *Tenthredo* 98  
*provinciale*, Anthidium 301  
*provincialis*, Megachile 306  
*proviridis*, Holopyga ovata 131  
*Proxiandrena* subg. 273  
*proxima*, Andrena 267  
*proxima*, Andrena, *Melitta* 273  
*proxima*, Athalia, *Tenthredo* 44  
*proxima*, Eucera 320  
*proxima*, Euura, *Nematius* 63  
*proxima*, Hylotoma 24  
*proxima*, *Osmia* 296  
*proximatum*, Lasioglossum,  
   *Halictus* 281  
*proximum*, Chelostoma 296  
*proximus*, Crabro 229  
*proximus*, Evagetes part. 171  
*proximus*, Evagetes, *Pompilus* 171  
*proximus*, Gorytes 223  
*proximus*, Nematius 63  
*proximus*, Odynerus 190

- Proxylocopa subg. 310  
 prshewalskii, Anthophora 325  
 pruinosis, Sphex 216  
 pruni, Nematius 71  
 pruni, Pareophora, *Tenthredo* 51  
 pruni, Priophorus 54  
 pruni, Trichiocampus 55  
 prunicola, Hoplocampa 68  
 przewalskyi, Argogorytes 221  
 Psacas 130  
 Psammaecius 224  
 psammobiam, Tachytes 239  
 psammobius, Oxybelus 243  
 psammobius, Tachysphex, *Tachytes* 239  
 Psammochares 172  
 Psammocharoides 170  
**Psammoderini** 173  
 Psammophila 213  
 psammophilus, Lasius 202  
 Psammosphex 237  
 pschornwalcheri, Nematius 61  
 Psen 251  
 Pseneo 251  
 Psenia 251  
**Psenini** 250  
 Psenulus 251  
 Psenus 251  
 pseudabnormis, Pompilus 169  
 Pseudagenia 165  
 Pseudapis 292  
 Pseudarge 25  
 Pseudbedychrum 130  
 Pseudepipona 188  
 Pseudepipona subg. 188  
 Pseudevagetes 167  
 Pseudisobranchium 123  
 Pseudoanthidium 301  
 Pseudoanthidium subg. 302  
 pseudoanticus, Dolerus 79  
 pseudoarmata, Melecta 326  
 pseudoaicalensis, Bombus 331  
 Pseudoblennocampa 46, 47  
 pseudobrevitarsis, Chrysis 137  
 pseudobrevitarsis, Chrysis  
   ignita var. 137  
 pseudocalidus, Bombus cingulatus 330  
 Pseudocalyzoa 123  
 Pseudocephaleia 106  
 Pseudocephus 109  
 pseudocerea, Nomioidea variegata 292  
 Pseudochrysis 140  
 Pseudocilissa 294  
 pseudocinerascens, Colletes 258  
 Pseudoclavellaria 30  
 pseudocongluens, Halictus 278  
 Pseudocrabro 231  
 pseudodecipiens, Pristiphora 73  
 pseudodichroa, Chrysura, *Chrysis* 139  
 Pseudodineura 75  
 pseudodispar, Euura, *Pteronidea* 63  
 Pseudoeucera subg. 320  
 pseudofasciatus, Sphecodes 289  
 pseudofemoralis, Dryudella 218  
 Pseudoferreola 166  
 pseudofulvus, Katamenes sichelii 185  
 pseudogeniculata, Pristiphora 73  
 pseudogermanica, Vespa  
   vulgaris var. 196  
 Pseudogonatopoides 120  
 Pseudogonatopus 120  
 Pseudohemitaxonus 81  
 Pseudohexamelus 36  
 pseudoignita, Chrysis 143  
 pseudojaponica, Priocnemis 164  
 pseudoklugi, Empria 41  
 pseudoleptocephala, Euura,  
   *Amauronematus* 63  
 pseudoligusticus, Hortobombus  
   tichenkoi 329  
 pseudolivacea, Tenthredo 98  
 Pseudomacrophya 84  
 Pseudomacrophya subg. 87  
 Pseudomalus 132  
 pseudomandibularis, Tenthredella  
   atra 93  
 Pseudomegachile subg. 307  
 pseudomelanocarpa, Pristiphora 73  
 Pseudomicrodynerus subg. 186  
 Pseudomonophadnus 50  
 pseudomontana, Smicromyrme  
   punctata 155  
 pseudomorbillus, Lasioglossum 280  
 pseudomucoreus, Halictus 279  
 Pseudomutilla subg. 154  
 Pseudomyrmosa 152  
 pseudonotabilis, Pteronidea 57  
 pseudonotata, Euodynerus  
   quadrifasciatus var. 183  
 Pseudo-Nysson 244  
 pseudoorientalis, Smicromyrme 156  
 pseudopacificus, Polistes gallicus 193  
 pseudopallidum, Diprion polytomum 34  
 pseudopalmaris, Crossocerus,  
   *Crabro* 230  
 pseudopavida, Pteronidea myosotidis 62  
 pseudopilosulus, Cephus 109  
 Pseudoplisus 222  
 pseudopogonia, Priocnemis 163  
 Pseudopolistes 192  
 pseudopolita, Andrena 273  
 Pseudopterochilus 184  
 pseudopunctulatus, Halictus 285  
 pseudopyrrhina, Chrysis  
   cingulicornis 134  
 pseudorejecta, Arge 24  
 pseudoreticulata, Cephalcia 106  
 pseudorossii, Tenthredo 90  
 Pseudoryssus 117  
 pseudosaxesenii, Pristiphora 74  
 Pseudoscolia 256  
**Pseudoscoliini** 256  
 pseudoscotica, Tenthredella atra 93  
 Pseudoselandria 76  
 pseudosoror, Vespa tropica 194  
 Pseudospinolia 140  
 Pseudostelis subg. 303  
 pseudotabidus, Cephus 108  
 Pseudotaxonus 82  
 pseudothoracica, Andrena 275  
 Pseudotiphia 150  
 pseudotorneensis, Euura,  
   *Amauronematus* 63  
 pseudounifasciata, Scolia 148  
 pseudovatula, Andrena 274  
 Pseudovespa 194, 195  
 Pseudovespula 194  
 pseudoviminalis, Trichiocampus 54  
 Pseudoxiphydria 115  
 Psilanteon 119  
 Psilepyris 123  
 Psiliglossa 188  
 psilopus, Tachysphex 239  
 Psithyrus 327  
 Psithyrus subg. 329  
 psyllus, Sirex 113  
 Pteneucera subg. 321  
 Pterochilus 189  
 Pterogonatopus 120  
 Pteronidea 55  
 Pteronidea subg. 75  
 Pteronus 33  
 pterophorus, Tenthredo 35  
 pterotus, Crabro 226  
 Ptigospheg 241  
 Ptyx 234  
 pubens, Crabro 227  
 puber, Andrena 275  
 pubescens, Ammophila 212  
 pubescens, Andrena 269  
 pubescens, Anthophora, *Apis* 323  
 pubescens, Crabro 228  
 pubescens, Melitta 265  
 pubescens, Odynerus 183  
 pubescens, Pachynematus 57  
 pubescens, Periclista, *Selandria* 51  
 pubescens, Tenthredo, *Allantus* 91  
 pubescens, Trachusa, *Anthidium* 303  
 pubescens, Trichiosoma 31  
 pubicorne, Anteon, *Gonatopus* 119  
 pucilii, Cerceris 254  
 puella, Nematius 62  
 puella, Phyllostoma 76  
 pugnax, Oxybelus 243  
 pugnax, Pamphilus 105  
 pulawskii, Cerceris 253, 254  
 pulawskii, Diploplectron 218  
 pulawskii, Holopyga 142  
 pulawskii, Spilomena 249  
 pulchella, Andrena 292  
 pulchella, Chrysis pulchella 137  
 pulchella, Coelioxys 304  
 pulchella, Ermilia 43  
 pulchella, Selandria 43  
 pulchellus, Hoplisus 224  
 pulchellus, Nematius 60  
 pulchella, Oxybelus 243  
 pulcher, Cephus 109  
 pulcher, Pamphilus montanus 105  
 pulcher, Pompilus 171

- pulcher*, Pompilus 171  
*pulcherrima*, Andrena 267  
*pulcherrima*, Anthophora 324  
*pulcherrima*, Larra 225  
*pulchra*, Megaxyela 20  
*pulchra*, Nomada 315  
*pulchra*, Vespa ducalis var. 194  
*pulchricornis*, Lophyrus 34  
*pulla*, Cimbex betulae 29  
*pulla*, Paramyrmosa, *Myrmosa* 153  
*pullata*, Arge, *Hylotoma* 24  
*pullata*, Tenthredo discophora 95  
*pullatum*, Hedychrum simile f. 130  
*pullior*, Dineura 55  
*pullulus*, Crossocerus, *Crabro* 229  
*pullulus*, Dolerus 78  
*pullus*, Nematus 73  
*pullus*, Stenodynerus 190  
*pulsata*, Osmia 299  
*pulveracea*, Eucera 321  
*pulveratum*, Monsoma, *Tenthredo* 43  
*pulvereus*, Halictus 279  
*pulverosus*, Nomioides 292  
*pulverosus*, Tachytes 239  
*pulverulenta*, Tenthredo 43  
*pumila*, Chrysidea, *Chrysis* 133  
*pumila*, Chrysis 133  
*pumila*, Empria, *Poecilosoma* 41  
*pumila*, Fenusa 48  
*pumila*, Tenthredo 48  
*pumilae*, Xyela 21  
*pumilio*, Emphytus 50  
*pumilio*, Euura, *Pachynematus* 63  
*pumiloides*, Empria 41  
*pumilus*, Cephus 110  
*pumilus*, Crabro 232  
*pumilus*, Metallus, *Tenthredo* 50  
*pumilus*, Microphadnus, *Aporus* 173  
*pumilus*, Nematus 71  
*punctata*, Andrena aeneiventris var. 263  
*punctata*, Apis 325  
*punctata*, Calameuta, *Astatus* 109  
*punctata*, Coelioxys 305  
*punctata*, Crabro podagricus 227  
*punctata*, Eumenes  
    pedunculata var. 181  
*punctata*, Nomada 243  
*punctata*, Sapyga 145  
*punctata*, Tenthredo 103  
*punctaticlypeus*, Eumenes 182  
*punctatissima*, Andrena 264  
*punctatissima*, Holopyga  
    punctatissima 131  
*punctatissima*, Hypoponera, *Ponera* 209  
*punctatissima*, Osmia 296  
*punctatissima*, Prosopigastra 237  
*punctatissima*, Pseudepipona  
    postica 183  
*punctatissimum*, Lasioglossum, *Hylaeus*  
    punctatissimum 285  
*punctatissimus*, Priocnemis, *Salix* 163  
*punctatissimus*, Sphecodes 289  
*punctatum*, Anthidium 301  
*punctatus*, *Hoplisus* 224  
*punctatus*, Ambobates, *Epeolus* 318  
*punctatus*, Crabro 243  
*punctatus*, Eumenes 182  
*punctatus*, Eutomostethus,  
    *Tomostethus* 47  
*punctatus*, Hylaeus, *Prosopis* 262  
*punctatus*, Pasites 318  
*punctatus*, Pseudomalus, *Philoctetes* 133  
*punctatus*, Selandria serva 81  
*puncticeps*, Claremontia,  
    *Blennocampa* 46  
*puncticeps*, Nematus 70  
*puncticeps*, Psen 252  
*puncticeps*, Psenulus 252  
*puncticeps*, Sphecodes 289  
*puncticolle*, Lasioglossum, *Halictus* 285  
*puncticollis*, Dolerus 80  
*puncticollis*, Halictus 285  
*puncticollis*, Polistes 192  
*puncticollis*, Tenthredopsis 100  
*punctifemoratus*, Armitarsus 84  
*punctifer*, Pemphredon 249  
*punctifrons*, Arge 25  
*punctifrons*, Euura, *Pontania* 63  
*punctifrons*, Macrophyta vacillans 87  
*punctifrons*, Pristiphora, *Nematus* 73  
*punctifrons*, Prosopis 259  
*punctifrons*, Stenodynerus, *Lionotus* 190  
*punctigera*, Tenthredo 68  
*punctilabris*, Eucera 320  
*punctipleura*, Notogonia 237  
*punctipleuris*, Mimesa, *Psen* 250  
*punctipleuris*, Nematus 66  
*Punctipsen* 251  
*punctiscuta*, Nematus fastosus 65  
*punctioentris*, Sphecodes 287  
*Punctotiphia* subg. 150  
*punctulata*, Andrena 270  
*punctulata*, Andrena  
    hattorfiana var. 265  
*punctulata*, Melitta 287  
*punctulata*, Rhogogaster, *Tenthredo* 88  
*punctulata*, Tenthredo 94  
*punctulatissima*, Stelis, *Apis* 303  
*punctulatissimus*, Hylaeus, *Prosopis* 260  
*punctulatus*, Cephus 109  
*punctulatus*, Ectemnius 233  
*punctulatus*, Gorytes 224  
*punctulatus*, Nematus 66  
*punctulatus*, Psammaecius, *Gorytes* 224  
*punctulatus*, Sphecodes 289  
*punctulifera*, Nomada  
    solidaginis var. 316  
*punctum*, Crabro 229  
*punctum*, Sapyga 145  
*punctum*, Tenthredo 87  
*punctumalbum*, Macrophyta,  
    *Tenthredo* 87  
*punctuosus*, Hoplisoides, *Hoplisus*  
    punctuosus 224  
*punctuosus*, Odynerus 190  
*punetatus*, Phileremus 318  
*punetiscuta*, Nomada 316  
*punicea*, Euura, *Tenthredo* 63  
*puniceus*, Agenioideus,  
    *Psammochares* 168  
*punjaubensis*, Andrena 275  
*pura*, Mutilla elongata var. 155  
*purpurascens*, Hedychridium,  
    *Hedychrum* 129  
*purpurata*, Chrysis 140  
*purpuratus*, Euchroeus, *Chrysis*  
    purpuratus 140  
*purpurea*, Osmia 298  
*purpurea*, Tenthredo 95  
*purpureae*, Euura, *Nematus* 64  
*purpureifrons*, Chrysura, *Chrysis* 139  
*purus*, Nematus 61  
*pushkiniana*, Chrysis 137  
*pusilla*, Chrysis chevrieri var. 135  
*pusilla*, Nomada auct. 311  
*pusilla*, Pontania 63  
*pusilla*, Priocnemis, *Pompilus* 163  
*pusilla*, Tenthredo 45  
*pusilla*, Xyela 20  
*pusilla*, Xyela 21  
*pusillum*, Trichiosoma 31  
*pusillus*, Cephus 109  
*pusillus*, Crossocerus 230  
*pusillus*, Dolerus 78  
*pusillus*, Hylaeus 285  
*pusillus*, Labeo 120  
*pusillus*, Phiarus maculatus var. 319  
*pusillus*, Pseudomalus, *Chrysis*  
    pusillus 133  
*pusio*, Cyrtuchridium 129  
*pustulata*, Mutilla 157  
*pustulator*, Euura, *Pontania* 64  
*pustulatus*, Amauronematus 61  
*putoni*, Cleptes 127  
*putoniana*, Dufourea 290  
*Pycnopompilus* 168  
*Pycnotilla* 157  
*pygialis*, Auplopus, *Pseudagenia* 165  
*pygialis*, Omalus aeneus var. 131  
*pygidiale*, Rhopalum 235  
*pygidialis*, Nomada 315  
*pygidialis*, Stizus 225  
*pygidialis*, Tachysphex 238  
*pygmaea*, Ceropales pygmaea 174  
*pygmaea*, Euura 64  
*pygmaea*, Formica 202  
*pygmaea*, Nomada 312  
*pygmaea*, Pristiphora 70  
*pygmaea*, Profenusa, *Tenthredo* 52  
*pygmaea*, Prosopis 259  
*pygmaea*, Stelis 302  
*pygmaeum*, Trypoxylon 244  
*pygmaeus*, Diodontus 247  
*pygmaeus*, Hylaeus 286  
*pygmaeus*, Lindenius, *Crabro* 235  
*pygmaeus*, Oxybelus 243  
*pygmaeus*, Psen 252  
*pygmaeus*, Sirex 109  
*pygmeus*, Cephus, *Sirex* 109

- pylnovi, Philoctetes, *Ellampus* 132  
*pyonganensis*, Anteon 119  
*Pyramica* 207  
*pyramidalis*, Nematius 75  
*pyramidalis*, Podalirhis 323  
*pyrenaica*, Osmia 299  
*pyrenaica*, Dioxys 303  
*pyrenaica*, Diphyis 303  
*pyrenaica*, Hylotoma 24  
*pyrenaica*, Plagirolepis barbara var. 202  
*pyrenaicus*, Mesitius 124  
*pyri*, Psen 103  
*pyri*, Tenthredo 67  
*pyrina*, Megachile 307  
 Pyrobombus subg. 330  
 pyropygia, Andrena 269  
 Pyrosmia subg. 299  
 pyrosomus, Elampus, *Notozus* 128  
*pyrrha*, Chrysis 134  
*pyrrha*, Phyllococcus, *Hartigia* 111  
*pyrrhina*, Chrysis 138  
*Pyrrhomelecta* 317  
*pyrrhonotus*, Nematius 61  
*pyrrhopygus*, Bombus 327
- quadranulata*, Tenthredopsis 98  
*quadrata*, Anthophora albigena 323  
*quadrata*, Vespa 179  
*quadraticollis*, Halictus 281  
*quadratus*, Sphecodes monilicornis 289  
 quadriceps, Stigmus 250  
*quadricincta*, Andrena 275, 294  
*quadricincta*, Apis 277  
*quadricincta*, Cerceris, *Philanthus* 254  
*quadricincta*, Scolia, *Sphex*  
   *quadricincta* 148  
*quadricincta*, Tenthredo 78  
*quadricincta*, Vespa 183  
*quadricinctula*, Andrena 275  
*quadricinctus*, Crabro 231  
*quadricinctus*, Halictus, *Apis* 277  
 quadricolor, Bombus, *Psithyrus* 329  
 quadricolor, Cerceris 254  
*quadridens*, Tenthredo 95  
*quadridentata*, Osmia 297  
 quadridentatus, Coelioxys, *Apis* 305  
 quadrifasciata, Amegilla, *Apis* 322  
 quadrifasciata, Apis 322  
 quadrifasciata, Cerceris, *Philanthus* 254  
 quadrifasciatus, Euodynerus, *Vespa* 183  
 quadrifasciatus, Gorytes, *Mellinus* 223  
*quadrifasciatus*, Halictus 278  
*quadrifer*, Crabro 234  
*quadriguttata*, Scolia 145  
*quadriguttatus*, Cephus 108  
*quadriguttatus*, Hellus 145  
 quadriguttatus, Nysson 220  
*quadriguttulatus*, Cephus 108  
*quadrilobum*, Anthidium 301  
 quadrimaculata, Anthophora, *Apis* 323  
*quadrimaculata*, Cerceris 253  
 quadrimaculata, Empria 41  
 quadrimaculata, Meria 149
- quadrimaculata*, Mutilla 153  
*quadrimaculata*, Mutilla maura 154  
*quadrinotata*, Propolis 260  
*quadrinotata*, Tenthredo 86  
 quadrimaculatus, Brachyodynerus,  
   *Odynerus* 180  
 quadrimaculatus, Crossocerus,  
   *Crabro* 230  
*quadrimaculatus*, Hylaeus 283  
*quadrinotata*, Apis 312  
*quadrinotata*, Mutilla 157  
 quadrinotatum, Lasioglossum,  
   *Halictus* 285  
 quadrinotatum, Lasioglossum,  
   *Melitta* 281  
 quadrinotatus, Camponotus 198  
*quadrinotatus*, Camponotus  
   marginatus var. 198  
*quadripunctata*, Andrena 265  
*quadripunctata*, Cerceris 253  
*quadripunctata*, Hylotoma 24  
*quadripunctata*, Hypoclinea auct. 197  
*quadripunctata*, Mutilla maura var. 154  
 quadripunctata, Scolia 147  
*quadripunctata*, Scolia 148  
*quadripunctata*, Tenthredopsis  
   fenestrata 99  
*quadripunctata*, Vespa 194  
 quadripunctatus, Dolichoderus,  
   *Formica* 197  
*quadriseriatum*, Anthidium 300  
 quadrisignatum, Lasioglossum,  
   *Hylaeus* 286  
*quadrisignatus*, Cephus 108  
*quadristrigata*, Andrena 274  
*quadristrigata*, Anthophora 325  
*quadristrigata*, Halictus 277  
*quadrivittata*, Nomada lineola var. 313  
*quadrum*, Cryptocampus 63  
*quartinae*, Trypoxylon 245  
*quasiciliatus*, Dolerus 79  
*quattuordecimpunctata*, Melecta 326  
 quattuordecimpunctatus, Philanthinus,  
   *Anthophilus* 255  
 quattuordecimnotatus, Oxybelus 243  
*quatuormaculata*, Sphex scutellata 226  
*Quebecensis*, Larra 239  
*quercus*, Fenusa 48  
*quercus*, Nematius 71  
 quettae, Astata 218  
*quettaensis*, Eumenes affinisissima  
   race 182  
*quiescens*, Palarus 243  
 qujeta, Euura, *Nematius* 64  
*quinghaiensis*, Melitta 294  
 quinquecincta, Colpa, *Scolia* 147  
 quinquecinctum, Rhynchium, *Vespa* 189  
*quinquecinctus*, Allantus 97  
 quinquecinctus, Gorytes, *Mellinus*  
   quinquecinctus 223  
 quinquecinctus, Megalodontes,  
   *Tarpa* 107  
 quinquecinctus, Mellinus 222
- quinquefasciata, Cerceris, *Crabro*  
   quinquefasciata 254  
*quinquefasciata*, Vespa 187  
*quinquefasciatus*, Cephus 110  
 quinquefasciatus, Gorytes, *Mellinus*  
   quinquefasciatus 223  
*quinquemaculata*, Dasylabris maura  
   nostras var. 154  
 quinquemaculata, Mutilla 157  
*quinquemaculatus*, Philanthus 246  
 quinquemontana, Euura,  
   *Pachynematus* 64  
*quinquepunctata*, Mutilla 157  
 quinquepunctata, Sapyga, *Scolia* 145  
 quinquepunctata, Scolia 145  
*quinquespinosa*, Nomada 311  
 quinquespinosus, Rophites 291  
*quittardi*, Tenthredo maculata 92
- raddatzi*, Dolerus 80  
*raddatzi*, Thomsonia 99  
 raddei, Ancistrocerus, *Odynerus* 179  
 raddei, Anthophora 325  
*radialis*, Emphytus 46  
 radians, Chrysura, *Chrysis* 140  
 radiatus, Ectemnius, *Crabro* 231  
 radoszkovskii, Halictus 279  
*radoszkovskii*, Katamenes  
   sesquicinctus 185  
 radoszkovskii, Skorikovia,  
   *Smicromyrme* 155  
*radoszkowskyi*, Andrena 272  
 radoszkowskii, Ammobatoides 318  
 radoszkowskii, Cleptes 127  
 radoszkowskii, Nomada 315  
 radoszkowskii, Tenthredo, *Allantus* 91  
*radoszkowskii*, Tetralonia 321  
*radoszkowskyi*, Anthidium 300  
 radoszkowskyi, Anthophora 325  
*radoszkowskyi*, Gorytes 222  
 radoszkowskyi, Myrmosa 153  
 ragusae, Chrysis 137  
*rakosiensis*, Nomada 313  
*ramicornis*, Cladius 54  
 ramosus, Thyreus, *Crocisa* 327  
*ramulorum*, Xylocopa 310  
 ranini, Euura, *Amauronematus* 64  
*ranunculi*, Tenthredo 32  
 ranunculorum, Andrena 275  
 rapae, Pachyprotasis, *Tenthredo* 87  
 rapae, Tenthredo 87  
 Raptiformica subg. 200  
*raptor*, Oxybelus 243  
 rapunculi, Chelostoma, *Heriades* 296  
*rarior*, Bombus lapponicus 330  
 rasnitsyni, Arachnospila 169  
 rasnitsyni, Xyela 21  
*ratisbonensis*, Andrena 274  
 ratzeburgi, Alysson 219  
*ratzeburgii*, Macrophya 86  
*ratzeburgii*, Tenthredo 105  
 rvasinii, Myrmica 206  
*ravidus*, Pachynematus 72

- ravouxi, Hoplitis, *Osmia* 297  
 ravouxi, Myrmoxenus,  
     *Formicoxenus* 207  
 ravulus, Colletes 258  
 ravus, Dolerus 79  
 reaumurii, Odynerus 187  
 recedens, Myrmica 208  
 recedens, Temnothorax, *Myrmica* 208  
 recepticius, Halictus 281  
 recognata, Macrophyta 86  
 recta, Hinatara, *Blennocampa* 49  
 rectangular, Andrena 264  
 rectangularata, Glossotilla 155  
 rectangularatus, Homonotus 166  
 rectus, Auplopus, *Pseudagenia* 165  
 recurva, Coelioxys 305  
 redii, Nematus 63  
 redimita, Tarpa 107  
 redivivus, Tachysphex 240  
 reducta, Runaria 27  
 reductealba, Tenthredella mesomelas 91  
 reductenotata, Macrophyta rufipes 86  
 reductenotata, Tenthredo 85  
 reflexa, Coelioxys 305  
 reflexus, Pompilus 172  
 refractarius, Pachynematus 58  
 refulgens, Chrysura, *Chrysis* 140  
 regalis, Dasylabris, *Mutilla* 154  
 regalis, Nomada 311  
 regina, Andrena 272  
 Regiscolia sung. 147  
 regium, Trypoxylon regium 245  
 regulare, Anthidium 300  
 regulus, Leptochilus, *Odynerus* 185  
 rehbinderi, Strongylognathus 207  
 reicherti, Dolerus sanguinicollis 80  
 reiecta, Prosopis communis var. 259  
 Reiseri, Tachysphex 238  
 Reiteri, Crabro 234  
 reiteri, Lestica, *Crabro* 234  
 reitteri, Allantus 96  
 reitteri, Rhadinoceraea 52  
 rejecta, Tenthredo 93  
 relict, Pontania collectanea 58  
 relict, Prosopis variegata 262  
 relict, Tenthredo 93  
 relictana, Euura, *Pontania* 64  
 relictum, Trichiosoma 31  
 reliqua, Rhogogastera 92  
 remota, Anthocopa tergestensis 299  
 remota, Chrysis remota 137  
 remota, Megachile 305  
 reniformis, Odynerus, *Vespa* 187  
 repanda, Tenthredo 41  
 repandum, Polochrum 145  
 repandus, Mellinus 221  
 repartitus, Allantus scrophulariae 97  
 repentinus, Unitaxonus 39  
 repressa, Andrena hymala ssp. 266  
 reptans, Pseudoanthidium,  
     *Anthidium* 302  
 republicus, Crossocerus 229  
 reseri, Parna 51  
 resinana, Megachile 303  
 respersus, Rhogogastera 92  
 respondens, Euura, *Nematus* 64  
 resurgens, Halictus 277  
 Rethrax 89  
 reticulata, Caenolyda, *Tenthredo* 102  
 reticulata, Euura, *Nematus* 64  
 reticulata, Notogonia 237  
 reticulata, Tenthredo 102  
 reticulatum, Pseudoanthidium,  
     *Anthidium* 302  
 reticulatus, Ceratoculus 233  
 reticulatus, Epyris 123  
 reticulatus, Sphecodes 290  
 retowskii, Parapsammophila 213  
 retusa, Anthophora, *Apis* 325  
 retusa, Pristiphora, *Nematus* 73  
 retusifomis, Anthophora 325  
 retusus, Elampus, *Notozus* 128  
 reuteri, Pristiphora, *Lygaeonematus* 74  
 rex, Amauronematus 59  
 rex, Paravespa, *Odynerus* 188  
 Rhadinoceraea 52  
 Rhadinoceraea subg. 52  
 rhaensis, Gonatopus 120  
 rhaibopus, Crabro 235  
 rhenana, Nomada 315  
 rhenana, Prosopis nigrifacies 260  
 rhenanum, Tetramorium 209  
 rhenanus, Halictus 281  
 rhenensis, Tenthredella solitaria 95  
 Rhineta 318  
 rhinoceros, Ammophila 213  
 rhinoceros, Osmia 297  
 rhinoceros, Tzustigmus 250  
 Rhinonitela 241  
 Rhinopsis 211  
 rhinotropis, Osmia 297  
 Rhipidioceros 107  
 rhodia, Andrena 269  
 rhodius, Euodynerus ypsilon 180  
 rhodius, Tachysphex 238  
 rhododaetyla, Dasypoda 293  
 rhodogaster, Dolerus 79  
 rhodosianus, Halictus 284  
 Rhodosmia 299  
 rhodostoma, Halictus cylindricus 282  
 Rhogogaster 88  
 Rhogogastera 88  
 rhombica, Eoferreola, *Sphex* 173  
 Rhombotilla subg. 156  
 rhopalocerus, Gorytes 221  
 Rhopalospiria 22  
 Rhopalum 235  
 Rhopalum subg. 235  
 Rhophitoides 291  
 Rhynchium 189  
 Rhynchogonatopus 120  
 ribauti, Passaloecus 248  
 ribesicola, Euura, *Pteronidea* 64  
 ribesii, Euura, *Tenthredo* 64  
 ribesii, Nematus 64  
 ribesii, Xiphydria, *Euxiphydria* 116  
 Ribinematus 55  
 ribis, Macrophyta, *Tenthredo* 86  
 ribis, Nematus 64  
 richardi, Athalia 44  
 richardsi, Cryptocheilus 161  
 Richardsidryinus 120  
 Ridestus 167  
 ridibundus, Andrena ventricosa ssp. 267  
 rifana, Pontania 67  
 rigiana, Chrysis rutilans 143  
 rimalis, Sphecodes 288  
 rimosiscutum, Crocisa 327  
 rimosus, Hylaeus 260  
 rinki, Hylaeus, *Prosopis* 260  
 riparia, Apis 272  
 riparius, Halictus 284  
 riparius, Polistes 193  
 ritsemae, Stizus 225  
 riukiensis, Andrena 257  
 rjabovi, Ammoplanus 246  
 rjabovi, Cephus 109  
 robbinsi, Pontania 58  
 roberjeotiana, Nomada 315  
 robiniae, Nematus 65  
 robinsoni, Selandria 52  
 roborovskiyi, Colletes 258  
 robusta, Anthophora, *Megilla* 324  
 robusta, Cerckeris 253  
 robusta, Cilissa 294  
 robusta, Coelioxys 304  
 robusta, Eucera 320  
 robusta, Hoplitis, *Heriades* 297  
 robusta, Mutilla 157  
 robusta, Nomada 313  
 robusta, Pristiphora, *Lygaeonematus* 74  
 robustior, Allantus amaena 97  
 robustus, Cryptocampus 56  
 robustus, Eumenes 182  
 robustus, Macrocephalus 111  
 robustus, Odynerus melanocephalus 187  
 Rocalia 81  
 roettgeni, Passaloecus 248  
 rogenhoferi, Ammatomus, *Gorytes* 221  
 rogeri, Trichomyrmex 209  
 rolleri, Phyllocolpa 60  
 romana, Osmia 297  
 romani, Panurginus 276  
 romani, Pontoprastia 61  
 romankovae, Andrena 267  
 romankovae, Deuteragenia,  
     *Dipogon* 164  
 rondoui, Osmia 299  
 Ronisia 157  
 Rophites 291  
**Rophitinae** 277, 290  
 roripae, Andrena 270  
 rosae, Andrena 267  
 rosae, Athalia, *Tenthredo* rosae 44  
 rosae, Selandria 46  
 rosarum, Blennocampa 50  
 rosarum, Hylotoma 24  
 roscidus, Pachynematus 66  
 roscipes, Andrena 267



- rosea*, *Chrysis carnea* var. 129  
*rosea*, *Tenthredo discophora* 95  
*roseni*, *Eurhadinoceraea*,  
*Rhadinoceraea* 47  
*roseni*, *Rhadinoceraea* 47  
*roseum*, *Hedychridium*, *Chrysis* 129  
*rosincola*, *Arge* 24  
*rosmarinifolia*, *Eupontania*  
*collactanea* 58  
*rossica*, *Cerceris* 254  
*rossica*, *Ferreola* 173  
*rossica*, *Nomada lineola* var. 313  
*rossica*, *Sysphingta* 210  
*rossicum*, *Hedychridium* 129  
*rossicus*, *Epeolus variegatus* var. 317  
*rossicus*, *Gonatopus* 121  
*rossicus*, *Halictus* 278  
*rossicus*, *Nipponodipogon*, *Dipogon* 164  
*rossicus*, *Psen* 250  
*rossii*, *Allodynerus*, *Odynerus* 178  
*rossii*, *Bembix* 222  
*rossii*, *Tenthredo*, *Allantus bifasciata* 90  
*Rossomyrmex* 203  
*rostellata*, *Andrena* 271  
*rostralus*, *Pasites* 318  
*rostrata*, *Apis* 221  
*rostrata*, *Apis* 222  
*rostrata*, *Bembex* 221  
*rostrata*, *Bembix*, *Apis rostrata* 222  
*rostrata*, *Nomada* 311  
*rostratum*, *Lasioglossum*, *Hylaeus* 281  
*rothi*, *Ammophila* 213  
*rothneyi*, *Plagiolepis* 202  
*rothneyi*, *Polistes* 192  
*rotundarius*, *Crabro* 230  
*rotundata*, *Apis* 323  
*rotundata*, *Megachile* 295  
*rotundata*, *Megachile*, *Apis* 306  
*rotundatus*, *Hylaeus* 259  
*rotundiventris*, *Megachile* 303  
*roubali*, *Nysson* 220  
*roubali*, *Pseudisobranchium* 123  
*Royanthidium* subg. 302  
*royoi*, *Anthidium* 302  
*rozenburgensis*, *Epeolus* 317  
*rubecula*, *Tenthredo* 94  
*rubelloides*, *Halictus albipes* 282  
*rubellus*, *Cryptocheilus*, *Pompilius* 162  
*rubellus*, *Halictus* 283  
*rubellus*, *Hylaeus* 282  
*rubens*, *Formica exsecta* var. 199  
*rubens*, *Halictus* 282  
*rubeola*, *Tenthredella livida* 95  
*ruberrima*, *Monophadnus spinolae* 51  
*rubescens*, *Chrysis analis* var. 133  
*rubescens*, *Nomada chrysopyga* var. 312  
*rubi*, *Allantus* 88  
*rubi*, *Empria* 41  
*rubi*, *Fenusa* 50  
*rubi*, *Metallus* 50  
*rubi*, *Monophadnoides*, *Selandria* 50  
*rubi*, *Perineura*, *Allantus* 88  
*rubi*, *Priophorus* 54  
*rubi*, *Selandria* 50  
*rubi*, *Trypoxylon figulus minus* 245  
*rubicanus*, *Dolerus elderi* 78  
*rubicola*, *Ectemnius*, *Solenius* 232  
*rubicola*, *Empria* 41  
*rubicola*, *Heriades* 296  
*rubicola*, *Odynerus* 184  
*rubicola*, *Prosopis* 259  
*rubicola*, *Psenulus* 252  
*rubicolor*, *Camponotus*  
*marginatus* var. 198  
*rubicunda*, *Pseudarge* 25  
*rubicundus*, *Halictus*, *Apis* 278  
*rubicundus*, *Sphecodes* 290  
*rubida*, *Andrena* 264  
*rubida*, *Cerceris*, *Phylanthus* 254  
*rubida*, *Coelioxys erythrogyga* var. 304  
*rubida*, *Formica* 204  
*rubida*, *Manica*, *Formica* 204  
*rubidus*, *Crabro alatus* 234  
*rubigidorsum*, *Psammochares* 167  
*rubiginosa*, *Euura*, *Amauronematus* 64  
*rubiginosa*, *Pseudepipona*,  
*Odynerus* 188  
*rubiginosa*, *Tenthredo* 90, 99  
*rubiginosum*, *Anthidium* 301  
*rubiginosum*, *Trypoxylon* 245  
*rubivorus*, *Priophorus* 54  
*ruborum*, *Halictus lerouxi* 278  
*ruborum*, *Osmia* 299  
*rubra*, *Andrena florea* var. 273  
*rubra*, *Formica* 205  
*rubra*, *Myrmica*, *Formica* 206  
*rubra*, *Nomada* 311, 313  
*rubra*, *Strongylogaster* 82  
*rubricans*, *Calicurgus* 165  
*rubricans*, *Mutilla* 153  
*rubricans*, *Poecilagenia*, *Calicurgus* 165  
*rubricata*, *Andrena* 273  
*rubricollis*, *Nomada* 316  
*rubricornis*, *Eumenes papillarius* 182  
*rubricosa*, *Nomada* 314  
*rubricosa*, *Nomada* 316  
*rubricoxis*, *Tenthredo*, *Tenthredella* 95  
*rubrifasciata*, *Chrysis* 135  
*rubrimana*, *Megachile* 306  
*rubripes*, *Macrophya* 85  
*rubripes*, *Odynerus* 180  
*rubripes*, *Osmia* 297  
*rubripes*, *Sphecodes* 287  
*rubripes*, *Tenthredella livida* 95  
*rubripes*, *Tenthredo* 85  
*rubripes*, *Tenthredo lachlaniana* 95  
*rubripyga*, *Chrysis* 137  
*rubriventris*, *Andrena*  
*ephippium* var. 270  
*rubriventris*, *Miscophus* 241  
*rubriventris*, *Phylanthus* 255  
*rubriventris*, *Tenthredopsis parvula* 99  
*rubrocaudata*, *Tenthredella* 94  
*rubrocaudata*, *Nematinus* 69  
*rubrofasciatus*, *Strongylogaster* 43  
*rubromaculatus*, *Hoplomerus*  
*tinniens* var. 184  
*rubronotatus*, *Eumenes* 182  
*rubropictus*, *Crabro* 233  
*rubrosignata*, *Andrena* 271  
*rubrosignata*, *Mutilla* 154  
*rubrosignatus*, *Euodynerus*  
*quadrifasciatus* 183  
*rubtzovi*, *Megachile* 306  
*ruddii*, *Chrysis ruddii* 137  
*ruddii*, *Embolemus* 122  
*ruddii*, *Embolemus* 122  
*rudepunctata*, *Tiphia* 150  
*ruderarius*, *Bombus*, *Apis* 331  
*ruderatus*, *Bombus*, *Apis* 328  
*Rudia* 154  
*rudis*, *Dasypoda* 293  
*rudis*, *Prosopis lineolata* 261  
*rudolfae*, *Andrena* 267  
*rudolphae*, *Smicromyrme* 155  
*rudolphae*, *Anthophora* 325  
*rudowi*, *Tenthredo* 94  
*rufa*, *Andrena hattorfiana* var. 265  
*rufa*, *Anthophora* 324  
*rufa*, *Apis* 299  
*rufa*, *Arachnospila*, *Psammochares* 170  
*rufa*, *Crocisa* 327  
*rufa*, *Formica* 199, 200  
*rufa*, *Holcocneme lucidus* 69  
*rufa*, *Hylotoma* 34  
*rufa*, *Psammochares cinctellus* f. 167  
*rufa*, *Tenthredo* 30, 67,  
*rufa*, *Tenthredo pectinata* 34  
*rufa*, *Tenthredopsis* 100  
*rufa*, *Vespula*, *Vespa* 196  
*rufata*, *Tenthredopsis nassata* 99  
*rufatus*, *Dolerus haematodes* 80  
*rufescens*, *Apis* 287  
*rufescens*, *Coelioxys* 304  
*rufescens*, *Eumenes samurayi* 182  
*rufescens*, *Formica* 202  
*rufescens*, *Hylotoma* 22, 23  
*rufescens*, *Myrmecomorphus* 122  
*rufescens*, *Nematus* 60  
*rufescens*, *Notozus superbus* var. 127  
*rufescens*, *Polistes gallicus* var. 193  
*rufescens*, *Polyergus*, *Formica* 202  
*rufescens*, *Tetralonia* 321  
*rufibarbis*, *Formica* 201  
*ruficapilla*, *Tenthredo* 67  
*ruficeps*, *Agenioideus*, *Pompilus* 168  
*ruficeps*, *Allantus*, *Emphytus* 38  
*ruficeps*, *Cystomutilla*, *Mutilla* 153  
*ruficeps*, *Mutilla* 153  
*ruficeps*, *Mutilla europaea* f. 157  
*ruficeps*, *Nematus* 62  
*ruficeps*, *Xiphydria* 115  
*ruficinctus*, *Coelioxys* 305  
*ruficollis*, *Ammophila* 212  
*ruficollis*, *Eucera*, *Macrocera* 321  
*ruficollis*, *Evania* 223  
*ruficollis*, *Nematus* 72  
*ruficollis*, *Smicromyrme*, *Mutilla*  
*ruficollis* 156  
*ruficornis*, *Andrena* 270

- ruficornis*, *Apis* 311  
*ruficornis*, *Athalia rosae* 44  
*ruficornis*, *Bembix* 225  
*ruficornis*, *Bethylus* 150  
*ruficornis*, *Cerceris*, *Philanthus* 254  
*ruficornis*, *Ceropales* 174  
*ruficornis*, *Ectemnius*, *Crabro* 231  
*ruficornis*, *Emphytus succinctus* 38  
*ruficornis*, *Eriocampa* 89  
*ruficornis*, *Gorytes* 223  
*ruficornis*, *Lonchodryinus*,  
*Gonatopus* 119  
*ruficornis*, *Macrocera* 322  
*ruficornis*, *Mellinus* 246  
*ruficornis*, *Nomada*, *Apis* 316  
*ruficornis*, *Nomia* 291  
*ruficornis*, *Odynerus* 187  
*ruficornis*, *Pompilus* 167  
*ruficornis*, *Pristiphora*, *Nematus* 74  
*ruficornis*, *Siobla*, *Allantus* 89  
*ruficornis*, *Sphecodes* 289  
*ruficornis*, *Stizus*, *Vespa ruficornis* 225  
*ruficornis*, *Tenthredo* 95  
*ruficornis*, *Vespa* 225  
*ruficruris*, *Monophadnus*,  
*Selandria* 50  
*ruficrus*, *Andrena* 267  
*ruficrus*, *Nomada fabriciana* var. 312  
*ruficrus*, *Sphecodes* 289  
*rufifrons*, *Melanapis* 270  
*rufilabris*, *Nomada* 313  
*rufilata*, *Andrena hystrix* var. 263  
*rufimaculatum*, *Trypoxylon* 245  
*rufimana*, *Tenthredo* 98  
*rufina*, *Leptochilus alpestris*  
*iberobarbarus* var. 185  
*rufina*, *Paravespa rex* var. 188  
*rufinotus*, *Empria abdominalis* 43  
*rufipe*, *Sphex* 150  
*rufipectus*, *Monophadnus spinolae* 51  
*rufipennis*, *Hylaeus*  
*nigrocuneatus* var. 261  
*rufipennis*, *Sphecodes* 287  
*rufipennis*, *Tenthredo* 94  
*rufipes*, *Andrena* 277  
*rufipes*, *Apis* 303, 323  
*rufipes*, *Astata rufipes* 218  
*rufipes*, *Bembex* 225  
*rufipes*, *Bethylus* 124  
*rufipes*, *Cerceris* 255  
*rufipes*, *Cladius* 54  
*rufipes*, *Crossocerus*  
*rufipes*, *Dasyopoda argentata* 293  
*rufipes*, *Dolerus aericeps* 77  
*rufipes*, *Epeolus* 317  
*rufipes*, *Episyron*, *Sphex* 167  
*rufipes*, *Eucera* 320  
*rufipes*, *Euodynerus quadrifasciatus* 183  
*rufipes*, *Hylaeus* 286  
*rufipes*, *Leptopus* 70  
*rufipes*, *Macrophya*, *Tenthredo* 86  
*rufipes*, *Mutilla* 156  
*rufipes*, *Nematus* 70  
*rufipes*, *Nomada* 315  
*rufipes*, *Nomada* 316  
*rufipes*, *Nysson* 219  
*rufipes*, *Odynerus oiventris* var. 179  
*rufipes*, *Orussus* 117  
*rufipes*, *Oxybelus* 242  
*rufipes*, *Phauloclavella* 173  
*rufipes*, *Pristiphora* 74  
*rufipes*, *Sapyga* 145  
*rufipes*, *Smicromyrme*, *Mutilla* 156  
*rufipes*, *Sphecodes gibbus*  
*ephippium* 289  
*rufipes*, *Sphex* 166  
*rufipes*, *Tachytes* 238  
*rufipes*, *Tenthredo* 39, 86, 93, 95  
*rufipus*, *Dolerus* 78  
*rufispinosus*, *Sphecodes gibbus* 288  
*rufispinum*, *Anthidium* 300  
*rufisternis*, *Tenthredo ferruginea* 94  
*rufitarse*, *Lasioglossum*, *Halictus* 286  
*rufitarsis*, *Ammobates* 318  
*rufitarsis*, *Chrysis* 137  
*rufitarsis*, *Elampus*, *Notozus* 128  
*rufitarsis*, *Eucera nigrilabris* 320  
*rufitarsis*, *Gastrosericus* 236  
*rufitarsis*, *Megachile* 307  
*rufitarsis*, *Melitta* 267  
*rufitarsis*, *Messor* auct. 205  
*rufitarsis*, *Osmia* 299  
*rufitarsis*, *Oxybelus* 242  
*rufitarsis*, *Selandria* 76  
*rufithorax*, *Arachnotheutes*,  
*Pompilus* 173  
*rufithorax*, *Pompilus* 173  
*rufithorax*, *Prosopis* 262  
*rufithorax*, *Sphecodes* 289  
*rufiventralis*, *Tachysphex* 238  
*rufiventris*, *Ammobates* 318, 319  
*rufiventris*, *Andrena* 267  
*rufiventris*, *Apis* 314  
*rufiventris*, *Arge segmentaria* 24  
*rufiventris*, *Cephus parreyssi* 111  
*rufiventris*, *Crabro* 235  
*rufiventris*, *Crabro* 236  
*rufiventris*, *Epeolus cruciger* var. 317  
*rufiventris*, *Gastrosericus* 236  
*rufiventris*, *Halictus* 282  
*rufiventris*, *Lyrops* 239  
*rufiventris*, *Megachile* 307  
*rufiventris*, *Miscophus* 241  
*rufiventris*, *Nomia* 291  
*rufiventris*, *Phileremus* 319  
*rufiventris*, *Pristiphora* 74  
*rufiventris*, *Scolia* 147  
*rufiventris*, *Sphecodes*, *Tiphia* 290  
*rufiventris*, *Stizus rufiventris* 225  
*rufiventris*, *Tenthredo* 94  
*rufizona*, *Andrena* 268  
*rufocincta*, *Andrena ephippium* var. 270  
*rufocincta*, *Apis* 312  
*rufocincta*, *Arge* 24  
*rufocincta*, *Lyda* 103  
*rufocincta*, *Tenthredo* 38  
*rufocinctella*, *Strongylogastroidea* 39  
*rufocinctus*, *Allantus*, *Tenthredo* 38  
*rufocinctus*, *Sphex* 215  
*rufocingulatus*, *Allantus* 90  
*rufoclypeata*, *Andrena* 265  
*rufofasciata*, *Onycholyda*, *Lyda* 103  
*rufofemorata*, *Tenthredopsis*  
*austriaca* 99  
*rufohirta*, *Osmia* 297  
*rufohispida*, *Andrena* 274  
*rufolineatus*, *Polistes* 192  
*rufomacula*, *Euura*, *Ammauronematus* 64  
*rufomaculata*, *Andrena* 275  
*rufomaculata*, *Dolerus gessneri* 78  
*rufomaculata*, *Formica exsecta*  
*pressilabris* var. 199  
*rufomaculata*, *Myrmosa*  
*melanocephala* f. 152  
*rufomaculata*, *Nomada lineola* var. 313  
*rufoniger*, *Monophadnus* 47  
*rufoniger*, *Tachysphex* 239  
*rufonodis*, *Cerceris* 255  
*rufonotalis*, *Tenthredo* 93  
*rufonotatus*, *Dolerus liogaster* 80  
*rufopicta*, *Apis* 316  
*rufopictus*, *Nippononysson* 219  
*Rufopompilus* 167  
*rufopratensis*, *Formica rufa* var. 199  
*rufoscutellata*, *Arge captiva* 22  
*rufoscutellata*, *Athalia* 45  
*rufoscutellata*, *Vespa* 195  
*rufosignata*, *Vespula* 196  
*rufospinosus*, *Hoplomerus* 187  
*rufotegularis*, *Halictus* 287  
*rufoterminalis*, *Tenthredella solitaria* 95  
*rufotruncicola*, *Formica rufa* var. 200  
*rufula*, *Mutilla europaea* f. 157  
*rufula*, *Nomada succineta* var. 316  
*rufulocollis*, *Anteon* 119  
*rufus*, *Cladius* 54  
*rufus*, *Euura*, *Ammauronematus* 64  
*rufus*, *Halictus* 279  
*rufus*, *Miscophus gallicus* 241  
*rufus*, *Phiarus abdominalis* var. 318  
*rufus*, *Psammochares* 167  
*rufus*, *Pseudogonatopus* 121  
*rugicollis*, *Hylaeus* 262  
*rugifer*, *Ectemnius*, *Crabro* 232  
*rugifer*, *Pemphredon*, *Cemonus* 249  
*ruginodis*, *Myrmica* 206  
*rugithorax*, *Nomada* 312  
*rugosa*, *Calameuta* 108  
*rugosa*, *Tiphia* 150  
*rugosopunctata*, *Poecilotiphia*,  
*Myzine* 150  
*rugosopunctatus*, *Crabro* 232  
*rugosula*, *Hylaeus* 285  
*rugosulus*, *Halictus* 279  
*rugosus*, *Crabro* 228  
*Rugosus*, *Crossocerus* 228  
*rugosus*, *Pamphilus* 105  
*rugosus*, *Sphecodes* 287  
*rugosus*, *Tachysphex* 238

- Rugovespula* 195  
 rugulosa, *Andrena* 270  
 rugulosa, *Myrmica* 206  
 rugulosella, *Andrena* 271  
*rugulosoides*, *Myrmica*  
   *scabrinodis* var. 206  
*rugulososcabrinodis*, *Myrmica*  
   *rugulosa* var. 205  
 rugulosus, *Euchroeus*, *Chrysis* 140  
*rugulosus*, *Oxybelus latro* 242  
*ruida*, *Aphaenogaster famelica* 203  
*ruiescente*, *Anthidium*  
   *florentinum* var. 300  
*rumelica*, *Nomia* 291  
*rumicis*, *Unitaxonus* 39  
 runari, *Pseudoheptamelus* 36  
 Runaria 27  
 rupestris, *Bombus*, *Apis* 329  
*rupestris*, *Prosopis* 259  
*rupestris*, *Vespa* 192  
*rupico*, *Allantus* 91  
*ruralis*, *Emphytus rufocinctus* 38  
*ruralis*, *Tenthredo* 38  
*rusa*, *Tenthredo* 29  
*russica*, *Chrysis* 137  
*russky*, *Odynerus* 186  
*rustica*, *Apis* 299  
*rustica*, *Arge*, *Tenthredo* 24  
*rustica*, *Osmia* 298  
*rusticanus*, *Nematus* 72  
*Rusticiformis* 22  
*ruthena*, *Tarpa* 107  
*ruthena*, *Tenthredo* 95  
*ruthenica*, *Anthophora* 325  
*ruthenica*, *Cilissa* 294  
*ruthenica*, *Didineis* 219  
*ruthenicus*, *Crabro* 233  
*ruthenicus*, *Epeolus* 317  
*ruthenicus*, *Odynerus parvulus* var. 180  
*ruthenus*, *Ellampus* 133  
*rutila*, *Andrena* 270  
*rutilans*, *Anthophora* 324  
*rutilans*, *Chrysis rutilans* 137  
*rutilans*, *Hedychrum rutilans* 130  
*rutilicornis*, *Tenthredo* 68  
*rutiliventris*, *Chrysis rutiliventris* 137  
*ruzskyi*, *Camponotus*  
   *marginatus* var. 198  
*ruzskyi*, *Strongylognathus huberi* 207  
*rybyensis*, *Cerceris*, *Sphex* 254  
*rybyensis*, *Sphex* 252  
*Rysepyris* 123  
*ryukyuensis*, *Anoplius* 172  
*ryukyuensis*, *Euodynerus notatus* 183  
  
*sabandus*, *Allantus amaenus* 96  
*sabariensis*, *Tenthredo*, *Allantus* 91  
*sabatia*, *Smicromyrme* 156  
*sabularum*, *Lasius*, *Formicina* 201  
*sabuleti*, *Myrmica* 206  
*sabulosa*, *Ammophila*, *Sphex* 212  
*sabulosa*, *Apis* 267  
*sabulosa*, *Cerceris*, *Philanthus* 254  
  
*sabulosa*, *Ceropales bogdanovii* 160  
*sabulosus*, *Crabro* 246  
*sabulosus*, *Lasioglossum*, *Halictus* 286  
*sabulosus*, *Sphex* 288  
*sabulosus*, *Sphex* 212  
*sachalinense*, *Aglaostigma*,  
   *Neurosiobla* 84  
*sachalinense*, *Trichosoma* 31  
*sachalinensis*, *Abia* 29  
*sachalinensis*, *Andrena florea* ssp. 267  
*sachalinensis*, *Anoplius* 172  
*sachalinensis*, *Bombus sporadicus* 328  
*sachalinensis*, *Calameuta*, *Cephus* 109  
*sachalinensis*, *Camponotus* 198  
*sachalinensis*, *Camponotus*  
   *herculeanus* var. 198  
*sachalinensis*, *Cephalcia*, *Lyda* 102  
*sachalinensis*, *Cimbex*  
   *quadrimaculata* 29  
*sachalinensis*, *Dolerus* 81  
*sachalinensis*, *Gilpinia* 34  
*sachalinensis*, *Leptothorax tuberum* 208  
*sachalinensis*, *Pseudepipona* 183  
*sachalinensis*, *Rhadinoceraea* 52  
*sachalinensis*, *Tenthredo* 98  
*sachalinensis*, *Urocerus* 113  
*sagemehli*, *Nomada lineola* var. 313  
*sagittata*, *Notoglossa* 242  
*sagmaria*, *Tenthredopsis raddatzi* 99  
*sagmarius*, *Euura*, *Amauronematus* 64  
*sagulatus*, *Pachynematus* 72  
*sah*, *Urocerus*, *Sirex* 113  
*sahlbergi*, *Andrena* 273  
*sahlbergi*, *Cardiocondyla* 203  
*sahlbergi*, *Cardiocondyla*  
   *elegans* var. 203  
*Sahlbergi*, *Crabro* 234  
*sahlbergi*, *Entomognathus*, *Crabro* 234  
*sahlbergi*, *Evagetes*, *Pompilus* 171  
*sahlbergi*, *Halictus* 285  
*Sahlbergia* 83  
*saigusai*, *Anoplius* 172  
*Sainiella* 90  
*saishiuensis*, *Palarus* 243  
*sajanicus*, *Pamphilus* 103  
*sajoi*, *Halictus* 278  
*sakagami*, *Andrena* 264  
*sakagami*, *Bombus ardens* 330  
*sakagami*, *Lasioglossum* 286  
*Sala* 70  
*salebrosa*, *Vespula korensis* 196  
*salentina*, *Mutilla* 157  
*salicacea*, *Andrena* 268  
*salicariae*, *Tetraloniella*, *Macrocera* 322  
*saliceti*, *Cimbex* 30  
*saliceti*, *Hylotoma* 24  
*saliceti*, *Nematus* 64  
*saliceti*, *Tenthredo* 56  
*salicicola*, *Euura* 56  
*salicicola*, *Pachynematus albipennis* 57  
*salicis*, *Andrena* 275  
*salicis*, *Cimbex variabilis* 30  
*salicis*, *Euura*, *Tenthredo* 64  
  
*salicis*, *Tenthredo* 61, 64  
*salicis*, *Trichosoma* 31  
*saliciscinereae*, *Euura*, *Tenthredo* 64  
*salicislapponicae*, *Euura* 56  
*salicispentandrae*, *Tenthredo* 56  
*salicivora*, *Pristiphora*,  
   *Lygaeonematus* 74  
*salicivorus*, *Nematus* 62  
*salina*, *Leptothorax tuberum* var. 208  
*salina*, *Myrmica* 206  
*salina*, *Myrmica scabrinodis* var. 206  
*Salius* 161  
*saltensis*, *Mutilla* 157  
*saltuarius*, *Bombus*, *Hortobombus* 328  
*saltuum*, *Neurotoma*, *Tenthredo* 103  
*salviae*, *Amegilla*, *Anthophora* 323  
*salviae*, *Anthophora*, *Lasius* 323  
*samarensis*, *Halictus* 278  
*samaricum*, *Lasioglossum*, *Halictus* 286  
*samariensis*, *Lophopompilus*, *Sphex* 173  
*sambuci*, *Allantus* 86  
*sambucicola*, *Crabro* 228  
*sameshimai*, *Psen* 251  
*samolad*, *Euura*, *Pontania* 64  
*samurai*, *Polyergus* 202  
*samuray*, *Eumenes* 182  
*samurayi*, *Rhynchium*  
   *haemorrhoidale* 189  
*sancta*, *Myrmica scabrinodis* var. 206  
*sanctus*, *Spatulocephus* 110  
*sanguinatus*, *Sphex*  
   *chionospilus* 289  
*sanguinea*, *Camponotus*  
   *japonicus* var. 198  
*sanguinea*, *Formica* 200  
*sanguineus*, *Phiarus*  
   *abdominalis* var. 318  
*sanguinicollis*, *Dolerus*, *Tenthredo* 80  
*sanguinicollis*, *Eurhadinoceraea*,  
   *Blennocampa* 47  
*sanguinicollis*, *Hylotoma* 24  
*sanguinipes*, *Macrophya* 85  
*sanguiniventris*, *Andrena erberi* var. 264  
*sanguinolenta*, *Arge* 22  
*sanguinolenta*, *Macrophya*,  
   *Tenthredo* 86  
*sanguinolenta*, *Sphex* 166  
*sanguinolentus*, *Homonotus*, *Sphex* 166  
*sannio*, *Polynematus* 56  
*sanoitali*, *Tengyra* 149  
*sanzii*, *Elampus* 128  
*sapellonis*, *Andrena* 268  
*sapidus*, *Stenodynerus* 190  
*sapphirina*, *Chrysis inaequalis* 136  
*sapphirus*, *Chrysis* 136  
*sapporensis*, *Cimbex* 29  
*sapporensis*, *Crabro* 234  
*sapporensis*, *Pamphilus*, *Lyda* 105  
*sapporensis*, *Pompilus* 166  
*sapporensis*, *Tenthredo*, *Allantus* 93  
*sapporoensis*, *Bombus* 327  
*sapporoensis*, *Crabro* 230, 233  
*sapporoensis*, *Crabro dimidiatus* 230

- sapporoensis*, Sphecodes 289  
*sapporonis*, Aglaostigma, *Macrophya* 84  
*Sapyga* 145  
*Sapyga* subg. 145  
**Sapygidae** 145  
*Sapygina* 146  
**Sapyginae** 145  
*sarachensis*, Eucera 321  
*sarafschani*, Bembix 222  
*sardarica*, Chrysis 137  
*sardinica*, Andrena  
    colletiformis var. 264  
*sardiniensis*, Nematus 69  
*sardoa*, Aphaenogaster 203  
*sardoa*, Prosopis brevicornis 259  
*sardous*, Allodynerus delphinalis 178  
*sareptana*, Ammophila 212  
*sareptana*, Cerceris 253  
*sareptana*, Pristiphora 74  
*sareptana*, Scolia 147  
*sareptana*, Tenthredo 90  
*sareptana*, Tenthredopsis 99  
*sareptana*, Tetrachrysis  
    grohmanni var. 136  
*sareptana*, Tiphia 150  
*sareptana*, Tropidotilla, *Mutilla* 157  
*sareptanus*, Astatus 218  
*sareptanus*, Cephus 109  
*sareptanus*, Eumenes 182  
*sareptanus*, Gorytes 224  
*sareptanus*, Halictus 284  
*sareptanus*, Odynerus 187  
*sareptanus*, Onychopterocheilus,  
    *Pterocheilus* 187  
*sareptanus*, Philoctetes, *Ellampus* 132  
*sareptanus*, Podalirius retusus 325  
*sareptanus*, Tachysphex panzeri 239  
*sareptensis*, Sphecodes 289  
*sarkissiani*, Tetramorium  
    caespitum var. 209  
*sarmatica*, Myrmica 154  
*sarmatica*, Nomada zonata 317  
*sarmaticus*, Stizus 225  
*sarnia*, Andrena nigroaenea 269  
*Sarochilus* subg. 185  
*saropoda*, Anthophora 324  
*Sasmarila* 150  
*sassai*, Symmorphus 191  
*satanas*, Tachysphex  
    schmiedeknechti 239  
*satanas*, Tremex 114  
*satoi*, Ceratina 310  
*satonis*, Beleses, *Abeleses* 40  
*satschauensis*, Halictus 281  
*satschouanus*, Crabro 235  
*satschouanus*, Lindenius, *Crabro* 235  
*satsumanus*, Rhynchium 183  
*satunini*, Hedychridium 129  
*satunini*, Plagiolepis 202  
*satunini*, Temnothorax, *Leptothorax* 208  
*satyrus*, Astatus 110  
*saundersella*, Andrena 271  
*saundersi*, Crabro 231  
*saundersi*, Macrophyta 85  
*saundersi*, Tenthredopsis 99  
*saundersii*, Halictus 285  
*saussurei*, Anthophora 324  
*saussurei*, Cleptes 127  
*saussurei*, Megachile 307  
*saussurei*, Vespa 196  
*sauterianus*, Nematus 61  
*savignyi*, Megachile 305  
*Savignyi*, Oxybelus 242  
*sawai*, Perineura 94  
*Saxatilipompilus* 168  
*saxatilis*, Camponotus 198  
*saxatilis*, Camponotus herculeanus 198  
*saxatilis*, Camponotus  
    pennsylvanicus 198  
*saxatilis*, Dolerus 77  
*saxesenii*, Pristiphora, *Nematus* 74  
*saxialis*, Hoplitis, *Anthocopa* 297  
*saxicola*, Lyda 102  
*saxonica*, Dolichovespula, *Vespa* 195  
*saxonica*, Tenthredo 95  
*sayi*, Crabro 232  
*sayi*, Rhogogaster 87  
*scabiosae*, Tetraloniella, *Eucera* 322  
*scabricollis*, Sphecodes 290  
*scabrinodis*, Myrmica 206  
*scabrisalvis*, Nematus 67  
*scabrosa*, Andrena 265  
*scabrosus*, Eumenes sareptanus 181  
*scalaris*, Brachystegus, *Nysson* 219  
*scalaris*, Nysson 219  
*scalaris*, Rhogogaster, *Tenthredo* 88  
*scalesii*, Trichiosoma 31  
*scamni*, Leptothorax 204  
*scamni*, Leptothorax muscorum var. 204  
*scandinavus*, Odynerus 184  
*scaposus*, Crossocerus 229  
*Scapteroides* 276  
*scapulare*, Anteon, *Dryinus* 119  
*scapularis*, Astata, *Astatus* miegii 218  
*scapularis*, Selandria 55  
*scapularis*, Tenthredo 76  
*scardicus*, Halictus 277  
*scariosus*, Sphecodes gibbus similis 287  
**Sceliphrinae** 214  
*Sceliphron* 214  
*schaeffarella*, Apis 316  
*schaefferi*, Cimbex 29  
*schaefferi*, Mutilla 157  
*schaefferi*, Tenthredo 86  
*schaefferi*, Tenthredo 97  
*schelkovnikovi*, Halictus 282  
*schencki*, Andrena 271  
*schencki*, Chrysis 138  
*schencki*, Crabro dives 232  
*schencki*, Mutilla 155  
*schencki*, Myrmica 206  
*schencki*, Myrmica rubra var. 206  
*schencki*, Nomioides minutissima 292  
*schencki*, Psenulus, *Psen* 252  
*schenckiana*, Chrysis ignita 138  
*schenckii*, Hylaeus 260  
*schenckii*, Sphecodes 290  
*schenckioides*, Myrmica 206  
*schenkella*, Andrena 270  
*schenkii*, Anthophora parietina var. 324  
*scheviakovi*, Megachile 308  
*scheviakovi*, Nomada 313  
*schevyrevi*, Sapyga caucasica 145  
*schewyrewi*, Nematus, *Pteronus* 75  
*schiodtei*, Priocnemis 163  
*schirmeri*, Tenthredella atra 93  
*schirmeri*, Tenthredo omissa 97  
*Schistonyx* 171  
*Schistosphex* 237  
*Schizagenia* 165  
*Schizanoplius* subg. 167  
*Schizoceros* 26  
*Schizocerus* 26  
*Schlettereri*, Crabro 232  
*schlettereri*, Ectemnius, *Crabro* 232  
*schlueteri*, Euura, *Amauronematus* 64  
*schmidti*, Andrena transitoria ssp. 274  
*schmidti*, Crematogaster, *Acrocoelia* 204  
*schmidti*, Dolerus 80  
*schmidti*, Parammobatodes 319  
*schmidti*, Pseudepipona 180  
*schmidtii*, Nematus 59  
*Schmiedeknechti*, Crabro 234  
*schmiedeknechti*, Entomognathus,  
    *Crabro* 234  
*schmiedeknechti*, Gorytes 223  
*schmiedeknechti*, Nomada 313  
*schmiedeknechti*, Tachysphex 239  
*schmiedeknechti*, Tenthredopsis 83, 239  
*schmiedeknechti*, Eremiasphesium 245  
*schmiedeknechti*, Hylotoma 23  
*schneideri*, Dolerus liogaster 80  
*schneideri*, Teleutomymex 208  
*schoenherri*, Tenthredo 38  
*schottii*, Nomada 318  
*schottii*, Pasites 319  
*schranchkii*, Tenthredo 94  
*schranchkella*, Melitta 268  
*schrencki*, Bombus 331  
*schrenckii*, Scolia 148  
*schrenckii*, Vespa 196  
*schulthess*, Cerceris 253  
*schulthessi*, Ellampus 132  
*schulthessi*, Halictus 285  
*schulthessi*, Leptolarra 237  
*schulthessi*, Odynerus 188  
*schulthessii*, Belomicrus 242  
*schummeli*, Epeolus 317  
*schwarzi*, Andrena 267  
*schwarzi*, Smicromyrme 156  
*schwarzi*, Sphecodes 290  
*Schyzocera* 26  
*sciaphilus*, Psen 250  
*Sciapterina* 89  
*Sciapteryx* 89  
*scintillans*, Chrysis 138  
*Sciopteryx* 89  
*scirpaceum*, Lasioglossum, *Halictus* 286  
*scissa*, Tenthredo 90

- scita*, *Andrena* 273  
*scita*, *Arge*, *Hylotoma* 24  
*scita*, *Hoplitis*, *Osmia* 297  
*scita*, *Nomada* 314  
*scita*, *Tenthredo* 95  
*Scitandrena* subg. 273  
*scitulum*, *Lasioglossum*, *Halictus* 281  
*Sclerochroa* 124  
*Scleroderma* 124  
**Sclerodermini** 124  
*Sclerodermus* 124  
*Scolia* 147  
*Scolia* subg. 147  
**Scoliidae** 147  
**Scoliinae** 147  
**Scoliini** 147  
**Scolioidea** 145  
*Scolioides* 147  
*Scolioneura* 52  
*scopipes*, *Andrena ephippium* var. 269  
*scopipes*, *Andrena morio* var. 269  
*scopolii*, *Tenthredo* 93  
*scotapsis*, *Euura*, *Nematus* 64  
*scotica*, *Andrena trimmerana* var. 267  
*scotica*, *Pemphredon* 249  
*scotica*, *Tenthredo* 93  
*scoticus*, *Ancistrocerus*, *Odynerus* 179  
*scoticus*, *Dolerus* 78  
*scoticus*, *Nematus* 72  
*Scotomphales* 225  
*scripta*, *Tenthredo* 87  
*scrophulariae*, *Tenthredo* 90, 97  
*sculpticollis*, *Chrysellampus*,  
*Omalus* 127  
*sculptilis*, *Tachysphex* 239  
*sculpturata*, *Chrysis* 138  
*sculpturata*, *Chrysis ignita* var. 138  
*sculpturata*, *Notogonia* 237  
*sculpturata*, *Poecilagenia*,  
*Pseudagenia* 165  
*sculpturatum*, *Hedychridium*,  
*Hedychrum* 129  
*sculpturatus*, *Panurginus* 276  
*scutatatum*, *Trypoxylon scutatatum* 245  
*scutatus*, *Crabro* 227  
*scutatus*, *Crabro* 229  
*scutellare*, *Hedychridium*,  
*Hedychrum* 129  
*scutellariae*, *Athalia scutellariae* 45  
*scutellaris*, *Allantus* 97  
*scutellaris*, *Allantus koehleri* 90  
*scutellaris*, *Blennocampa* 51  
*scutellaris*, *Chrysis* 128  
*scutellaris*, *Chrysis* 138  
*scutellaris*, *Crabro* 229  
*scutellaris*, *Crocisa* auct. 327  
*scutellaris*, *Formica* 204  
*scutellaris*, *Hoplomerus spinipes* var. 187  
*scutellaris*, *Hylaeus* 260  
*scutellaris*, *Hylotoma* 26  
*scutellaris*, *Lyda* 102  
*scutellaris*, *Macrophya rustica* 86  
*scutellaris*, *Nomada* 326  
*scutellaris*, *Osmia* 298  
*scutellaris*, *Oxybelus* 243  
*scutellaris*, *Physetopoda*, *Mutilla* 155  
*scutellaris*, *Stelis* 303  
*scutellaris*, *Stizus* 225  
*scutellaris*, *Tenthredopsis dubia* 99  
*scutellaris*, *Tenthredopsis*,  
*Tenthredo* 100  
*scutellaris*, *Thyreus*, *Nomada* 327  
*scutellata*, *Euura*, *Nematus* 65  
*scutellata*, *Macrophya* 85  
*scutellata*, *Sphex* 226, 230  
*scutellata*, *Tenthredo*, *Allantus* 93  
*scutellatus*, *Crabro* 230  
*scutellatus*, *Crabro*, *Sphex* 226  
*scutifera*, *Cerceris* 255  
*scutigerum*, *Trypoxylon* 245  
*scutularia*, *Sphex* 226  
*scythes*, *Fervidobombus* 331  
*scythia*, *Arachnospila* 169  
*scythicus*, *Characopygus* 110  
*scythicus*, *Megalodontes* 107  
*seabrai*, *Solierella* 241  
*sebetia*, *Caliroa* 45  
*secunda*, *Andrena thoracica* var. 269  
*secunda*, *Strongylogaster*,  
*Pseudotaxonus* 82  
*sedankiana*, *Tenthredo* 92  
*sedilloti*, *Megachile* 306  
*sedula*, *Eucera* 321  
*seeboldi*, *Tenthredo solitaria* 95  
*seesana*, *Tenthredo* 82  
*segmentaria*, *Tenthredo* 90  
*segmentarius*, *Nematus* 24  
*segmentarius*, *Nematus* 62  
*segmentata*, *Tenthredo* 43  
*segnis*, *Anthophora* 324  
*seguro*, *Tenthredo finschi* 93  
*segusina*, *Anthophora* 323  
*seitzi*, *Trachusa byssina* var. 303  
*sejensis*, *Pachyprotasis sejensis* 88  
*sekerai*, *Tenthredo olivacea* 92  
*Seladonia* subg. 278  
*seladonius*, *Halictus*, *Apis* 279  
*Selandria* 81  
*Selandria* subg. 75  
*Selandridea* 76  
*selandriiformis*, *Dineura* 68  
**Selandriinae** 75  
*selandrioides*, *Nematus* 74  
*Selandrophia* 75  
*sellata*, *Mutilla* 156  
*sellata*, *Pseudepipona*, *Lionotus* 188  
*semenovi*, *Acantholepis*  
*frauenfeldi* var. 202  
*semenovi*, *Anthophora* 324  
*semenovi*, *Hartigia* 111  
*semenovi*, *Lepisiota*, *Acantholepis* 202  
*semenovi*, *Prenanteon* 119  
*semenovi*, *Pseudocavellaria*,  
*Clavellaria* 30  
*semenovi*, *Tachysphex* 238  
*semenovi*, *Temnothorax*,  
*Leptothorax* 208  
*semenoviana*, *Abia* 29  
*semenoviellus*, *Bombus* 328  
*semenowi*, *Allantus* 95  
*semenowi*, *Hoplomerus* 187  
*semenowi*, *Sciapteryx* 89  
*semiaeneus*, *Halictus* 282  
*semiaeter*, *Podalirius simplicipes* 324  
*semiaurata*, *Sphex* 126  
*semiauratus*, *Cleptes* auct. 127  
*semiauratus*, *Cleptes*, *Sphex* 127  
*semicincta*, *Tenthredo* 46, 93  
*semicinctus*, *Hylaeus* 280  
*semicircularis*, *Megachile* auct. 306  
*semicircularis*, *Omalus* 132  
*semicoerulea*, *Arge*, *Tenthredo* 25  
*semicornis*, *Tenthredo* 94  
*semicyaneus*, *Cleptes* 127  
*semiflava*, *Andrena* 264  
*semiflava*, *Lyda* 102  
*semilactea*, *Euura*, *Nematus* 65  
*semilaeve*, *Lasioglossum*, *Halictus* 286  
*semilaevis*, *Andrena* 271  
*semilucens*, *Lasioglossum*, *Halictus* 286  
*semilunata*, *Cerceris* 255  
*seminiger*, *Allantus amaenus* 97  
*seminigra*, *Anthophora retusa* 325  
*seminigra*, *Bembix* 222  
*seminigra*, *Brachythops* 76  
*seminitidus*, *Psen* 251  
*seminuda*, *Andrena* 273  
*seminuda*, *Eucera* 321  
*semiopaca*, *Euura*, *Pteronidea* 65  
*semiorbitalis*, *Nematus* 63  
*semiplea*, *Megachile* 307  
*semirubra*, *Andrena* 273  
*semirufa*, *Cerceris* 255  
*semirufus*, *Armitarsus* 84  
*semirugosa*, *Andrena* 271  
*semistriatus*, *Gorytes* 224  
*semistrigosa*, *Eucera* 320  
*semitectus*, *Halictus* 279  
*semitomentosus*, *Halictus* 283  
*semperi*, *Anthophora* 324  
*sempersolis*, *Euura*, *Amauronematus* 65  
*semseyi*, *Tenthredo* 92  
*seneciorum*, *Andrena* 265  
*senescens*, *Anthophora* 323  
*senex*, *Andrena* 269  
*senex*, *Hylaeus* 278  
*senex*, *Megachile* 307  
*senile*, *Anthidium* 301  
*senilis*, *Bembix* 222  
*senilis*, *Colletes*, *Andrena* 258  
*senilis*, *Halictus*, *Hylaeus* 277  
*Senoclidea* 53  
*sensitivus*, *Embolemus* 122  
*seorsa*, *Pristiphora* 71  
*seoulensis*, *Cerceris quinquefasciata* 254  
*seoulensis*, *Symmorphus* 191  
*separanda*, *Ammophila* 212  
*separanda*, *Andrena* 273  
*separata*, *Andrena* 267  
*separatus*, *Paranoplius* 172

- separatus, Pompilus 172  
*sepsoides*, Gonatopus 120  
*septemdentatus*, Gonatopus 120  
 septemspinus, Anthidium 301  
 septentrionalis, Arachnospila 168  
*septentrionalis*, Crabro 231  
 septentrionalis, Eumenes 182  
 septentrionalis, Euura,  
     *Amauronematus* 65  
 septentrionalis, Nematius, *Tenthredo* 69  
*septentrionalis*, Smicromyrme  
     pusilla 156  
*seraxense*, Anthidium 300  
*seraxensis*, Epeolus transitorius var. 317  
*seraxensis*, Palarus 243  
 serena, Chrysis serena 138  
*serica*, Arachnospila anceps 168  
*sericans*, Megachile 305  
*sericans*, Tenthredo 50  
 sericata, Abia 29  
 sericata, Andrena 267  
*sericata*, Prosopis 261  
*sericatus*, Oxybelus 243  
 sericea, Abia, *Tenthredo* 29  
*sericea*, Apis 268  
 sericea, Tenthredo 28  
*Sericeiformis* 30  
*sericeiventris*, Mutilla 157  
*sericeomaculata*, Pompilus 168  
 sericeum, Pison 244  
 sericeum, Trichiosoma 31  
 sericeus, Agenioideus, *Pompilus* 167  
*sericeus*, Anteon 119  
*sericultorum*, Nomada 314  
 seriepunctata, Euura, *Pteronidea* 65  
 sermola, Pristiphora 74  
*serotina*, Andrena 269  
*serotina*, Nomada flavoguttata var. 312  
*serotina*, Tenthredo 40  
*serotinella*, Andrena  
     bimaculata var. 272  
 serotinus, Apethymus, *Tenthredo* 40  
*serotinus*, Crabro 232  
*serotinus*, Nematius 73  
*Serpapinta* 150  
 serradifera, Tenthredo 95  
*serraticeps*, Anthidium 302  
*serraticornis*, Psen 251  
*serratulae*, Anthidium 303  
 serratulae, Trachusa 303  
 serratus, Ammoplanus 246  
 serratus, Aphelopus 118  
 serricus, Odynerus, *Oplomerus* 187  
*serrilabris*, Osmia 297  
*serripes*, Crabro 230  
*serripes*, Odynerus 187  
*serripes*, Pterocheilus 186, 187  
 sarrisquama, Bombus cullumanus 328  
 sertata, Onycholyda, *Pamphilius* 103  
 sertifer, Neodiprion, *Tenthredo* 34  
 sertus, Smicromyrme, *Mutilla* 156  
 serva, Selandria, *Tenthredo* 81  
 serva, Tenthredo 81  
 serviculus, Temnothorax,  
     *Leptothorax* 208  
 Serviformica subg. 200  
*servulellus*, Halictus 283  
*servus*, Crabro 228  
*setigera*, Andrena 273  
*setosa*, Andrena 275  
*setosus*, Ammobates 318  
 setteri, Nomada 316  
 setulellum, Lasioglossum, *Halictus* 286  
*seuli*, Rhynchium 183  
*sexannulata*, Tenthredo 97  
*sexcineta*, Apis 313  
*sexcineta*, Vespa 196  
 sexcinctus, Ectemnius, Crabro 231  
 sexcinctus, Halictus, *Apis*  
     sexcinctus 277  
 sexdentata, Chrysis 138  
 sexfasciata, Nomada 316  
*sexfasciata*, Vespa 187  
*sexguttata*, Scolia 145  
*sexmaculata*, Megachile 306  
*sexmaculata*, Mutilla 157  
*sexmaculata*, Scolia 147  
 sexmaculata, Scolia, *Vespa* 148  
 sexmaculata, Vespa 147  
*sexmaculatum*, Anthidium 301  
 sexmaculatus, Aporinellus,  
     *Pompilus* 168  
*sexmaculatus*, Crabro 230  
 sexnotatulum, Lasioglossum,  
     *Halictus* 281  
 sexnotatum, Lasioglossum, *Melitta* 281  
 sexpunctata, Empria, *Tenthredo* 41  
 sexpunctata, Meria 150  
*sexpunctata*, Tenthredo 41  
*sexpunctata*, Trachusa 302  
*sexpunctata*, Vespa 179  
*sexpunctata*, Vespa mongolica var. 194  
*sexpunctatus*, Hellus 145  
*sexsignata*, Stelis 302  
*sexsignatus*, Halictus 285  
*sexspinosa*, Nomada 312  
 sexstrigatum, Lasioglossum,  
     *Halictus* 286  
*shaman*, Cerckeris 253  
*shaposhnikovii*, Bombus 329  
 shaposhnikovii, Tenthredo, *Allantus* 92  
*sharificus*, Halictus malachurus 284  
*Shariphora* 70  
*sharpi*, Nematius 61  
*shawella*, Melitta 271  
*shawi*, Monophadnoides 50  
*shawii*, Pemphredon 249  
 sheppardana, Nomada, *Apis* 316  
*shestakovi*, Ancistromma 236  
*Shestakovia* 245  
 shestakoviana, Cerckeris 255  
*Shestakoviella* 255  
*shestoperovi*, Allantus 90  
 shibuyai, Crossocerus, *Crabro* 227  
*shibuyai*, Odynerus 180  
 shidai, Priocnemis 163  
 shimizui, Poecilogenia 165  
 shimoyamai, Trypoxylon 245  
*shinanoensis*, Vespa 195  
 shinoharai, Nematius, *Craesus* 69  
*shirakii*, Calicurgus 162  
*shiroyamai*, Symmorphus 191  
*shirozui*, Andrena 264  
*shirozui*, Sphecodes 288  
*shishkini*, Halictus 283  
*shitkovi*, Camponotus  
     herculeanus var. 198  
*shuckardi*, Cemonus 248  
*Shuckardi*, Crabro 229, 233  
*shuckardi*, Mimesa 250  
*shuckardi*, Passaloecus 248  
*shukardi*, Nysson 220  
*shumagensis*, Pteronus 63  
*shur*, Cerckeris 253  
*Sialis* 162  
 siberica, Dasylabris, *Mutilla* 154  
*siberiensis*, Megalodontes 107  
 sibiriacum, Lasioglossum, *Halictus* 286  
 sibirica, Abia 29  
*sibirica*, Amasis lateralis 32  
 sibirica, Andrena 275  
 sibirica, Arachnospila 169  
 sibirica, Blennocampa 45  
 sibirica, Cerckeris 255  
 sibirica, Ceropales 160  
 sibirica, Chrysis 138  
 sibirica, Didineis 219  
 sibirica, Dufourea paradoxa 290  
 sibirica, Euura saliceti 64  
 sibirica, Euura, *Pontania* 65  
*sibirica*, Hologyga 131  
 sibirica, Macrophyta 86  
 sibirica, Melecta 326  
 sibirica, Melitta, *Cilissa* 294  
 sibirica, Mimesa, *Psen* 250  
 sibirica, Neurotoma 103  
*sibirica*, Nomada errans var. 312  
*sibirica*, Nomada lineola var. 313  
 sibirica, Rhogogaster 88  
*sibirica*, Siobla 89  
*sibirica*, Tachytes 240  
*sibirica*, Tenthredo velox 96  
 sibirica, Tenthredo, *Allantus* 98  
 sibirica, Thyreomelecta, *Crocisa* 326  
*sibirica*, Vespa 196  
 sibirica, Xyela 21  
 sibiricana, Mimemesa 251  
 Sibiricobombus subg. 330  
*sibiricola*, Macrophyta 86  
 sibiricola, Phylloecus 111  
 sibiricola, Rhadinoceraea 52  
 sibiricola, Tenthredo, *Tenthredella* 92  
 sibiricum, Aprosthema 26  
 sibiricum, Bathanthidium,  
     *Anthidium* 301  
 sibiricum, Hedychridium 129  
 sibiricum, Trichiosoma 31  
*sibiricus*, Ammoplanus 246  
 sibiricus, Bembecinus, *Stizus*  
     hungaricus 221

- sibiricus, *Bombus*, *Apis* 330  
 sibiricus, *Celonites* 178  
 sibiricus, *Cimbex* 30  
 sibiricus, *Crabro* 226  
*sibiricus*, *Dicondylus* 121  
 sibiricus, *Dolerus germanicus* 78  
 sibiricus, *Dolichoderus* 197  
*sibiricus*, *Dolichoderus*  
     *quadripunctatus* 197  
 sibiricus, *Formicoxenus*,  
     *Leptothorax* 204  
 sibiricus, *Hylaeus* 260  
*sibiricus*, *Nematus* 62  
*sibiricus*, *Odynerus* 184  
*sibiricus*, *Philanthus* 255  
*sibiricus*, *Psen* 251  
 sibiricus, *Pterocheilus*, *Odynerus* 189  
*sibiricus*, *Sphecodes* 290  
 sibiricus, *Tachytes etruscus* 240  
*sicanus*, *Microdynerus patagiatus* 186  
*sicanus*, *Micromyrme*, *Mutilla* 156  
*sichelis*, *Microdynerus nugdunensis* 186  
*sichelii*, *Anthophora* 325  
*sichelii*, *Bombus* 329  
*sichelii*, *Katamenes*, *Eumenes* 185  
*sichotana*, *Megachile* 308  
*sichuanensis*, *Spinarge* 25  
*siciliaca*, *Chrysis pyrrhina* 138  
*sickershusanus*, *Polyplanus* 122  
*sickmanni*, *Ammophila* 212  
*sickmanni*, *Chrysis* 138  
*sicula*, *Anthophora* 323  
*siculus*, *Ancistrocerus oiventris* 179  
*siculus*, *Colletes tuberculatus* 259  
*Siculus*, *Ectemnius* 233  
*siculus*, *Evagetes*, *Pompilus* 171  
*siculus*, *Hylaeus* 261  
*siculus*, *Odynerus* 185  
*sidemii*, *Bombus mocsaryi* 331  
*sidemii*, *Colletes* 258  
*sidorenkoi*, *Apehymus* 40  
*sieboldii*, *Nematus* 63  
*Sierocolpa* subg. 150  
*Sierola* 125  
*Sierolomorpha* 151  
**Sierolomorphidae** 151  
*sieversi*, *Osmia* 298  
*sigma*, *Tenthredo* 96  
*signata*, *Osmia* 298  
*signata*, *Pteronidea segmentaria* 60  
*signata*, *Stelis*, *Anthidium* 302  
*signata*, *Tenthredo* 85, 102  
*signaticeps*, *Pompilus* 169  
*signaticollis*, *Paragymnomerus*,  
     *Hoplomerus* 187  
*signaticrus*, *Crabro* 226  
*signatifrons*, *Discolia* 147  
*signatum*, *Chelostoma* 297  
*signatus*, *Colletes daviesanus* 257  
*signatus*, *Crabro* 230  
*signatus*, *Hylaeus*, *Sphex* 262  
*signatus*, *Leptochilus* 185  
*signatus*, *Triepeolus* 317  
*signifer*, *Cephus haemorrhoidalis* 108  
*sikhotealinensis*, *Evagetes*,  
     *Anospilus* 171  
*sikhotealinensis*, *Platyxiphidria* 115  
*sikkimensis*, *Conaspidia* 84  
*sikkimensis*, *Polistes rothneyi* 192  
*sikora*, *Tachysphex* 238  
*silaceum*, *Proceratium* 210  
*silantjewi*, *Bombus* 328  
*Silaon* 241  
*silao*, *Odynerus* 180  
*silensis*, *Tenthredo* 95  
*sillata*, *Andrena* 271  
*silvaticus*, *Chelogyne* 119  
*silvester*, *Nematus* 65  
*silvicola*, *Nomada* 316  
*silvicola*, *Sphecodes* 288  
*Simandrena* subg. 273  
*similaris*, *Nematus* 65  
*simulator*, *Pseudopolistes sulcifer* 193  
*similatus*, *Hylaeus* 261  
*simile*, *Hedychrum* 130  
*similis*, *Allantus* 97  
*similis*, *Andrena* 274  
*similis*, *Arge*, *Hylotoma* 25  
*similis*, *Cephus* 110  
*similis*, *Colletes* 258  
*similis*, *Diprion*, *Lophyrus* 33  
*similis*, *Dryudella*, *Astatus* 218  
*similis*, *Epeolus* 317  
*similis*, *Eucera* 320  
*similis*, *Halictus* 281  
*similis*, *Hylaeus* 268, 285  
*similis*, *Hylotoma* 24  
*similis*, *Meria* 149  
*similis*, *Mutilla* 157  
*similis*, *Odynerus* 179  
*similis*, *Physetopoda*, *Paramyrme* 155  
*similis*, *Pristiphora* 74  
*similis*, *Prosopis* 262  
*similis*, *Pteronus* 66  
*similis*, *Rhogogaster* 89  
*similis*, *Sapyga*, *Sirex* 145  
*similis*, *Siobla*, *Encarsioneura* 89  
*similis*, *Sphecodes* 287  
*similis*, *Syrista* 111  
*similis*, *Tenthredo* 84  
*similis*, *Vespa* 195  
*simillima*, *Andrena* 265  
*simillima*, *Arge*, *Hylotoma* 25  
*simillima*, *Nomada* 316  
*simillima*, *Scolia* 147  
*simillima*, *Stelis* 303  
*simillima*, *Vespa* 194  
*simillimus*, *Halictus* 285  
*simillimus*, *Odynerus* 187  
*simillimus*, *Sphecodes* 290  
*simini*, *Heptapotamius* 42  
*simius*, *Bombus lapponicus* 330  
*Simplemphytus* 39  
*simplex*, *Ammoplanellus*,  
     *Ammoplanus* 246  
*simplex*, *Chrysura*, *Chrysis simplex* 140  
*simplex*, *Coelioxys* 305  
*simplex*, *Halictus* 278  
*simplex*, *Hylotoma* 68  
*simplex*, *Nomioides variegata* 292  
*simplex*, *Oxybelus* 242  
*simplex*, *Psen* 252  
*simplex*, *Pteronidea pseudonotabilis* 57  
*simplex*, *Vespa* 183  
*simplicia*, *Mutilla* 155  
*simpliciceps*, *Scapter* 319  
*simplicicornis*, *Pseudoscolia*,  
     *Philanthus* 256  
*simplicifrons*, *Pristiphora* 74  
*simplicior*, *Lasioglossum*, *Halictus* 286  
*simplicipes*, *Anthophora* 324  
*simplicipes*, *Corynopus* 235  
*simplicipes*, *Pterocheilus* 184  
*simulans*, *Dineura* 75  
*simulans*, *Pachyprotasis*, *Tenthredo* 88  
*simulatrix*, *Arge* 25  
*sinaiticus*, *Tachysphex* 238  
*sinense*, *Tapinoma* 198  
*sinensis*, *Ammophila* 213  
*sinensis*, *Andrena* 269  
*sinensis*, *Aphaenogaster smythiesii* 203  
*sinensis*, *Apis* 332  
*sinensis*, *Hemipepsis* 174  
*sinensis*, *Melitta* 294  
*sinensis*, *Scolia* 148  
*singula*, *Chrysis* 138  
*singularis*, *Conaspidia*, *Eriocampa* 84  
*singularis*, *Passaloeus* 248  
*singularis*, *Rhadinoceraea* 47  
*singularis*, *Sphecodes* 290  
*singularis*, *Tiphia* 150  
*sinica*, *Myrmica* 205  
*sinicola*, *Hylaeus* 261  
*sinicum*, *Hedychrum* 142  
*sinister*, *Halictus zonulus* 281  
*sinkiangensis*, *Melitta* 294  
*sinobirmanica*, *Leptocimbex potanini* 30  
*Sinostigma* 248  
*sinuata*, *Heriades* 296  
*sinuata*, *Vespa* 191  
*sinuatissimus*, *Symmorphus* 191  
*sinuatofasciatus*, *Odynerus* 184  
*sinuatum*, *Anthidium* 302  
*sinuatus*, *Crabro* 231  
*sinuatus*, *Hylaeus*, *Prosopis* 261  
*sinuatus*, *Stizus* 221  
*Siobla* 89  
*Sioblodes* 84  
*Sirex* 112  
**Siricidae** 112  
**Siricinae** 112  
**Siricoidea** 112  
**Siricomorpha** 101  
*sischkai*, *Andrena simillima* ssp. 267  
*sisymbrii*, *Andrena* 271  
*sixii*, *Selandria* 81  
*sjoebloimi*, *Euura*, *Amauronematus* 65  
*sjoestedti*, *Prosopis* 260  
*skorikovi*, *Abia* 29

- skorikovi, Myrmilla 154  
 Skorikovia 155  
*slavonicus*, Temnothorax nylanderi 208  
*slossonae*, Xylocrabo 232  
*slovaca*, Dasylabris italica f. 154  
 slovaca, Myrmica 206  
*slovakica*, Nomada cinnabarina var. 316  
*smaragdinus*, Euchroeus  
   *purpuratus* var. 140  
*smaragdinus*, Nematus 60  
*smearthmanellus*, Halictus auct. 285  
 Smicromyrme 156  
 Smicromyrme subg. 156  
**Smicromyrmini** 155  
 smithae, Euura, *Pachynematus* 65  
*smithella*, Melitta 264  
*smithii*, Cerceris 254  
*smithii*, Hylaeus 260  
*smyrnae*, Halictus 284  
 smyrnensis, Pachycephus 110  
 smyrnensis, Pachycephus  
   *smyrnensis* 110  
*smyrnensis*, Sphecodes 289  
*Snappania* 124  
 snelleni, Polistes 192  
*Snoflaki*, Crabro 227  
 sobrina, Tenthredo 95  
 socia, Gilpinia, *Lophyrus* 34  
*socia*, Tenthredo 81  
 sociabilis, Eucera 320  
*sociabilis*, Odynerus 179  
*socius*, Crossocerus 227  
*sodalis*, Chrysis 140  
 sodalitia, Macrophyta  
   *duodecimpunctata* 85  
*soederbomi*, Melecta 326  
*soenderupi*, Fenusa 48  
*sogdiana*, Andrena 271  
 sogdiana, Eucera 321  
*sogdiana*, Smicromyrme 155  
 sogdianoidea, Arachnospila,  
   *Pompilus* 170  
*sogdianus*, Gorytes 222  
*sogdianus*, Halictus 279  
*soikai*, Eumenes arbustorum 185  
*soikai*, Meria 149  
*soikai*, Polistes pamirensis var. 192  
*solea*, Nematus 75  
 soleanus, Anoplius 173  
*Solenius* 234  
 Solenopsis 207  
 solida, Chrysis 138  
*solidaginis*, Nomada 316  
*solidus*, Eumenes 181  
 solidus, Gonatopus, *Allogonatopus* 121  
 Solierella 241  
 solitaria, Tenthredo solitaria 95  
*solitarius*, Cladius 54  
*solitarius*, Nematus 61  
*solitarius*, Pteronus 65  
*solivagus*, Cemonus 249  
*solovieffi*, Halictus 286  
 solowiyofka, Arge, *Hylotoma* 25  
*solowiyofkae*, Ammophila 213  
*solowiyofkae*, Bombus 328  
*solskii*, Cerceris 253  
*Solskii*, Oxybelus 243  
*solskyi*, Osmia 298  
 solskyi, Stigmus 250  
*solstitialis*, Bombus 331  
*somalica*, Vespa orientalis var. 194  
 somotorensis, Cerceris 255  
*sonani*, Vespa magnifica 194  
 sooni, Chrysis 138  
*Sophropompilus* 170  
*sorbi*, Neurotoma 103  
 sorbi, Trichiosoma 31  
*Sorbiformis* 30  
*sordida*, Apis 275  
 sordida, Tenthredopsis, *Tenthredo* 100  
 sordidula, Crematogaster, *Myrmica* 204  
*sordidus*, Sphegex 216  
*soreli*, Halictus 281  
 soroensis, Bombus, *Apis* 328  
*soror*, Anthophora 323  
*soror*, Arge 24  
*soror*, Chrysis 138  
*soror*, Selandria 46  
*soror*, Tenthredo 94  
 sororia, Tenthredopsis 100  
*sortitor*, Tenthredo 97  
*sotschica*, Halictus lativentris 280  
*soyoensis*, Tenthredo 93  
*Spadicocrabro* 231  
*spadix*, Dasyptoda argentata 293  
*Spanolarra* 236  
*sparsiciliata*, Andrena 270  
*sparsus*, Symmorphus 191  
 spathepus, Lasius 201  
 Spatulariella subg. 262  
 specioidea, Myrmica 206  
 speciosa, Chrysis 138  
 speciosa, Euura, *Amauronematus* 65  
*speciosa*, Tarpa 107  
*speciosissima*, Nomada 314  
 speciosissimus, Tachysphex 240  
*speciosus*, Epeolus 317  
 speciosus, Platycampus 70  
 speciosus, Sphecius 224  
 speciosus, Sphegex 224  
*spectabilis*, Andrena 272  
*spectabilis*, Cephus 111  
*spectabilis*, Colletes 257  
*spectabilis*, Eucera 321  
*spectabilis*, Tenthredo 98  
 spectrum, Gonatopus, *Dryinus* 121  
*spectrum*, Ichneumon 114  
 spectrum, Xeris, *Ichneumon* 114  
 specularis, Cerceris 255  
*speculicaudatus*, Halictus 283  
*speculiferus*, Halictus minutulus 286  
*speculigerus*, Halictus minutulus 286  
 speculum, Lasioglossum, *Halictus* 286  
*speculinus*, Halictus perplexans 286  
*speetabilis*, Dasyptoda 293  
*spenceri*, Ancistrocerus antilope 178  
**Sphaerophthalminae** 153  
**Sphaerophthalmi** 153  
**Sphecidae** 212  
*Sphecienus* 224  
**Spheciiformes** 211  
**Sphecinae** 214  
**Sphecini** 215  
 Sphecius 224  
 Sphecodes 287  
 sphecodimorpha, Andrena 273  
**Sphecodina** 277  
*sphecodoides*, Tachysphex 239  
*sphecoidea*, Melitta 288  
*sphegoides*, Apis 268  
 Sphegex 215  
*sphinx*, Vespa crabro 193  
 Spilomena 249  
*Spilopompilus* 166  
 spina, Elampus, *Hedychrum* 128  
 Spinarge 25  
 spinarum, Tenthredo 43  
*spinarum*, Tenthredo 44  
*spineventris*, Osmia 298  
*spiniceps*, Crabro 228  
*spinicollis*, Crabro 232  
 spinicollis, Diodontus 247  
*spinicollis*, Lestica 234  
 Spinicoxa subg. 186  
*spinifera*, Jermakia 92  
 spinigera, Dasyptoda 293  
*spinigera*, Dioxyis 303  
*spinigera*, Melitta 267  
 spinipectus, Cerceris 255  
*spinipectus*, Crabro 230  
 spinipes, Cephus, *Banchus* 109  
*spinipes*, Crabro 233  
 spinipes, Ectemnius, *Crabro* 233  
 spinipes, Odynerus, *Vespa* 187  
 spinipes, Vespa 186  
*spiniserra*, Amauronematus 62  
*spinolae*, Dryudella 219  
 spinolae, Monophadnus, *Tenthredo* 51  
 spinolae, Nitela 241  
*spinolae*, Osmia 297  
 Spinolia 141  
 spinosus, Alysson, *Pompilus* 219  
*spinosus*, Celonites 178  
*spinosus*, Ceropales 220  
*spinosus*, Crabro 220  
 spinosus, Nysson, *Sphex* 220  
 spinosus, *Pompilus* 219  
 spinosus, Sphegex 220  
 Spintharina 141  
 spinulosa, Osmia, *Apis* 298  
 spinulosus, Sphecodes 290  
*spiraeae*, Blennocampa 46  
*spiraeae*, Euura, *Nematus* 65  
*spiraeae*, Megalodontes, *Tarpa* 107  
 spiralis, Andrena 291  
 spiricornis, Odynerus 187  
 spirifex, Sceliphron, *Sphegex* 214  
 spirifex, Sphegex 214  
 spissa, Arachnospila, *Pompilus* 170



- spissicauda*, Coelioxys 305  
*spissicornis*, Tarpa 107  
*splendens*, Andrena 269  
*splendida*, Aphaenogaster, *Atta* 203  
*splendida*, Apis 264  
*splendidula*, Chrysis 138  
*splendidus*, Cleptes, *Ichneumon* 127  
*spoliata*, Tachytes 238  
*sponsa*, Coelioxys 305  
*spooneri*, Mimumesa, *Mimesa* 251  
*sporadensis*, Eumenes  
    unguiculus var. 181  
*sporadicus*, Bombus 328  
*spretta*, Tenthredo 100  
*spretus*, Halictus 285  
*springatei*, Claremontia 46  
*spurcus*, Amauronematus 57  
*spuria*, Larra 241  
*spuria*, Tenthredo 41  
*spurius*, Miscophus, *Larra* 241  
*squalens*, Anthophora  
    personata var. 323  
*squalida*, Anthophora 324  
*squalidus*, Nematus 60  
*squamea*, Andrena 273  
*squamigera*, Andrena 264, 268  
*squamosus*, Oxybelus 242  
*squamotus*, Amauronematus 64  
*stachi*, Tachysphex 240  
*stackelbergi*, Philoctetes, *Ellampus* 132  
*stambuloffii*, Cardiocondyla 203  
*stancici*, Apterogyna 159  
*stangeana*, Myrmica 206  
*stangeana*, Myrmica bergi 206  
*staudingeri*, Pristiphora, *Nematus* 74  
*Stauronema* 75  
*Stauronematus* 75  
*stchurovsky*, Polyodontus 141  
*stchurovskiy*, Spinolia, *Polyodontus* 141  
*stecki*, Astata 218  
*stecki*, Cerceris 253  
*stecki*, Lygaeonematus 73  
*steckianus*, Odynerus  
    dentisquama var. 190  
*steckianus*, Stenodynerus,  
    *Odynerus* 190  
*steckii*, Allantus 90  
*stefaniana*, Andrena  
    chrysopyga var. 275  
*stefanii*, Andrena 274  
*steini*, Dolerus 77  
*steini*, Emphytus succinctus 38  
*steini*, Nematinus 69  
*Stelidina* 302  
*Stelidium* 302  
*Stelidomorpha* subg. 302  
*Stelis* 302  
*Stelis* subg. 302  
*stella*, Omalus, *Ellampus* 132  
*stellata*, Tenthredo 87, 102  
*Stenagenia* 165  
*Stenamma* 207  
*Stenancistrocerus* 189  
*Stenancistrocerus* subg. 189  
*Stenanthidiellum* subg. 301  
*Stenanthidium* 300  
*Stenemphytus* 43  
*Stenocephus* 111  
*Stenoclavelia* 161  
*Stenocrabro* 227  
*Stenodynerus* 189  
*stenogaster*, Euura, *Nematus* 65  
*Stenoglossa* 188  
*Stenomelissa* subg. 274  
*Stenomellinus* 251  
*Stenomesoneura* 68  
*Stenopolistes* 192  
*stentoriscapus*, Hylaeus 260  
*stenura*, Andrena labialis ssp. 267  
*stephensii*, Croesus 69  
*stepposa*, Andrena 267  
*stepposus*, Rophites clypealis 291  
*stepposus*, Smicromyrme 156  
*Stercobata* 252  
*Sterictiphora* 26  
**Sterictiphorinae** 25  
**Sterictophorinae** 22  
*sternalis*, Amauronematus vittatus 67  
*sternalis*, Athalia rosae 44  
*Stethomostus* 53  
*Stevenia* 53  
*stevensii*, Prosopis 260  
*stichi*, Euura, *Pteronidea* 65  
*sticticus*, Taxonus, *Tenthredo* 43  
*Stictoptila* 227  
*stigma*, Apis 303  
*Stigma*, Crabro 229  
*stigma*, Dryudella, *Dimorpha*  
    stigma 218  
*stigma*, Hemichroa 67  
*stigma*, Lyda 104  
*stigma*, Nomada 316  
*stigma*, Nomada auct. 314  
*stigma*, Tenthredo, *Tenthredella* 95  
*stigma*, Tenthredopsis, *Tenthredo* 100  
*Stigmaporus* 173  
*stigmatica*, Andrena 269  
*stigmatica*, Arge ustulata 25  
*stigmatica*, Coelioxys 305  
*stigmatica*, Pristiphora pallidiventris 73  
*stigmatica*, Tenthredo vespa 97  
*stigmaticalis*, Anisoneura 40  
*Stigmatodipogon* 164  
*Stigmatosona* 83  
*Stigmus* 249  
*stilata*, Dineura, *Tenthredo* 55  
*Stilbum* 141  
*stipaceus*, Leptothorax tuberum 208  
*stitia*, Ametastegia equiseti 39  
*Stizoides* 225  
*stizoides*, Vespa germanica var. 196  
*Stizolarra* 225  
*Stizomorphus* 221  
*Stizus* 225  
*stoeckhertella*, Andrena 271  
*stoeckherti*, Nomada 316  
*straminea*, Pteronidea 62  
*stramineipes*, Pamphilus, *Lyda* 105  
*stramineipes*, Tenthredo 76  
*strandii*, Lygaeonematus 58  
*strandii*, Pison 244  
*stratiotes*, Cerceris 255  
*Streptosella* 170  
*stria*, Tenthredo vestita 92  
*striata*, Ammophila 213  
*striata*, Nomada 316  
*striata*, Tenthredo vestita 92  
*striatipleuris*, Cleptes 127  
*striatula*, Myrmica 205  
*striatulum*, Stenamma 207  
*striatulum*, Stenamma  
    westwoodi var. 207  
*striatulus*, Blepharipus 233  
*striatulus*, Crabro 230  
*striatulus*, Crossocerus 230  
*striatus*, Ceratocolus 233  
*striatus*, Crabro 230, 233  
*striatus*, Crossocerus 230  
*striatus*, Gonatopus 121  
*striatus*, Halictus 285  
*stribligata*, Mutilla 157  
*stridula*, Tiphia 155  
*strigata*, Stelis 302  
*strigata*, Tenthredo vestita 92  
*strigata*, Tetraloniella, *Macrocera* 322  
*strigata*, Trachusa 300  
*strigatum*, Anthidiellum, *Trachusa* 300  
*strigatus*, Cemonus 248  
*strigosa*, Andrena 267  
*strigosa*, Tenthredo 86  
*strigosus*, Cryptocheilus, *Pompilus* 161  
*strigosus*, Tachytes 238  
*strigulosus*, Hylaeus 260  
*strigulosus*, Palmodes, *Sphex* 215  
*striola*, Aphaenogaster 203  
*striolata*, Cerceris 253  
*stroganovae*, Aprosthema 26  
*stroganovae*, Arge 25  
*Strombocerina* 82  
*Stromboceros* 82  
*Strongylogaster* 82  
*strongylogaster*, Nematus 59  
*Strongylogastroidea* 43  
*Strongylognathus* 207  
*structor*, Messor, *Formica* 204  
*Strumigenys* 207  
*struthiocamelus*, Sirex 113  
*struthiopteridis*, Sahlbergia 83  
*struthiopteridis*, Strongylogaster,  
    *Thrinax* 82  
*strymonia*, Andrena 263  
*stubbei*, Hylaeus 260  
*stubbei*, Tenthredo 94  
*stulta*, Tenthredo 92  
*sturmii*, Siobla, *Tenthredo* sturmii 89  
*stygius*, Dolerus 80  
*stygius*, Thyreopus 228  
*Stypoza* 81  
*styriacus*, Hylaeus 261

- styrius, Crossocerus, *Crabro* 228  
 styx, Euura, *Pachynematus* 65  
 suadus, Nematus 58  
 suarezi, Pterocheilus phaleratus 189  
 suavis, Nematus 56  
 suavis, Spheg 215  
 subaenescens, Lasioglossum, *Halictus*  
   subaenescens 286  
 subaeneus, Lindenius 235  
 subalatus, Dolerus 80  
 subalfkenellus, Halictus 278  
 subalpina, Smicromyrme 155  
 subapicalis, Larra 225  
 subarctica, Pristiphora,  
   *Lygaeonematus* 74  
 subarctica, Rhadinoceraea 52  
 subarcticus, Dolerus 78  
 subauratus, Ellampus  
   schulthessi var. 132  
 subauratus, Halictus, *Apis*  
   subauratus 279  
 subbaicalensis, Bombus auct. 331  
 subbaicalensis, Bombus helferanus 331  
 subbalteatus, Alpinobombus  
   kirbyellus 327  
 subbifida, Pristiphora, *Nematus* 74  
 subboreale, Tapinoma 198  
 subcana, Selandria 46  
 subcarpathica, Tenthredopsis  
   litterata 99  
 subcollaris, Alpinobombus  
   kirbyellus 327  
 subcollaris, Bombus ignitus 328  
 subcomata, Mutilla 155  
 subcoriacea, Chrysis 138  
 subcornuta, Apis 313  
 subcornuta, Mutilla 154  
 subcostatus, Allantus 90  
 subcyaneum, Pseudisobranchium,  
   *Epyris* 123  
 subcylindricus, Cephus 109  
 subdentata, Crematogaster 204  
 subdentata, Melitta 264  
 subdentatus, Tachysphex 240  
 subburnea, Bembix 221  
 suberiphoroides, Bombus czerskii 328  
 subexcisus, Hylaeus 259  
 subfasciata, Andrena 272  
 subfasciata, Prosopis 261  
 subfasciatus, Dolerus 79  
 subfasciatus, Halictus 283  
 subflavicornis, Anteon 119  
 subfulvicorne, Lasioglossum, *Halictus*  
   subfulvicorne 286  
 subfusca, Tenthredo 78  
 subfuscatus, Prionyx, *Sphex* 215  
 subgalerita, Nomioides 292  
 subgemma, Euura 65  
 subgibbosa, Cericeris 254  
 subglaber, Evagetes, *Psammochares* 171  
 subglobosa, Apis 323  
 subglobosus, Campylogaster 275  
 subincana, Melitta 273  
 subintermedia, Deuteragenia,  
   *Pogonius* 164  
 subinterruptus, Camptopoemum  
   friesei var. 276  
 subinterruptus, Crabro 233  
 subita, Lyroda 240  
 subjecta, Tenthredo 43  
 sublaevis, Harpagoxenus, *Myrmica* 204  
 sublaevis, Lithurgus 295  
 sublaevis, Myrmica 204  
 sublaevis, Prosopis 261  
 sublineare, Lasioglossum 284  
 sublongula, Chrysis longula 136  
 submarginatus, Hylaeus 259  
 submediterraneus, Halictus,  
   *Seladonia* 279  
 submicans, Osmia 299  
 submimetica, Paravespa rex var. 188  
 submonochromos, Hortobombus  
   consobrinus 328  
 submutica, Poecilosoma 41  
 subnitens, Colletes 259  
 subnitens, Pteronidea 63  
 subnudus, Leptothorax  
   nassonovi var. 208  
 subnudus, Psammochares 171  
 subolivacea, Tenthredo, *Tenthredella* 92  
 subopaca, Abia candens 28  
 subopaca, Andrena 271  
 subopaca, Pristiphora 74  
 subopaca, Prosopis 261  
 subovalis, Sphecodes 290  
 subpilosa, Formica 201  
 subpilosa, Formica rufibarbis 201  
 subpilosa, Formica ruzskyi 200  
 subpomiformis, Eumenes 182  
 subpunctatus, Crabro 230  
 subpunctatus, Hylaeus 259  
 subpunctulatus, Sphecodes 289  
 subquadratus, Hylaeus 262  
 subquadratus, Sphecodes 289  
 subrenimacula, Ancistrocerus  
   claripennis 179  
 subrufa, Cephus 111  
 subserrata, Blennocampa 46  
 subsolanus, Dolerus germanicus 78  
 subspinosum, Anthidium 300  
 subspinosus, Oxybelus 243  
 subsquamularis, Andrena 264  
 subterranea, Aphaenogaster,  
   *Formica* 203  
 subterranea, Lestica, *Crabro*  
   subterranea 234  
 Subterraneobombus subg. 330  
 subterraneoides, Aphaenogaster 203  
 subterraneoides, Aphaenogaster  
   pallida var. 203  
 subterraneus, Bombus, *Apis* 331  
 subterraneus, Crabro 234  
 subtilis, Crabro 232  
 subtilis, Hylaeus 259  
 subtrifida, Euxiphidria 115  
 subtruncata, Eriocampopsis 42  
 subulata, Pleroneura 20  
 subulata, Tenthredo 99  
 subulatus, Crossocerus, *Crabro* 230  
 subvinogradovi, Hortobombus  
   consobrinus 328  
 subvittata, Arachnospila, *Pompilus* 169  
 succinata, Andrena 267  
 succinata, Apis 257  
 succinata, Chrysis 138  
 succinata, Nomada 316  
 succinata, Tenthredo 38, 92, 96  
 succinctula, Andrena 267  
 succinctus, Colletes, *Apis* 259  
 suchovi, Haplogonatopus 121  
 sucineiceps, Paururus 112  
 sudaghensis, Halictus 286  
 sudai, Crossocerus verhoeffi 228  
 sudai, Nomada 311  
 sudai, Sphecodes 288  
 suecica, Andrena 268  
 suecica, Colletes 258  
 suecica, Formica 199  
 suecicum, punctatum var. 301  
 suecicus, Odynerus 191  
 suerinensis, Nomada  
   alboguttata var. 311  
 suessionensis, Athalia 44  
 suessionensis, Nematus 74  
 suessionensis, Athalia 44  
 suffusa, Lyda 104  
 sugare, Dolichovespula media 195  
 sugiharai, Crabro 228  
 sugonjaevi, Priocnemis 163  
 suigenensis, Phymatoceriola 52  
 sulcata, Xiphidria 116  
 sulcatulum, Lasioglossum, *Halictus*  
   sulcatulum 286  
 sulcatus, Dolerus leucopterus 80  
 sulcatus, Pachynematus 59  
 sulcifer, Polistes 193  
 sulcifrons, Dineura 55  
 sulcifrons, Gorytes sulcifrons 223  
 sulcifrons, Hoplisus 223  
 sulcinodis, Myrmica 206  
 sulcinodoscabrinodis, Myrmica  
   sulcinodis var. 206  
 sulcipes, Nematus 57  
 Sulcomesitius 124  
 Sulcopolistes 192  
 sulcus, Crabro 229  
 sulfuripes, Lionotus 183  
 sulphurata, Tenthredo 86  
 sulphureipes, Pamphilius  
   sulphureipes 105  
 sulphureus, Nematus 63  
 sulphuripes, Tenthredo, *Allantus*  
   sulphuripes 97  
 sumizome, Andrena lapponica ssp. 264  
 sumptuosa, Vespa silvestris var. 195  
 sundukovi, Anoplus 172  
 sungora, Dasylabris, *Mutilla* maura 153  
 sunna, Andrena alkenella ssp. 270  
 superba, Chrysis 135

- superba*, Macrophyta 86  
*superba*, Mimesa 251  
*superba*, Nomada 314  
*superba*, Pseudepipona, *Odynerus* 188  
*superbus*, Apis 298  
*superbus*, Labus 182  
*superbus*, Nematus 60  
*superbus*, Omalus 127  
*superbus*, Stenemphytus 43  
*superequester*, Agrobombus 331  
*superus*, Leptothorax  
    acervorum var. 204  
*suprafulgens*, Halictus 283  
*suprunenkoi*, Vespa 193  
*surensis*, Allantus 94  
*suripes*, Dasypoda, *Apis* 293  
*Susanowo* 248  
*susiana*, Myrmilla 154  
*suspectus*, Hylaeus 259  
*suspica*, Arge 25  
*suspica*, Pison 244  
*susterai*, Andrena 274  
*susterai*, Nysson 220  
*susterai*, Priocnemis 164  
*susterai*, Smicromyrme montana f. 155  
*sutor*, Sphecodes 288  
*sutshanicum*, Lasioglossum 281  
*sutshanicus*, Crabro 228  
*swonae*, Xyela 21  
*suzukii*, Cimbex 29  
*suzukii*, Crabro monstrosus 230  
*suzukii*, Crossocerus, *Crabro* 230  
*sveae*, Pteronidea 63  
*swammerdamella*, Melitta 293  
*swanetiae*, Pseudomeria 149  
*syam*, Tzutigmus 250  
*sybarita*, Nomada 316  
*Syloa* 241  
*sylvarum*, Bombus, *Apis* 332  
*sylvarum*, Tenthredo 29  
*sylvatica*, Cimbex 32  
*sylvatica*, Tenthredo 104  
*sylvaticum*, Trichiosoma 31  
*sylvaticus*, Pamphilus, *Tenthredo* 105  
*sylvestris*, Bombus, *Psithyrus* 329  
*sylvestris*, Dolichovespula, *Vespa* 195  
*sylvestris*, Euura, *Nematus* 65  
*sylvia*, Tenthredo 95  
*symbollophthalma*, Abia 28  
*Symmorpha* 325  
*Symmorphus* 190  
*Symmorphus* subg. 190  
**Symphyta** 20  
*symphyti*, Andrena 267  
*Synaerema* 88  
*Synairema* 88  
*Synchalonia* subg. 321  
*Synemphytus* 37  
*Syneuodynerus* 191  
*syngenesiae*, Bethylus 125  
*Synhalonia* subg. 321  
*Syneurus* 220  
*Synorhopalum* 227  
*Synothyreopus* 226  
*syriaca*, Hylotoma 23  
*syriaca*, Nomada 314  
*syriacola*, Scolia fallax 148  
*syriacus*, Halictus 285  
*syriacus*, Trachelus 108  
*syriensis*, Chrysis daphnis 135  
*syringae*, Cephosoma 111  
*Syrista* 111  
*syrius*, Halictus subauratus 279  
*syrmienne*, Aprosthema, *Schizocera* 26  
*Systropha* 291  
*szaboi*, Hedychrum 130  
*szelenyii*, Metrionotus 124  
*szepigetii*, Dryinus 120  
  
*tabida*, Eumenes 184  
*tabidus*, Sirex 111  
*tabidus*, Trachelus, *Sirex* 111  
*Tachyagetes* 173  
*Tachyagetes* subg. 174  
*Tachybulus* 244  
*Tachynana* 240  
*Tachyoides* 240  
*Tachyplena* 240  
*Tachyptera* 240  
*Tachysphex* 237  
*Tachystizus* 225  
*Tachytes* 240  
*tacitus*, Halictus 281  
*taczanovskii*, Chrysis 138  
*taczanowskii*, Praia 30  
*tadschicus*, Halictus 281  
*tadschicus*, Hoplomerus  
    melanocephalus 187  
*tadzhicorum*, Eumenes 181  
*tadzhika*, Cerceris 255  
*tadzhika*, Chrysis 140  
*tadzhika*, Pavlovskia 241  
*tadzhikus*, Tachysphex 238  
*taediosa*, Myrmica 206  
*Taeniandrena* subg. 274  
*Taeniaporus* 174  
*taeniata*, Nomada fucata var. 313  
*taeniatus*, Dolerus 77  
*taeniatus*, Harpiphorus 43  
*taeniatus*, Nematus 65  
*tahitense*, Rhynchium 189  
*Taialia* 249  
*taicho*, Sphecodes 290  
*taiganus*, Nematus 65  
*taiganus*, Urocera gigas 113  
*Taimyrimosa* 153  
*taishanensis*, Melitta 294  
*Taiwagienia* 165  
*taiwanensis*, Coelioxys 304  
*takachihoi*, Auplopus, *Pseudagenia* 165  
*takagii*, Pristiphora 72  
*takanensis*, Psen 251  
*takedae*, Tenthredo olivacea 92  
*takenoi*, Anteon 119  
*takeuchii*, Cladius 55  
*takeuchii*, Crossocerus 228  
*takeuchii*, Gorytes 223  
*takeuchii*, Pamphilus 105  
*takeuchii*, Siobla 89  
*takeuchii*, Thrinax, *Hemitaxonus* 83  
*talyshensis*, Tenthredo 92  
*tamanukii*, Prosopis 259  
*tamanukii*, Tenthredo, *Tenthredella* 92  
*tamara*, Chrysis 138  
*tamarae*, Formica 199  
*Tanaemyrmex* subg. 199  
*tanaiticus*, Cephus 109  
*tanakai*, Crossocerus 228  
*tanakai*, Psenulus 252  
*tancrei*, Myrmecocystus cursor r. 199  
*tanoi*, Sphecodes 290  
*tantillus*, Aphadnurus 48  
*taorminae*, Andrena nana var. 270  
*taormenicus*, Halictus patellatus 278  
*Tapinoma* 197  
*Taranga* 244  
*taraxaci*, Andrena 265  
*tardigradus*, Sirex 113  
*tardum*, Aprosthema, *Hylotoma* 26  
*tardus*, Epyris 123  
*Tarpa* 107  
*tarraconensis*, Dryinus 120  
*tarsalis*, Crabro 228  
*tarsalis*, Epeolus 317  
*Tarsandrena* subg. 274  
*tarsata*, Andrena 274  
*tarsata*, Tenthredo 40  
*tarsata*, Tenthredopsis, *Tenthredo* 100  
*tarsata*, Tetralonia 320  
*tarsata*, Tetralonia 325  
*tarsatum*, Lasioglossum, *Halictus* 286  
*tarsatus*, Crossocerus, *Crabro* 229  
*tarsina*, Tachytes 240  
*tarsinus*, Tachysphex, *Tachytes* 240  
*tartara*, Colpa, *Elis* 147  
*tartarea*, Vespa crabro var. 194  
*tataricus*, Halictus 279  
*tataricus*, Messor 204  
*tataricus*, Nematus 69  
*tatjanae*, Andrena 273  
*taukushi*, Cimbex connatus 29  
*taukushiensis*, Cimbex 29  
*tauriae*, Eumenes sichelii 185  
*taurica*, Andrena gallica ssp. 269  
*taurica*, Anthophora 324  
*taurica*, Apterogyna 159  
*taurica*, Cardiocondyla stambuloffii 203  
*taurica*, Chrysis 137  
*taurica*, Eucera 321  
*taurica*, Hoplitis, *Pseudosmia* 297  
*taurica*, Mutilla 157  
*taurica*, Mutilla 158  
*taurica*, Plagiolepis 202  
*taurica*, Plagiolepis maura var. 202  
*taurica*, Poner a 209  
*tauricola*, Protosmia 300  
*tauricum*, Aprosthema 26  
*tauricum*, Lasioglossum 286  
*tauricus*, Agonatotopoides 121

- tauricus, *Celonites* 178  
*tauricus*, *Celonites abbreviatus* 178  
 tauricus, *Chalepoxenus* 204  
*tauricus*, *Colletes cunicularius* 257  
 tauricus, *Dolerus melanopterus* 80  
 tauricus, *Echthrodolphax* 120  
 tauricus, *Elampus, Notozus* 128  
 tauricus, *Embolemus* 122  
 tauricus, *Harpactus* 224  
*tauricus*, *Heterarthrus* 49  
 tauricus, *Katamenes, Eumenes* 185  
*tauricus*, *Leptothorax*  
     *unifasciatus* var. 208  
*tauricus*, *Odynerus signaticollis* 187  
 tauricus, *Temnothorax, Leptothorax* 208  
*tauridis*, *Tapinoma* 198  
*tauriensis*, *Andrena hybrida* ssp. 272  
*taurocaasicum*, *Tetramorium* 209  
*taurus*, *Nannodynerus*  
     *aequisculptus* 189  
 taurus, *Osmia* 299  
 tavastiensis, *Nematus wahlbergi* 69  
 Taxoblenus 43  
 Taxonus 43  
*Tea* 173  
 teberdicus, *Eutomostethus* 47  
*tectus*, *Dolerus* 79  
 tectus, *Halictus* 279  
*tegulare*, *Anthidium* 302  
 tegularis, *Eustenancistrocerus*,  
     *Lionotus* 184  
*tegularis*, *Loderus genucinctus* 77  
 tekkensis, *Ammophila* 213  
 Teleutomymex 208  
 telmenicus, *Hylaeus* 260  
 Telostegus 174  
 tembotovi, *Temnothorax* 208  
*temesiensis*, *Emphytus* 40  
*Temnothorax* 208  
 temporalis, *Aneugmenus, Selandria* 76  
*temporalis*, *Coelioxys* 305  
 temporalis, *Euura, Amauronematus* 65  
*temporalis*, *Tenthredella flavicornis* 91  
*temporalis*, *Tenthredella stulta* 92  
 temula, *Tenthredo* 93  
*Temuledo* 90  
*Temuledo* subg. 93  
*temuloides*, *Allantus* 93  
*tenax*, *Pemphredon* 248  
*tenebricosus*, *Eumenes*  
     *lunulatus* var. 181  
*tenebrosa*, *Andrena vitrea* var. 272  
*tenebrosa*, *Pachyprotasis variegata* 88  
*tenebrosa*, *Vespa analis* var. 193  
*tenebrosus*, *Dolerus* 79  
*tenella*, *Apis* 267  
 tenella, *Chrysis* 138  
 tenella, *Nomada* 316  
 tenella, *Parna, Tenthredo* 51  
*tenella*, *Phyllotoma* 49  
 tenella, *Tenthredo* 51  
*tenella*, *Tetralonia* 322  
 tenellum, *Pseudoanthidium*,  
     *Anthidium* 302  
*tenellus*, *Hylaeus* 284  
*tener*, *Cladius* 54  
*tener*, *Nematus* 57  
 tenera, *Ametastegia, Tenthredo* 39  
 tenera, *Pemphredon* 248  
*teneriffensis*, *Anthophora*  
     *quadrifasciata* var. 322  
 Tenila 241  
*tenius*, *Tenthredo* 38  
*Tenthredella* 89  
*Tenthredella* subg. 93  
*Tenthredina* 89  
*Tenthredina* subg. 96  
**Tenthredinidae** 37  
**Tenthredininae** 83  
**Tenthredinoidea** 22  
**Tenthredinomorpha** 22  
*Tenthredo* 89  
*Tenthredopsis* 98  
*tenuicingulatus*, *Monophadnus* 51  
*tenuicornis*, *Ammobates oraniensis* 318  
*tenuicornis*, *Anoplius, Pompilus* 172  
*tenuicornis*, *Astatus* 111  
*tenuicornis*, *Claremontia, Tenthredo* 46  
*tenuicornis*, *Entodecta* 50  
*tenuicornis*, *Larrada* 236  
*tenuicornis*, *Lygaeonematus* 73  
*tenuicula*, *Andrena* 263  
 tenuipennis, *Tenthredo* 98  
*tenuipunctus*, *Tachysphex* 239  
 tenuis, *Andrena* 263  
 tenuis, *Pachyprotasis* 88  
 tenuis, *Passaloecus* 248  
 tenuis, *Sphecodes* 289  
 tenuiserra, *Euura, Amauronematus* 65  
 tenuiserra, *Pelmatopus* 55  
 tenuiserra, *Pristiphora*,  
     *Micronematus* 74  
 tenuivaginata, *Tenthredo*,  
     *Tenthredella* 92  
 tenuivittata, *Cerceris* 255  
*teranishii*, *Lasius* 201  
*terebiator*, *Halictus* 282  
*tergale*, *Icteranidium* 301  
*tergestensis*, *Andrena*  
     *nycthemera* var. 264  
 tergestensis, *Osmia* 299  
*tergestina*, *Blennocampa* 46  
 Tergosmia subg. 299  
*terminale*, *Anthidium* 300  
*terminalis*, *Amauronematus* 60  
*terminalis*, *Anthophora furcata* 323  
*terminalis*, *Eucera* 320  
*terminalis*, *Stizus* 225  
 terminata, *Ammophila* 213  
 terminata, *Chrysis* 138  
*terminater*, *Dolerus pratensis* 78  
 terrestris, *Apis* 327  
 terrestris, *Bombus, Apis* 328  
*terricola*, *Odynerus* 184  
 terrificus, *Leptocimbex* 30  
*tersa*, *Megilla* 325  
 tertium, *Aglaostigma* 84  
*tertius*, *Pseudotaxonus* 82  
 tessellata, *Tenthredo* 98  
 tessellata, *Tenthredopsis, Tenthredo* 100  
*tessinensis*, *Pteronidea segmentaria* 60  
*testacea*, *Andrena gwynana* var. 267  
*testacea*, *Cephaleia* 102  
*testacea*, *Cimbex lutea* 30  
*testacea*, *Cimbex saliceti* 30  
 testacea, *Cryptopone* 209  
 testacea, *Ponera* 210  
*testacea*, *Ponera coarctata* var. 210  
 testacea, *Pristiphora, Pteronus* 74  
*testacea*, *Tenthredo* 51  
*testaceicornis*, *Ellampus* 132  
*testaceicornis*, *Nematus* 74  
*testaceicornis*, *Pristiphora* 74  
 testaceipes, *Anthophora, Podalirius* 325  
 testaceipes, *Dineura, Tenthredo* 55  
 testaceipes, *Empria, Poecilosoma* 41  
*testaceipes*, *Eriocampa* 46  
 testaceipes, *Euura, Cryptocampus* 65  
*testaceipes*, *Sierola* 125  
*testaceipes*, *Sphecodes gibbus*  
     *ephippium* 289  
 testaceum, *Eciton* 207  
*testaceus*, *Nematus* 61, 65  
*testaceus*, *Pteronus* 70  
 testaceus, *Strongylognathus, Eciton* 207  
*testaceus*, *Tomostethus* 68  
 testudinea, *Hoplocampa, Tenthredo* 68  
*Tetrachrysis* 133  
*Tetradontochelys* 120  
*tetraedrurus*, *Crabro* 231  
*tetraedrurus*, *Solenius* 233  
 Tetralonia 321  
*Tetralonia*, part. 320  
 Tetraloniella 321  
 Tetramorium 209  
*Tetranthidium* 300  
*Tetratneura* 40  
 tetrazonienellus, *Halictus* 278  
 tetrazonius, *Halictus, Hylaeus* 278  
 tetrica, *Pristiphora, Nematus* 74  
*tetrodonta*, *Osmia* 299  
*Tetrodontocheles* 120  
 teutona, *Macrophyta, Tenthredo* 86  
*teutonicus*, *Odynerus* 190  
*teutonus*, *Pompilus* 236  
*thalenhorsti*, *Pristiphora* 74  
 thalhammeri, *Chrysis distincta* 135  
*thalictri*, *Diphadnus* 74  
*thalictri*, *Pristiphora, Nematus* 74  
*thalictricola*, *Pristiphora* 74  
 thalictrivora, *Pristiphora* 74  
 Thao 227  
*thargitai*, *Dolerus* 78  
 thauma, *Ampulicomorpha* 122  
*Theletor* 187  
*theresae*, *Dolerus aericeps* 77  
*theresae*, *Macrophyta annulata* 84  
*theresae*, *Sapyga* 145

- thersites, *Nomada* 316  
*theryi*, *Megachile centuncularis* 306  
*thomsoni*, *Ancistrocerus* 179  
*thomsoni*, *Andrena* 273  
*thomsoni*, *Colletes* 258  
*thomsoni*, *Dasypoda* 293  
*thomsoni*, *Dolerus* 77  
*thomsoni*, *Gonatopus* 121  
*thomsoni*, *Hylotoma* 24  
*thomsoni*, *Lophyrus* 34  
*thomsoni*, *Nematus* 57  
*thomsoni*, *Pamphilus* 103  
*thomsoni*, *Pristiphora* 71  
*thomsoni*, *Profenusa*, *Fenusa* 52  
*thomsoni*, *Thomsonia* 99  
*Thomsonia* 98  
*thor*, *Megalodontes* 107  
*thoracica*, *Andrena*, *Apis* 269  
*thoracica*, *Cilissa* 275  
*thoracica*, *Dasypoda* 293  
*thoracica*, *Tenthredo* 79, 99  
*thoracica*, *Tenthredo opaca* 79  
*Thoracobombus* subg. 331  
*thornleyi*, *Tenthredopsis* 100  
*thracia*, *Megachile sexmaculata* 306  
*Thrinax* 83  
*thuringiaca*, *Melitturga clavicornis* var. 276  
*thuringiacus*, *Odynerus* 179  
*Thyreocerus* 231  
*Thyreocnemus* 225  
*Thyreomelecta* 326  
*Thyreopus* 225  
*Thyreosphex* 211  
*Thyreus* 234  
*Thyreus* 326  
*Thysandrena* subg. 274  
*Tianmuthredo* 100  
*tianschanicus*, *Odynerus tristis* 187  
*tianshanica*, *Chrysis* 138  
*tibetanus*, *Polistes rothneyi* 192  
*tibialatus*, *Cladius* 54  
*tibiale*, *Trichiosoma* 31  
*tibiale*, *Trypoxylon* 244  
*tibialis*, *Andrena*, *Melitta* 272  
*tibialis*, *Astatus* 218  
*tibialis*, *Athalia* 44  
*tibialis*, *Cephus brachycercus* 109  
*tibialis*, *Crabro* 227, 231, 233, 235  
*tibialis*, *Euura*, *Nematus* 65  
*tibialis*, *Pterocheilus phaleratus* 189  
*tibialis*, *Selandria* 46  
*tibialis*, *Tenthredo* 40  
*tibialis*, *Vespa* 227  
*tichenkoi*, *Bombus*, *Hortobombus* 328  
*tichomirovi*, *Camponotus* 199  
*ticinensis*, *Phoenusa* 48  
*tiflensis*, *Protosmia*, *Osmia* 300  
*tigris*, *Trachelus*, *Neateuchopus* 111  
*tiliae*, *Allantus* 99  
*tiliae*, *Blennocampa* 51  
*tiliae*, *Selandria* 50  
*tilingi*, *Bombus hypnorum* 330  
*Tilkuya* 149  
*tillbergi*, *Euura*, *Amauronematus* 65  
*timanensis*, *Katamenes sichelii* 185  
*timida*, *Macrophya* 87  
*timida*, *Tenthredo* 78  
*timidus*, *Microdynerus*, *Odynerus* 186  
*timidus*, *Oxybelus* 243  
*tinctipennis*, *Dolerus* 77  
*tinctipennis*, *Pemphredon* 249  
*tinctipennis*, *Trichiosoma jakovlevi* 30  
*tinctus*, *Odynerus* 183  
*tingitana*, *Arachnospila* 170  
*tingitanus*, *Dicyrtomellus*, *Arachnospila* 170  
*tinitinensis*, *Halictus* 285  
*tinnunculus*, *Halictus* 281  
*Tiphia* 150  
*Tiphia* subg. 150  
**Tiphiidae** 149  
*tiphiiiformis*, *Platyxiphidria* 115  
**Tiphiinae** 150  
*Tirolensis*, *Crossocerus* 227  
*tirolensis*, *Empria* 41  
*tirolensis*, *Epeolus tarsalis* 317  
*tirolensis*, *Hoplilus* 223  
*tirolensis*, *Tenthredopsis dorsalis* 99  
*tischbeini*, *Crabro* 228  
*tischbeini*, *Nematus* 70  
*tischbeinii*, *Tenthredopsis*, *Tenthredo* 100  
*tisiphone*, *Melecta* 326  
*titanica*, *Tenthredo notha* 97  
*t-magnum*, *Pteronidea pseudonotabilis* 57  
*tobiasi*, *Arachnospila* 169  
*tobiasi*, *Hedychrum* 130  
*toeniata*, *Euura*, *Nematus* 65  
*togashii*, *Aglaostigma* 84  
*togata*, *Mutilla* 155  
*togata*, *Tenthredo* 37  
*togatus*, *Allantus*, *Tenthredo* 38  
*tohi*, *Gilpinia* 34  
*tokyanus*, *Stenodynerus*, *Odynerus* 190  
*tolli*, *Amauronematus* 55  
*tomentosa*, *Anthophora* 324  
*tomentosa*, *Eucera* 320  
*tomentosus*, *Hylaeus* 278  
*tomentosus*, *Odynerus* 183  
*Tomognathus* 204  
*tomostethi*, *Eutomostethus*, *Forsia* 47  
*Tomostethopsis* 47  
*Tomostethus* 53  
*Toncahua* 234  
*tonkinensis*, *Euodynerus notatus* 183  
*tonnaitchana*, *Cimbex* 29  
*tonsus*, *Gorytes* 221  
*Topcobius* 124  
*torkai*, *Andrena* 264  
*tortementillae*, *Nomada roberjeotiana* 315  
*tortementillae*, *Phyllotoma* 48  
*tornense*, *Proanthidium* 301  
*toroki*, *Dasypoda* 293  
*torosa*, *Ronisia* 157  
*tortumensis*, *Megachile genalis* 306  
*totus*, *Dolerus pratensis* 78  
*tournierei*, *Elampus* 127  
*tournierei*, *Tiphia* 150  
*Towada* 227  
*trabeata*, *Tenthredo* 92  
*Trachandrena* subg. 275  
*Trachelastatus* 111  
*tracheliformis*, *Tsunekiola* 236  
*Tracheliodes* 236  
*Trachelosimus* 234  
*Trachelus* 111  
*Trachogorytes* 246  
*Trachusa* 303  
*trachyderma*, *Andrena* 267  
*Trachyocheilus* 161  
*tragica*, *Chrysis* 138  
*tranquilla*, *Apis* 275  
*tranquilla*, *Euura* 65  
*transbaicalica*, *Andrena* 272  
*transbaicalicus*, *Eumenes* 182  
*transbaicalicus*, *Evagetes* 171  
*transbaicalicus*, *Harpactus* 224  
*transbaikalensis*, *Halictus* 279  
*transcaspica*, *Andrena* 273  
*transcaspica*, *Crocisca* 326  
*transcaspica*, *Osmia* 297  
*transcaspicum*, *Anthidium* 301  
*transcaspicus*, *Miscophus* 241  
*transcaspicus*, *Nysson* 219  
*transcaspiciensis*, *Andrena ovatula* ssp. 274  
*transcaucasica*, *Aphaenogaster splendida* 203  
*transcaucasica*, *Formica* 201  
*transcausicus*, *Cryptocheilus* 161  
*transfuga*, *Apis* 273  
*transiens*, *Crabro* 233  
*transiens*, *Harpactus* 224  
*transigens*, *Pachynematus clitellatus* 57  
*transigens*, *Tenthredo atra* 93  
*transiliensis*, *Harpactus* 224  
*transitoria*, *Andrena* 274  
*transitoria*, *Megachile* 305  
*transitoria*, *Nomada* 312  
*transitorius*, *Epeolus* 317  
*transitorius*, *Odynerus* 184  
*transpositum*, *Lasioglossum*, *Halictus* 286  
*transsibirica*, *Myrmica* 206  
*transsylvatica*, *Nomada* 312  
*transversalis*, *Crabro* 229  
*transversalis*, *Euura*, *Pteronidea* 65  
*transversalis*, *Hylaeus* 261  
*transversalis*, *Prosopis* 261  
*transvolgensis*, *Halictus compressus* 278  
*trapezicolle*, *Hedychrum* 130  
*trapeziformis*, *Nomada* 316  
*trautmanni*, *Euura*, *Amauronematus* 65  
*Trearea* 83  
*Tremex* 113  
**Tremicinae** 113  
*tremula*, *Tenthredo* 77

- tremulae, Caliroa 46  
*trialbata*, Tenthredo 94  
 triandrae, Euura, *Pontania* 65  
 triangularis, Smicromyrme, *Mutilla* 156  
*triangulifer*, Priophorus 54  
 triangulifer, Pseudomalus, *Omalus* 133  
*triangulomaculata*, Dasylabris  
   italica var. 154  
 triangulum, Philanthus 217  
 triangulum, Philanthus, *Vespa* 255  
*triangulus*, Hylaeus 259  
*triareolatus*, Perisemus 125  
 tricarinata, Pseudepipona,  
   *Odynerus* 188  
*tricarinatus*, Odynerus herrichii var. 188  
*Trichelobranchium* 123  
*Trichepipona* 188  
*Trichiocampus* 53  
 Trichiocampus subg. 54  
 Trichiosoma 30  
*trichiosoma*, Cimbex 31  
*trichocera*, Tenthredo 52  
*trichogaster*, Pempredon 248  
*Trichogonatopus* 120  
 Trichomyrmex 209  
*trichopsis*, Halictus 287  
 trichorhinum, Lasioglossum,  
   *Halictus* 286  
*Trichosyrion* 170  
*trichroma*, Tenthredopsis nassata 99  
 Trichrysis 141  
*trichiliatus*, Bombus tricornis 332  
*tricincta*, Andrena 275  
*tricincta*, Dasylabris maura  
   nostras var. 154  
 tricincta, Eucera 321  
*tricincta*, Macrocera 321  
 tricincta, Melitta 294  
*tricincta*, Tenthredo 86  
 tricinctum, Lasioglossum, *Halictus*  
   tricinctum 286  
*tricinctus*, Mellinus 220  
*tricinctus*, Odynerus 180  
 tricingulum, Lasioglossum 279  
*tricingulum*, Lasioglossum 281  
 tricolor, Aglaostigma, *Macrophyopsis* 83  
 tricolor, Alysson 219  
*tricolor*, Arpactus 223  
 tricolor, Astata 218  
 tricolor, Belomicrus 242  
*tricolor*, Cuneala 90  
 tricolor, Dryudella, *Astata* tricolor 219  
 tricolor, Eutomostethus, *Tomostethus* 47  
 tricolor, Lonchodryinus 119  
 tricolor, Miscophus 241  
 tricolor, Pamphilus 105  
 tricolor, Pompilus 240  
 tricolor, Pseudepipona 188  
*tricolor*, Spheg 145  
 tricolor, Spheg 240  
*tricolor*, Tenthredo 24  
*tricolor*, Tropidodynerus interruptus 192  
 tricolor, Vespa 148  
*tricolorata*, Andrena tibialis var. 272  
 tricoloratus, Spheg 240  
*tricoloripes*, Emphytus 38  
 tricornis, Bombus 332  
 tricornis, Empria 41  
 tricuspida, Andrena 265  
*tricuspida*, Coelioxys 305  
*tricuspis*, Hylaeus 262  
 tridens, Bembecinus, *Vespa* tridens 221  
*tridens*, Crabro 243  
 tridens, Empria, Poecilosoma 42  
 tridens, Nysson 220  
*tridens*, Vespa 195  
 tridentata, Aglaopis, *Coelioxys* 303  
 tridentata, Andrena, *Melitta* 267  
 tridentata, Hoplitis, *Osmia* 297  
*tridentata*, Nomada 312  
 tridentata, Parapiagetia 237  
*tridentata*, Vespa 193  
*tridentatus*, Amauronematus 65  
*tridentatus*, Microdynerus 186  
 tridentatus, Stizoides, *Crabro*  
   tridentatus 225  
*tridenticulata*, Coelioxys 305  
 tridentirostris, Nomada 316  
 tridentis, Empria 42  
*Tridryinus* 120  
*Trielis* 147  
*Trieprria* 40  
 Triepeolus 317  
*trifasciata*, Conaspidia 84  
*trifasciata*, Mutilla 157  
*trifasciata*, Tenthredo 86  
*trifasciata*, Vespa 179  
 trifasciatus, Ancistrocerus, *Vespa* 179  
*trifasciatus*, Hylaeus 281  
*triforis*, Tenthredopsis 98  
*trifurcatus*, Nematus 65  
 trigaria, Onycholyda, *Pamphilus* 103  
*trigeminus*, Dolerus 79  
*Trigonatopus* 120  
*trigonicus*, Amauronematus 56  
*triinterrupta*, Sapyga 145  
*trilineata*, Vespa 220  
*trilineatus*, Nematus 65  
*trimaculata*, Bembix 222  
 trimaculata, Chrysura, *Chrysis* 140  
*trimaculata*, Prosopis 261  
*trimaculatus*, Dolerus 77  
*trimaculatus*, Nematus 61, 64  
*trimaculatus*, Nematus luteus 68  
 trimaculatus, Nysson, *Crabro*  
   trimaculatus 220  
*trimarginata*, Allantus stecki 90  
*trimarginatus*, Odynerus 179  
 trimmerana, Andrena, *Melitta* 267  
*trinacria*, Coelioxys 304  
*trinacria*, Heriades 297  
*trinacriae*, Odynerus 185  
 tringa, Andrena 271  
*trinotata*, Hylotoma 24  
*trinotatus*, Crabro 231  
 tripartitum, Anteon 119  
 triplicatus, Dolerus, *Tenthredo* 77  
*tripolitanus*, Halictus 280  
*Tripoxilon* 244  
 tripunctata, Tiphia 149  
*tripunctata*, Vespa 195  
 tripunctatus, Eumenes, *Spheg* 182  
*tripunctatus*, Pompilus 161  
*tripunctata*, Nomada 311  
*trisignatus*, Nematus 57  
*trisinuosa*, Mutilla 153  
 trispine, Lasioglossum, *Halictus* 286  
*trispinis*, Halictus 287  
*trispinosa*, Apis 243  
 trispinosa, Nomada 316  
 trispinosus, Evagetus, *Pompilus* 171  
 trispinosus, Lasioglossum, *Halictus*  
   interruptum 283  
 trispinosus, Oxybelus, Apis 243  
 trispinosus, Rophites algerus 291  
*Trissomalus* 125  
*Tristactoides* 107  
*Tristactus* 107  
*tristior*, Tenthredopsis 99  
*tristis*, Amauronematus 65  
*tristis*, Andrena apicata var. 263  
*tristis*, Athalia lugens 44  
*tristis*, Bombus 331  
*tristis*, Cladius 54  
 tristis, Cubitalia, *Eucera* 319  
 tristis, Diodontus, *Pempredon* 247  
*tristis*, Elampus bidens 127  
 tristis, Macrophyta 87  
*tristis*, Mellinus 246  
*tristis*, Nomioides minutissima 292  
*tristis*, Odynerus 178  
 tristis, Odynerus, *Hoplomerus* 187  
 tristis, Pempredon 247  
*tristis*, Pontania piliserra 63  
*tristis*, Prosopis 261  
*tristis*, Prosopis annulata var. 259  
 tristis, Smicromyrme 156  
*tristis*, Spheg 216  
*tristis*, Tenthredo 29, 77, 81, 99  
 tristis, Triepeolus, *Epeolus* 317  
*trisulcatus*, Aphelopus 118  
*tritici*, Pachynematus 58  
*Tritikreion* 20  
*Tritodiscoelius* 181  
 trivialis, Arachnospila, *Pompilus* 169  
*trivittata*, Eucera 321  
*trivittatus*, Allantus 96  
*trivittatus*, Nematus 62  
 trochanterata, Euura, *Pteronidea* 66  
*trochanterica*, Macrophyta 86  
 trochanterica, Pristiphora,  
   *Lygaeonematus* 74  
*trochantericum*, Anthidium 301  
 Trogaspidia 157  
**Trogaspidiini** 157  
 troglodyta, Trachelus, *Sirex* 111  
 troglodytes, Spilomena, *Stigmus* 249  
 troglodytes, *Stigmus* 249  
 Trogloembolemus 122

- trogodermais, Laelius 124  
*tromsoeensis*, Lygaeonematus 71  
*Trophocleptria* 317  
*Tropidepipona* subg. 192  
*Tropidodynerus* 191  
*Tropidodynerus* subg. 192  
*Tropidotilla* 157  
*trossolus*, Hedychridium,  
     *Euchridium* 129  
*truchmenus*, Batozonellus, *Pompilus* 166  
*Truncandrena* subg. 275  
*truncata*, Andrena 265  
*truncata*, Coelioxys 305  
*truncata*, Formica 199  
*truncaticolle*, Lasioglossum,  
     *Halictus* 286  
*truncatiformis*, Andrena 265  
*truncatilabris*, Andrena 275  
*truncatiserra*, Pristiphora 74  
*truncatoides*, Allantus 38  
*truncatula*, Cerceris 254  
*truncatula*, Osmia 298  
*truncatus*, Allantus, *Tenthredo* 38  
*truncatus*, Biastes, *Nomada* 318  
*truncatus*, Camponotus auct. 199  
*truncatus*, Colobopsis, *Formica* 199  
*truncatus*, Halictus 283  
*truncatus*, Nematus 70  
*truncatus*, Pachynematus 58  
*truncatus*, Philoctetes, *Chrysis* 132  
*truncatus*, Thyreus, *Crocisa* 327  
*truncicola*, Formica 200  
*truncorum*, Apis 296  
*truncorum*, Formica 200  
*truncorum*, Heriades, *Apis* 296  
*trunculi*, Tenthredo 39  
*Trypargilum* 244  
*Trypetes* 296  
*Trypoxylon* 244  
*Trypoxylon* 244  
*Trypoxylon* subg. 244  
*Trypoxylum* 244  
*tschekanovskii*, Myrmica 206  
*tscheki*, Camponiscus 53  
*tschelcarica*, Anthophora monacha 325  
*tscherkessicum*, Stenamma  
     westwoodi var. 207  
*tschertkoviiana*, Dasypoda 293  
*tschinggischanensis*, Tenthredo 94  
*tsherepanovi*, Rhogogaster 88  
*tsherskii*, Abia 29  
*tsherskii*, Pamphilus 103  
*tshettui*, Cephus 110  
*tshitscherini*, Bombus 331  
*tshuliensis*, Myrmica sancta 206  
*tsingtauensis*, Halictus 278  
*tsingtauensis*, Hylaeus, *Prosopis* 260  
*tsingtauensis*, Megachile 307  
*tsingtouensis*, Halictus 278  
*tsukubana*, Andrena 264  
*tsunekii*, Ceropales, *Bifidoceropales*  
     pygmaea 160  
*tsunekii*, Colletes 257  
*tsunekii*, Hedychridium 129  
*tsunekii*, Megalodontes 107  
*tsunekii*, Miscophus 241  
*tsunekii*, Myrmosa 153  
*tsunekii*, Psen 251  
*tsunekii*, Sphecodes 288  
*Tsunkiola* 236  
*tsushimae*, Halictus 278  
*tsushimae*, Tetramorium 209  
*tsushimensis*, Anthophora 322  
*tuberculata*, Apis 320  
*tuberculata*, Cerceris, *Crabro* 255  
*tuberculata*, Eucera auct. 320  
*tuberculata*, Euura, *Nematus* 66  
*tuberculata*, Hoplitis, *Osmia* 297  
*tuberculata*, Melecta 326  
*tuberculata*, Prosopis 260  
*tuberculatus*, Colletes 259  
*tuberculatus*, Halictus 279  
*tuberculatus*, Monophadnoides 50  
*tuberculatus*, Pterocheilus  
     phaleratus 189  
*tuberosa*, Formica 208  
*tuberum*, Temnothorax, *Formica* 208  
*tubifex*, Pelopaeus 214  
*Tubpontania* 55  
*tulunensis*, Nematus 69  
*Tumagenia* 165  
*tumida*, Tenthredo, *Allantus tumida* 98  
*tumidosus*, Evagetes, *Pompilus* 171  
*tumidus*, Harpactus, *Pompilus*  
     *tumidus* 224  
*tumulorum*, Halictus, *Apis*  
     *tumulorum* 279  
*tunensis*, Coelioxys afra var. 304  
*tunensis*, Crocisa 326  
*tungusicum*, Lasioglossum 281  
*tunicata*, Euura, *Nematus* 66  
*turana*, Dasylabris 154  
*turanica*, Anthophora 324  
*turanica*, Coelioxys rufescens var. 304  
*turanica*, Didineis 219  
*turanicum*, Chalybion, *Sceliphron* 214  
*turanicus*, Messor structor 204  
*turaniformis*, Eumenes  
     pedunculatus var. 181  
*turanum*, Euchrum 129  
*turanus*, Eumenes pedunculatus 182  
*turbida*, Andrena 274  
*turca*, Bembix 222  
*turca*, Odynerus 184  
*turcarum*, Tenthredo 68  
*turcestanica*, Andrena 270  
*turcestanica*, Eucera 321  
*turcestanica*, Mutilla 155  
*turcestanica*, Osmia 296  
*turcestanica*, Prosopis 260  
*turcestanicum*, Anthidium  
     diadema var. 300  
*turcestanicus*, Hoplomerus tinniens 184  
*turcica*, Vespa 194  
*turcicum*, Hedychridium 129  
*turcicum*, Hedychridium valesiense 129  
*turcicus*, Eumenes pomiformis 182  
*turcicus*, Lasius 202  
*turcmenicus*, Elampus, *Omalus* 128  
*turcmenicus*, Harpactus 224  
*turcomanica*, Nomia aureocincta 291  
*turcomanicum*, Tetramorium caespitum  
     st. 209  
*turcomenicus*, Bothriomyrmex 197  
*turcomenicus*, Bothriomyrmex  
     syrus 197  
*turgaiensis*, Euura, *Nematus* 66  
*turgajensis*, Phytetopoda,  
     *Paramyrme* 155  
*turgensis*, Megachile analis 307  
*turgidus*, Nematus 57  
*turionum*, Passaloecus 248  
*turkestanica*, Cerceris 255  
*turkestanica*, Holopyga 131  
*turkestanica*, Holopyga  
     punctatissima var. 131  
*turkestanicus*, Camponotus 199  
*turkestanicus*, Camponotus sylvaticus  
     st. 199  
*turkestanicus*, Sphecodes gibbus 288  
*turkestanus*, Camponotus 199  
*turkestanus*, Camponotus  
     sylvaticus var. 199  
*turkomannus*, Halictus 277  
*tutihensis*, Halictus 286  
*tydei*, Podalonia, *Ammophila* 214  
**Typhoctinae** 159  
*typica*, Alysson pertheesi 219  
*typica*, Claremontia 46  
*typica*, Zaphymatocera 53  
*tyrannica*, Vespa 193  
*tyrolensis*, Panurginus 276  
*tyrolensis*, Panurgus montanus 276  
*tyrrhena*, Andrena 273  
*Tytthalictus* subg. 279  
*tyuzendzianus*, Crossocerus 228  
*Tzustigmus* 250  
*uberior*, Allantus viennensis 38  
*uberior*, Tenthredella temula 93  
*uchidae*, Tenthredo 93  
*uchidai*, Crabro 29, 230  
*uchidai*, Megacampsomeris 147  
*ucrainicum*, Stenamma 207  
*ucrainicum*, Leptothorax  
     unifasciatus 209  
*udegeicus*, Agenioideus 168  
*udmurtica*, Melitta 294  
*udus*, Euura, *Nematus* 66  
*Ukayakos* 125  
*ulanbatorensis*, Tenthredopsis  
     coqueberti 99  
*Ulandrena* subg. 275  
*ulangomensis*, Megachile analis 307  
*ulbrichti*, Holcocene 66  
*ulbrichti*, Pristiphora conjugata 71  
*ulianini*, Cardiocondyla 203  
*ulianini*, Cardiocondyla elegans var. 203

- uliginosae*, Amauronematus 64  
*ulmariae*, Macrocephus 111  
*ulmi*, Cladius, *Tenthredo* 55  
*ulmi*, Fenusa 48  
*ulmi*, Janus foersteri 110  
*ulmi*, Tenthredo 81  
*ulrikae*, Colletes 259  
*ulterior*, Halictus calceatus 282  
*umbellatarum*, Tenthredo 91  
*umbilicalis*, Odynerus 178  
*umbra*, Sirex 113  
*umbraculatus*, Lithurgus 295  
*umbrata*, Euura, *Nematus* 66  
*umbratica*, Eriocampa, *Tenthredo* 42  
*umbratus*, Lasius, *Formica* 201  
*umbricola*, Aproceros 25  
*umbrina*, Coelioxys 304  
*umbrinus*, Nematus 61  
*Umbripennis* subg. 162  
*umbripennis*, Nematus 57  
*umbrosa*, Conospidia 96  
*umbrosa*, Tenthredo 75  
*umbrosus*, Schistonyx, *Pompilus* 172  
*uncata*, Apis 300  
*uncinata*, Osmia 299  
*uncinnata*, Cladius 54  
*uncta*, Claremontia, *Tenthredo* 46  
*undata*, Bembix 222  
*undulata*, Poecilosoma 41  
*undulatafasciatum*, Anthidium  
manicatum var. 300  
*unga*, Pontania 60  
*unguicularis*, Pompilus 168  
*unguiculatum*, Delta, *Vespa* 180  
*unguinus*, Halictus 284  
*ungularis*, Odynerus 183  
*ungyo*, Crossocerus 230  
*unicincta*, Tenthredo 90, 92  
*unicolor*, Aporus 166  
*unicolor*, Cimbex femorata 29  
*unicolor*, Dineura 67  
*unicolor*, Formica pratensis 199  
*unicolor*, Mimumesa, *Psen* 251  
*unicolor*, Pasites 318  
*unicolor*, Pelopoeus 251  
*unicolor*, Priocnemis, *Salius* 163  
*unicolor*, Spheg 249  
*unicolor*, Spinolia, *Chrysis* 141  
*unicolor*, Stelis minima f. 303  
*unicolor*, Tachysphex, *Larra* 240  
*unicolor*, Tiphia 150  
*unicolor*, Panurgus 276  
*unicoloricornis*, Abia fulgens 28  
*unicus*, Bombus 328  
*unidentata*, Nomia auct. 292  
*unidentatum*, Tenthredo 31  
*unifasciata*, Andrena 273  
*unifasciata*, Nomioidea variegata 292  
*unifasciata*, Tenthredo 92, 94  
*unifasciatus*, Leptothorax, *Formica* 208  
*uniformis*, Pseudochrysis, *Chrysis* 141  
*unigallae*, Euura, *Pontania* 66  
*uniglumis*, Crabro 242  
*uniglumis*, Oxybelus, *Vespa* 243  
*uniglumis*, Vespa 242  
*unimaculatus*, Odynerus 191  
*uniocellatus*, Anoplius 237  
*unipetiolaris*, Mutilla 154  
*Unitaxonus* 39  
*universitatis*, Andrena 274  
*Upaterka* 149  
*upinense*, Lasioglossum, *Halictus* 281  
*uralensis*, Allantus 93  
*uralensis*, Formica 201  
*urbaini*, Aphelopus 118  
*urbis*, Selandria 76  
*urgaensis*, Tenthredo 91  
*Urocerites* 112  
*Urocerus* 113  
*Urocerus* 115  
*ursina*, Apis 276  
*ushinskii*, Empria 42  
*ushinskii*, Trichiosoma 31  
*ussurensis*, Bombus 329  
*ussuriana*, Macropis, *Ctenoplectra* 294  
*ussuricus*, Goniozus, *Parasierola* 125  
*ussuriense*, Pison 244  
*ussuriense*, Stenamma 207  
*ussuriense*, Trypoxylon 245  
*ussuriensis*, Apis indica sinensis 332  
*ussuriensis*, Arachnospila,  
*Psammochares* 170  
*ussuriensis*, Belomicrus 242  
*ussuriensis*, Busarbidea, *Canoniades* 76  
*ussuriensis*, Caliadurgus, *Calicurgus* 162  
*ussuriensis*, Crabro 226  
*ussuriensis*, Dipteromorpha 93  
*ussuriensis*, Elampus, *Notozus* 128  
*ussuriensis*, Heptamelus 36  
*ussuriensis*, Machaerothrix 165  
*ussuriensis*, Obtusia 51  
*ussuriensis*, Pamphilus 105  
*ussuriensis*, Parancistrocerus 190  
*ussuriensis*, Phymatoceriola 52  
*ussuriensis*, Praia 30  
*ussuriensis*, Priocnemis 164  
*ussuriensis*, Psen 251  
*ussuriensis*, Tenthredella 93  
*ussuriensis*, Tenthredo, *Allantus*  
ussuriensis 93  
*ussuriensis*, Xyela 21  
*Ussurinus* 100  
*Ustilatifomis* 22  
*ustulata*, Andrena 267  
*ustulata*, Arge, *Tenthredo* 25  
*usurata*, Arachnospila 170  
*Utapitoca* 159  
*utensis*, Thyreopus 228  
*utinamius*, Sphecodes 290  
*uvarovi*, Chrysis 134  
*uvarovi*, Hedychridium 130  
*vacciniellus*, Nematus crassipes 58  
*vacillans*, Macrophyta 87  
*vafer*, Pamphilus, *Tenthredo* 105  
*vaga*, Andrena 269  
*vaga*, Euura, *Tenthredo* 66  
*vaga*, Nomada 316  
*vaga*, Spheg 168  
*vagabunda*, Ammophila 213  
*vagabundica*, Tenthredo atra 93  
*vagabundus*, Cephus 108  
*vagabundus*, Crossocerus, *Crabro* 227  
*vagans*, Cerceris 255  
*vagans*, Chrysis 141  
*vagans*, Crabro 232  
*vagans*, Heterarthrus, *Hylotoma* 49  
*vagans*, Spilomena 249  
*vagatus*, Crabro 232  
*vaginosa*, Euura, *Pachynematus* 66  
*vagus*, Camponotus, *Formica* 198  
*vagus*, Nematus 66  
*vagus*, Spheg 168, 246  
*Valco* 45  
*valeriana*, Andrena 267  
*valesiacus*, Nematus 57  
*valesiana*, Chrysis 138  
*valesiana*, Chrysis sybarita var. 138  
*valesianus*, Sphecodes 287  
*valesiense*, Hedychridium 129  
*valesina*, Chalicodoma 305  
*valga*, Xylocopa 310  
*validicornis*, Nematus 61  
*validus*, Crabro 232  
*valkanovi*, Amasis 32  
*vallator*, Nematus 75  
*vallei*, Propolis 259  
*vallisnerii*, Nematus 63  
*van der Lindeni*, Crabro 228  
*vandeli*, Myrmica 206  
*vandeli*, Myrmica scabrinodis var. 206  
*vanderlindeni*, Astata 218  
*vanduzeei*, Emphytina 39  
*vanduzeei*, Pteronidea 62  
*vanduzeei*, Selandridea 76  
*vankovitzii*, Osmia 299  
*vanus*, Bombus ikonnikovi 327  
*vapida*, Aphaenogaster 203  
*vava*, Anthophora 323  
*Varentzowi*, Crabro 233  
*varentzowi*, Ectemnius, *Crabro* 233  
*varia*, Apis 300, 303  
*varia*, Lyda 105  
*varia*, Nomada 313  
*varia*, Pontania 64  
*varia*, Sapyga 145  
*varia*, Tenthredo 99  
*variabilis*, Andrena 267  
*variabilis*, Bombus 331  
*variabilis*, Cephus 108  
*variabilis*, Cercheris 254  
*variabilis*, Cimbex 29  
*variabilis*, Cryptocheilus, *Spheg* 161  
*variabilis*, Eoferreola, *Pompilus* 173  
*variabilis*, Episemus 125  
*variabilis*, Euura, *Amauronematus* 66  
*variabilis*, Megachile muraria var. 305  
*variabilis*, Nysson 220  
*variabilis*, Smicromyrme 155



- variana*, Tenthredopsis litterata 99  
*varians*, Andrena, *Melitta* 264  
*varians*, Anthophora acervorum var. 323  
*varians*, Apis 305  
*varians*, Cimbex 29  
*varians*, Euura, *Amauronematus* 66  
*varians*, Prosopis 260  
*varianus*, Amauronematus 62  
*variator*, Dolerus 78  
*variator*, Euura, *Nematus* 66  
*varicornis*, Chrysura, *Chrysis* 140  
*varicornis*, Tenthredo 40  
*variegata*, Apis 300  
*variegata*, Cephalcia, *Cephaleia* 102  
*variegata*, Ceropales, *Evania* 160  
*variegata*, Deuteragenia, *Sphex* 164  
*variegata*, Gilpinia, *Lophyrus* 34  
*variegata*, Lyda 105  
*variegata*, Pachyprotasis, *Tenthredo* 88  
*variegata*, Sapyga 145  
*variegata*, Sphex 164  
*variegata*, Tiphia 243  
*variegatus*, Ammobates 319  
*variegatus*, Cephus 109  
*variegatus*, Ceylalictus, *Apis* 292  
*variegatus*, Dolerus 78  
*variegatus*, Epeolus, *Apis* 317  
*variegatus*, Hylaeus, *Mellinus* 262  
*variegatus*, Odynerus 188  
*variegatus*, Oxybelus 243  
*variegatus*, Palarus, *Tiphia* 243  
*variegatus* 243  
*variegatus*, Philanthus 255  
*variegatus*, Philanthus 256  
*variegatus*, Sphecodes 287  
*varifrons*, Prosopis 259  
*variicolor*, Tenthredo 98  
*variipennis*, Cryptocheilus 161  
*variipes*, Eriocampoides 46  
*variipes*, Lygaeonematus 74  
*variolatus*, Nysson 220  
*varipes*, Caliroa, *Tenthredo* 46  
*varipes*, Crossocerus 229  
*varipes*, Dienoplus 223  
*varipes*, Dolerus 38  
*varipes*, Prosopis 261  
*varipes*, Tenthredo 88  
*varipes*, Trypoxylon 245  
*varipictus*, Nematus 56  
*varius*, Crossocerus 230  
*varius*, Nematus 55  
*varius*, Palarus flavipes 243  
*varius*, Palarus 243  
*variegatus* 243  
*varius*, Pamphilius, *Lyda* 105  
*Varna* 55, 67  
*varus*, Crabro 230  
*varus*, Crossocerus 230  
*varus*, Nematus 69  
*vastatrix*, Euura, *Pteronidea* 66  
*vastidens*, Euura, *Amauronematus* 66  
*vaticinia*, Smicromyrme oratoria 155  
*vechti*, Deuteragenia, *Dipogon* 164  
*vectis*, Coelioxys 305  
*vedicus* Harpactus 223  
*velatus*, Nematus 74  
*veles*, Tomostethus 53  
*velocissima*, Amegilla, *Anthophora* 322  
*velox*, Bombus, *Agrobombus* 332  
*velox*, Odynerus 187  
*velox*, Tenthredo velox 95  
*velutina*, Andrena 269  
*velutina*, Eucera, *Tetralonia* 321  
*velutinus*, Cyphononyx 171  
*velutinus*, Euodynerus 183  
*veneficus*, Amauronematus 65  
*veneticus*, Halictus 278  
*ventraliformis*, Colletes 258  
*ventralis*, Andrena 267  
*ventralis*, Colletes 258  
*ventralis*, Dineura 55  
*ventralis*, Eurhadinoceraea, *Tenthredo* 47  
*ventralis*, Hemibeleses 42  
*ventralis*, Hylotoma 51  
*ventralis*, Nomada 313  
*ventralis*, Triepeolus, *Epeolus* 317  
*ventricosa*, Andrena 267  
*ventricosa*, Tenthredo 64  
*ventricosus*, Nematus 64  
*ventriosa*, Hylotoma 24  
*venusta*, Cimbex 29  
*venusta*, Eumenes 182  
*venusta*, Euura, *Cryptocampus* 66  
*venusta*, Siobla, *Ercarsioneura* venusta 89  
*venustus*, Lindenius 235  
*venustus*, Oxybelus 243  
*venustus*, Pachynematus 57  
*venustus*, Pamphilius, *Lyda* 106  
*venustus*, Philanthus, *Crabro* 256  
*verae*, Andrena 267  
*verae*, Chrysis 137  
*Veratra* 52  
*Veratra* subg. 52  
*vergesi*, Nannodynerus 190  
*verhaereni*, Ancistrocerus 179  
*verhoeffi*, Alysson 219  
*verhoeffi*, Archianthidium pubescens 303  
*verhoeffi*, Cerceris 255  
*verhoeffi*, Crabro 232  
*verhoeffi*, Crossocerus 228  
*verhoeffi*, Gorytes 222  
*verhoeffi*, Stigmus 250  
*Verna* 55  
*verna*, Chrysis 139  
*verna*, Tenthredo 68  
*vernalis*, Anthophora 325  
*vernalis*, Dolerus 80  
*vernalis*, Emphytus 41  
*vernalis*, Nematus 56  
*vernalis*, Pteronidea 56  
*vernalis*, Tenthredo 42  
*vernalis*, Tiphia 150  
*vernus*, Pachynematus 57  
*verrucosae*, Pteronidea 66  
*versicolor*, Anoplonyx 53  
*versicolor*, Ceropales 161  
*versicolor*, Cryptocheilus, *Sphex* 162  
*versicolor*, Megachile 307  
*versicolor*, Nomioides minutissima 292  
*versicolor*, Osmia 299  
*versicolor*, Selandria 51  
*versicolor*, Spintharina, *Chrysis* 141  
*versuta*, Tenthredo 96  
*verticalis*, Gilpinia 33  
*verticalis*, Sciapteryx 89  
*verticalis*, Sphecodes 289  
*verticata*, Tenthredo 67  
*verticosa*, Arge 25  
*verzhtskii*, Strongylogaster 82  
*vescus*, Amauronematus 65  
*vesicator*, Euura, *Nematus* 66  
*Vespa* 193  
*vespa*, Tenthredo 97  
*vespertilio*, Sirex 117  
**Vespieae** 175  
*vespiformis*, Crabro 231  
*vespiformis*, Tenthredo 97  
**Vespiniae** 193  
**Vespoidea** 175  
**Vespomorpha** 118  
*Vespula* 195  
*vestalis*, Bombus, *Apis* 330  
*vestalis*, Psithyrus auct. 329  
*vestigialis*, Dolerus, *Tenthredo* vestigialis 77  
*vestita*, Megachile 307  
*vestita*, Tenthredo 92  
*Vestitohalictus* subg. 279  
*vestitus*, Crabro 233  
*vestitus*, Halictus auct. 279  
*veteranus*, Bombus, *Apis* 332  
*vetuberosa*, Ammophila 213  
*vetula*, Andrena 273  
*vetula*, Scolia 147  
*vetus*, Vespula rufosignata 196  
*vexator*, Vespa 193  
*vexillatus*, Crabro 234  
*v-flavum*, Nematus 55  
*viaticus*, Anoplius, *Sphex* 172  
*viator*, Mesitius 124  
*viator*, Phylloecus, *Cephus* 111  
*vicana*, Chrysis 139  
*vicaria*, Pachyprotasis 88  
*vicina*, Euura, *Nematus* 66  
*vicina*, Megachile 306  
*vicina*, Tetraloniella, *Tetralonia* 322  
*vicinus*, Crossocerus 227  
*vicinus*, Dolerus 38  
*vicinus*, Euspongus 223  
*vicinus*, Hylaeus 261  
*vicinus*, Nematus 66  
*victor*, Astata 218  
*victor*, Oxybelus 242  
*victoria*, Platycampus 54  
*victorius*, Euchroeus 140  
*victorovi*, Dryinus 120

- vidua*, *Bembix* 222  
*vidua*, *Nomada* 316  
*vidua*, *Osmia* 298  
*viduata*, *Euura*, *Tenthredo* 66  
*viduata*, *Mutilla* 155  
*viduata*, *Nemka*, *Mutilla* *viduata* 155  
*viduatinus*, *Euura*, *Amauronematus* 66  
*viduatoides*, *Euura*, *Amauronematus* 66  
*viduatus*, *Prionyx* *viduatus* 215  
*viduus*, *Odynerus* 179  
*viennensis*, *Allantus*, *Tenthredo* 38  
*Viereckella* 319  
*vigora*, *Holopyga* 131  
*viktorovi*, *Smicromyrme* 156  
*villiersi*, *Halictus* 287  
*villipes*, *Dasygaster* 293  
*villipes*, *Nomada* *stigma* 316  
*villosa*, *Anthophora* 324  
*villosa*, *Crocisa* *affinis* var. 326  
*villosa*, *Dasygaster* 293  
*villosa*, *Euura*, *Nematus* 66  
*villosa*, *Hoplitis*, *Megachile* 297  
*villosa*, *Megachile* 306  
*villosa*, *Pseudotiphia*, *Tiphia* 150  
*villosa*, *Siobla* 89  
*villosa*, *Tenthredo* 90  
*villosula*, *Anthophora* 323  
*villosulopsis*, *Halictus* 287  
*villosulum*, *Lasioglossum*, *Melitta* 287  
*villosum*, *Lasioglossum* *albipes* 282  
*villosum*, *Trichiosoma*, *Cimbex* 31  
*viminalis*, *Euura* 60  
*viminalis*, *Euura*, *Cynips* 66  
*viminalis*, *Nematus* 60  
*viminalis*, *Tenthredo* 54, 97  
*vinctus*, *Ammobates* 318  
*vindobonensis*, *Mimesa* 250  
*vinokurovi*, *Chrysis* 139  
*violacea*, *Apis* 309  
*violacea*, *Hylotoma* 23  
*violacea*, *Tenthredo* 23, 39  
*violacea*, *Tenthredo*, *Allantus* *bifasciata* 90  
*violacea*, *Xylocopa*, *Apis* 310  
*violaceipennis*, *Allantus* 90  
*violaceipennis*, *Ammophila* 213  
*violaceipennis*, *Andrena* 269  
*violaceipennis*, *Melanapis* 270  
*violaceipennis*, *Odynerus* *dantici* 183  
*violaceus*, *Dolerus* 79  
*violaceus*, *Pseudomalus*, *Sphex* 133  
*violascens*, *Andrena* 267  
*violascens*, *Cimbex* 29  
*violascens*, *Nomioides* *minutissima* 292  
*violascens*, *Tenthredo*, *Allantus* 90  
*virago*, *Paururus* *juvencus* 112  
*virago*, *Tenthredo* *luteocincta* 96  
*viratus*, *Eumenes* *latipes* var. 185  
*virens*, *Lophyrus* 34  
*virens*, *Hedychrum* *virens* 130  
*virescens*, *Ellampus* *auratus* var. 133  
*virescens*, *Halictus* 279  
*virescens*, *Nematus* 56  
*virescens*, *Pamphilius* 106  
*virescens*, *Pseudomalus* *auratus* 142  
*virescens*, *Selandria* 82  
*virgatus*, *Bombus* *lapponicus* 330  
*virginalis*, *Pachynematus* 59  
*virgineus*, *Tenthredopsis* 99  
*virginianus*, *Priophorus* 54  
*viridana*, *Osmia* 299  
*viridana*, *Pristiphora* 73  
*viridans*, *Tenthredella* 92  
*viridator*, *Banchus* 109  
*viridatrix*, *Tenthredo* *viridatrix* 92  
*virideglaucum*, *Lasioglossum* 287  
*viridellum*, *Lasioglossum*, *Halictus* 287  
*virideocincta*, *Chrysis* *succincta* ab. 134  
*viridescens*, *Nematus* 63  
*viridiaeneus*, *Halictus* 282  
*virididorsata*, *Dineura*, *Tenthredo* 55  
*viridifrons*, *Rhogogaster* *genistae* 88  
*viridilineolatum*, *Hedychrum* 130  
*viridipes*, *Pamphilius* 104  
*viridis*, *Euura*, *Nematus* 67  
*viridis*, *Notozus* 127  
*viridis*, *Pachyprotasis* 87  
*viridis*, *Rhogogaster* auct. 88  
*viridis*, *Rhogogaster*, *Tenthredo* 89  
*viridis*, *Strongylogaster* 82  
*viridis*, *Tenthredo* 88  
*viridis*, *Tenthredopsis* 100  
*viridissima*, *Euura*, *Nematus* 67  
*viriditibialis*, *Onycholyda*, *Pamphilius* 103  
*viriditibialis*, *Pamphilius* 103  
*viridiventris*, *Omalus* 127  
*viridiventris*, *Pseudomalus*, *Ellampus* *auratus* 132  
*viridula*, *Chrysis* 139  
*viridulus*, *Pamphilius* 106  
*virilis*, *Dineura* *stilata* 55  
*virilis*, *Euura*, *Pontania* 67  
*virilis*, *Nematinus* *bilineatus* 68  
*vitellina*, *Trichiosoma*, *Tenthredo* 31  
*Vitelliniformis* 30  
*vitis*, *Tenthredo* 38  
*vitosaensis*, *Allantus* *arcuatus* 96  
*vitoshensis*, *Tenthredo* *solitaria* 95  
*vitrea*, *Andrena* 272  
*vitreipennis*, *Andrena* 272  
*vitreipennis*, *Nematus* 72  
*vittata*, *Acantholyda* *erythrocephala* 101  
*vittata*, *Euura*, *Nematus* 67  
*vittata*, *Tenthredopsis* *raddatzi* 99  
*vittatum*, *Aprosthemata*, *Schizocera* 26  
*vittatus*, *Cephus* 111  
*vittatus*, *Nematus* 67  
*vitticollis*, *Cerceris* 255  
*vittifrons*, *Carinoscolia*, *Scolia* 147  
*vittozi*, *Tenthredo* *vespa* 97  
*vittulata*, *Eucera* 321  
*vivida*, *Tenthredo* 92  
*vididula*, *Formica* 202  
*vididula*, *Nylanderia*, *Formica* 202  
*vocifera*, *Andrena* *gelriae* 274  
*vogti*, *Colletes* 258  
*voigti*, *Fenella* 47  
*volatilis*, *Pamphilius*, *Lyda* 106  
*volatilis*, *Sphecodes* 289  
*volgadon*, *Stigmatoporus* 173  
*volgensis*, *Andrena* 263  
*volgensis*, *Aprosthemata* 26  
*volgensis*, *Apterogyna* 159  
*volgensis*, *Leptothorax* *nassonovi* 209  
*volgensis*, *Temnothorax*, *Leptothorax* 209  
*vollenhoveni*, *Nematus* 66  
*vollenhoveni*, *Selandria* 76  
*vopiscus*, *Eutomostethus*, *Tomostethus* *ephippium* 47  
*vulgaris*, *Dufourea* 290  
*vulgaris*, *Halictus* 284  
*vulgaris*, *Hylotoma* 23  
*vulgaris*, *Priocnemis*, *Pompilus* 164  
*vulgaris*, *Vespa*, *Vespa* 196  
*vulgata*, *Vespa* *crabro* 194  
*vulgatus*, *Notozus* *productus* var. 128  
*vulneratus*, *Dolerus* 80  
*vulnericeps*, *Mutilla* 157  
*vulpecolor*, *Megachile* *melanopyga* 307  
*vulpecula*, *Andrena* 267  
*vulpecula*, *Osmia* 298  
*vulpina*, *Andrena* 282  
*vulpina*, *Apis* 323  
*vulpinus*, *Halictus* 285  
*vulsum*, *Lasioglossum*, *Halictus* 287  
*vutshetitshi*, *Myrmilla* 154  
*Waagenia* 211  
*wacki*, *Colletes* 259  
*wagneri*, *Tenthredo* *maculata* 92  
*wahlbergi*, *Nematus* *wahlbergi* 69  
*wahrmani*, *Apterogyna* 159  
*waldheimii*, *Claremontia*, *Tenthredo* 46  
*waldstaetterense*, *Empria* 41  
*walishanovi*, *Andrena* *schwarzi* ssp. 267  
*Walkeri*, *Crabro* 228  
*walkeri*, *Crossocerus*, *Crabro* 228  
*walkeri*, *Vespa* 194  
*walteri*, *Chalybion*, *Pelopoeus* 214  
*Walteri*, *Crabro* 233  
*walteri*, *Ectemnius*, *Crabro* 233  
*waltlii*, *Gastrosericus* 236  
*wanda*, *Dolerus* 80  
*wankowiczi*, *Cilissa* 294  
*wankowiczi*, *Dasygaster* 293  
*warncke*, *Colletes* 259  
*washingtonia*, *Hemichroa* 67  
*watanabei*, *Arge* *captiva* 22  
*watasei*, *Andrena* 270  
*watsoni*, *Katamenes* 184  
*watsoni*, *Katamenes* 185  
*weberi*, *Bembix* 221  
*weiffenbachi*, *Pteronidea* 63  
*weiffenbachiella*, *Euura* 67  
*weiffenbachi*, *Euura* 67  
*werestschagini*, *Crabro* 226

- werneri*, Leptothorax 208  
*werzhutskii*, Pristiphora 75  
*wesmaeli*, Ammoplanus 246  
*wesmaeli*, Arachnospila, *Pompilus* 169  
*wesmaeli*, Crossocerus, *Crabro*  
*wesmaeli* 230  
*wesmaeli*, Ellampus 132  
*wesmaeli*, Nysson 220  
*wesmaeli*, Pemphredon, *Cemonus* 249  
*wesmaeli*, Pristiphora, *Nematus* 75  
*Wesmaelinus* 166  
*Wesmaelinus* 166  
*westerlundi*, Arachnospila, *Pompilus* 169  
*westerlundi*, Chrysis 139  
*westermanni*, *Nematus* 64  
*westwoodi*, Fenella 48  
*westwoodi*, Stenamamma 207  
*westwoodii*, Stenamamma auct. 207  
*whitei*, *Nematus* 73  
*Wickhamii*, Dolichocrabro 227  
*wilkella*, Andrena, *Melitta* 274  
*willighiae*, *Nematinus* 68  
*willoughbyi*, Dolerus 78  
*willughbiella*, Megachile, *Apis* 308  
*wilmattae*, Hylaeus 261  
*winkleyi*, Andrena 274  
*winnipeg*, *Nematus* 71  
*winnipegensis*, *Nematus* 71  
*winteri*, Pteronidea 57  
*wittenbourgi*, Halictus 281  
*wittenburgi*, Hortobombus  
*consobrinus* 328  
*wolfi*, Arachnospila 169  
*wolfi*, Dicyrtomellus 170  
*wolfi*, Gonaporus 173  
*wolfi*, Krombeinella, *Myrmosa* 152  
*wolhynica*, Osmia 299  
*Wollmania* 130  
*wttewaalli*, *Nematus* 63  
*wuczeticzi*, Microdynerus 185  
*wuestneii*, Brachythops, *Selandria* 76  
*wuestneii*, Didineis 219  
*wuestneii*, Fenusa 48  
*wuestneii*, Fenusella, *Fenusa* 48  
*wuestneii*, Heterarthrus, *Phyllotoma* 49  
*wuestneii*, *Nematus* 72  
*wuestneii*, Tenthredopsis 100  
*wui*, Camponotus japonica 198  
*wulungshanensis*, Andrena 268  
*wuorentausi*, Ametastegia 39  
*wurflenii*, Bombus 327  
*wymperi*, Camponotus  
*herculeanus* var. 198  
  
*Xambeui*, Sylaeon 241  
*Xanteppyrus* 123  
*xanthaspis*, Pontania viminalis 66  
*xanthaspis*, Tenthredo temula 93  
*Xanthidium* 310  
*xanthobaptus*, *Nematus* 65  
*xanthocarpus*, *Nematus* 59  
*xanthocera*, Arge 24  
  
*xanthocera*, Strongylogaster,  
Tenthredo 82  
*xanthocerus*, Megalodontes 107  
*xanthocerus*, *Nematus* 55  
*xanthocnemis*, Hylaeus 261  
*xanthogaster*, *Nematus* 57  
*xanthogastrica*, *Apis* 296  
*xanthomelaena*, Tenthredo 93  
*xanthomelana*, Osmia 299  
*xanthomelas*, Stenodynerus,  
*Odynerus* 190  
*xanthometopa*, *Apis* 259  
*xanthomus*, *Nematus* 73  
*xanthophorus*, *Nematus* 64  
*xanthoptera*, Vespa 194  
*xanthopterus*, *Nematus* 56  
*xanthopus*, Caenocephus 108  
*xanthopus*, Dosytheus 78  
*xanthopus*, Lasioglossum, *Melitta* 281  
*xanthopus*, *Melitta* 280  
*xanthopus*, *Nematus* 55  
*xanthopyga*, Andrena 271  
*xanthopyga*, Tenthredo 22  
*xanthorius*, Allantus 90  
Xanthosarus subg. 307  
*xanthoscelis*, Andrena 270  
*xanthosensis*, Halictus 284  
*Xanthosirex* 113  
*Xanthospechium* 245  
*xanthosticta*, *Apis* 312  
*xanthostoma*, Phyllococcus, *Cephus* 111  
*xanthostomus*, Pteronus 61  
*xanthostylos*, *Nematus* 58  
*xanthotarsus*, Tenthredo 98  
*xanthothorax*, Andrena 259  
*xanthotrachela*, Pristiphora 73  
*xanthura*, *Melitta* 274  
*xanthurum*, Anthidium oblongatum 301  
*xanthurum*, Aprosthema 26  
*xema*, Andrena coitana ssp. 271  
*Xenanteon* 118  
Xenaporus 174  
Xenaporus subg. 174  
*Xenocrabro* 231  
*Xenoglossodes* 321  
Xeris 114  
**Xeromelissinae** 257  
*Xestobethylus* 123  
*Xestocrabro* 231  
*Xilocopa* 309  
*xinjiangensis*, Dolichovespula 195  
*Xiphidion* 115  
*Xiphura* 115  
*Xiphura* 115  
Xiphidria 115  
**Xiphydriidae** 115  
**Xiphydriinae** 115  
Xiphydriola 116  
Xoanon 113  
Xyela 20  
*Xyelatana* 20  
**Xyelidae** 20  
**Xyelinae** 20  
  
**Xyeloidea** 20  
**Xyelomorpha** 20  
*Xylocelia* 247  
Xylocopa 309  
Xylocopa subg. 310  
**Xylocopinae** 309  
**Xylocopini** 309  
*Xylocrabro* 231  
*Xyloceciatum* 113  
*Xyloecus* 247  
*xylopedis*, Lasioglossum zonulum 281  
xylostei, Hoplocampoides, *Tenthredo* 49  
xylostei, Selandria 49  
xylostei, Tenthredo, *Allantus* solitaria 95  
*Xyloterus* 113  
*xylyrgus*, *Crabro* 231  
*Xyphydria* 115  
  
yakuticum, Lasioglossum, *Evylaeus* 287  
*yamamotoi*, Anoplius 168  
*yamanei*, Ancistrocerus 179  
*yamato*, Crossocerus capitosus 228  
*yamatonis*, Trypoxylon frigidum 244  
Yambal 227  
yanoi, Athalia 45  
*yanoi*, Smicromyrme lewisi 156  
Yanonius 231  
*yarrowi*, Metrionotus 124  
yarrowi, Nomada 317  
*yasha*, Nomada 313  
yasumatsui, Arachnospila 169  
yasumatsui, Auplopus 165  
*yasumatsui*, Colletes 258  
yasumatsui, Crossocerus, *Crabro* 230  
yasumatsui, Priocnemis 163  
yasushii, Urocetus, *Sirex* 113  
*yayeyamae*, Polistes rothneyi 192  
*yeguasicus*, Pterochilus phaleratus 189  
yessensis, Formica 200  
*yessensis*, Formica truncicola var. 200  
*yezo*, Crossocerus capitosus 228  
*yezo*, Trypoxylon figulus 244  
*yezoanus*, Symmorphus mutinensis 191  
yezoensis, Acantholyda aglaia 101  
*yezoensis*, Bombus 328  
*yezoensis*, Evagetes 171  
yezoensis, Onycholyda 104  
*yezoensis*, Priocnemis 163  
yezoensis, Tenthredo 98  
*yichunensis*, Vespa 196  
yokohamensis, *Nematus*, *Holcocneme* 69  
*yosemite*, Ectemnius 231  
ypsilon, Chlorodynerus, *Odynerus* 180  
*ypsilon*, Dasylabris rubrosignata 153  
*Yuchiha* 227  
yukonensis, Dolerus 78  
*yulongensis*, Vespa 196  
*yunlongensis*, Vespa 196  
  
*zablockii*, Sphecodes 287  
*zacharovi*, Empria 41  
zaddachi, Dolerus 81  
*zaddachi*, Dolerus aeneus 79

- zaddachi*, Pachynematus 57  
*zaddachi*, Schizocera 26  
*zahaikovitshi*, Cephus, *Pseudocephus* 110  
*zaidamensis*, Crabro 228  
*zaitzevi*, Chrysis 136  
*zaitzevi*, Euura, *Amauronematus* 67  
*zakakica*, Megachile melanopyga 307  
*Zalagium* 84  
*zalinda*, Prosopigastra 237  
*Zamacrophya* 89  
*Zaphymatocera* 53  
*Zarabayca* 159  
*Zaraea* 28  
*Zarudnidium* 128  
*Zarudnium* 128  
*zarudnyi*, Arge 24  
*zarudnyi*, Ellampus 131  
*zarudnyi*, Tachysphex 238  
*zavadili*, Mesitius 124  
*zavadili*, Smicromyrme rufipes f. 156  
*zavadili*, Spilomena 249  
*zavattarii*, Vespa orientalis var. 194  
*zaysanicus*, Gorytes 222  
*Zebramegilla* subg. 322  
*zella*, Pristiphora 73  
*zelleri*, Hedychridium, *Hedychrum* 130  
*zelleri*, Pompilus 173  
*Zelorhopalum* 235  
*zenaida*, Siobla 89  
*Zendalia* subg. 185  
*zeraldae*, Megachile willughbiella 308  
*Zeteumenoides* subg. 181  
*zetterstedti*, Amauronematus 65  
*zetterstedti*, Chrysis 139  
*zetterstedti*, Nematus 62  
*zetterstedti*, Vespa norvegica var. 195  
*zeyanense*, Lasioglossum 281  
*zhelochovtsevi*, Dolerus 80  
*zhelochovtsevi*, Pamphilius  
    *zhelochovtsevi* 106  
*zhelochovtsevi*, Platycampus 70  
*zhelochovtsevi*, Taxonus 43  
*zhelochovtzevi*, Abia, *Zaraea* 29  
*zhelochovzevi*, Arge 25  
*zieglerei*, Ceratocolus 230  
*zimini*, Didineis 219  
*zimini*, Solierella 241  
*Zimmermannia* 126  
*zinojevi*, Fenusa, *Kaliofenusa* 48  
*zinovjevi*, Onycholyda 104  
*zinovjevi*, Pamphilius 106  
*zoniae*, Myrmica 207  
*zonalis*, Discoelius, *Vespa* 181  
*zonalis*, Hylotoma 24  
*zonalis*, Melitta 267  
*zonalis*, Vespa 181  
*Zonandrena* subg. 275  
*zonaria*, Andrena rutila ab. 270  
*zonata*, Apis 296  
*zonata*, Nomada 311  
*zonata*, Nomada 317  
*zonata*, Tenthredo 38, 90, 92  
*zonatula*, Habropoda 325  
*zonatus*, Bombus 332  
*zonatus*, Crabro 231  
*zonsteini*, Arachnospila 169  
*zonula*, Tenthredo 97  
*Zonuledo* 90  
*Zonuledo* subg. 97  
*zonulum*, Lasioglossum, *Halictus* 281  
*zukaensis*, Pachyprotasis 88  
*zwakhalsi*, Ceratina 310  
*zwickoviensis*, Allantus consobrinus 89

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