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**The aculeate Hymenoptera in the collection of the Institute of Zoology  
of the National Academy of Sciences of Azerbaijan, Baku.  
Part 4. Wasps of the family Vespidae (Hymenoptera: Vespoidea)**

**Жалящие перепончатокрылые в коллекции Института зоологии  
Национальной Академии наук Азербайджана, Баку.  
Часть 4. Осы семейства Vespidae (Hymenoptera: Vespoidea)**

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**Key words:** Vespidae, Azerbaijan, fauna, distribution, species.

**Ключевые слова:** Vespidae, Азербайджан, фауна, распространение, виды.

**Abstract.** Wasps of the family Vespidae in the collection of the Institute of Zoology of the National Academy of Sciences of Azerbaijan (Baku) are represented by 28 genera and 59 species, nine of them, *Ancistrocerus dusmetiolus*, *Odynerus (Spinicoxa) reniformis*, *Pseudepipona (Pseudepipona) lativentris*, *Polistes (Polistes) bischoffi*, *P. (P.) dominula*, *P. (P.) semenowi*, *Dolichovespula media*, *D. sylvestris* and *Vespula vulgaris*, are new to the fauna of Azerbaijan. A total of 57 species are reported from Azerbaijan, eight from Russia (mainly from Itum-Kale in Chechen Republic and Botlikh in Dagestan; several deposited specimens were collected in Ural, Crimea, Vologda and Leningrad regions), three from Ukraine, two each from Turkmenistan, Iran and Kazakhstan, and one each from Georgia and Uzbekistan. Habitats and general geographic distribution is given for each species.

**Резюме.** Осы семейства Vespidae представлены в коллекции Института зоологии Национальной Академии наук Азербайджана (Баку) 59 видами из 28 родов. Из них 9 видов, *Ancistrocerus dusmetiolus*, *Odynerus (Spinicoxa) reniformis*, *Pseudepipona (Pseudepipona) lativentris*, *Polistes (Polistes) bischoffi*, *P. (P.) dominula*, *P. (P.) semenowi*, *Dolichovespula media*, *D. sylvestris* и *Vespula vulgaris*, впервые отмечены для фауны Азербайджана. Всего в коллекции хранится 57 видов из Азербайджана, 8 – из России (в основном из Итум-Кале в Чеченской Республике и Ботлиха в Дагестане; некоторые коллекционные экземпляры были собраны на Урале, в Крыму, в Вологодской и Ленинградской областях), 3 – с Украины, по 2 из Туркменистана, Ирана и Казахстана, по одному из Грузии и Узбекистана. Для каждого вида приведены ландшафтно-биотопическая приуроченность и общее географическое распространение.

## Introduction

Vespidae are spread all over the world except Antarctica. Currently, there are 5274 species in the fauna of the planet belonging to 256 genera, four subfamilies (Masarinae, Eumeninae, Polistinae, Vespinae) of the family Vespidae. In the Palaearctic 1181 species and 90 genera of the family are known [Antropov et al., 2017].

In Russia, it could be 201 and 39 if add the data by Fateryga and Mokrousov [2019]; 298 species and subspecies and 53 genera have been reported from Turkey [Yıldırım, 2012; Yıldırım, Gusenleitner, 2012], and 182 species and 51 genera from Iran [Ebrahimi, Carpenter, 2008].

Only *Vespa crabro* Linnaeus, 1758, *Vespula germanica* (Fabricius, 1793), *Polistes chinensis* (Fabricius, 1793), *P. gallicus* (Linnaeus, 1767), *P. nimpha* Christ, 1791, *Katamenes sichelii* (de Saussure, 1852), *Odynerus dantici* Rossi, 1790, *Ancistrocerus parietum* Linnaeus, 1758 have hitherto been recorded from the Republic of Azerbaijan [Bogachev, 1951; Aliyev, 1996]. At least 50 species of Eumeninae were reported by Aliyeva [2010]. Then, 66 species of Eumeninae were reported by Fateryga et al. [2019] and an additional one by Fateryga and Mokrousov [2019]. Some of them were even described from Azerbaijan by Morawitz [1885, 1895] and Kostylev [1940]. At least 2 species of Masarinae could be added (*Celonites laetus* Panfilov, 1968 described from Azerbaijan and *C. tauricus* reported by Fateryga [2017]).

The present contribution provides an annotated list of species of the family Vespidae kept in the collection of the Institute of Zoology, National Academy of Sciences of Azerbaijan, Baku. The material comes from the entire territory of Azerbaijan, as well as Russia, Iran, Georgia, Turkmenistan, Uzbekistan, Kazakhstan, and Ukraine, mostly using Malaise traps and entomological nets set in

montane or steppe landscapes. The taxonomy and general distributions of Vespidae follows several literature sources [Tobias, Kurzenko, 1978; Carpenter, 1986, 1996, 2001; Carpenter, Kojima, 1997; Antropov et al., 2017].

The collectors' names, when known, are abbreviated as follows: AB – A. Bogachev; KhA – Kh. Aliyev; MV – M. Vinovsky; ID – I. Drapolyuk; EE – E. Elistratov; VR – V. Rusanova; OA – O. Aliev; M – Mamedov; S – Suvorov; So – Soldatov; MM – M. Maharramov; EG – E. Guseynov; T – Tertyshnikov; AM – A. Mammadov.

The species newly reported from Azerbaijan are marked with an asterisk \*.

### Family Vespidae

#### Subfamily Eumeninae

#### Genus *Alastor* Lepeletier de Saint Fargeau, 1841

*Alastor (Alastor) mocsaryi* (André, 1884)

= *A. biegelebeni* Giordani Soika, 1942.

**Material.** Azerbaijan: 1♀, Zakataly, Perzivan, 19.05.1987 (KhA).

**Note.** The species lives in lowland forested landscapes.

**Distribution.** Europe (Western, Southern, and Eastern), Russia (European part), Caucasus, Turkey, Syria, Lebanon.

#### Genus *Ancistrocerus* Wesmael, 1836

*Ancistrocerus auctus* (Fabricius, 1793)

**Material.** Azerbaijan: 1♀, Agdash, Turianchay State Nature Reserve, 4.10.1994 (KhA).

**Note.** The species inhabits middle mountain steppe landscapes.

**Distribution.** Europe (Western, Southern, and Eastern), Russia (European part), Caucasus, Turkey, Syria, Jordan, Israel, Iraq, Iran, Central Asia, Kazakhstan.

*Ancistrocerus claripennis* Thomson, 1874

**Material.** Azerbaijan: 1♂, Absheron, Inzhirnyaya, on *Foeniculum*, 25.08.1986 (KhA).

**Note.** The species inhabits lowland semi-desert landscapes.

**Distribution.** Europe (Western, Northern, Southern, and Eastern), Russia (European part), Caucasus, Turkey, Iran, Tajikistan, China.

\**Ancistrocerus dusmetiolus* (Strand, 1914)

**Material.** Azerbaijan: 1♀, Khyzy, Diravar, 10.08.2000 (KhA).

**Note.** The species inhabits middle mountain steppe landscapes.

**Distribution.** Europe (Western, Southern, and Eastern), Russia (Western and Eastern Siberia), Turkey, Azerbaijan, Afghanistan, Central Asia, Kazakhstan.

*Ancistrocerus gazella* (Panzer, 1798)

**Material.** Azerbaijan: 1♀, Nakhchivan Autonomous Republic, Shakhbuz, Batabat, ca 1790 m, 26.07.2016 (MM).

**Note.** The species inhabits middle mountain steppe landscapes.

**Distribution.** North Africa, Europe (Western, Northern, Southern, and Eastern), Russia (European part),

Caucasus, Turkey, Cyprus, Israel, Iran, Afghanistan, North America, New Zealand.

*Ancistrocerus parietum* (Linnaeus, 1758)

**Material.** Azerbaijan: 1♂, Nakhchivan, 20.05.1933 (AB). Kazakhstan: 1♀, Zaysan. Ukraine: 1♀, 13.08.1921.

**Note.** The species inhabits lowland semi-desert landscapes.

**Distribution.** North Africa, Europe (Western, Northern, Southern, and Eastern), Russia (European part, Urals, Western and Eastern Siberia, Far East), Caucasus, Turkey, Iran, Kazakhstan, Central Asia, China, Mongolia, Korean Peninsula, North America.

#### Genus *Antepipona* de Saussure, 1855

*Antepipona cribrata* (Morawitz, 1885)

= *Odynerus cribratus* Morawitz, 1890.

**Material.** Azerbaijan: 1♀, Poylu village, Eldar, on flowers, 18.05.1935 (MV).

**Note.** The species inhabits middle mountain steppe landscapes.

**Distribution.** Russia (European part), Azerbaijan, Turkey, Afghanistan.

*Antepipona deflenda* (S. Saunders, 1853)

= *Odynerus parvulus* Lepeletier de Saint Fargeau, 1845.

**Material.** Azerbaijan: 1♀, Nakhchivan, 31.05.1933 (AB). Kazakhstan: 1♀, Uralsk, 6.06.1927 (leg. V. Koloskov).

**Note.** The species inhabits lowland semi-desert and middle mountain steppe landscapes.

**Distribution.** North Africa, Europe (Western, Northern, Southern, and Eastern), Russia (European part, Urals), Caucasus, Turkey, Cyprus, Lebanon, Israel, Jordan, Iraq, Iran, Kazakhstan, Turkmenistan, Uzbekistan, Tajikistan, China.

*Antepipona orbitalis* (Herrich-Schäffer, 1839)

**Material.** Azerbaijan: 2♀, Agdash, Turianchay State Reserve, 7.05.1992 (KhA); 2♀, Nakhchivan Autonomous Republic, Nakhchivan, 920 m, 14.09.2016 (MM).

**Note.** The species inhabits lowland semi-desert landscapes.

**Distribution.** North Africa, Europe (Western, Northern, Southern, and Eastern), Russia (European part, Urals, Western and Eastern Siberia), Caucasus, Turkey, Kazakhstan, Mongolia.

#### Genus *Brachyodynerus* Blüthgen, 1938

*Brachyodynerus quadrimaculatus* (André, 1884)

**Material.** Russia: 1♂, Checheno-Ingushetia [now Chechen Republic], Sovetskoe, Itum-kala, 30.06.1987 (ID).

**Note.** The species inhabits middle mountain steppe landscapes.

**Distribution.** Europe (Southern), Russia (European part), Azerbaijan, Turkey.

#### Genus *Delta* de Saussure, 1855

*Delta unguiculatum* (Villers, 1789)

**Material.** Azerbaijan: 2♀, Agdash, Turianchay State Nature Reserve, 5.08.1994 (KhA).

**Note.** This species inhabits foothill steppe landscapes.

**Distribution.** North Africa, Europe (Western, Southern, and Eastern), Russia (European part), Caucasus, Turkey, Cyprus, Syria, Lebanon, Israel, Saudi Arabia, Iran, Central Asia.

#### Genus *Discoelius* Latreille, 1809

*Discoelius dufourii* Lepeletier de Saint Fargeau, 1841

**Material.** Azerbaijan: 1♀, Shakh-dagh Mt, 2000 m, Laza, 25.09.1933 (AB). Russia: 1♀, Checheno-Ingushetia [now Chechen Republic], Sovetskoe, Itum-Kala, 28.06.1987 (ID).

**Note.** This species inhabits subalpine landscapes.

**Distribution.** Europe (Western, Northern, Southern, and Eastern), Russia (European part, Urals, Western and Eastern Siberia, Far East), Caucasus, Turkey, Iran, Kazakhstan, China, Mongolia, Korean Peninsula.

*Discoelius zonalis* (Panzer, 1801)

**Material.** Russia: 1♀, Ural, western slope of Kolosleyka Mt, Minyar, on fire weed, 8.08.1986 (ID).

**Note.** This species inhabits foothill steppe landscapes.

**Distribution.** Europe (Western, Northern, Southern, and Eastern), Russia (European part, Urals, Western and Eastern Siberia, Far East), Caucasus, Turkey, Iran, China, Mongolia, Korean Peninsula, Japan.

#### Genus *Eumenes* Latreille, 1802

*Eumenes (Eumenes) coarctatus* (Linnaeus, 1758)

= *E. lumulatus* Fabricius, 1804.

**Material.** Azerbaijan: 1♀, Kirovabad [now Ganja], 29.07.1932, (MV); 1♂, same locality, 27.08.1932 (MV); 4♂, Milskaya steppe, 14–26.05.1934 (AB); 1♂, Eli-su, Kakh Distr., 1900 m, 11.07.1934 (AB); 1♀, Baku, 4.09.1934 (AB); 1♂, Samukh, Garagashly, 3.06.1935 (AB); 1♂, Shemakha, Mejsary, 2.07.1937 (AB); 1♂, Agdash, Turianchay State Nature Reserve, 5.10.1998 (KhA); 1♀, Nakhchivan Autonomous Republic, Babek, Shikmahmud, 945 m, 14.06.2016 (MM). Georgia: 1♂, Suram, 25.07.1911 (MV).

**Note.** This species inhabits lowland steppe and semi-desert, foothill steppe and middle mountain landscapes.

**Distribution.** North Africa, Europe (Western, Northern, Southern, and Eastern), Russia (European part, Urals, Western and Eastern Siberia, Far East), Caucasus, Turkey, Cyprus, Syria, Israel, Jordan, Iran, Kazakhstan, Central Asia, China, Mongolia, Japan.

*Eumenes (Eumenes) dubius* de Saussure, 1852

**Material.** Azerbaijan: 2♂, Agdash, Turianchay State Nature Reserve, 5–7.08.1994 (KhA); 1♂, same locality, 5.10.1998 (KhA); 3♀, Khyzy, Dizavar, 10.08.2000 (KhA).

**Note.** This species inhabits foothill steppe landscapes.

**Distribution.** North Africa, Europe (Western, Southern, and Eastern), Russia (European part), Caucasus, Turkey, Cyprus, Syria, Lebanon, Israel, Jordan, Iraq, Iran, Kazakhstan, Turkmenistan, Tajikistan, South America.

*Eumenes (Eumenes) mediterraneus* Kriechbaumer, 1879

**Material.** Azerbaijan: 1♀, Absheron, Inzhirnaya, 13.09.1986 (KhA); 1♀, Baku, 16.09.1986 (KhA); 5♀, 1♂, Agdash, Turianchay State Nature Reserve, 30.09.–4.10.1994 (KhA); 1♀, same locality, 5.10.1998 (KhA).

**Note.** This species inhabits foothill steppe and lowland semi-desert landscapes in sandy places.

**Distribution.** North Africa, Europe (Western, Southern, and Eastern), Russia (European part), Caucasus, Turkey, Cyprus, Syria, Lebanon, Israel, Jordan, Saudi Arabia, Yemen, Oman, Iraq, Iran, Afghanistan, Pakistan, Kazakhstan, Central Asia, China, Mongolia, Korean Peninsula.

*Eumenes (Eumenes) pomiformis* (Fabricius, 1781)

**Material.** Azerbaijan: 1♀, Agdash, Turianchay State Nature Reserve, 8.05.1994 (KhA); 5♀, 1♂, same locality, 30.09–4.10.1994 (KhA); 1♀, 1♂, Kazakh, 11.05.1979 (KhA). Russia: 1♂, Checheno-Ingushetia [now Chechen Republic], Sovetskoe, Itum-Kala, 30.06.1987 (ID).

**Note.** This species inhabits foothill steppe landscapes.

**Distribution.** North Africa, Europe (Western, Southern, and Eastern), Russia (European part, Urals), Caucasus, Turkey, Lebanon, Pakistan, Kazakhstan, Central Asia, India, China, Korean Peninsula.

*Eumenes (Eumenes) subpomiformis* Blüthgen, 1938

**Material.** Azerbaijan: 1♂, Absheron, Dubendy, 25.05.1999 (EG); 1♀, Khyzy, Dizavar, 10.08.2000 (KhA). Uzbekistan: 1♂, Kitab State Nature Reserve, Obie, 18.06.1989 (So).

**Note.** This species inhabits lowland semi-desert and foothill steppe landscapes.

**Distribution.** North Africa, Europe (Western, Southern, and Eastern), Russia (European part), Caucasus, Turkey, Lebanon, Israel, Kazakhstan, Central Asia.

#### Genus *Euodynerus* Dalla-Torre, 1904

*Euodynerus (Euodynerus) caspicus* (Morawitz, 1873)

**Material.** Azerbaijan: 1♂, Absheron, Dubendy, 25.05.1999 (EG); 1♂, 1♀, Salyan, Bendovan, 30.05.2000 (KhA).

**Note.** The species inhabits lowland semi-desert landscapes.

**Distribution.** Russia (European part), Azerbaijan, Iran, Kazakhstan, Turkmenistan, Kyrgyzstan, China, Mongolia.

*Euodynerus (Euodynerus) dantici* (Rossi, 1790)

**Material.** Azerbaijan: 1♀, Kurtmakhmudlu village, Karyaginsk, 3.05.1929 (EE); 1♀, Kirovabad [now Ganja], 18.06.1933 (MV); 1♀, 1♂, Milskaya steppe, 16.06.1934 (AB); 1♀, Talysh, Alekseevka, 7.08.1936 (AB); 1♂, Vedi, Khosrov State Nature Reserve, 23.06.1980 (KhA). Russia: 1♀, Sympheropol, 10.06.1922 (leg. Merkulov).

**Note.** The species inhabits lowland semi-desert and middle mountain steppe landscapes.

**Distribution.** North Africa, Europe (Western, Southern, and Eastern), Russia (European part, Urals, Eastern Siberia, Far East), Caucasus, Turkey, Syria, Lebanon, Jordan, Iran, Afghanistan, Kazakhstan, Central Asia, China, Mongolia, Korean Peninsula, Southern Asia, Japan.

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

**Material.** Azerbaijan: 1♀, Khyzy, Diravar, 10.08.2000 (KhA).

**Note.** The species inhabits middle mountain steppe landscapes.

**Distribution.** Europe (Western, Southern, and Eastern), Russia (European part), Caucasus, Turkey,

Cyprus, Jordan, Saudi Arabia, Iraq, Iran, Afghanistan, Pakistan, Kazakhstan, Central Asia.

*Euodynerus (Pareuodynerus) posticus*  
(Herrich-Schäffer, 1841)

**Material.** Azerbaijan: 1♂, Nakhchivan Autonomous Republic, Shakhbuz, Batabat, 1850 m, 12.06.2016 (MM).

**Note.** The species inhabits middle mountain steppe landscapes.

**Distribution.** North Africa, Europe (Western, Southern, and Eastern), Russia (European part), Caucasus, Turkey, Israel, Iran.

**Genus *Eustenancistrocerus* Blüthgen, 1938**  
*Eustenancistrocerus (Parastenancistrocerus) amadanensis*  
(de Saussure, 1855)

= *E. transitorius* (Morawitz, 1890).

**Material.** Azerbaijan: 1♀, Lerik, Kosmalyan, 25.07.1987 (KhA); 1♀, Salyan, Shirvan State Nature Reserve, 6.06.1999 (KhA); 1♀, Nakhchivan Autonomous Republic, Shakhbuz, Kulus, 1450 m, 3.07.2016 (MM).

**Note.** The species inhabits lowland semi-desert and middle mountain steppe landscapes.

**Distribution.** North Africa, Europe (Southern and Eastern), Russia (European part), Caucasus, Turkey, Cyprus, Syria, Israel, Saudi Arabia, Iraq, Iran, Pakistan, Kazakhstan, Central Asia.

**Genus *Hemipterochilus* Ferton, 1909**  
*Hemipterochilus aberrans* (Morawitz, 1885)

**Material.** Azerbaijan: 1♂, Nakhchivan Autonomous Republic, Shakhbuz, Batabat, 1870 m, 12.07.2016 (MM).

**Note.** The species inhabits middle mountain steppe landscapes.

**Distribution.** Europe (Southern and Eastern), Armenia, Azerbaijan, Turkey, Syria, Lebanon.

*Hemipterochilus bembeciformis* (Morawitz, 1867)

**Material.** Azerbaijan: 1♀, Milskaya steppe, 25.05.1934 (AB). Russia: 1♀, Dagestan, Botlikh, Tlokh, 10.05.1988 (KhA).

**Note.** The species inhabits lowland semi-desert and middle mountain steppe landscapes.

**Distribution.** Europe (Western, Southern, and Eastern), Russia (European part, Urals), Caucasus, Turkey, Kazakhstan, Central Asia.

*Hemipterochilus* sp.

**Material.** Azerbaijan: 2♂, Kalaalty, 4.06.1986 (leg. G. Huseynzadeh); 1♀, Nakhchivan Autonomous Republic, Ordubad, Bilav, 1300 m, 2.06.2016 (MM).

**Note.** These samples could not be identified to the species level.

**Genus *Ischnogasteroides* Magretti, 1884**  
*Ischnogasteroides* sp.

**Material.** Azerbaijan: 1♂, Agdash, Turianchay State Nature Reserve, 7.08.1994 (KhA); 1♀, Nakhchivan Autonomous Republic, Nakhchivan, 900 m, 14.09.2016 (KhA, MM).

**Note.** These samples could not be identified to the species level.

**Genus *Jucancistrocerus* Blüthgen, 1938**  
*Jucancistrocerus jucundus* (Mocsary, 1883)

**Material.** Azerbaijan: 1♀, Eldar, Poylu, 18.05.1935 (AB); 1♀, Samukh, Garagashly, 3.06.1935 (AB); 1♂, Nakhchivan Autonomous Republic, Shakhbuz, Kulus, 1450 m, 3.06.2016 (MM).

**Note.** The species inhabits lowland semi-desert and middle mountain steppe landscapes.

**Distribution.** Europe (Southern and Eastern), Caucasus, Turkey, Afghanistan.

**Genus *Katamenes* Meade-Waldo, 1910**  
*Katamenes sichelii* (de Saussure, 1852)

= *Eumenes baerii* Radoszkowski, 1893.

**Material.** Azerbaijan: 1♀, Absheron, Amiradzhany, 17.06.1933 (VR); 1♀, Baku, Zyk, 24.06.1936 (T); 5♀, 1♂, Baku, Botanical garden, 10.06.1937 (MV); 2♀, Baku, 23.09.1937 (MV).

**Note.** The species lives in lowland semi-desert landscapes.

**Distribution.** North Africa, Europe (Southern), Russia (European part, Urals), Caucasus, Turkey, Israel, Jordan, Saudi Arabia, Iraq, Iran, Afghanistan, Kazakhstan, Central Asia, India, China, Mongolia.

**Genus *Leptochilus* de Saussure, 1853**  
*Leptochilus (Lionotulus) alpestris* (de Saussure, 1855)

**Material.** Azerbaijan: 1♀, Absheron, Primorsk, on Tamarix, 7.06.1986 (KhA).

**Note.** The species inhabits lowland semi-desert landscapes.

**Distribution.** North Africa, Europe (Western, Southern, and Eastern), Russia (European part), Caucasus, Turkey, Jordan, Turkmenistan.

*Leptochilus (Neoleptochilus) regulus* (de Saussure, 1855)

**Material.** Azerbaijan: 1♂, Mardakert, Leninavan, 30.08.1980 (KhA).

**Note.** The species inhabits middle mountain steppe landscapes.

**Distribution.** North Africa, Europe (Western, Southern, and Eastern), Russia (European part), Caucasus, Turkey, Cyprus, Syria, Jordan, Iran.

**Genus *Microdynerus* Thomson, 1874**  
*Microdynerus (Pseudomicrodynerus) parvulus*  
(Herrich-Schäffer, 1838)

**Material.** Azerbaijan: 1♂, Kilyazi, Tazakend, 10.06.2000 (KhA).

**Note.** The species inhabits middle mountain steppe landscapes.

**Distribution.** Europe (Western, Southern, and Eastern), Russia (European part, Urals, Western Siberia), Caucasus, Turkey, Iran, Kazakhstan, Uzbekistan.

*Microdynerus* sp.

**Material.** 1♂, Azerbaijan: Salyan, Shirvan State Nature Reserve, 6.06.1999 (KhA).

**Note.** This sample could not be identified to the species level.

**Genus *Odynerus* Latreille, 1802**  
*Odynerus (Odynerus) melanocephalus* (Gmelin, 1790)

**Material.** Azerbaijan: 1♂, Milskaya steppe, 17.06.1935 (AB); 1♀, 1♂, Agdash, Turianchay State Nature Reserve, 6.07.1993 (KhA); 1♀, Shemakha, Pirkuli, 13.06.1999 (KhA); 2♂, 1♀, Baku, 17.04.2000 (KhA).

**Note.** The species inhabits lowland semi-desert and middle mountain steppe landscapes.

**Distribution.** Europe (Western, Northern, Southern, and Eastern), Russia (European part, Urals, Western Siberia), Caucasus, Turkey, Cyprus, Syria, Israel, Jordan, Iraq, Iran, Afghanistan, Kazakhstan, Central Asia.

*Odynerus (Odynerus) poecilus* de Saussure, 1856

**Material.** Azerbaijan: 1♂, 1♀, Galaalty, 4.06.1986 (leg. G. Huseynzadeh).

**Note.** The species inhabits lowland semi-desert landscapes.

**Distribution.** Europe (Western, Southern, and Eastern), Russia (European part), Azerbaijan, Turkey.

*Odynerus (Spinicoxa) albopictus* de Saussure, 1856

= *O. calcaratus* Morawitz, 1885.

**Material.** Azerbaijan: 8♀, Salyan, Shirvan State Nature Reserve, 6.06.1999 (KhA).

**Note.** The species inhabits lowland semi-desert landscapes.

**Distribution.** Europe (Western, Southern, and Eastern), Russia (European part), Caucasus, Turkey, Syria, Israel, Jordan, Iraq, Iran, Kazakhstan, Turkmenistan, Uzbekistan.

\**Odynerus (Spinicoxa) reniformis* (Gmelin, 1790)

**Material.** Azerbaijan: 1♀, Ismailly, State Nature Reserve, 1500 m, 13.07.2001 (KhA).

**Note.** The species inhabits middle mountain steppe landscapes.

**Distribution.** North Africa, Europe (Western, Northern, Southern, and Eastern), Russia (European part, Urals, Western and Eastern Siberia), Turkey, Azerbaijan, Israel, Kazakhstan.

#### Genus *Onychopterocheilus* Blüthgen, 1955

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

**Material.** Russia: 1♀, Dagestan, Botlikh, Tlokh, 11.05.1988 (KhA).

**Note.** The species inhabits middle mountain steppe landscapes.

**Distribution.** Russia (European part, Urals, Western and Eastern Siberia), Azerbaijan, Kazakhstan.

#### Genus *Paragymnomerus* Blüthgen, 1938

*Paragymnomerus signaticollis* (Morawitz, 1888)

**Material.** Azerbaijan: 1♂, Zakataly, Perzivan, 26.05.1986 (KhA).

**Note.** The species lives in lowland forested landscapes.

**Distribution.** Europe (Eastern), Russia (European part), Azerbaijan, Turkey, Turkmenistan, Uzbekistan, Tajikistan.

#### Genus *Pseudopipona* de Saussure, 1856

*Pseudopipona (Pseudopipona) herrichii* (de Saussure, 1856)

**Material.** Azerbaijan: 1♀, 1♂, Samukh, Karagachly, 3.06.1935 (AB).

**Note.** The species inhabits middle mountain steppe landscapes.

**Distribution.** North Africa, Europe (Western, Southern, and Eastern), Russia (European part, Urals, Western and Eastern Siberia, Far East), Caucasus, Turkey, Syria, Kazakhstan, Central Asia, China, Mongolia, North America.

\**Pseudopipona (Pseudopipona) lativentris* (Saussure, 1855)

**Material.** Azerbaijan: 2♂, Absheron, Inzhirnaya, on Foeniculum, 13.09.1986 (KhA).

**Note.** The species inhabits lowland semi-desert landscapes.

**Distribution.** North Africa, Southern Europe, Azerbaijan, Turkey, Cyprus, Lebanon, Israel, Iran, Central Asia.

#### Genus *Psiliglossa* S. Saunders, 1872

*Psiliglossa odyneroides* (S. Saunders, 1850)

**Material.** Azerbaijan: 1♀, Baku, Inzhirnaya, 23.06.1985 (KhA); 1♂, Agdash, Turianchay State Nature Reserve, 8.05.1992 (KhA).

**Note.** This species inhabits foothill steppe and lowland semi-desert landscapes in sandy places.

**Distribution.** Europe (Southern and Eastern), Russia (European part), Caucasus, Turkey, Turkmenistan.

#### Genus *Pterocheilus* Klug, 1805

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

**Material.** Azerbaijan: 1♀, Baku, Karadag, 24.04.2000 (KhA); 1♀, Nakhchivan Autonomous Republic, Shakhbuz, Batabat, ca 1870 m, 12.06.2016 (MM).

**Note.** The species inhabits lowland semi-desert and middle mountain steppe landscapes.

**Distribution.** Europe (Western, Northern, Southern, and Eastern), Russia (European part, Urals, Western and Eastern Siberia), Georgia, Azerbaijan, Turkey, Kazakhstan, Mongolia.

#### Genus *Stenancistrocerus* de Saussure, 1863

*Stenancistrocerus (Paratropancistrocerus) obstrictus* (Morawitz, 1895)

**Material.** Azerbaijan: 3♂, Salyan, Bendovan, 29.05.2000 (KhA).

**Note.** The species inhabits lowland semi-desert landscapes.

**Distribution.** Russia (European part), Caucasus.

#### Genus *Symmorphus* Wesmael, 1836

*Symmorphus (Symmorphus) bifasciatus* (Linnaeus, 1761)

= *S. mutinensis* Baldini, 1894.

**Material.** Azerbaijan: 1♂, Eli-su, Kakhi distr., 07.1934 (AB); 1♀, Milskeya steppe, 17.04.1935 (AB). Russia: 1♀, Suda, Cherepovets Distr. (leg. V. Belizin).

**Note.** The species inhabits lowland semi-desert and middle mountain steppe landscapes.

**Distribution.** Europe (Western, Northern, Southern, and Eastern), Russia (European part, Urals, Western and Eastern Siberia, Far East), Caucasus, Turkey, Kazakhstan, Central Asia, China, Mongolia, Korean Peninsula, Japan.

#### Genus *Syneuodynerus* Blüthgen, 1951

*Syneuodynerus egregius* (Herrich-Schäffer, 1839)

**Material.** Azerbaijan: 2♀, Mardakert, Leninavan, 30.08.1980 (KhA); 1♀, Agdash, Turianchay State Nature Reserve, 18.08.1998 (KhA); 1♂,

Ismaili, Khanagi, 700 m, 9.07.2001 (KhA); 1♂, Nakhchivan Autonomous Republic, Ordubad, Bilav, 1300 m, 2.06.2016 (MM).

**Note.** The species inhabits lowland semi-desert and middle mountain steppe landscapes.

**Distribution.** North Africa, Europe (Western, Southern, and Eastern), Russia (European part), Caucasus, Turkey, Cyprus, Syria, Israel, Jordan, Iran, Turkmenistan.

#### Subfamily Polistinae

#### Genus *Polistes* Latreille, 1802

\**Polistes (Polistes) bischoffi* Weyrauch, 1937

**Material.** Azerbaijan: 1♂, Baku, 2.09.1999 (KhA).

**Note.** The species inhabits lowland semi-desert landscapes.

**Distribution.** North Africa, Europe (Western, Northern, Southern, and Eastern), Russia (European part, Far East), Azerbaijan, Turkey, Iran, Kazakhstan, Mongolia.

*Polistes (Polistes) chinensis* (Fabricius, 1793)

**Material.** Azerbaijan: 11♂, Agdash, Turianchay State Nature Reserve, 5.10.1998 (KhA).

**Note.** This species inhabits in foothill steppe landscapes.

**Distribution.** Russia (Western and Eastern Siberia, Far East), Azerbaijan, Turkey, Iran, Kazakhstan, China, Mongolia, Korean Peninsula, Japan.

\**Polistes (Polistes) dominula* (Christ, 1791)

= *Polistes bucharensis* Erichson, 1849 [Schmid-Egger et al., 2017].

**Material.** Azerbaijan: 1♂, Kakh, 5.07.1986 (KhA); 7♀, Agdash, Turianchay State Nature Reserve, 1.07.1994 (KhA); 1♀, Yardimli, Kurekchi, 1800 m, 15.08.1995 (KhA); 1♀, Baku, 2.09.1999 (KhA); 2♀, Salyan, Shirvan State Nature Reserve, 3.05.2000 (KhA); 1♀, Salyan, Bendovan, 29.05.2000 (KhA); 1♂, 1♀, Khyzy, Dizavar, 10.08.2000 (KhA); 1♀, Ismaili, Khanagi, 9.07.2001 (KhA); 1♂, 1♀, Quba, Amsar, 700 m, 11.08.2007 (leg. Yunusov); 2♀, Quba, Askipara, 17.08.2007 (leg. Yunusov); 3♀, Shakhbuz, Vaykhir, 3.05.2012 (KhA); 1♀, Babek, Sirab, 22.06.2012 (KhA); 1♂, Ordubad, Bilav, 5.09.2012 (KhA); 4♂, 8♀, Baku, 15.06.2015 (AM); 2♂, 4♀, Gandja, Ashygly, 8.08.2015 (AM); 3♂, 5♀, Baku, Mardakan, 6.09.2015 (AM).

**Note.** The species inhabits lowland semi-desert, foothill steppe, low-mountain forested, middle-mountain steppe landscapes, reaching up to 1800 m a.s.l.

**Distribution.** North Africa, Europe (Western, Northern, Southern, and Eastern), Russia (European part, Urals, Western Siberia), Transcaucasia, Turkey, Syria, Israel, Jordan, Iran, Afghanistan, Pakistan, Kazakhstan, Central Asia, India, China, Mongolia.

*Polistes (Polistes) gallicus* (Linnaeus, 1767)

= *Polistes foederatus* Kohl, 1898; = *P. mongolicus* (Buyisson, 1911) [Schmid-Egger et al., 2017].

**Material.** Azerbaijan: 1♀, Kurtmakhmudly village, Karyagin Distr., 7.05.1920 (EE); 2♀, Shamkir, 11.05.1928 (S); 1♀, Gandja, 14.05.1928 (S); 1♀, Salyany, 21.10.1932 (AB); 1♀, Baku, Zykh, 15.05.1933 (VR); 1♂, 1♀, Karabakh, Lysogorsk, 1800 m, 28.08.1933 (AB); 1♀, Yevlakh, 12.05.1937 (leg. E. Gausser); 3♀, Mardakert, Leninavan, 21.04.1976 (KhA); 1♀, Neftchala, Karaiman, 15.07.1976 (ID); 1♀, Kazakh, 11.05.1979 (KhA); 2♀, Lenkoran, Azfilial, 3–7.10.1984 (KhA); 1♀, Lenkoran, Azfilial, on Geranium, 16.05.1985 (KhA); 2♂, 1♀, 14 km Kilyazi-Altyagach, 25.06.1985 (KhA); 1♂, Lerik, Lalakeran, on Teucrium, 3.07.1985 (KhA); 7♀, Baku, Inzhirnyaya, on Foeniculum, 4.08.1985 (KhA); 3♂, 2♀, Baku, Inzhirnyaya, Foeniculum, 21.08.1985 (leg. N. Aliyeva); 1♂, Absheron, Inzhirnyaya, 28.08.1985 (OA);

3♀, Absheron, Inzhirnyaya, 15.04.1986 (KhA); 4♀, Absheron, Primorsk, on Tamarix, 7.07.1986 (KhA); 2♀, Absheron, Inzhirnyaya, 6.09.1993 (KhA); 6♀, Agdash, Turianchay State Nature Reserve, 2–5.10.1994 (KhA); 3♀, 2♂, Lerik, Gilidara, 20.09.1995 (KhA); 17♂, 4♀, Agdash, Turianchay State Nature Reserve, 5.10.1998 (KhA); 1♀, Sharur, Akhura, 2.06.2003 (KhA); 1♀, Ordubad, Bilav, 27.04.2012 (KhA); Julfa, Ashabi-Kahf, 1.05.2012 (KhA); 1♀, Shamkir, Kura riverside, 24.05.2012 (leg. Sh. Maharramova); 3♀, Babek, Sirab, 22.06.2012 (KhA); 2♀, Ordubad, Bilav, 5.09.2012 (KhA); 1♀, 2♂, Ordubad, Aghdara, 6.09.2012 (KhA); 1♀, Nakhchivan Autonomous Republic, Julfa, Gazanchi, 7.05.2014 (MM); 1♀, 2♂, Baku, 15.06.2015 (AM); 1♂, 1♀, Balakhany, 5.07.2015 (AM); 1♀, Gandja, Ashygly, 8.08.2015 (AM); 1♂, 4♀, Baku, Mardakan, 6.09.2015 (AM); 1♀, Nakhchivan Autonomous Republic, Babek, Zeynaddin, 950 m, 14.06.2016 (MM); 1♀, Nakhchivan Autonomous Republic, Shakhbuz, Shakhbuzkend, 1300 m, 27.06.2016 (MM); 1♀, Nakhchivan Autonomous Republic, Babek, Shikhmahmud, 930 m, 1.07.2016 (MM); 2♀, Nakhchivan Autonomous Republic, Shakhbuz, Batabat, 1800 m, 26.07.2016 (MM). Turkmenistan: 1♀, Mary, Karakum Canal, 3.04.1987 (KhA).

**Note.** The species lives in all vertical landscape belts except the nival one, reaching up to 2200 m a.s.l.

**Distribution.** North Africa, Ethiopia, Europe (Western, Southern, and Eastern), Russia (European part, Western Siberia), Transcaucasia, Turkey, Israel, Jordan, Iran, Kazakhstan, Turkmenistan, Kyrgyzstan, Afghanistan, Pakistan, Mongolia.

*Polistes (Polistes) nimpha* (Christ, 1791)

= *Polistes opinabilis* Kohl, 1898.

**Material.** Azerbaijan: 1♀, Shakh-dagh Mt, Laza, 25.09.1933 (AB); 1♀, Kusary, Laza, 9.08.1985 (KhA); 1♀, Kakh, 5.07.1986 (KhA); 1♀, Lerik, Gilidara, 2000 m, 21.08.1995 (KhA); 2♀, Nakhchivan Autonomous Republic, Shakhbuz, Batabat, 1800 m, 26.07.2016 (MM).

**Note.** This species inhabits lowland forested and middle mountain steppe landscapes, reaching up to 2000 m a.s.l.

**Distribution.** North Africa, Europe (Western, Northern, Southern, and Eastern), Russia (European part, Urals, Western and Eastern Siberia, Far East), Transcaucasia, Turkey, Israel, Jordan, Iraq, Iran, Kazakhstan, Kyrgyzstan, Pakistan, India, China, Mongolia.

\**Polistes (Polistes) semenowi* Morawitz, 1889

**Material.** Azerbaijan: 1♀, Lerik, Gilidara, 2000 m, 21.08.1998 (KhA).

**Note.** The species inhabits high-mountain steppe landscapes.

**Distribution.** North Africa, Southern Europe, Turkey, Azerbaijan, Iran, Turkmenistan.

*Polistes (Polistes) sulcifer* Zimmermann, 1930

**Material.** Azerbaijan: 1♂, Ganja, 14.06.1933 (MV).

**Note.** This species inhabits foothill steppe landscapes.

**Distribution.** North Africa, Europe (Western, Southern, and Eastern), Russia (European part), Transcaucasia, Turkey, Israel, Iran.

#### Subfamily Vespinae

#### Genus *Dolichovespula* (Rohwer, 1916)

\**Dolichovespula media* (Retzius, 1783)

**Material.** Azerbaijan: 1♀, Eli-su distr., Kakh, 1900 m, 11.07.1934 (AB); 2♀, 1♂, Kusary, Laza, 2200 m, 18.08.1980 (KhA).

**Note.** This species lives in mountain steppes and on mountain slopes of northern exposition. A rare species.

**Distribution.** Morocco, Europe (Western, Northern, Southern, and Eastern), Russia (European part, Urals,

Western and Eastern Siberia, Far East), Georgia, Azerbaijan, Turkey, Syria, Kazakhstan, China, Mongolia, Korean Peninsula, Japan.

*\*Dolichovespula sylvestris* (Scopoli, 1763)

**Material.** Azerbaijan: 2♀, Lerik, Gilidara, 2000 m, 20–21.08.1995 (KhA).

**Note.** This species inhabits middle mountain steppes, reaching up to 2000 m a.s.l.

**Distribution.** Morocco, Europe (Western, Northern, Southern, and Eastern), Russia (European part, Urals, Western and Eastern Siberia, Far East), Transcaucasia, Turkey, Syria, Iran, Kazakhstan, Uzbekistan, Kyrgyzstan, Afghanistan, Pakistan, India, China, Mongolia.

**Genus *Vespa* Linnaeus, 1758**

*Vespa crabro* Linnaeus, 1758

**Material.** Azerbaijan: 2♀ Sernye vody, Lenkoran uezd, 18.08.1925 (leg. D. Maskalenko); 1♀, Nakhchivan ASSR, Djafarkhan, 2.10.1927 (leg. Bocharnikov); 2♀, Nakhchivan on Aras, 20.07.1928 (M); 1♀, Zagatala, 27.07.1934 (VR); 1♀, Djapharkhan, Gormabulag, in wood, 20.10.1941 (AB); 1♀, Lenkoran, Azfilial, 10.05.1976 (KhA); 1♀, Yardimli, Avash, 16.06.1996 (KhA); 2♀, Nakhchivan Autonomous Republic, Babek, Sirab, 1200 m, 1.06.2016 (MM). Russia: 1♀, Petergof Station, 2.08.1925 (leg. J. Antonova).

**Note.** Inhabits forested places. Strongly harmful to beekeeping. To control it, good results were obtained by adding selenium compounds to minced meat placed in the vicinity of apiaries [Kadymov, 1981].

**Distribution.** Europe (Western, Northern, Southern, and Eastern), Russia (European part, Urals, Western and Eastern Siberia, Far East), Georgia, Azerbaijan, Turkey, Iran, Kazakhstan, Turkmenistan, China, Mongolia, Korean Peninsula, Japan.

*Vespa orientalis* Linnaeus, 1771

**Material.** Azerbaijan: 1♀, Kzil Orda, 20.06.1926 (leg. K. Ruzayev); Nakhchivan, 26.07.1926 (leg. Kulibekdzha); 2♀, Nakhchivan on Aras, 14.06.1928 (leg. M. Akhnazarov); 1♀, Ordubad, 11.07.1928 (M); 2♀, Ordubad, 24.05.1933 (AB); 3♀, Nakhchivan, 1.10.1948 (leg. Amanov); 1♀, Ordubad, 31.08.1949 (leg. Amanov); 1♀, Baku, 20.09.1985 (leg. A. Piriye); 1♀, 2♀, Nakhchivan Autonomous Republic, Babek, Sirab, 1200 m, 1.06.2016 (MM). Iran: 8♀, Cheshsaray, Alemdar mahal, 2–11.10.1929 (leg. Shlyaposhnikov).

**Note.** In contrast to *Vespa crabro*, this species settles primarily in open and dry habitats. Over the last 15–16 years there has been an increase in the population numbers on the Absheron Peninsula, especially in the vicinity of garbage dumps.

**Distribution.** North Africa, Europe (Southern and Eastern), European part of Russia, Transcaucasia, Turkey, Syria, Lebanon, Israel, Jordan, Saudi Arabia, Bahrain, Yemen, Oman, Iraq, Iran, Afghanistan, Pakistan, Turkmenistan, Uzbekistan, Tajikistan, India, Nepal.

**Genus *Vespula* Thomson, 1869**

*Vespula germanica* (Fabricius, 1793)

**Material.** Azerbaijan: 3♀, Nakhchivan, 18.05.1927 (M); 1♀, Kurtmakhmudly village, Karyagin distr. [now Fizuli], 31.05.1929 (EE); 3♀, 1♀, Seid-Duvan, 27.09.1929 (leg. Shlyaposhnikov); 1♀, Milskaya steppe, 15.06.1934 (AB); 1♀, Leninavan village, 21.04.1976 (KhA); 2♀, Talysh, Lenkoran, Azfilial, 10.05.1976 (KhA); 2♀, Absheron, Botanical Garden, 10.07.1976 (ID); 1♀, Absheron, 4.04.1983 (KhA); 1♀, Baku, Inzhirnaya, 9.05.1985 (KhA); 1♀, Lenkoran, Bilasar, 21.05.1985 (KhA);

1♀, Baku, Inzhirnaya, on Foeniculum, 24.08.1985 (leg. N. Aliyeva); 2♀, same locality, 28.08–1.09.1985 (OA); 1♀, same locality, 9.09.1985 (leg. S. Kerimova); 1♀, Agdash, Turianchay State Nature Reserve, 8.05.1992 (KhA); 1♀, same locality, 5.10.1998 (KhA); 1♀, Nakhchivan Autonomous Republic, Nakhchivan, 900 m, 25.04.2016 (MM); 4♀, same locality, 900 m, 13–23.05.2016 (MM). Iran: 1♀, 1♂, Shakhverdi, Karadakhski mahal, 13–27.09.1929 (leg. Bordkevitch); 1♀, Chesh-saray, 2.10.1929 (leg. Shlyaposhnikov); 3♀, Veramin, 23.04.1947 (AB). Turkmenistan: 10♀, Ashkhabad, Chuli, 21.09.1981, 27.09.1994 (KhA).

**Note.** Inhabits all biotopes in Azerbaijan.

**Distribution.** Europe (Western, Northern, Southern, and Eastern), Russia (European part, Urals, Western and Eastern Siberia, Far East), Transcaucasia, Turkey, Syria, Lebanon, Israel, Jordan, Iraq, Iran, Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan, Afghanistan, Pakistan, India, China, Mongolia, Korean Peninsula, Madeira, Azores, Canaries, North Africa, South Africa, Australia, Tasmania, New Zealand, North America, South America (Argentina, Chile).

*\*Vespula vulgaris* (Linnaeus, 1758)

**Material.** Azerbaijan: 2♀, Talysh, Lenkoran, Azfilial, 10.05.1976 (KhA); 1♀, Nakhchivan Autonomous Republic, Shakhbuz, Nursu, 1700 m, 26.06.2016 (MM). Ukraine: 1♀, Poltava, Triby, 4.08.1923 (leg. Belgovsky).

**Note.** This species inhabits lowland subtropical biotopes.

**Distribution.** Europe (Western, Northern, Southern, and Eastern), Russia (European part, Urals, Western and Eastern Siberia, Far East), Georgia, Azerbaijan, Turkey, Iran, Kazakhstan, Kyrgyzstan, India, China, Mongolia, Korean Peninsula, Japan.

The wasp family Vespidae in the collection of the Institute of Zoology, Baku is represented by 28 genera and 59 species, nine of which, *Ancistrocerus dusmetiolus*, *Odynerus (Spinicoxa) reniformis*, *Pseudepipona (Pseudepipona) lativentris*, *Polistes (Polistes) bischoffi*, *P. (P.) dominula*, *P. (P.) semenowi*, *Dolichovespula media*, *D. sylvestris* and *Vespula vulgaris*, are new to the fauna of Azerbaijan. A total of 57 species are reported from Azerbaijan, eight from Russia, three from Ukraine, two each from Turkmenistan, Iran and Kazakhstan, and one each from Georgia, Uzbekistan.

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